



CULVER CITY FIRE DEPARTMENT

COMMUNITY RISK ASSESSMENT/ STANDARDS OF COVER

2024



Contents

INTRODUCTION.....	1
THE HEART OF SCREENLAND	2
Culver City History	2
CCFD BACKGROUND.....	7
Over a Century of Service	7
Service Area Boundaries.....	12
Fire Management Zones.....	13
Mutual Aid.....	14
Area Characteristics.....	15
PROGRAMS AND SERVICES	31
Community Risk Reduction	31
Emergency Preparedness.....	31
Fire Suppression	32
Emergency Medical Services	32
Hazardous Materials	32
Technical Rescue	32
Wildland.....	32
Current Delivery System	33
Apparatus	34
Points of Service Delivery	37
Daily Minimum Staffing Levels	37
Stations.....	38
COMMUNITY FEEDBACK.....	42
Stakeholder Input.....	42
Community Priorities	43
PROGRAM GOALS & OBJECTIVES	43
Strategic Initiatives.....	43
ALL-HAZARD COMMUNITY RISK assessment	44
Communitywide Risk	44
Natural Hazards	44
Humanmade Hazards	47
Community Health and Safety Hazards	49
Risk Assessment Methodology	50
Critical Task Analysis	50



Fire (Urban) Critical Tasks Analysis.....	52
Wildland Fire Critical Task Analysis	55
EMS Critical Task Analysis.....	57
Technical Rescue Critical Task Analysis.....	59
HazMat Critical Task Analysis	61
Risk Classified by Response Type	63
Fire	63
Non-Fire Risk Assessment	68
Probability / Historical Frequency	72
Historical Emergency Demand	72
Historical Non-Emergency Demand.....	74
Consequence Assessment/Outcomes	75
Risk by Fire Management Zone (FMZ)	76
DEPLOYMENT AND PERFORMANCE.....	77
Incident History	77
Distribution.....	77
Concentration	79
Resiliency	80
Reliability.....	82
EVAULATION OF CURRENT DEPLOYMENT & PERFORMANCE	86
Baseline Performance Tables	86
Fire Suppression – 90th Percentile Baseline Performance	86
Wildland Fire – 90th Percentile Baseline Performance	87
EMS – 90th Percentile Baseline Performance	88
Technical Rescue – 90th Percentile Baseline Performance	89
HazMat – 90th Percentile Baseline Performance.....	91
Baseline Performance Statements	92
Fire Suppression Baseline Performance.....	92
Wildland Fire Baseline Performance Measures	93
EMS Baseline Performance Measures	94
Technical Rescue Baseline Performance Measures	94
Hazardous Materials Baseline Performance Measures.....	95
Considerations.....	96
Data Methodology	96
Dispatch	97
Records Management Systems	97



Special Programs..... 98

EVALUATION PROCESS 99

 Response Time Components 100

 Industry Research..... 104

 Unique Needs of the Community..... 108

 Travel Times and Service Demands..... 109

 Partner Roles 109

 Availability of Aid 109

 Relationship Between Baseline and Benchmarks 110

 Acceptable Risk..... 113

 Benchmark Performance Statements 113

 Fire Suppression Benchmark Performance Measures 113

 Wildland Fire Benchmark Performance Measures 114

 EMS Benchmark Performance Measures..... 115

 Technical Rescue Benchmark Performance Measures..... 116

 Hazardous Materials Benchmark Performance Measures 117

COMPLIANCE AND CONTINUOUS IMPROVEMENT 118

 CRA/SOC Update Tracking 118

CONCLUSIONS AND OPPORTUNITIES FOR IMPROVEMENT 119

APPENDIX 1 – Risk by Fire Management Zone (FMZ) 121

 FMZ 1 122

 FMZ 2..... 126

 FMZ 3..... 130

 FMZ 4..... 134

 FMZ 5..... 138

 FMZ 6..... 142

 FMZ 7..... 146

 FMZ 8..... 150

 FMZ 9..... 154

 FMZ 10..... 158

 FMZ 11..... 162

 FMZ 12..... 166

 FMZ 13..... 170

 FMZ 14..... 174

 FMZ 15..... 178



Figures

1 City of Culver City Organizational Chart.....	4
2 City of Culver City Revenue Sources.....	5
3 City of Culver City General Fund Budget	6
4 Culver City Boundary	12
5 Fire Management Zone Map	13
6 Mutual Aid Map	14
7 California Mutual Aid Areas	14
8 Culver City Topography Map	15
9 Culver City Monthly Climate Normals	16
10 Culver City Population by Age	17
11 Culver City Race Demographics.....	17
12 Culver City Estimated Population Trend.....	18
13 Culver City Business Development Areas Map.....	20
14 Culver City Neighborhoods Map	22
15 List of Culver City Unified School District Schools	23
16 List of Major Private Schools	23
17 List of City Buildings.....	23
18 List of Government Buildings	24
19 List of Hospitals and Dependent Care Facilities	24
20 List of Historical Sites	25
21 California Water Supply	25
22 Fire Hydrant Map.....	26
23 List of Parks	27
24 Average Daily Traffic Volume	29
25 List of Bridges.....	30
26 Culver City Fire Department Organizational Chart.....	33
27 Fire Districts Map.....	37
28 Daily Staffing.....	37
29 Apparatus and Staffing - Station 1	39
30 Station 1 Responses by Apparatus	39
31 Apparatus and Staffing - Station 2	40
32 Station 2 Responses by Apparatus	40
33 Apparatus and Staffing - Station 3	41
34 Station 3 Responses by Apparatus	41
35 Natural and Environmental Hazards Map.....	44
36 Two-Axis Risk Methodology.....	50
37 Low Risk Fire Response Critical Tasks.....	52
38 Moderate Risk Fire Response Critical Tasks	53
39 High Risk Fire Response Critical Tasks	54
40 Low Risk Wildland Fire Response Critical Tasks.....	55
41 Moderate Risk Wildland Fire Response Critical Tasks.....	55
42 High Risk Wildland Fire Response Critical Tasks	56
43 Low Risk EMS Response Critical Tasks.....	57
44 Moderate Risk EMS Response Critical Tasks	57



45 High Risk EMS Response Critical Tasks 58

46 Low Risk Technical Rescue Response Critical Tasks..... 59

47 Moderate Risk Technical Rescue Response Critical Tasks 59

48 High Risk Technical Rescue Response Critical Tasks 60

49 Low Risk Hazardous Materials Response Critical Tasks 61

50 Moderate Risk Hazardous Materials Response Critical Tasks 62

51 High Risk Hazardous Materials Response Critical Tasks 62

52 Fire Risk Two-Axis Chart 65

53 Wildland Fire Risk Two-Axis Chart 67

54 EMS Risk Two-Axis Chart 69

55 Hazardous Materials Risk Two-Axis Chart..... 70

56 Technical Rescue Risk Two-Axis Chart 71

57 Historical Demand Intensity Gradient Maps 72

58 Emergency Activity 72

59 Incident Type Distribution 73

61 Incidents by Month 73

60 Incident Type Distribution 73

62 Incidents by Time of Day 73

63 Incidents by Day of Week 73

64 Patients Transported 74

65 Single Patient Repeat Callers 74

66 Mutual/Automatic Aid..... 74

67 Non-Emergency Calls for Service 74

68 Non-Emergency Activity Summary 74

69 Business Fire/Life Safety Inspections 75

70 Patient Outcomes 75

71 Property Loss/Saves 75

72 Fire Injury/Death 75

73 Fire Investigation Cause..... 75

74 Fire Management Zones Map..... 76

75 4-minute Drive Time Map..... 77

76 Fire Districts Centerline Mileage 78

77 Square Miles by District 78

78 Centerline Miles by District..... 78

79 Population Served by District 78

80 Workload Distribution by Station 79

81 Aggregate ERF Response Times 79

82 Area Hospitals 80

83 Area Fire Stations 81

84 Concurrent Incidents 82

85 Probability of Concurrent Incidents 82

86 Rescue 41 Unit Hour Utilization..... 83

87 Rescue 42 Unit Hour Utilization..... 83

88 Rescue 43 Unit Hour Utilization..... 83

89 Ambulance 42 Unit Hour Utilization..... 84

90 Engine 41 Unit Hour Utilization 84

91 Engine 42 Unit Hour Utilization 84



92 Engine 43 Unit Hour Utilization84

93 Truck 43 Unit Hour Utilization85

94 Battalion 41 Unit Hour Utilization85

95 Fire - Low Risk - Baseline Performance86

96 Fire - Moderate Risk - Baseline Performance.....87

97 Fire - High Risk - Baseline Performance87

98 Wildland Fire - Low Risk - Baseline Performance87

99 Wildland Fire - Moderate Risk - Baseline Performance.....88

100 Wildland Fire - High Risk - Baseline Performance88

101 EMS - Low Risk - Baseline Performance88

102 EMS - Moderate Risk - Baseline Performance89

103 EMS - High Risk - Baseline Performance89

104 Technical Rescue - Low Risk - Baseline Performance.....89

105 Technical Rescue - Moderate Risk - Baseline Performance90

106 Technical Rescue - High Risk - Baseline Performance90

107 Technical Rescue - Special Risk - Baseline Performance90

108 Hazardous Materials - Low Risk - Baseline Performance91

109 Hazardous Materials - Moderate Risk - Baseline Performance91

110 Hazardous Materials - High Risk - Baseline Performance91

111 National Fire Incident Reporting System (NFIRS) Incident Types97

112 Ambulance 42 All Risk Response Baseline Performance98

113 Evaluation Process Cycle99

114 Response Time Components.....100

115 Components of Response Time101

116 Number of Drivers Alerted of Approaching Emergency Apparatus104

117 Time versus Products of Combustion105

118 Chance of Survival Chart - Time to Defibrillation.....106

119 Incidents by Fire Management Zone Compared to Population109

120 Fire Performance Gaps.....110

121 Wildland Fire Performance Gaps.....111

122 EMS Performance Gaps.....111

123 Technical Rescue Performance Gaps.....111

124 Hazardous Materials Performance Gaps112

125 Total Response Time Compared to Call Volume by Fire Management Zone112

126 Effective Response Force for Fire Management Zones 1 and 2 Improvement.....112

127 Fire Benchmarks Summary.....114

128 Wildland Fire Benchmarks Summary115

129 EMS Benchmarks Summary.....115

130 Technical Rescue Benchmarks Summary116

131 Hazardous Materials Benchmarks Summary117

132 Performance Monitoring and Evaluation.....118

133 CRA/SOC Tracking118



INTRODUCTION

The following report serves as the Culver City Fire Department's (CCFD) Community Risk Assessment/Standards of Cover (CRA/SOC). The CRA/SOC is rooted in the Center for Public Safety Excellence's (CPSE) Agency Accreditation Program, which fosters continuous improvement. It is based on the 10th Edition *Quality Improvement for the Fire and Emergency Services Accreditation Model*¹ and the CCFD's *2024 Community-Driven Strategic Plan*. As referenced in the 10th Edition Manual, the intention of this document is to do the following:

- Conduct a complete community risk assessment (CRA), including all relevant fire and non-fire risks and document findings.
- Create goals and objectives for each of the department's divisions/programs; utilize the findings to develop objectives within the emergency response program, while focusing on desired or intended outcomes.
- Create a standards of cover (SOC) document with benchmarks, based upon the community risk assessment and the corresponding goals and objectives.
- Study agency performance, based upon the benchmarks established within the SOC and identify any performance gaps, based on each risk class and category.

The core purpose of the CRA/SOC is to ensure a safe and effective response force for fire suppression, emergency medical services, and specialty response situations. This report serves as the following: 1) the basis for continually measuring service level performance, 2) a predictive tool for helping to determine workload and ideal unit utilization, 3) a management tool for determining apparatus type and staffing levels, 4) a descriptive tool for validating service levels, and 5) a baseline tool for defining service level objectives.

The CRA/SOC is organized into four major sections: **Area Characteristics, Programs & Services, All-Hazard Community Risk Assessment**, and **Deployment & Performance**. Detailed risk assessments by Fire Management Zones (FMZ) are assessed in Appendix 1.

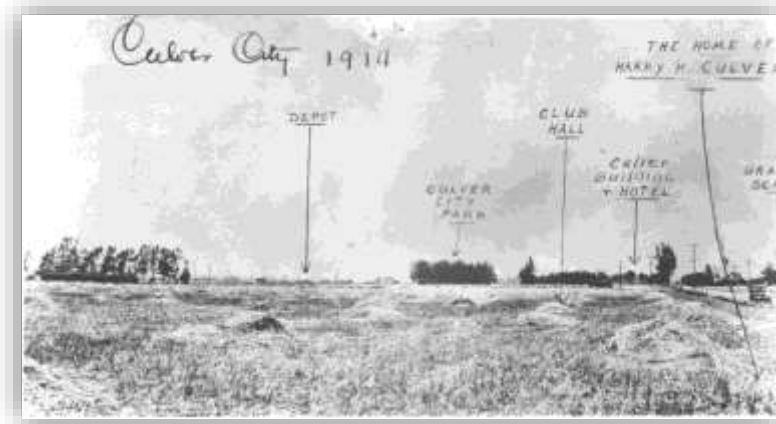
¹ Center for Public Safety Excellence®, Inc., *Quality Improvement for the Fire and Emergency Services* (Chantilly, Virginia, Center for Public Safety Excellence®, Inc., 2020), 11.



THE HEART OF SCREENLAND

CULVER CITY HISTORY

The first human inhabitants of Culver City on archeological record date back to 8,000 B.C. At about 200 C.E., the Gabrieliño (Tongva) natives arrived in the area and settled throughout Los Angeles County. By 1500, 25 Gabrieliño villages existed in what later became Los Angeles County. The Spanish first explored the area in 1542, but the first developments in Culver City were Machado and Talamantes ranchos.



14,000 acres of land was carved out for Rancho La Ballona and Rancho Rincón de los Bueyes in 1819, which later served as the primary footprint of Culver City.

Harry Culver first attempted to establish Culver City in 1913 due to its location between Los Angeles and Abbot Kinney's Venice resort. Harry Culver established Culver City in 1917 and successfully encouraged movie studio

openings in the City, hence the motto, "The Heart of Screenland." The population of Culver City at its founding was 520 and City's size was 1.2 square miles.

1920s Growth continued throughout the 1920s resulting in "1011% population growth," as noted in a publicity stunt in 1930. The movie studios were responsible for much of the growth. A burgeoning prohibition era jazz scene, the "Culver Skyscraper," a municipally owned bus line, the Culver City speedway, and a small airport were established. Five annexations occurred during the 1920s.



1930s Los Angeles hosted the Olympics, and the Helms Bakery was a major Culver City-based contributor. The Army Corps of Engineers stabilized the meandering La Ballona Creek with concrete sides. The Completion of the Hoover Dam helped secure water and power for the City and a new freeway

system was proposed for the area. In 1933, as part of the New Deal, the federal government established the Home Owners' Loan Corporation, which was the source of redlining. The intention of the organization was to help homeowners who had defaulted on their mortgages,



but it also coded neighborhoods by race. The City Seal was adopted in 1936. World War II began, and the population grew to 8,976.

1940s Hughes Aircraft opened nearby, and the post-war era subsidized housing boom began. Culver City became a charter city. The Hayden Industrial Tract began development. Four annexations occurred during the 1940s and the population doubled to 19,720 by 1950.

1950s The 1950s welcomed the future Culver City and said farewell to transportation infrastructure. Culver Center shops and Culver City High School opened. Also, the Veterans Memorial Building and Plunge were dedicated. Culver City airport closed, Red Cars phased out and San Diego I-405 freeway was dedicated. 16 annexations occurred during the 1950s. By 1960, the population was 32,163.

1960s I-405 freeway opened in the 1960s. The Baldwin Hills Dam broke causing floods and mudslide in neighboring Los Angeles. Nearby Los Angeles also saw the Watts Riots. Two detachments and 10 annexations occurred during the 1960s bringing the population to 34,451.

1970s During the 1970s, the Fox Hills Mall, now called Westfield Culver City, opened. The San Fernando earthquake occurred in 1971 and Los Angeles again experienced severe flooding and mudslides. One detachment occurred during the 1970s.

1980s During the 1980s, the nearby Kenneth Hahn State Recreation area opened, and the 1984 Summer Olympics were hosted in Los Angeles. Approximately two miles of the marathon ran through Culver City. Also, the Whittier Narrows earthquake occurred in 1987. The City had one annexation during the 1980s.

1990s Nearby, the Rodney King Riots and North Hollywood shootout occurred. The Hughes Aircraft plant closed. The Northridge earthquake happened in 1994. Heavy rains due to El Nino caused mudslides and floods. The new City Hall was dedicated. One annexation occurred and the City's population reached 38,816.

2000s During the 2010s, there was an upsurge in Culver City Downtown redevelopment. The new Culver City Senior Center opened. NPR West moved to Culver City. The City changed to a city manager form of government. The Metro Expo Light Rail Line ("E" Line) opened. One annexation occurred and Culver City turned 100.



Legally Established

Harry Culver founded the City of Culver City (City) in 1917. The City is governed by a five-member city council and managed by a city manager and eleven department heads. The people elect a city council of five citizens who serve a term of four years and who, in turn, elect the mayor from among themselves. The City Council appoints the city manager, city attorney, police chief, and fire chief. The City's first fire chief was appointed by resolution in 1919. Over the years, more than forty annexations increased the City's size from 1.2 square miles to over five square miles. In 1947, Culver City transitioned from a general law city to a charter city. Currently, the City and the CCFD are operating under the most recent charter, adopted in 2006.



Yasmine-Imani
McMorrin
Mayor



Dan O'Brien
Vice Mayor



Göran Eriksson
Council Member



Freddy Puza
Council Member

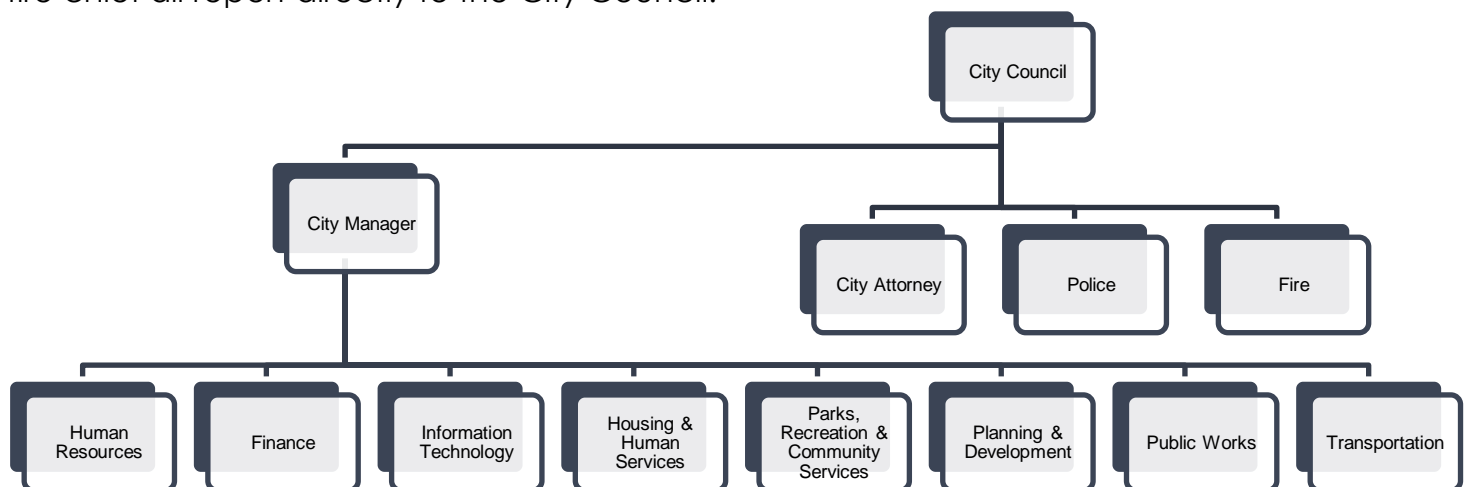


Albert Vera
Council Member

Culver City is within the following legislative districts:

- Los Angeles County 2nd Supervisorial District
- California State Legislature 28th Senate District; 55th Assembly District
- U.S. House of Representatives 36th and 37th Congressional Districts

An organizational chart diagramming the reporting structures within the City is below. Eight department heads report directly to the city manager. The city attorney, police chief and fire chief all report directly to the City Council.

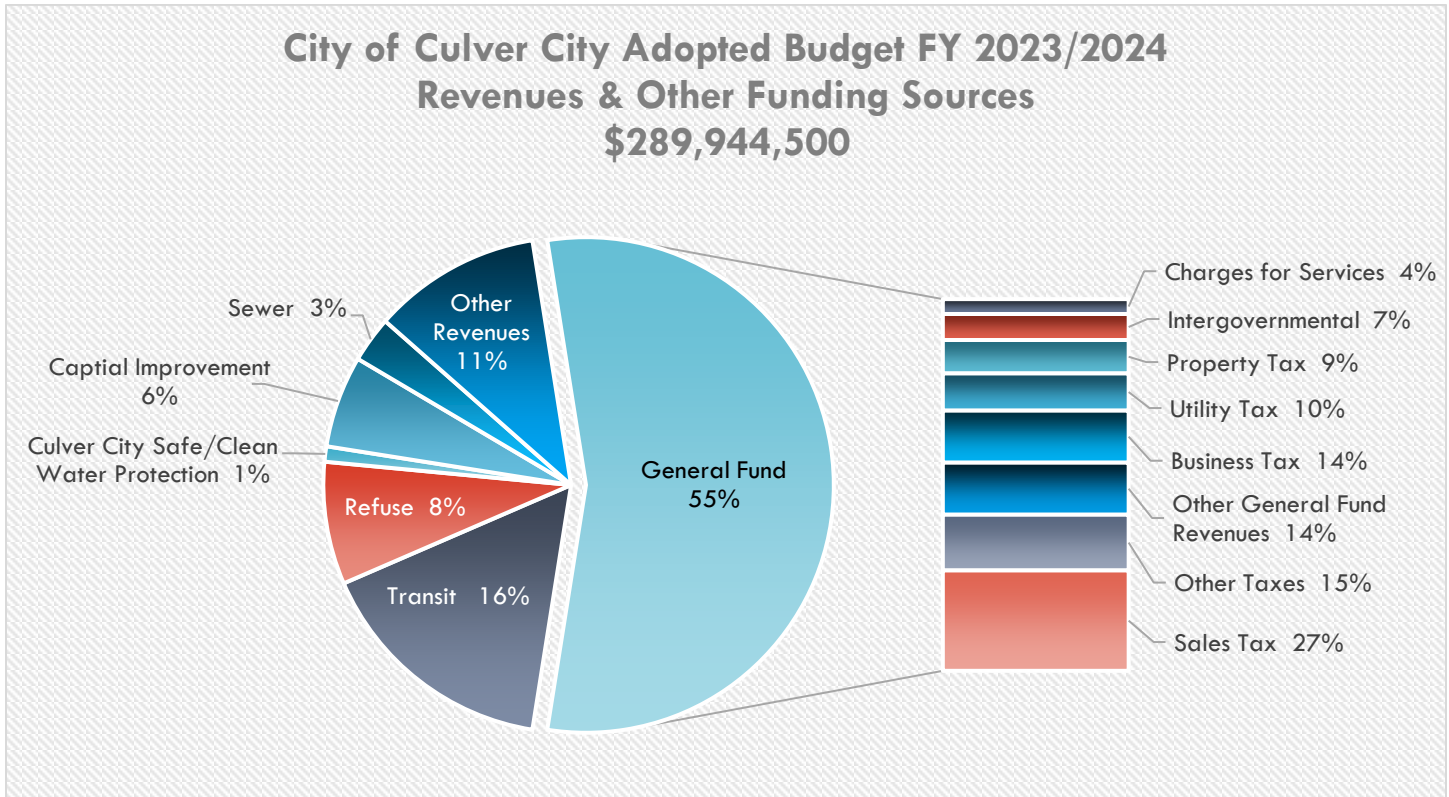


1 City of Culver City Organizational Chart



Funding

The CCFD is primarily funded by the City's general fund. The general fund includes property taxes, sales taxes, business taxes, utility taxes, transient occupancy taxes, licenses and permits, and fines and forfeitures. It finances most of the basic municipal functions including general administration, police, fire, community development, parks, recreation, and community services. Below is a chart that reflects the City's adopted fiscal year 2023-2024 annual budget revenue and financing sources.

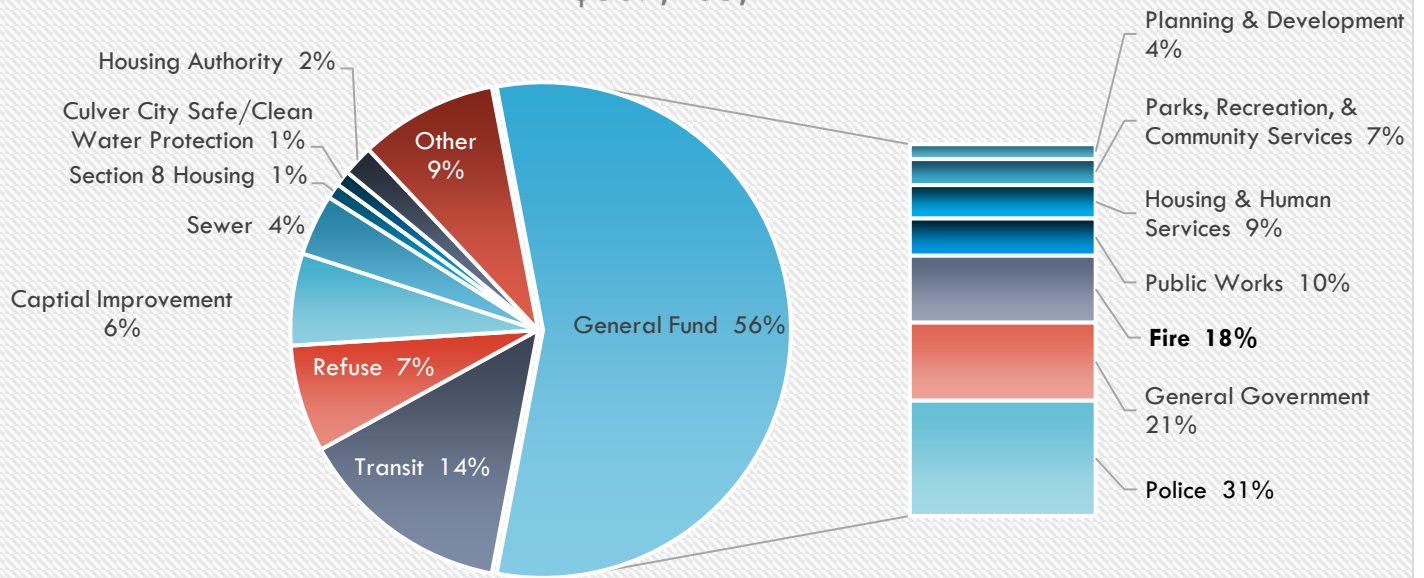


2 City of Culver City Revenue Sources

The CCFD participates in the City of Culver City's annual budget process wherein the City Council reviews and adopts all departmental budgets, including all positions within the CCFD's organizational structure. The CCFD comprises six divisions: The Office of the Fire Chief, Fire Suppression, Emergency Medical Services, Emergency Preparedness, Community Risk Reduction, and Telecommunications. The budget process begins in March and concludes in June. Work Plan review sessions are in March and departmental budget presentations occur in May. The Work Plan review sessions provide an opportunity for the fire chief to report on CCFD gaps in service and capacity as well as garner feedback and input from the City Council. The CCFD accounts for 18% of the City's general fund at \$32.5 million.



City of Culver City Adopted Budget FY 2023/2024 Expenditures & Other Financing Uses \$307,405,292



3 City of Culver City General Fund Budget



CCFD BACKGROUND

OVER A CENTURY OF SERVICE

1900 – 1920s

- Incorporated in 1917 the City of Culver City's need for fire protection grew. City records show that Manuel "Cy" Saenz was paid a monthly stipend of \$10 in 1919 for storing the City's fire truck in his garage at Washington Boulevard and Ince. Fires were fought by volunteer firefighters utilizing a 1917 Pope Hartfield Chemical Truck.
- A Ford Model T Fire Wagon with a 250 gallon per minute pump was purchased in 1920.
- L.B. Minnick, fire chief for the Thomas H. Ince Studios' Fire Department, was also acting fire chief for the City. Volunteer firefighters were recruited by Minnick on the way to fires. They received \$1 for false alarms and \$4 for fires requiring the use of a water hose.
- 1922 the City purchased an American La France triple combination truck. It was stored in Frank Wilcox's garage. Wilcox became the caretaker (Engineer) and was hired on October 6, 1922 as Culver City's first fire chief. He was assisted by 12 call-men (volunteers). Four of those original volunteers later held sworn safety positions and retired from the Culver City Fire Department, Carl Burnett, John A. Kearney, Jack Starke and Ralph Wilson.
- The fire apparatus was later moved to a garage on Van Buren Place. This garage then became the first fire station in Culver City. The City ran a two platoon/shift system of volunteers with Assistant Chief William Kuehn.
- 1927 bond funds were used to pay for thirteen on-duty firefighters and to build a second fire station on McConnell Boulevard.



1930s

- Personnel was increased from thirteen to nineteen firefighters, but salaries were decreased due to the Great Depression.
- Chief Wilcox resigned and Chief William Kuehn was appointed in 1933.
- The fire chief was paid \$175 per month, captains received \$140 and firefighters \$135.

1940s

- During World War II, permanent and temporary firefighters were hired due to the shortage of manpower.
- A former retired assistant fire chief from Los Angeles Fire Department, Chief John H. Atwell, began on January 16, 1942 as the new fire chief.



- Two Peter Pirsch (Model 38-1250 triple combination) pumping engines were purchased in 1945 for \$25,205.60.
- In 1949 the CCFD took delivery of a new rescue squad, built to the City's specifications and staffed with a crew of four personnel. It was fitted with a 400-gallon water tank, resuscitator, cutting torches, smoke ejector, masks, portable generator, and high powered lights.
- The Fire Prevention Bureau was formed in 1946. Captain Mike Mason was the first to be assigned to handle complaints, inspections, and other fire prevention related duties. The City adopted fire codes and one person on each shift was assigned to Fire Prevention. As fire inspectors, they were required to serve one-year terms. They worked in the bureau during the day and worked as dispatchers in the evening. Culver City was one of the first cities of its size to form a Fire Prevention Bureau and served as a training facility for other cities who assigned their captains to train in Culver City.
- John A. Kearney was appointed fire chief on June 16, 1947.

1950s

- December 14, 1953, Chief Kearney was granted a six month leave of absence to serve the City of San Leandro during the reorganization of their fire department.
- August 11, 1956, Culver City's third fire station opened at 11304 Segrell Way & Berryman Avenue. Building cost was \$69,000 by the Peckham & Peterson construction firm. It housed a pumper truck, and two rotating 5-person shifts. The CCFD was now operating out of three stations with a staff of 46, which included a records clerk.



1960s

- Battalion Chief Burt F. Campbell was appointed to fire chief January 1st, 1962.
- A new ambulance service/rescue squad was proposed and placed into service at the cost of \$8,545 with its design created by Firefighter George Sweeny.
- The CCFD began using a three-platoon system.
- 1966, a new Crown engine was placed in service at Station 3 and one of the original Pirsch engines was moved to reserve status.



1970s

- A new training tower facility was dedicated in 1970 replacing the original training center from the fifties. The facility which is still in use today has a four-story tower, surfaced yard, drafting pit, hydrants, a flammable liquid pit, and roof props.
- 1971, a three-person arson bureau was formed. Inspectors, in addition to their Fire Prevention duties, completed investigations on arson-suspected fires replacing the police officers who were initially used to conduct such investigations. Inspectors were issued special wallet badges and were licensed to carry firearms.
- Fire Chief Campbell retired, and George Sweeny was appointed the new fire chief on August 29, 1972, and served until 1985.
- The CCFD became part of the Los Angeles County Paramedic Pilot Program due to the launching of The Wedworth-Townsend Paramedic Act of 1970. Signed by then Governor Ronald Reagan on July 15, 1970, it authorized persons trained and certified as paramedics to conduct certain life-saving emergency medical services.
- A paramedic rescue, with two paramedics, was placed into service on June 18, 1973, as the 37th unit in Los Angeles County with transport being provided by private ambulance companies.
- 1979, the Emergency Medical Technicians (EMT) program was incorporated being one of the first in-house programs in California.

1980s

- Chief Michael Olsen was appointment fire chief in 1985. The original Station no. 2 which opened October 17, 1927, was replaced with the new fire station on September 23, 1981. Costing \$901,808, it housed Engine 2, Truck 2, Reserve Engine 2 and eight firefighters.
- A second paramedic unit was placed into service in 1981 with the addition of six new firefighter positions.
- The transporting of patients in CCFD rescues began in 1982.
- The emergency dispatching sections (911) of the Fire and Police Departments were merged into a combined Communications Center.

1990s

- A new Fire Station no. 1, Headquarters, was completed in 1993, replacing the original station built in 1928. It housed Engine 1, Paramedic Rescue 1, a reserve truck, the Battalion Chief Suburban and one of the original 1947 Peter Pirsch. The new station included the addition of an Emergency Operating Center (EOC) and a fire garage which maintained all fire and police vehicles for the City.
- All communication installations and repairs for the City were conducted in the fire garage.
- In June 1993, the CCFD instituted the Reserve Program. Each reserve was required to complete a fire academy and have Firefighter 1 certification. Reserves attended two weekend meetings a month and worked two 24-hour shifts per month. The program was later dissolved due to lack of funding.
- The "So Others May Live" program started in November 1994. Low cost first aid and Cardiopulmonary Resuscitation (CPR) training was provided to the community and City employees.



- In February 1995, the CCFD was awarded a Class 1 rating by the Insurance Services Office (a non-profit organization for the Insurance Industry). 24,000 communities were rated nation-wide, with only 18 having achieved a Class 1 rating.
- Michael Thompson replaced Chief Michael Olson in 1994 as the new fire chief.
- In 1994, the CCFD received the “Life Safety Achievement Award” by Operation Life Safety (OLS) and the International Association of Fire Chiefs (IAFC). The award honored departments that extinguished fires without loss of a single life. The CCFD was one of 34 fire departments nationwide to receive the award and one of two in California.
- In 1995, the CCFD took delivery of a new Seagrave Pumper replacing the 1970 Crown Pumper. The engine pumped 1,500 gallons of water per minute, as well as had the capability to pump out both Class A and aqueous film-forming foam (AFFF) foam.
- In 1997, the Community Emergency Response Team (CERT) program was developed to promote neighborhood self-reliance in the event of a large-scale disaster.
- In 1998, the CCFD was the first agency in California to receive accreditation from the Commission of Fire Accreditation International (CFAI). The CCFD became one of only eight departments in the nation to earn this distinction and the only department in California to receive the distinction at the time.

2000s

- Chief Phillip Garcia served as interim fire chief from 2001 – 2003.
- Chief Jeff Eastman was appointed fire chief in March 2004.
- In 2005, the City joined the Interagency Communications Interoperability System Joint Powers Authority and City Council approved funding to hire a non-sworn telecommunications supervisor to manage the Telecommunications Division.
- The Fire Prevention Bureau developed an active brush clearance program targeted at preventing fires in the very high fire hazard severity zone of the City.
- The agency participates in local, regional, and state-wide wildland deployments with single resources, rapid extrication module support (REMS), or Type I engine(s)
- The CCFD adopted the California Fire, Building, Mechanical, and Electrical Codes.
- Three new Seagrave Fire Engines were placed into service. The CCFD now had three new identical front-line engines.
- In 2008, the CCFD began performing 12 Lead electrocardiographs (EKG) in the field.
- Chief Jeffrey Eastman retired in December 2009 after 32 years of service with the City of Culver City.

2010s

- Chief Christopher Sellers was appointed fire chief in June 2010, filling the vacancy left by Jeffrey Eastman’s retirement in December 2009.
- As a result of the Global Recession, three CCFD positions were eliminated. Positions were reinstated in subsequent years.
- Culver City, along with Burbank, Glendale, Pomona, Montebello, and Beverly Hills were awarded the prestigious Helen Putnam Award for the League of California Cities for work in the ICIS Regional Radio Communication System.
- Chief David White was appointed fire chief August 2014.
- The reserve program was reinstated in late August 2014.
- In 2015 a group of five CCFD members formed a technical rescue cadre.



- The CCFD launched the ambulance operator program in August. Two persons staff a BLS ambulance to allow for faster response to emergency medical services calls.
- The CCFD was reviewed by the Insurance Services Office (ISO) in October 2014 and maintained the rating of Class 1 in January 2015.
- In 2017, the CCFD joined a state-of-the-art regional dispatch center and installed turnout countdown clocks in station apparatus bays.
- In 2017, a volunteer inspector position was initiated to assist the Community Risk Reduction Division and to prepare new staff who were interested in a CRR career.
- The Transportation Department achieved recognition for its fleet services by Government Fleet Magazine as an Elite Fleet Service for the years from 2013 through 2018.
- In 2019, the Fire Prevention Division changed its name to Community Risk Reduction.
- With the support of City Council, the CCFD applied for Staffing for Adequate Fire and Emergency Response (SAFER) grant funding to stand up a third rescue ambulance due to increasing call volume and concurrent runs.

2020s

- In February 2020, six new firefighter positions were added to enable the addition of a third rescue ambulance.
- Fire Chief David White retired, and City Council swore in Assistant Fire Chief Kenneth Powell as fire chief in September 2020.
- The Emergency Operations Center was activated three times over the course of three years and there were four proclaimed emergencies within the City: COVID-19 in March 2020, George Floyd Civil Unrest in May 2020, Election in October 2020, and Homelessness.
- In 2021, the Community Risk Reduction Division rolled out Community Connect, a web-based platform related to the CCFD's new pre-fire planning software that allows residents and businesses to share valuable life safety information with first responders.
- In June 2022, a third rescue ambulance was placed into service. The newest rescue is staffed with two firefighter paramedics and operates out of Fire Station 2. Salaries and benefits for six firefighters were initially funded through the SAFER grant.
- The City and CCFD were assessed by the Insurance Services Office (ISO) and, again, received a rating of Class 1 effective May 1, 2024. The City has maintained an ISO Class 1 rating since 1995.



Mission

The mission of the Culver City Fire Department is to protect life, property and the environment by providing prompt and professional fire protection and life safety services.

Core Values

- Professionalism - Through our attitude, actions, and appearance, we will demonstrate competence and strive for excellence.
- Compassion – We will provide comfort and care to those in distress.
- Respect – We will hold in high regard the diversity within our organization and the community we serve.
- Trust – We will keep our commitments, hold ourselves accountable, and act with integrity.
- Humility – We will carry out our duties as public servants while always maintaining a modest opinion of ourselves.



SERVICE AREA BOUNDARIES

The City of Culver City is situated in western Los Angeles County, approximately five miles north of the Los Angeles International Airport and three miles east of the Pacific Ocean. The majority of Culver City is surrounded by the City of Los Angeles, with the exception of the western portion of the City, which borders unincorporated Los Angeles County.

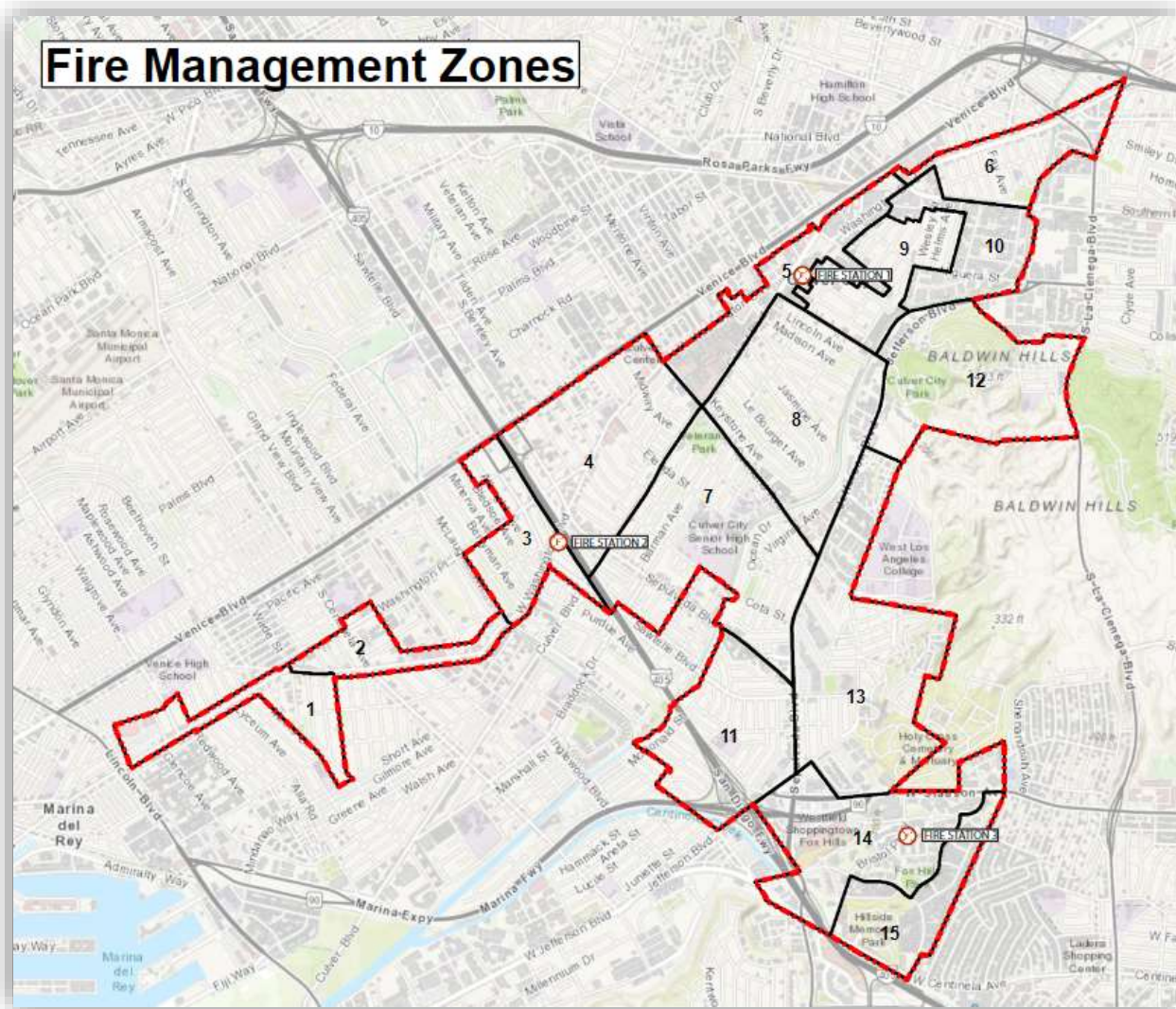


4 Culver City Boundary



FIRE MANAGEMENT ZONES

For the purposes of analysis and planning, the City of Culver City is divided into fifteen fire management zones (FMZs). These zones are defined by occupancies within a given geographical area that share common risk. This approach creates zones of homogenous risk types. This method also facilitates more accurate risk evaluations for each geographical area. With the assistance of the City's Geographic Information Systems team, staff was able to map out the fifteen areas of interest. Within each zone, staff observed zone size, land use types, structures, critical infrastructure, economic factors, and relative population densities. Land use elements were gleaned from the City of Culver City's General Plan. Subsequent to the various analyses, staff then determined areas/structures within each zone that present particular hazards or high fire risk due to their size, location or occupancies. Detailed FMZ analysis can be found in Appendix I.

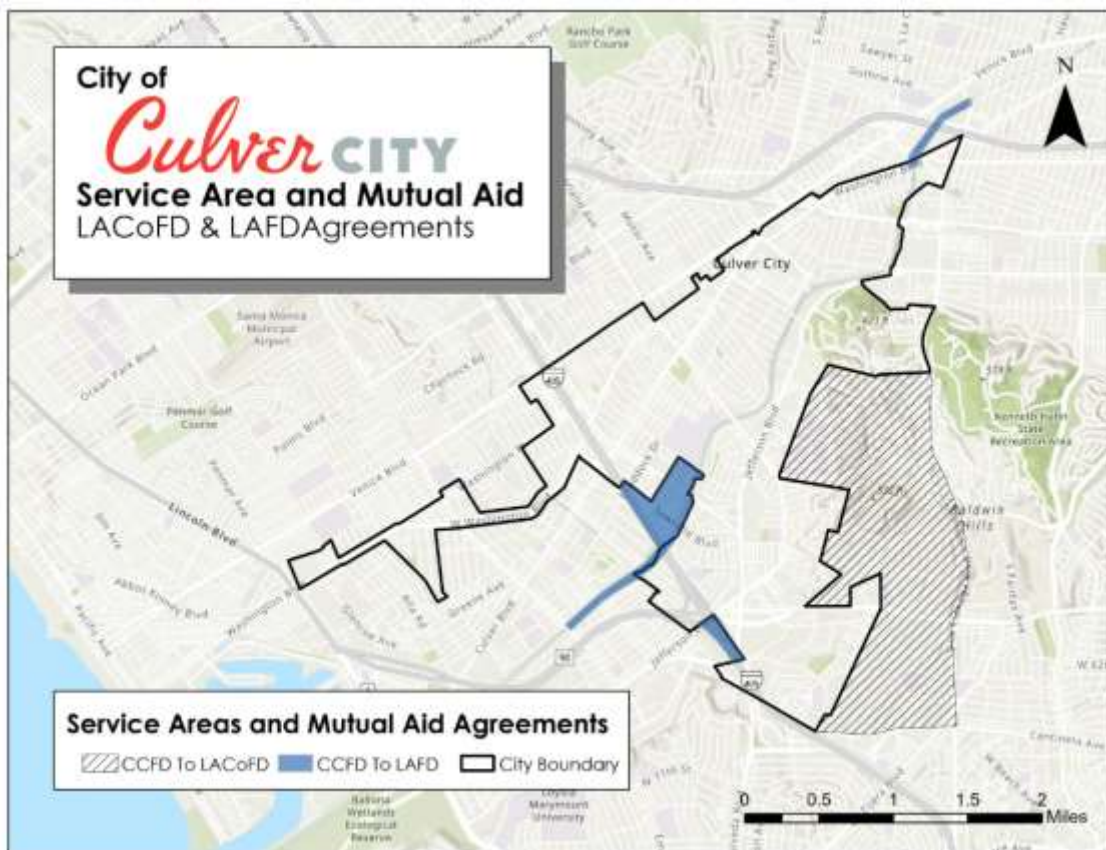


5 Fire Management Zone Map



MUTUAL AID

The CCFD has two automatic aid agreements—one with the City of Los Angeles and the other with Los Angeles County. CCFD fire apparatus and personnel are deployed to portions of Los Angeles County east of the City and automatically deployed to Los Angeles City to the west of the City, as well as the City's immediate borders.



6 Mutual Aid Map

The CCFD is also part of the California Master Mutual Aid agreement since 1950. Culver City is an Area A City, which also comprises the following cities: Beverly Hills, Santa Monica, and West Hollywood. Area A is within the Los Angeles County operational area (OA). The OA is located in Mutual Aid Region I, which is in the California Office of Emergency Services' Southern Administrative Region, which comprises Regions I and VI.



7 California Mutual Aid Areas



AREA CHARACTERISTICS

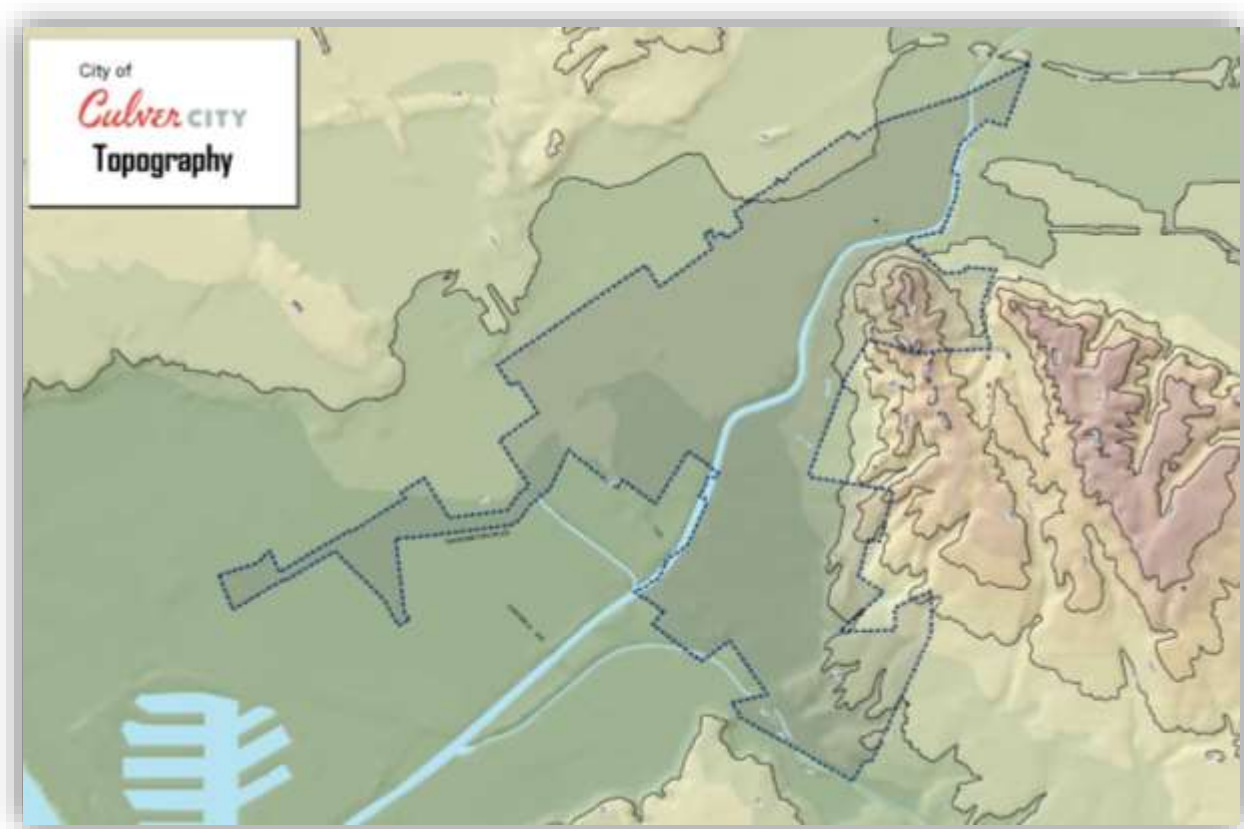
Natural Features

Geography

The City of Culver City is located at 34°0'28"N 118°24'3"W. It is composed of 5.1 square miles.

Topography, Physiography, Geology

Culver City is on the western side of the Los Angeles Basin. Much of Culver City is in the former floodplain of La Ballona Creek, with the eastern portion of the City including a portion of the Baldwin Hills. The creek has been enclosed within a concrete flood control channel since the 1930s. The terrain of Culver City is mostly level with slight rolling hills, which vary in elevation from 40 feet above sea level on the western edge of the City to 90 - 100 feet in the central area of the City. The exception is the Baldwin Hills area in the eastern area of the City, which rises up to 400 feet above sea level. Ballona Creek bisects the City from the northeast to the southwest.



8 Culver City Topography Map

The Baldwin Hills extend from the Santa Monica Mountains southeastward to just north of Newport Beach. They are the result of geological deformation along the Newport-Inglewood zone, which is a geologic structural feature, composed of faults and folds and associated oil



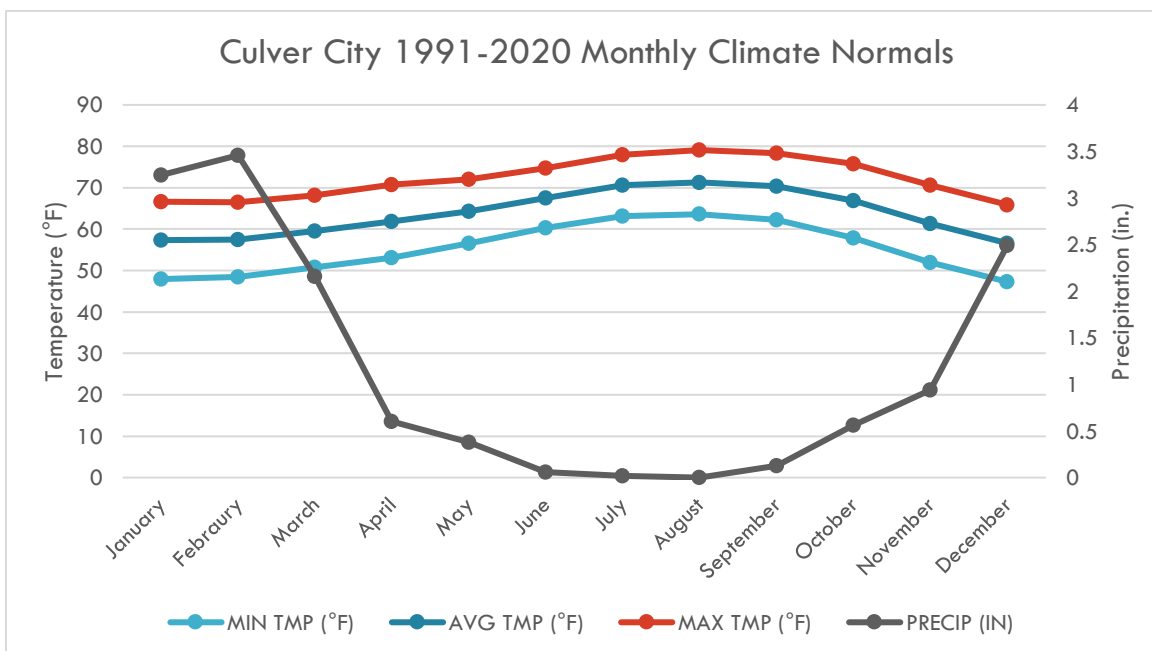
fields. Due to the topography, this area of the City is more difficult to access and slows response times, i.e., this area subjects response units to increased turning and slower travel speeds. The most rugged and steep section includes a major part of the Inglewood Oil Field. This area has been highly modified over the years by construction of well and tank pads, access roads, treatment plants, and oil, water and waste sumps. The current active oil field is approximately 1,000 acres, 100 of which are located within Culver City's jurisdiction. It is one of the largest contiguous urban oil fields in the United States. Sentinel Peak is the current operator. The Culver City City Council adopted an ordinance in October 2021 that calls for the termination of oil operations within Culver City by 2026.

According to the City's Urban Forest Master Plan², the City is home to over 15,000 trees of over 200 different species. Soils within the City consists mainly of loam, but there are some patches of clay and some sections containing sandy soil.

Climate

Culver City has a Mediterranean climate with warm, dry summers and mild, wet winters. Winter average temperatures are approximately 57.1 degrees Fahrenheit, and the summer average temperatures are roughly 69.8 degrees Fahrenheit.

Precipitation averages in Culver City are around 13.93 inches per year. Rainfall in Southern California tends to fall in large amounts during sporadic storms rather than consistently at somewhat regular intervals. Significant rain can slow travel speeds and response times. There is also a greater potential for swift water rescue events as a result of La Ballona Creek's rising waters during significant rainfall.



9 Culver City Monthly Climate Normals

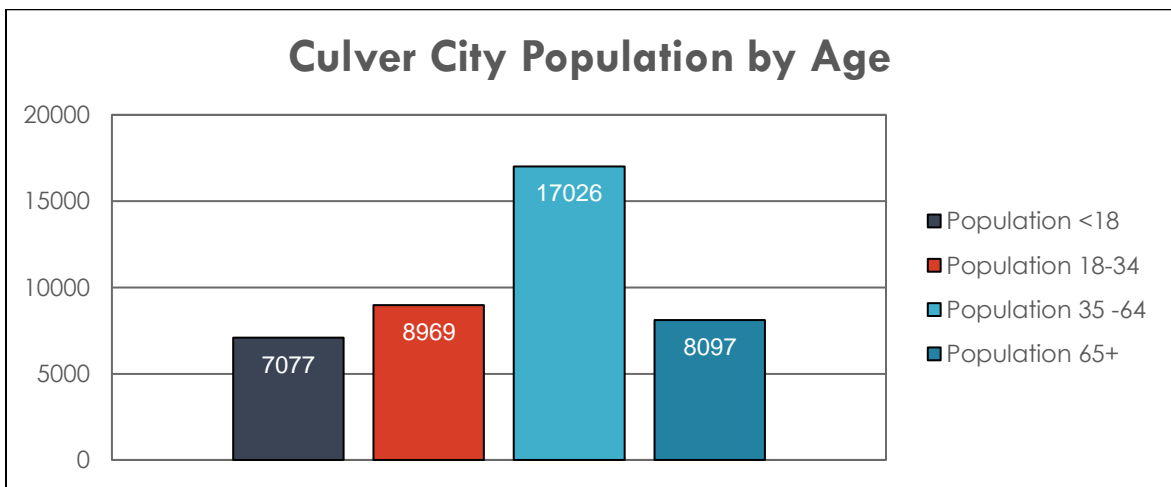
² Culver City Urban Forest Master Plan, https://web.culvercity.org/files/Culver_City_Urban_Forest_Master_Plan.pdf



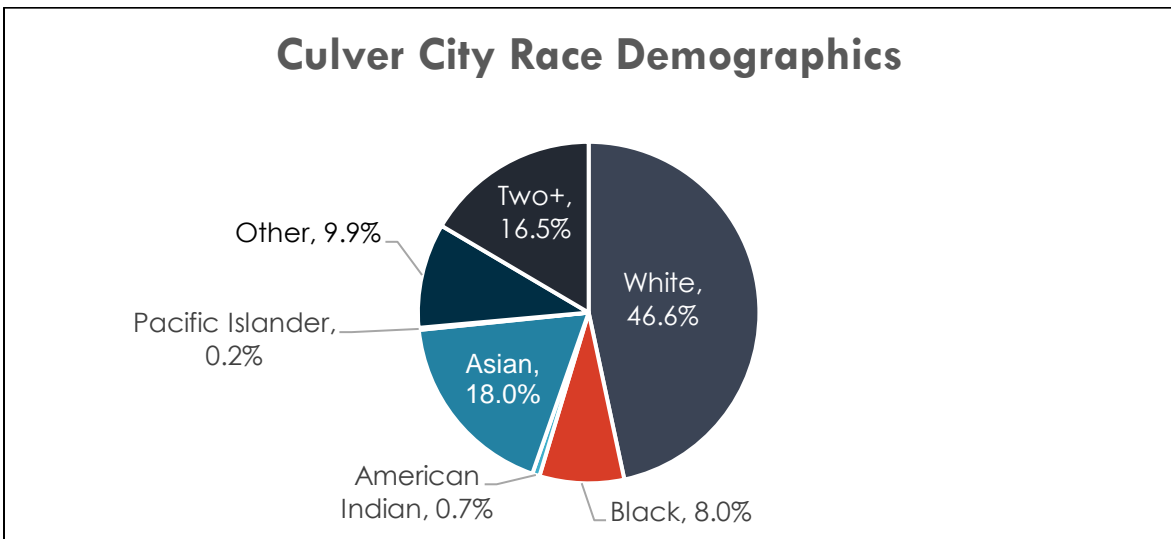
Human-Related Characteristics

Population and Demographics

Culver City is nestled in the Los Angeles urbanized area, as identified in the 2023 U.S. Census Bureau guidelines. Culver City has an estimated nighttime population of 41,275 and an estimated daytime population of 78,272. This shift represents an 89.6% increase from night to day. The estimated rate of growth is -0.73% annually³. The City’s population density is over 8,000 people per square mile. Currently, the population is 47.7% male and 52.3% female. The median age is 42.9, compared to the U.S. median age of 39.1. 46.6% of the population is white, 8% is black, 0.7% is American Indian, 18% is Asian, 0.2% pacific islander, 9.9% is noted as other and 16.5% is noted as two or more races. 23.1% of the population represents persons of Hispanic origin. The Diversity Index, which measures the probability that two people from the same area will be from different race/ethnic groups, is 81.1, compared to 72.1 for the U.S. as a whole. Population, age, race and growth statistics follow.



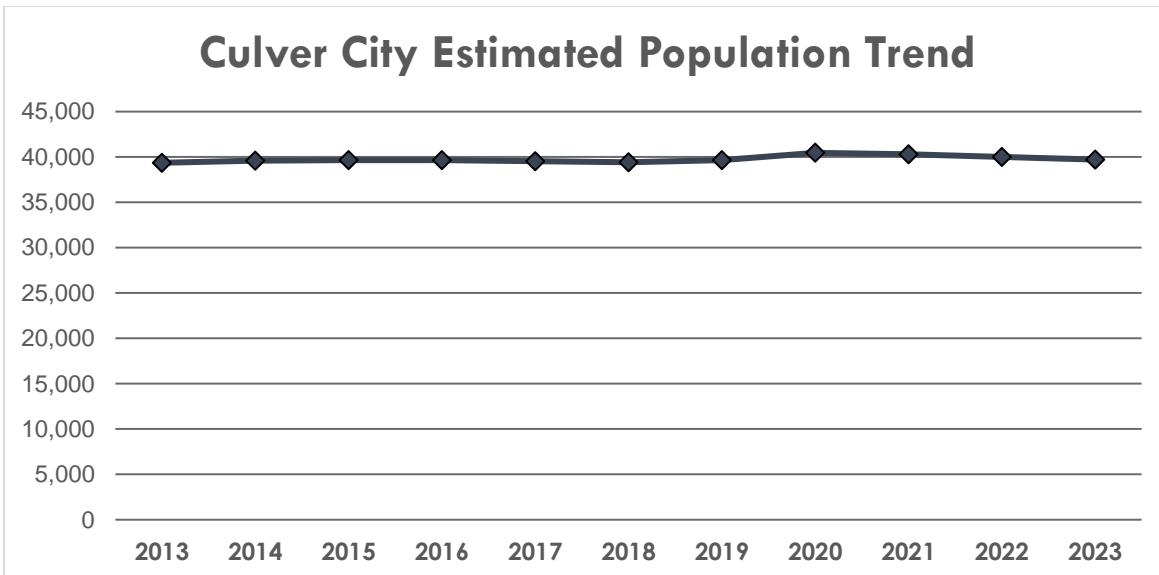
10 Culver City Population by Age



11 Culver City Race Demographics

³ FY 2023-2024 Adopted Budget Exhibit B, p. 595,





12 Culver City Estimated Population Trend

Economics and Housing

The median home value is \$1,187,388. The median household income is \$111,185 and the average household income is \$158,319. Current per capita income is \$65,791 citywide compared to the U.S. per capita income of \$41,310. The unemployment rate in the City is 4.3%. 84.7% of Culver City residents are involved in white collar professions. 65 percent of residents have at least an undergraduate degree. There are 4,643 businesses and 55,411 employees working in Culver City⁴.

There are 18,092 housing units and 17,101 households in Culver City. The average household size is 2.4. The vacancy rate within the City is 4.3% with the occupied housing consisting of 46% owners and 48% renters. There are an estimated 261 people experiencing homelessness in Culver City on any given night according to the 2023 Greater Los Angeles Homeless Count⁵.

14% of homes built in Culver City were built prior to 1940. 5.3% of the residential homes built were built after 1990. Homes built after 1990 are impacted by the City's sprinkler ordinance, which requires new construction projects to include fire sprinklers.

Human-Made Characteristics

Infrastructure Development

When Culver City was incorporated in 1917, it was composed of numerous low-rise commercial buildings and many small houses, but overall, the City was approximately 70 percent vacant land.

The Second World War dramatically changed the City. Military personnel and defense workers came to Southern California to fill the needs created by the war effort. The available housing

⁴ Esri Key Fact Business Analyst Report

⁵ 2023 Greater LA Homeless Count, <https://www.lahsa.org/documents?id=7232-2023-greater-los-angeles-homeless-count-deck>



was rapidly exhausted, and existing commercial centers proved inadequate for the influx of people. Immediately after the war, construction began on the freeway system, and the face of Southern California was forever changed. Home developments and shopping centers sprung up everywhere; and within a few decades, the central basin of Los Angeles County was covered with developments. This pushed new construction further and further away from the urban center. The transition from one municipality to another within Los Angeles County is mostly seamless. Over the past couple decades Culver City has seen an upsurge in development. Culver City is home to a hospital, several senior living facilities, ten public schools, seven major private schools, eleven parks, major shopping centers, movie studios, and hotels. Some of the City's largest employers are Sony Pictures Entertainment, Amazon Studios, Apple, Riot Games, Westfield Culver City, Southern California Hospital, and the Culver City Unified School District⁶.

Major Projects

Below is a listing of major active projects in Culver City⁷.

- 11111 Jefferson Blvd. Mixed Use Project
- 11259 Washington Blvd.
- 11469 Jefferson Blvd. – the Jeff Hotel
- 12300 W. Washington Blvd. – new office building
- 12337-12423 Washington Blvd. – Market Hall
- 12727 Washington Blvd. – 6-story mixed use building
- 3434 Wesley St. – mixed use project
- 3800 Sepulveda Blvd. – cannabis retailer
- 3814 Lenawee Ave. – new 8 single family dwelling units, 110 bed assisted living and memory care
- 3817 Watseka Ave. – new office building
- 5700 Hannum Ave.
- 4055 Jackson Ave. – New 9-unit condominium development with subterranean parking
- 4464 Sepulveda Blvd. – new 1.41-acre site, 6-story residential structure with 95 rental units
- 5861 – 63 Washington Blvd. – office and retail building
- 8511 Warner Dr. – five level parking structure with retail/restaurant
- 8570 National Blvd. – office building
- 8631-8635 Hayden Pl. – creative office space
- 8825-8822 National Blvd. – crossings campus
- 9763 & 9739 Culver Blvd. – mixed use building
- 9925 Jefferson Blvd. – creative office building

⁶ Source: Culver City Annual Comprehensive Financial Report (ACFR)

⁷ City of Culver City Website, [https://www.culvercity.org/Active-Projects?dvl_CC%20CL%20Active%20Projects=\(pageindex=1\)](https://www.culvercity.org/Active-Projects?dvl_CC%20CL%20Active%20Projects=(pageindex=1))



Fox Hills/Westfield Culver City

The Fox Hills area includes the City's regional mall and other large retailers with convenient access from the 405 and 90 freeways. Macy's, Nordstrom Rack, H&M, Forever 21, Best Buy, BJ's Brewhouse, and the Olive Garden are just a few of the retailers and restaurants at the 1 million square foot Westfield Culver City. Other businesses in the area include Sprouts, Office Depot, and BevMo.

Hayden Tract

The Hayden Tract is a creative business district known for its internationally acclaimed architecture. Centrally located near major studios, it is an attractive option for multi-media, postproduction, and design firms.

Helms Bakery District

The Helms Bakery District is headquarters for contemporary furniture, delicious cuisine, and delectable slice of Culver City History. The district, whose Bakery once was contracted to provide bread for the Apollo 11 space mission in 1969, now includes home and office furniture retailers such as H.D. Buttercup, Room & Board, Arcana Books and several award-winning restaurants.

Jefferson Boulevard Corridor

Culver City's Jefferson Boulevard corridor is a magnet for premier media, biomedical, and other creative industries. It is home to the National Public Radio and the current development of a \$210 million project to create a mixed-use apartment and retail space with a portion of apartments reserved for very low-income households.

Mid-Washington

Many small community-serving businesses – salons, bakeries and retailers – are located along Washington Blvd. Between Sepulveda Blvd. and Overland Ave., just west of Sony Pictures Entertainment. The surrounding area also features several media offices and studio complexes.

Overland

Overland Avenue connects some of the City's most important landmarks including, the Culver Center, the Veterans Memorial Complex, Senior Center, Raintree Shopping Center, and West Los Angeles College. A new protected bike lane project is set to connect riders with neighborhood businesses and services along this popular corridor.

Washington/National Transit Oriented Development

Washington-National is Culver City's award-winning transit-oriented development district created to meet the needs of the E Line Light Rail, which expands from Downtown Los



Angeles to Santa Monica. Dubbed the Ivy Station, the area is composed of an exciting mix of retail, residential office space, and a beautiful hotel.

Sepulveda

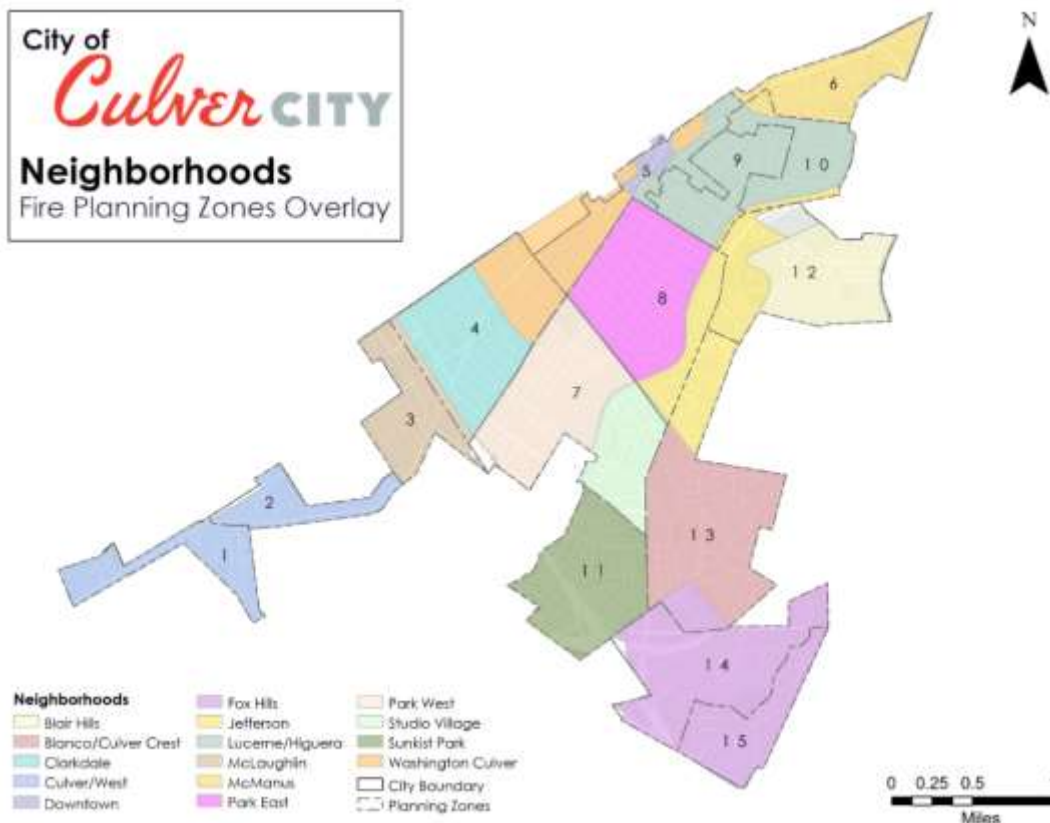
One of the City's busiest commercial boulevards, Sepulveda runs north-south parallel to the 405 freeway. It is anchored by neighborhood shopping centers as well as local neighborhood services, restaurants, and retailers. Two repurposed hotels now supply 73 units of stable housing with both permanent supportive housing and interim housing for those experiencing homelessness.

Washington West

The Washington West District is a unique collection of artisan restaurants, creative businesses, and specialty retail and services that extends for roughly 2 miles on the west side of Culver City. The district is generally centered along West Washington Blvd. between Inglewood Avenue and Beethoven Street near Marina Del Rey. The regional east-west arterial street carries over 30,000 vehicle trips per day and is home to professional and healthcare services, as well as one of the top Costco Warehouses in the nation.

Culver City Neighborhoods

The map below contains Culver City neighborhoods with an overlay of fire management zones.



14 Culver City Neighborhoods Map



Community Resources

Culver City Unified School District

School	Address	Grades	Approximate Enrollment ⁸
Office of Child Development	10800 Farragut Drive	Pre-K–5	290
El Marino Language School	11450 Port Road	K–5	795
El Rincon Elementary	11177 Overland Avenue	K–5	590
La Ballona Elementary	10915 Washington Blvd.	K–5	556
Linwood E. Howe Elementary	4100 Irving Place	K–5	556
Farragut Elementary	10820 Farragut Drive	K–5	553
Culver City Middle School	4601 Elenda Street	6–8	1,586
Culver City High School	4401 Elenda Street	9–12	2,228
Culver Park Continuation HS	5303 Berryman Avenue	10–12	35
Adult School	4909 Overland Avenue	Adult	30

15 List of Culver City Unified School District Schools

Major Private Schools

School	Address	Grades	Approximate Enrollment
Echo Horizon School	3430 McManus Avenue	Pre-K – 6	180
Kayne Eras School	5350 Machado Road	Special Education K – 12	110
Park Century School	3939 Landmark Street	Language Based Learning 2 – 8	120
Summit View School Westside	12101 W. Washington Blvd.	1-12	105
Turning Point School	8780 National Blvd.	Pre-K – 8	350
Wildwood School	12201 Washington Place	K – 5	320
Willows Community School	8509 Higuera Street	Pre-K – 8	470

16 List of Major Private Schools

City Buildings

Building Name	Address
Culver City City Hall	9770 Culver Boulevard
Culver City Fire Training Building	9275 Jefferson Boulevard
Culver City Police Department	4040 Duquesne Avenue
Culver City Public Services Building	9505 Jefferson Boulevard
Culver City Fire Station No. 1	9600 Culver Boulevard
Culver City Sanitation Transfer Station	9255 Jefferson Boulevard
Culver City Fire Station No. 2	11252 Washington Boulevard
Culver City Transportation Facility	4343 Duquesne Avenue
Culver City Fire Station No. 3	6030 Bristol Parkway

17 List of City Buildings

⁸ Culver City Unified School District Website, "School Accountability Report Cards (SARC), https://www.ccusd.org/apps/pages/index.jsp?uREC_ID=42357&type=d&pREC_ID=52227



Government Buildings

Building Name	Address
LA County Fire Haz Mat Office	6101 S. Centinela Avenue
LA County Internal Services Dept.	11236 Playa Court
Julian Dixon Library	4975 Overland Avenue
CA Dept. of Motor Vehicles	11400 Washington Boulevard
CA Rehabilitation Dept.	5161 Overland Avenue
CA Social Service Dept.	5830 Hannum Avenue
US Post Office - Jefferson	11111 Jefferson Boulevard
US Post Office – Culver	9942 Culver Boulevard
US Dept. of Veterans Affairs	5730 Uplander Way
Southern California Hospital at Culver City	3828 Delmas Terrace
West LA College	9000 Overland Avenue

18 List of Government Buildings

Hospitals and Dependent Care Facilities

Organization Name	Address
CC Accessible Apartments	4222 Van Buren Avenue
Culver City Senior Center	4095 Overland Avenue
Culver City Senior Housing	5166 Sepulveda Blvd.
Culver West Convalescent Home	4035 Grand View Blvd.
Didi-Hirsch Culver Palms Center	11133 Washington Blvd.
Kayne/ERAS Center	5350 Machado Road
Kayne/ERAS House No.1	11124 Fairbanks Way
Kayne/ERAS House No.2	4215 Keystone Avenue
Marina Care Center	5240 Sepulveda Blvd.
Marycrest Manor	10664 St James Drive
No Limits	9801 Washington Blvd.
Olympus ADHC Inc.	11613 Washington Blvd.
Palm Court	3995 Overland Avenue
Paloma Pointe	10955 Washington Blvd.
Rotary Plaza	5100 Overland Avenue
Southern California Hospital	3828 Delmas Terrace
Studio Royale	3975 Overland Avenue
Sunrise Villa Culver City	4061 Grand View Blvd.
The H.E.L.P. Group West	12099 Washington Blvd.
UCP Westside Activities Center	6110 Washington Blvd.
Vista Del Sol Residence	11620 Washington Blvd.

19 List of Hospitals and Dependent Care Facilities

Historical Sites

Name	Year Built	Street
Historic Site #2: The Hull Building	1925	9543 Culver Blvd.
Historic Site #4: The Citizen Building	1929	9355 Culver Blvd.
Historic Site #5: The Legion Building	1925	3824 Hughes Ave.
Historic Site #6: Main Street	1924	9400 Culver Blvd.



Historic Site #7: The Studios	1919	9336 Washington Blvd.
Historic Site #9: The Helms Building	1930	Washington Blvd. at Helms
Historic Site #13: Veterans Memorial Building	1950	4117 Overland Ave.

20 List of Historical Sites

Art in Public Places

To date, there are over 100 individual artworks included in Culver City’s Art in Public Places Program. Approximately half are on private property and the other half on public (City) owned property⁹.

Service Infrastructure

Water Supply Systems

There are currently 1,103 well-spaced hydrants within the City. The Golden State Water Company (GSWC) manages the majority of the hydrants. A small number are managed by the Los Angeles Department of Water and Power (LADWP).

Water delivered to customers in the Culver City System is imported water from the Colorado River Aqueduct and the State Water Project (imported and distributed by the Metropolitan Water District of Southern California).

GSWC obtains its water supply for the Culver City System by purchasing imported water supplies from the West Basin Municipal Water District (WBMWD). Based on GSWC’s long-term water supply planning projections, GSWC’s water supply is projected to increase by 27 percent from 2010 to 2035 to meet the associated projected water demands, with all this demand being met by imported water from WBMWD. GSWC is actively pursuing the availability of a reliable, cost-effective supply of imported water through the implementation of conjunctive use storage programs. Storage programs could use water imported from WBMWD or other suppliers.

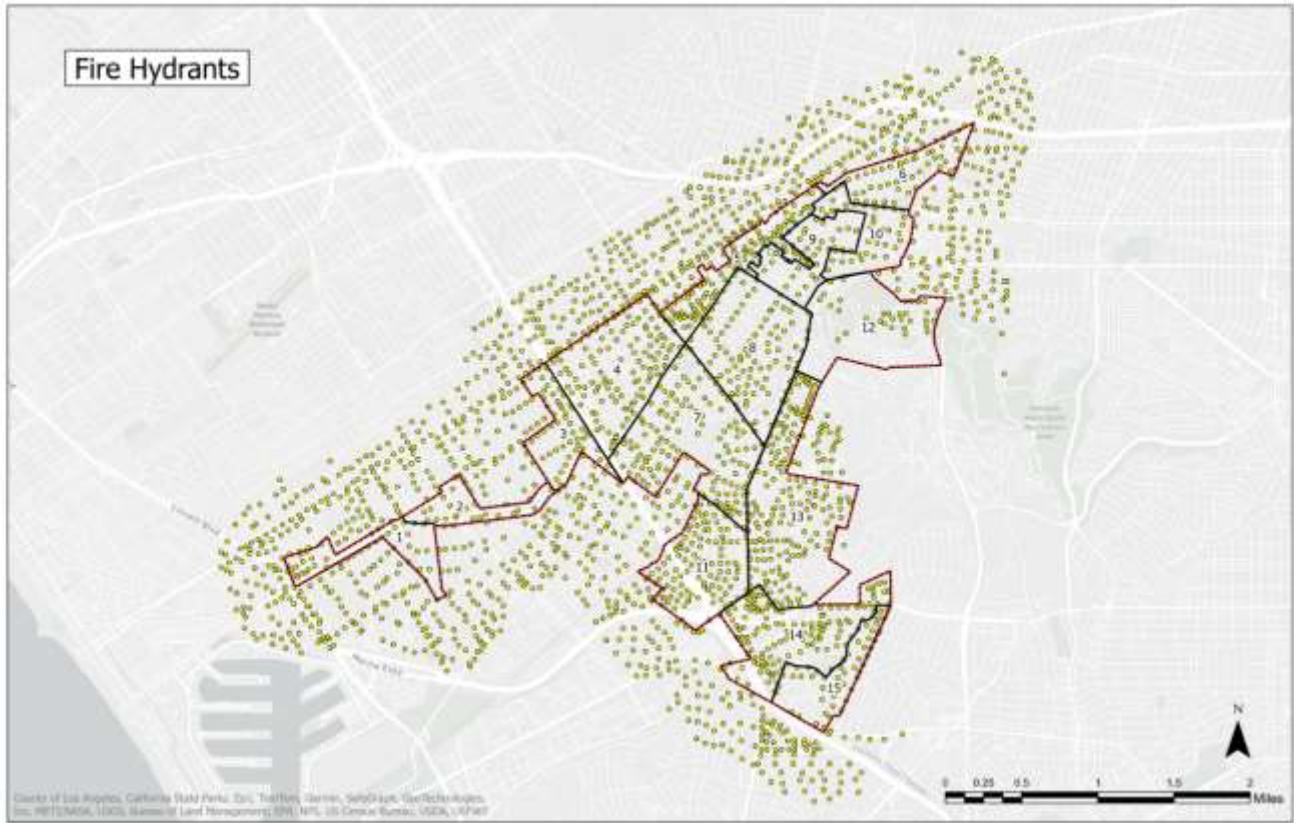


21 California Water Supply

Additionally, GSWC still owns water rights in the Santa Monica Subbasin and is assessing the feasibility of potential groundwater development projects in several local basins. If developed, each of these projects would provide some increment of local groundwater that would improve the reliability of or displace the use of imported water in the Culver City System.

⁹ City of Culver City Website, Public Art, <https://www.culvercity.org/Permanent-Public-Art>





22 Fire Hydrant Map

Electrical Systems

The City is part of the Clean Power Alliance. Clean Power Alliance purchases clean power and Southern California Edison delivers it. Over the years, due to development, the City has improved its electrical infrastructure. In 2017, the City updated its Downtown electrical infrastructure and is currently looking into a Microgrid project to create a more resilient community.

Sewer and Storm Drain Systems

The City manages seven sewer pump stations: Braddock, Bristol, Hayden, Fox Hills, Jasmine, Mesmer, and Overland.¹⁰ There are several flood control channels and storm drains within the City. Most are managed by the Los Angeles County Flood Control District (LACFCD) and flow to La Ballona Creek, which is managed by the LACFCD and the Army Corp of Engineers.¹¹

Currently, there is an Advanced Hydrologic Prediction Service (AHPS) flood gauge located along Ballona Creek at Sawtelle Boulevard. Hydrograph readings are produced at regular intervals to a website that tracks the flood control channel. In Spring 2024, the website is slated to be replaced by the National Water Prediction Service (NWPS)¹².

¹⁰ City of Culver City Website, "Sewer Infrastructure Management System (SIMS)," <https://gisproxy.culvercity.org/Html5Viewer/index.html?viewer=SIMS.sims>

¹¹ Los Angeles County Public Works Website, "Los Angeles County Storm Drain System," <https://pw.lacounty.gov/fcd/StormDrain/index.cfm>

¹² National Water Prediction Service Website, "Ballona Creek at Sawtelle," <https://preview.water.noaa.gov/gauges/BLNC1>



Local or Feeder Natural Gas Pipelines

There are two gas transmission lines running through the City—one running northwest to southeast in the southwest portion of the City and the other running northeast to southwest in the eastern portion of the City. A natural gas transmission line is generally a large diameter pipeline that operates at pressures above 200 psi and transports gas from supply points to the gas distribution system.

There are also high-pressure distribution lines running through the City—one runs parallel to the 405 freeway to the North; another two border the southwest part of the City and the northeast. These lines typically operate at pressures above 60 psi and deliver gas in smaller volumes to the lower pressure distribution systems.

Communications Systems

The City’s radio tower sits on a hilltop in the eastern portion of the City. It is part of the interagency communications interoperability system, which is an Ultra High Frequency (UHF), trunked radio system operating in the UHF 450-512 megahertz (MHz) band. It is a shared system with components purchased and constructed by individual cities and linked together through a microwave network in order to provide regional coverage. The map below displays regional network coverage.

Culver Connect, Culver City’s municipal fiber open access network consists of 21.7 route miles of underground fiber network designed for geographic diversity, security and redundancy. Each cable within the system consists of 576 fiber strands, providing infrastructure necessary to support Culver City businesses high bandwidth demands and service requirements.

Recreational – Parks, trails, and open spaces

The Department of Parks, Recreation, and Community Services oversees the maintenance and operations of 11 parks, comprising 92.2 acres of land. The sites range in size from .02 acres to 41.6 acres.

Park	Location
Veterans Memorial Park	4117 Overland Avenue
Dr. Paul Carlson Park	Braddock Drive at Motor Avenue
Syd Kronenthal Park	3459 McManus Avenue
Culver City Park (Botts Field)	9910 Jefferson Boulevard
Blanco Park	5801 Sawtelle Boulevard
Fox Hills Park	Green Valley Circle & Buckingham Parkway
Fox Hills Parkette	Buckingham Parkway & Hannum Avenue
Culver West Alexander Park	4162 Wade Avenue
Lindberg Park	5041 Rhoda Way
Media Park	9091 Culver Boulevard (Los Angeles)
Tellefson Park	Washington Place & Tilden Avenue
El Marino Park	5301 Berryman Avenue
Blair Hills Park	5950 Wrightcrest Drive
Municipal Plunge	4175 Overland Avenue
Coombs Parkette	4468 Coombs Avenue

23 List of Parks



The majority of bicycle paths running through the City run along streets. In addition to these sharrows and paths, there is also a Ballona Creek Bike Path, which parallels the Ballona Creek.¹³ This path connects Culver City with the Pacific Ocean at Marina del Rey. The trail further connects to a beachside path, which travels north to Malibu and south to Redondo Beach. Duquesne also connects with the eastern portions of the Park to Playa Trail. The Park to Playa Trail is a 13-mile regional trail that connects a network of trails, parks and open spaces from the Baldwin Hills Parklands to the Pacific Ocean. There are numerous access points to the Park to Playa Trail including various locations along the Ballona Creek Bike Path, in Culver City Park, at Baldwin Hills Scenic Overlook, several staging areas in Kenneth Hahn State Recreation Area, and Norman O. Houston Park. A bridge traverses La Cienega Blvd., allowing direct access to Kenneth Hahn State Recreation Area. Connected to this trail is also the Culver City Stairs. The Stairs Trail is the popular straight-up-the-hill fitness trail in the Baldwin Hills as part of the Park to Playa Trail. The trail provides panoramic views from the top of a 511-foot peak. Restored native habitat and seasonal displays of native wildflowers with bird and wildlife viewing add to the scenic quality of this section of the Park to Playa Trail. The main public access points in Culver City to the Ballona Creek Bike Path are National Blvd., Duquesne Ave., Overland Ave., and Sepulveda Blvd.

Waterways

Ballona Creek is a nine-mile long flood protection channel that drains the Los Angeles basin, from the Santa Monica Mountains in the north, the Harbor Freeway (110) in the east, and the Baldwin Hills in the south. The Ballona Creek Watershed totals about 130 square miles. Its land use consists of 64% residential, 8% commercial, 4% industrial, and 17% open space¹⁴.

The major tributaries to the Ballona Creek include Centinela Creek, Sepulveda Canyon Channel, Benedict Canyon Channel, and numerous storm drains. Ballona Creek is designed to discharge to Santa Monica Bay approximately 71,400 cubic feet per second from a 50-year frequency storm event. The watershed is composed of all or parts of the Cities of Beverly Hills, Culver City, Inglewood, Los Angeles, Santa Monica, West Hollywood, and unincorporated Los Angeles County. Distant waterways, which feed the water system include the California Aqueduct (400-mile California State Water Project transports water from the Sierra Nevada Mountains), and the Colorado River Aqueduct (242-mile waterway originating at Lake Havasu).

¹³ Trails Mountains Recreation and Conservation Authority Website, "Park to Playa Trail," <https://trails.lacounty.gov/Trail/237/park-to-playa-trail>

¹⁴ Los Angeles County Public Works, "Ballona Creek Watershed," <http://www.ladpw.org/wmd/watershed/bc/>

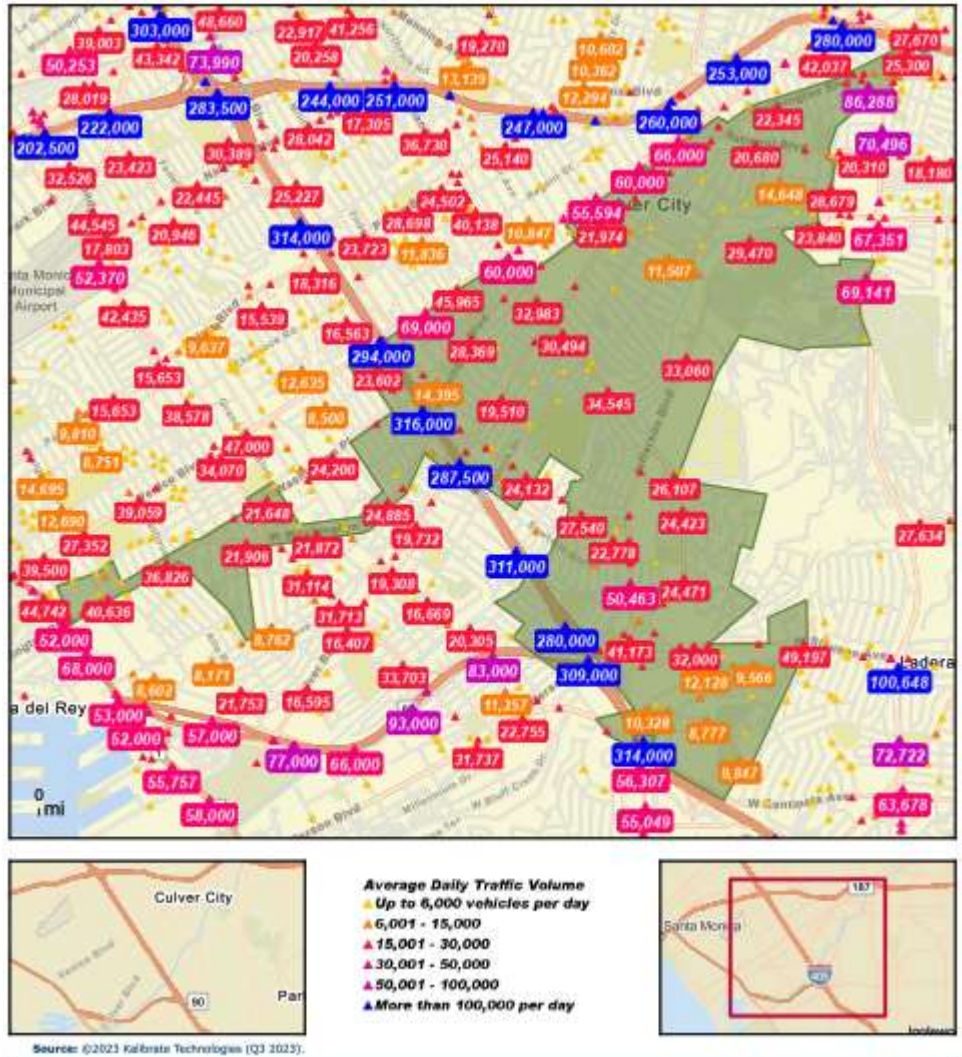


Transportation

The Los Angeles area consistently tops national worst traffic lists. As Culver City is part of the Los Angeles region, the congestion Culver City experiences is no different.

Highways and Streets

The map to the right illustrates average daily traffic volumes on Culver City streets and freeways. The City is currently in the process of conducting a travel demand forecast model (TDFM) to assess individual and cumulative impacts of development projects in Culver City. The focus will be on vehicle miles traveled and greenhouse gas emissions.



24 Average Daily Traffic Volume

Bridges

There are seven bridges that cross over La Ballona Creek referenced below, as well as a couple bridges that cross over smaller waterways. Interstate 405 also crosses over several major roads in Culver City, such as Centinela Avenue, Sepulveda Boulevard, Jefferson Boulevard, Slauson Boulevard, Washington Boulevard and Washington Place.

Feature Intersected ¹⁵	Facility Carried	Year Built	Lanes	Length (m)	Road Width (m)
Ballona Creek	Washington Blvd.	1938	4	29	23.2
	Higuera St.	2023	4	61	34
	Overland Ave.	1938	4	60	18.3
	Duquesne Ave.	1938	2	42	13.7
	Sawtelle Blvd.	1980	3	62	20.1
	Sepulveda Blvd.	1985	5	62	24.4
	National Blvd.	2010	4	51	17
Centinela Creek Channel	Centinela Ave.	1963	5	20	24.4
Sepulveda Channel	Washington Blvd.	1948	5	11	23.8

¹⁵ California Department of Transportation Website, "Local Agency Bridge List," <http://www.dot.ca.gov/hq/structur/strmain/local/localbrlist.pdf>



Feature Intersected ¹⁵	Facility Carried	Year Built	Lanes	Length (m)	Road Width (m)
La Cienega Blvd.	Baldwin Hill Park Rd.	1985	2	48	11

25 List of Bridges

Rail

A portion of the Los Angeles Metropolitan Transit Authority's (MTA) Expo light rail line ("E" Line) travels through Culver City. The terminuses are Downtown Los Angeles and Santa Monica. The first segment between Downtown Los Angeles and Culver City opened in 2012. The second phase extension to Santa Monica was opened in 2016. Ridership peaked in 2018 with over 19 million riders annually. Ridership dipped significantly during the COVID-19 pandemic and has yet to reach pre-pandemic levels. The line is at grade between Wesley Street and Eastham Drive as it passes through the Hayden tract in the northern portion of the City. It rises to above grade and crosses over National and Washington Boulevards as it continues to Santa Monica.

Bus

The City of Culver City has its own municipal bus service, which is the second oldest municipally-owned bus line in the State of California. Culver CityBus' fleet is composed of 54 compressed natural gas (CNG) buses. Culver CityBus operates seven routes, serving nearly 6 million riders annually with a service area encompassing 33 square miles, which includes the Westside communities of Venice, Westchester, Westwood, West Los Angeles, Palms, Playa Vista, Marina Del Rey, Rancho Park, Mar Vista, Century City, and Culver City.

Air (Overflights)

The Los Angeles International Airport (LAX) is approximately six miles southwest of Culver City. Overflights of commercial planes fly over Culver City frequently. Planes approach from the west, at an initial altitude of 7,000 feet, initially passing over Santa Monica. The planes gradually descend as they travel further east before turning around to make their final descent into LAX.



PROGRAMS AND SERVICES

Community Risk Reduction

The Culver City Fire Department's Community Risk Reduction (CRR) Division is committed to providing the City with comprehensive and professional services. CRR helps keep the community safe by providing both prevention and mitigation strategies to its residents and businesses. These programs are implemented through the adoption, interpretation, and enforcement of the 2022 California Fire Code, with local amendments, and designated portions of the 2022 California Building, Mechanical, and Electrical Codes as adopted by the City of Culver City. Programs include: documentation of businesses that handle reportable quantities of hazardous materials; plan check and inspection of the installation and maintenance of fire sprinkler systems, fire alarm systems, above and below ground tank installations, spray booths, commercial kitchen hood systems, special agent extinguishing systems, building fire flow requirements, public and private fire hydrant locations, and classified electrical installations; and the inspection of building exit plans and other building safety components throughout the City.

Fire Investigation Services

CRR manages the CCFD's fire investigation program. Two fire inspectors are responsible for conducting fire origin and cause investigations.

Public Education Services

The CCFD offers several public education and life safety education services. The CCFD visits local schools, conducts fire station tours, and offers emergency education at multiple public events through the year. CRR works with the Culver City Community Emergency Response Teams (CERT), educates the public through the Ready, Set, Go wildland fire safety program, the Culver City smoke alarm program and participates in Culver City High School's Project Shadow, a program that gives high school students a better understanding of the fire service. The CCFD also manages several educational campaigns throughout the year, which include dissemination of information in person at the local farmers' market and via the City's website, social media channels and email. Examples of campaigns are Fire Service Day, Sidewalk CPR and Fire Prevention Week.

Emergency Preparedness

The Culver City Fire Department has emergency management responsibilities in its jurisdiction, which are managed through the Emergency Preparedness Division, i.e., Office of Emergency Management. It maintains an all-hazards emergency operations plan (EOP), has adopted the State of California Standardized Emergency Management System (SEMS) standards, is National Incident Management System (NIMS) compliant, and utilizes the NIMS Incident Command System (ICS) on all emergency responses. The CCFD has interoperable communications with surrounding agencies and participates in various drills with neighboring agencies to ensure operational readiness. The CCFD conducts annual community-wide disaster drills and works closely with community readiness groups like the Culver City Amateur Radio Emergency Service (CCARES) and the Community Emergency Response Team (CERT).



Fire Suppression

Fire suppression personnel provide emergency response to a range of fire suppression-related incidents involving structures, wildland areas, vehicles and dumpsters/trash. The CCFD staffs three engine companies, one ladder truck, three paramedic rescue units and a Battalion Chief Command vehicle to protect the City. A three-platoon/shift configuration with 20 personnel assigned to each shift is utilized in order to provide the community with around-the-clock service.

Emergency Medical Services

The CCFD provides first responder medical care and transportation services at the basic life support (BLS) and advanced life support (ALS) service levels. All uniformed staff of the CCFD are certified emergency medical technicians (EMTs), and approximately 75% are certified paramedics. The CCFD staffs three paramedic rescues with six firefighter/paramedics around the clock.

In August 2015, the CCFD launched the Ambulance Operator Program. Ambulance Operators (AO) provide basic life support (BLS) and emergency transportation for the City. In April 2017, the program evolved from two ambulance operators staffing a single ambulance for 12-hour shifts to 24-hour shifts. Post pandemic, the ambulance has been staffed approximately 57% of the time. The AO Program has always served as a development program for potential Culver City firefighter recruits. AO responses are not considered to be part of the CCFD's effective response force and AOs are not factored into first-arriving apparatus response times.

Hazardous Materials

The CCFD responds to a variety of hazardous materials issues. Some common issues are reports of hazardous materials dumping, carbon monoxide incidents and gas leaks. All Culver City firefighters are trained to the first responder operations (FRO) level.

Technical Rescue

The CCFD provides vehicle accident response, natural disaster response, swift water rescue, confined space rescue, low and high angle rope rescue, and structural collapse rescue. All firefighters are trained to the operations level for vehicle extrication, rope rescue, and swift water rescue.

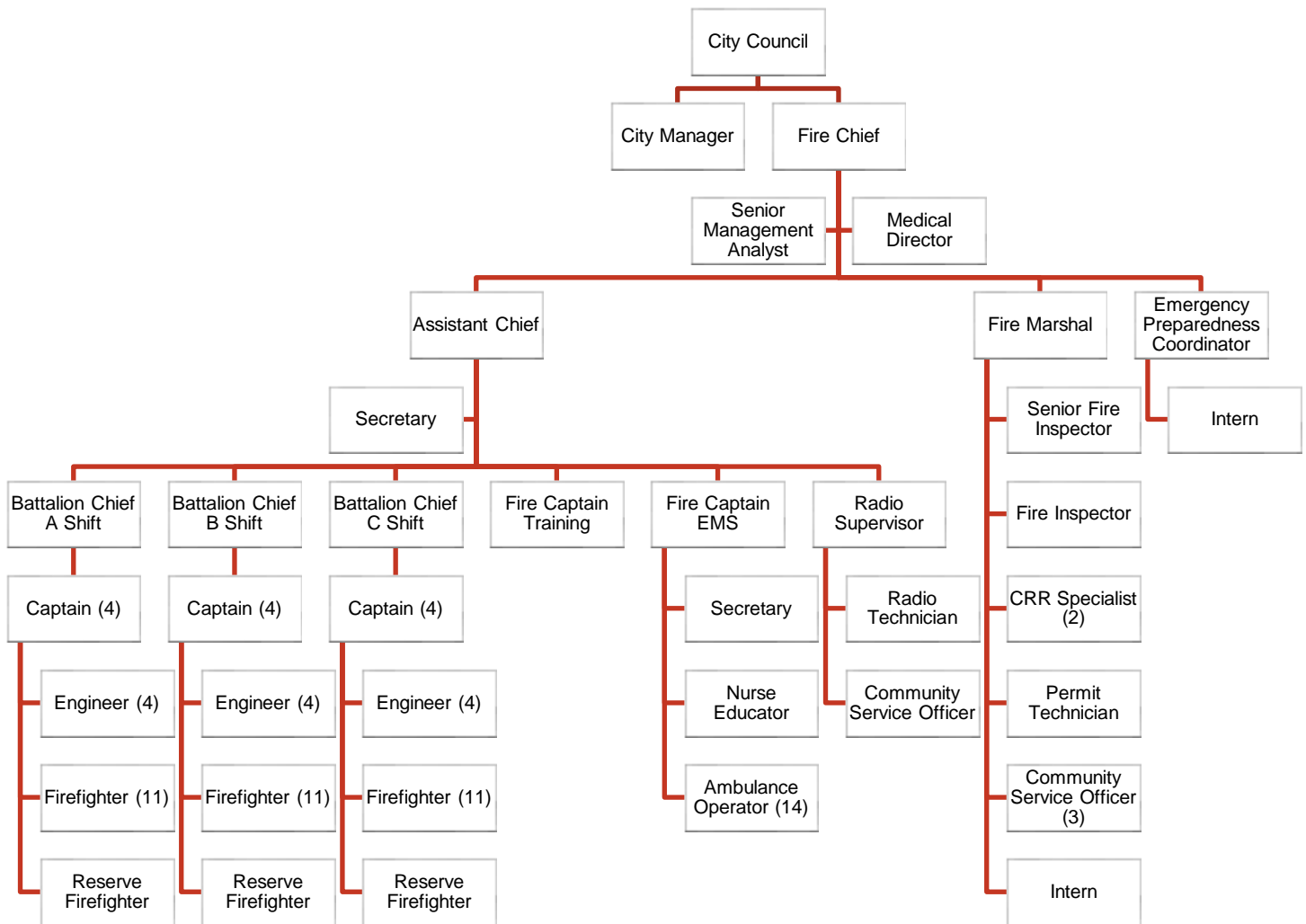
Wildland

Due to the City's wildland-urban interface and history of frequent mutual aid strike team deployments, wildland cache and training are current. Daily, the CCFD maintains an active deployment roster of available apparatus and qualified personnel to deploy to any wildland incident in the State of California. The Community Risk Reduction Division has an active brush clearance program targeted at prevention in the very high fire hazard severity zone within City limits.



CURRENT DELIVERY SYSTEM

The City is divided into three districts. There are three fire stations, a training facility, a telecommunications facility (radio shop), and City Hall, which houses Fire Prevention and Fire Administration.



26 Culver City Fire Department Organizational Chart

The CCFD utilizes a three-shift schedule, staffing each shift for a 24-hour period, 7 days a week, and 365 days a year. A minimum on-duty staffing level of 20 personnel has been established for around-the-clock delivery of emergency services. During business hours, sworn administrative personnel are available to augment the on-duty shift, and personnel recall procedures are in place to facilitate additional staffing when needed. The CCFD employs four primary response unit types during emergencies.



Apparatus

Engine Companies

The primary emergency response unit for the Culver City Fire Department is the engine company. There is one engine company at each of the three stations. Engine companies are staffed with a minimum of three personnel: a supervising captain, an engineer, and a firefighter. All fire personnel are required to be certified at the emergency medical technician (EMT) basic level. However, 75% of all personnel maintain a paramedic ALS certification.



Each engine is a triple-combination pumper, equipped with a 1,500 gallon per minute (gpm) pump, with a 500-gallon water tank and a full complement of hose. Engines are also equipped with 50 gallons of Class A firefighting foam, pre-connected medium and large diameter hand lines, a deck gun, 600 feet of four-inch supply hose, and two sections of hard suction hose.

The primary purpose of a pumper is to provide personnel with equipment and water to sustain an initial attack on a structure, wildland or other fire, but each engine company is also equipped with a variety of emergency equipment such as: basic and advanced life support medical equipment, emergency scene lighting, basic tools for defensive hazardous materials mitigation, basic water rescue equipment and rehab supplies. Each engine company is also equipped with 50 feet of ground ladders, specialized wildland firefighting equipment, forcible entry tools, auto extrication equipment and a thermal imaging camera.

Paramedic Rescues

All three stations are equipped with paramedic rescues. Each rescue is staffed with a minimum of two firefighter/paramedics, each having advanced life support (ALS) certification. The paramedic rescues carry both ALS and BLS equipment and provide a high level of emergency medical care. Some of the items carried on the paramedic ambulances are advanced airway and ventilation equipment, vascular therapy supplies, and portable battery-operated monitor/defibrillators. Firefighter/paramedics are able to supply immediate life saving measures and transport patients to the appropriate facilities.

From routine medical problems to the most critically ill or injured patient, rescues fill a significant role in Culver City—especially considering the high frequency of EMS service demands in the area. Though their primary role is EMS, these units are staffed by firefighters equipped with structural firefighting



protective equipment, extrication equipment, a thermal imaging camera and self-contained breathing apparatus (SCBA).

Truck Company

The Culver City Fire Department has one truck company located at Station 3. The truck company is supervised by a captain and is staffed with an engineer and two firefighters. The truck is called an aerial ladder truck—also known as a hook-and-ladder or a tractor drawn aerial. Two operators are required for safe handling of this vehicle—an engineer driving the front and a tiller operator controlling the rear. As the rear wheels turn independent of the front wheels, the truck has increased maneuverability and can more easily navigate through smaller streets and make tight turns in areas such as the movie studio lots.



The truck has a 100-foot truck mounted extension ladder, which is able to reach the equivalent of up to eight stories high. This allows firefighters to access or egress a building from a significant height and also to attack a fire from above. The aerial ladder is capable of allowing firefighters to direct an elevated master water stream of up to 600 gpm from the tip of the ladder. Because the truck does not have a pump or water tank, a pumper/engine must supply the water to fight the fire. In addition to the aerial ladder device, the truck is also equipped with over 200 feet of ground ladders, heavy rescue and auto extrication equipment and many other types of rescue equipment to handle various calls for service throughout the City.

Battalion Chief Command Vehicle



One Battalion Chief is responsible for overall field operations from a command vehicle. The command vehicle, located at Station 1, is equipped with advanced communication equipment, a mobile data computer, and a pull-out command desk. From this command vehicle, a Battalion Chief is able to direct emergency scene operations and command all firefighting, lifesaving, and fire prevention operations. Some additional equipment carried in the command vehicle includes SCBA and suppression equipment, command worksheets and reference materials.



Basic Life Support Ambulance

The Ambulance, staffed with two Emergency Medical Technicians (EMTs), enables the provision of basic life support (BLS) and emergency transportation services for the Culver City community. Operating out of Fire Station 2, the ambulance cost-effectively improves the CCFD's response reliability and helps the CCFD serve a greater number of patients with pre-hospital care and transport. Should the need arise, the ambulance has the capability of advanced life support when supplemented with equipment and paramedics from other apparatus.



Reserve and Specialty Apparatus

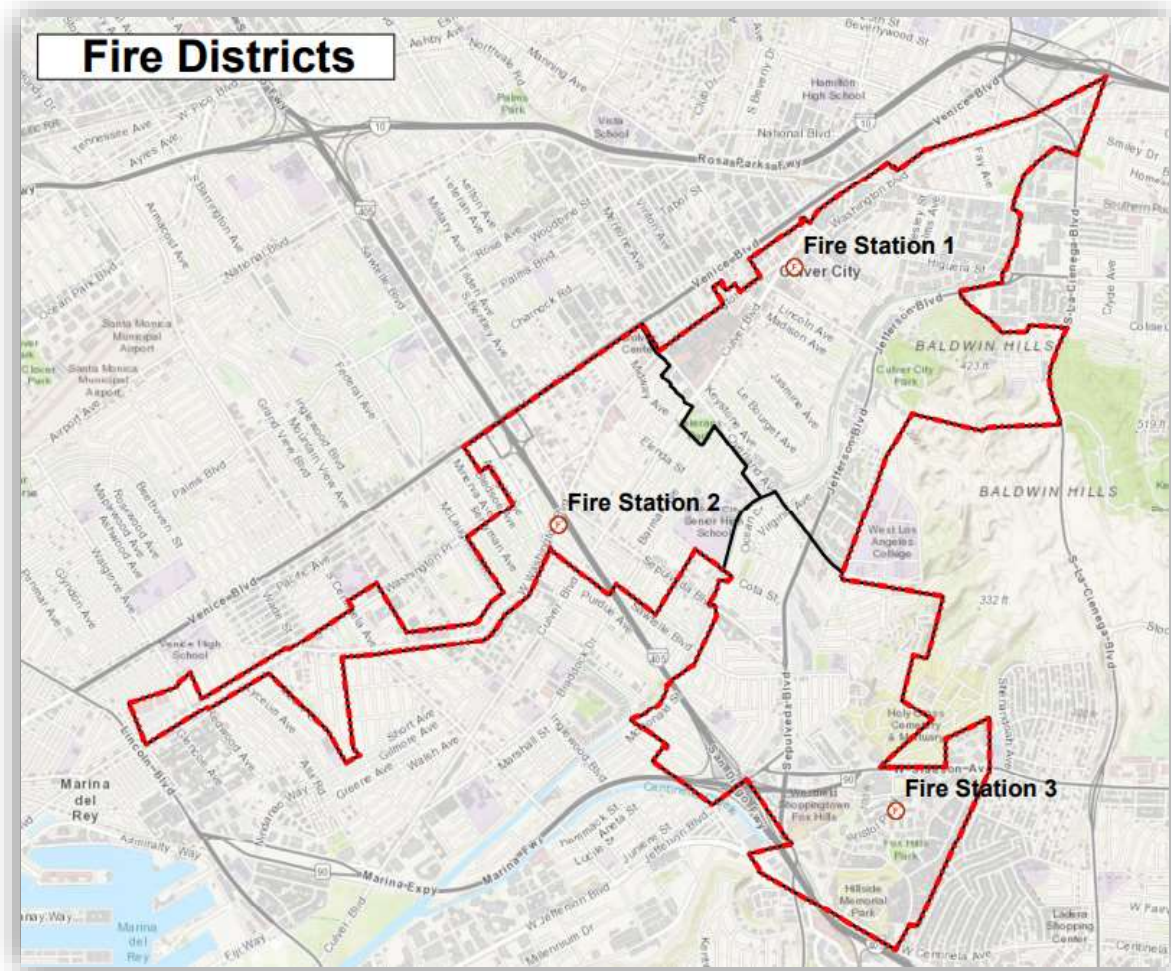
The CCFD maintains a fleet of reserve apparatus. Reserve apparatus are utilized to accommodate periodic maintenance and repair of front-line apparatus, to staff additional units during large-scale emergencies and to replace frontline units when they are called outside the City to assist other agencies (i.e., strike teams).

CCFD specialty apparatus comprise a Kubota UTV, an MCI Trailer, a flatbed utility truck, a CERT utility vehicle, a 300-gallon diesel fuel trailer, and two trailer drawn scene lighting units.



Points of Service Delivery

The City is situated into three districts. Each district has full first due coverage, with an engine and rescue at each station.



27 Fire Districts Map

Daily Minimum Staffing Levels

Type	Apparatus Count	Apparatus Staffing	Total Staff
Engine Company	3	3	9
Truck Company	1	4	4
Rescue	3	2	6
Command Unit	1	1	1
	8		20

28 Daily Staffing

Additional staffing for major emergencies or community disasters is available through the response of executive and staff officers. The CCFD also has the ability to request mutual aid or recall off-duty personnel.



Stations

Fire Station 1



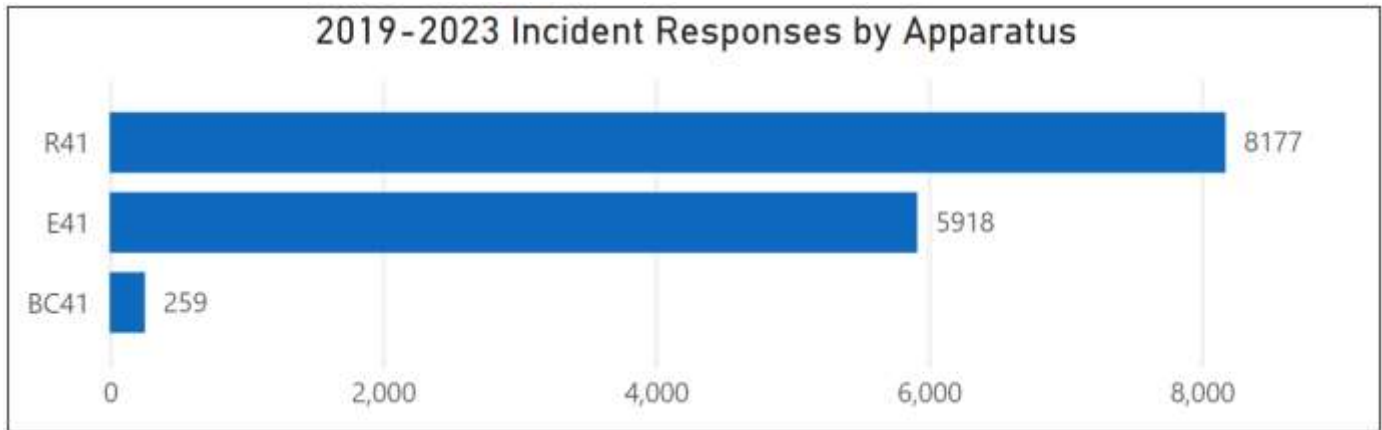
Fire Station 1 is located at 9600 Culver Boulevard in the heart of Downtown Culver City. The current building was constructed in 1993, but Station 1 has been in the Downtown area since the CCFD's inception. Station 1 houses the City's Emergency Operations Center (EOC), i.e., central control facility responsible for coordinating disaster management activities. Also located at Station 1 is a fire garage and telecommunications shop, where radio maintenance and repairs are conducted for all City radios.

Type	Year	Make	Staffing Level
Engine 41	2019	Pierce 1,500 gpm Pumper	3
Rescue 41	2019	Ford Braun Rescue Ambulance	2
Battalion 41	2017	F250 Superduty Crewcab	1
Reserve Engine 44	2006	Seagrave 1,500 gpm Pumper	-
Reserve Engine 45	2006	Seagrave 1,500 gpm Pumper	-
Reserve Engine 46	2006	Seagrave 1,500 gpm Pumper	-
Reserve Truck 41	2003	ALF Tractor Trailer Aerial	-
Reserve Battalion 42	2003	Ford Excursion XLT	-
MCI	2018	Multi-Casualty Incident Supply Trailer	-
Utility 41	2017	Kubota Utility Vehicle	-



Type	Year	Make	Staffing Level
General Utility Vehicle	1999	Chevrolet Suburban	-
Utility Truck	2004	Ford F350 Stake Bed Utility	-

29 Apparatus and Staffing - Station 1



30 Station 1 Responses by Apparatus



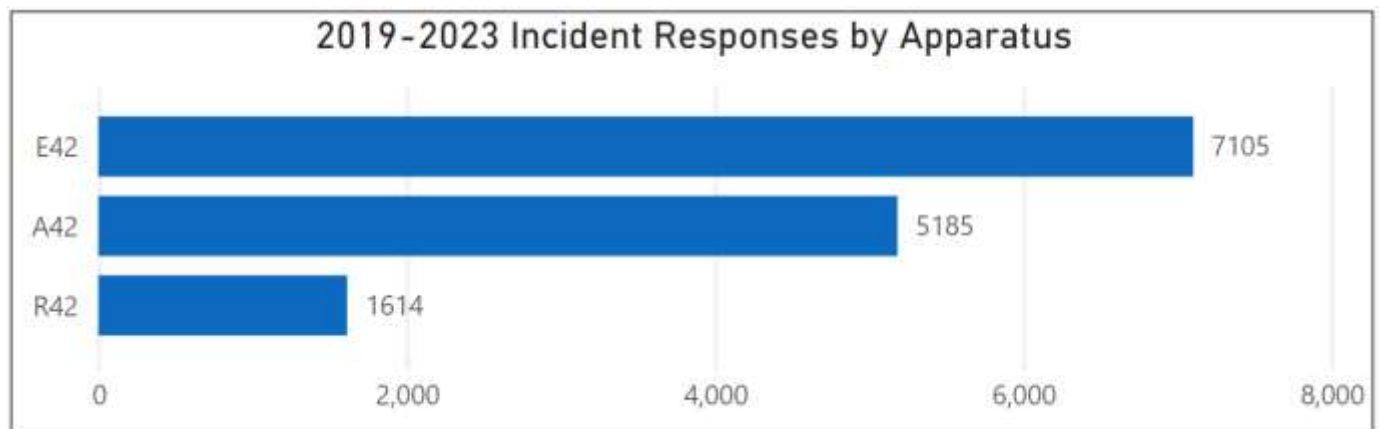
Fire Station 2



Fire Station 2 is located at 11252 Washington Boulevard. The building was constructed in 1981.

Type	Year	Make	Staffing Level
Engine 42	2019	Pierce 1,500 gpm Pumper	3
Rescue 42	2013	Dodge Lifeline Type I Ambulance	2
Ambulance 42	2014	Ford E350 Van	2
Reserve Ambulance 41	2014	Ford E350 Van	-

31 Apparatus and Staffing - Station 2



32 Station 2 Responses by Apparatus



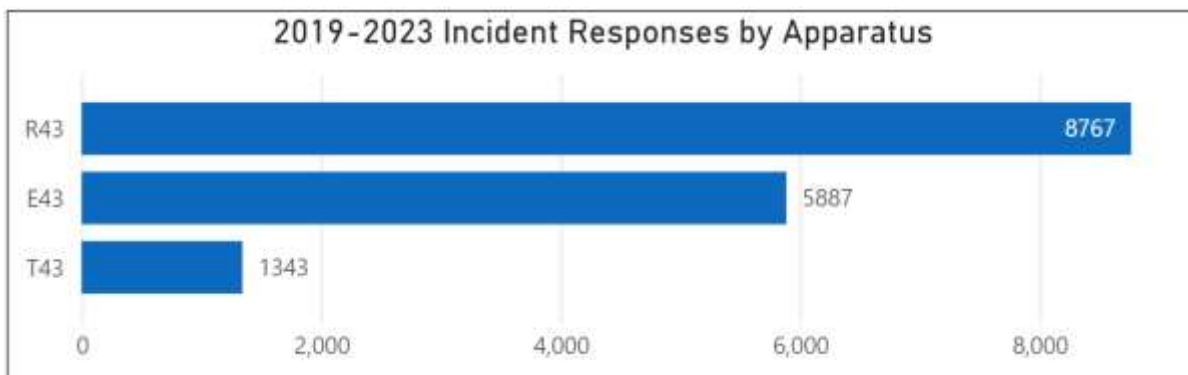
Fire Station 3



Fire Station 3 was built in 2009 and is located at 6030 Bristol Parkway.

Type	Year	Make	Staffing Level
Engine 43	2019	Pierce 1,500 gpm Pumper	3
Rescue 43	2019	Ford Braun Rescue Ambulance	2
Truck 43	2017	Pierce Arrow XT 100' Aerial	4
Reserve Rescue 44	2013	Dodge Lifeline Type I Ambulance	-
Fuel Trailer	1997	Weld-It Flatbed Fuel Trailer	-

33 Apparatus and Staffing - Station 3



34 Station 3 Responses by Apparatus



COMMUNITY FEEDBACK

The CCFD scrutinizes the intricacies of the Culver City community in order to help set benchmarks. Demographics by fire management zone, occupancy types and use types, as well as historical call volumes all play a role in determining what the department should aim for in terms of a response that will intervene in enough time to positively affect the outcome of the response. This assessment coupled with the CCFD's strategic planning process, assists the department in determining not just what the community needs, but also what the community expects. An overview of the strategic planning process follows.

STAKEHOLDER INPUT

In developing the CCFD's Strategic Plan, department staff members and the CPSE Technical Advisor Program met with community stakeholders to gather feedback and input on service delivery standards. As a result of community stakeholder meetings, subsequent feedback analysis, historical performance reviews, recommendations from National Fire Protection Association (NFPA) 1710 and internal benchmarking, the following Community Priorities, Community Expectations, and performance objectives were established in order of importance to the community.



Community Priorities

1. Emergency Medical Services
2. Fire Suppression
3. Technical Rescue
4. Hazardous Materials Mitigation
5. Wildland Fire Services
6. Emergency Preparedness
7. Community Risk Reduction
8. Fire Investigation
9. Public Fire and Life Safety Education

PROGRAM GOALS & OBJECTIVES

STRATEGIC INITIATIVES

1. Continue to enhance stakeholder engagement and leverage relationships to foster a more informed, participatory, and resilient workforce and community.
2. Enhance professional development opportunities through additional training, mentorship, and succession planning.
3. Continue to ensure effective staffing levels through a focus on recruitment and retention strategies to attract and maintain a diverse and dedicated team to support the rapidly growing community and operational demands.
4. Continue to explore and leverage technology that improves core capabilities.

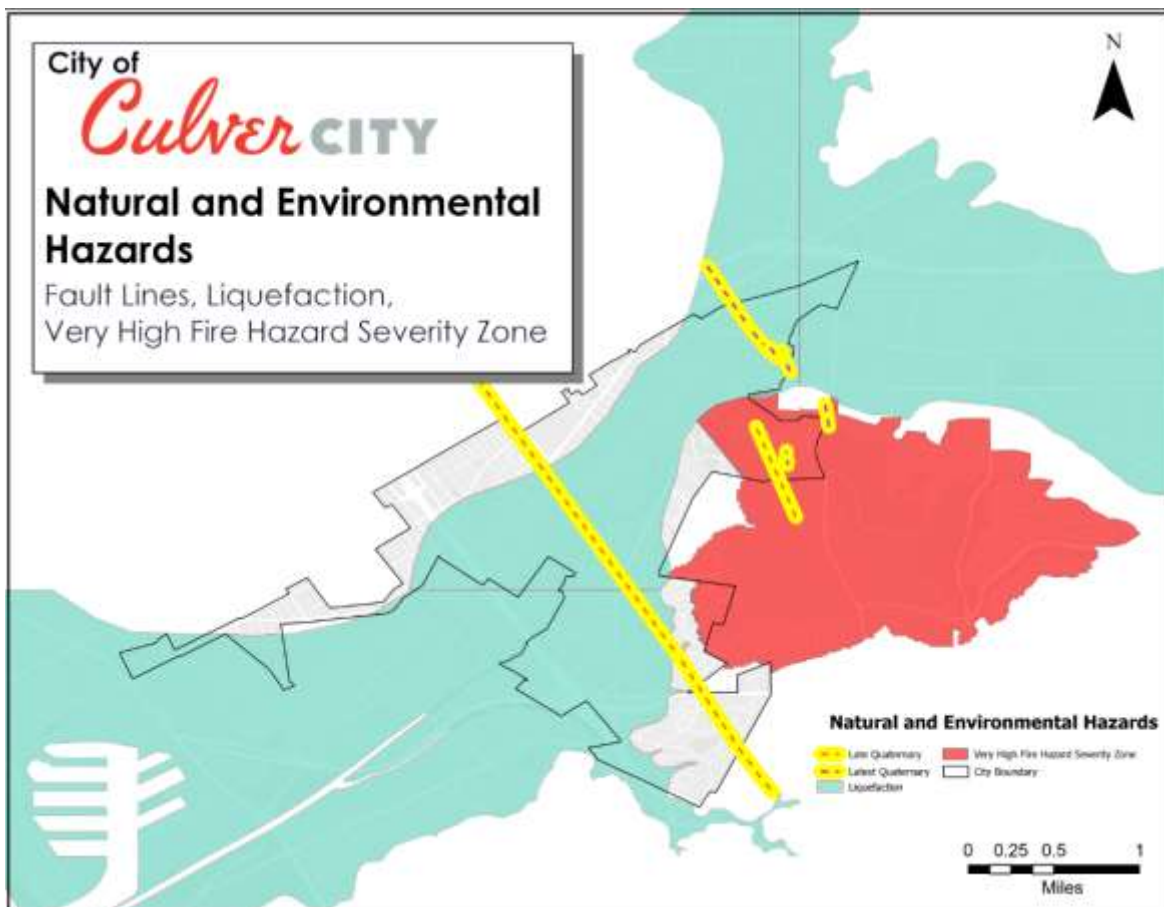


ALL-HAZARD COMMUNITY RISK ASSESSMENT

COMMUNITYWIDE RISK

Natural Hazards

The City of Culver City is susceptible to various natural hazards including, drought, earthquakes, extreme heat, flood, geological hazards, landslide/mudflow, liquefaction, seismic hazards, wildfire, windstorms, and climate change. It should be noted that Los Angeles County tops FEMA's National Risk Index¹⁶, which provides a score for each United States county and Census tract to determine communities most at risk for 18 natural hazards. Expected annual loss is multiplied by social vulnerability, then divided by the county's perceived community resilience to determine a rating on the risk index. Los Angeles County has a risk index of 100 as it has very high ratings related to expected annual loss and social vulnerability with a very low rating for community resilience. Of the 18 natural hazards measured by the index, those risks receiving a score of over 90 (i.e., a score of very high or relatively high) are as follows: earthquake, heat wave, landslide, lightening, flooding, tornado, and wildfire.



35 Natural and Environmental Hazards Map



¹⁶ FEMA's National Risk Index Website, <https://hazards.fema.gov/nri/map>

Wildland Urban Interface

The eastern portion of Culver City is considered a wildland-urban interface (WUI). Wildland located within Los Angeles County are directly adjacent to the Culver City communities of Blair Hills and Culver Crest. A wildland-urban interface is defined as anywhere the growth and spread of a fire may begin in a brush or wildland region, and then quickly enter an urban environment. Certain conditions must be present for significant interface fires to occur. The most common conditions include: hot, dry and windy weather; the inability of fire protection forces to contain or suppress the fire; the occurrence of multiple fires that overwhelm committed resources; and a large fuel load (dense vegetation). Recent significant rainfall has contributed to increased fuel load in Culver City's WUI. Once a fire has started, several conditions influence its behavior, including fuel topography, weather, drought and development. Southern California as a whole faces challenges with wildfire hazards from the increasing number of houses being built in the wildland-urban interface. Every year the growing population has expanded farther and farther into the hills and mountains, including into forestlands. The increased "interface" between urban/suburban areas and the open spaces created by this expansion has produced a significant increase in threats to life and property from fires and has pushed existing fire protection systems beyond original or current design and capability. Mutual aid agreements are in place and front-line apparatus are equipped with wildland firefighting equipment to address WUI fires in and around Culver City.

Drought

A drought is a period of drier-than-normal conditions that results in water-related problems¹⁷. The term "drought" can have different meanings depending on the impact of the water deficiency. Meteorological droughts are defined as lack of precipitation, agricultural droughts are defined as lack of soil moisture, and hydrologic droughts result in reduced streamflow or groundwater levels. Oftentimes, water deficiencies can represent more than one type of drought. The most recent drought in Los Angeles County began in 2020 and ended with above-average rainfall at the beginning of 2023.

Dry, hot, and windy weather, combined with dry vegetation and a spark can start a wildfire. Drier than normal conditions can increase the intensity and severity of wildfires. The most recent drought resulted in 9 strike team deployments and 10 single resource overhead deployments throughout the State of California.

Earthquakes

The City of Culver City, like most of the Los Angeles Basin, lies over an area of multiple known earthquake faults. The three known faults are Newport-Inglewood, Charnock, and Overland. In addition to these faults, there are four other major faults that have the potential to affect the greater Los Angeles Basin and Culver City: San Andreas, Palos Verdes, Whittier, and Santa Monica.

Located in Southern California, the Newport-Inglewood fault runs near the eastern portion of the City. Specific earthquake/disaster response policies have been developed and personnel have received training on earthquake related procedures and tasks. Mutual aid agreements

¹⁷ USGS, "California Drought," <https://ca.water.usgs.gov/california-drought/what-is-drought.html>



are in place to ensure access to additional or specialized resources. The CCFD oversees a Community Emergency Response Team (CERT) program, which could assist in disaster relief efforts. CERT members are educated to be self-sufficient for at least 72 hours. They receive training in first aid, in the use of fire extinguishers, and in conducting neighborhood safety surveys.

Flood

The majority of the City is within a liquefaction zone extending from Marina Del Rey up through the eastern boundary of the City. There are identified floodplains within the City. Some flooding has occurred associated with runoff and storm drain/catch basin features.

California is subject to wide variations in weather due to a phenomenon called the El Niño Southern Oscillation (ENSO). ENSO is a cyclical pattern in the water temperatures of the equatorial eastern Pacific Ocean, off the coast of South America. It is not a form of severe weather by itself, but it can cause changes in global weather patterns, including influencing the likelihood of severe weather. There are three phases of ENSO: the “warm phase” (El Niño), the “cold phase” (known as La Niña), and the neutral phase in which conditions are normal. During the warm El Niño phase, California sees higher levels of precipitation. El Niño also causes more tropical storms in the eastern Pacific, which may result in severe weather such as thunderstorms over California. During the cool La Niña phases, these effects are reversed. 2022 saw greater than normal precipitation levels, which brought 141% above the State’s historic rainfall average.

Landslides/Mudflows

The eastern portion of the City where it interfaces with wildland is also prone to landslides and mudflows. Due to an anticipated past El Nino events, the City developed a preparedness plan to ready and educate property owners and residents living in landslide/mudflow areas. Free sand and sandbags are always available to residents at Station 1.

High Winds

High winds are defined as those that last longer than one hour at greater than 39 miles per hour (mph) or for any length of time at greater than 57 mph. They are the most frequent type of severe weather in the City. Windstorms that affect Los Angeles County, notably Santa Ana winds, are not location specific but rather impact a majority of the area. Santa Ana winds form when a high-pressure region sits over the Great Basin (the high plateau west of the Rockies and east of the Sierra Nevada), forcing air toward the Pacific coast. The air dries and heats up as it descends from the high plateau, creating the warm dry characteristics of the Santa Ana winds.

Severe windstorms pose a significant risk to life and property by creating conditions that disrupt essential systems such as public utilities, telecommunications, and transportation routes. High winds can and do occasionally cause damage to homes and businesses. The winds are not considered major widespread threats to population and property, but do involve responses from emergency service personnel. Severe windstorms can present a very destabilizing effect on the dry brush that covers local hillsides and wildland-urban interface areas and can increase wildfire threat. Destructive impacts to trees, power lines, and utility services also are



associated with high winds. Falling trees can occasionally cause fatalities and serious structural damage while fallen power lines could cause widespread power outages and fire. These incidents are rare as well as localized.

Humanmade Hazards

Oil Fields

The Inglewood Oil Field is located within Culver City and the unincorporated area of Los Angeles County known as Baldwin Hills. The oil field is approximately 1,000 acres making it one of the largest contiguous urban oil fields in the United States. 10 percent of the oil field's acreage is in Culver City. Drilling began in the oil field in the 1920s and is currently managed by Sentinel Peak. Throughout its existence, the oil field has presented real and perceived dangers for the City. The area is home to oil drilling and fracking, which has caused concern in the Culver City community. As a result, the Culver City City Council adopted an ordinance in October 2021 that calls for the termination of oil operations within Culver City by 2026.

It is also worthy of note that the area has experienced brush fires in the past, primarily as a result of electrical transformer failures. As the Inglewood Oil Field and surrounding area are considered wildland-urban interface, the CCFD is aware of the risk to the City and is prepared with equipment and personnel necessary to address wildland-urban interface fires in this area.

Pipelines

There are underground pipelines carrying crude oil, diesel fuel, fuel oil, gasoline, jet fuel, and natural gas beneath Culver City. They are buried underground in rights-of-way at varying depths. The pipelines range in size from 8 inches in diameter to 16 inches in diameter. 22% of all pipeline accidents are caused by careless excavators who fail to notify pipeline and underground utility operators, as required, which is why everyone is encouraged to call 811 before digging anywhere. In 1976, a front loader hit an 8-inch pipeline near Venice Boulevard. As the lines are high pressure, gasoline a large amount of gasoline was released causing an explosion. There were nine fatalities and significant property damage due to the blast. The CCFD is capable of handling small pipeline incidents through current policies and procedures. Additional specialized resources are available through the California Master Mutual Aid Plan.

Hazardous Material Incidents

Hazardous material incidents account for less than one percent of all calls to the Culver City Fire Department. There are different types of hazardous materials incident responses ranging from a single engine response (e.g., an abandoned container of motor oil), to a response requiring the CCFD's entire staff for a major release of hazardous materials. Additional resources are available if needed through the California Master Mutual Aid Plan.

Utility Failure

Utility failure is not about introducing a hazard into the community; rather, the risk relates to the absence of major utilities such as power. A lack of power for an extended amount of time could have a catastrophic impact on Culver City's critical infrastructure and economy. Without power, communications, water and transportation come to a halt. Businesses, grocery



stores, gas stations, ATMs, banks and other services cease operations. Refrigeration and medical devices are unable to function. Critical City infrastructure, such as City Hall, the Police Department, Public Works, the Transportation Facility, the Senior Center, and each fire station have emergency power capability with procedures in place to maintain essential emergency services, but long-term power outages could significantly impact the City.

Transportation Systems

Air

The City of Culver City does not have an airport within its boundaries, but is located approximately six miles away from the Los Angeles International Airport (LAX). LAX is the sixth busiest airport in the world and third busiest in the United States, based on numbers of passengers. In 2017, the Federal Aviation Administration (FAA) implemented changes in flight patterns and altitudes of planes landing at LAX as part of the Southern California Metroplex project. The goal of the project intended to improve efficiency of the airspace in Southern California. The revised landing patterns of LAX's Westerly Operations¹⁸ have resulted in a greater concentration of planes flying over Culver City at lower altitudes. Planes from the North and West cross over certain parts of Santa Monica and the Westside, then Culver City as they travel east before turning around to make their final descent into LAX. Aircrafts pass over Culver City at approximately 6,000 feet. Although the revised flight plans have considerably increased overflights for the Culver City community, the risks from an air transportation emergency happening in the City are extremely low. The CCFD is capable of handling small air transportation incidents through current policies and procedures. Additional specialized resources are available through the Master Mutual Aid Plan.

Light Rail

The City of Culver City currently has a light rail mass transit system that operates within its boundaries. The presence of the light rail system adds to the potential for mass casualty and/or rescue incidents. Policies, procedures, and mutual aid agreements are in place to handle this potential.

Highway

Culver City provides emergency services to portions of the 405 and 90 Freeways as they pass through the City. There are 120 linear miles of streets and five miles of highway in Culver City. Accident consequences increase if the incident involves hazardous materials, multiple patients, or is extremely complex.

Climate Change

Climate change is not a distinct hazard, but rather a phenomenon that could exacerbate hazards. Climate change will be considered as a factor for relevant identified hazards.

¹⁸ LAWA Website, "Aircraft Traffic Flow at LAX," <https://www.lawa.org/lawa-environment/lax/aircraft-traffic-flow-at-lax>



Community Health and Safety Hazards

Vulnerable Populations

Based on two recent reports, 2018 Center for Disease Control and Prevention (CDC) Social Vulnerability Index, CalEnviroScreen 4.0 and California Office of Emergency Services (Cal OES) Hazard Exposure and Social Vulnerability Map, Census Tract 7028.03 is noted as a “Social Vulnerable Population” and “Disadvantaged Community.” Census Tract covers FMZs 1 and 2. In addition to FMZs 1 and 2, areas of FMZ 4 and 15 are noted as SB 1000 Priority Neighborhoods in the City’s General Plan. SB 1000 Priority Neighborhoods have a high proportion of low-income households that are exposed to high pollution burdens compared to the rest of the State of California¹⁹.

Homelessness continues to be a challenge in the Greater Los Angeles area. There are an estimated 261 people experiencing homelessness in Culver City on any given night according to the 2023 Greater Los Angeles Homeless Count²⁰. The City proclaimed a local emergency on homelessness in January 2023.

Civil Unrest

Located within the Los Angeles Basin, Culver City is at risk of being affected by civil unrest that impacts Los Angeles. For example, historical events such as the Watts Riots, Rodney King Riots, George Floyd Civil Unrest are Greater Los Angeles civil unrest events that have occurred in the past. As the probability of these events occurring is low, the associated risk falls into the low probability with high consequence category. While generally a police department issue, fire departments do attempt to extinguish fires and treat the injured, when safe, during these events. In the past, Culver City has teamed up with Los Angeles Fire Department and operated using the policies, tactics and procedures developed for riot situations (i.e., task force configurations with law enforcement escorts).

Unified Response to Violent Incidents (URVI)

Located within the Los Angeles basin, Culver City is at risk of being involved in terrorist attacks and active shooter incidents. All members are trained to the awareness level and many have had extensive additional training. Depending on the nature of the event—chemical, biological, radiological, nuclear, or explosive—the CCFD has acquired various detection capabilities. Specifics locations have been identified and training has been conducted in partnership with the Culver City Police Department.

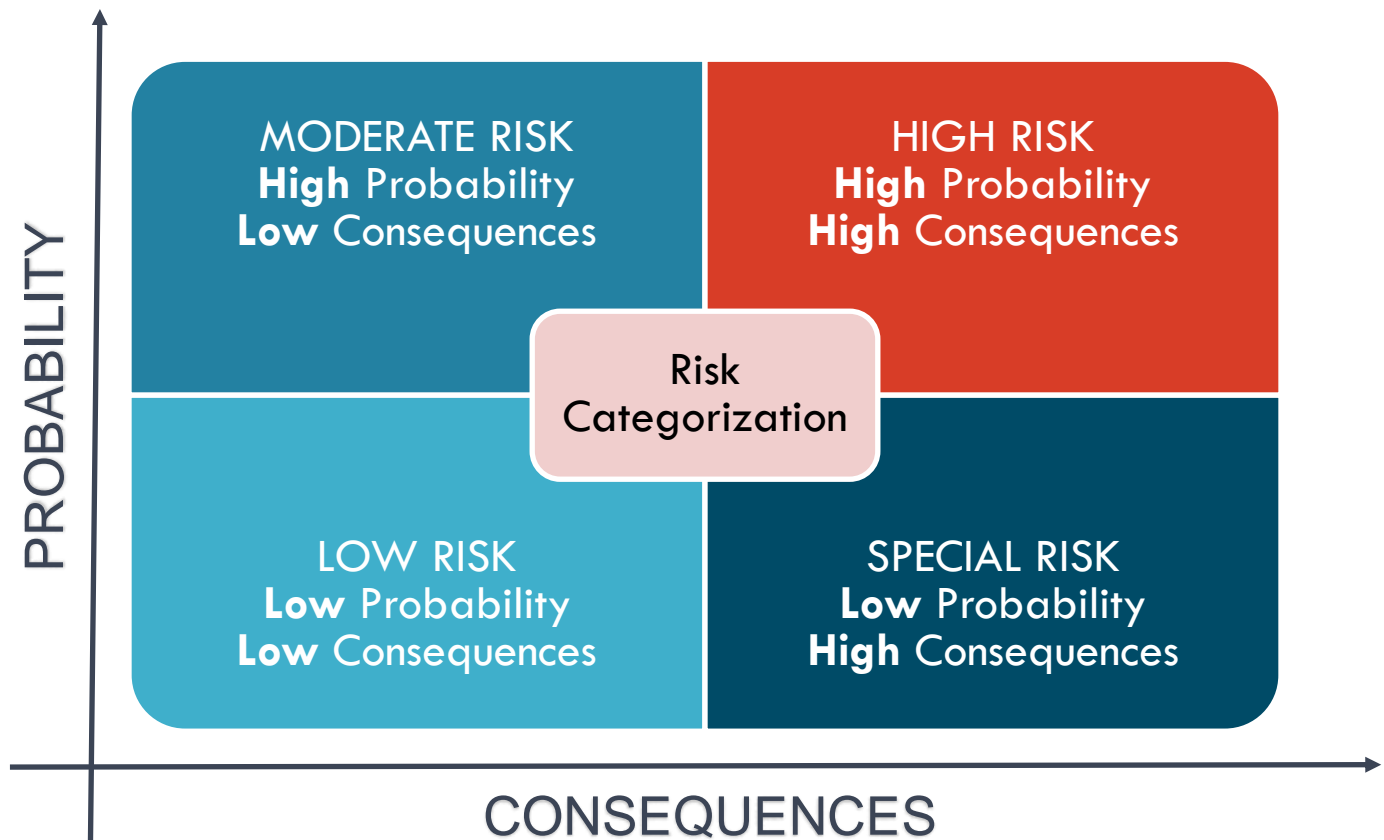
¹⁹ State of California Website, “Environmental Justice in Local Land Use Planning,” <https://oag.ca.gov/environment/sb1000>

²⁰ LAHSA Website, <https://www.lahsa.org/documents?id=7232-2023-greater-los-angeles-homeless-count-deck>



RISK ASSESSMENT METHODOLOGY

A comprehensive risk assessment was conducted for both fire and non-fire emergencies. The factors used for the risk assessment are both physical and theoretical. The two primary components of a risk assessment are an analysis of probability and consequences. Probability is the likelihood that a particular event will occur in a given time period. There are three areas of concern when evaluating consequences: 1) life safety (danger to occupants), 2) economic (loss of property, income, historic, or irreplaceable assets), and 3) environmental (irreparable or long-term damage to the environment). The figure below displays a matrix that is utilized to categorize hazards based on the probability and consequences of risk. The x-axis refers to consequences and the y-axis references probability.



36 Two-Axis Risk Methodology

CRITICAL TASK ANALYSIS

A critical task analysis is the processes of breaking down a complex job into its components and then determining what skills and capabilities are necessary to accomplish each task in response to an incident. A critical task analysis was conducted for each risk classification and category level. This allows the CCFD to determine the capabilities needed to resolve an incident. Capability is determined by staffing levels, teamwork, organization, coordination,



training, and equipment. An Effective Response Force (ERF) is the number of staff necessary to complete all the identified tasks necessary to terminate an incident.

An emergency incident is dynamic and often unpredictable. Many factors determine what actions need to be taken to save lives, limit property damage, and protect the environment. While it can be difficult to fully quantify what critical tasks must be accomplished during a dynamic or expanding incident, certain assumptions can be made that allow for a detailed task analysis.

Critical Task Analysis Process

The critical task analysis involves a series of steps and decisions to determine the minimum number of personnel needed for the first arriving unit and the Effective Response Force:

1. In preparation for the critical task analysis, it is necessary to first start with a clean slate. It is important to recognize institutional bias and not “back in” to an analysis based on current or historical response levels. This is a mental exercise for the personnel conducting the analysis.
2. Start with outcomes in mind. The desired result for all incidents is to save lives, reduce disability, limit damage to property and the environment in an effective and efficient manner while providing for the safety of responding personnel.
3. Review the findings of the Community Risk Assessment, including detail within each Fire Management Zone.
4. Review elements of the Standards of Cover, including the relevant total response time baselines and benchmarks.
5. Review the Strategic Plan goals and objectives.
6. Consider other CCFD sources of information relevant to the task analysis. This includes apparatus capabilities, tactics, evolutions, Standard Operating Guidelines (SOGs), training levels, documentation from company and platoon evaluations, probationary evaluations, program appraisals, local and regional After-Action Reports (AAR), and near-miss reporting.

To maintain currency, it is necessary to revisit each task analysis periodically. The CCFD does this annually through its program appraisal process.



Fire (Urban) Critical Tasks Analysis

Factors such as building construction, fire load, built-in fire protection features, occupancy type, mobility of occupants, and the extent of fire upon arrival all pose potential challenges or advantages to firefighting success. There are specific critical tasks necessary to control fire risks in a safe and effective manner. The following tables show the critical tasks, subtasks, and personnel requirements for low and moderate risk fires.

Critical Tasks Necessary for Low Risk Fire Response

Critical Tasks	Sub Tasks	Personnel
Supervision	Size up, scene safety, crew management and accountability, communications, resource ordering, notifications.	1
Fire Attack	Deploy hoseline, access/forcible entry, primary search, containment, extinguishment, overhaul.	2
Pump Operations	Engine placement, operate pump, water supply, scene lighting, tool caching.	1
Total / Effective Response Force		4

37 Low Risk Fire Response Critical Tasks

Critical Tasks Necessary for Moderate Risk Fire Response

Critical Tasks	Sub Tasks	Personnel
Command²¹	Size up, personnel safety, determine objectives/strategy/priorities, assign resources, company accountability, communicate with dispatch/assigned resources/assisting agencies, resource ordering and tracking, notifications.	1
Fire Attack²²	Deploy and advance hoseline, nozzlework, access/forcible entry, door control, air flow management, primary search, containment, extinguishment, secondary search, overhaul.	3
Back-Up Fire Attack	Deploy and advance secondary hoseline, nozzlework, access/forcible entry, primary search, containment, extinguishment, secondary search, overhaul.	2
Exposure Protection²²	Deploy and advance hoseline to protect floor above/adjacent unit/adjacent buildings.	2
Rapid Intervention Crew (RIC)	Stand-by at primary entry point for immediate rescue deployment, monitor designated radio channels, establish equipment cache, place additional ground ladders, create additional points of egress (soften building).	2
Water Supply	Engine placement, water supply, operate pump, tool caching.	1

²¹ Incident Commander - FIRESCOPE Field Operations Guide ICS 420-1, pp. 5-3.

²² Division or Group Supervisor - FIRESCOPE Field Operations Guide ICS 420-1, pp. 8-4.



Critical Tasks	Sub Tasks	Personnel
Pump / Aerial Operations	Apparatus placement, secondary water supply, operate pump, operate aerial ladder, utilities, scene lighting, tool caching.	3
Ventilation²²	Ladder deployment, access/forcible entry, vertical/horizontal/positive pressure ventilation, coordinate with fire attack, salvage, overhaul.	4
Medical	Medical aid standby, assessment and treatment of fire victims or firefighters.	2
Total / Effective Response Force²³		20

38 Moderate Risk Fire Response Critical Tasks

A designated safety officer (SO) serves a critical function. During business hours, a designated staff member responds to fires and serves as SO. After hours, this position is filled with mutual aid.

Critical Tasks Necessary for High Risk Fire Response

Critical Tasks	Sub Tasks	Personnel
Command²⁴	Size up, personnel safety, determine objectives/strategy/priorities, assign resources, company accountability, communicate with dispatch/assigned resources/assisting agencies, resource ordering and tracking, notifications.	2
Safety	Monitor for unsafe conditions, identify and announce hazards, stop or prevent unsafe actions, monitor PPE discipline, ensure mitigation measures are in place (adequate comm plan, alert channel monitored).	2
Fire Attack²⁵	Deploy and advance hoselines (3), nozzlework, access/forcible entry, door control, air flow management, primary search, containment, extinguishment, secondary search, overhaul.	9
Exposure Protection²⁶	Deploy and advance hoseline to protect floor above/adjacent unit/adjacent buildings.	5
Rapid Intervention Crew (RIC)	Stand-by at primary entry point for immediate rescue deployment, monitor designated radio channels, establish equipment cache, place additional ground ladders, create additional points of egress (soften building).	6
Pump / Aerial Operations	Apparatus placement, water supply x 3, operate pump, operate aerial ladder, utilities, scene lighting, tool caching.	5
Ventilation²⁷	Ladder deployment, access/forcible entry, vertical/horizontal/positive pressure ventilation, coordinate with fire attack, salvage, overhaul.	8

²³ Prior to June 20, 2022, the effective response force was 18.

²⁴ Incident Commander - FIRESCOPE Field Operations Guide ICS 420-1, pp. 5-3.

²⁵ Division or Group Supervisor - FIRESCOPE Field Operations Guide ICS 420-1, pp. 8-4.

²⁶ Ibid.

²⁷ Ibid.



Critical Tasks	Sub Tasks	Personnel
Medical	Medical aid standby, assessment and treatment of fire victims or firefighters.	5
Total / Effective Response Force²⁸		42

39 High Risk Fire Response Critical Tasks

Critical Tasks Necessary for **Special Risk Fire Response**

Special Fire Risk incidents represent unique critical tasking situations due to their complexity and size. These are very low frequency events. In addition to the critical tasks listed for high risk fires, additional resources may be required to supply added capability and provide relief crews. Resource requests and incident organization (assignments) are dictated by the objectives and priorities established by the Incident Commander. Additional resources are obtained by utilizing unassigned units, 40-hour staff (during business hours), and mutual aid from neighboring jurisdictions. The CCFD confidently relies on the experience and professional judgment of company and chief officers to request additional resources when needed.

The minimum mutual aid request to meet the demands of a special risk fire is two truck companies (10), three engine companies (12), two rescue ambulances (4), two battalion chiefs (4), and one EMS Supervisor (1), adding 26 personnel to the incident.

²⁸ Prior to June 20, 2022, the effective response force was 40.



Wildland Fire Critical Task Analysis

Factors such as weather, fuel type, and topography all pose potential challenges or advantages to success. There are specific critical tasks necessary to mitigate wildland fire risks in a safe and effective manner. The following tables show the critical tasks, subtasks, and personnel requirements for low and moderate risk wildland fires.

Critical Tasks Necessary for **Low Risk Wildland Fire Emergency Response**

Critical Tasks	Sub Tasks	Personnel
Supervision	Size up, scene safety, crew management and accountability, communications, resource ordering, notifications.	1
Fire Attack	Deploy hoseline, access/forcible entry (gates and fences), containment, extinguishment, mop up.	2
Pump Operations	Engine placement, operate pump, water supply, scene lighting, tool caching.	1
Total/Effective Response Force		4

40 Low Risk Wildland Fire Response Critical Tasks

Critical Tasks Necessary for **Moderate Risk Wildland Fire Emergency Response**

Critical Tasks	Sub Tasks	Personnel
Command²⁹	Size up, personnel safety, determine objectives/strategy/priorities, assign resources, company accountability, communicate with dispatch/assigned resources/assisting agencies, resource ordering and tracking, notifications.	1
Safety³⁰	Lookout (18 watch out situations), identify and announce hazards, stop or prevent unsafe actions, monitor PPE discipline, ensure mitigation measures are in place (accountability, 10 standard firefighting orders, adequate communications plan, alert channel monitored).	1
Perimeter Control Left Flank³¹	Progressive hoselay, nozzlework, access/forcible entry (gates and fences), fuel removal, containment, extinguishment, mop up.	8
Perimeter Control Right Flank³¹	Progressive hoselay, nozzlework, access/forcible entry (gates and fences), fuel removal, containment, extinguishment, mop up.	8
Pump Operations	Apparatus placement, water supply, operate pumps, scene lighting, tool caching.	2
Total / Effective Response Force³²		20

41 Moderate Risk Wildland Fire Response Critical Tasks

²⁹ Incident Commander - FIRESCOPE Field Operations Guide ICS 420-1, pp. 5-3.

³⁰ Safety Officer - FIRESCOPE Field Operations Guide ICS 420-1 pp. 5-8.

³¹ Division or Group Supervisor - FIRESCOPE Field Operations Guide ICS 420-1, pp. 8-4.

³² Prior to June 20, 2022, the effective response force was 18.



Critical Tasks Necessary for High Risk Wildland Fire Emergency Response

Critical Tasks	Sub Tasks	Personnel
Command³³	Size up, personnel safety, determine objectives/strategy/priorities, assign resources, company accountability, communicate with dispatch/assigned resources/assisting agencies, resource ordering and tracking, notifications.	2
Safety	Monitor for 18 watch out situations, identify and announce hazards, stop or prevent unsafe actions, monitor PPE discipline, ensure mitigation measures are in place (accountability, 10 standard firefighting orders, adequate comm plan, alert channel monitored).	1
Perimeter Control Left Flank³⁴	Progressive hoselay, nozzlework, access/forcible entry (gates and fences), fuel removal, containment, extinguishment, mop up.	16
Perimeter Control Right Flank³⁵	Progressive hoselay, nozzlework, access/forcible entry (gates and fences), fuel removal, containment, extinguishment, mop up.	16
Structure Protection³⁶	Remove people from areas at risk, coordinate evacuation with assisting agencies (PD), structure triage, structure preparation, structure protection.	14
Air Operations³⁷	Support perimeter control and structure protection operations with water drops.	4
Pump Operations	Apparatus placement, water supply, operate pumps, scene lighting, tool caching, and helispot management.	6
Total / Effective Response Force³⁸		59

42 High Risk Wildland Fire Response Critical Tasks

Critical Tasks Necessary for Special Risk Wildland Fire Emergency Response

Special wildland fire incidents represent unique critical tasking situations due to their complexity, size, and need for special resources. These are very low frequency events. In addition to the critical tasks listed for high risk wildland fires, additional resources may be required to supply added capability and provide relief crews. Resource requests and incident organization (assignments) are dictated by the objectives and priorities established by the Incident Commander. Additional resources are obtained by utilizing unassigned units, 40-hour staff (during business hours), and mutual aid from neighboring jurisdictions. The CCFD confidently relies on the experience and professional judgment of company and chief officers to request additional resources when needed.

The minimum mutual aid request to meet the demands of a special risk wildland fire is a six engine companies (24), one truck company (5), two helicopters (4), two battalion chiefs (4), adding 37 personnel to the incident.

³³ Incident Commander - FIRESCOPE Field Operations Guide ICS 420-1, pp. 5-3.

³⁴ Division or Group Supervisor - FIRESCOPE Field Operations Guide ICS 420-1, pp. 8-4.

³⁵ Ibid.

³⁶ Ibid.

³⁷ Branch Director - FIRESCOPE Field Operations Guide ICS 420-1, pp. 8-4.

³⁸ Prior to June 20, 2022, the effective response force was 57.



EMS Critical Task Analysis

Factors such as patient location, type and severity of illness/injury, and number of patients all pose potential challenges or advantages to success. There are specific critical tasks necessary to mitigate EMS risks in a safe and effective manner. The following tables show the critical tasks, subtasks, and personnel requirements for low, moderate, and high-risk EMS incidents.

Critical Tasks Necessary for **Low Risk EMS Response**

Critical Tasks	Sub Tasks	Personnel
Supervision	Size up, scene safety, crew management, family liaison, patient egress.	1
Patient Assessment	Initiate patient interview, establish rapport, patient assessment, establish IV, medication administration.	1
Documentation	Documentation of patient assessment and treatment, medical control (protocol verification, base hospital contact), interpret EKG, transmit EKG to hospital, patient destination.	1
Patient Care	Assist with assessment (blood pressure, pulse, respirations, apply EKG, pulse oximetry, blood glucose check), assist with treatment (apply dressings, bandaging, splinting, spinal immobilization), Patient packaging/lifting/movement, carry equipment.	2
Total / Effective Response Force		5

43 Low Risk EMS Response Critical Tasks

Critical Tasks Necessary for **Moderate Risk EMS Response**

Critical Tasks	Sub Tasks	Personnel
Supervision	Size up, scene safety, crew management, family liaison, patient egress.	1
Patient Assessment	Initiate patient interview, establish rapport, patient assessment, establish IV or IO, arrhythmia management, medication administration.	1
Documentation	Documentation of patient assessment and treatment, intubation or advanced airway placement, medical control (protocol verification, base hospital contact), interpret EKG, transmit EKG to hospital, patient destination.	1
Patient Care	Assist with assessment (blood pressure, pulse, respirations, apply EKG, pulse oximetry, blood glucose level), assist with treatment (airway management, apply dressings, bandaging, splint application, spinal immobilization), patient packaging/lifting/movement, carry equipment.	2
Total / Effective Response Force		5

44 Moderate Risk EMS Response Critical Tasks



Critical Tasks Necessary for High Risk EMS Response

Critical Tasks	Sub Tasks	Personnel
Command ³⁹	Size up, personnel safety, determine objectives/strategy/priorities, assign resources, company accountability, communicate with dispatch/assigned resources/assisting agencies, resource ordering and tracking, notifications.	1
Safety ⁴⁰	Identify and announce hazards, hazard mitigation (traffic control, protection line, extinguisher pre-placement, vehicle stabilization), monitor PPE discipline, stop unsafe actions.	3
Triage ⁴¹	Locate, triage and tag all patients, provide IC patient count.	2
Treatment ⁴¹	Determine and establish treatment area, coordinate movement of patients to treatment area, acquire needed medical supplies and equipment, treat patients, package patients for transport, prioritize patients for transport.	9
Transportation ⁴¹	Coordinate and distribute the transport of patients with treatment, medical communications, and ambulance staging, track patients and destinations.	2
Medical Communications ⁴¹	Establish and maintain communication with the Medical Alert Center (MAC), specify receiving hospitals, determine current critical and non-critical bed capacity, coordinate patient transport with transportation.	2
Ambulance Staging	Determine and establish staging area, provide instructions to arriving ambulances, track resources, coordinate transportation needs with transportation and treatment.	1
Total / Effective Response Force ⁴²		20

45 High Risk EMS Response Critical Tasks

High risk EMS incidents represent unique critical tasking situations due to their complexity and size. It may require additional resources to supply added capability, transport patients, or obtain specialized services. Resource requests and incident organization (assignments) are dictated by the objectives and priorities established by the Incident Commander. Additional resources are obtained by utilizing unassigned units, 40-hour staff (during business hours), mutual aid, and private ambulance companies. Hospital Emergency Response Teams (HERT) are available for large incidents and situations requiring a physician (amputations). Large numbers (>10) of private ambulances can be expeditiously requested through the Fire Operational Area Coordinator (FOAC). The CCFD confidently relies on the experience and professional judgment of company and chief officers to request additional resources when needed.

³⁹ Incident Commander - FIRESCOPE Field Operations Guide ICS 420-1, pp. 5-3.

⁴⁰ Safety Officer - FIRESCOPE Field Operations Guide ICS 420-1 pp. 5-8.

⁴¹ Division or Group Supervisor - FIRESCOPE Field Operations Guide ICS 420-1, pp. 8-4.

⁴² Prior to June 20, 2022, the effective response force was 18.



Technical Rescue Critical Task Analysis

Factors such as location, accessibility, type and age of equipment involved all pose potential challenges or advantages to success. There are specific critical tasks necessary to mitigate technical rescue risks in a safe, effective manner. The following tables show the critical tasks and personnel requirements for low, moderate, and high-risk technical rescue incidents.

Critical Tasks Necessary for **Low Risk Technical Rescue Response**

Critical Tasks	Sub Tasks	Personnel
Supervision	Size up, scene safety, crew management and accountability, communications, resource ordering, notifications.	1
Extrication	Access elevator control room, lockout/tagout, elevator door access, remove occupants.	3
Total/Effective Response Force		4

46 Low Risk Technical Rescue Response Critical Tasks

Critical Tasks Necessary for **Moderate Risk Technical Rescue Response**

Critical Tasks	Sub Tasks	Personnel
Command⁴³	Size up, personnel safety, determine objectives/strategy/priorities, assign resources, company accountability, communicate with dispatch/assigned resources/assisting agencies, resource ordering and tracking, notifications.	1
Safety⁴⁴	Identify and announce hazards (fuel leak, electrical lines), hazard mitigation (traffic control, protection line, extinguisher pre-placement), monitor PPE discipline, stop unsafe actions.	3
Stabilization	Evacuate building, shut off utilities, vehicle stabilization, disconnect battery, deactivate undeployed airbags, shoring, scene lighting, assist with medical care.	3
Extrication	Establish a safe work zone, establish tool cache, observe the location and position of patients within the vehicle, identify which patient to extricate first, disentangle and remove patient.	4
Medical Care	Access/evaluate/stabilize patient, coordinate actions with extrication, provide treatment, package, and transport.	2
Total / Effective Response Force		13

47 Moderate Risk Technical Rescue Response Critical Tasks

⁴³ Incident Commander - FIRESCOPE Field Operations Guide ICS 420-1, pp. 5-3.

⁴⁴ Safety Officer - FIRESCOPE Field Operations Guide ICS 420-1 pp. 5-8.



Critical Tasks Necessary for High Risk Technical Rescue Response

Critical Tasks	Sub Tasks	Personnel
Command ⁴⁵	Size up, personnel safety, determine objectives/strategy/priorities, assign resources, company accountability, communicate with dispatch/assigned resources/assisting agencies, resource ordering and tracking, notifications.	1
Safety ⁴⁶	Identify and announce hazards, hazard mitigation, monitor PPE discipline, stop unsafe actions, limit access for untrained personnel and bystanders.	1
Upstream Spotter	Determine best lookout position, monitor water for victim and hazards, identify and announce approaching victim.	1
Downstream Safety	Establish downstream catcher for rescue personnel, utilize predetermined anchor point, monitor rescue personnel, extract personnel from river.	3
Throw-Bag Teams	Establish three throw bag teams (thrower, catcher, back-up catcher), utilize predetermined anchor points, throw tethered flotation device to victim, extract victim from water.	9
Point-Last Seen Unit	Respond to location where the victim was last seen, throw marker in water for downstream reference, gather information from witnesses/reporting party.	2
Medical	Access/evaluate/stabilize patient, coordinate actions with extrication, provide treatment, package, and transport.	2
Total / Effective Response Force ⁴⁷		19

48 High Risk Technical Rescue Response Critical Tasks

Critical Tasks Necessary for Special Risk Technical Rescue Response

Special Risk technical rescue incidents represent unique critical tasking situations due to their complexity and the need for specialized resources. These are very low frequency events. In addition to the critical tasks listed for moderate risk technical rescue incidents, additional resources will be required to supply added capability and address specialized needs. Resource requests and incident organization (assignments) are dictated by the objectives and priorities established by the Incident Commander. Additional resources are obtained by utilizing unassigned units, 40-hour staff (during business hours), and mutual aid from neighboring jurisdictions. The CCFD confidently relies on the experience and professional judgment of company and chief officers to request additional resources when needed.

The minimum mutual aid request to meet the demands of a special risk technical rescue incident is a “Physical Rescue Assignment,” i.e., one heavy rescue (2), two engines (8), one truck (5), one ALS ambulance (2), one EMS supervisor (1), one BC (2), adding 20 personnel to the incident.

⁴⁵ Incident Commander - FIRESCOPE Field Operations Guide ICS 420-1, pp. 5-3.

⁴⁶ Safety Officer - FIRESCOPE Field Operations Guide ICS 420-1 pp. 5-8.

⁴⁷ Prior to June 20, 2022, the effective response force was 17.



HazMat Critical Task Analysis

Factors such as material type and form, chemical properties, size of release, and weather all pose potential challenges or advantages to success. There are specific critical tasks necessary to mitigate hazardous material risks in a safe, effective manner. The following tables show the critical tasks, subtasks, and personnel requirements for low and moderate hazardous material incidents.

Critical Tasks Necessary for **Low Risk HazMat Response**

Critical Tasks	Sub Tasks	Personnel
Supervision	Size up, scene safety, crew management and accountability, communications, resource ordering, notifications.	1
Investigation	Evacuation, air monitoring (O ₂ , CO, H ₂ S, HCN, LEL), identify leak/material, mitigate problem.	2
Total/Effective Response Force		3

49 Low Risk Hazardous Materials Response Critical Tasks

Critical Tasks Necessary for **Moderate Risk HazMat Response**

Critical Tasks	Sub Tasks	Personnel
Command⁴⁸	Size up, establish the initial isolation distance (perimeter), personnel safety, determine objectives/strategy/priorities, assign resources, company accountability, communicate with dispatch/assigned resources/assisting agencies, resource ordering and tracking, notifications.	1
Safety⁴⁹	Develop site safety and control plan, identify and announce hazards, stop or prevent unsafe actions, monitor PPE discipline, ensure mitigation measures are in place (accountability, adequate communications plan, alert channel monitored).	1
Material Identification	Positively identify material (material data safety sheets, cargo manifests, placards, labels, pipeline information), assess hazard, communicate hazard assessment to IC and safety.	1
Perimeter Control⁵⁰	Isolate hazard, control entry points (stop traffic, pedestrian access, building entrances), control perimeter around entry points.	4
Evacuation⁵¹	Remove people from areas at risk, consider shelter in place, coordinate evacuation with assisting agencies (PD), instruct facility representatives to implement specific plans (schools, business), utilize built in public address systems.	3

⁴⁸ Incident Commander - FIRESCOPE Field Operations Guide ICS 420-1, pp. 5-3.

⁴⁹ Safety Officer - FIRESCOPE Field Operations Guide ICS 420-1 pp. 5-8.

⁵⁰ Division or Group Supervisor - FIRESCOPE Field Operations Guide ICS 420-1, pp. 8-4.

⁵¹ Division or Group Supervisor - FIRESCOPE Field Operations Guide ICS 420-1, pp. 8-4.



Containment⁵¹	Take action to stop, slow, restrict, or redirect the spread of the material (isolate, dam, retain, divert, disperse, dilute, cover, foam, upright 55-gallon drum, protect storm drains).	3
Total / Effective Response Force		13

50 Moderate Risk Hazardous Materials Response Critical Tasks

Critical Tasks Necessary for High Risk HazMat Response

Critical Tasks	Sub Tasks	Personnel
Command⁵²	Size up, establish the initial isolation distance (perimeter), personnel safety, determine objectives/strategy/priorities, assign resources, company accountability, communicate with dispatch/assigned resources/assisting agencies, resource ordering and tracking, notifications.	1
Safety⁵³	Develop site safety and control plan, identify and announce hazards, stop or prevent unsafe actions, monitor PPE discipline, ensure mitigation measures are in place (accountability, adequate comm plan, alert channel monitored).	1
Material Identification	Positively identify material (material data safety sheets, cargo manifests, placards, labels, pipeline information), assess hazard, plume modeling, communicate hazard assessment to IC and safety.	1
Perimeter Control⁵⁴	Isolate hazard, control entry points (stop traffic, pedestrian access, building entrances), control perimeter around entry points.	4
Evacuation⁵⁵	Remove people from areas at risk, consider shelter in place, coordinate evacuation with assisting agencies (PD), instruct facility representatives to implement specific plans (schools, business), utilize built in public address systems.	5
Containment⁵⁶	Take action to stop, slow, restrict, or redirect the spread of the material (isolate, dam, retain, divert, disperse, dilute, cover, foam, upright 55-gallon drum, protect storm drains).	6
Medical	Medical aid standby, assessment and treatment of HazMat victims or firefighters.	2
Total / Effective Response Force⁵⁷		20

51 High Risk Hazardous Materials Response Critical Tasks

Critical Tasks Necessary for Special Risk HazMat Response

Special Risk hazardous materials incidents represent unique critical tasking situations due to their complexity and need for specialized resources. These are very low frequency events. In

⁵² Incident Commander - FIREScope Field Operations Guide ICS 420-1, pp. 5-3.

⁵³ Safety Officer - FIREScope Field Operations Guide ICS 420-1 pp. 5-8.

⁵⁴ Division or Group Supervisor - FIREScope Field Operations Guide ICS 420-1, pp. 8-4.

⁵⁵ Ibid.

⁵⁶ Ibid.

⁵⁷ Prior to June 20, 2022, the effective response force was 18.



addition to the critical tasks listed for high risk hazardous materials incidents, additional resources may be required to supply added capability and provide specialized resources. Resource requests and incident organization (assignments) are dictated by the objectives and priorities established by the Incident Commander. Additional resources are obtained by utilizing unassigned units, 40-hour staff (during business hours), and mutual aid from neighboring jurisdictions. The CCFD confidently relies on the experience and professional judgment of company and chief officers to request additional resources when needed.

The minimum mutual aid request to meet the demands of a special risk hazardous materials incident is a "Full Haz Mat Assignment," i.e., one squad/Type 1 hazardous materials unit (4), two engines (8), one truck (5), one BC (2), adding 19 personnel to the incident.

RISK CLASSIFIED BY RESPONSE TYPE

Fire

Fire Risk Assessment

In general, fire hazards are related to the characteristic type and layout of a city's development. The majority of Culver City is devoted to residential or low-rise commercial development that is composed predominantly of wood-frame construction.

Fire (Urban) Risk Assessment Methodology

Fire risk in this category include structure fires, vehicle fires, rubbish fires, and vegetation fires. The analysis takes into account fire potential (probability) and impact (consequences). There are five steps in the assessment process.

Step 1: Review community demographics and development

Review general features of the City to include demographics, total square miles, permanent population, daytime population, population density, building density, road and highway miles, and total assessed valuation.

Step 2: Identify hazards

Identify the hazard types (structure, vehicle, rubbish) and estimate probability based on historical data.

Step 3: Evaluate the risks

Evaluate the consequences. Consider life safety (risk of death or injury), economic or cultural loss (loss of property, income, historic, or irreplaceable assets), and environmental harm (irreparable or long-term damage to the environment). The evaluation includes an assessment of occupancy use, occupant type, special populations, density, construction types, construction features, fire flow requirements, historical significance, and environmentally sensitive areas.

Step 4: Consider mitigating factors



Consider factors such as access, fire detection systems, fire sprinklers, extinguishing systems, standpipes, other fire protection features (elevator recall, HVAC shutoffs, pressurized stairwells) and onsite 24-hour security personnel.

Step 5: Define and establish hazard levels

Define and establish hazard levels of low, moderate, high, and special.

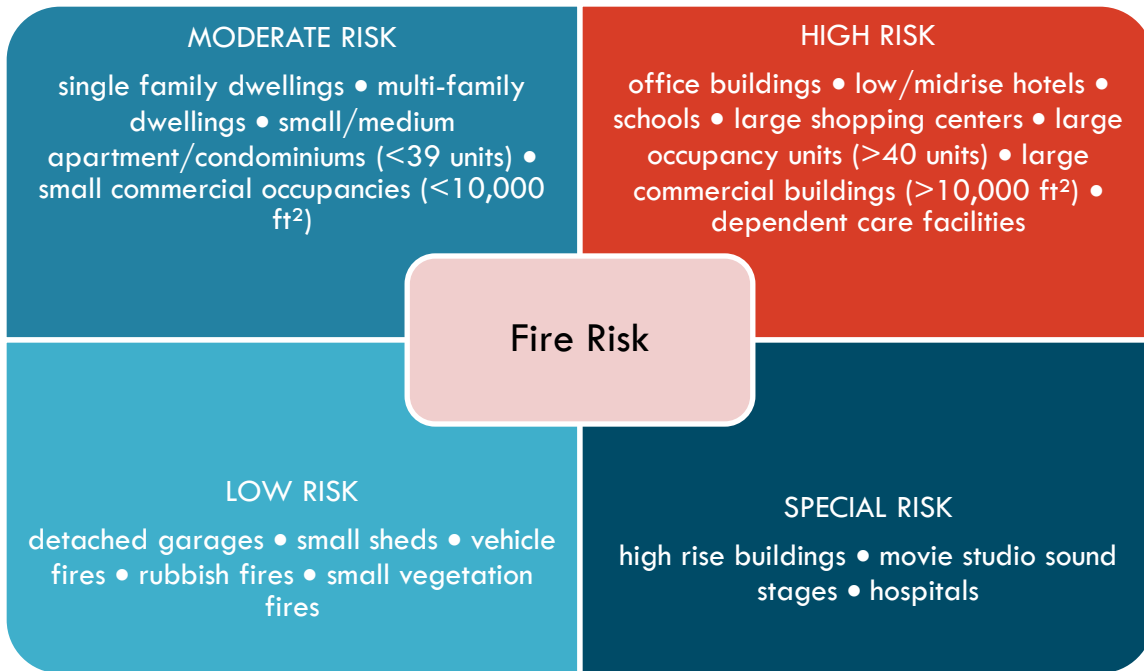
Though the assessment is semi-quantitative in nature, it provides a solid framework to measure risk and formulate plans to reduce these risks.

Fire (Urban) Risk Levels

Based upon this analysis of existing and potential community risk, in addition to the probability and consequences of these events, the following hazard levels have been established:

- **Low Risk:** Small structures that are remote from other buildings are considered low hazard occupancies. Examples include detached garages and sheds. Also included in this category are vehicle fires, rubbish fires, and small vegetation fires.
- **Moderate Risk:** Moderate hazard areas are also known as typical hazards. Most of Culver City falls into this category. Single family dwellings, multifamily dwellings, and small or medium apartments/condominiums (≤ 39 units) and small commercial occupancies ($\leq 10,000$ square feet) are example of moderate risk structures.
- **High Risk:** These properties are typically substantial structures that in an emergency may bear the risk of large loss of life, loss of economic values to the community, or large property loss. Low and midrise hotels, schools, large shopping centers, large apartment or condominium complexes (40+ units), large commercial buildings (>10,000 square feet), senior citizen housing, and skilled nursing facilities are examples of high-risk occupancies.
- **Special Risk:** High-rise buildings, movie studio sound stages, and the Southern California Hospital at Culver City (SCHCC) are classified as special risk. Special Risk is an exceptional classification that addresses critical tasking for a unique incident type.





52 Fire Risk Two-Axis Chart

Fire Flow

The evaluation of water supply needed once a structure has become fully involved is known as fire flow. Fire flow is a vital component to the assessment of fire risk. The City of Culver City has established minimum fire flow requirements and total water supply needed for existing structures and other anticipated fire locations. There are five pressure zones within the Culver City system with hydraulic gradients ranging from 275 to 525 feet. The system is capable of supplying 22,500 gallons per minute (gpm). Peak demand is approximately 9,975 gpm, leaving 12,525 gpm available for fire flow demand. Fire flow requirements in Culver City vary from 2,000 gpm in low-density residential areas up to 12,000 gpm in commercial and industrial areas. Currently, the City has 1,041 fire hydrants within the CCFD’s jurisdiction.

Wildland Fire Risk Assessment

The eastern portion of Culver City is considered a wildland-urban interface. A wildland-urban interface is defined as anywhere the growth and spread of a fire may begin in a brush or wildland region, and then quickly enter an urban environment. The dominant fuel model for this area is light grass/shrub type with about 65 acres of undeveloped land. Wildland located in Los Angeles County is directly adjacent to the Culver City communities of Blair Hills and Culver Crest. These two neighborhoods have approximately 300 structures combined. There are also smaller pockets of grass/vegetation located throughout the city which pose a potential threat. These areas include but are not limited to the vegetation along the 405 interstate and highway 90, where there are a considerable amount of people experiencing homelessness residing.



Wildland Risk Assessment Methodology

The wildland fire risk analysis takes into account fuel type, life hazards, exposures (structures and infrastructure), and environmental impacts. The analysis takes into account fire potential (probability) and impact (consequences). There are five steps in the assessment process.

Step 1: Review community demographics and development

Review general features of the City to include demographics, total square miles, permanent population, daytime population, population density, building density, road and highway miles, and total assessed valuation.

Step 2: Identify hazards

Identify hazard types (light to moderate wildland fuels) and estimate probability based on historical data (including footprints of historical fires).

Step 3: Evaluate the risks

Evaluate the consequences. Consider life safety (risk of death or injury), economic or cultural loss (loss of property, income, historic, or irreplaceable assets), and environmental harm (irreparable or long-term damage to the environment). The evaluation includes an assessment of exposures (occupancies and infrastructure), population density, and special populations. Additionally, evaluate the impact of weather, including extreme fire conditions (high wind, high temperature, low fuel moisture).

Step 4: Consider mitigating factors

Consider factors such as access, clearance around structures, hardened infrastructure, and water supply.

Step 5: Define and establish hazard levels

Define and establish hazard levels of low, moderate, high, and special.

Though the assessment is semi-quantitative in nature, it provides a solid framework to measure risk and formulate plans to reduce these risks.

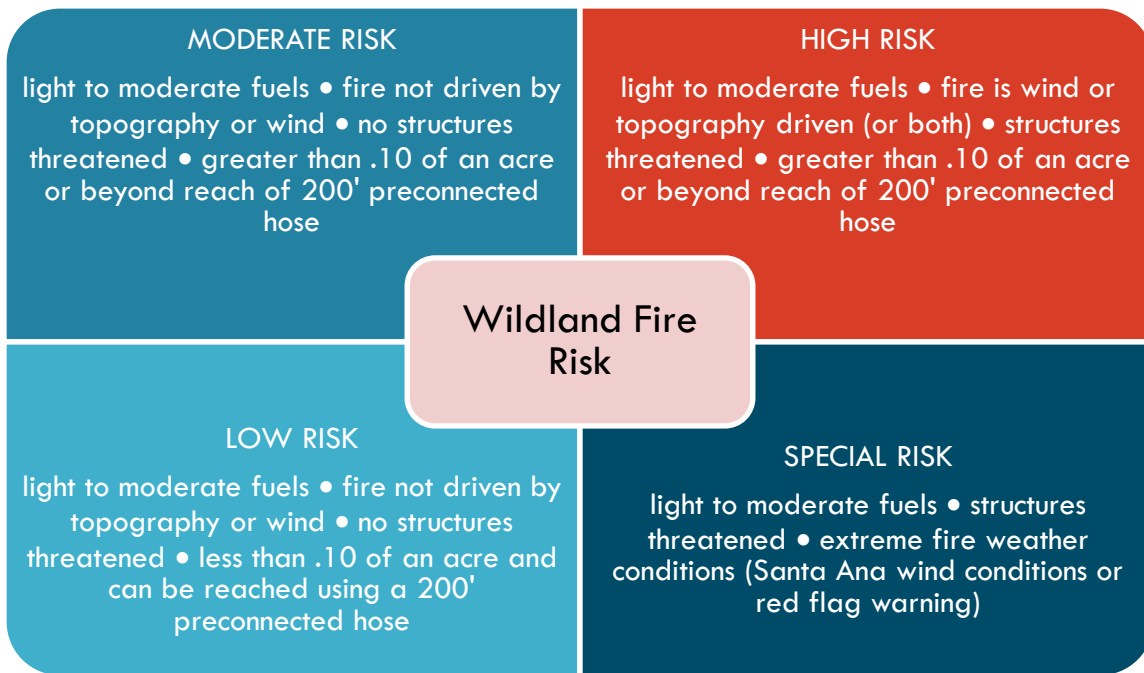
Wildland Fire (Urban) Risk Levels

Based on this analysis of existing and potential community risk the following wildland risk levels have been established.

- Low Risk: Light to moderate fuels. Fire not driven by topography or wind. No structures threatened. Less than .10 of an acre and can be reached using the 200' preconnected hose.
- Moderate Risk: Light to moderate fuels. Fire not driven by topography or wind. No structures threatened. Greater than .10 of an acre or beyond reach of 200' preconnected hose.



- High Risk: Light to moderate fuels. Fire is wind or topography driven (or both). This includes events where structures are threatened.
- Special Risk: Light to moderate fuels. Extreme fire weather conditions (Santa Ana wind conditions or red flag warning). Structures threatened.



53 Wildland Fire Risk Two-Axis Chart



Non-Fire Risk Assessment

There are three general categories of non-fire hazards: Emergency Medical Services (EMS), hazardous materials response (HazMat), and technical rescue. Risk assessment for non-fire hazards incorporate many of the same components evaluated during the fire risk assessment (historical data, community characteristics, and demographics). However, there are factors unique to each risk.

Non-Fire Risk Assessment Methodology

Non fire risks include EMS incidents, hazardous material incidents, and technical rescue incidents. The analysis takes into account fire potential (probability) and impact (consequences). There are five steps in the assessment process.

Step 1: Review community demographics and development

Review general features of the City to include demographics, total square miles, permanent population, daytime population, population density, building density, road and highway miles, and total assessed valuation.

Step 2: Identify hazards

Identify hazard types (EMS, hazardous material release, technical rescue) and estimate probability based on historical data.

Step 3: Evaluate the risks

Evaluate the consequences. Consider life safety (risk of death or injury), economic or cultural loss (loss of property, income, historic, or irreplaceable assets), and environmental harm (irreparable or long-term damage to the environment).

Step 4: Consider mitigating factors

Consider factors such as access and built in safety features (Haz Mat and technical rescue)

Step 5: Define and establish hazard levels

Define and establish hazard levels of low, moderate, high, and special (technical rescue only).

Though the assessment is semi-quantitative in nature, it provides a solid framework to measure risk and formulate plans to reduce these risks.

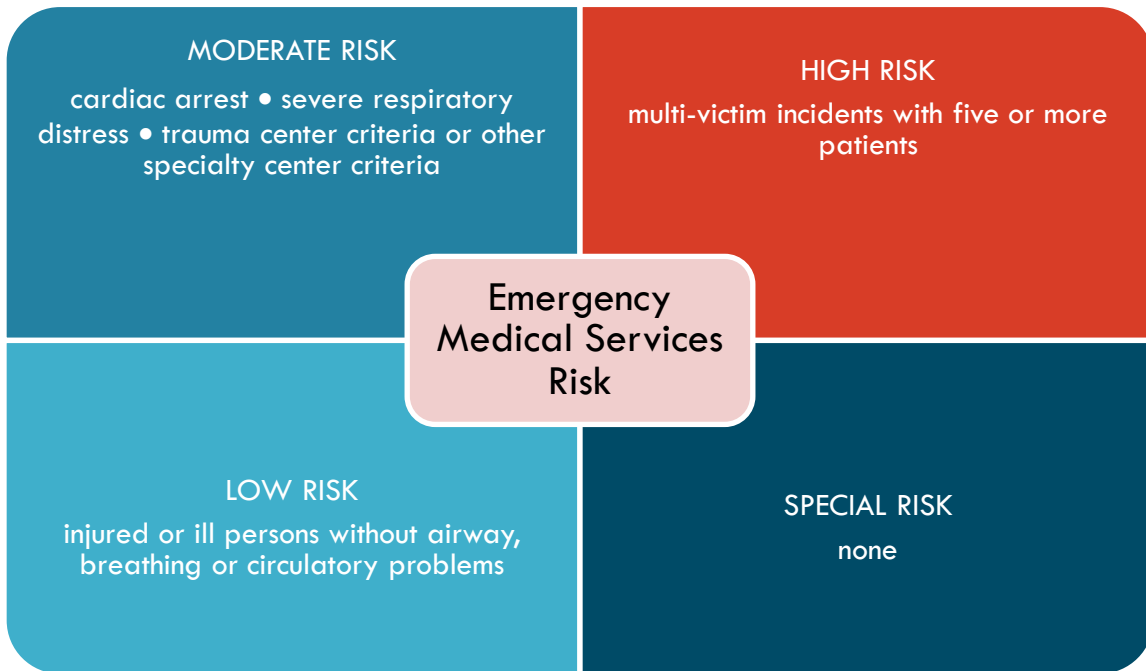
Emergency Medical Incidents

Requests for Emergency Medical Services (EMS) are the most frequent type of service provided by the Culver City Fire Department. EMS incidents account for 70 percent of emergency activities and correspondingly have the greatest impact on CCFD resources. The residential and daytime population is a significant factor in assessing the probability of EMS incidents. As the population of the Culver City increases and ages, the demand for EMS will



increase proportionately. There is a range of EMS incident types. The following hazard levels have been established for EMS risk:

- Low Risk: Injured and ill persons, without airway, breathing, or circulatory problems.
- Moderate Risk: Cardiac arrest, severe respiratory distress, patients meeting trauma center criteria or other specialty center criteria.
- High Risk: Multi-victim incidents with five or more patients.



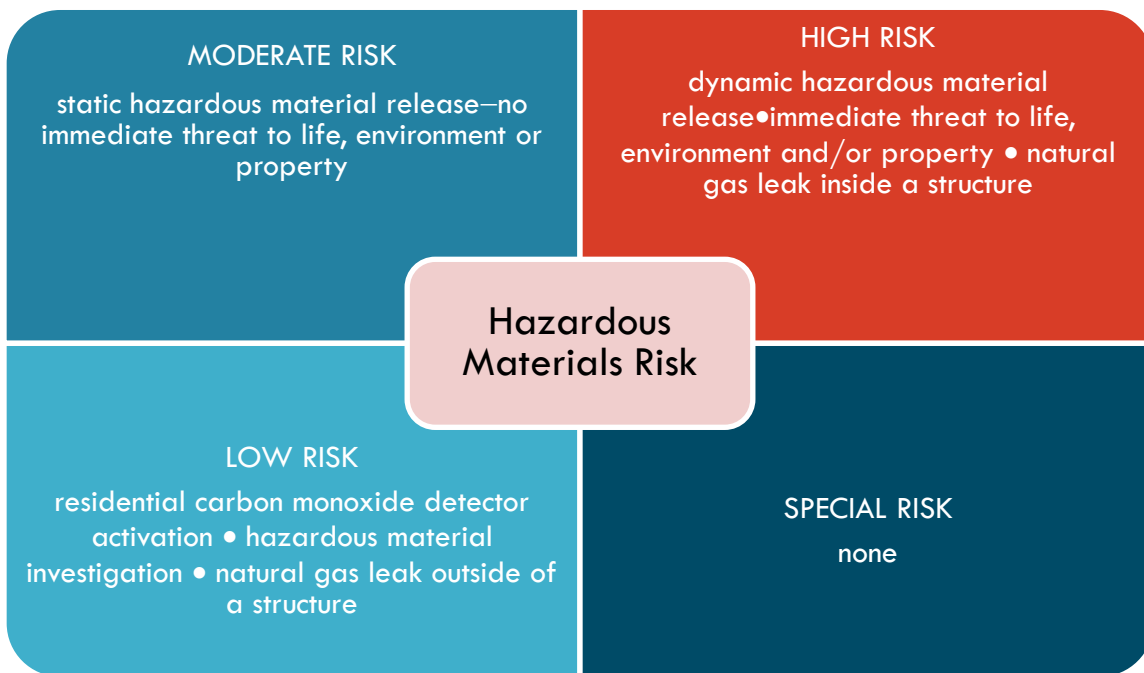
54 EMS Risk Two-Axis Chart



Hazardous Material Incidents

Hazardous material incidents account for 1 percent of responses annually. Hazardous materials are routinely transported on the streets of Culver City and there are 202 businesses that use or store reportable quantities of hazardous materials. There are many pipelines carrying natural gas and petroleum products under high pressure. Illicit drug labs and illegal dumping are other sources of hazardous material incidents. The City also has 10% of a large oil field within its jurisdiction, which could potentially present HazMat related issues. The following hazard levels have been established for hazardous materials risk:

- Low Risk: Residential carbon monoxide detector activation, hazardous material investigation, natural gas leaks outside of a structure.
- Moderate Risk: Static hazardous material release – no immediate threat to life, environment, or property.
- High Risk: Dynamic hazardous material release – immediate threat to life, environment, or property, natural gas leak inside a structure.



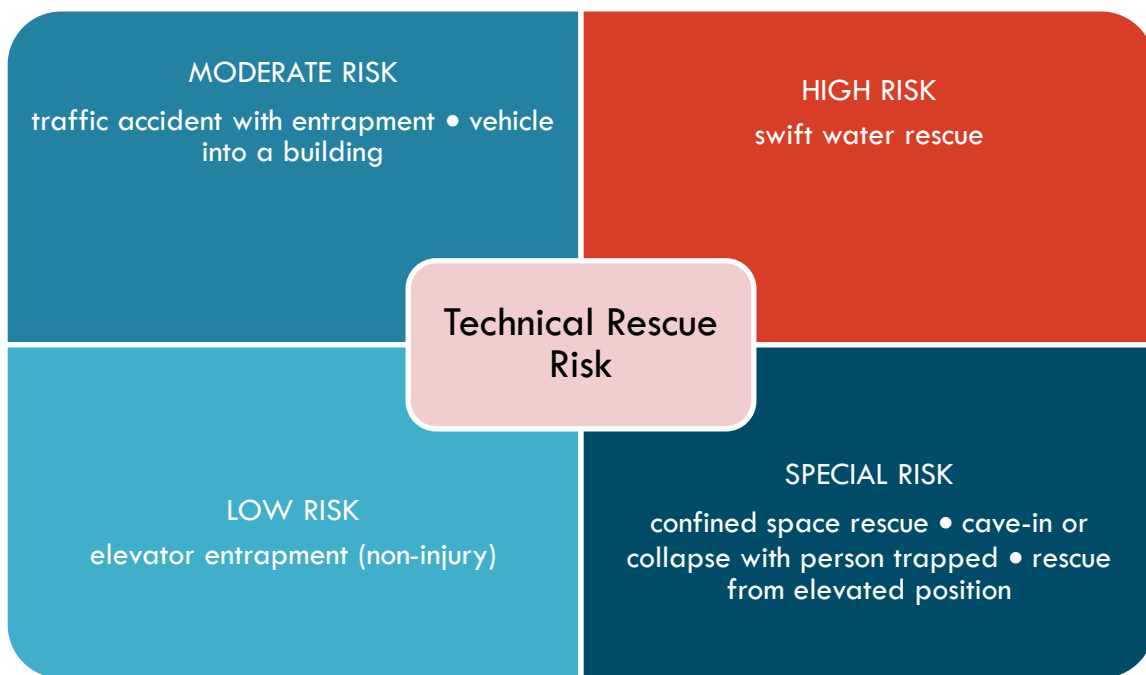
55 Hazardous Materials Risk Two-Axis Chart



Technical Rescue Incidents

Technical rescue covers a wide range of incidents, which include vehicle extrication, confined space rescue, trench collapse, low/high angle rescue, swift water rescue, and building collapse. Technical rescue accounts for one percent of emergency responses annually. Contributing factors include population density, vehicle traffic, mass transit (light rail), construction activity, and manufacturing. The following hazard levels have been established for technical rescue risk:

- Low Risk – Elevator Entrapment (non-Injury).
- Moderate Risk – Traffic accident with entrapment, vehicle into a building.
- High Risk – Swift Water Rescue.
- Special Risk – Confined space rescue, cave-in or collapse with person trapped, rescue from elevated position.



56 Technical Rescue Risk Two-Axis Chart



PROBABILITY / HISTORICAL FREQUENCY

Historical Emergency Demand

The CCFD observes historical call volume in order to determine future probability. This is done response area-wide, as well as by Fire Management Zone and by risk classifications and non-emergency calls. The following intensity gradient maps chart where the City has experienced the most demand 2019-2023 by risk classification. Red indicates high call volume and green/blue represents lower call volume.



All Calls



Fire



EMS



Hazardous Materials



Technical Rescue



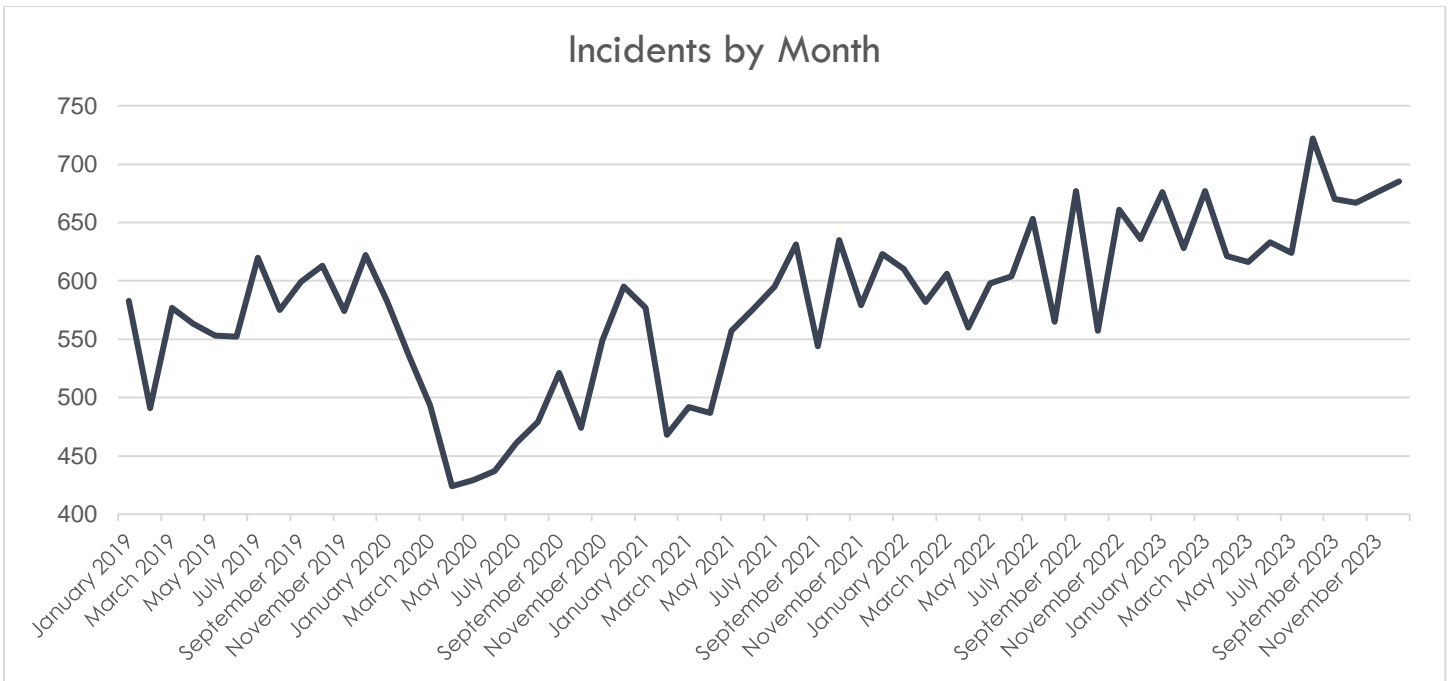
Wildland Fire

57 Historical Demand Intensity Gradient Maps

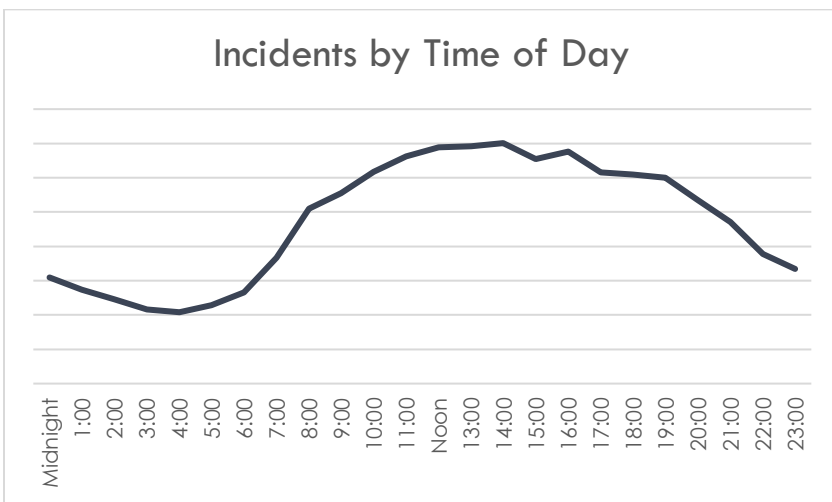
Emergency Activity	2023	2022	2021	2020	2019
Total Incidents	7,895	7,309	6,764	5,981	6,922
Fire	217	219	163	114	83
Structure Fire	34	36	24	50	36
Wildland Fire	26	18	18	8	8
Rescue – EMS	5,223	4,793	4,463	3,932	4,793
EMS	4,158	4,727	4,406	3,899	4,733
Technical Rescue	67	50	40	25	42
Hazardous Materials	152	142	127	141	137
Non-Electrical	104	106	80	85	73

58 Emergency Activity

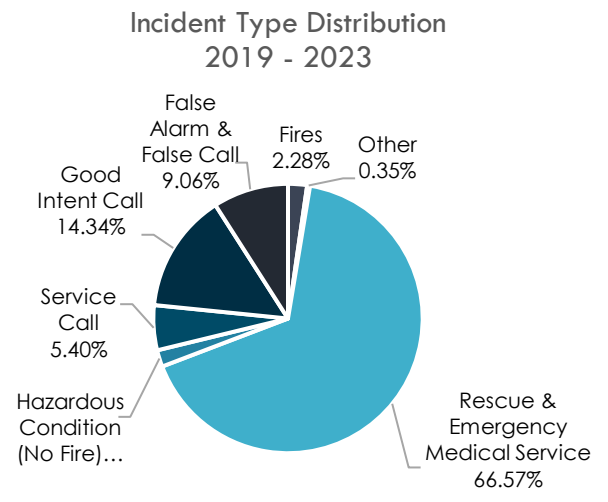




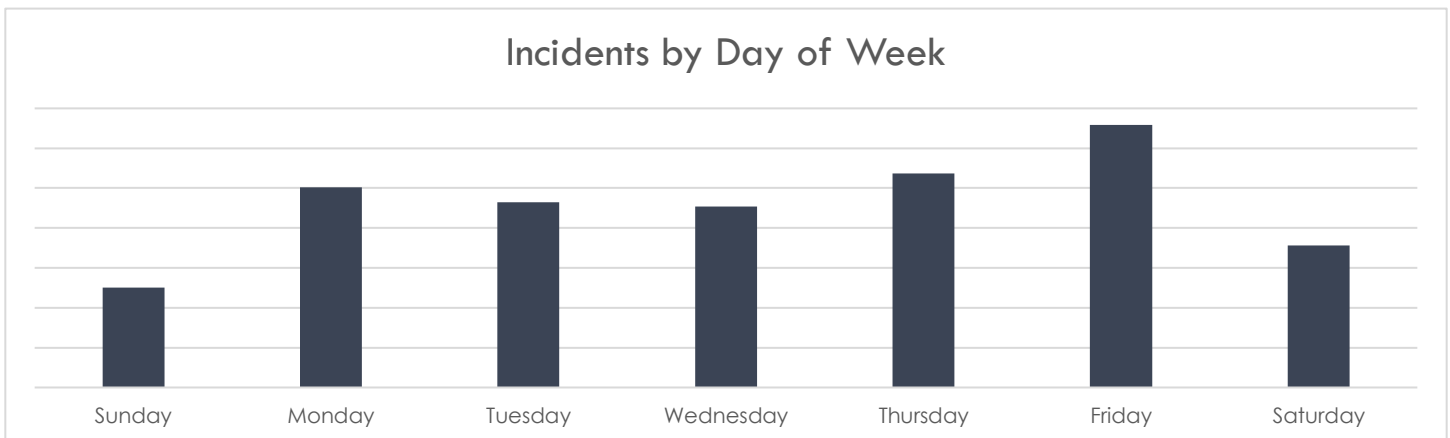
61 Incidents by Month



62 Incidents by Time of Day



60 Incident Type Distribution



63 Incidents by Day of Week



EMS Historical Activity

Patients Transported	2023	2022	2021	2020	2019
Total Patients Transported	3,324	2,975	3,037	2,699	3,414
Patients Transported to So Cal Hospital	1,016	938	919	862	1,106
Percentage of Transports Outside of City (%)	69%	68%	68%	68%	68%

64 Patients Transported

Single Patient Repeat Callers	2023	2022	2021	2020	2019
Number of Patients that Call ≥ 5 Times	56	41	45	35	39
Number of Patients that Call ≥ 10 Times	9	5	9	10	4
Number of Patients that Call ≥ 15 Times	2	2	4	5	2

65 Single Patient Repeat Callers

Mutual/Automatic Aid	2023	2022	2021	2020	2019
Total Aid Provided	103	110	155	116	113
Automatic Aid Provided to LA City FD	69	68	113	60	60
Automatic Aid Provided to LA Co FD	4	7	2	7	14
Mutual Aid Provided to SRA Baldwin Hills Overlook	30	35	33	37	35
Mutual Aid Provided OTHER	0	1	0	4	1
Mutual Aid Strike Team Deployments	0	0	1	8	4
Overhead Deployments	0	0	6	4	0
Mutual Aid Received	22	37	56	48	29

66 Mutual/Automatic Aid

Historical Non-Emergency Demand

Non-Emergency Calls for Service	2023	2022	2021	2020	2019
500 - Service Calls	402	403	394	334	348
600 - Good Intent Calls	1217	1132	958	841	848
700 - False Alarm & False Calls	647	600	624	599	690

67 Non-Emergency Calls for Service

Suppression Personnel Non-Emergency Activity Summary (hours)	2023	2022	2021	2020	2019
Total	24,717	25,524	24,443	27,812	26,527
Training	15,472	16,117	12,465	15,109	14,285
Wellness	4,617	4,279	4,780	5,460	5,530
Public Education	249	252	307	106	605
Other Activity Not Specified	4,379	4,876	6,891	7,137	6107

68 Non-Emergency Activity Summary

Business Fire/Life Safety Inspections	2023	2022	2021	2020	2019
Total Business Fire/Life Safety Inspections	3249	3471	3108	2522	2781
Inspections by Suppression Personnel	1647	1904	1690	1695	1802
Inspections by CRR Personnel	1444	1405	1418	827	979
Hazardous Materials Inspections	158	162	117	101	71



Number of Order to Comply Letters Written	184	80	149	63	-
Total Hydrants Serviced	444	462	502	747	-
Total Number of Fire Investigations	217	219	163	114	83
Plan Checks Completed	186	192	190	254	250

69 Business Fire/Life Safety Inspections

Consequence Assessment/Outcomes

Patient Outcomes	2023	2022	2021	2020	2019
Cardiac Arrests	39	43	50	60	28
Return of Spontaneous Circulation (ROSC)	12	20	11	13	8
% of ROSC (ROSC/Cardiac Arrests)	31%	47%	22%	22%	29%
% Bystander CPR	21%	15%	12%	8%	50%

70 Patient Outcomes

Property Loss/Saves	2023	2022	2021	2020	2019
Total Losses (\$)	\$695,420	\$7,014,745	\$398,452	\$668,245	\$3,581,520
Total Property Loss (\$)	\$536,250	\$5,856,795	\$324,150	\$474,750	\$2,070,900
Total Content Loss (\$)	\$159,170	\$1,157,950	\$74,302	\$193,495	\$1,510,620
Property Saved (\$)	\$7,675,914	\$30,264,846	\$49,018,962	\$13,312,005	\$4,297,300

71 Property Loss/Saves

Fire Injury/Death	2023	2022	2021	2020	2019
Civilian Death	0	0	1	1	0
Civilian Injury	1	1	6	0	1
Service Death	0	0	0	0	0
Service Injury	0	0	0	0	0

72 Fire Injury/Death

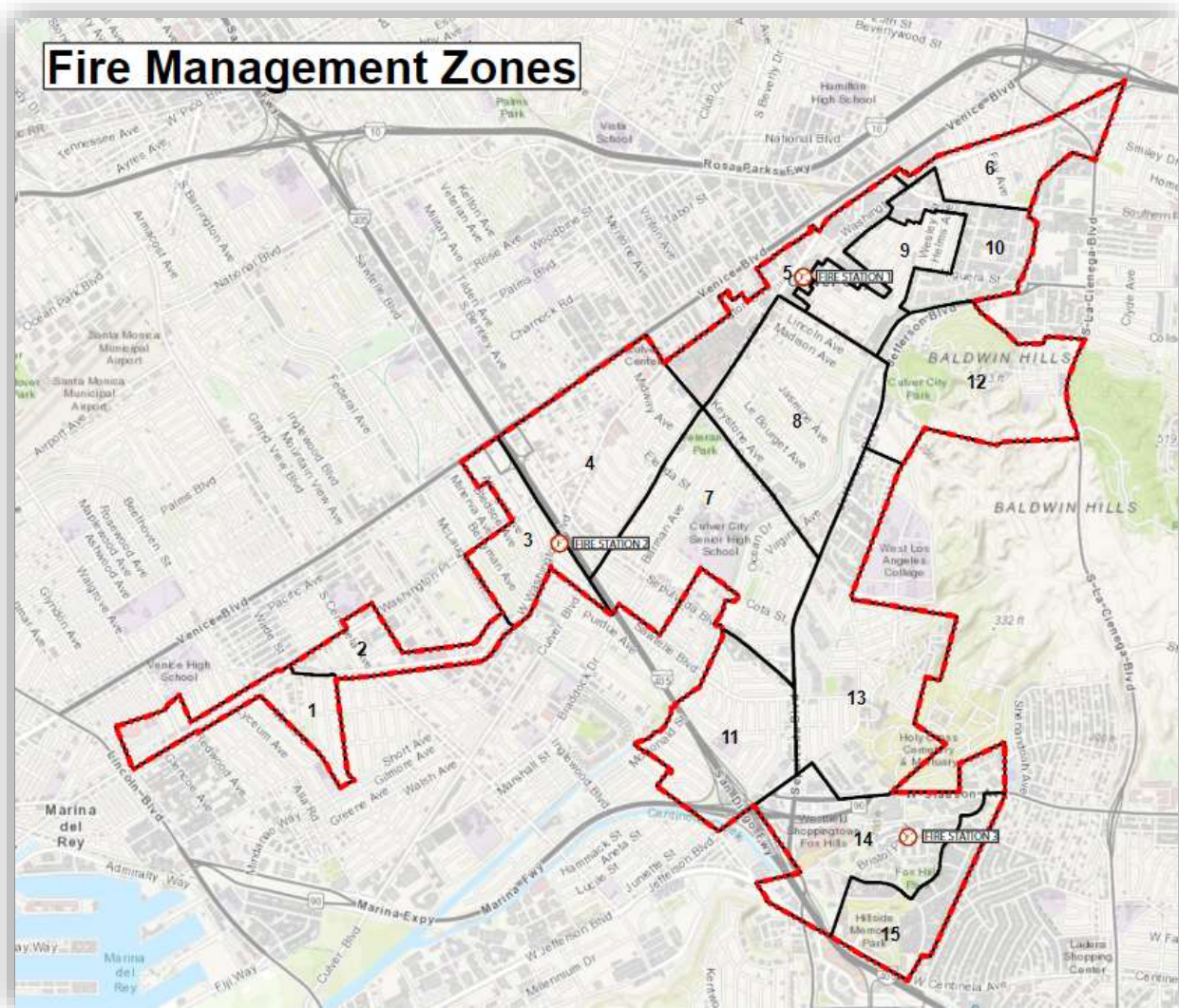
Fire Investigations - Cause Count	2023	2022	2021	2020	2019
Intentional	61	70	39	28	8
Unintentional	29	39	33	28	29
Failure of Equipment or heat source	5	7	5	9	8
Act of Nature	0	1	2	1	1
Cause under investigation	39	30	30	19	6
Cause undetermined after investigation	89	70	56	29	34

73 Fire Investigation Cause



Risk by Fire Management Zone (FMZ)

For the purposes of analysis and planning, the City of Culver City is divided into fifteen fire management zones. These zones are defined by occupancies within a given geographical area that share common risk. This approach creates zones of homogenous risk types. This method also facilitates more accurate risk evaluations for each geographical area. With the assistance of the City's Geographic Information Systems team, staff mapped out the fifteen fire management zones and noted key risks in each zone. For each zone, there is a cover map, which outlines schools, dependent care facilities, government facilities, faith-based locations, locations containing hazardous materials, residential complexes with over 40 units, buildings greater than 10,000-square-feet in size or taller than 75 feet. Staff observed zone size, zoning use types, structures, critical infrastructure, economic factors, relative population densities, and mitigating elements such as the ratio of fire sprinklers in structures. Staff also observed historical call volume and heat maps to determine concentration of call volume within each zone. Lastly, there is a great deal of demographic data by zone pulled from various Esri reports. All FMZ risk assessments are available in Appendix I.



74 Fire Management Zones Map



DEPLOYMENT AND PERFORMANCE

Deployment describes what resources the CCFD sends. The CCFD takes into account what risks must be managed (community risk assessment), what resources are necessary to mitigate those risks (critical tasking), how likely the CCFD will be able to mitigate those incidents with its current deployment model (historical incidents), and how likely the CCFD will be able to recover from those incidents (resiliency).

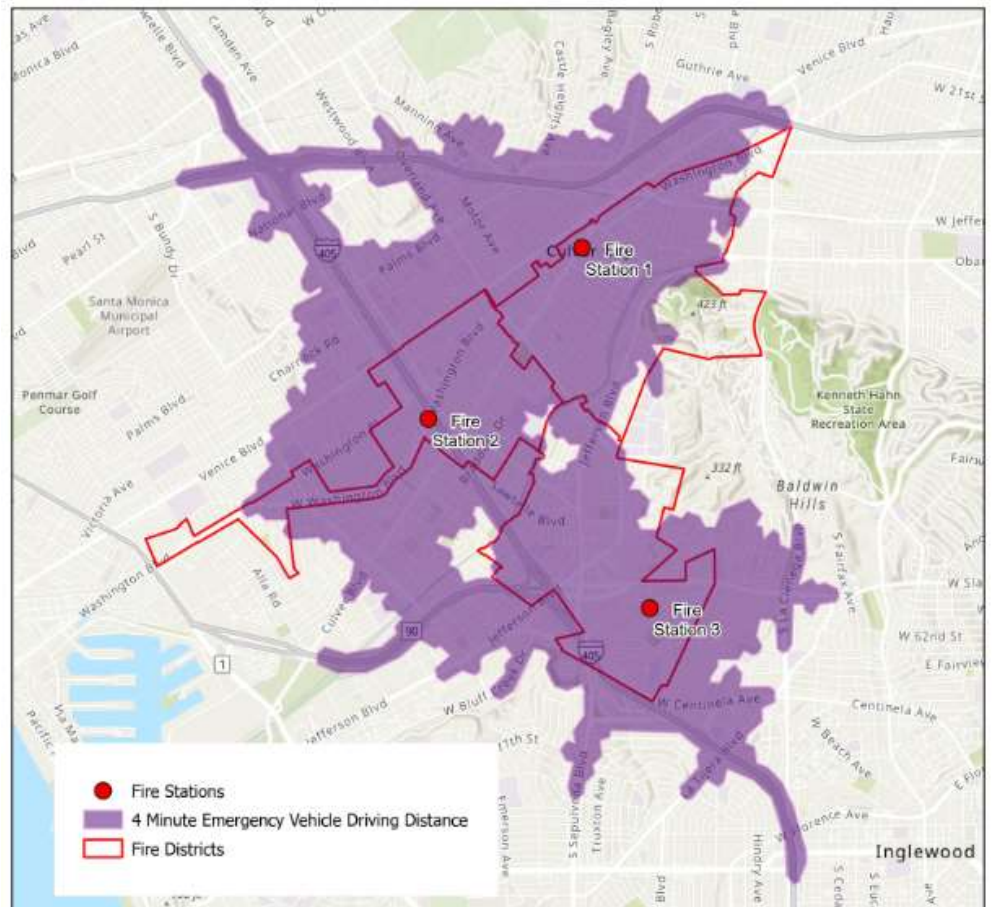
INCIDENT HISTORY

A historical perspective—taking into account the CCFD's current distribution, concentration, reliability, comparability and baseline performance—is important to consider in helping the CCFD assess its efficiency and effectiveness.

Distribution

Distribution describes the geographic placement of first-due resources throughout neighborhoods and/or areas within the community. The initial response areas in Culver City are known as districts. There are three districts, each associated with a fire station. Travel distances are measured according to surface routes. Station placement in Culver City covers 96.6 percent of prescribed travel distances as measured by station location to radial catchment areas.

The City's GIS Division created a Drive-Time Area map utilizing Esri's Service Areas Tool.⁵⁸ The driving time was set to 4 minutes and settings for emergency response vehicles were established. The CCFD responds Code3 (i.e., lights and sirens) to most incidents, significantly increasing the distance the department is able to cover in the four-minute timeframe.

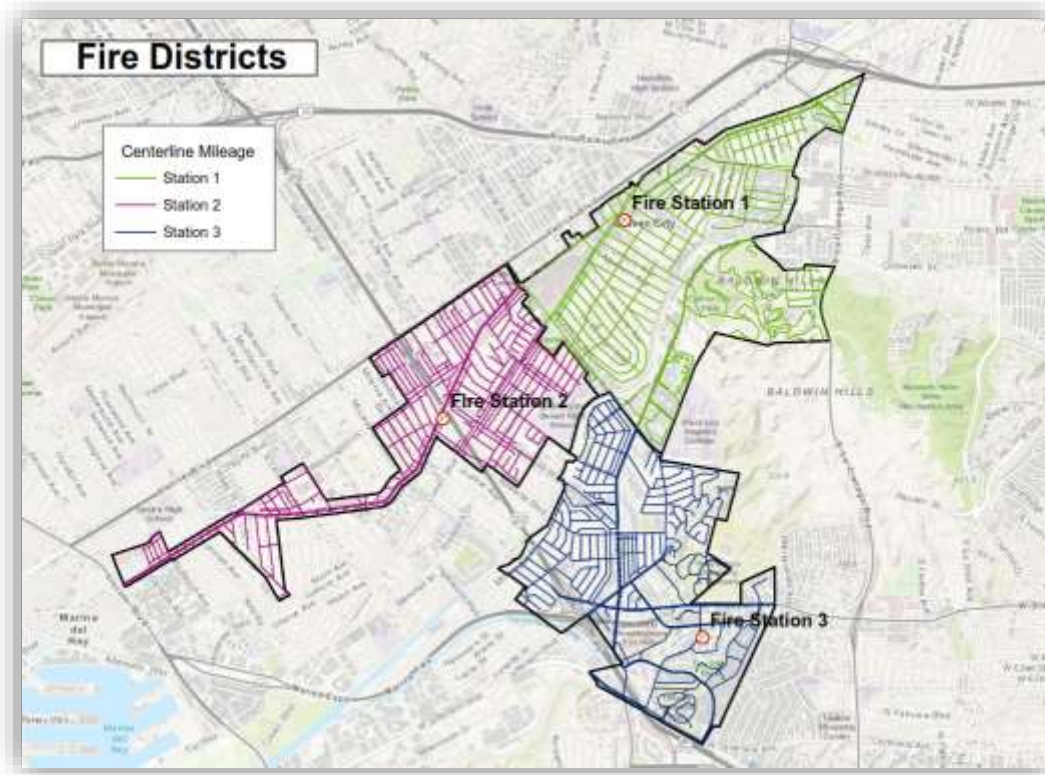


75 4-minute Drive Time Map

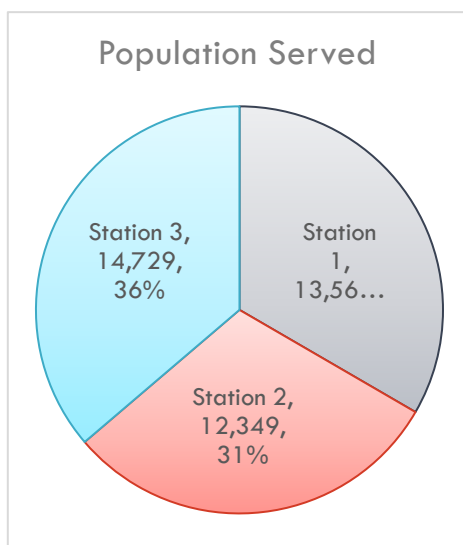
⁵⁸ ArcGIS Desktop, "Which areas are within four minutes of a fire station?," <http://desktop.arcgis.com/en/analytics/case-studies/which-areas-are-within-four-minutes-of-a-fire-station.htm>.



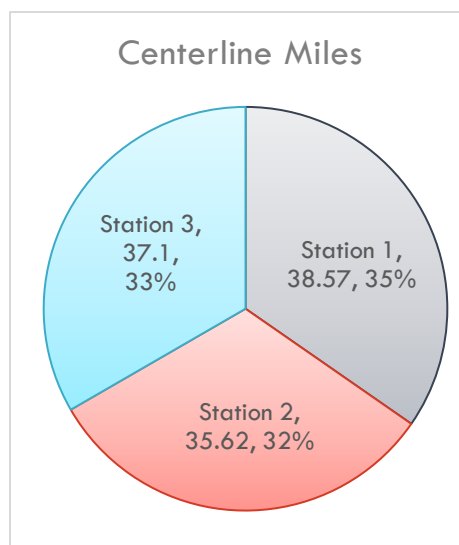
The CCFD's three fire stations are evenly distributed by centerline miles and population served. Centerline miles represent the total length of all the roads in Culver City, ignoring the size and number of lanes on each road. Below are maps and pie charts showing the equal distribution of fire stations within the City based on centerline miles and population served as related to all responses.



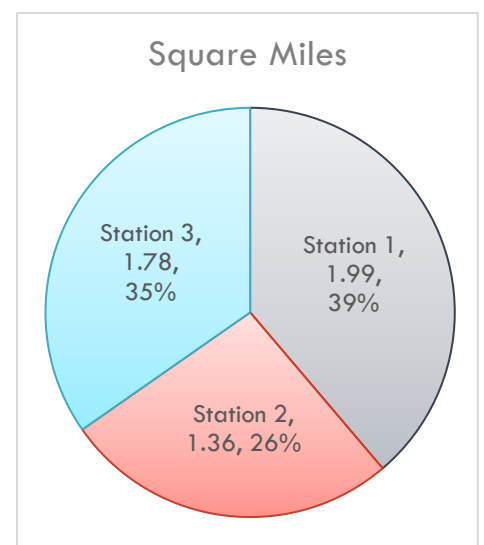
76 Fire Districts Centerline Mileage



79 Population Served by District



78 Centerline Miles by District



77 Square Miles by District



Concentration

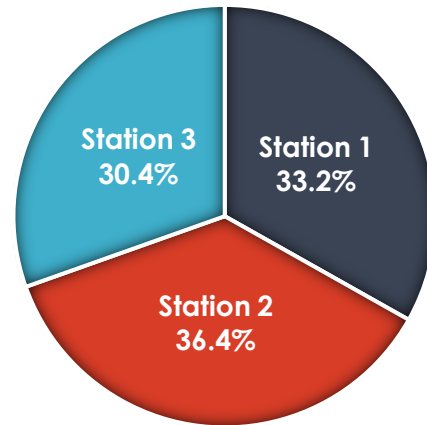
Concentration is defined as the spacing of multiple resources arranged so that an effective response force (ERF) can arrive on scene within a sufficient timeframe. It is about having enough of the right equipment and staff arriving in a timeframe that allows firefighters to be effective servicing the demand/situation. An ERF varies depending on the type and severity of incident.

Evaluating the concentration of resources can also be used to measure efficiency. In an ideal system, each resource would cover an equal share of the workload. While an exact leveling of workload is impossible, extreme variations in workload are not efficient.

The concentration goals of the CCFD are to provide an effective response force that is able to execute critical tasks necessary to mitigate low, moderate, and high risk fire, EMS, Haz Mat and technical rescue incidents.

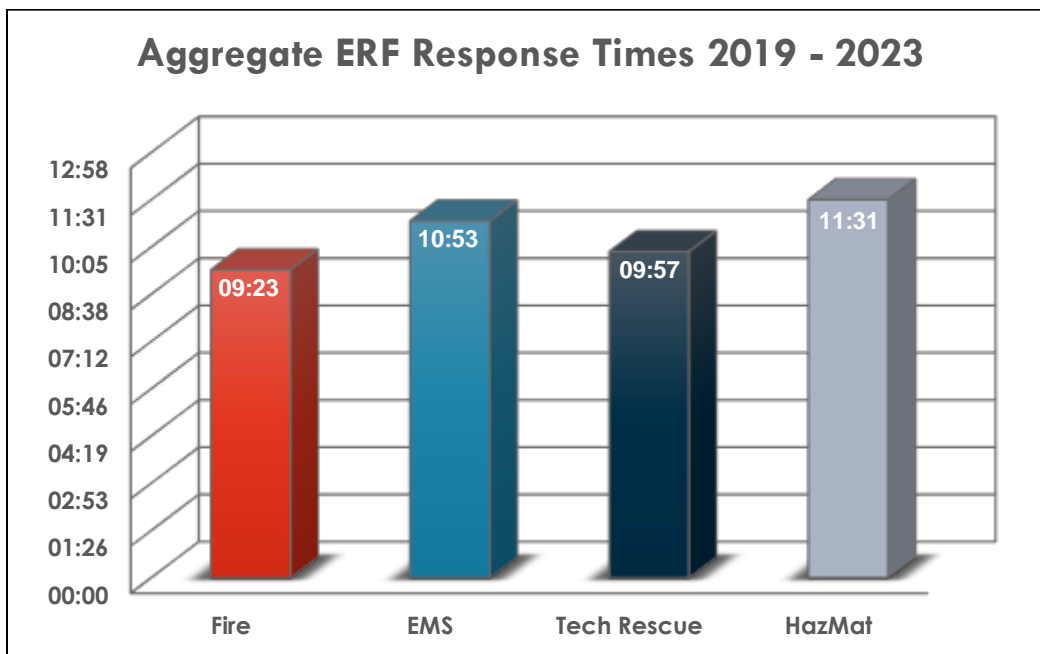
There are two measures of concentration: workload by station and effective response force. The chart below shows that the workload is evenly distributed between the three fire stations. This indicates the current concentration of resources is efficient.

Workload Distribution 2023



80 Workload Distribution by Station

The second concentration measurement monitors the response times for the complete effective response force, or all responding units.



81 Aggregate ERF Response Times



Resiliency

Resilience is the ability to quickly recover from an incident or events, or to adjust easily to changing needs or requirements.⁵⁹

Resistance

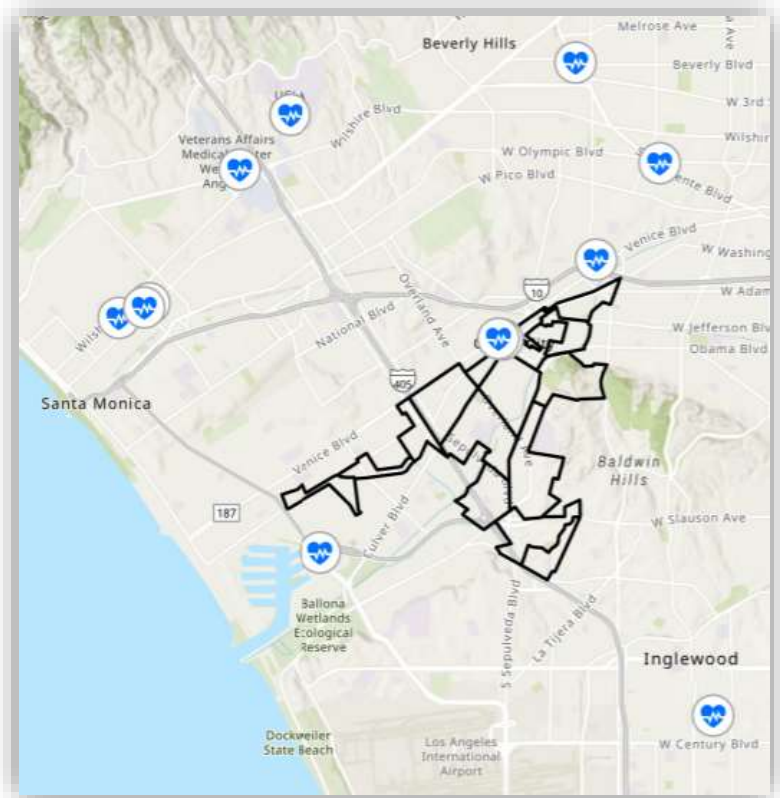
Resistance has to do with limiting resource consumption. Current deployment practices call for the first arriving company to perform a “size-up” of the situation. The first arriving company immediately cancels unneeded resources. Concurrent calls were an increasing problem for the CCFD. The implementation of a basic life support ambulance (BLS) and third rescue ambulance has helped to curb resource drawdown events, but the increasing call volume requires a more in depth look at the strategic deployment of resources to limit resource consumption.

Approximately 70% of the CCFD's transports are to locations outside the City, making firefighters and apparatus resources unavailable for longer periods of time. When traveling back to the City from distant hospitals, traffic patterns impact the availability of rescue ambulances. Major arterials and freeways see upwards of 300,000 vehicles per day. The map to the right displays locations of hospitals in the department's catchment area. Major trauma centers are located to the north and northeast of the City, in Westwood and Beverly Hills.

resilience noun
 re-sil-i-ence | \rɪ-'zil-yən(t)s |

Definition of resilience

- 1 : the capability of a strained body to recover its size and shape after deformation caused especially by compressive stress
- 2 : an ability to recover from or adjust easily to misfortune or change



82 Area Hospitals

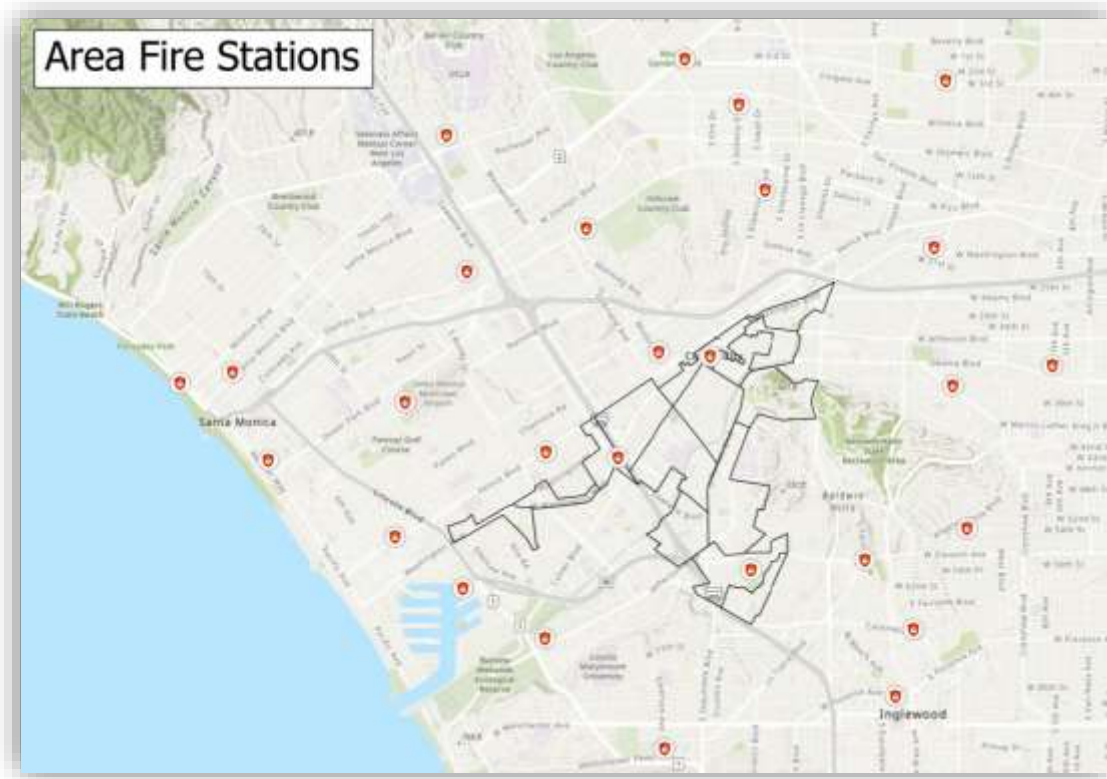
Absorption

Absorption is the ability to quickly add or duplicate resources necessary to maintain service levels during incidents beyond normal reliability demands and incidents of rare circumstance and/or magnitude.⁶⁰ The CCFD has in place emergency recall measures through an automated staffing system to quickly staff reserve apparatus. The CCFD is also a party to the



⁵⁹ CPSE Community Risk Assessment: Standards of Cover Manual, p. 46.
⁶⁰ CPSE Community Risk Assessment: Standards of Cover Manual, pp.46-47.

California Master Mutual Aid agreement⁶¹, which allows command staff to call upon neighboring agencies to backfill Culver City fire stations. The CCFD operates in an “Area A City,” which comprises the following cities: Culver City, Beverly Hills, Santa Monica, and West Hollywood. Area A is within the Los Angeles County operational area (OA). The OA is located in Mutual Aid Region I, which is in the Cal EMA Southern Administrative Region.



83 Area Fire Stations

Restoration

Similar to absorption, restoration is the ability to rapidly return to normalcy within the system after a major incident. The CCFD strategically demobilizes resources at the conclusion of an incident to put units back into service as quickly as possible. As mentioned previously, emergency recall procedures are in place to assist with restoring services to normal levels. The CCFD maintains fully stocked reserve apparatus and has supplies readily available to restock apparatus returning from major deployments.

⁶¹ California Master Mutual Aid Agreement,

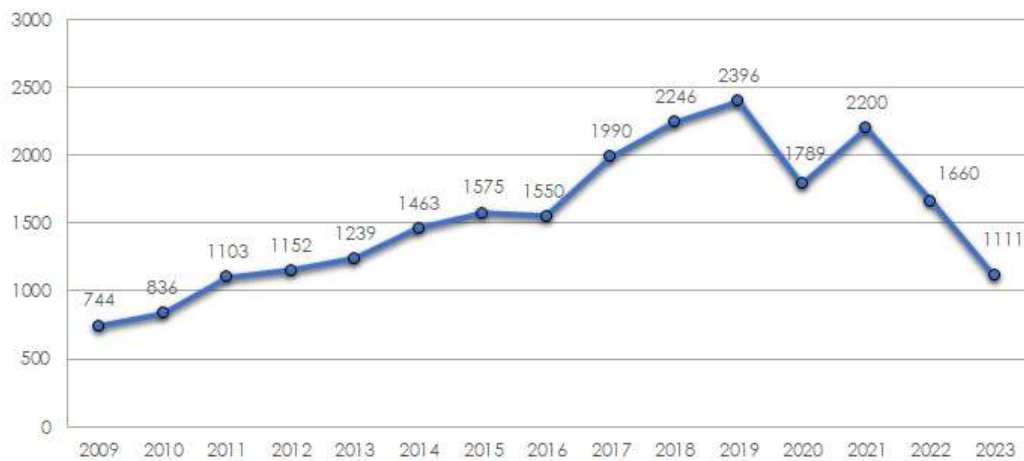
<https://www.caloes.ca.gov/PlanningPreparednessSite/Documents/CAMasterMutAidAgreement.pdf>



Reliability

Response reliability is defined as the probability that the required amount of staffing and apparatus will be available when a call for service is received. If every apparatus were available every time, then the CCFD's response reliability would be 100 percent. The CCFD can provide an effective response force to a multitude of emergency incidents. Increased demands for service with limited or diminishing resources will eventually erode this ability. The capability to meet the demands for service can be critically curtailed during times of multiple requests for service, or queuing. As the number of emergency calls per day increases, or resources diminish, the probability that needed apparatus will be busy when requested increases. On these occasions, the CCFD's response reliability will decrease. Instances of concurrent calls have been increasing considerably over the past ten years. The implementation of a third rescue ambulance has helped to diminish the number of times all of the department's rescue ambulances are busy.

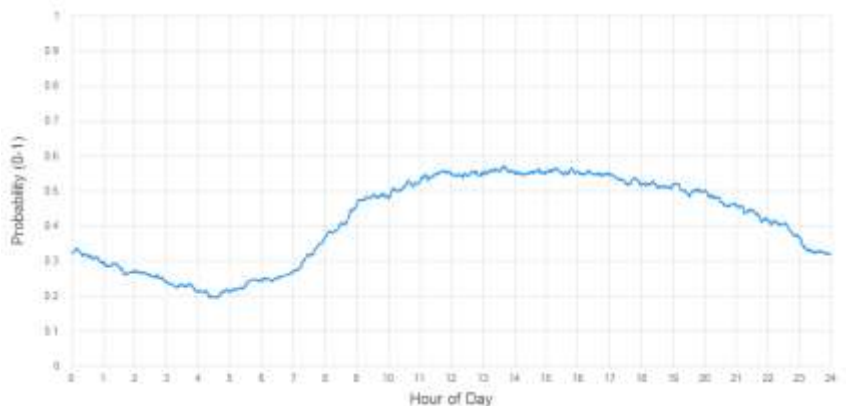
Number of Concurrent Incidents with 100% Rescue Vehicle Utilization 2009 - 2023



84 Concurrent Incidents

The CCFD is sensitive to its ability to maintain acceptable service levels and has developed a number of statistical observation points to monitor reliability performance. A few key indicators are total call volume, total fire calls, total EMS calls, total unit responses, travel times, patients transported, patients transported out of the City and concurrent calls. When the CCFD observes a total call volume increase, there is also an increase in out-of-service time, total unit responses, and concurrent calls. Increased call volume also translates to treating more patients, additional patient transports, and a greater number of transports out of the City.

Probability of Concurrent Calls



85 Probability of Concurrent Incidents



Another indicator of unit reliability is the number of times a particular unit is available to respond in its own district. A way to gauge this is by dividing the number of incidents a unit responded in its own district by the number of incidents in its district. The converse of this is probability of when a particular apparatus is most “busy.” In this case, unit hour utilization (UHU) is used. UHU does not provide a complete picture of how busy a unit is during the day, because it does not take into account training, station work, other duties assigned, time traveling back to the station from an incident, or time to eat and sleep. UHU only accounts for the time from which a unit is dispatched to the time that unit “clears,” or is marked available to respond to another call. The following UHU grids, based on 2023 inputs, displays which day of the week and time of the day each apparatus is most likely to be busy on a call. Each hour cell in the grids below represent 52 weeks. For example, a value of 25% in a cell indicates that the unit in the system saw 13 hours of utilization within that period over the course of the year.

Rescue 41 UHU

R41	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
Sun	3.29%	6.56%	5.09%	1.51%	4.24%	1.72%	1.99%	4.32%	6.30%	6.87%	7.47%	7.38%	13.90%	8.00%	8.61%	11.59%	9.28%	10.66%	11.32%	10.25%	10.86%	5.81%	7.99%	11.31%
Mon	7.95%	5.36%	5.73%	3.83%	2.33%	6.16%	5.09%	5.17%	6.51%	5.84%	10.56%	12.58%	14.60%	9.86%	8.69%	10.36%	10.07%	8.38%	9.73%	11.22%	9.80%	9.99%	7.99%	8.17%
Tue	6.76%	6.44%	5.08%	6.01%	4.40%	5.84%	6.80%	5.27%	11.73%	14.68%	11.88%	11.26%	8.42%	10.38%	8.80%	8.97%	9.41%	11.50%	8.40%	9.97%	8.32%	11.36%	6.95%	5.10%
Wed	3.52%	5.33%	5.58%	5.76%	1.87%	1.10%	3.53%	8.53%	9.78%	8.83%	9.35%	10.53%	17.38%	10.34%	9.42%	16.25%	14.40%	9.65%	13.22%	8.81%	9.96%	11.44%	3.49%	4.33%
Thu	3.96%	9.62%	6.69%	5.15%	2.43%	4.04%	7.93%	6.23%	12.85%	9.91%	8.48%	5.45%	7.16%	13.91%	12.64%	12.80%	12.89%	7.99%	5.02%	12.48%	10.86%	8.87%	5.54%	4.54%
Fri	6.80%	8.96%	7.12%	9.57%	6.18%	4.64%	5.67%	7.37%	11.47%	9.67%	15.86%	10.50%	8.48%	9.34%	11.94%	16.25%	13.58%	14.86%	12.46%	9.76%	6.94%	6.24%	7.82%	6.97%
Sat	7.86%	6.94%	6.58%	5.83%	4.90%	5.28%	3.34%	5.57%	8.45%	10.56%	12.25%	9.24%	14.28%	11.92%	8.39%	9.88%	10.85%	10.10%	8.10%	10.00%	10.40%	10.20%	10.77%	8.01%

86 Rescue 41 Unit Hour Utilization

Rescue 42 UHU

R42	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
Sun	6.31%	5.26%	7.43%	4.68%	5.08%	5.33%	4.78%	2.31%	3.09%	11.88%	9.67%	10.96%	12.63%	12.89%	9.54%	14.02%	13.42%	13.55%	16.76%	13.98%	12.45%	8.40%	9.36%	8.25%
Mon	10.43%	9.16%	6.49%	8.58%	4.80%	6.43%	6.67%	7.94%	7.61%	10.33%	13.58%	14.43%	10.54%	17.11%	13.82%	17.10%	14.99%	18.14%	12.26%	12.48%	10.49%	9.90%	6.29%	6.04%
Tue	6.06%	4.98%	2.48%	3.84%	7.80%	6.41%	4.63%	10.08%	9.77%	15.32%	10.76%	15.36%	12.10%	12.97%	12.19%	11.74%	8.77%	10.07%	16.57%	15.75%	12.08%	7.56%	6.65%	4.07%
Wed	5.11%	3.81%	5.06%	1.54%	1.74%	4.14%	3.47%	8.58%	11.25%	9.25%	11.60%	10.17%	14.17%	13.45%	13.10%	10.13%	11.38%	15.01%	11.32%	12.76%	8.88%	11.25%	2.96%	5.22%
Thu	3.90%	5.69%	5.97%	5.12%	3.97%	3.87%	5.03%	4.97%	15.17%	12.63%	13.95%	13.49%	13.33%	13.09%	14.77%	17.37%	13.11%	9.28%	8.63%	10.14%	12.22%	10.98%	9.28%	12.59%
Fri	7.67%	5.41%	7.39%	8.05%	5.01%	6.31%	3.38%	10.01%	11.62%	12.79%	19.45%	16.58%	11.38%	13.52%	12.15%	14.18%	13.84%	19.91%	15.28%	17.01%	9.14%	10.04%	8.58%	8.37%
Sat	6.43%	10.04%	10.19%	4.98%	3.94%	6.73%	4.35%	5.01%	7.53%	10.30%	14.47%	14.94%	15.33%	14.74%	16.71%	12.59%	14.99%	10.22%	12.43%	8.64%	12.04%	15.76%	5.72%	11.13%

87 Rescue 42 Unit Hour Utilization

Rescue 43 UHU

R43	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
Sun	5.47%	6.40%	6.28%	2.79%	2.13%	3.36%	0.49%	1.42%	4.00%	9.74%	10.31%	7.65%	9.58%	15.22%	9.89%	10.62%	12.52%	8.90%	10.08%	11.72%	13.04%	11.17%	10.75%	5.47%
Mon	8.05%	5.51%	1.68%	3.33%	0.59%	1.77%	4.38%	5.02%	7.53%	9.89%	9.07%	13.56%	11.89%	8.25%	11.90%	15.82%	10.12%	4.98%	3.11%	9.31%	5.33%	6.61%	5.97%	5.85%
Tue	5.48%	1.44%	2.96%	3.54%	3.87%	1.53%	3.20%	5.47%	8.39%	7.37%	11.48%	13.56%	8.27%	10.09%	8.73%	11.38%	11.83%	8.89%	11.18%	8.54%	8.57%	12.43%	9.24%	7.73%
Wed	6.42%	3.96%	1.93%	2.16%	3.20%	1.82%	6.71%	5.50%	5.00%	9.04%	4.23%	8.36%	11.98%	9.57%	11.14%	9.94%	10.47%	13.71%	8.03%	7.17%	9.92%	5.12%	5.55%	4.47%
Thu	4.39%	6.09%	5.85%	1.79%	1.73%	4.21%	3.95%	4.09%	7.59%	7.79%	6.22%	8.34%	8.59%	15.90%	6.75%	10.44%	6.84%	8.46%	12.47%	12.33%	8.44%	7.08%	7.73%	7.64%
Fri	7.59%	1.63%	2.93%	4.47%	9.55%	3.73%	4.51%	6.25%	8.95%	11.66%	12.95%	11.60%	10.18%	11.35%	12.09%	7.73%	14.18%	9.85%	14.75%	13.98%	7.42%	8.05%	6.35%	5.93%
Sat	7.06%	5.87%	7.35%	4.74%	3.14%	9.19%	3.01%	7.61%	7.76%	9.11%	9.56%	5.79%	7.99%	10.12%	16.93%	8.42%	13.46%	8.87%	11.22%	10.11%	10.38%	10.28%	7.53%	7.27%

88 Rescue 43 Unit Hour Utilization



Ambulance 42 UHU

A42	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
Sun	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	6.29%	13.80%	0.00%	0.00%	0.00%	0.00%	13.80%	6.74%	17.94%	0.00%	21.41%	0.00%	9.14%	0.00%
Mon	0.00%	0.00%	1.02%	0.00%	0.00%	0.00%	1.02%	2.79%	3.66%	5.43%	6.75%	5.83%	6.26%	6.53%	5.58%	4.86%	0.98%	5.22%	3.09%	3.85%	4.12%	2.91%	4.05%	5.70%
Tue	6.15%	4.14%	1.32%	2.03%	2.80%	1.46%	1.66%	1.35%	3.17%	3.81%	2.05%	6.25%	1.83%	3.80%	2.36%	1.73%	1.69%	0.00%	1.51%	1.25%	4.97%	4.12%	1.81%	1.06%
Wed	1.27%	1.78%	1.53%	0.00%	0.00%	0.00%	3.19%	7.08%	2.52%	3.58%	5.39%	4.84%	3.27%	6.67%	11.30%	13.97%	2.38%	7.91%	0.00%	7.05%	7.34%	12.08%	5.81%	2.74%
Thu	1.78%	2.33%	4.17%	0.94%	0.00%	1.26%	1.08%	2.53%	3.51%	4.75%	4.84%	1.17%	3.85%	5.44%	4.64%	6.77%	5.77%	4.32%	3.34%	5.62%	10.59%	6.45%	3.88%	4.49%
Fri	9.22%	9.03%	2.61%	11.22%	10.46%	5.99%	3.79%	0.31%	3.96%	1.81%	4.43%	0.00%	1.48%	2.97%	2.51%	5.42%	0.63%	3.98%	3.77%	4.81%	3.85%	4.88%	7.06%	0.37%
Sat	0.00%	8.52%	7.61%	0.00%	8.89%	12.78%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

89 Ambulance 42 Unit Hour Utilization

Engine 41 UHU

E41	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
Sun	5.59%	8.22%	8.37%	4.71%	4.72%	3.24%	6.81%	4.82%	9.05%	11.21%	9.31%	10.44%	16.12%	13.44%	8.70%	10.39%	14.04%	13.04%	12.17%	9.95%	9.80%	3.81%	5.91%	14.54%
Mon	12.18%	6.08%	5.86%	3.07%	3.57%	11.69%	3.87%	5.97%	9.90%	10.04%	14.36%	15.91%	13.30%	12.88%	12.08%	12.62%	11.65%	10.37%	14.12%	12.90%	13.34%	11.79%	11.88%	11.21%
Tue	7.13%	9.14%	5.68%	7.07%	4.98%	5.55%	8.21%	8.42%	11.43%	15.22%	11.26%	12.99%	11.17%	11.44%	9.90%	13.00%	11.96%	13.12%	6.50%	10.05%	9.86%	13.34%	11.03%	8.40%
Wed	4.15%	4.82%	6.98%	10.62%	3.72%	0.54%	6.43%	13.79%	12.11%	14.60%	9.45%	13.89%	17.00%	15.40%	16.49%	15.31%	20.95%	15.74%	16.27%	13.84%	10.54%	17.92%	5.41%	3.75%
Thu	4.59%	10.81%	8.00%	7.37%	2.42%	5.75%	11.87%	10.03%	16.00%	9.71%	11.83%	10.43%	12.95%	20.10%	17.93%	12.99%	18.65%	10.96%	6.53%	14.32%	16.36%	13.14%	8.70%	8.91%
Fri	9.67%	10.17%	6.64%	10.90%	11.02%	7.04%	5.59%	7.50%	15.46%	16.45%	14.56%	10.79%	12.76%	13.38%	12.12%	15.94%	17.61%	14.11%	13.52%	12.02%	13.17%	11.23%	11.47%	9.70%
Sat	11.28%	8.02%	8.85%	9.94%	5.96%	7.43%	5.36%	9.90%	9.99%	11.92%	16.33%	18.23%	19.29%	15.22%	9.35%	15.32%	14.52%	14.27%	12.72%	14.79%	15.23%	15.59%	12.85%	10.97%

90 Engine 41 Unit Hour Utilization

Engine 42 UHU

E42	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
Sun	10.14%	6.83%	7.01%	4.38%	4.85%	5.53%	6.03%	4.03%	3.08%	12.07%	13.23%	12.55%	16.05%	13.38%	10.12%	13.02%	12.69%	12.73%	15.08%	14.28%	13.66%	10.37%	8.80%	7.31%
Mon	10.21%	9.96%	7.86%	9.17%	5.20%	7.03%	7.44%	8.40%	7.79%	14.87%	16.06%	17.69%	14.55%	21.12%	12.39%	14.80%	14.15%	20.37%	12.97%	11.92%	10.37%	8.74%	9.40%	7.56%
Tue	7.19%	7.94%	1.54%	4.23%	8.11%	7.05%	7.06%	9.59%	8.90%	17.21%	11.57%	15.87%	10.44%	15.59%	11.36%	13.19%	12.00%	12.28%	15.36%	15.75%	12.38%	9.34%	8.80%	8.14%
Wed	8.44%	4.72%	5.32%	3.25%	3.52%	6.02%	5.42%	10.21%	16.35%	9.76%	12.18%	14.14%	20.68%	16.26%	15.85%	11.94%	16.14%	16.00%	13.90%	15.85%	11.42%	14.88%	4.66%	6.54%
Thu	5.04%	5.77%	5.81%	5.17%	3.57%	4.45%	6.25%	6.18%	19.68%	21.81%	21.00%	16.93%	16.46%	14.98%	15.17%	17.81%	16.22%	14.68%	10.96%	12.49%	15.40%	11.67%	7.98%	11.85%
Fri	7.60%	7.27%	10.81%	8.18%	5.71%	7.68%	4.25%	8.70%	10.44%	16.41%	20.46%	21.89%	15.49%	15.76%	14.33%	13.29%	19.24%	22.46%	15.21%	13.60%	8.79%	8.74%	11.23%	8.89%
Sat	8.19%	12.70%	10.12%	5.21%	4.82%	6.64%	3.16%	5.61%	9.44%	10.77%	13.55%	13.70%	17.28%	13.78%	16.10%	13.32%	17.37%	12.40%	11.30%	7.48%	11.09%	16.29%	10.57%	11.21%

91 Engine 42 Unit Hour Utilization

Engine 43 UHU

E43	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
Sun	5.76%	9.17%	8.80%	3.64%	2.33%	4.32%	2.33%	3.74%	5.24%	12.00%	14.92%	9.77%	12.28%	15.35%	11.81%	12.52%	14.07%	8.48%	7.30%	11.00%	13.83%	10.13%	14.29%	3.58%
Mon	6.89%	7.49%	3.94%	4.04%	1.87%	3.11%	5.46%	6.34%	9.15%	11.82%	13.41%	11.75%	12.69%	10.31%	12.56%	16.17%	11.55%	8.94%	5.64%	13.32%	8.99%	9.45%	6.93%	3.74%
Tue	6.39%	2.82%	3.19%	3.06%	4.01%	2.29%	6.31%	6.53%	8.29%	8.75%	11.66%	13.34%	8.71%	10.53%	9.49%	8.06%	12.25%	12.03%	11.87%	9.12%	10.99%	12.72%	9.30%	8.82%
Wed	5.81%	4.49%	3.54%	5.15%	5.99%	2.58%	10.17%	9.07%	8.70%	12.72%	8.80%	10.70%	11.96%	15.75%	8.58%	11.28%	11.66%	15.93%	11.11%	11.66%	13.95%	10.08%	6.50%	4.34%
Thu	5.01%	7.32%	7.01%	2.95%	2.38%	7.40%	6.89%	6.27%	13.23%	10.79%	9.64%	10.64%	8.41%	16.28%	8.71%	14.43%	11.76%	12.27%	14.75%	15.89%	11.74%	10.84%	7.57%	9.20%
Fri	8.56%	5.76%	4.53%	7.09%	9.39%	4.10%	4.35%	9.71%	16.64%	16.94%	14.66%	11.50%	11.68%	12.34%	15.34%	13.72%	15.84%	14.44%	13.58%	19.95%	11.44%	13.89%	11.11%	9.34%
Sat	7.17%	9.21%	7.81%	6.81%	3.85%	11.50%	3.34%	11.67%	13.32%	18.08%	12.05%	7.17%	10.51%	15.75%	20.56%	10.71%	12.31%	11.49%	18.21%	11.97%	15.07%	13.29%	7.34%	8.21%

92 Engine 43 Unit Hour Utilization



Truck 43 UHU

T43	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
Sun	0.66%	2.73%	0.45%	1.30%	0.00%	0.00%	0.94%	3.02%	0.73%	2.01%	3.07%	3.15%	6.74%	6.48%	6.82%	4.71%	7.89%	3.44%	1.41%	4.23%	2.43%	1.01%	2.37%	0.89%
Mon	1.17%	1.70%	0.11%	1.23%	0.00%	1.16%	2.42%	2.39%	1.79%	5.19%	4.63%	3.99%	7.54%	3.90%	5.00%	5.89%	7.31%	6.01%	2.68%	4.17%	1.69%	1.67%	4.16%	2.04%
Tue	2.19%	1.17%	0.49%	0.57%	0.00%	0.00%	0.87%	1.30%	2.87%	2.92%	6.53%	8.22%	2.63%	3.60%	3.54%	6.61%	4.30%	4.00%	7.12%	8.43%	3.33%	3.39%	1.29%	1.35%
Wed	0.00%	0.00%	0.00%	1.54%	2.78%	0.86%	2.38%	6.32%	4.37%	3.36%	3.30%	5.33%	5.77%	4.00%	5.77%	4.28%	4.12%	5.67%	5.06%	2.78%	3.35%	7.18%	0.52%	0.00%
Thu	0.23%	0.56%	3.93%	2.21%	0.00%	0.30%	3.27%	1.62%	5.51%	4.22%	6.04%	3.16%	5.71%	2.31%	3.46%	7.70%	10.78%	7.11%	2.20%	1.65%	3.92%	4.14%	3.63%	2.37%
Fri	0.78%	0.64%	1.93%	2.88%	3.25%	1.71%	1.81%	0.97%	1.92%	5.37%	11.36%	9.15%	6.75%	2.82%	7.10%	4.07%	6.53%	5.63%	9.20%	4.57%	4.94%	3.01%	2.69%	1.04%
Sat	1.95%	1.36%	2.03%	0.78%	1.06%	2.97%	2.44%	2.89%	3.70%	1.47%	5.35%	7.46%	3.40%	2.02%	6.44%	3.86%	4.74%	2.59%	4.64%	6.22%	4.73%	2.00%	2.41%	2.94%

93 Truck 43 Unit Hour Utilization

Battalion 41 UHU

BC41	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
Sun	0.32%	2.71%	0.00%	0.00%	0.00%	0.07%	0.00%	0.00%	0.00%	0.00%	0.00%	0.36%	0.83%	0.42%	0.00%	1.88%	0.35%	1.00%	1.92%	2.43%	4.16%	2.18%	2.10%	1.92%
Mon	1.16%	1.70%	0.25%	0.71%	0.07%	0.00%	0.54%	0.11%	0.31%	0.56%	0.87%	1.05%	1.26%	1.97%	0.27%	0.00%	0.22%	2.21%	2.51%	1.16%	0.78%	0.38%	1.88%	0.00%
Tue	0.96%	1.87%	0.00%	0.50%	0.00%	0.00%	0.00%	0.18%	0.20%	0.61%	0.82%	0.15%	0.61%	0.59%	0.00%	0.90%	0.00%	1.54%	1.51%	0.86%	0.10%	1.75%	0.45%	0.40%
Wed	0.00%	0.00%	0.00%	0.83%	0.30%	0.18%	1.37%	2.98%	2.30%	0.17%	0.60%	0.44%	0.33%	0.00%	0.60%	2.38%	0.00%	0.61%	0.97%	0.06%	1.18%	3.77%	0.28%	0.00%
Thu	0.20%	0.67%	3.68%	2.32%	0.00%	0.08%	1.03%	0.39%	1.84%	0.07%	2.37%	2.23%	1.49%	0.93%	0.28%	0.36%	3.50%	3.09%	0.25%	0.95%	2.09%	1.92%	3.07%	2.86%
Fri	1.80%	0.28%	0.05%	4.28%	2.47%	0.93%	0.87%	0.50%	1.04%	3.50%	4.20%	2.70%	0.58%	0.31%	2.14%	0.97%	1.43%	1.01%	0.95%	2.82%	1.24%	1.18%	1.11%	0.32%
Sat	2.65%	1.73%	0.61%	0.51%	0.65%	2.45%	0.25%	0.50%	0.12%	0.31%	0.53%	1.63%	1.12%	1.92%	0.53%	1.92%	0.35%	2.89%	3.89%	3.03%	2.74%	2.86%	2.85%	0.78%

94 Battalion 41 Unit Hour Utilization



EVALUATION OF CURRENT DEPLOYMENT & PERFORMANCE

BASELINE PERFORMANCE TABLES

After reviewing the critical task analyses, incident history, and resiliency, the CCFD is able to review its baseline performance, which is the aggregate historical performance for the past five years. The following data tables present the CCFD's 90th percentile baseline performance, i.e., actual performance. Following National Fire Protection Association (NFPA) 1710 standards and Commission of Fire Accreditation International (CFAI) requirements, percentile metrics demonstrate a better representation of response times than averages. Instead of displaying what the CCFD does half of the time, the department observes what it does most of the time. As the City of Culver City is considered a purely urban environment due to its high population concentration, all performance metrics are measured against CFAI's urban population density range.

Fire Suppression – 90th Percentile Baseline Performance

Fire – Low Risk		2019-2023	2023	2022	2021	2020	2019	Benchmark
Alarm Handling	Pick-up to Dispatch	1:41	1:36	1:30	1:51	1:47	1:53	1:30
Turnout	1st Suppression Unit	2:23	2:17	2:07	2:29	2:23	2:38	1:30
Travel	1st Suppression Unit Distribution	5:24	5:09	5:33	4:39	5:45	5:32	4:00
	Effective Response Force (ERF) Concentration	5:49	5:37	6:07	4:52	6:00	7:29	5:00
Total Response Time	1st Suppression Unit Distribution	8:02	7:56	7:50	7:49	8:20	8:26	7:00
		n = 471	147	125	89	69	41	NA
	Effective Response Force (ERF) Concentration	8:31	8:08	8:56	8:29	8:16	9:57	8:00
		n = 201	72	46	37	26	20	NA

95 Fire - Low Risk - Baseline Performance

Fire – Moderate Risk		2019-2023	2023	2022	2021	2020	2019	Benchmark
Alarm Handling	Pick-up to Dispatch	1:45	0:57	1:00	0:45	1:36	2:02	1:30
Turnout	1st Suppression Unit	2:48	2:49	1:56	2:37	3:27	2:10	1:30
Travel	1st Suppression Unit Distribution	5:13	5:55	5:07	4:02	3:43	5:19	4:00
	Effective Response Force (ERF) Concentration	9:20	5:58	NA	9:28	8:30	6:49	7:00
Total Response Time	1st Suppression Unit Distribution	8:10	9:29	7:19	7:15	7:02	8:53	7:00
		n = 34	7	8	5	7	7	NA
			11:51	07:10	NA	11:49	11:17	9:48



Fire – Moderate Risk		2019-2023	2023	2022	2021	2020	2019	Benchmark
	Effective Response Force (ERF) Concentration	n = 6	1	0	1	3	1	NA

96 Fire - Moderate Risk - Baseline Performance

Fire – High Risk		2019-2023	2023	2022	2021	2020	2019	Benchmark
Alarm Handling	Pick-up to Dispatch	3:03	NA	NA	0:36	3:12	NA	1:30
Turnout	1st Suppression Unit	1:53	NA	NA	1:41	1:45	NA	1:30
Travel	1st Suppression Unit Distribution	3:53	NA	NA	3:00	3:59	NA	4:00
	Effective Response Force (ERF) Concentration	7:01	NA	NA	NA	7:01	NA	11:00
Total Response Time	1st Suppression Unit Distribution	7:32	NA	NA	5:17	7:42	NA	7:00
		n = 3	0	0	1	2	0	NA
	Effective Response Force (ERF) Concentration	10:20	NA	NA	NA	10:20	NA	14:00
		n = 1	0	0	0	1	0	NA

97 Fire - High Risk - Baseline Performance

Wildland Fire – 90th Percentile Baseline Performance

Wildland Fire – Low Risk		2019-2023	2023	2022	2021	2020	2019	Benchmark
Alarm Handling	Pick-up to Dispatch	1:49	2:32	1:47	1:00	NA	1:35	1:30
Turnout	1st Suppression Unit	1:55	1:19	1:55	1:43	NA	2:16	1:30
Travel	1st Suppression Unit Distribution	8:06	4:09	9:54	4:09	NA	5:59	4:30
	Effective Response Force (ERF) Concentration	6:23	4:43	10:02	4:01	NA	3:36	5:00
Total Response Time	1st Suppression Unit Distribution	11:34	7:18	12:29	6:22	NA	8:23	7:30
		n = 13	2	5	2	0	4	NA
	Effective Response Force (ERF) Concentration	9:53	7:06	13:41	6:19	NA	8:15	8:00
		n = 9	2	3	2	0	2	NA

98 Wildland Fire - Low Risk - Baseline Performance

Wildland Fire – Moderate Risk		2019-2023	2023	2022	2021	2020	2019	Benchmark
Alarm Handling	Pick-up to Dispatch	1:43	1:38	1:11	1:21	1:58	1:43	1:30
Turnout	1st Suppression Unit	3:00	3:07	2:45	2:31	1:30	2:38	1:30
Travel	1st Suppression Unit Distribution	5:43	5:36	5:37	3:07	4:51	5:25	4:30
	Effective Response Force (ERF) Concentration	7:03	6:07	7:17	5:59	NA	NA	10:00



Wildland Fire – Moderate Risk		2019-2023	2023	2022	2021	2020	2019	Benchmark
Total Response Time	1st Suppression Unit Distribution	8:16	8:09	8:04	6:21	7:30	8:54	7:30
		n = 36	12	8	4	7	5	NA
	Effective Response Force (ERF) Concentration	11:30	8:16	9:53	11:54	NA	NA	13:00
		n = 3	1	1	1	0	0	NA

99 Wildland Fire - Moderate Risk - Baseline Performance

Wildland Fire – High Risk		2019-2023	2023	2022	2021	2020	2019	Benchmark
Alarm Handling	Pick-up to Dispatch	0:59	1:00	NA	NA	NA	0:49	1:30
Turnout	1st Suppression Unit	1:24	0:33	NA	NA	NA	1:30	1:30
Travel	1st Suppression Unit Distribution	4:19	3:02	NA	NA	NA	4:28	4:30
	Effective Response Force (ERF) Concentration	NA	NA	NA	NA	NA	NA	10:00
Total Response Time	1st Suppression Unit Distribution	6:34	4:35	NA	NA	NA	6:47	7:30
		n = 2	1	0	0	0	1	NA
	Effective Response Force (ERF) Concentration	NA	NA	NA	NA	NA	NA	21:00
		n = 0	0	0	0	0	0	NA

100 Wildland Fire - High Risk - Baseline Performance

EMS – 90th Percentile Baseline Performance

EMS – Low Risk		2019-2023	2023	2022	2021	2020	2019	Benchmark
Alarm Handling	Pick-up to Dispatch	1:46	1:35	1:31	1:39	1:50	2:19	1:30
Turnout	1st Unit	2:29	2:29	2:25	2:36	2:33	2:23	1:20
Travel	1 st Unit Distribution	6:16	7:05	6:49	4:44	6:14	6:02	4:00
	Effective Response Force (ERF) Concentration	8:02	7:16	7:35	9:01	8:41	7:56	7:00
Total Response Time	1st Unit Distribution	8:57	9:06	9:26	7:40	9:19	8:46	6:50
		n = 364	84	83	62	57	78	NA
	Effective Response Force (ERF) Concentration	11:03	9:29	9:56	11:56	12:01	11:40	9:50
		n = 267	70	53	42	46	56	NA

101 EMS - Low Risk - Baseline Performance

EMS – Moderate Risk		2019-2023	2023	2022	2021	2020	2019	Benchmark
Alarm Handling	Pick-up to Dispatch	1:31	1:12	1:10	1:18	1:43	1:54	1:30
Turnout	1st Unit	2:19	2:20	2:06	2:31	2:24	2:13	1:20
Travel	1st Unit Distribution	5:18	5:21	5:28	5:29	5:16	4:56	4:00



EMS – Moderate Risk		2019-2023	2023	2022	2021	2020	2019	Benchmark
	Effective Response Force (ERF) Concentration	8:05	7:10	8:20	8:24	8:15	8:01	7:00
Total Response Time	1st Unit Distribution	7:47	7:39	7:32	7:59	8:01	7:42	6:50
		n = 18,918	4,119	3,859	3,353	3,675	3,912	NA
	Effective Response Force (ERF) Concentration	10:41	9:36	10:39	11:00	11:10	10:55	9:50
		n = 17,586	4,015	3,570	3,110	3,436	3,455	NA

102 EMS - Moderate Risk - Baseline Performance

EMS – High Risk		2019-2023	2023	2022	2021	2020	2019	Benchmark
Alarm Handling	Pick-up to Dispatch	2:01	2:52	1:01	1:33	2:22	3:20	1:30
Turnout	1st Unit	2:05	1:39	1:44	2:04	2:10	2:05	1:20
Travel	1st Unit Distribution	6:29	7:23	6:31	5:39	5:58	6:08	4:00
	Effective Response Force (ERF) Concentration	11:43	NA	12:07	NA	NA	6:43	10:00
Total Response Time	1st Unit Distribution	9:15	10:38	8:28	7:52	9:05	9:45	6:50
		n = 106	10	43	18	14	21	NA
	Effective Response Force (ERF) Concentration	13:23	NA	13:36	NA	NA	8:34	12:50
		n = 3	0	2	0	0	1	NA

103 EMS - High Risk - Baseline Performance

Technical Rescue – 90th Percentile Baseline Performance

Technical Rescue – Low Risk		2019-2023	2023	2022	2021	2020	2019	Benchmark
Alarm Handling	Pick-up to Dispatch	1:38	1:30	1:20	1:20	1:48	1:46	1:30
Turnout	1st Unit	2:12	2:02	1:37	2:30	2:01	2:22	1:30
Travel	1st Unit Distribution	4:38	4:33	4:53	4:15	4:52	3:00	4:30
	Effective Response Force (ERF) Concentration	9:05	8:47	9:53	8:12	9:05	7:10	6:00
Total Response Time	1st Unit Distribution	7:13	6:35	6:39	7:26	7:55	5:55	7:30
		n = 195	60	32	31	34	38	NA
	Effective Response Force (ERF) Concentration	11:48	11:25	12:10	11:25	12:20	10:17	9:00
		n = 131	49	17	19	21	25	NA

104 Technical Rescue - Low Risk - Baseline Performance



EVALUATION OF CURRENT DEPLOYMENT AND PERFORMANCE

Technical Rescue – Moderate Risk		2019-2023	2023	2022	2021	2020	2019	Benchmark
Alarm Handling	Pick-up to Dispatch	2:00	NA	NA	2:03	1:10	1:43	1:30
Turnout	1 st Unit	1:57	NA	NA	2:04	1:13	1:14	1:30
Travel	1 st Unit Distribution	3:25	NA	NA	2:16	2:46	3:41	4:30
	Effective Response Force (ERF) Concentration	NA	NA	NA	NA	NA	NA	9:00
Total Response Time	1 st Unit Distribution	6:27	NA	NA	5:55	5:09	6:38	7:30
		n = 4	0	0	2	1	1	NA
	Effective Response Force (ERF) Concentration	NA	NA	NA	NA	NA	NA	12:00
		n = 0	0	0	0	0	0	NA

105 Technical Rescue - Moderate Risk - Baseline Performance

Technical Rescue – High Risk		2019-2023	2023	2022	2021	2020	2019	Benchmark
Alarm Handling	Pick-up to Dispatch	The CCFD does not have any high risk technical rescue incidents to report 2019-2023.						1:30
Turnout	1 st Unit							1:20
Travel	1 st Unit Distribution							4:30
	Effective Response Force (ERF) Concentration							9:00
Total Response Time	1 st Unit Distribution							7:30
		n = 0	0	0	0	0	0	NA
	Effective Response Force (ERF) Concentration	12:00						
n = 0		0	0	0	0	0	NA	

106 Technical Rescue - High Risk - Baseline Performance

Technical Rescue – Special Risk		2019-2023	2023	2022	2021	2020	2019	Benchmark
Alarm Handling	Pick-up to Dispatch	2:19	2:30	0:56	NA	1:35	NA	1:30
Turnout	1 st Unit	3:51	0:59	1:41	NA	4:23	NA	1:30
Travel	1 st Unit Distribution	7:31	8:16	1:27	NA	4:32	NA	4:30
	Effective Response Force (ERF) Concentration	NA	NA	NA	NA	NA	NA	11:00
Total Response Time	1 st Unit Distribution	11:30	11:45	4:04	NA	10:30	NA	7:30
		n = 3	1	1	0	1	0	NA
	Effective Response Force (ERF) Concentration	NA	NA	NA	NA	NA	NA	14:00
		n = 0	0	0	0	0	0	NA

107 Technical Rescue - Special Risk - Baseline Performance



HazMat – 90th Percentile Baseline Performance

Haz Mat – Low Risk		2019-2023	2023	2022	2021	2020	2019	Benchmark
Alarm Handling	Pick-up to Dispatch	2:06	1:35	1:26	1:07	2:52	1:59	1:30
Turnout	1 st Unit	2:24	2:00	2:43	2:00	2:28	2:13	1:30
Travel	1 st Unit Distribution	5:16	4:56	5:23	4:38	5:36	4:23	5:00
	Effective Response Force (ERF) Concentration	6:37	5:18	7:21	4:17	6:41	4:24	5:00
Total Response Time	1 st Unit Distribution	8:27	7:47	8:23	6:57	9:03	7:33	8:00
		n = 76	10	17	12	24	13	NA
	Effective Response Force (ERF) Concentration	8:27	7:47	8:23	6:57	9:03	7:33	8:00
		n = 76	10	17	12	24	13	NA

108 Hazardous Materials - Low Risk - Baseline Performance

Haz Mat – Moderate Risk		2019-2023	2023	2022	2021	2020	2019	Benchmark
Alarm Handling	Pick-up to Dispatch	2:16	2:06	1:39	2:34	2:08	3:08	1:30
Turnout	1 st Unit	2:32	1:48	1:51	2:44	2:42	2:06	1:30
Travel	1 st Unit Distribution	5:49	5:03	8:26	5:09	5:29	4:32	5:00
	Effective Response Force (ERF) Concentration	7:52	NA	NA	7:49	6:50	NA	6:00
Total Response Time	1 st Unit Distribution	9:38	8:52	11:25	9:22	7:38	8:16	8:00
		n = 50	11	6	10	14	9	NA
	Effective Response Force (ERF) Concentration	11:16	NA	NA	11:04	11:12	NA	9:00
		n = 3	0	0	2	1	0	NA

109 Hazardous Materials - Moderate Risk - Baseline Performance

Haz Mat – High Risk		2019-2023	2023	2022	2021	2020	2019	Benchmark
Alarm Handling	Pick-up to Dispatch	2:02	0:21	NA	2:18	1:40	NA	1:30
Turnout	1 st Unit	2:43	1:36	NA	1:55	3:02	NA	1:30
Travel	1 st Unit Distribution	4:12	4:00	NA	3:22	4:12	NA	5:00
	Effective Response Force (ERF) Concentration	9:06	NA	NA	5:21	9:17	NA	7:00
Total Response Time	1 st Unit Distribution	7:13	5:57	NA	6:54	7:05	NA	8:00
		n = 7	1	0	2	4	0	NA
	Effective Response Force (ERF) Concentration	13:21	NA	NA	9:10	13:27	NA	10:00
		n = 5	0	0	1	4	0	NA

110 Hazardous Materials - High Risk - Baseline Performance



BASELINE PERFORMANCE STATEMENTS

Fire Suppression Baseline Performance

Fire – First Unit – Baseline Performance

Over a period of five years, from 2019-2023, for 90 percent of fires, the total response time for the first arriving engine company, staffed with three firefighters, is as follows:

- Low Risk – 8 minutes and 2 seconds
- Medium Risk – 8 minutes and 10 seconds
- High Risk – 7 minutes and 32 seconds.

The first arriving suppression unit is capable of establishing command, evaluating the need for additional specialized resources, and advancing the first line for fire attack.

Low Risk: Over a period of five years, from 2019-2023, for 90 percent of all low risk fires, the total response time for the first arriving suppression unit, staffed with *three firefighters*, is *8 minutes and 2 seconds*. The first unit is capable of establishing command, evaluating the need for additional specialized resources, and advancing the first line for fire attack.

Moderate Risk: Over a period of five years, from 2019-2023, for 90 percent of all moderate risk fires, the total response time for the first arriving suppression unit, staffed with *three firefighters*, is *8 minutes and 10 seconds*. The first unit is capable of establishing command, evaluating the need for additional specialized resources, and advancing the first line for fire attack.

High Risk: Over a period of five years, from 2019-2023, for 90 percent of all high risk fires, the total response time for the first arriving suppression unit, staffed with *three firefighters*, is *7 minutes and 32 seconds*. The first unit is capable of establishing command, evaluating the need for additional specialized resources, and advancing the first line for fire attack.



Fire – Effective Response Force – Baseline Performance

Low Risk: Over a period of five years, from 2019-2023, for 90 percent of all low risk fires, the total response time for the arrival of the effective response force, staffed with *four firefighters and officers* is *8 minutes and 31 seconds*. The effective response force is capable of providing 1,500 gallons per minute pumping capability and be able to accomplish the following critical tasks: command, fire attack, and pump operations.

Moderate Risk: Over a period of five years, from 2019-2023, for 90 percent of all moderate risk fires, the total response time for the arrival of the effective response force, staffed with *20 firefighters and officers*⁶² is *11 minutes and 51 seconds*. The effective response force is capable of providing 4,500 gallons per minute pumping capability and be able to accomplish the following critical tasks necessary to contain a moderate risk fire: command, fire attack, back-up fire attack, exposure protection, rapid intervention crew, water supply, pump/aerial operations, ventilation and medical aid.



⁶² Prior to June 20, 2022, the effective response force was 18.

High Risk: Over a period of five years, from 2019-2023, for 90 percent of all high risk fires, the total response time for the arrival of the effective response force, staffed with 20 firefighters and officers⁶³ is 10 minutes and 20 seconds. The effective response force is capable of providing 4,500 gallons per minute pumping capability and be able to accomplish the following critical tasks necessary to contain a moderate risk fire: command, fire attack, back-up fire attack, exposure protection, rapid intervention crew, water supply, pump/aerial operations, ventilation and medical aid.

Wildland Fire Baseline Performance Measures

Wildland Fire – First Unit – Baseline Performance

Low Risk: Over a period of five years, from 2019-2023, for 90 percent of all low risk wildland fires, the total response time for the arrival of the first-due unit, staffed with three firefighters, is 11 minutes and 34 seconds. The first-due unit is capable of establishing command, evaluating the need for additional specialized resources, and advancing the first line for fire attack.

Moderate Risk: Over a period of five years, from 2019-2023, for 90 percent of all moderate risk wildland fires, the total response time for the arrival of the first-due unit, staffed with three firefighters, is 8 minutes and 16 seconds. The first-due unit is capable of establishing command, evaluating the need for additional specialized resources, and advancing the first line for fire attack.

High Risk: Across a period of five years, from 2019-2023, for 90 percent of all high risk wildland fires, the total response time for the arrival of the first-due unit, staffed with three firefighters, is 6 minutes and 34 seconds. The first-due unit is capable of establishing command, evaluating the need for additional resources, and advancing the first line for fire attack.

Wildland Fire – Effective Response Force – Baseline Performance

Low Risk: Over a period of five years, from 2019-2023, for 90 percent of all low risk wildland fires, the total response time for the arrival of the effective response force, staffed with four firefighters and officers is 9 minutes and 53 seconds. The effective response force is capable of providing 1,500 gallons per minute pumping capability and be able to accomplish the following critical tasks necessary to contain a low risk fire: command, fire attack, and pump operations.



Moderate Risk: Over a period of five years, from 2019-2023, for 90 percent of all moderate risk wildland fires, the total response time for the arrival of the effective response force, staffed with 20 firefighters and officers⁶⁴ is 11 minutes and 30 seconds. The effective response force is capable of providing 4,500 gallons per minute pumping capability and be able to accomplish the following critical tasks necessary to contain a moderate risk fire: command, safety, perimeter control left flank, perimeter control right flank, and pump operations.

High Risk: Across a period of five years, from 2019-2023, the Culver City Fire Department did not record a high risk wildland fire incident.

⁶³ Prior to June 20, 2022, the effective response force was 18.

⁶⁴ Ibid.



EMS Baseline Performance Measures

EMS – First Unit – Baseline Performance

Low Risk: Over a period of five years, from 2019-2023, for 90 percent of all low risk EMS incidents, the total response time for the arrival of the first arriving unit is *8 minutes and 57 seconds*. The first arriving unit is staffed with a minimum of *two firefighters*. The first arriving unit is capable of establishing command, evaluating the need for additional resources, initiating basic life support, and early defibrillation.

Moderate Risk: Over a period of five years, from 2019-2023, for 90 percent of all moderate risk EMS incidents, the total response time for the arrival of the first arriving unit is *7 minutes and 47 seconds*. The first arriving unit is staffed with a minimum of *two firefighters*. The first arriving unit is capable of establishing command, evaluating the need for additional resources, initiating basic life support, and early defibrillation.

High Risk: Over a period of five years, from 2019-2023, for 90 percent of all high risk EMS incidents, the total response time for the arrival of the first arriving unit is *9 minutes and 15 seconds*. The first arriving unit is staffed with a minimum of *two firefighters*. The first arriving unit is capable of establishing command, evaluating the need for additional resources, initiating basic life support, and early defibrillation.



EMS – Effective Response Force – Baseline Performance

Low Risk: Over a period of five years, from 2019-2023, for 90 percent of all low risk EMS incidents, the total response time for the arrival of the effective response force, staffed with *five firefighters* is *11 minutes and 3 seconds*. The effective response force is capable of completing the following critical tasks: supervision, patient assessment, documentation, patient care and transport.

Moderate Risk: Over a period of five years, from 2019-2023, for 90 percent of all moderate risk EMS incidents, the total response time for the arrival of the effective response force, staffed with *five firefighters* is *10 minutes and 41 seconds*. The effective response force is capable of completing the following critical tasks: supervision, patient assessment, documentation, patient care and transport.

High Risk: Over a period of five years, from 2019-2023, for 90 percent of all high risk EMS incidents, the total response time for the arrival of the effective response force, staffed with *20 firefighters*⁶⁵ is *13 minutes and 23 seconds*. The effective response force is capable of completing the following critical tasks: supervision, scene safety, medical communications, ambulance staging, triage, patient care and transport.

Technical Rescue Baseline Performance Measures

Technical Rescue – First Unit – Baseline Performance



⁶⁵ Prior to June 20, 2022, the effective response force was 18.

Low Risk: Over a period of five years, from 2019-2023, for 90 percent of all low risk technical rescue incidents, the total response time for the arrival of the first arriving company is *7 minutes and 13 seconds*. The first arriving unit is staffed with a minimum of *three firefighters* capable of: establishing command; sizing up to determine if a technical rescue response is required; requesting additional resources; and providing basic life support to any victim without endangering response personnel.

Moderate Risk: Over a period of five years, from 2019-2023, for 90 percent of all moderate risk technical rescue incidents, the total response time for the arrival of the first arriving company is *6 minutes and 27 seconds*. The first arriving unit is staffed with a minimum of *three firefighters* capable of: establishing command; sizing up to determine if a technical rescue response is required; requesting additional resources; and providing basic life support to any victim without endangering response personnel.

High Risk: Across a period of five years, from 2019-2023, the Culver City Fire Department did not record a high risk technical rescue incident.



Technical Rescue – Effective Response Force – Baseline Performance

Low Risk: Over a period of five years, from 2019-2023, for 90 percent of all low risk technical rescue incidents, the total response time for the arrival of the effective response force, staffed with *four firefighters*, is *11 minutes and 48 seconds*. The effective response force is capable of: supervision; scene safety; crew management and accountability; communications; and extrication.

Moderate Risk: Across a period of five years, from 2019-2023, the Culver City Fire Department did not deliver an effective response force to a moderate risk technical rescue incident.

High Risk: Across a period of five years, from 2019-2023, the Culver City Fire Department did not record a high risk technical rescue incident.

Hazardous Materials Baseline Performance Measures

Hazardous Materials – First Unit – Baseline Performance

Low Risk: Over a period of five years, from 2019-2023, for 90 percent of all low risk hazardous material incidents, the total response time for the arrival of the first arriving company is *8 minutes and 27 seconds*. The first arriving unit is staffed with a minimum of *three firefighters*, capable of establishing command, evaluating the need for additional resources, and establishing the initial isolation distance.

Moderate Risk: Over a period of five years, from 2019-2023, for 90 percent of all moderate risk hazardous materials incidents, the total response time for the arrival of the first arriving company is *9 minutes and 38 seconds*. The first arriving unit is staffed with a minimum of *three firefighters*, capable of establishing command, evaluate the need for additional resources, and establish the initial isolation distance.



High Risk: Over a period of five years, from 2019-2023, for 90 percent of all high risk hazardous material incidents, the total response time for the arrival of the first arriving company is *7 minutes and 13 seconds*. The first arriving unit is staffed with a minimum of *three firefighters*, capable of establishing command, evaluate the need for additional resources, and establish the initial isolation distance.

Hazardous Materials – Effective Response Force – Baseline Performance



Low Risk: Over a period of five years, from 2019-2023, for 90 percent of all low risk hazardous material incidents, the total response time for the arrival of the effective response force, staffed with *three firefighters*, is *8 minutes and 27 seconds*. The effective response force is capable of scene supervision and investigation.

Moderate Risk: Over a period of five years, from 2019-2023, for 90 percent of all moderate risk hazardous material incidents, the total response time for the arrival of the effective response force, staffed with *13 firefighters and officers*, is *11 minutes and 16 seconds*. The effective response force is capable of establishing command, material identification, perimeter control, evacuation, and containment.

High Risk: Over a period of five years, from 2019-2023, for 90 percent of all high risk hazardous material incidents, the total response time for the arrival of the effective response force, staffed with *20 firefighters and officers*⁶⁶, is *13 minutes and 21 seconds*. The effective response force is capable of providing the following critical tasks: command, safety, material identification, perimeter control, evacuation, and containment.

CONSIDERATIONS

Data Methodology

Staff queried the fire and computer aided dispatch (CAD) records management systems to gather data necessary for statistical analysis.

Alarm handling time, turnout time, travel time and total response time were calculated incident by incident using the following calculations:

- Alarm Handling Time = dispatch – initiate (i.e., call pick up)
- Turnout Time = en route – dispatch
- Travel Time = on scene – en route
- Total Response Time = on scene – dispatch (i.e., Alarm Handling + Turnout + Travel)

Initial upper and lower thresholds of 20 minutes for alarm handling and turnout, 30 minutes for travel, and 60 minutes for total response time were applied for data cleaning purposes. Times equal to, or less than zero were excluded from the analysis. An upper threshold of three standard deviations from the mean was put in place for each time segment, allowing for the inclusion of approximately 99 percent of the CCFD's data while eliminating outliers. Staff observes and investigate outliers to validate the proper threshold-setting methodology is in place.



⁶⁶ Prior to June 20, 2022, the effective response force was 18.

Staff utilizes the National Fire Incident Reporting System (NFIRS) call type codes to assess response times. Emergency activity is classified by accreditation program (e.g., Fire, EMS) and each program comprises the following NFIRS call types:

EMS	300, 311, 320, 321, 322, 323, 324
Fire	100, 110, 111, 112, 113, 114, 115, 116, 117, 118, 120, 121, 122, 123, 130, 131, 132, 133, 134, 135, 136, 137, 138, 150, 151, 152, 153, 154, 155, 160, 161, 162, 163, 164, 170, 171, 172, 173
Haz Mat	400, 410, 411, 412, 413, 420, 421, 422, 423, 424, 430, 431, 440, 451
Tech Rescue	331, 340, 341, 342, 343, 350, 351, 352, 353, 354, 355, 356, 357, 360, 361, 362, 363, 364, 365, 370, 371, 372, 381
Wildland Fire	140, 141, 142, 143

111 National Fire Incident Reporting System (NFIRS) Incident Types

Incidents are further categorized based on risk level.

There was a change in the effective response force (ERF) after June 20, 2022 for the following risks and categories: Fire (moderate and high risk), EMS (high risk), Haz Mat (high risk), Technical Rescue (high risk), and Wildland Fire (moderate and high risk). Critical tasking analysis was reassessed after the implementation of the third rescue ambulance. It was determined that two additional personnel would be needed for the ERF.

Dispatch

In 2017, the CCFD, in coordination with the Culver City Police Department, moved to a new dispatch center (RCC), causing a modification in the computer aided dispatch (CAD) systems utilized as well as a shift in records management systems (RMS) for both CAD and fire records. The CAD shift occurred in March 2017 and the fire RMS shift occurred in July 2017. Another move is on the horizon, as RCC is currently in the process of selecting a new CAD system. The new CAD system should be able to offer automated vehicle location, ease of integration with other software systems and greater reporting capabilities.

Up until 2014, the CCFD observed CAD nature codes to assess response times. Nature codes are essentially the dispatch codes shared with CCFD upon the dispatch of a call (e.g., rescue, fire). As of 2014, the CCFD began using the situation found (i.e., NFIRS codes) to assess response times.

Records Management Systems

The CCFD has been utilizing the same RMS since July 2017. Prior to that, CCFD's RMS was a partition of the City's CAD system. There was more continuity between the department's RMS and the City's CAD system due to both systems being managed by the same software vendor.

As previously noted, the CCFD switched to assessing situation found response times as opposed to dispatch nature codes. As a result of this change, the importance of having the two systems easily relate to one another became essential. While some data is uploaded into



the department RMS automatically from CAD, there are some data components that the department must include outside of both systems in order to properly report CCFD statistics. While the RMS software utilized by the CCFD is user friendly from a NFIRS report-writer's standpoint and has sufficient reporting capabilities, there are challenges with how the data comes across from the outdated CAD system. For example, geolocation codes do not translate from CAD to RMS properly and must be related separately.

Special Programs

The CCFD has utilized a reserve firefighter and ambulance operator program to supplement its effective response force. The reserve program has not been utilized since prior to the COVID-19 pandemic while the ambulance operator program is operational. Neither program is counted in the CCFD's baseline and benchmark performance standards. Reasons are outlined below.

Ambulance Operator Program

The CCFD operates a BLS ambulance staffed with non-firefighter EMTs. The purpose of this program is twofold. One, it provides a valuable service to the community by providing patient transport for low acuity patients, freeing up the CCFD's three ALS rescues for high acuity patients and suppression calls. Second, it is utilized to recruit and develop aspiring firefighters. Ambulance Operators are eligible to apply for a paramedic school scholarship and/or sponsorship to a local fire academy.

The CCFD's goal is to operate the BLS ambulance 24/7; however, there are times when it cannot be put in service due to lack of staffing. For example, in 2023, the BLS ambulance was not in service approximately 43% of the time. Currently the BLS ambulance is not part of an effective response force. It is a secondary resource utilized for patient transport after paramedics determine that the patient does not require ALS treatment. This unit responds non-emergency unless directed otherwise.

Below are baseline statistics for Ambulance 42's responses. Unlike frontline apparatus response, Ambulance 42 responses include calls where the ambulance travels Code 2 and Code 3 (i.e., without lights and sirens, and with lights and sirens). As a result, travel times are longer. Additionally, it should be noted that there are longer alarm handling times as often the ambulance isn't dispatched as part of the initial response.

Ambulance 42 - All Risk Response 90th Percentile Baseline Performance	2019-2023	2023	2022	2021	2020	2019
Alarm Handling	11:52	17:30	11:54	8:59	12:17	10:46
Turnout	2:25	2:22	2:06	2:31	2:26	2:30
Travel	10:57	11:54	11:13	10:36	11:05	10:27
Total Response Time	21:34	27:56	21:58	18:00	21:49	20:30
	n = 4,758	271	1,119	962	930	1,476

112 Ambulance 42 All Risk Response Baseline Performance



EVALUATION PROCESS

The CCFD follows a process to continually improve and enhance the service it provides to the Culver City community. This is done through the establishment of benchmarks. Below is the process the CCFD follows to home in on the most appropriate benchmarks/targets and continually review those benchmarks as they relate to baseline performance.

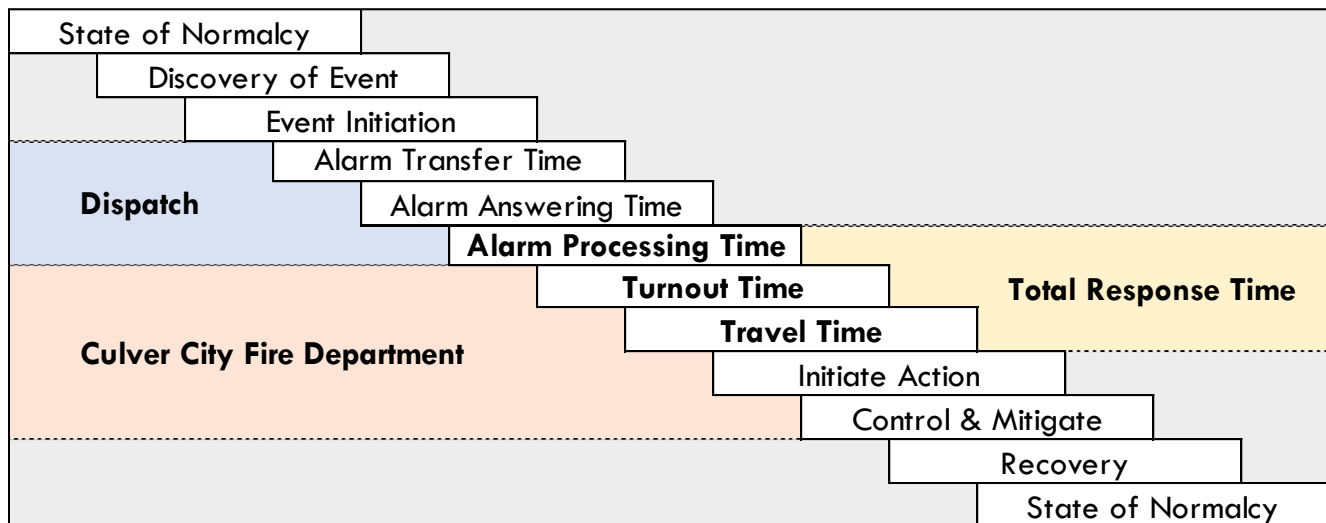


113 Evaluation Process Cycle



RESPONSE TIME COMPONENTS

Response time has different meanings depending on the observer's perspective. Here are three key viewpoints to consider: fire department staff, the public, and the fire, or patient in an emergency medical situation. The total response time clock for fire department staff begins when a member of the public calls 911 dispatch to report the fire or emergency medical incident and ends when the first fire apparatus arrives at the scene. The public typically begins counting down the seconds from the moment a fire or emergency medical incident is observed until firefighters arrive. The fire's clock or a patient's clock begins ticking the moment a fire ignites or the medical emergency event occurs respectively. The National Fire Protection Association refers to these time points in a Cascade of Events chart.



114 Response Time Components

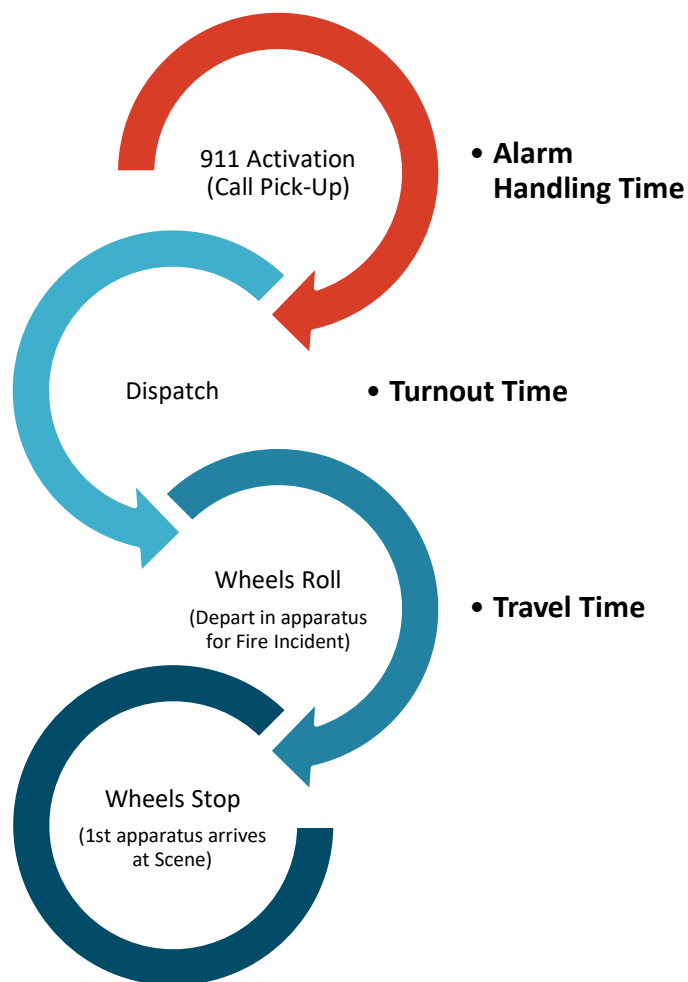
Depending on perspective, several factors could be considered as part of total response time for an emergency response. Some of which are as follows: ignition, combustion, fire detection, medical emergency event occurs, report to 911, call processing, dispatch, turnout time, travel time, setup time, the time fighting the fire, assessing patient(s) and lastly, fire extinguishment or transporting the patient. Of all of these total response time factors, fire department staff is primarily concerned with what is measurable. Those measurable time points are 911 activation, dispatch, en route time, and arrival time.



Alarm Handling Time

Alarm handling, or call processing, time is defined as the interval between answering the 911 call at the dispatch center and the time the dispatcher activates station and/or company alerting devices. Factors influencing call processing time include:

- Proliferation of cell phone use: Emergency calls received from normal telephone lines automatically populate the Computer Aided Dispatch (CAD) system with the incident location with no manual entry required. Emergencies reported via cell phone require that incident information be collected and manually entered into the CAD system, therefore slowing call processing time.
- Calls transferred from other jurisdictions: Emergency calls frequently originate in one jurisdiction only to be transferred to the servicing agency. The Culver City dispatch center receives calls transferred from other agencies including California Highway Patrol, Los Angeles City Fire Department, and Los Angeles County Fire dispatch centers. Incident information has to be collected and manually entered into the CAD system, therefore slowing the call processing time.
- The inception of Text to 9-1-1: Text to 9-1-1 was introduced to Culver City in December 2017. Mobile users in Los Angeles County have the ability to send text messages to 9-1-1, giving hearing and speech impaired residents, or those in situations where it is too dangerous to dial 9-1-1, a potentially lifesaving option.
- Calls requiring emergency medical dispatch questioning and pre-arrival medical instructions may affect alarm handling times. As of March 2017, the CCFD moved to a new dispatch center, which is capable of emergency medical dispatching. Although dispatchers are well trained to dispatch with minimal information, there is a potential for a delay.
- Calls relating to criminal activity could also impact alarm handling times. As the times recorded relate to time a dispatcher picks up call to when it is dispatched, police



115 Components of Response Time



activity prior to the fire department being dispatched could lead to increased alarm handing time.

- Language barriers: receiving a 911 call from a non-English speaking customer can require more time to collect incident information.
- Multiple callers for the same incident: dispatchers frequently receive multiple calls for the same incident compounding dispatcher workload, which can lengthen call processing time.
- Simultaneous incidents: The occurrence of simultaneous incidents impacts dispatcher workload and can result in longer call processing times.

As of February 2017, fire and police 9-1-1 service was moved to the South Bay Regional Public Communications Authority (also referred to as “RCC” for Regional Communications Center). The RCC is a joint powers authority currently owned by three south bay cities—Gardena, Hawthorne, and Manhattan Beach. The RCC also provides service to El Segundo and Hermosa Beach. The CCFD has established a call processing standard, which it has communicated to the dispatch staff. Although, dispatchers are not subject to CCFD policies and standards, dispatchers are aware of the CCFD’s standards and the importance of a timely response by fire personnel.

Turnout Time

Turnout time is defined as the interval between the activation of station and/or company alerting devices, and the time when the responding crew is aboard the apparatus and responding to the incident location. Factors influencing turnout time include:

- Unit location at time of dispatch: Throughout the day, fire companies are out of the station attending to assigned activities. Personnel may be a short distance away from their apparatus when the dispatch is received. For example, personnel could be surveying a building for a Pre-Fire Plan, at the Culver City Transportation Facility for maintenance, or returning from another emergency incident. Situations such as these are necessary but can increase turnout time while crews get to their vehicles and prepare for departure. Efforts are made to have other fire companies respond in place of affected crews to minimize this type of impact.
- Activities immediately preceding response activation: Much of a firefighter’s day is dictated by local and national standards such as NFPA, OSHA, and the California Fire Code. As a result, companies are engaged in training exercises, public education, and inspections. Training scenarios typically employ full protective clothing, charged hose lines, and equipment. Fire inspections are conducted by all units on a weekly basis. Crews, with their apparatus, attend several public events monthly at the community’s request. All of these events require a certain amount of time to disengage before responding but are a necessary part of organizational functions.
- Type of incident: Depending on the incident type, firefighters are required to wear different pieces of equipment. During a medical emergency, firefighters are required to wear latex gloves and protective eyewear. Throughout the COVID-19 Pandemic



personal protective equipment requirements intensified to include masks and protective gowns. Structural turnouts and personal protective equipment are generally far more time consuming to put on.

- Station layout: Culver City's fire stations average approximately 10,000 square feet. This adds to a firefighter's travel time within the building to their apparatus during an emergency response.

CCFD personnel understand the importance of response times and strive to minimize turnout time. Once notified of a call, firefighters move with haste to the apparatus and don the appropriate protective equipment quickly.

Several technological aids help notify firefighters of a call. Turnout timers have been available in station bays since 2014. Since 2017, the CCFD has had in place a station alerting system, as well as Active 911, a pre-alert system connected to cell phones. A secondary pre-alert system connected to the CCFD's pre-fire planning software is also now available on cell phones.

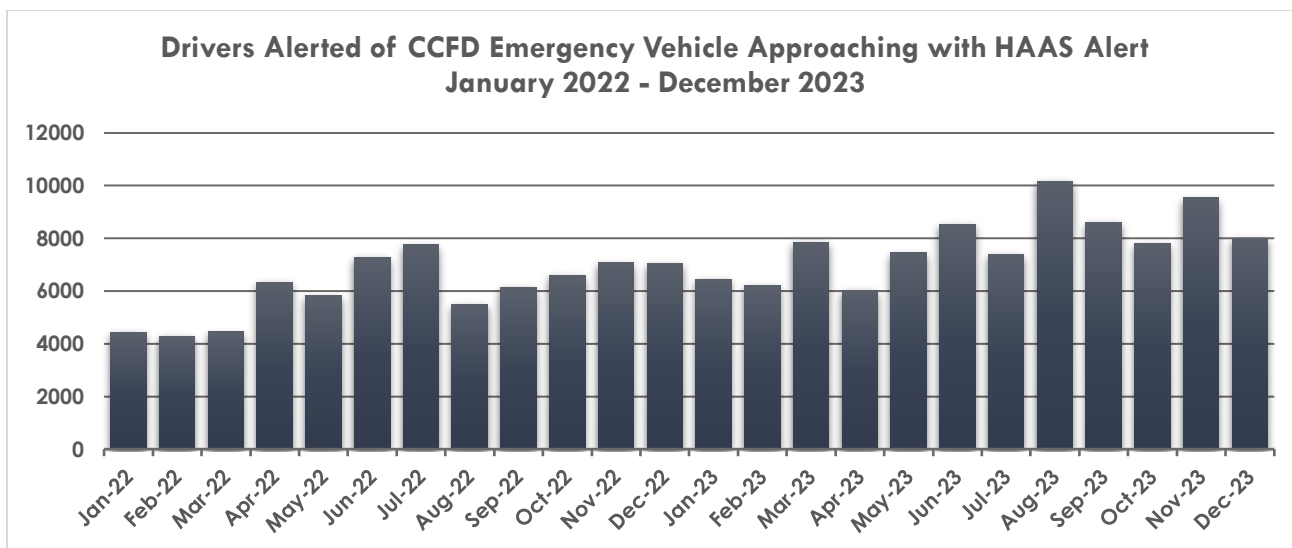
Travel Time

Travel time is the time it takes to drive from the fire station (or location at which firefighters received the alarm) to the curbside of the address of the incident. Factors influencing travel time include:

- Traffic control devices: Traffic-calming features such as traffic circles, speed bumps, cul-de-sacs, curb extensions, and medians affect the time in which apparatus can reach a fire or medical emergency.
- Volume of Traffic: with an estimated day population of over 70,000 people, and high traffic volumes on major freeways and arterials, the Culver City streets are highly impacted with traffic. Although emergency apparatus responding with lights and sirens are able to go around most vehicles and through most intersections, apparatus drivers must take extreme caution due to the number of vehicles on the road and at times, must wait for traffic to clear before being able to proceed down a street.
- Knowledge and awareness of surrounding drivers: according to the California Department of Motor Vehicle Code 21806, drivers are expected to yield the right-of-way to emergency response vehicles and shall immediately drive to the right-hand edge or curb of the street. Oftentimes, due to traffic density or lack of driver knowledge, and driver distraction with radios or cell phones, this does not occur. Waiting for traffic to clear further slows the travel time to the scene of a fire or emergency medical situation.

With the build out of all new apparatus, the CCFD includes responder-to-vehicle alerting systems, which send real time alerts to drivers when responders are en route to a call and on scene. The alerts via real time mapping systems, e.g., Waze. The intention is for drivers to move out of the way sooner as the CCFD's apparatus approach, as well as cause drivers to be more cautious when approaching incidents scenes.





116 Number of Drivers Alerted of Approaching Emergency Apparatus

INDUSTRY RESEARCH

It is important to observe industry research and standards when assessing benchmark targets. The CCFD keeps abreast of several industry standards, such as the American Heart Association, Insurance Services Office (ISO), and the National Fire Protection Association (NFPA). Industry research tells the CCFD why time is so important. The critical factor of time addresses the CCFD effectiveness and ability to deliver on its mission, which is to protect life, property and the environment.

Fire Response – Critical Factor of Time

In order to set proper response time measures, it is important to understand the critical factor of time when addressing fire and emergency medical incidents.

Stages of Fire Growth – Critical Factor of time

Although fires vary in terms of the speed at which they grow, the host structure, the material burning, and the intensity level, all fires follow the same stages of growth. Industry-wide, the flashover point is the moment during fire growth that significantly compounds the danger of the fire.

Smoldering Stage

All fires start with the smoldering stage. Anytime energy, i.e., heat, a spark, or a flame, is applied to a combustible material, the material's surface oxidizes. The oxidation process is exothermic, meaning energy is released from the material. This oxidation process produces more energy in the form of combustible gases. After an exothermic reaction, more energy is ultimately released to the surroundings than was absorbed to initiate and maintain the reaction. The additional heat from the oxidation process raises the temperature of surrounding material, which increases the rate of oxidation and begins a chemical chain reaction of heat release and burning.



Incipient/Open-Burning Stage

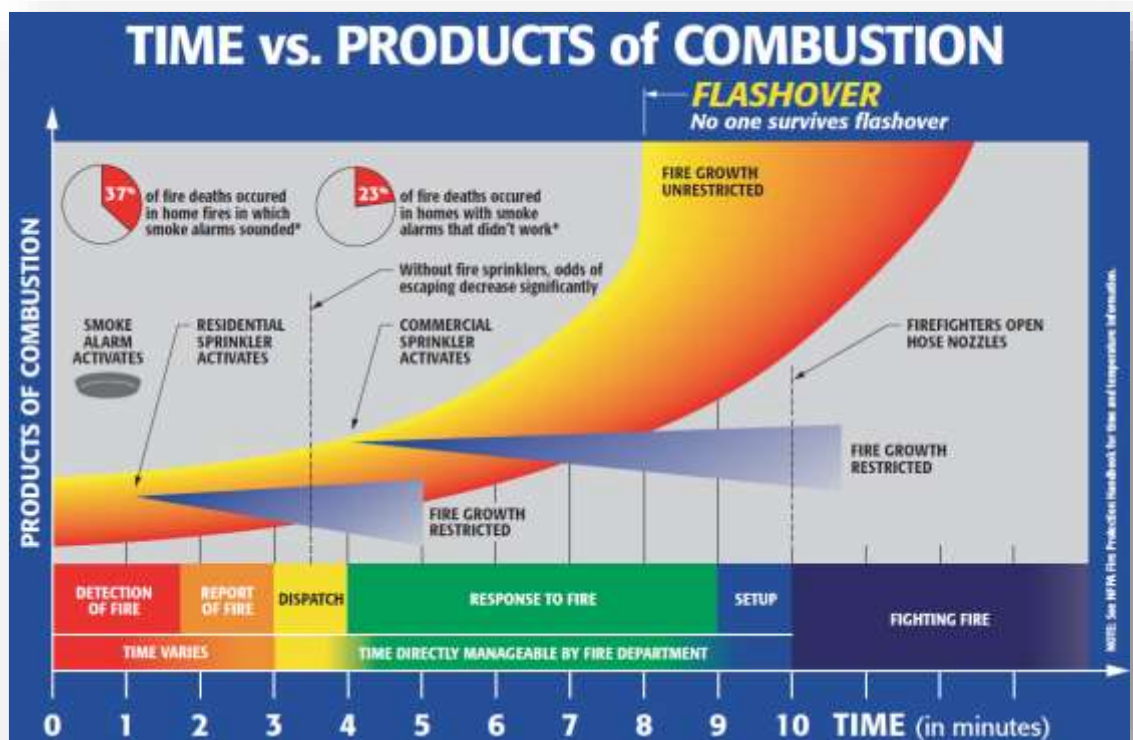
Once the temperature of the smoldering material reaches its relative ignition point, the material ignites into an open burning or incipient stage. Flames seen during the incipient stage are limited to the area of origin. The combustion process continues by releasing more heat, which hastens the temperature increase and accelerates the levels of combustible gases released from surrounding materials.

Flashover

Combustible gases continue to release from surrounding materials. As they are a form of energy and heat, these gases rise and collect at the ceiling level. The gas layer, primarily carbon monoxide, can rapidly reach 1,500 degrees Fahrenheit at the top of a room and radiate heat down to objects at the floor level. With no oxygen at the ceiling level, the objects in the upper portions of the room are unable to burst into flames. The volume of the gas layer increases and begins to fill the room, banking down towards the floor and continuing to heat all combustible objects in the room regardless of their proximity to the burning material.

The flashover point occurs when oxygen is introduced. Oxygen is typically introduced in one of two ways. There is often enough oxygen at the floor level to trigger flashover. Or, the high levels of heat break open a window and introduce oxygen from the outside. Flashover represents the point at which everything in the room breaks into open flame all at once. This reaction creates enough energy, i.e., heat, smoke, and pressure, to break beyond the room of origin and through doors and windows.

Flashover is a critical turning point in a fire as it escalates the challenge presented to a



117 Time versus Products of Combustion

department's resources. Post-flashover conditions present significantly increased combustion rates and limit the chance of saving lives. When a fire has reached flashover, more staffing is required to handle the larger hose streams needed to extinguish the fire. A post-flashover fire



burns hotter and moves faster, compounding the search and rescue challenges in the remainder of the structure.

Without early arrival and suppression efforts, not only will the loss be potentially greater, but the apparatus, equipment, and number of personnel needed to handle the fire must also increase. The graphic above correlates the stage of the fire with resource and equipment needs.

EMS Response – Critical Factor of Time

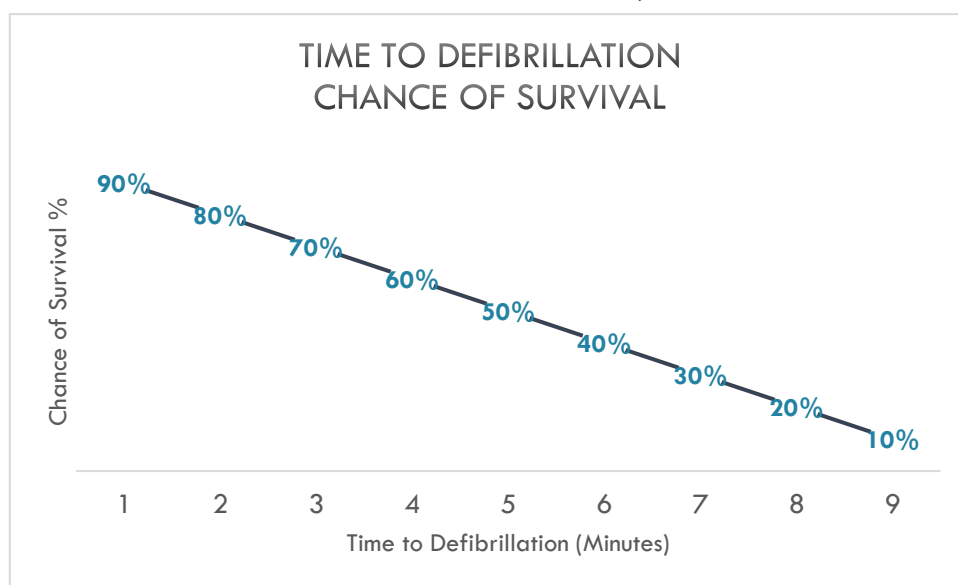
There are a variety of medical emergencies to which CCFD personnel respond on a daily basis. EMS professionals are tasked with getting to the medical emergencies in a timely fashion, delivering necessary therapeutic measures, and transporting patients. In cases of cardiac arrest, stroke, trauma, and pediatric emergencies, EMS staff must get the patient to the appropriate hospital for treatment as well.

Most medical emergencies require multiple personnel to perform the various tasks associated with patient care. As there are two firefighter paramedics staffed on an ambulance, an engine or truck, staffed with three or four personnel respectively, must report to a medical emergency to provide assistance as well.

Most EMS guidelines are based upon studies showing the relationship between resuscitation efforts and the timeframes in which they are initiated. Similar to fire flashover, the CCFD uses a critical time component of four to six minutes before brain death occurs in a cardiac arrest patient. Brain damage is usually irreversible after ten minutes without oxygen. Early defibrillation is a vital form of intervention. When cardiac arrest occurs, the heart starts to

beat chaotically (fibrillation) and does not circulate blood through the body. For every minute without defibrillation, the odds of survival drop seven to ten percent. A sudden cardiac arrest victim who is not defibrillated within ten minutes has virtually no chance of survival. The shortest possible response time creates the highest probability of resuscitation. Rapid response times are not the only factor in providing rapid

defibrillation. Sometimes there are delays in accessing a patient located in a high rise building, a condominium complex, shopping center, or other occupancy that has a significant walking distance to the patient's location. To address this limitation, the American Heart Association promotes citizen CPR and Public Access Defibrillation programs. The CCFD provides hands-only Cardiopulmonary Resuscitation (CPR) training to the community and operates a Public Access Defibrillation program in several City buildings.



118 Chance of Survival Chart - Time to Defibrillation



Comparability

Comparability is the review of the organization in comparison to other like-sized agencies, other accredited fire agencies, or industry best practices. Outlined below are three relevant national standards: the American Heart Association guidelines, the Insurance Services Office standards, and the National Fire Protection Association standards.

American Heart Association Guidelines

The American Heart Association (AHA) has established that the brain begins to die within four to six minutes without oxygen; brain damage is irreversible after ten minutes. Interventions include early cardiopulmonary resuscitation (CPR) and electrical defibrillation. The earlier CPR is initiated, the better the patient's chance of survival. The AHA states that patients receiving CPR within two minutes and defibrillation within four minutes have a thirty percent survival rate. For patients receiving no CPR and delayed defibrillation (after ten minutes), the survival rate drops below two percent.

Insurance Services Office (ISO)

The ISO evaluates municipal fire protection in communities throughout the United States. In each community, ISO analyzes the relevant data and assigns a Public Protection Classification (PPC) rating—a number from 1 to 10. Class 1 represents exemplary fire protection services, and Class 10 indicates that the area's fire-suppression program does not meet ISO's minimum criteria. The PPC rating is determined by using a uniform set of criteria, incorporating nationally recognized standards developed by the National Fire Protection Association and the American Water Works Association.



A community's PPC grade depends on:

- Needed Fire Flows, which are representative building locations used to determine the theoretical amount of water necessary for fire suppression purposes.
- Emergency Communications, including emergency reporting, telecommunicators, and dispatching systems.
- Fire Department, including equipment, staffing, training, geographic distribution of fire companies, operational considerations, and community risk reduction.
- Water Supply, including inspection and flow testing of hydrants, alternative water supply operations, and a careful evaluation of the amount of available water compared with the amount needed to suppress fires up to 3,500 gpm.

The City was last assessed by ISO in 2023 and received a rating of Class 1 effective May 1, 2024. Out of over 38,000 agencies surveyed in the United States, only 498 hold a Class 1 rating.



Just 45 out of 862 rated agencies in the State of California have the Class 1 distinction. Culver City has maintained the Class 1 rating since 1995.⁶⁷

National Fire Protection Association (NFPA)

National Fire Protection Association 1221 and 1710 are nationally recognized voluntary standards. NFPA 1221 (2019) is the standard for the installation, maintenance, and use of emergency services communications systems and NFPA 1710 (2020) is the standard for the organization and deployment of fire suppression operations, emergency medical operations, and special operations to the public by career fire departments. These standards outline an organized approach to defining levels of service, deployment capabilities, and staffing. Specifically, NFPA 1710 provides standard definitions for fire apparatus, personnel assigned, procedural guidelines within which they operate, and staffing levels needed to accomplish specific tasks on arrival at an incident. NFPA 1710 states that fire departments shall establish a performance objective of not less than 90 percent for each of the following response time objectives:

- One minute (60 seconds) for alarm processing time.
- One minute and twenty seconds (80 seconds) for turnout time for fire and special operations response and one minute (60 seconds) turnout time for EMS response.
- Four minutes (240 seconds) or less travel time for the arrival of the fire arriving engine company at a fire suppression incident and eight minutes (480 seconds) or less travel time for the deployment of an initial full alarm assignment at a fire suppression incident.
- Four minutes (240 seconds) or less travel time for the arrival of a unit with first responder with automatic external defibrillator (AED) or higher level capability at an emergency medical incident.
- Eight minutes (480 seconds) or less travel time for the arrival of an advanced life support (ALS) unit at an emergency medical incident, where this service is provided by the fire department provided a first responder with AED or basic life support (BLS) unit arrived in 240 seconds or less travel time.

UNIQUE NEEDS OF THE COMMUNITY

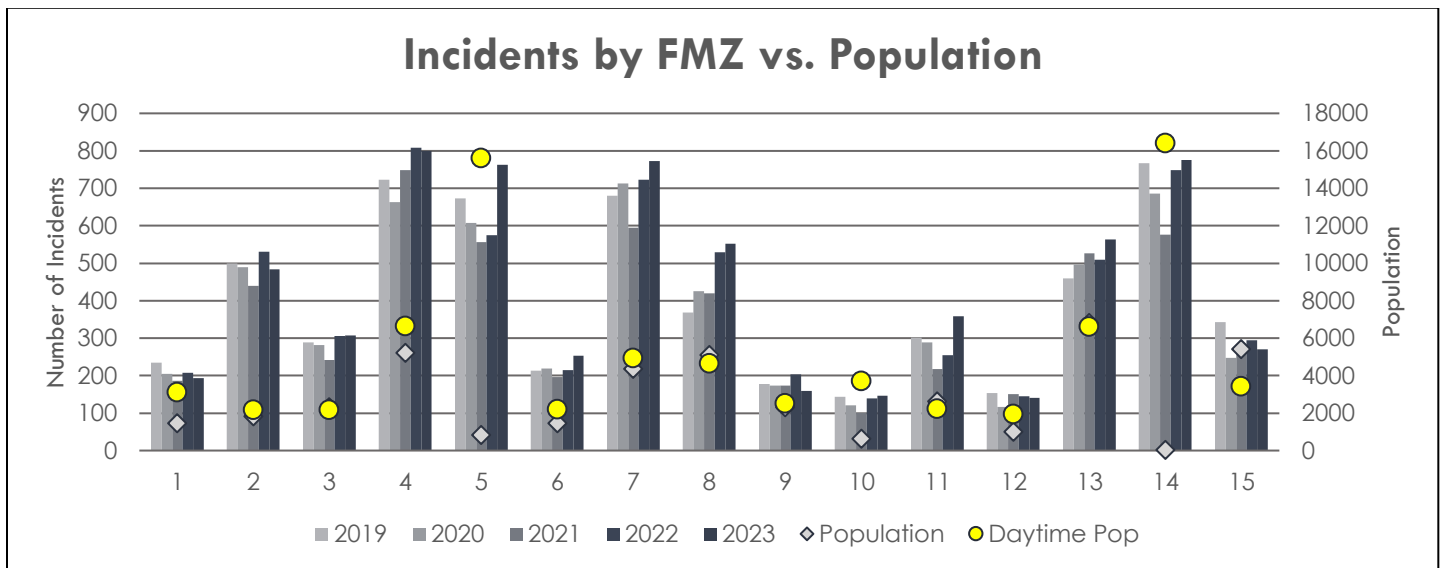
The CCFD scrutinizes the intricacies of the Culver City community in order to help set benchmarks. Demographics by fire management zone, occupancy types and use types, as well as historical call volumes all play a role in determining what the CCFD should aim for in terms of a response that will intervene in enough time to positively affect the outcome of the response. This assessment coupled with the CCFD Strategic Planning process assist the CCFD in determining not just what the community needs, but also what the community expects.

⁶⁷ ISO Website, "Facts and Figures about PPC Codes around the Country," <https://www.isomitigation.com/ppc/program-works/facts-and-figures-about-ppc-codes-around-the-country/>



TRAVEL TIMES AND SERVICE DEMANDS

Population density is another important factor to observe when establishing benchmark targets. Below is a chart that displays call volume by fire management zone as compared to daytime and nighttime population levels.



119 Incidents by Fire Management Zone Compared to Population

PARTNER ROLES

The CCFD partners with the South Bay Regional Public Communications Authority (SBRPCA), also known as the regional communications center (RCC), for the provision of dispatching services. RCC plays a critical role in the CCFD’s service delivery and is a valuable partner in determining benchmarks and targets for service delivery. The CCFD works closely with RCC to establish metrics geared toward continuous improvement.

AVAILABILITY OF AID

Currently, the response time factors that the CCFD relies upon do not require mutual or automatic aid from neighboring agencies. Provisions of interoperable communication between the CCFD and neighboring agencies are in place should aid be requested. Common standard operating procedures are in place, compatible equipment is available and joint training regularly occurs.



RELATIONSHIP BETWEEN BASELINE AND BENCHMARKS

Gaps are spaces between the baseline and benchmark performance. They gauge how close (or far away) the CCFD is to reaching its goal. Gaps are opportunities to improve. There are four factors to observe when assessing the gap—the baseline (i.e., actual) performance, the benchmark (i.e., target or goal performance), the gap (i.e., space between the two), and lastly, a plan for closing the gap. The goal is to constantly work toward decreasing the gap between the two. When the department is getting close to reaching its benchmark, it is time to move the benchmark. The process below displays steps and measures the CCFD takes to help reach its benchmark targets.



Below are tables outlining gaps in performance relating to each response classification and category.

Fire Suppression 2019 - 2023	Low			Moderate			High		
	90th Percentile Times	Baseline	Benchmark	Gap	Baseline	Benchmark	Gap	Baseline	Benchmark
Alarm Handling	1:41	1:30	0:11	1:45	1:30	0:15	3:03	1:30	1:33
Turnout	2:23	1:30	0:53	2:48	1:30	1:18	1:53	1:30	0:23
Travel 1st Unit	5:24	4:00	1:24	5:13	4:00	1:13	3:53	4:00	0:07
Travel ERF	5:49	5:00	0:49	9:20	7:00	2:20	7:01	11:00	3:59
Total Response 1st Unit	8:02	7:00	1:02	8:10	7:00	1:10	7:32	7:00	0:32
	n = 471			n = 34			n = 3		
Total Response ERF	8:31	8:00	0:31	11:51	10:00	1:51	10:20	14:00	3:40
	n = 208			n = 6			n = 1		

120 Fire Performance Gaps

Wildland Fire 2019 - 2023	Low			Moderate			High		
	90th Percentile Times	Baseline	Benchmark	Gap	Baseline	Benchmark	Gap	Baseline	Benchmark
Alarm Handling	1:49	1:30	0:19	1:43	1:30	0:13	0:59	1:30	0:31
Turnout	1:55	1:30	0:25	3:00	1:30	1:30	1:24	1:30	0:06
Travel 1st Unit	8:06	4:30	3:36	5:43	4:30	1:13	4:19	4:30	0:11



Travel ERF	6:23	5:00	1:23	7:03	10:00	2:57	NA	10:00	NA
Total Response 1st Unit	11:34	7:30	4:04	8:16	7:30	0:46	6:34	7:30	0:56
	n = 13			n = 36			n = 2		
Total Response ERF	9:53	8:00	1:53	11:30	13:00	1:30	NA	21:00	NA
	n = 9			n = 3			n = 0		

121 Wildland Fire Performance Gaps

EMS 2019 - 2023	Low			Moderate			High		
	Baseline	Benchmark	Gap	Baseline	Benchmark	Gap	Baseline	Benchmark	Gap
90th Percentile Times									
Alarm Handling	1:46	1:30	0:16	1:31	1:30	0:01	2:01	1:30	0:31
Turnout	2:29	1:20	1:09	2:19	1:20	0:59	2:05	1:20	0:45
Travel 1st Unit	6:16	4:00	2:16	5:18	4:00	1:18	6:29	4:00	2:29
Travel ERF	8:02	7:00	1:02	8:05	7:00	1:05	11:43	10:00	1:43
Total Response 1st Unit	8:57	6:50	2:07	7:47	6:50	0:57	9:15	6:50	2:25
	n = 364			n = 18,918			n = 106		
Total Response ERF	11:03	9:50	1:13	10:41	9:50	0:51	13:23	12:50	0:33
	n = 267			n = 17,586			n = 2		

122 EMS Performance Gaps

Technical Rescue 2019 - 2023	Low			Moderate			High		Special		
	Baseline	Benchmark	Gap	Baseline	Benchmark	Gap	Baseline	Benchmark	Baseline	Benchmark	Gap
90th Percentile Times											
Alarm Handling	1:38	1:30	0:08	2:00	1:30	0:30	NA	1:30	2:19	1:30	0:49
Turnout	2:12	1:30	0:42	1:57	1:30	0:27	NA	1:30	3:51	1:30	2:21
Travel 1st Unit	4:38	4:30	0:08	3:25	4:30	1:05	NA	4:30	7:31	4:30	3:01
Travel ERF	9:05	6:00	3:05	NA	9:00	NA	NA	11:00	NA	11:00	NA
Total Response 1st Unit	7:13	7:30	0:17	6:27	7:30	1:03	NA	7:30	11:30	7:30	4:00
	n = 195			n = 4			n = 0		n = 3		
Total Response ERF	11:48	9:00	2:48	NA	12:00	NA	NA	14:00	NA	14:00	NA
	n = 131			n = 0			n = 0		n = 0		

123 Technical Rescue Performance Gaps

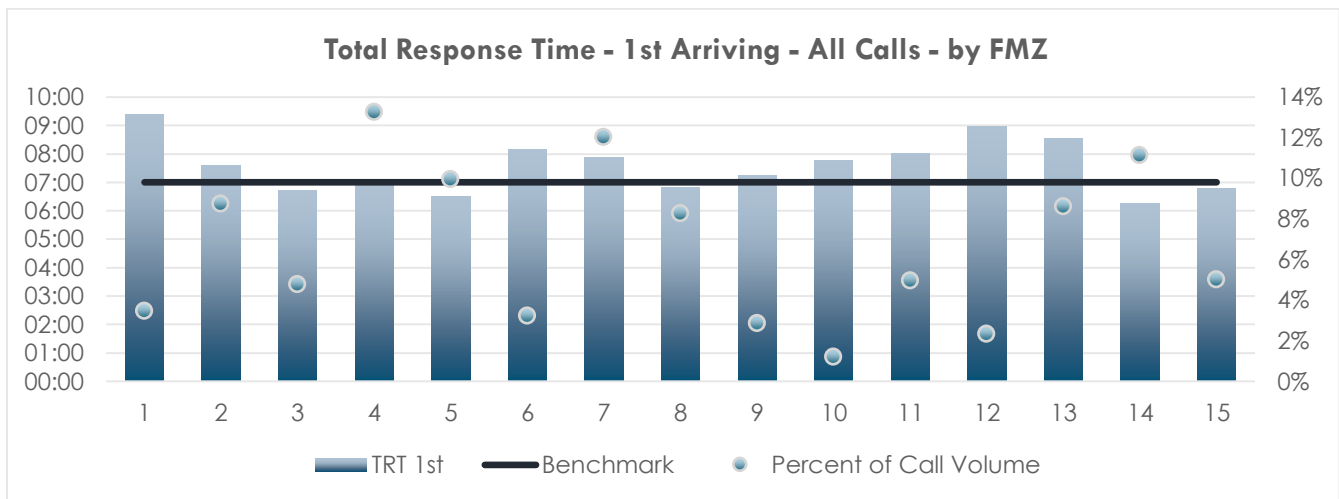
Hazardous Materials 2019 - 2023	Low			Moderate			High		
	Baseline	Benchmark	Gap	Baseline	Benchmark	Gap	Baseline	Benchmark	Gap
90th Percentile Times									
Alarm Handling	2:06	1:30	0:36	2:16	1:30	0:46	2:02	1:30	0:32
Turnout	2:24	1:30	0:54	2:32	1:30	1:02	2:43	1:30	1:13
Travel 1st Unit	5:16	5:00	0:16	5:49	5:00	0:49	4:12	5:00	0:48
Travel ERF	5:16	5:00	0:16	7:52	6:00	1:52	9:06	7:00	2:06



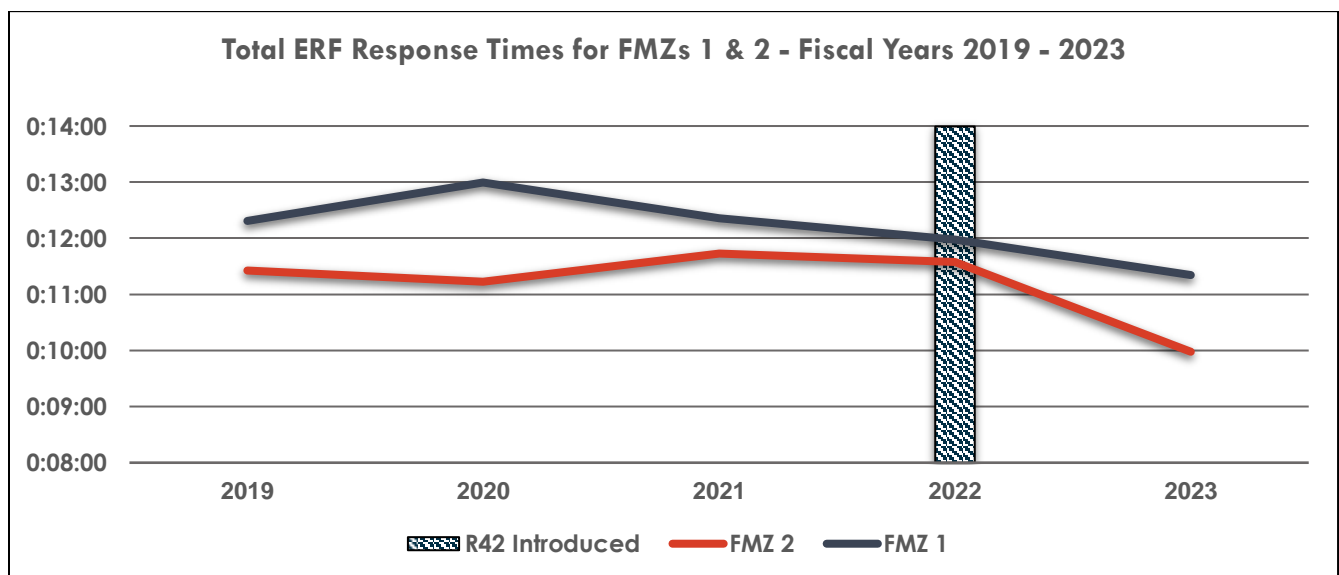
Total Response 1st Unit	8:27	8:00	0:27	9:38	8:00	1:38	7:13	8:00	0:47
	n = 76			n = 50			n = 7		
Total Response ERF	8:27	8:00	0:27	11:16	9:00	2:16	13:21	10:00	3:21
	n = 76			n = 3			n = 5		

124 Hazardous Materials Performance Gaps

Below is a chart that displays service gaps relating to each FMZ. Although benchmarks vary depending on the incident type, a benchmark time of 7 minutes was set for illustrative purposes. The CCFD endeavored to close a service gap in FMZs 1 and 2 by implementing an additional rescue ambulance to its frontline deployment model. The aim of the third rescue was to reduce response times overall, but primarily focus on improving response times in FMZs 1 and 2. The chart below references a full five-year period, during which the third rescue was implemented in the latter half of the period. It is not apparent that first arriving unit response times were impacted greatly, but there has been an improvement in effective response force times. Other factors such as increasing call volume has impacted response times.



125 Total Response Time Compared to Call Volume by Fire Management Zone



126 Effective Response Force for Fire Management Zones 1 and 2 Improvement



ACCEPTABLE RISK

Acceptable risk is risk tolerated because the cost or difficulty implementing an effective countermeasure for the associated vulnerability exceeds the expectation of loss. After the CCFD identifies service gaps, it must propose a level of acceptable risk for the community. A longtime example of acceptable risk is how the CCFD has three personnel per engine as opposed to the recommended four personnel as recommended by the National Institute of Standards and Technology (NIST)⁶⁸. While the NIST study recommends four person engines, an internal CCFD review (i.e., critical tasking analysis) has deemed the three person engines to be acceptable.

BENCHMARK PERFORMANCE STATEMENTS

Staff's review of historical performance, current capabilities, critical tasking, risk analysis, system demand, and community expectations have helped facilitate the establishment of performance measures and performance objective standards. The CCFD is able to set benchmark performance objectives relative to baseline performance observed. Baseline performance describes measures that the department is currently meeting 90 percent of the time, while benchmark standards are goals or performance objectives that the CCFD aims to meet 90 percent of the time.

CCFD staff have developed metrics that are specific, measurable, attainable, relevant, and timely. Taking into account and evaluating needs based on fire growth, flashover, EMS response needs, special service response needs, response times, on-scene operations, problem-solving critical tasks, staff was also able to determine effective response force benchmarks for the community.

Fire Suppression Benchmark Performance Measures

Fire – First Unit – Benchmarks

For 90 percent of all low, moderate, and high-risk fires, the total response time for the arrival of the first-arriving engine company shall be *7 minutes*. The first arriving unit shall be staffed with a minimum of *three firefighters*, capable of establishing command, evaluating the need for additional resources, and advancing the first line for fire attack.

Fire – Effective Response Force – Benchmarks

Low Risk: For 90 percent of all low-risk fires, the total response time for the arrival of the effective response force, staffed with *four firefighters*, shall be *8 minutes*. The effective response force shall be capable of providing 1,500 gallons per minute pumping capability and be able to accomplish the following critical tasks necessary to contain a low-risk fire: command, fire attack, and pump operations.



Moderate Risk: For 90 percent of all moderate risk fires, the total response time for the arrival

⁶⁸ NIST Report on Residential Fireground Field Experiments, <https://www.nist.gov/publications/report-residential-fireground-field-experiments-0>



of the effective response force, staffed with *20 firefighters and officers*, shall be *10 minutes*. The effective response force shall be capable of providing 4,500 gallons per minute pumping capability and be able to accomplish the following critical tasks necessary to contain a moderate risk fire: command, fire attack, back-up fire attack, exposure protection, rapid intervention crew, water supply, pump/aerial operations, ventilation and medical aid.

High Risk: For 90 percent of all high-risk fires, the total response time for the arrival of the effective response force, staffed with *42 firefighters and officers*, shall be *14 minutes*. The effective response force shall be capable of providing 7,500 gallons per minute pumping capability and be able to accomplish the following critical tasks necessary to contain a high-risk fire: command, safety, fire attack, exposure protection, rapid intervention crew, water supply, pump/aerial operations, ventilation and medical aid.

Fire Suppression Benchmarks Summary	Personnel	Apparatus	Total Response Time
Arriving 1st - All Risks	3	1	7:00
ERF - Low Risk	4	2	8:00
ERF - Moderate Risk	20	8	10:00
ERF - High Risk	42	15	14:00

127 Fire Benchmarks Summary

Wildland Fire Benchmark Performance Measures

Wildland Fire – First Unit – Benchmarks

For 90 percent of all low, moderate, and high-risk fires, the total response time for the arrival of the first-arriving engine company shall be *7 minutes and 30 seconds*. The first-due unit shall be staffed with a minimum of *three firefighters*, capable of establishing command, evaluating the need for additional resources, and advancing the first line for fire attack.

Wildland Fire – Effective Response Force – Benchmarks

Low Risk: For 90 percent of all low-risk wildland fires, the total response time for the arrival of the effective response force, staffed with *four firefighters*, shall be *8 minutes*. The effective response force shall be capable of providing 1,500 gallons per minute pumping capability and be able to accomplish the following critical tasks necessary to contain a low-risk fire: command, fire attack, and pump operations.



Moderate Risk: For 90 percent of all moderate risk wildland fires, the total response time for the arrival of the effective response force, staffed with *20 firefighters and officers*, shall be *13 minutes*. The effective response force shall be capable of providing 4,500 gallons per minute pumping capability and be able to accomplish the following critical tasks necessary to contain a moderate risk fire: command, safety, perimeter control left flank, perimeter control right flank, and pump operations.

High Risk: For 90 percent of all high-risk wildland fires, the total response time for the arrival of the effective response force, staffed with *59 firefighters and officers*, shall be *21 minutes*. The effective response force shall be capable of providing 7,500 gallons per minute pumping



capability and be able to accomplish the following critical tasks necessary to contain a high-risk fire: command, safety, perimeter control left flank, perimeter control right flank, structure protection, air operations, and pump operations.

Wildland Fire Benchmarks Summary	Personnel	Apparatus	Total Response Time
Arriving 1st - All Risks	3	1	7:30
ERF - Low Risk	4	2	8:00
ERF - Moderate Risk	20	8	13:00
ERF - High Risk	59	19	21:00

128 Wildland Fire Benchmarks Summary

EMS Benchmark Performance Measures

EMS – First Unit – Benchmarks

For 90 percent of all low, moderate and high-risk EMS incidents, the total response time for the arrival of the first-arriving unit shall be *6 minutes and 50 seconds*. The first-due unit shall be staffed with a minimum of *two firefighters*. The first-due unit shall be capable of establishing command, evaluating the need for additional resources, initiating basic life support, and early defibrillation.

EMS – Effective Response Force – Benchmarks

Low Risk: For 90 percent of all low-risk EMS incidents, the total response time for the arrival of the effective response force, staffed with *five firefighters* shall be *9 minutes and 50 seconds*. The effective response force shall be capable of completing the following critical tasks: supervision, patient assessment, documentation, patient care and transport.



Moderate Risk: For 90 percent of all moderate risk EMS incidents, the total response time for the arrival of the effective response force, staffed with *five firefighters* shall be *9 minutes and 50 seconds*. The effective response force shall be capable of completing the following critical tasks: supervision, patient assessment, documentation, patient care and transport.

High Risk: For 90 percent of all high-risk EMS incidents, the total response time for the arrival of the effective response force, staffed with *20 firefighters* shall be *12 minutes and 50 seconds*. The effective response force shall be capable of completing the following critical tasks: command, safety, triage, treatment, transportation, medical communications, and ambulance staging.

EMS Benchmarks Summary	Personnel	Apparatus	Total Response Time
Arriving 1st - All Risks	2	1	6:50
ERF - Low Risk	5	2	9:50
ERF - Moderate Risk	5	2	9:50
ERF - High Risk	20	8	12:50

129 EMS Benchmarks Summary



Technical Rescue Benchmark Performance Measures

Technical Rescue – First Unit – Benchmarks

For 90 percent of all low, moderate and high-risk technical rescue incidents, the total response time for the arrival of the first-arriving company shall be *7 minutes and 30 seconds*. The first-due unit shall be staffed with a minimum of *three firefighters*, capable of: establishing command; sizing up to determine if a technical rescue response is required; requesting additional resources; and providing basic life support to any victim without endangering response personnel.



Technical Rescue – Effective Response Force – Benchmarks

Low Risk: For 90 percent of all low-risk technical rescue incidents, the total response time for the arrival of the effective response force, staffed with *four firefighters and officers*, shall be *9 minutes*. The effective response force shall be capable of: supervision; scene safety; crew management and accountability; communications; and extrication.

Moderate Risk: For 90 percent of all moderate risk technical rescue incidents, the total response time for the arrival of the effective response force, staffed with *13 firefighters and officers*, shall be *12 minutes*. The effective response force shall be capable of: supervision; appointing a site safety officer; establishing patient contact; staging and apparatus set up; providing technical expertise, knowledge, skills, and abilities during technical rescue incidents; and providing patient medical care.

High Risk: For 90 percent of all high-risk technical rescue incidents, the total response time for the arrival of the effective response force, staffed with *19 firefighters and officers*, shall be *14 minutes*. The effective response force shall be capable of: supervision; appointing a site safety officer; establishing patient contact; staging and apparatus set up; providing technical expertise, knowledge, skills, and abilities during technical rescue incidents; and providing patient medical care.

Technical Rescue Benchmarks Summary	Personnel	Apparatus	Total Response Time
Arriving 1st - All Risks	3	1	7:30
ERF - Low Risk	4	2	9:00
ERF - Moderate Risk	13	5	12:00
ERF - High Risk	19	8	14:00

130 Technical Rescue Benchmarks Summary



Hazardous Materials Benchmark Performance Measures

Hazardous Materials – First Unit – Benchmarks

For 90 percent of all low, moderate, and high-risk hazardous materials incidents, the total response time for the arrival of the first-arriving company shall be *8 minutes*. The first arriving unit shall be staffed with a minimum of *three firefighters*, capable of establishing command, evaluating the need for additional resources, and establishing the initial isolation distance.



Hazardous Materials – Effective Response Force – Benchmarks

Low Risk: For 90 percent of all low-risk hazardous material incidents, the total response time for the arrival of the effective response force, staffed with three firefighters, shall be *8 minutes*. The effective response force shall be capable of scene supervision and investigation.

Moderate Risk: For 90 percent of all moderate risk hazardous material incidents, the total response time for the arrival of the effective response force, staffed with *13 firefighters and officers*, shall be *9 minutes*. The effective response force shall be capable of providing the following critical tasks: command, safety, material identification, perimeter control, evacuation, and containment.

High Risk: For 90 percent of all high-risk hazardous material incidents, the total response time for the arrival of the effective response force, staffed with *20 firefighters and officers*, shall be *10 minutes*. The effective response force shall be capable of providing the following critical tasks: command, safety, material identification, perimeter control, evacuation, and containment.

Hazardous Materials Benchmarks Summary	Personnel	Apparatus	Total Response Time
Arriving 1st - All Risks	3	1	8:00
ERF - Low Risk	3	1	8:00
ERF - Moderate Risk	13	5	9:00
ERF - High Risk	20	8	10:00

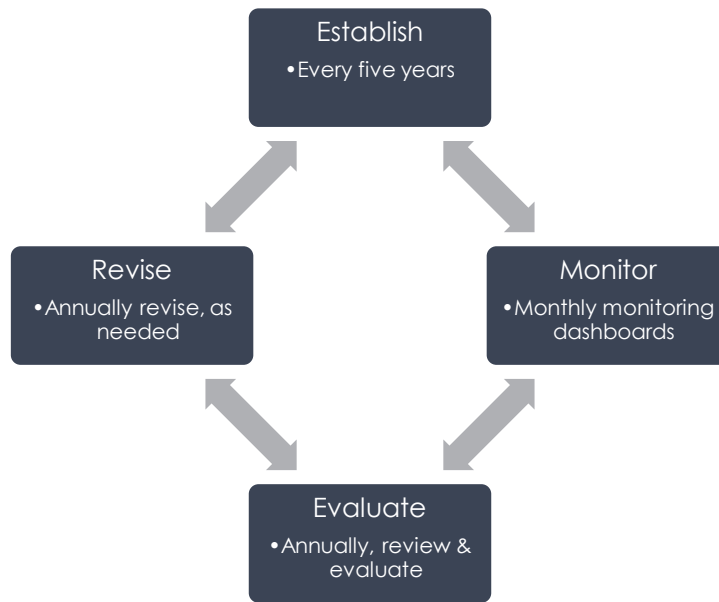
131 Hazardous Materials Benchmarks Summary



COMPLIANCE AND CONTINUOUS IMPROVEMENT

Continuous monitoring, assessing, and reporting of the ability to meet expected outcomes is essential to CCFD's success in carrying out its mission of protecting life, property and the environment by providing prompt and professional fire protection and life safety services.

The overhaul and publishing of the CRA/SOC will occur once at least every five years. Monthly, the CCFD leadership team will monitor performance and share dashboard reports. Evaluation of system performance will occur annually through program appraisals and CCFD leadership review. Progress will be shared with CCFD members and the City Council at least annually. Revisions to the CRA/SOC will be made, and shared, as needed.



132 Performance Monitoring and Evaluation

CRA/SOC UPDATE TRACKING

Description	Details	Date
2024 CRA/SOC Established	Published to SharePoint	February 29, 2024
CRA/SOC Planned Presentation	to City Council	March 18, 2024
CRA/SOC Planned Review		February 2025
CRA/SOC Planned Review		February 2026
CRA/SOC Planned Review		February 2027
CRA/SOC Planned Review		February 2028
2029 CRA/SOC Established		February 2029

133 CRA/SOC Tracking



CONCLUSIONS AND OPPORTUNITIES FOR IMPROVEMENT

The Community Risk Assessment and Standards of Cover development process has allowed the CCFD to observe the Culver City community and the CCFD's response model comprehensively. Through observations of and interactions with the community, listing of current services provided, learning community expectations, assessing key areas of risk, setting performance goals, viewing the CCFD from a historical perspective, and analyzing performance measures, the CCFD has developed a clear and comprehensive evaluation of its overall performance.

CCFD staff observed several areas where the CCFD meets and/or exceeds expectations. There are also a few areas where staff sees opportunities for improvement. As with any critical review process, recommendations were developed in an effort to foster future growth and improvement.

For reference, previous recommendations follow:

- Enhance the CCFD's deployment model by adding a third rescue ambulance.
 - The third paramedic rescue went into service in June 2022.
- With the move to a new dispatch center, refocus on all components of response time.
 - The CCFD implemented an online dashboard and shares turnout and travel time reports with the entire department monthly. The dashboard is also readily available on the CCFD's website.
- Improve data collection methods and data reporting.
 - The CCFD intended to integrate an additional fire management zone layer into the new dispatch system to better capture and report on fire management zone statistics. Unfortunately, beyond the CCFD's control, the implementation of the new dispatch system was stalled. The dispatch center is now in the process of finding a new computer aided dispatch vendor. CCFD staff are working closely with the dispatch center and providing input on necessary improvements, such as automated vehicle location dispatching and CAD to CAD capabilities.
- Revisit automatic aid agreements to optimize efficiency and effectiveness.
 - A new automatic aid agreement with the Los Angeles City Fire Department (LAFD) was signed. The agreement has yet to be implemented by LAFD's dispatch. CCFD staff continue to work with the LAFD and the Los Angeles County Fire Department on aid agreement updates and implementation.

New findings and recommendations follow:

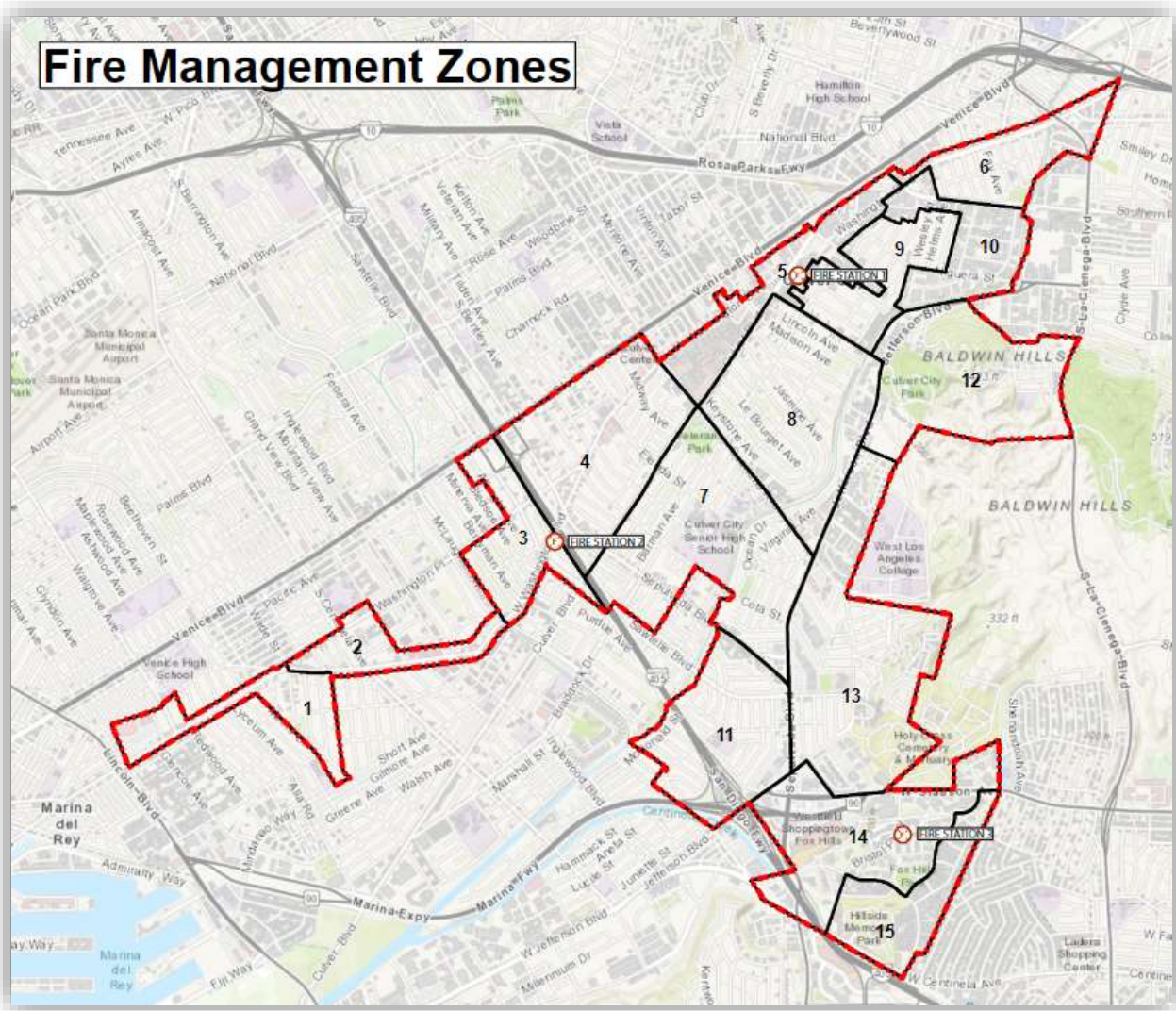
- With the implementation of a third rescue, housed at Station 2, there is an opportunity to further study and reassess response district boundaries. The timing of this process could coincide with the implementation of the new dispatch system, which is to employ automated vehicle location dispatching capabilities.



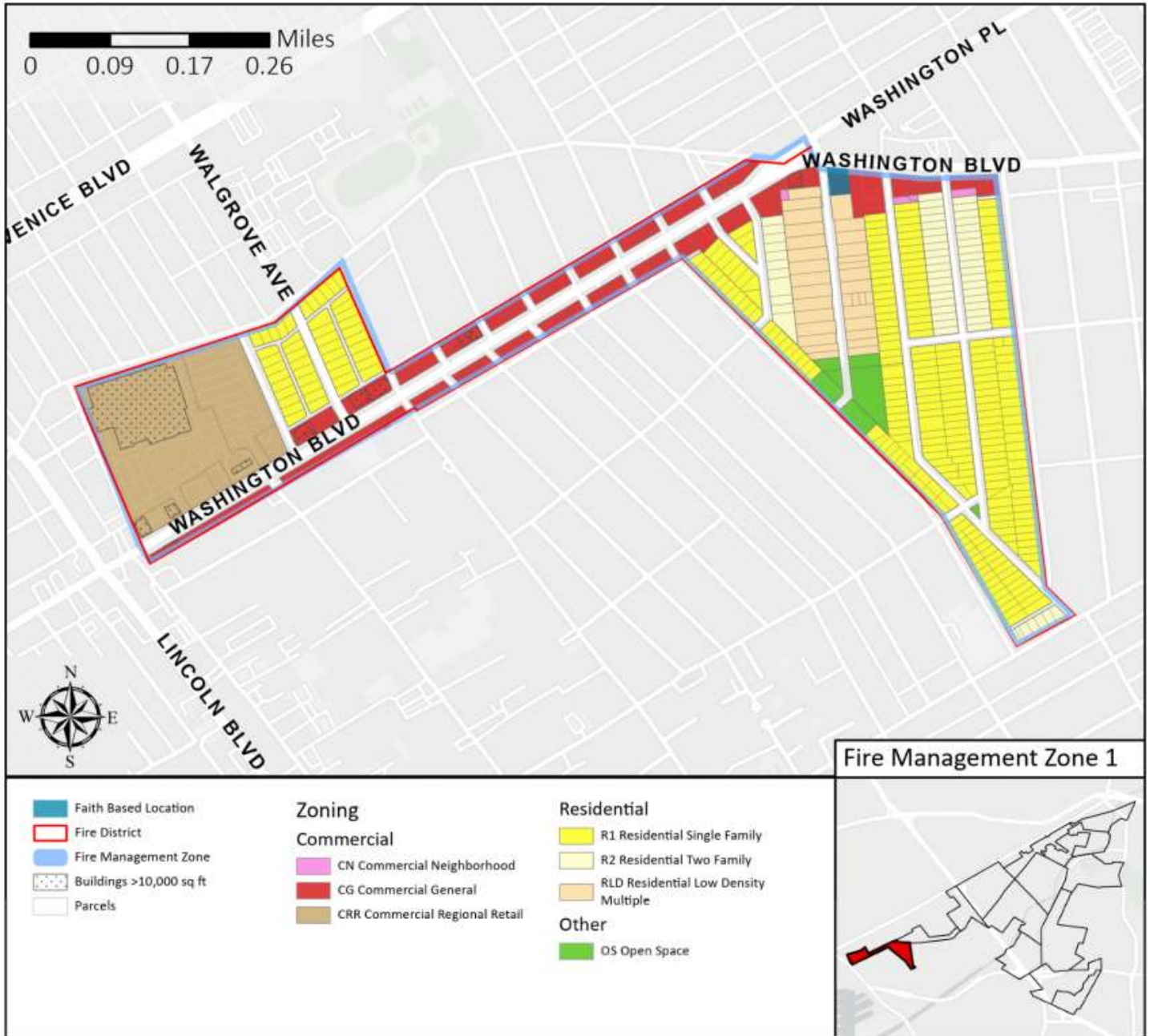
- Improve data reporting methods. While monthly online dashboards have helped to provide response time trends, there is room for improvement in improving data quality. As noted in previous years' assessments, there is not a fire management zone layer within the current CAD system. Additionally, the new records management system is not capturing the correct geocoordinates from the CAD system. CCFD staff, with the assistance of GIS staff, must process and correlate the geocoordinates and fire management zone layers outside of CCFD's records management system. The CCFD plans to move to a new records management system in July 2024 in an effort to improve data inputs and outputs.
- While the frequency of aid calls is low, there is an opportunity to better integrate neighboring jurisdictions' response times into CCFD analysis. CCFD will research means to integrate neighboring jurisdictions' response times into the CCFD's new records management system.
- Improve the data compliance review process. While there is a method currently in place to ensure that personnel verify timestamps, personnel, apparatus on scene, and mitigating measures taken, there is room for improvement. CCFD leadership will assess methods for reviewing and validating compliance through the new records management system, additional dashboards and reports, and training.



APPENDIX 1 – RISK BY FIRE MANAGEMENT ZONE (FMZ)



FMZ 1



Fire Management Zone 1 is a general corridor of 0.18 square miles in the western part of the City. Within its boundaries are mostly single and multiple family residences along with smaller street-front businesses and commercial use structures. There are several buildings larger than 10,000 square feet within the area, including an extremely busy regional center. FMZ 1's daytime population swells by 113 percent—from 1,458 at night to 3,107 during the day.



FMZ 1 Historical Call Volume

	2019	2020	2021	2022	2023	2019-2023
Fire	2	5	3	5	2	17
EMS	158	136	131	138	125	688
Technical Rescue	-	1	1	2	4	8
Hazardous Materials	1	3	2	-	-	6
Other	12	5	7	9	-	44



Demographics



Population

- Population: 1,458
- Daytime Population (workers & residents): 3,107
- Population Density per Square Mile: 7,956
- Daytime Population Density: 16,954
- Median Age: 43.8
- Male Population: 50.1%
- Female Population: 49.9%
- Number of Households: 572
- Households with Disability: 126
- Population 65+ That Speak No English: 0
- Households Income Below Poverty Level: 67



Education/
Employment

- Businesses: 306
- Employees: 2,148
- Median Household Income: \$84,798
- Per Capita Income: \$49,106
- Unemployment: 14.0%
- No High School Diploma: 4%



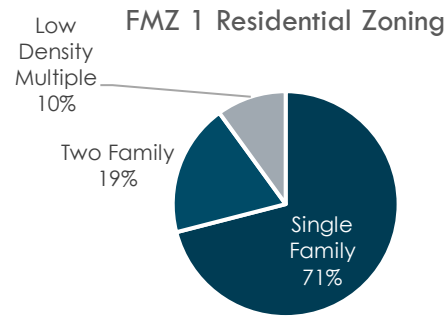
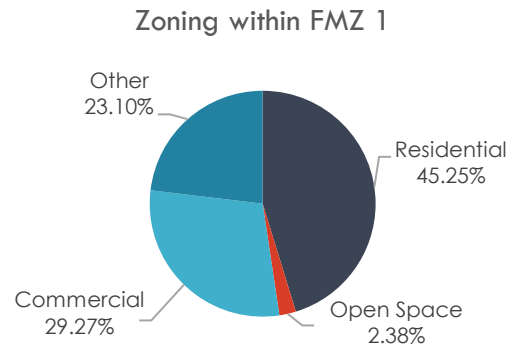
Housing

- Median Home Value: \$1,229,560
- Number of Housing Units: 525
- Average Household Size: 2.4
- Housing Structure Built After 1990: 29
- Housing Structure Built Before 1940: 202
- Median Year Housing Structure Built: 1954
- Median Year Householder Moved into Unit: 2010



FMZ 1 Characteristics

Resources	
Fire Rescue District	23
Station	2
First Due Engine/Truck	42
First Due Rescue	42
Development	
Total Square Miles	0.183262
Total Structures	862
Buildings per Square Mile	4703.6
Total Square Feet (all structures)	1,702,854
Number of Buildings > 75 ft.	0
Commercial Buildings > 10,000 ft ²	25
Road miles	4.02
Total Assessed Valuation	\$544,935,433
Mitigating Factors	
Fire Sprinklers in Structures	
Commercial	25.4%
Residential	5.5%



Specific Risks

Fire	75% of commercial buildings without sprinklers
EMS	Daytime population increase; 25.7% of households with disability
Tech Rescue	Over 40,000 average daily traffic volume along Washington Boulevard
Haz Mat	High pressure gas distribution line runs SE to NW; 8" diameter oil pipeline carrying crude oil, diesel, gasoline, and jet fuel
Other	Outside of 4-minute drive-time area; 13.6% of population below poverty level; unemployment rate is 14%; SB 1000 Priority Neighborhood

FMZ 1 All Risk Response Times		2019-2023	2023	2022	2021	2020	2019
Alarm Handling	Pick-up to Dispatch	1:35	1:08	1:10	1:22	1:35	2:14
Turnout	1st Unit	2:14	2:08	1:53	2:31	2:13	2:12
Travel	1st Uni	7:02	7:29	7:19	6:47	6:23	6:47
	Effective Response Force (ERF)	9:38	8:39	9:30	10:09	9:41	9:29
Total Response Time	1st Unit	9:23	9:21	8:45	9:12	9:12	9:51
		n = 637	121	129	120	115	152
	Effective Response Force (ERF)	12:18	11:21	11:59	12:22	13:00	12:19
		n = 537	113	107	102	98	117



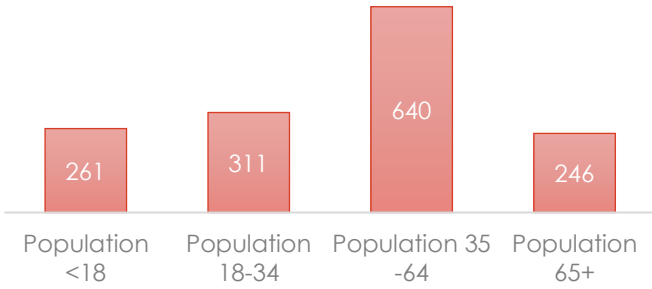


Population
1,458

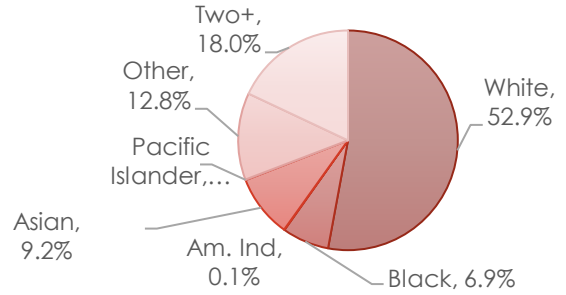
Daytime Population
113% Increase ↑

Annual
Population
Growth
0.73%

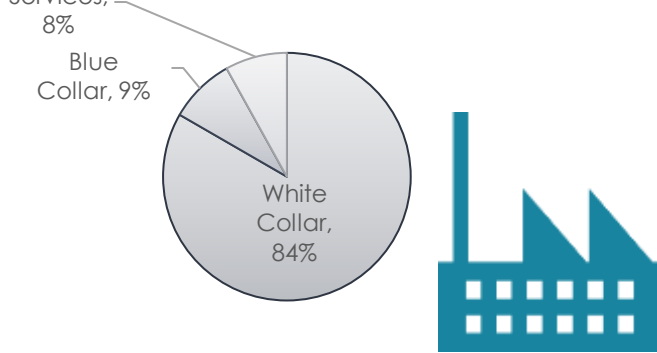
FMZ 1 Population by Age



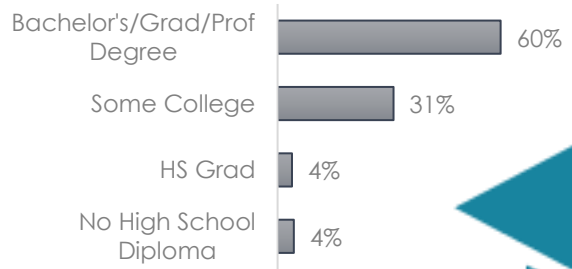
FMZ 1 Population by Race



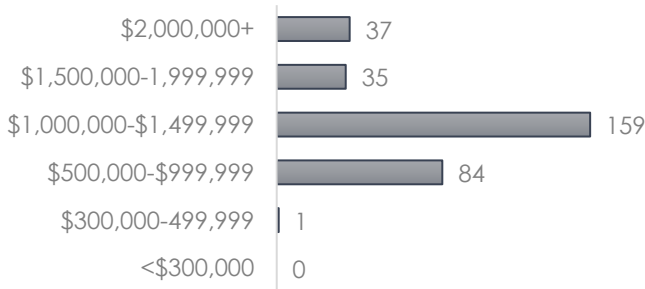
FMZ 1 Occupation



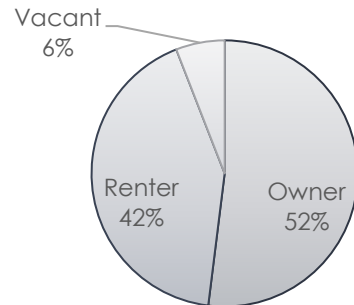
FMZ 1 Education



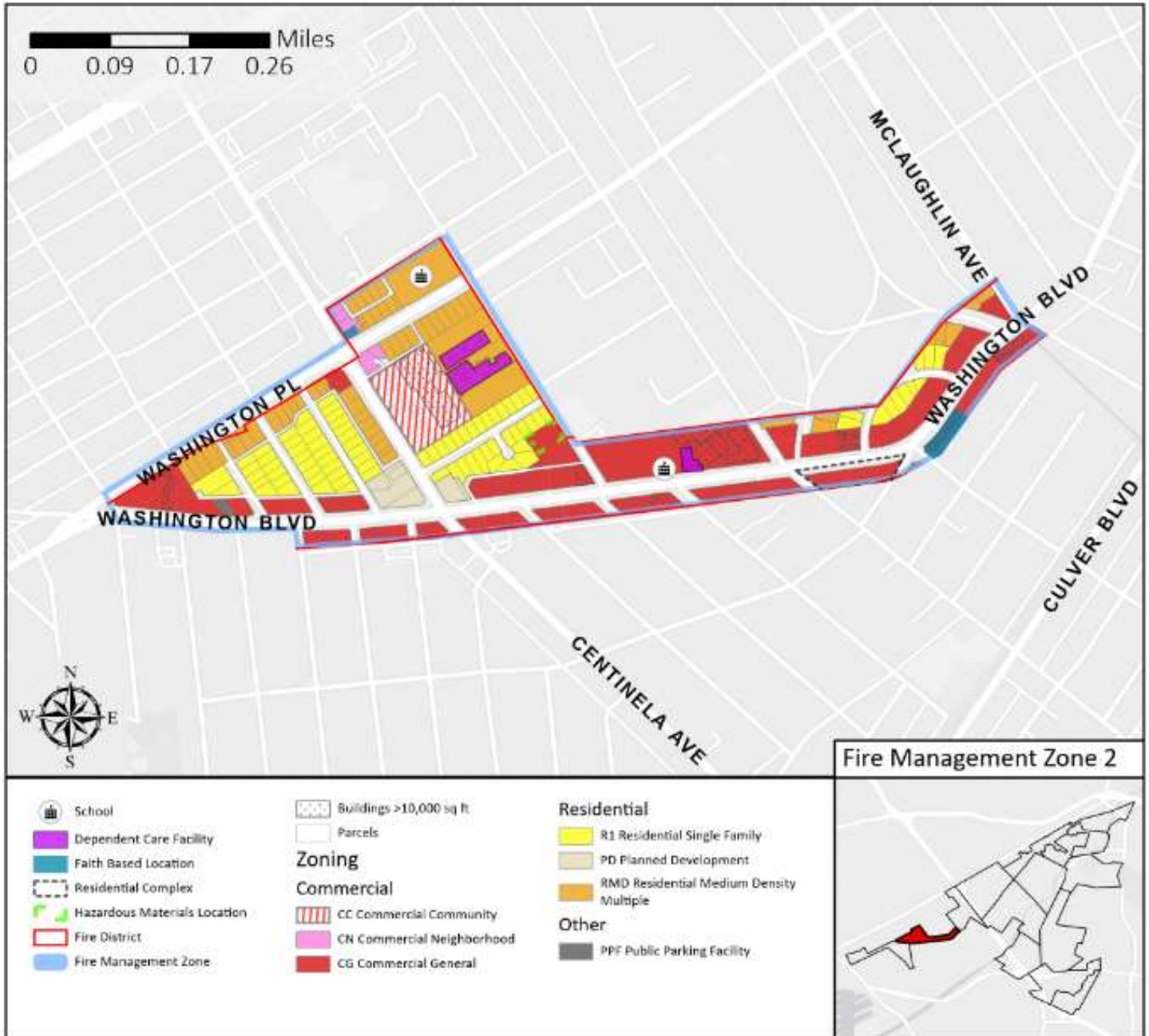
FMZ 1 Housing Units by Value



FMZ 1 Housing Units



FMZ 2

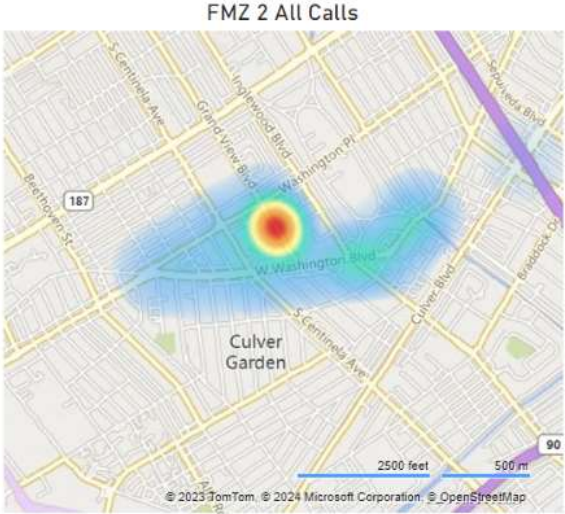


Fire Management Zone 2 is a general corridor of 0.14 square miles located in the western part of the City. Approximately 30 percent of Zone 2 is composed of single and multiple family residences, with smaller street-front businesses representing about 42 percent of the area zoning. Located within FMZ 2 are three large dependent care facilities: Culver West Healthcare, Ivy Park, and the H.E.L.P. Group. These locations can pose significant risk due to their population of non-ambulatory residents. Also located within FMZ 2 are 17 large buildings, which pose high risk. Of all the fire management zones, FMZ 2 has the greatest percentage of households with a disability at 25.7% and 22% of its residents over the age of 25 do not hold a high school diploma.




FMZ 2 Historical Call Volume

	2019	2020	2021	2022	2023	2019-2023
Fire	5	7	5	7	7	31
EMS	373	365	337	413	373	1,861
Technical Rescue	3	3	2	1	2	11
Hazardous Materials	3	5	1	1	1	11
Other	15	13	27	19	6	80




Demographics




Population

- Population: 1,804
- Daytime Population (workers & residents): 2,150
- Population Density per Square Mile: 12,883
- Daytime Population Density: 15,354
- Median Age: 39.1
- Male Population: 49.5%
- Female Population: 50.5%
- Number of Households: 687
- Households with Disability: 63
- Population 65+ That Speak No English: 4
- Households Income Below Poverty Level: 21



Education/
Employment

- Businesses: 202
- Employees: 1,280
- Median Household Income: \$90,917
- Per Capita Income: \$52,093
- Unemployment: 3.9%
- No High School Diploma: 22%



Housing

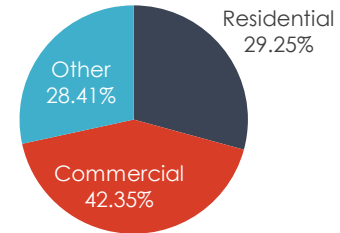
- Median Home Value: \$1,241,071
- Number of Housing Units: 720
- Average Household Size: 2.5
- Housing Structure Built After 1990: 106
- Housing Structure Built Before 1940: 118
- Median Year Housing Structure Built: 1965
- Median Year Householder Moved into Unit: 2013



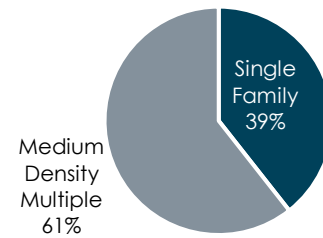
FMZ 2 Characteristics

Resources	
Fire Rescue District	23
Station	2
First Due Engine/Truck	42
First Due Rescue	42
Development	
Total Square Miles	0.140026
Total Structures	408
Buildings per Square Mile	2,913.7
Total Square Feet (all structures)	1,496,242
Number of Buildings > 75 ft.	0
Commercial Buildings > 10,000 ft ²	24
Road miles	4.39
Total Assessed Valuation	\$349,572,468
Mitigating Factors	
Fire Sprinklers in Structures	
Commercial	12.8%
Residential	14.7%

Zoning within FMZ 2



FMZ 2 Residential Zoning



Specific Risks

Fire	17 commercial buildings over 10,000 square feet
EMS	Three dependent care facilities; SB 1000 Priority Neighborhood
Tech Rescue	
Haz Mat	One facility containing hazardous materials; natural gas transmission line northwest to southeast
Other	One large faith-based facility; vulnerable populations per CDC and CalOES

FMZ 2 All Risk Response Times		2019-2023	2023	2022	2021	2020	2019
Alarm Handling	Pick-up to Dispatch	1:31	1:16	1:07	1:12	1:46	1:53
	Turnout	1st Unit	2:19	2:08	2:18	2:40	2:15
Travel	1st Uni	5:06	5:22	5:15	5:13	5:14	4:08
	Effective Response Force (ERF)	8:42	8:00	9:07	9:03	8:33	8:25
Total Response Time	1st Unit	7:35	7:24	7:24	7:55	7:40	7:17
		n = 1,599	326	355	304	320	294
	Effective Response Force (ERF)	11:21	09:59	11:35	11:44	11:14	11:26
		n = 1,467	346	324	264	287	246





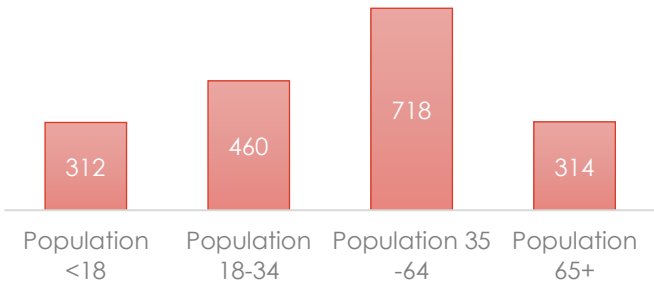
Population

1,804

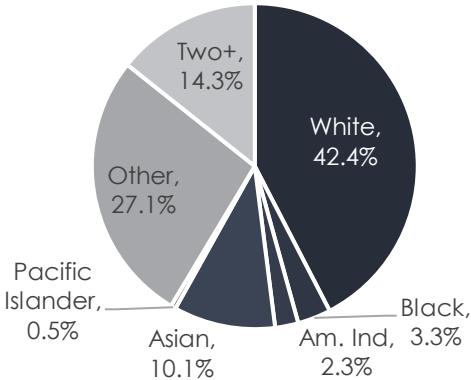
Daytime Population
19% Increase ↑

Annual
Population
Growth
4.53%

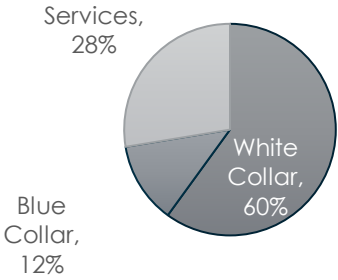
FMZ 2 Population by Age



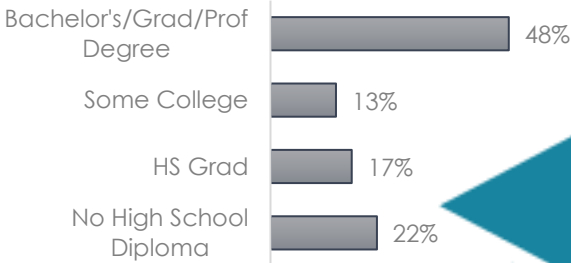
FMZ 2 Population by Race



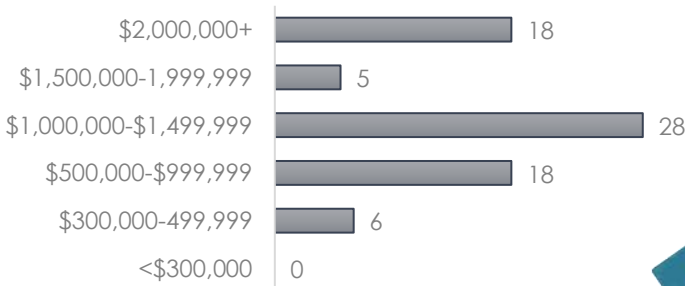
FMZ 2 Occupation



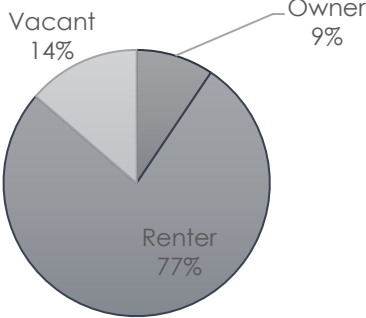
FMZ 2 Education



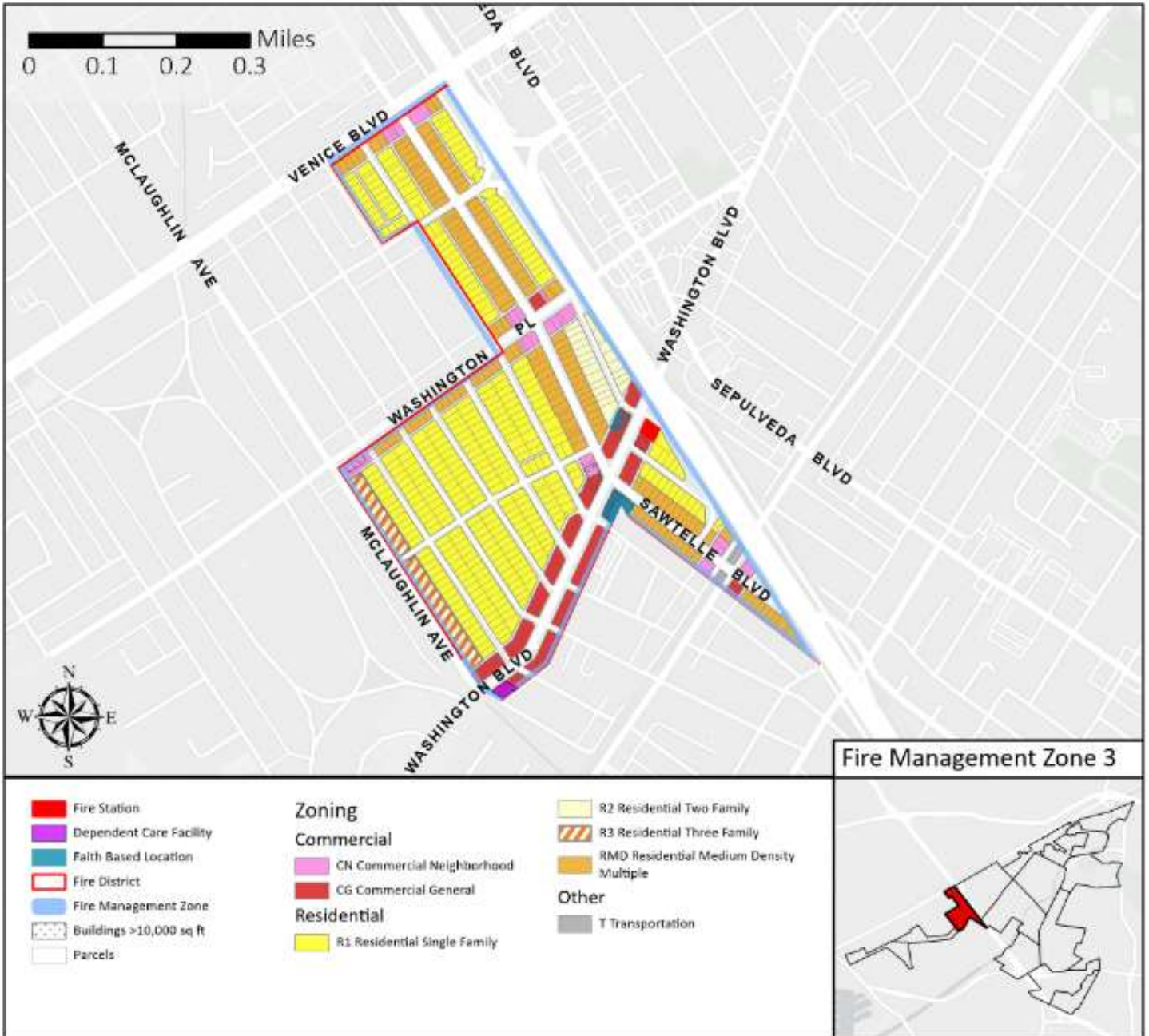
FMZ 2 Housing Units by Value



FMZ 2 Housing Units



FMZ 3

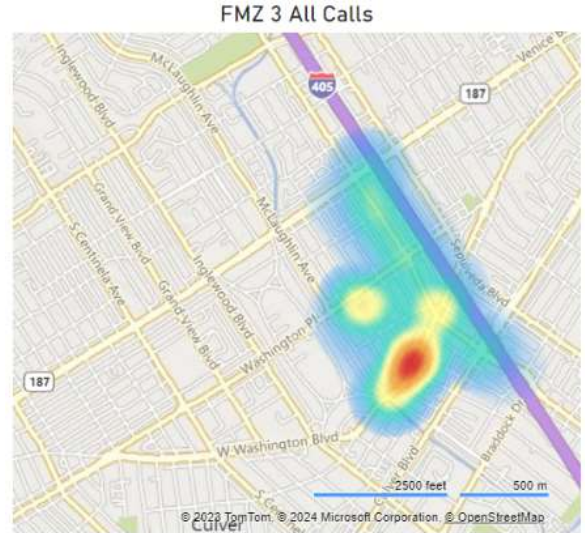


Fire Management Zone 3 is a general and neighborhood-serving corridor consisting of 0.21 square miles. It is located in the western part of the City and abuts the southbound travel lanes of the 405 freeway. Within its boundaries are predominantly single and multiple family residences along with smaller businesses. Over 54 percent of FMZ 3 is residential. There is a higher than average building density for this zone at over 5,000 structures per square mile.



FMZ 3 Historical Call Volume

	2019	2020	2021	2022	2023	2019-2023
Fire	5	4	4	6	4	23
EMS	197	200	174	194	231	996
Technical Rescue	4	-	-	-	1	5
Hazardous Materials	2	1	2	3	1	9
Other	21	13	17	26	5	82
Wildland Fire	-	-	1	-	-	1



Demographics



Population

- Population: 2,292
- Daytime Population (workers & residents): 2,166
- Population Density per Square Mile: 10,990
- Daytime Population Density: 10,386
- Median Age: 39.5
- Male Population: 51.1%
- Female Population: 48.9%
- Number of Households: 884
- Households with Disability: 130
- Population 65+ That Speak No English: 20
- Households Income Below Poverty Level: 101



Education/
Employment

- Businesses: 185
- Employees: 950
- Median Household Income: \$100,729
- Per Capita Income: \$62,146
- Unemployment: 2.2%
- No High School Diploma: 7%



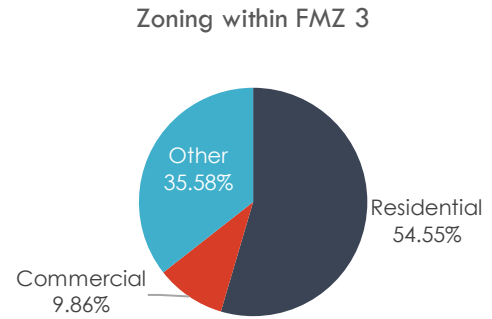
Housing

- Median Home Value: \$1,220,324
- Number of Housing Units: 1117
- Average Household Size: 2.5
- Housing Structure Built After 1990: 70
- Housing Structure Built Before 1940: 482
- Median Year Housing Structure Built: 1953
- Median Year Householder Moved into Unit: 2014

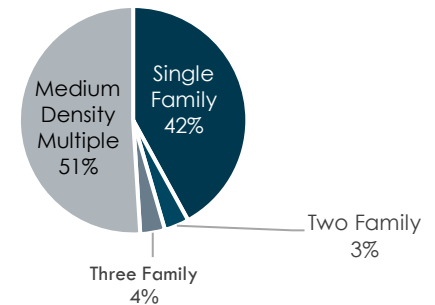


FMZ 3 Characteristics

Resources	
Fire Rescue District	23
Station	2
First Due Engine/Truck	42
First Due Rescue	42
Development	
Total Square Miles	0.20856
Total Structures	1,078
Buildings per Square Mile	5,168.8
Total Square Feet (all structures)	1,348,980
Number of Buildings > 75 ft.	0
Commercial Buildings > 10,000 ft ²	17
Road miles	7
Total Assessed Valuation	\$444,015,773
Mitigating Factors	
Fire Sprinklers in Structures	
Commercial	13.3%
Residential	6.3%



FMZ 3 Residential Zoning



Specific Risks

Fire	11 buildings over 10,000
EMS	Dependent care facilities
Tech Rescue	
Haz Mat	Proximity to 405 freeway; 16" pipeline (crude oil, diesel fuel, fuel oil, gasoline); 8" pipeline (crude oil, diesel, gasoline, jet fuel); natural gas transmission pipeline
Other	Large faith-based organization

FMZ 3 All Risk Response Times		2019-2023	2023	2022	2021	2020	2019
Alarm Handling	Pick-up to Dispatch	1:26	1:11	1:09	1:13	1:33	1:49
Turnout	1st Unit	2:17	2:12	2:13	2:24	2:17	2:21
Travel	1st Uni	4:32	5:09	4:11	4:12	4:53	3:06
	Effective Response Force (ERF)	8:12	6:55	8:19	8:50	8:26	7:50
Total Response Time	1st Unit	6:42	7:16	6:29	6:34	7:19	6:03
		n = 876	207	169	158	180	162
	Effective Response Force (ERF)	10:53	9:38	10:53	11:09	10:58	11:21
		n = 745	206	145	132	139	123



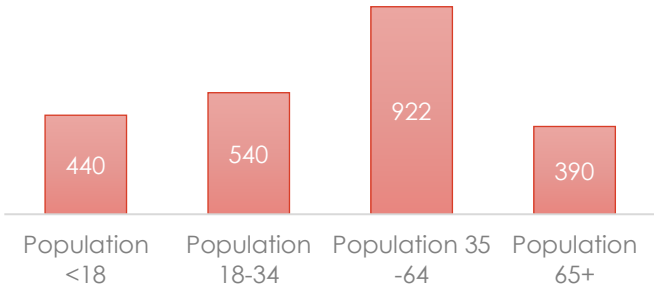


Population
2,292

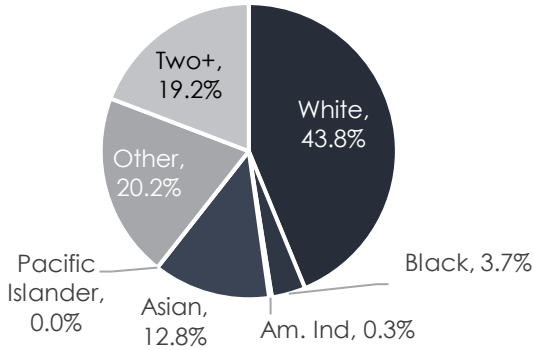
Daytime Population
5% Decrease ↓

Annual
Population
Growth
0.19%

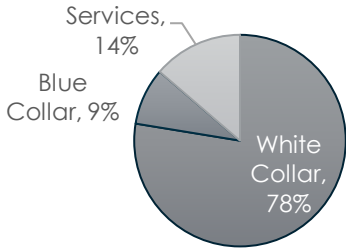
FMZ 3 Population by Age



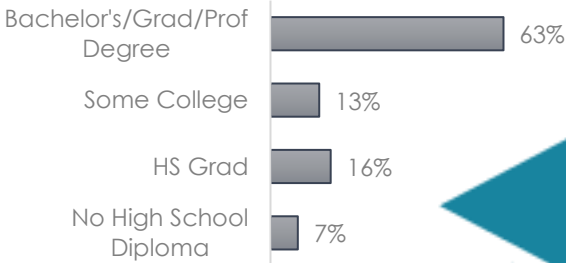
FMZ 3 Population by Race



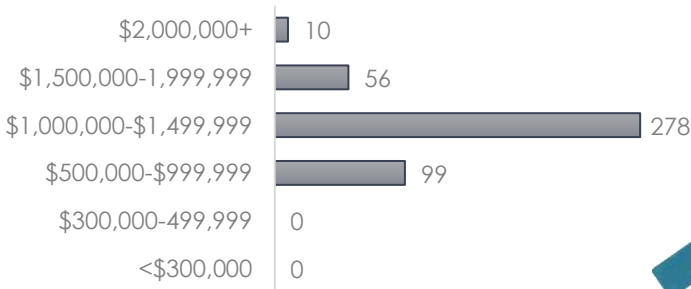
FMZ 3 Occupation



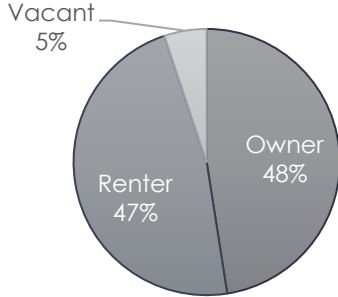
FMZ 3 Education



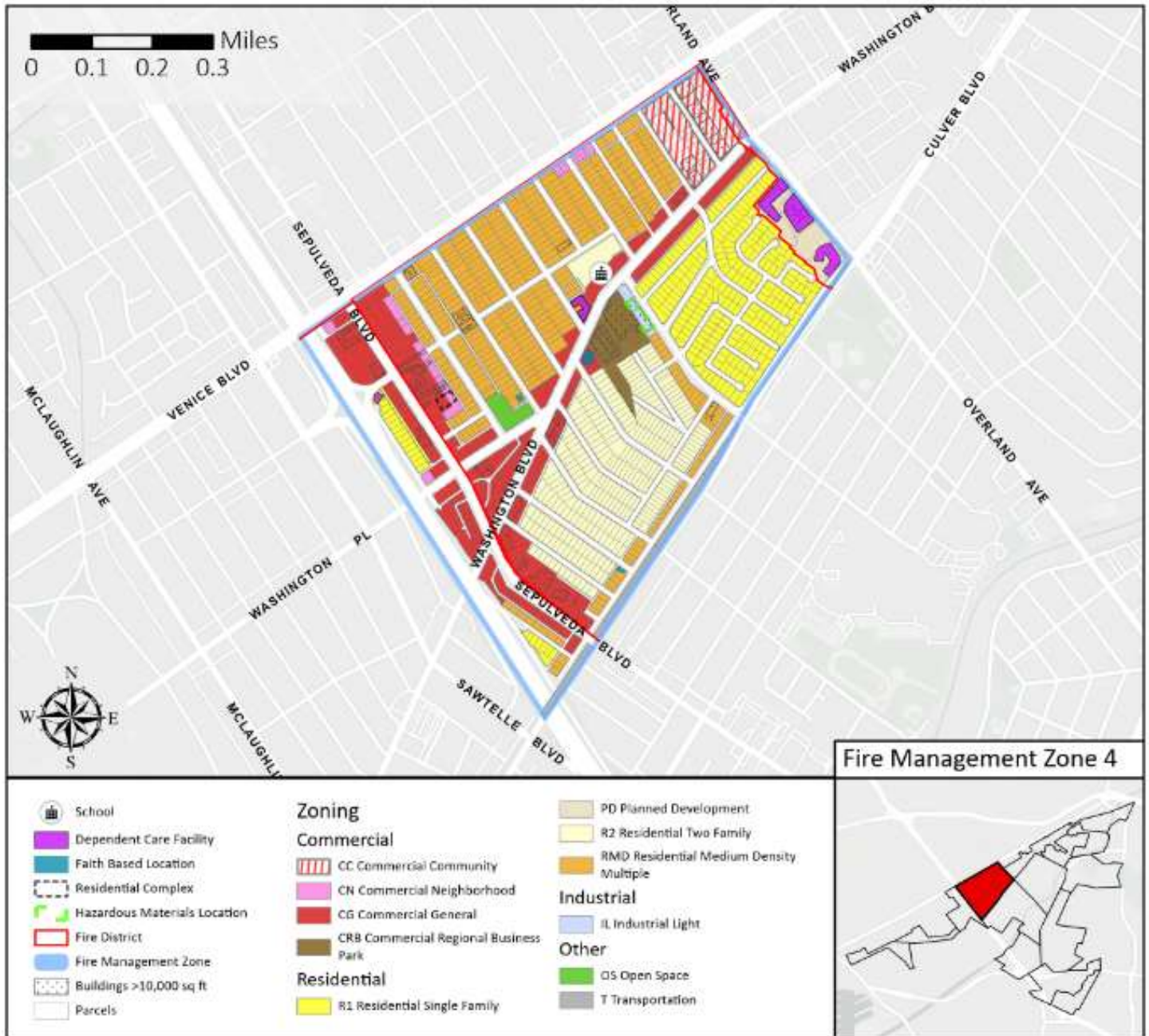
FMZ 3 Housing Units by Value



FMZ 3 Housing Units



FMZ 4



Fire Management Zone 4 is a general community-serving corridor, consisting of 0.48 square miles. It is located in the northwestern part of the City and borders the northbound travel lanes of the 405 freeway. It is composed of mostly single and multiple family residences, along with some planned residential developments and light industry. The commercial buildings and medium density housing present increased risk in this zone.



FMZ 4 Historical Call Volume

	2019	2020	2021	2022	2023	2019-2023
Fire	9	11	19	24	21	84
EMS	535	479	538	557	566	2,675
Technical Rescue	1	2	1	1	3	8
Hazardous Materials	2	7	4	5	2	20
Other	42	3	43	41	11	171
Wildland Fire	1	1	1	1	1	5



Demographics



Population

- Population: 5,196
- Daytime Population (workers & residents): 6,632
- Population Density per Square Mile: 10,754
- Daytime Population Density: 13,726
- Median Age: 40.2
- Male Population: 48.9%
- Female Population: 51.1%
- Number of Households: 2091
- Households with Disability: 432
- Population 65+ That Speak No English: 22
- Households Income Below Poverty Level: 357



Education/
Employment

- Businesses: 604
- Employees: 3,547
- Median Household Income: \$85,513
- Per Capita Income: \$55,422
- Unemployment: 4.4%
- No High School Diploma: 8%



Housing

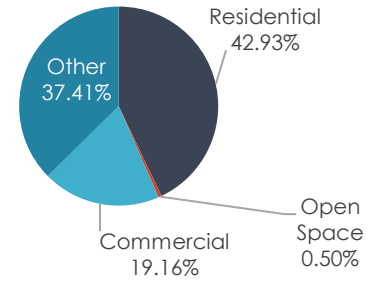
- Median Home Value: \$1,250,000
- Number of Housing Units: 2324
- Average Household Size: 2.4
- Housing Structure Built After 1990: 297
- Housing Structure Built Before 1940: 902
- Median Year Housing Structure Built: 1957
- Median Year Householder Moved into Unit: 2013



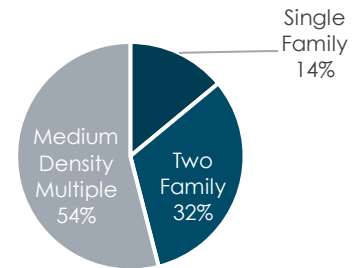
FMZ 4 Characteristics

Resources	
Fire Rescue District	21/23
Station	2
First Due Engine/Truck	42
First Due Rescue	42
Development	
Total Square Miles	0.483157
Total Structures	1,749
Buildings per Square Mile	3,619.9
Total Square Feet (all structures)	4,111,444
Number of Buildings > 75 ft.	0
Commercial Buildings > 10,000 ft ²	61
Road miles	0
Total Assessed Valuation	\$1,274,456,444
Mitigating Factors	
Fire Sprinklers in Structures	
Commercial	24.2%
Residential	12.8%

Zoning within FMZ 4



FMZ 4 Residential Zoning



Specific Risks

Fire	48 buildings over 10,000 ft ² and one large residential complex
EMS	Five dependent care facilities;
Tech Rescue	Major freeway with over 300,000 vehicles per day
Haz Mat	One building with hazardous content; 16" diameter pipeline (crude oil, diesel fuel, fuel oil, gasoline); natural gas transmission pipeline
Other	SB 1000 Priority Neighborhood; school; one electric substation

FMZ 4 All Risk Response Times		2019-2023	2023	2022	2021	2020	2019
Alarm Handling	Pick-up to Dispatch	1:31	1:20	1:10	1:23	1:40	1:57
	Turnout	2:16	2:07	2:03	2:26	2:24	2:08
Travel	1st Unit	4:34	4:38	4:31	4:47	4:31	4:09
	Effective Response Force (ERF)	7:14	6:37	7:22	7:42	7:18	7:16
Total Response Time	1st Unit	7:02	6:58	6:41	7:25	7:17	6:56
		n = 2,428	528	514	481	434	471
	Effective Response Force (ERF)	09:51	9:00	9:25	10:10	10:11	10:15
		n = 2,119	493	445	420	378	383



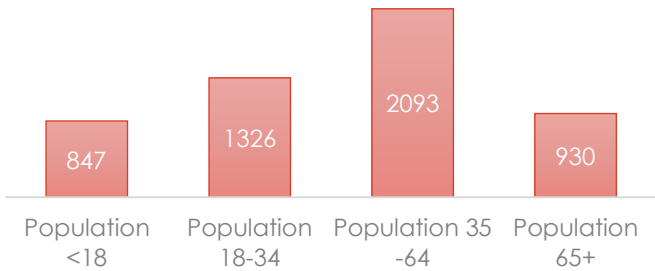


Population
5,196

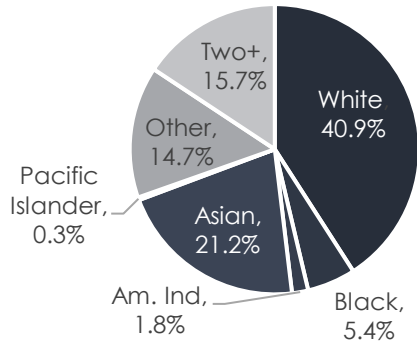
Daytime Population
28% Increase ↑

Annual
Population
Growth
-0.48%

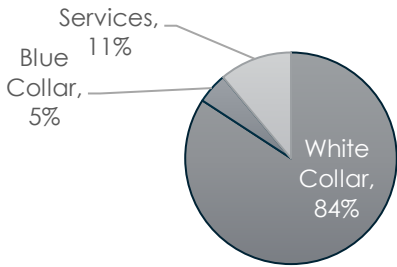
FMZ 4 Population by Age



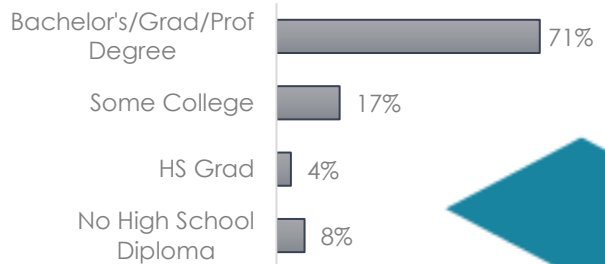
FMZ 4 Population by Race



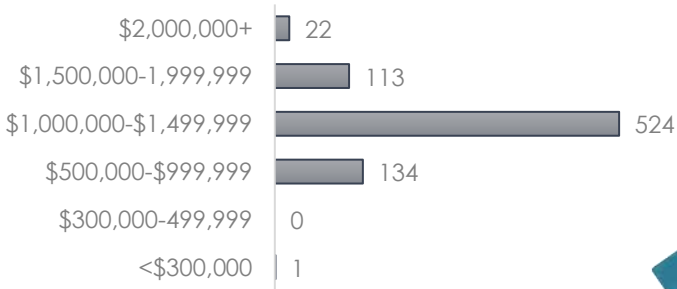
FMZ 4 Occupation



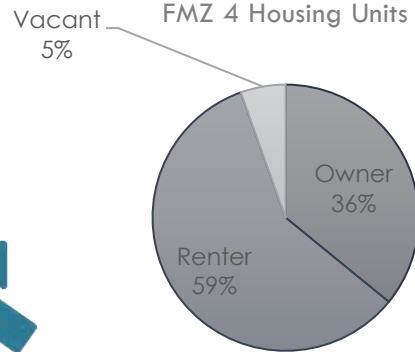
FMZ 4 Education



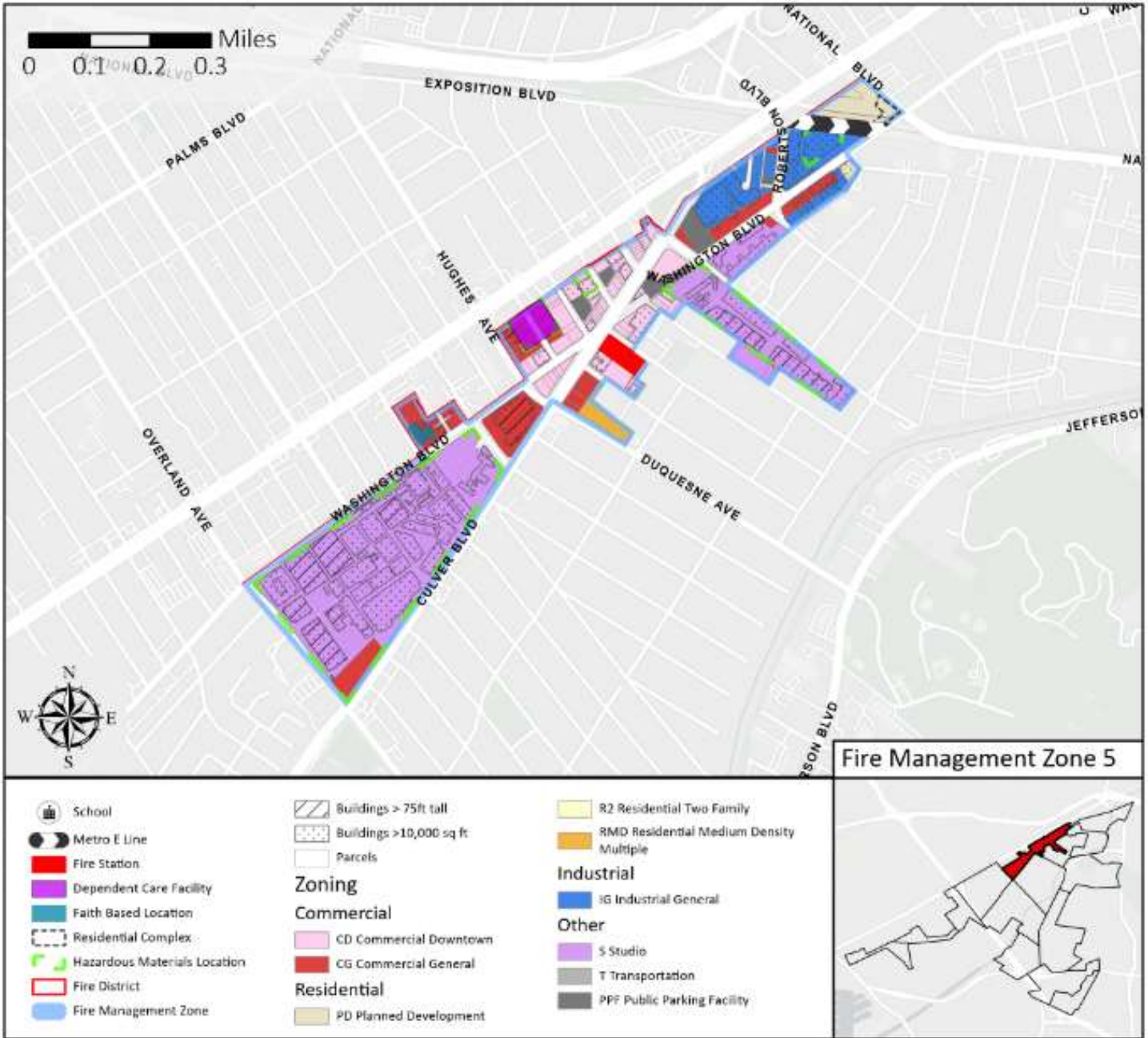
FMZ 4 Housing Units by Value



FMZ 4 Housing Units



FMZ 5



Fire Management Zone 5 is a general corridor consisting of 0.24 square miles, located in Downtown Culver City. It possesses 50 buildings over 10,000 square feet, movie studios, along with a small percentage of residential properties. Special risks include two movie studios—with a total of 24 sound stages—and a hospital. Zone 5 has four buildings, which are determined to be potential hazards due to their age and quake-vulnerable-concrete construction. These buildings could pose significant technical rescue risk in the case of an earthquake, for example. Zone 5 sees an incredible increase in the daytime population due to the studios and commercial businesses. This downtown corridor expands to over 15,000 people during the day, which is a daytime population density of 64,720 people per square mile.



FMZ 5 Historical Call Volume

	2019	2020	2021	2022	2023	2019-2023
Fire	-	5	5	7	7	24
EMS	431	394	344	339	473	1,981
Technical Rescue	8	9	3	9	10	39
Hazardous Materials	4	2	1	2	1	10
Other	5	-	3	6	4	18



Demographics



Population

- Population: 807
- Daytime Population (workers & residents): 15,595
- Population Density per Square Mile: 3,349
- Daytime Population Density: 64,720
- Median Age: 41.3
- Male Population: 47.2%
- Female Population: 52.8%
- Number of Households: 361
- Households with Disability: 38
- Population 65+ That Speak No English: 1
- Households Income Below Poverty Level: 22



Education/
Employment

- Businesses: 400
- Employees: 11,009
- Median Household Income: \$122,211
- Per Capita Income: \$76,914
- Unemployment: 6.2%
- No High School Diploma: 2%



Housing

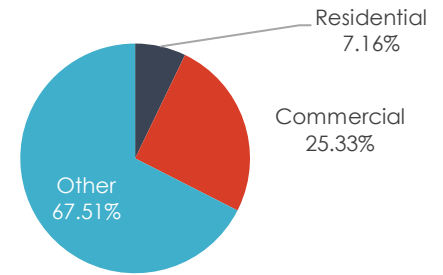
- Median Home Value: \$1,305,556
- Number of Housing Units: 254
- Average Household Size: 2.2
- Housing Structure Built After 1990: 33
- Housing Structure Built Before 1940: 84
- Median Year Housing Structure Built: 1964
- Median Year Householder Moved into Unit: 2015



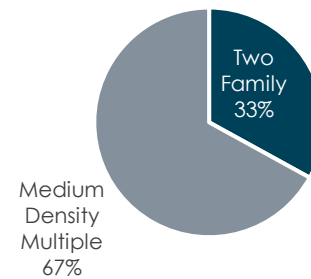
FMZ 5 Characteristics

Resources	
Fire Rescue District	11
Station	1
First Due Engine/Truck	41
First Due Rescue	41
Development	
Total Square Miles	0.24096
Total Structures	213
Buildings per Square Mile	884.0
Total Square Feet (all structures)	3,012,328
Number of Buildings > 75 ft.	12
Commercial Buildings > 10,000 ft ²	86
Road miles	0
Total Assessed Valuation	\$1,500,515,531
Mitigating Factors	
Fire Sprinklers in Structures	
Commercial	58.6%
Residential	13.0%

Zoning within FMZ 5



FMZ 5 Residential Zoning



Specific Risks

Fire	Studio sound stages, Southern California Hospital, multiple high-rise occupancies
EMS	Significant daytime increase in population
Tech Rescue	Four quake vulnerable buildings
Haz Mat	10" diameter pipeline (crude oil, diesel, gasoline, and jet fuel)
Other	2 electric substations

FMZ 5 All Risk Response Times		2019-2023	2023	2022	2021	2020	2019
Alarm Handling	Pick-up to Dispatch	1:30	1:12	1:13	1:08	1:38	1:54
	Turnout	1st Unit	2:24	2:37	2:14	2:29	2:10
Travel	1st Uni	3:59	4:07	3:54	4:12	3:45	3:45
	Effective Response Force (ERF)	6:14	5:21	6:42	5:25	6:16	6:58
Total Response Time	1st Unit	6:31	6:24	6:12	6:56	6:35	6:37
		n = 1,819	443	316	310	362	388
	Effective Response Force (ERF)	8:42	7:44	8:48	8:04	8:55	9:45
		n = 1,676	405	282	285	329	375



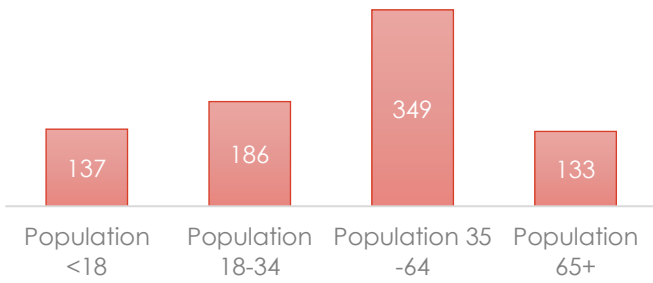


Population
807

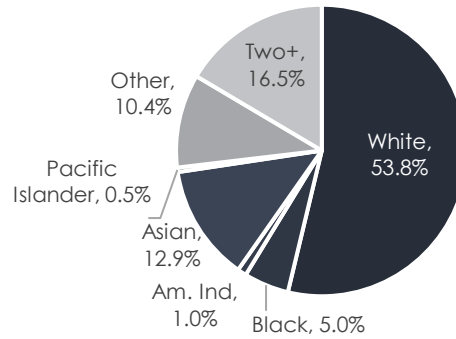
Daytime Population
1,832% Increase ↑

Annual
Population
Growth
15.87%

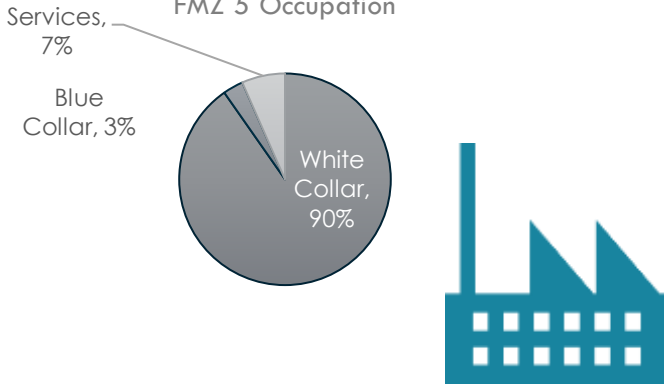
FMZ 5 Population by Age



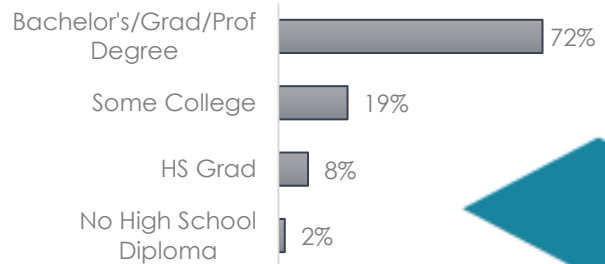
FMZ 5 Population by Race



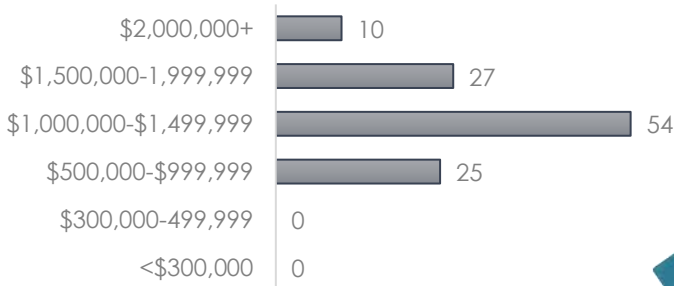
FMZ 5 Occupation



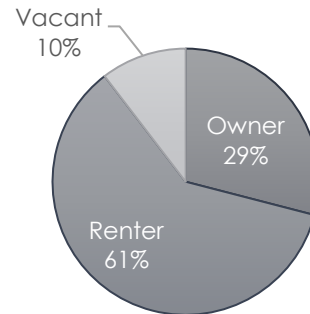
FMZ 5 Education



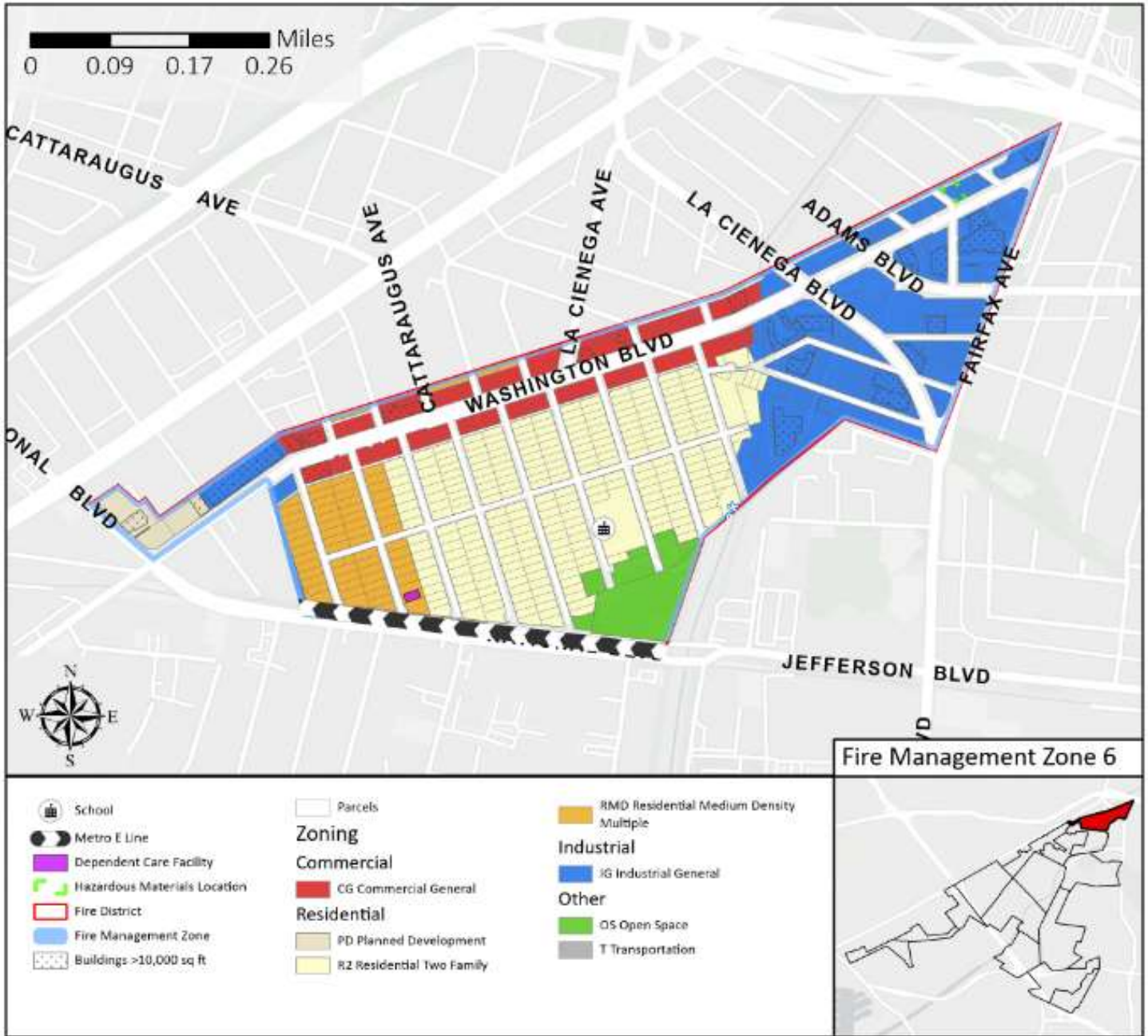
FMZ 5 Housing Units by Value



FMZ 5 Housing Units



FMZ 6

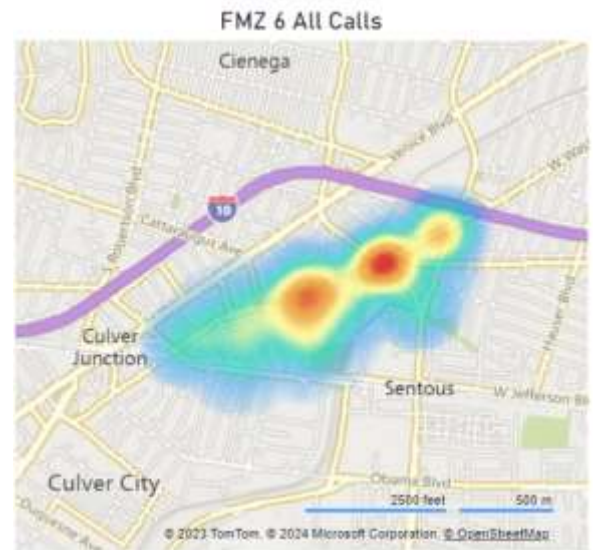


Fire Management Zone 6 is a general corridor, consisting of 0.22 square miles, located in the eastern part of the City. It has mostly single and multiple family residences, along with an industrial park. The Metro E Line Light Rail Station is also within FMZ 6. Although zoned for industrial general business, many of the industrial spaces have been converted into modern office spaces, causing 21% of the area's commercial structures being sprinklered, mitigating fire risk. Conversely, 34% of the 614 housing structures in this area were built prior to 1940 posing seismic risk.



FMZ 6 Historical Call Volume

	2019	2020	2021	2022	2023	2019-2023
Fire	4	7	11	17	9	48
EMS	135	117	98	128	148	626
Technical Rescue	-	1	1	1	1	4
Hazardous Materials	2	2	2	2	3	11
Other	2	2	2	1	5	12
Wildland Fire	1	1	-	1	-	3



Demographics

Population

- Population: 1,444
- Daytime Population (workers & residents): 2,173
- Population Density per Square Mile: 3,349
- Daytime Population Density: 6,654
- Median Age: 39.4
- Male Population: 49.1%
- Female Population: 50.9%
- Number of Households: 545
- Households with Disability: 112
- Population 65+ That Speak No English: 27
- Households Income Below Poverty Level: 41

Education/
Employment

- Businesses: 276
- Employees: 1,836
- Median Household Income: \$103,534
- Per Capita Income: \$54,655
- Unemployment: 2.7%
- No High School Diploma: 10%

Housing

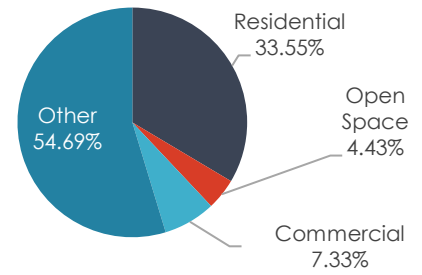
- Median Home Value: \$1,193,750
- Number of Housing Units: 614
- Average Household Size: 2.7
- Housing Structure Built After 1990: 68
- Housing Structure Built Before 1940: 233
- Median Year Housing Structure Built: 1957
- Median Year Householder Moved into Unit: 2014



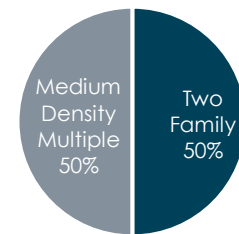
FMZ 6 Characteristics

Resources	
Fire Rescue District	11
Station	1
First Due Engine/Truck	41
First Due Rescue	41
Development	
Total Square Miles	0.217025
Total Structures	858
Buildings per Square Mile	3,953.5
Total Square Feet (all structures)	2,216,561
Number of Buildings > 75 ft.	0
Commercial Buildings > 10,000 ft ²	22
Road miles	0
Total Assessed Valuation	\$727,897,621
Mitigating Factors	
Fire Sprinklers in Structures	
Commercial	21.2%
Residential	11.1%

Zoning within FMZ 6



FMZ 6 Residential Zoning



Specific Risks

Fire	
EMS	One dependent care facility
Tech Rescue	Metro E Line Light Rail Station; one bridge
Haz Mat	One facility with hazardous contents
Other	School; outside of 4-minute drive-time area; busy traffic corridor

FMZ 6 All Risk Response Times		2019-2023	2023	2022	2021	2020	2019
Alarm Handling	Pick-up to Dispatch	1:39	1:30	1:03	1:19	1:47	1:59
	Turnout						
Travel	1st Unit	2:30	2:36	:03	2:17	2:33	2:41
	Effective Response Force (ERF)	5:34	5:34	5:53	5:21	5:10	5:13
Total Response Time	1st Unit	8:23	9:15	7:47	7:58	8:25	6:34
		8:09	8:25	8:02	7:41	8:14	8:12
	Effective Response Force (ERF)	n = 594	143	128	95	105	123
		11:02	11:48	10:58	10:43	10:29	9:57
	n = 537	133	101	84	105	114	



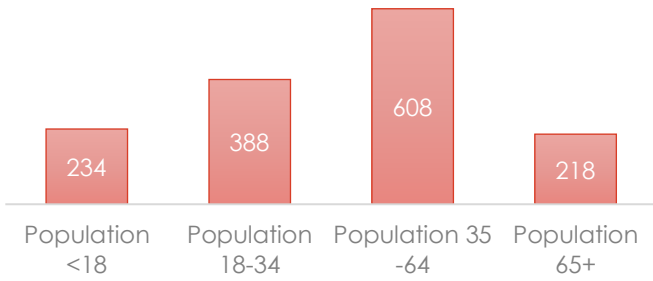


Population
1,444

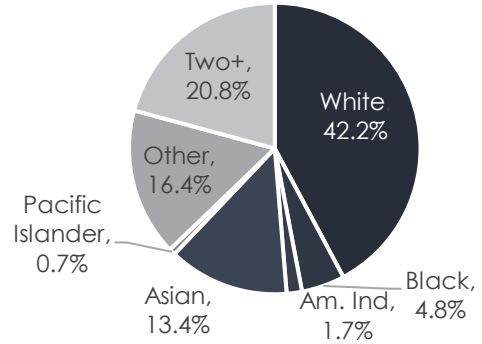
Daytime Population
50% Increase ↑

Annual
Population
Growth
-0.61%

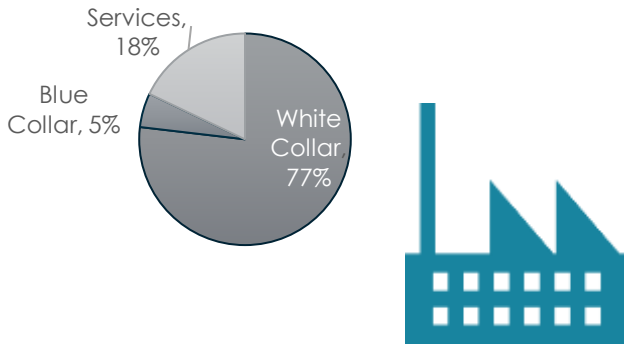
FMZ 6 Population by Age



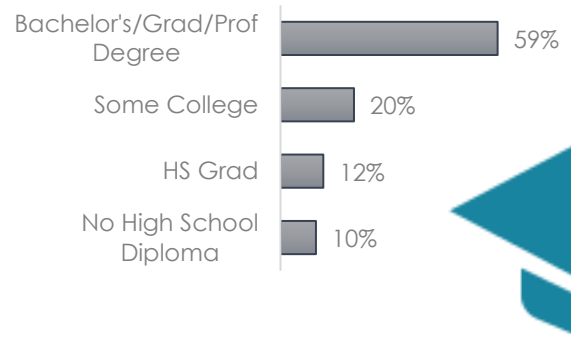
FMZ 6 Population by Race



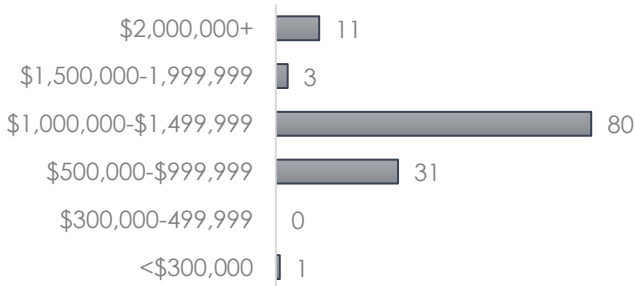
FMZ 6 Occupation



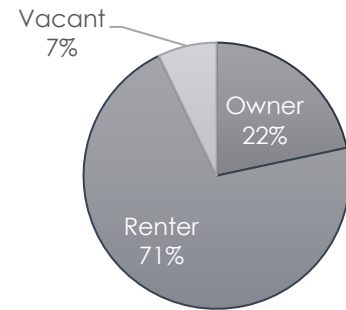
FMZ 6 Education



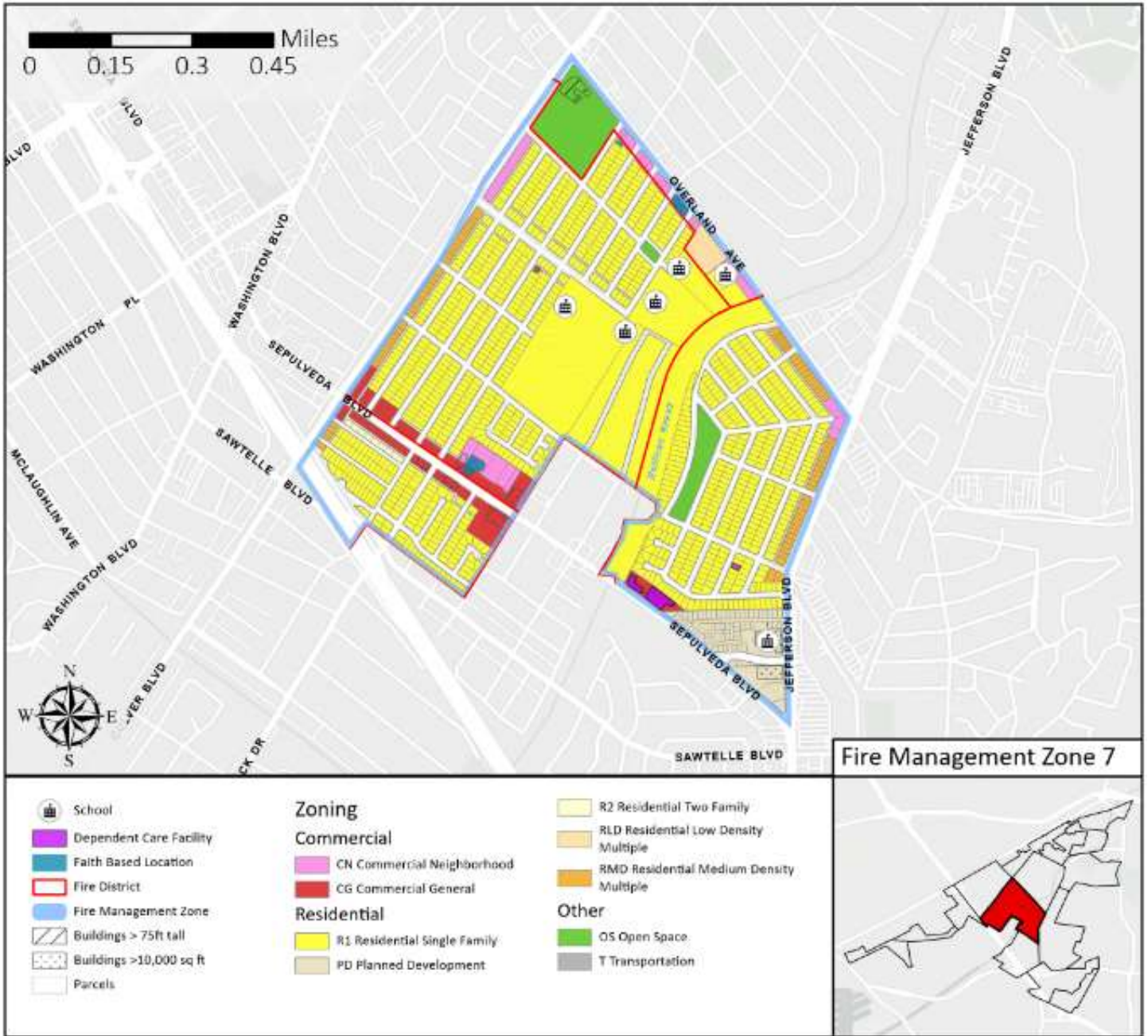
FMZ 6 Housing Units by Value



FMZ 6 Housing Units



FMZ 7



Fire Management Zone 7 is a general and neighborhood corridor of 0.59 square miles centrally located in the City. It consists of predominantly single and multiple family residences, along with some planned developments and street-front businesses. Zone 7 has a high school, middle school and elementary school within its limits and is also home to two nursing homes. This zone has the highest number of structures and 14% of the households in the area have a member with a disability.




FMZ 7 Historical Call Volume

	2019	2020	2021	2022	2023	2019-2023
Fire	1	9	3	11	20	44
EMS	488	513	394	502	504	2,401
Technical Rescue	1	-	-	2	7	10
Hazardous Materials	6	2	1	6	5	20
Other	13	5	15	13	2	48
Wildland Fire	-	-	-	3	1	4




Demographics




Population

- Population: 4,342
- Daytime Population (workers & residents): 4,920
- Population Density per Square Mile: 7,312
- Daytime Population Density: 8,285
- Median Age: 45.5
- Male Population: 47.5%
- Female Population: 52.5%
- Number of Households: 1,466
- Households with Disability: 232
- Population 65+ That Speak No English: 13
- Households Income Below Poverty Level: 54



Education/
Employment

- Businesses: 206
- Employees: 2,292
- Median Household Income: \$137,286
- Per Capita Income: \$67,138
- Unemployment: 2.6%
- No High School Diploma: 5%



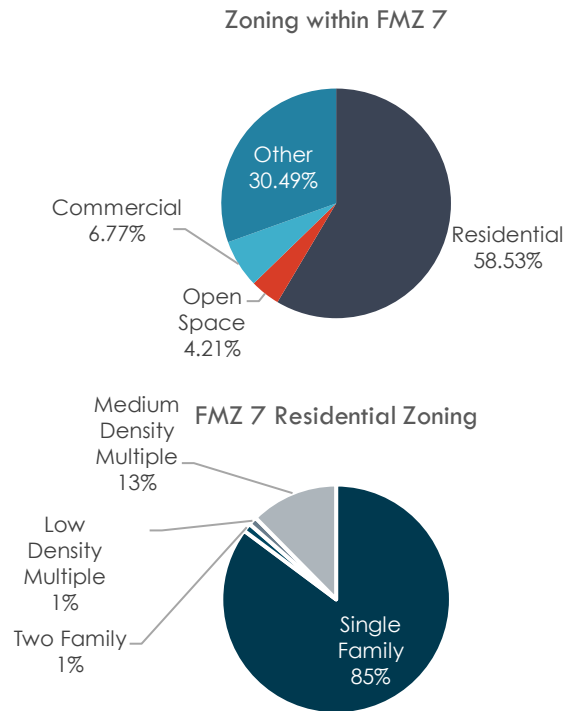
Housing

- Median Home Value: \$1,278,150
- Number of Housing Units: 1,732
- Average Household Size: 2.9
- Housing Structure Built After 1990: 166
- Housing Structure Built Before 1940: 911
- Median Year Housing Structure Built: 1949
- Median Year Householder Moved into Unit: 2005



FMZ 7 Characteristics

Resources	
Fire Rescue District	21/23/33
Station	2
First Due Engine/Truck	42
First Due Rescue	42
Development	
Total Square Miles	0.593823
Total Structures	2429
Buildings per Square Mile	4090.4
Total Square Feet (all structures)	2,779,476
Number of Buildings > 75 ft.	1
Commercial Buildings > 10,000 ft ²	32
Road miles	0
Total Assessed Valuation	\$1,069,587,519
Mitigating Factors	
Fire Sprinklers in Structures	
Commercial	22.7%
Residential	9.6%



Specific Risks

Fire	
EMS	One dependent care facility; two schools
Tech Rescue	2 bridges
Haz Mat	16" diameter pipeline (crude oil, diesel fuel, gasoline); natural gas transmission pipeline; sewer pump station
Other	Portion outside of 4-minute drive-time area

FMZ 7 All Risk Response Times		2019-2023	2023	2022	2021	2020	2019
Alarm Handling	Pick-up to Dispatch	1:31	1:08	1:14	1:18	1:45	1:52
Turnout	1st Unit	2:21	2:09	2:08	2:42	2:26	2:11
Travel	1st Uni	5:21	5:17	5:27	5:39	5:28	4:54
	Effective Response Force (ERF)	6:15	5:57	6:14	6:54	6:41	5:51
Total Response Time	1st Unit	7:52	7:35	7:39	8:13	8:19	7:38
		n = 2,200	468	458	359	472	443
	Effective Response Force (ERF)	9:10	8:25	8:51	9:34	10:01	8:51
		n = 1,991	438	400	339	437	377



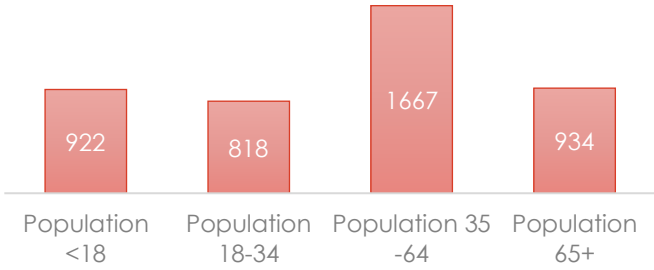


Population
4,342

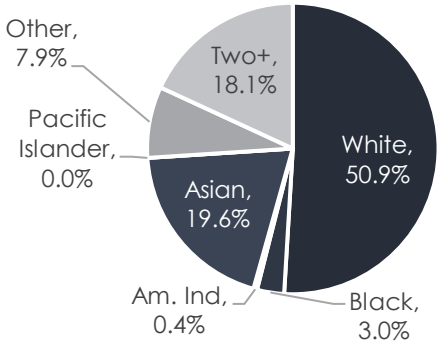
Daytime Population
13% Increase ↑

Annual
Population
Growth
-0.42%

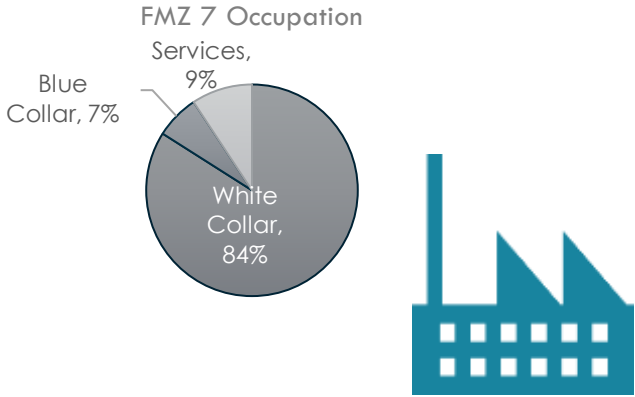
FMZ 7 Population by Age



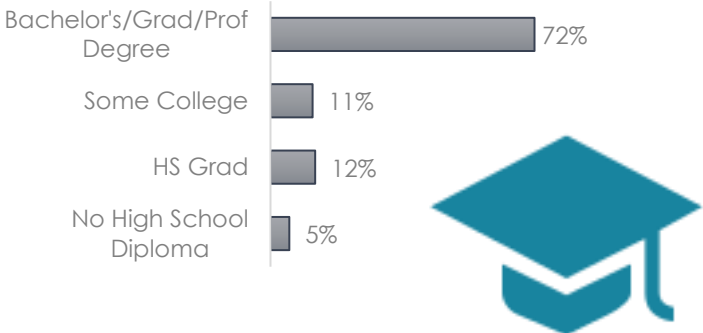
FMZ 7 Population by Race



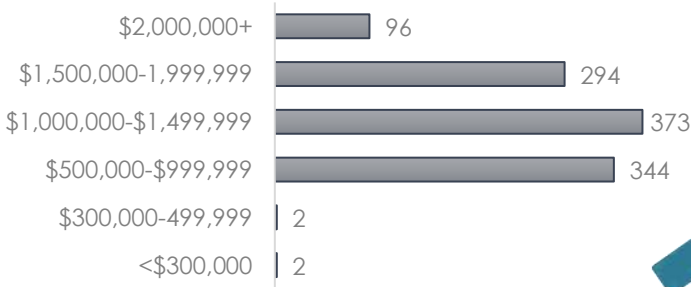
FMZ 7 Occupation



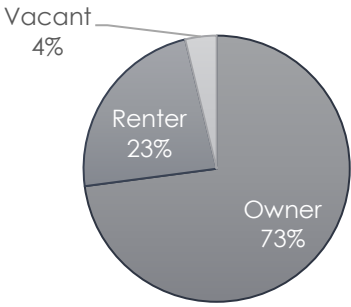
FMZ 7 Education



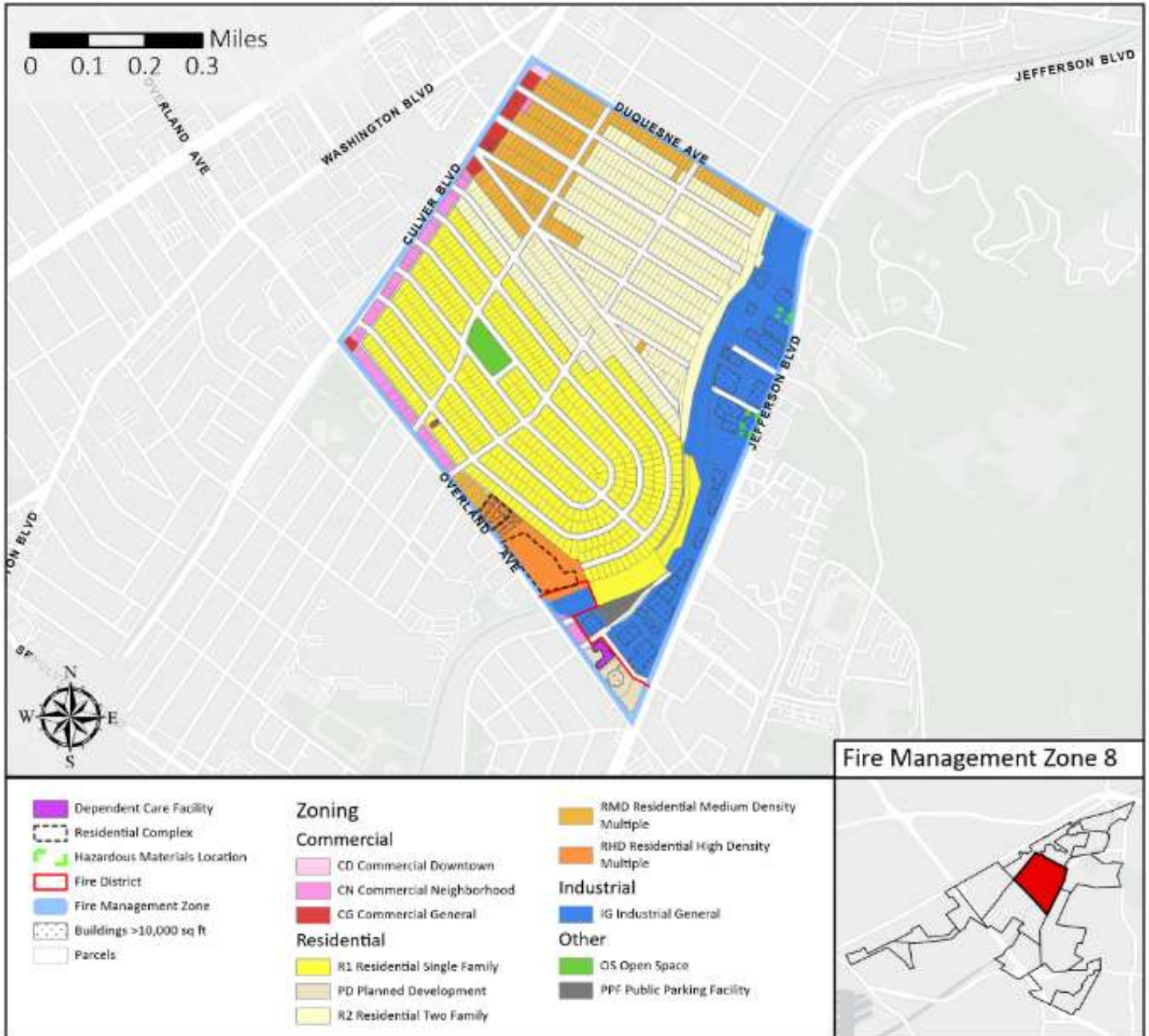
FMZ 7 Housing Units by Value



FMZ 7 Housing Units



FMZ 8



Fire Management Zone 8 is a general and neighborhood corridor of 0.52 square miles centrally located in the City. It has single family, multiple-family, and planned residential developments. There are also a small number of street-front businesses. Zone 8 is also home to one nursing home, three large residential complexes and four large commercial spaces. FMZ 8 is also home to the City's Safe Sleep Site, a safe camping site for up to 40 people experiencing homelessness.




FMZ 8 Historical Call Volume

	2019	2020	2021	2022	2023	2019-2023
Fire	1	5	4	7	8	25
EMS	282	300	286	392	391	1,651
Technical Rescue	1	1	4	2	3	11
Hazardous Materials	3	3	4	2	1	13
Other	3	3	2	6	1	15
Wildland Fire	-	-	1	-	-	1




Demographics




Population

- Population: 5,100
- Daytime Population (workers & residents): 4,638
- Population Density per Square Mile: 9,891
- Daytime Population Density: 8,995
- Median Age: 42.9
- Male Population: 48.5%
- Female Population: 51.5%
- Number of Households: 2,216
- Households with Disability: 328
- Population 65+ That Speak No English: 1
- Households Income Below Poverty Level: 167



Education/
Employment

- Businesses: 328
- Employees: 6,002
- Median Household Income: \$129,614
- Per Capita Income: \$72,545
- Unemployment: 3.0%
- No High School Diploma: 9%



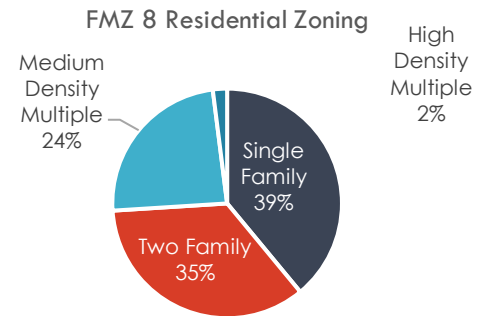
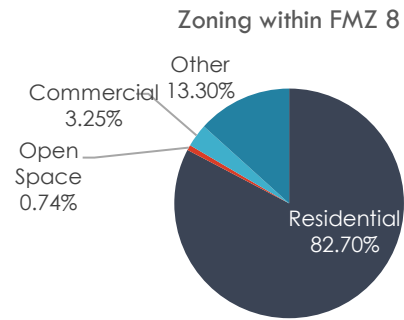
Housing

- Median Home Value: \$1,476,115
- Number of Housing Units: 2,619
- Average Household Size: 2.9
- Housing Structure Built After 1990: 193
- Housing Structure Built Before 1940: 834
- Median Year Housing Structure Built: 1956
- Median Year Householder Moved into Unit: 2012



FMZ 8 Characteristics

Resources	
Fire Rescue District	11
Station	1
First Due Engine/Truck	41
First Due Rescue	41
Development	
Total Square Miles	0.515621
Total Structures	2032
Buildings per Square Mile	3940.9
Total Square Feet (all structures)	3,817,117
Number of Buildings > 75 ft.	0
Commercial Buildings > 10,000 ft ²	37
Road miles	0
Total Assessed Valuation	\$1,388,372,160
Mitigating Factors	
Fire Sprinklers in Structures	
Commercial	17.6%
Residential	7.4%



Specific Risks	
Fire	
EMS	Safe sleep site for people experiencing homelessness
Tech Rescue	La Ballona flood control channel; 3 bridges
Haz Mat	Two facilities with hazardous contents; one sewer pump station
Other	Southwest portion of the zone is outside of 4-minute drive-time area

FMZ 8 All Risk Response Times		2019-2023	2023	2022	2021	2020	2019
Alarm Handling	Pick-up to Dispatch	1:18	1:01	0:59	1:12	1:34	1:39
	Turnout	1st Unit	2:18	2:30	1:50	2:30	2:13
Travel	1st Uni	4:26	4:34	4:36	4:30	4:26	3:58
	Effective Response Force (ERF)	6:18	6:18	7:21	6:01	5:47	5:26
Total Response Time	1st Unit	6:48	6:59	6:33	7:02	6:53	6:20
		n = 1,514	365	357	270	273	249
	Effective Response Force (ERF)	09:00	8:37	9:38	9:09	8:57	8:52
		n = 1,380	342	316	242	251	229



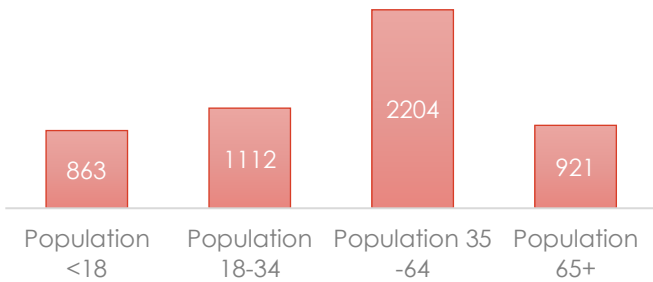


Population
5,100

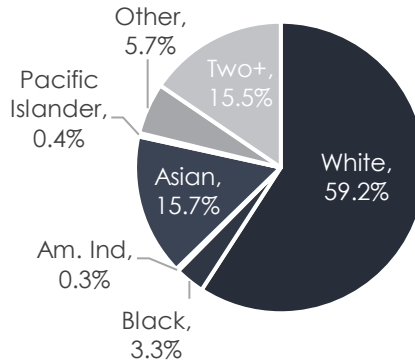
Daytime Population
9% Decrease ↓

Annual
Population
Growth
0.30%

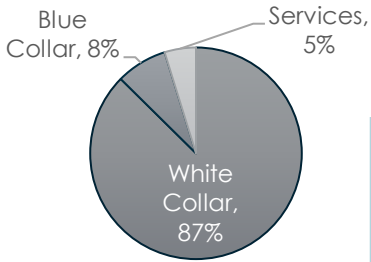
FMZ 8 Population by Age



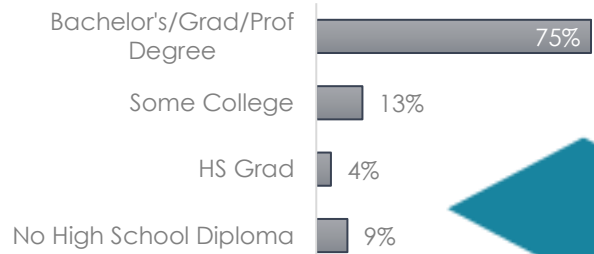
FMZ 8 Population by Race



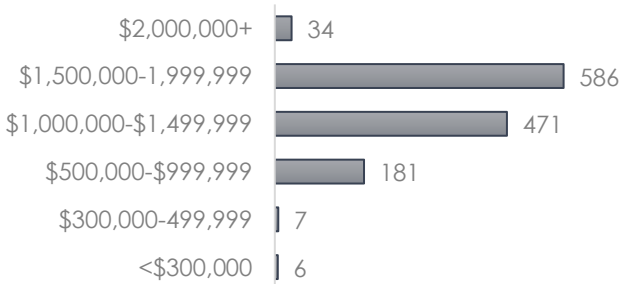
FMZ 8 Occupation



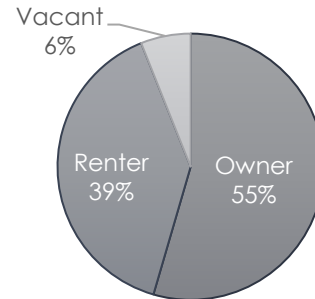
FMZ 8 Education



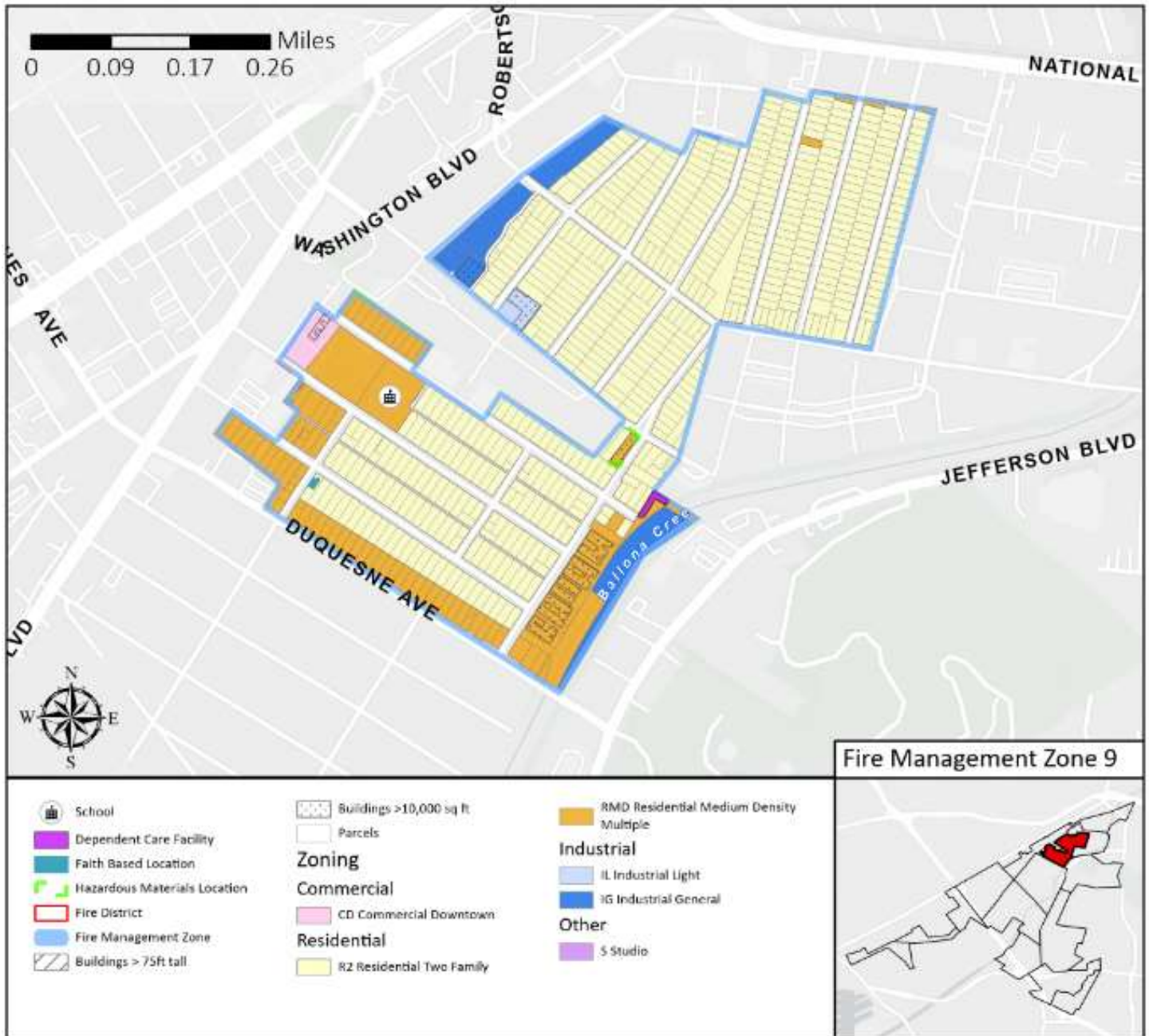
FMZ 8 Housing Units by Value



FMZ 8 Housing Units



FMZ 9



Fire Management Zone 9 is a neighborhood corridor of 0.22 square miles, which is located toward the east side of the City. It is made up of predominantly single and multiple family residences with some street front businesses.



FMZ 9 Historical Call Volume

	2019	2020	2021	2022	2023	2019-2023
Fire	3	1	2	4	1	11
EMS	114	107	112	136	106	575
Hazardous Materials	-	1	1	-	2	4
Other	-	6	1	1	-	8



Demographics



Population

- Population: 2,288
- Daytime Population (workers & residents): 2,498
- Population Density per Square Mile: 10,191
- Daytime Population Density: 11,126
- Median Age: 41.3
- Male Population: 47.2%
- Female Population: 52.8%
- Number of Households: 950
- Households with Disability: 152
- Population 65+ That Speak No English: 25
- Households Income Below Poverty Level: 79



Education/
Employment

- Businesses: 112
- Employees: 1,513
- Median Household Income: \$124,611
- Per Capita Income: \$77,905
- Unemployment: 6.1%
- No High School Diploma: 2%



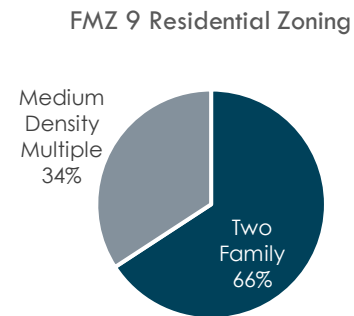
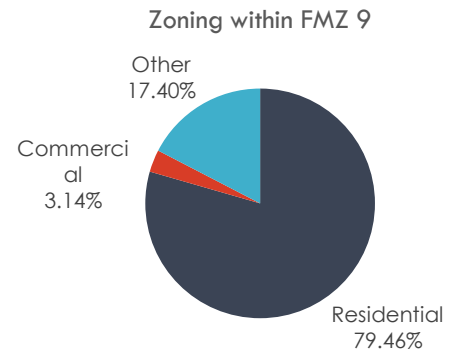
Housing

- Median Home Value: \$1,323,529
- Number of Housing Units: 968
- Average Household Size: 2.9
- Housing Structure Built After 1990: 104
- Housing Structure Built Before 1940: 373
- Median Year Housing Structure Built: 1962
- Median Year Householder Moved into Unit: 2013



FMZ 9 Characteristics

Resources	
Fire Rescue District	11
Station	1
First Due Engine/Truck	41
First Due Rescue	41
Development	
Total Square Miles	0.22451
Total Structures	1362
Buildings per Square Mile	6066.5
Total Square Feet (all structures)	2,030,882
Number of Buildings > 75 ft.	1
Commercial Buildings > 10,000 ft ²	5
Road miles	0
Total Assessed Valuation	\$569,891,372
Mitigating Factors	
Fire Sprinklers in Structures	
Commercial	60.0%
Residential	10.7%



Specific Risks	
Fire	
EMS	
Tech Rescue	La Ballona flood control channel; 1 bridge
Haz Mat	12" diameter pipeline (gas, crude oil)
Other	

FMZ 9 All Risk Response Times		2019-2023	2023	2022	2021	2020	2019
Alarm Handling	Pick-up to Dispatch	1:28	1:12	1:06	1:14	1:47	1:55
	Turnout	1st Unit	2:18	2:00	2:08	2:18	2:12
Travel	1st Uni	4:38	5:05	5:04	4:33	4:20	4:08
	Effective Response Force (ERF)	6:54	5:52	7:17	5:37	7:44	6:20
Total Response Time	1st Unit	7:14	7:28	7:27	7:05	7:20	6:42
		n = 525	98	123	103	97	104
	Effective Response Force (ERF)	9:18	8:11	9:57	8:40	10:30	9:18
		n = 475	89	111	90	93	92



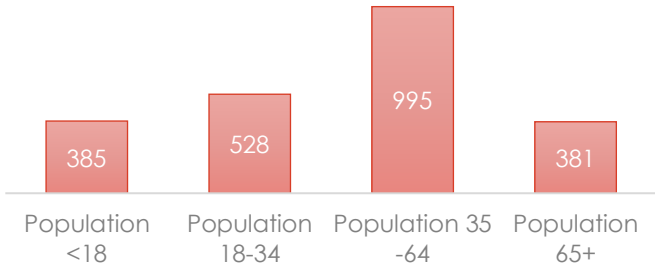


Population
2,288

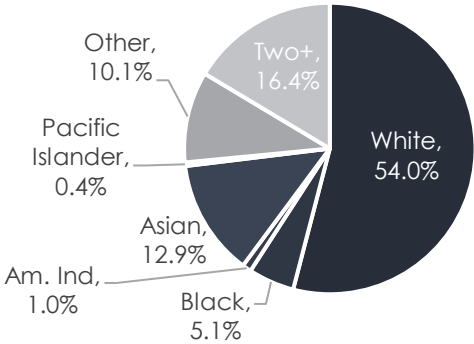
Daytime Population
9% Increase ↑

Annual
Population
Growth
2.30%

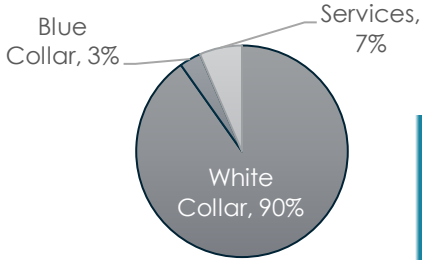
FMZ 9 Population by Age



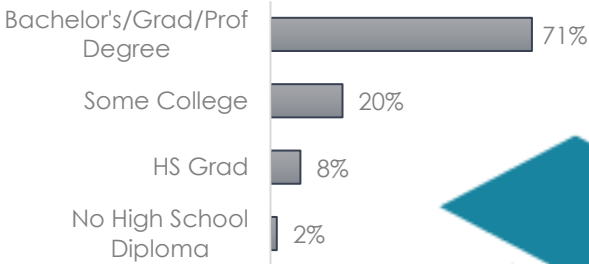
FMZ 9 Population by Race



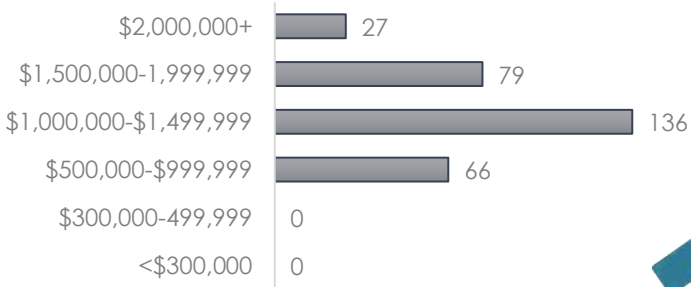
FMZ 9 Occupation



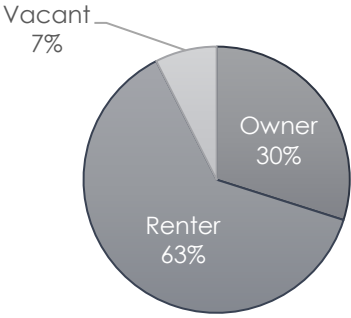
FMZ 9 Education



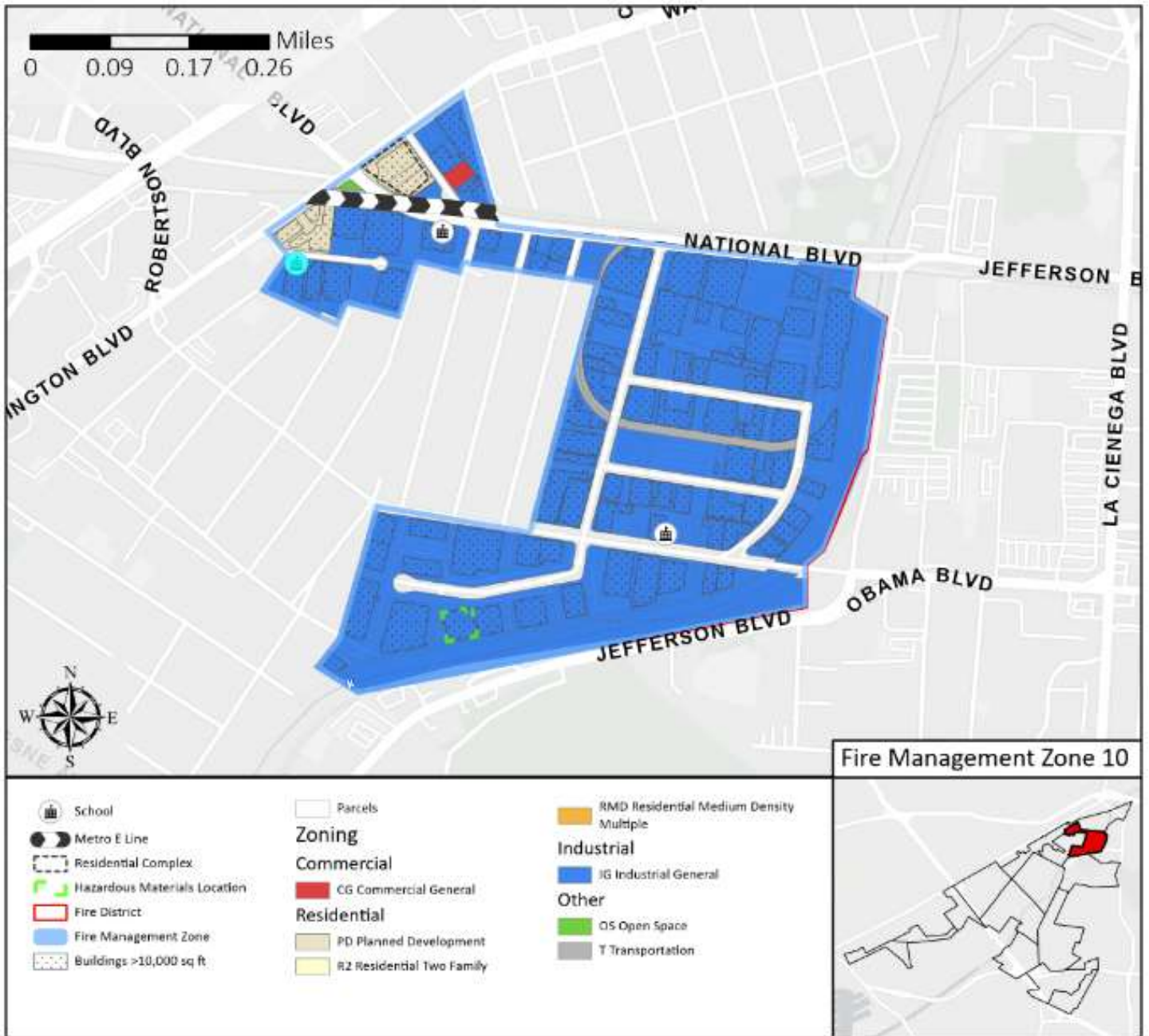
FMZ 9 Housing Units by Value



FMZ 9 Housing Units



FMZ 10



Fire Management Zone 10 is an industrial zoned area consisting of 0.21 square miles, which is located towards the east side of the City. It is grouped together by a large industrial/commercial park. It also borders the E Line Light Rail Line.




FMZ 10 Historical Call Volume

	2019	2020	2021	2022	2023	2019-2023
Fire	1	1	2	1	5	10
EMS	56	41	30	48	48	223
Technical Rescue	-	3	1	4	3	11
Hazardous Materials	3	1	-	-	1	5
Other	2	1	1	1	1	6
Wildland Fire	-	-	-	-	4	4




Demographics




Population

- Population: 624
- Daytime Population (workers & residents): 3,689
- Population Density per Square Mile: 3,014
- Daytime Population Density: 17,816
- Median Age: 40.1
- Male Population: 48.2%
- Female Population: 51.8%
- Number of Households: 359
- Households with Disability: 40
- Population 65+ That Speak No English: 9
- Households Income Below Poverty Level: 33



Education/
Employment

- Businesses: 270
- Employees: 2,935
- Median Household Income: \$136,299
- Per Capita Income: \$83,359
- Unemployment: 4.4%
- No High School Diploma: 6%



Housing

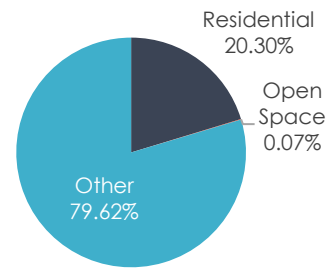
- Median Home Value: \$1,476,562
- Number of Housing Units: 392
- Average Household Size: 1.7
- Housing Structure Built After 1990: 34
- Housing Structure Built Before 1940: 121
- Median Year Housing Structure Built: 1970
- Median Year Householder Moved into Unit: 2015



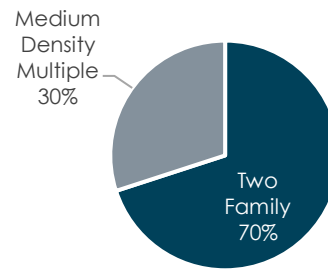
FMZ 10 Characteristics

Resources	
Fire Rescue District	11
Station	1
First Due Engine/Truck	41
First Due Rescue	41
Development	
Total Square Miles	0.207066
Total Structures	144
Buildings per Square Mile	695.4
Total Square Feet (all structures)	3,191,826
Number of Buildings > 75 ft.	0
Commercial Buildings > 10,000 ft ²	78
Road miles	0
Total Assessed Valuation	\$729,543,588
Mitigating Factors	
Fire Sprinklers in Structures	
Commercial	0.0%
Residential	8.7%

Zoning within FMZ 10



FMZ 10 Residential Zoning



Specific Risks

Fire	
EMS	
Tech Rescue	Light rail line; La Ballona flood control channel; two bridges
Haz Mat	10" diameter pipeline (crude oil, diesel, gasoline, jet fuel)
Other	Portion outside of 4-minute drive-time area; sewer pump station

FMZ 10 All Risk Response Times		2019-2023	2023	2022	2021	2020	2019
Alarm Handling	Pick-up to Dispatch	1:23	1:08	1:00	1:16	1:57	1:27
	Turnout						
Travel	1st Unit	2:09	2:34	1:52	2:30	1:52	2:16
	Effective Response Force (ERF)	5:08	6:03	4:49	5:09	5:06	4:58
Total Response Time	1st Unit	8:21	7:36	11:51	9:43	5:18	6:41
		7:47	7:55	6:44	7:51	8:07	7:19
	Effective Response Force (ERF)	n = 223	54	46	30	41	52
		n = 193	11:11	10:09	15:05	12:20	8:05
		50	37	29	29	48	



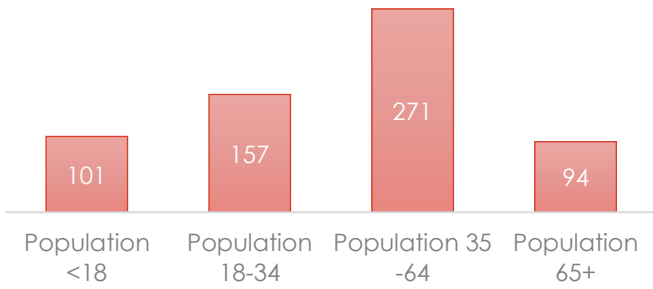


Population
624

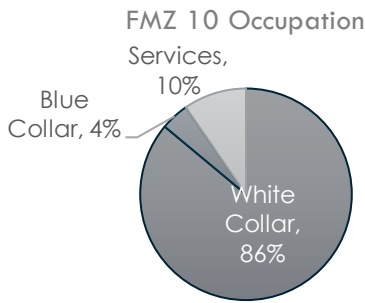
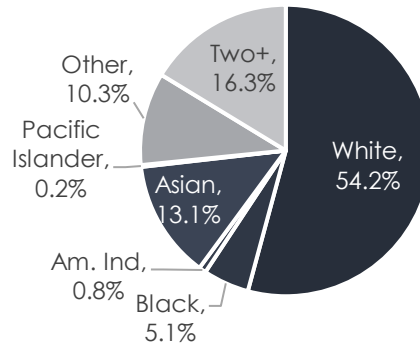
Daytime Population
491% Increase ↑

Annual
Population
Growth
0.50%

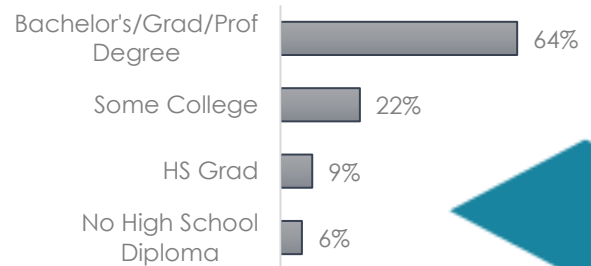
FMZ 10 Population by Age



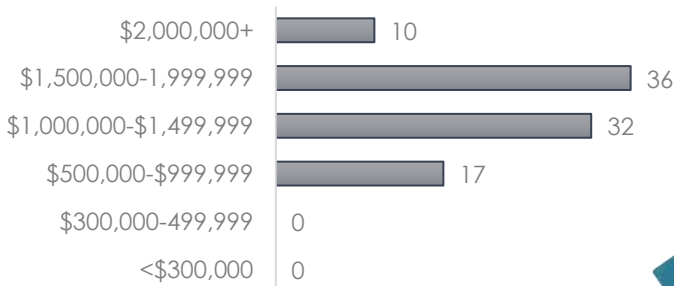
FMZ 10 Population by Race



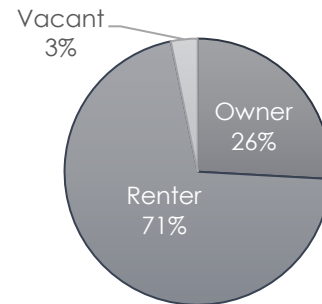
FMZ 10 Education



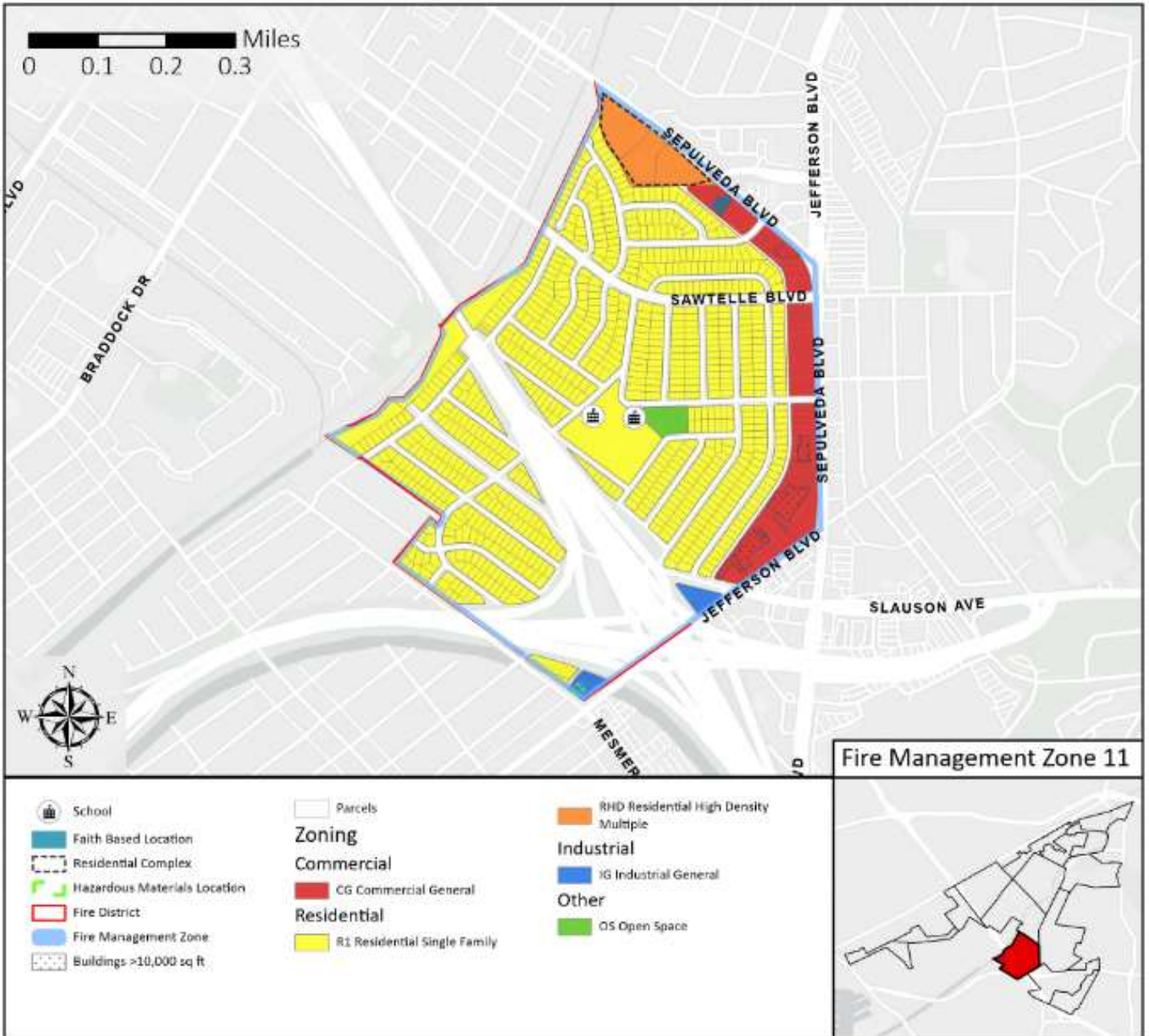
FMZ 10 Housing Units by Value



FMZ 10 Housing Units



FMZ 11

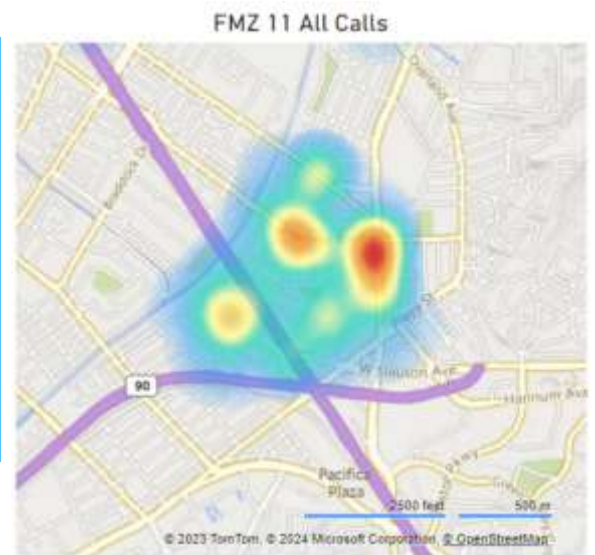


Fire Management Zone 11 is a general and neighborhood corridor consisting of 0.37 square miles, which is located centrally in the southern portion of the City. It has single and multiple family residences with some commercial and street-front businesses. It is also home to an elementary school, ten large commercial spaces and two large residential units. 24 percent of the population of this zone is greater than 65 years old, with a median age of 47.7. 76 percent of the residences in this zone are owner occupied.



FMZ 11 Historical Call Volume

	2019	2020	2021	2022	2023	2019-2023
Fire	5	1	1	6	15	28
EMS	221	192	144	177	249	983
Hazardous Materials	-	7	2	1	1	11
Other	6	2	4	6	5	23
Wildland Fire	-	1	1	-	2	4



Demographics



Population

- Population: 2,601
- Daytime Population (workers & residents): 2,228
- Population Density per Square Mile: 7,032
- Daytime Population Density: 6,024
- Median Age: 47.7
- Male Population: 49.1%
- Female Population: 50.9%
- Number of Households: 949
- Households with Disability: 251
- Population 65+ That Speak No English: 57
- Households Income Below Poverty Level: 12



Education/
Employment

- Businesses: 122
- Employees: 874
- Median Household Income: \$146,259
- Per Capita Income: \$62,609
- Unemployment: 0.3%
- No High School Diploma: 4%



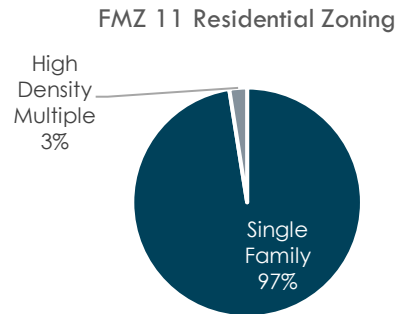
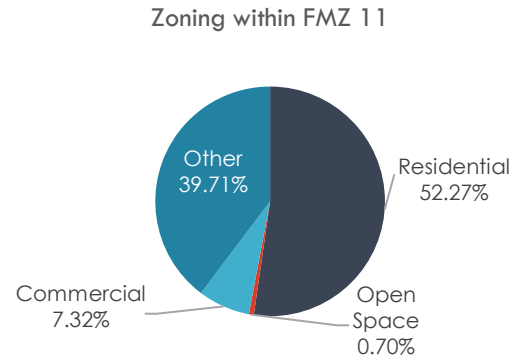
Housing

- Median Home Value: \$1,220,149
- Number of Housing Units: 1080
- Average Household Size: 2.7
- Housing Structure Built After 1990: 46
- Housing Structure Built Before 1940: 164
- Median Year Housing Structure Built: 1955
- Median Year Householder Moved into Unit: 2002



FMZ 11 Characteristics

Resources	
Fire Rescue District	33
Station	3
First Due Engine/Truck	43
First Due Rescue	43
Development	
Total Square Miles	0.369881
Total Structures	1223
Buildings per Square Mile	3306.5
Total Square Feet (all structures)	1,835,946
Number of Buildings > 75 ft.	0
Commercial Buildings > 10,000 ft ²	14
Road miles	0
Total Assessed Valuation	\$595,523,556
Mitigating Factors	
Fire Sprinklers in Structures	
Commercial	36.4%
Residential	4.3%



Specific Risks

Fire	High density residential
EMS	24 percent of the population is >65 years old, with a median age of 47.7
Tech Rescue	405 freeway; three bridges
Haz Mat	16" diameter pipeline (crude oil, diesel fuel, fuel oil, gasoline); 8" pipeline (crude oil, diesel, gasoline, jet fuel); natural gas transmission pipeline
Other	Sewer pump station

FMZ 11 All Risk Response Times		2019-2023	2023	2022	2021	2020	2019
Alarm Handling	Pick-up to Dispatch	1:31	1:13	1:09	1:11	1:47	1:53
	Turnout	1st Unit	2:20	2:24	2:05	2:25	2:11
Travel	1st Uni	5:21	5:24	5:23	5:47	5:12	4:56
	Effective Response Force (ERF)	6:51	6:10	6:48	7:19	6:51	6:51
Total Response Time	1st Unit	8:01	8:01	7:18	8:20	8:10	7:52
		n = 911	243	159	127	183	199
	Effective Response Force (ERF)	9:16	9:00	9:04	9:21	9:33	9:35
		n = 823	229	144	127	154	169



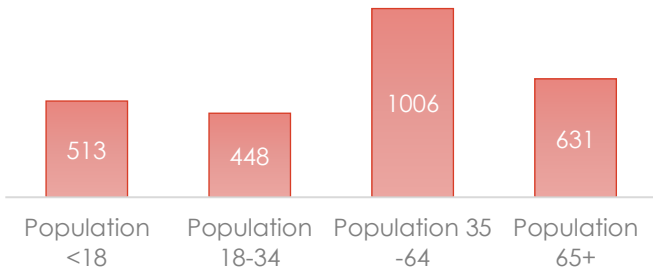


Population
2,601

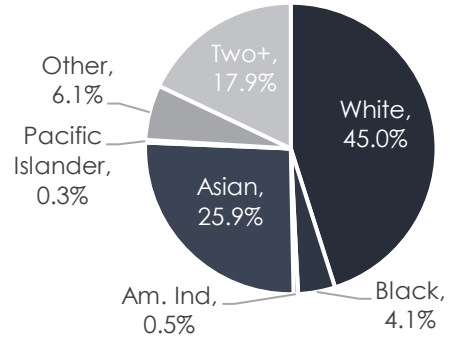
Daytime Population
14% Decrease ↓

Annual
Population
Growth
0.41%

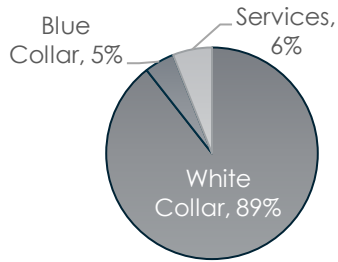
FMZ 11 Population by Age



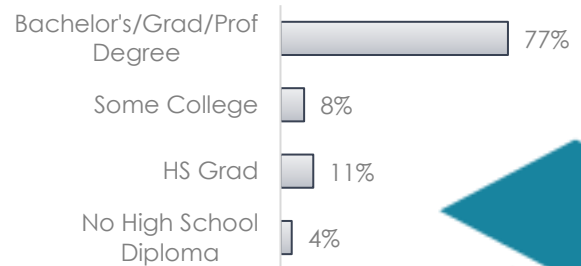
FMZ 11 Population by Race



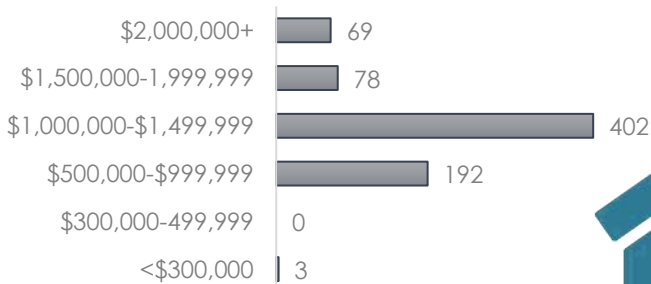
FMZ 11 Occupation



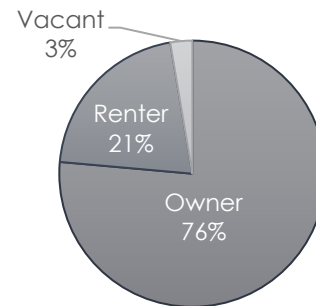
FMZ 11 Education



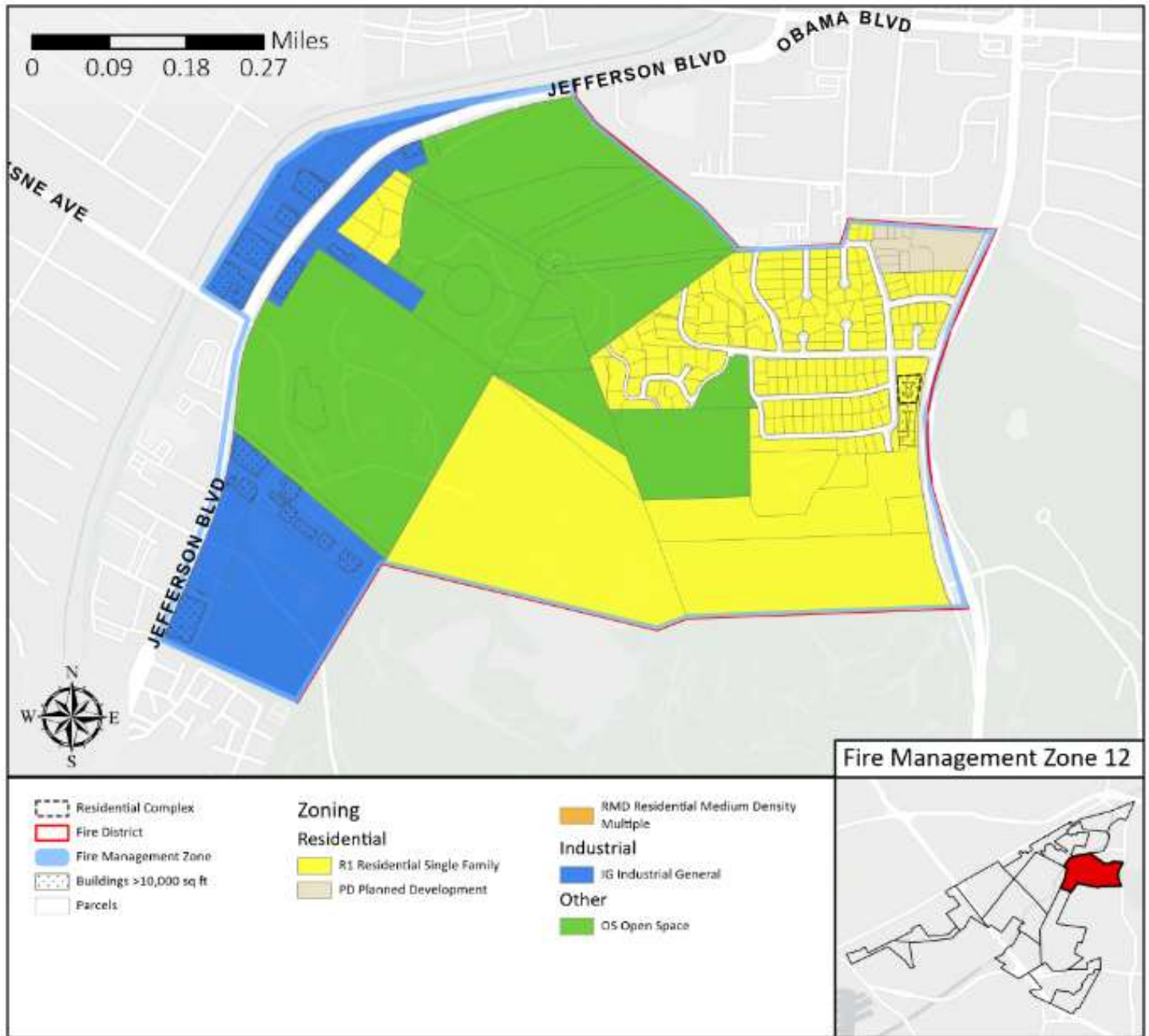
FMZ 11 Housing Units by Value



FMZ 11 Housing Units



FMZ 12



Fire Management Zone 12 is a general and neighborhood corridor of 0.46 square miles, which is centrally located in the eastern part of the City. Single family, multiple family, and planned residential developments comprises Zone 12. There are also commercial and light industrial uses, and a large open natural land space, which borders a wildland-urban interface. Zone 12 borders the Inglewood Oil Field and has several oil wells within its limits. Over 31 percent of the population within Zone 12 is over the age of 65, with the median age at 54.




FMZ 12 Historical Call Volume

	2019	2020	2021	2022	2023	2019-2023
Fire	2	4	4	4	-	14
EMS	97	74	94	92	87	444
Technical Rescue	-	-	-	1	1	2
Hazardous Materials	3	2	1	1	-	7
Other	2	-	2	-	1	5
Wildland Fire	3	1	1	2	-	7




Demographics




Population

- Population: 978
- Daytime Population (workers & residents): 1,925
- Population Density per Square Mile: 2,136
- Daytime Population Density: 4,204
- Median Age: 54
- Male Population: 47.2%
- Female Population: 52.8%
- Number of Households: 330
- Households with Disability: 47
- Population 65+ That Speak No English: 0
- Households Income Below Poverty Level: 33



Education/
Employment

- Businesses: 97
- Employees: 1,068
- Median Household Income: \$153,898
- Per Capita Income: \$76,753
- Unemployment: 0.0%
- No High School Diploma: 0%



Housing

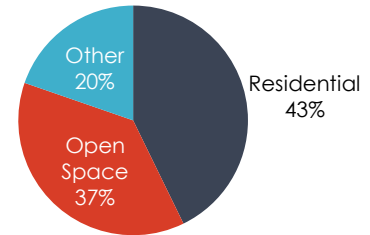
- Median Home Value: \$1,563,025
- Number of Housing Units: 388
- Average Household Size: 3
- Housing Structure Built After 1990: 0
- Housing Structure Built Before 1940: 0
- Median Year Housing Structure Built: 1972
- Median Year Householder Moved into Unit: 2007



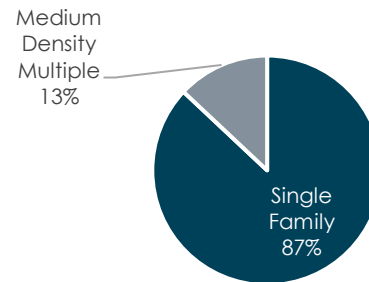
FMZ 12 Characteristics

Resources	
Fire Rescue District	11
Station	1
First Due Engine/Truck	41
First Due Rescue	41
Development	
Total Square Miles	0.457923
Total Structures	318
Buildings per Square Mile	694.4
Total Square Feet (all structures)	1,106,404
Number of Buildings > 75 ft.	0
Commercial Buildings > 10,000 ft ²	12
Road miles	0
Total Assessed Valuation	\$381,987,075
Mitigating Factors	
Fire Sprinklers in Structures	
Commercial	0.0%
Residential	0.0%

Zoning within FMZ 12



FMZ 12 Residential Zoning



Specific Risks

Fire	Wildland urban interface
EMS	
Tech Rescue	
Haz Mat	One facility containing hazardous materials; high pressure gas distribution line; two 8" pipelines (crude oil, diesel, gasoline, jet fuel)
Other	Outside of 4-minute drive-time area; City's radio tower

FMZ 12 All Risk Response Times		2019-2023	2023	2022	2021	2020	2019
Alarm Handling	Pick-up to Dispatch	1:30	1:08	0:58	1:14	1:55	1:50
Turnout	1st Unit	2:23	2:24	1:57	2:32	2:28	2:21
Travel	1st Uni	6:36	7:06	6:37	6:29	6:15	6:33
	Effective Response Force (ERF)	8:38	9:17	8:06	7:12	8:04	9:12
Total Response Time	1st Unit	8:57	9:14	8:21	8:57	8:57	9:15
		n = 429	82	89	92	72	94
	Effective Response Force (ERF)	11:10	10:47	10:01	9:54	10:53	12:15
		n = 391	73	77	84	65	92



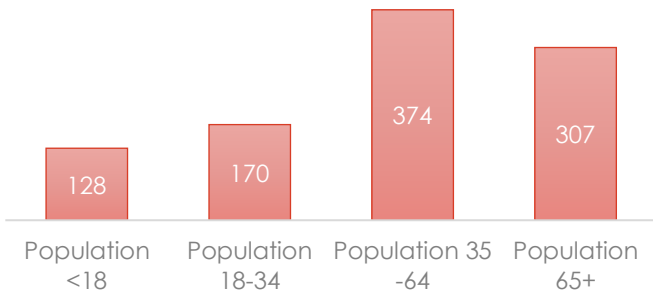


Population
978

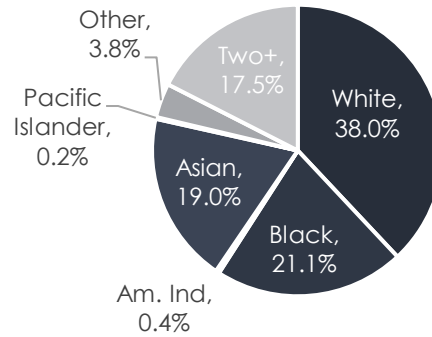
Daytime Population
97% Increase ↑

Annual
Population
Growth
0.44%

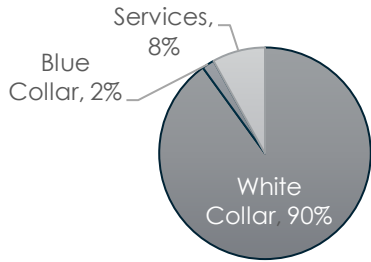
FMZ 12 Population by Age



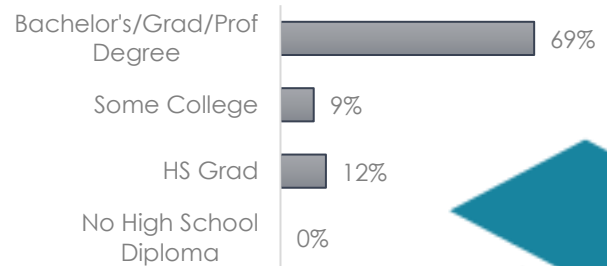
FMZ 12 Population by Race



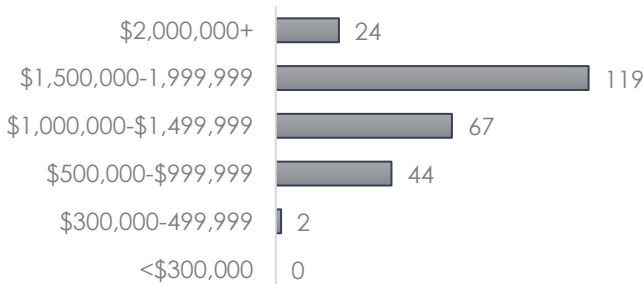
FMZ 12 Occupation



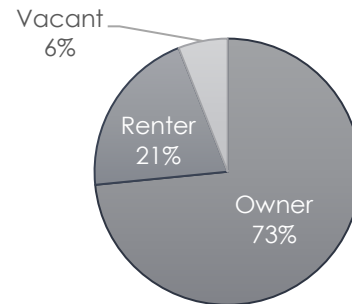
FMZ 12 Education



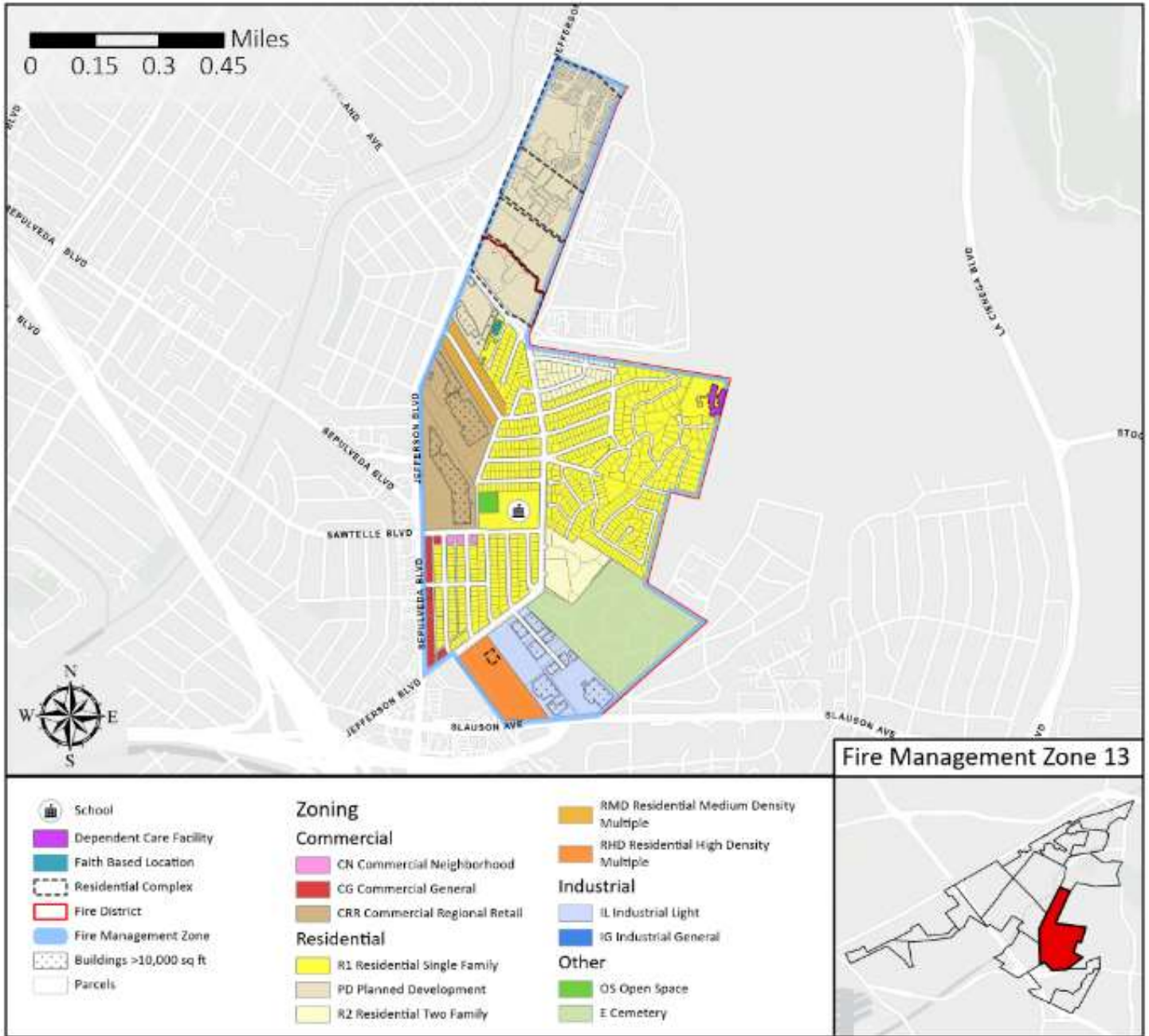
FMZ 12 Housing Units by Value



FMZ 12 Housing Units



FMZ 13



Fire Management Zone 13 is a general corridor, 0.63 square miles, which is centrally located in the southern part of the City. Planned residential developments, single and multiple family residences make up Zone 13. There is a small industrial park, a residential nursing home, elementary school, as well as a community college just beyond its limits in Los Angeles County. A portion of Zone 13 is considered part of the wildland-urban interface. This zone consists of the greatest number of households within the City, 21 percent of which have a disabled resident and 25 percent of households have members over 65 years old.




FMZ 13 Historical Call Volume

	2019	2020	2021	2022	2023	2019-2023
Fire	3	7	9	4	15	38
EMS	327	325	347	329	355	1,683
Technical Rescue	2	4	4	3	7	20
Hazardous Materials	-	2	3	4	4	13
Other	6	3	4	5	3	21
Wildland Fire	1	-	-	-	2	3




Demographics




Population

- Population: 6,802
- Daytime Population (workers & residents): 6,602
- Population Density per Square Mile: 10,766
- Daytime Population Density: 10,450
- Median Age: 47.6
- Male Population: 44.9%
- Female Population: 55.1%
- Number of Households: 3,010
- Households with Disability: 686
- Population 65+ That Speak No English: 26
- Households Income Below Poverty Level: 450



Education/
Employment

- Businesses: 413
- Employees: 3,023
- Median Household Income: \$107,202
- Per Capita Income: \$66,840
- Unemployment: 4.3%
- No High School Diploma: 3%



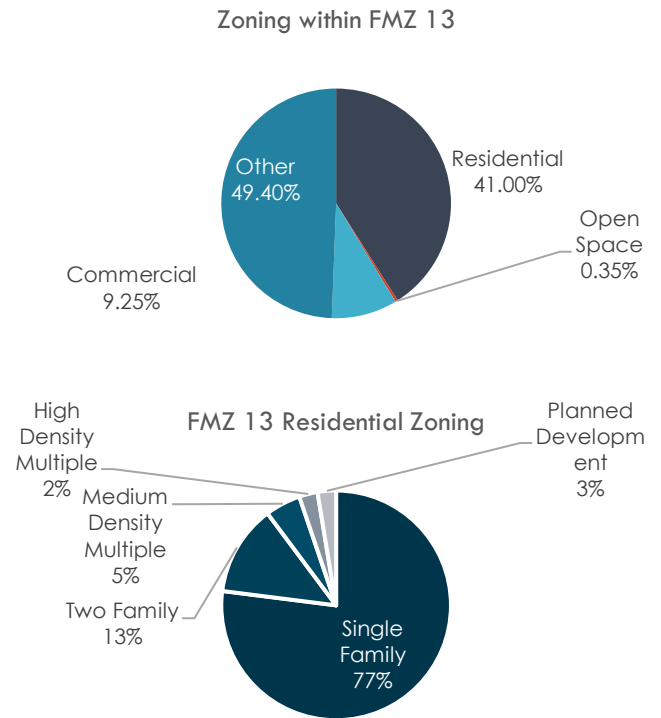
Housing

- Median Home Value: \$1,037,379
- Number of Housing Units: 3,372
- Average Household Size: 2.2
- Housing Structure Built After 1990: 304
- Housing Structure Built Before 1940: 255
- Median Year Housing Structure Built: 1973
- Median Year Householder Moved into Unit: 2009



FMZ 13 Characteristics

Resources	
Fire Rescue District	33/11
Station	3
First Due Engine/Truck	43
First Due Rescue	43
Development	
Total Square Miles	0.631786
Total Structures	1506
Buildings per Square Mile	2383.7
Total Square Feet (all structures)	6,012,146
Number of Buildings > 75 ft.	0
Commercial Buildings > 10,000 ft²	27
Road miles	0
Total Assessed Valuation	\$1,654,982,075
Mitigating Factors	
Fire Sprinklers in Structures	
Commercial	35.1%
Residential	9.0%



Specific Risks

Fire	Wildland urban interface
EMS	686 households with disability
Tech Rescue	
Haz Mat	High pressure gas transmission line running northeast to southwest; 16" diameter pipeline (crude oil, diesel fuel, fuel oil, gasoline); natural gas transmission pipeline
Other	Portions of zone outside of 4-minute drive-time area; mobile home park with 122 trailers; sewer pump station

FMZ 13 All Risk Response Times		2019-2023	2023	2022	2021	2020	2019
Alarm Handling	Pick-up to Dispatch	1:31	1:19	1:22	1:20	1:45	1:48
	Turnout	1st Unit	2:27	2:28	2:16	2:35	2:18
Travel	1st Uni	6:00	6:03	6:11	6:09	5:50	5:36
	Effective Response Force (ERF)	7:21	7:26	7:36	7:40	6:52	6:50
Total Response Time	1st Unit	8:32	8:39	8:14	8:53	8:40	8:21
		n = 1,576	346	317	324	298	291
	Effective Response Force (ERF)	10:19	10:12	10:14	10:39	10:25	10:16
		n = 1,454	330	283	288	278	275



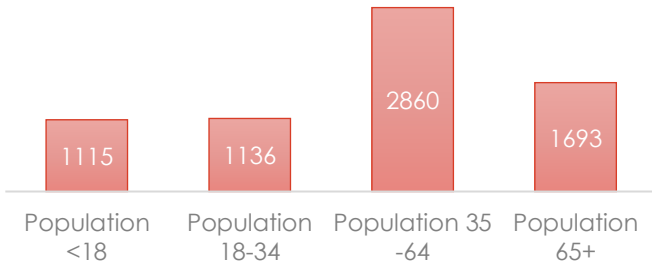


Population
6,802

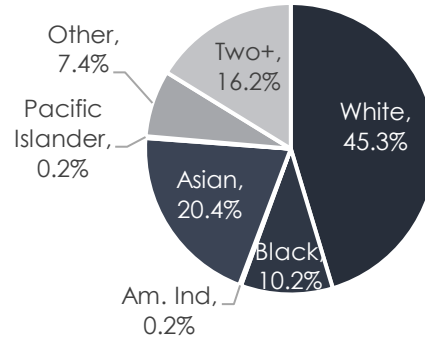
Daytime Population
3% Decrease ↓

Annual
Population
Growth
-0.83%

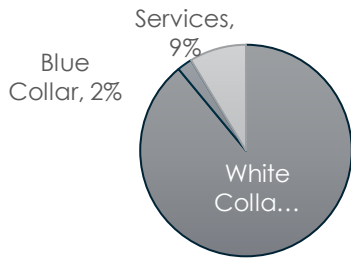
FMZ 13 Population by Age



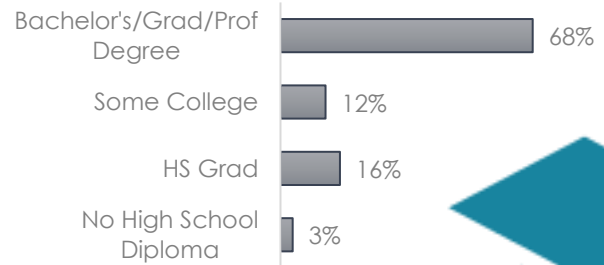
FMZ 13 Population by Race



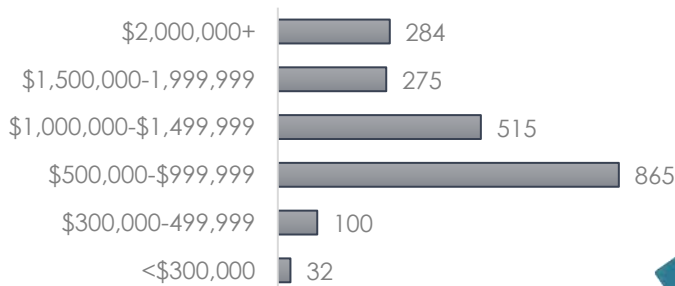
FMZ 13 Occupation



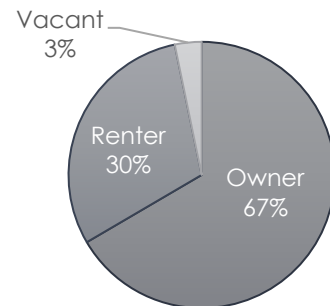
FMZ 13 Education



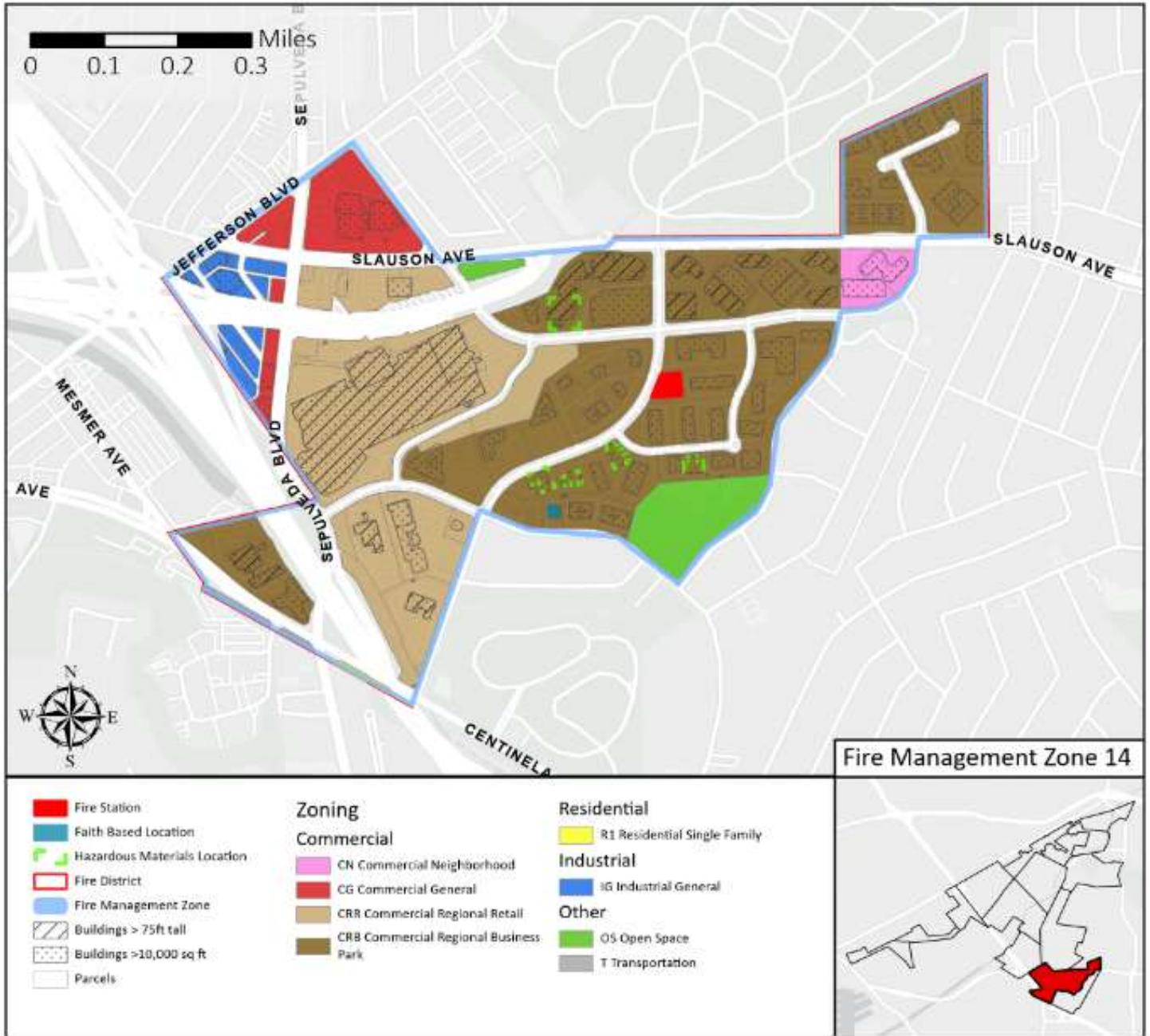
FMZ 13 Housing Units by Value



FMZ 13 Housing Units



FMZ 14

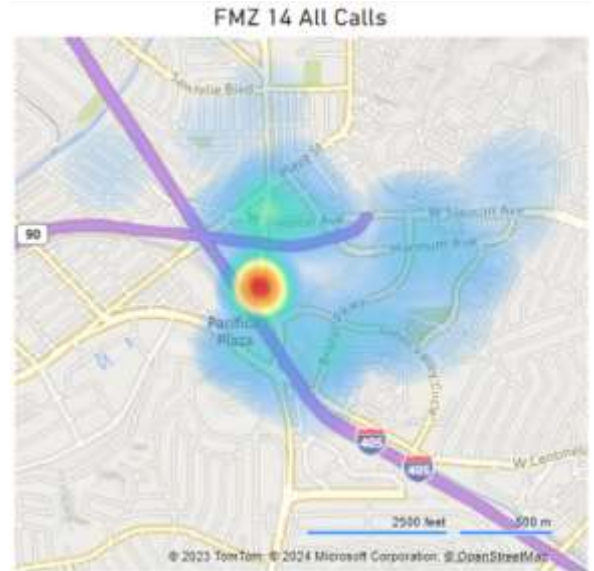


Fire Management Zone 14 is a general corridor of 0.44 square miles located in the southern part of the City. It comprises exclusively of commercial buildings and businesses. It holds special risks that include a large mall/retail complex and five high-rise buildings. It also borders the wildland-urban interface. During the day, this zone reaches a daytime population of over 16,000 people. Additionally, this zone contains the 405 and 90 freeways, which see over 300,000 vehicles per day.




FMZ 14 Historical Call Volume

	2019	2020	2021	2022	2023	2019-2023
Fire	6	6	9	18	13	52
EMS	520	452	364	454	475	2,265
Technical Rescue	18	9	12	10	18	67
Hazardous Materials	4	11	3	-	2	20
Other	11	11	4	10	16	52
Wildland Fire	1	1	-	1	1	4




Demographics




Population

- Population: 29
- Daytime Population (workers & residents): 16,396
- Population Density per Square Mile: 66
- Daytime Population Density: 37,434
- Median Age: 44.2
- Male Population: 44.8%
- Female Population: 55.2%
- Number of Households: 1
- Households with Disability: 0
- Population 65+ That Speak No English: 0
- Households Income Below Poverty Level: 0



Education/
Employment

- Businesses: 1,009
- Employees: 15,821
- Median Household Income: \$0
- Per Capita Income: \$77,336
- Unemployment: 5.3%
- No High School Diploma: 0%



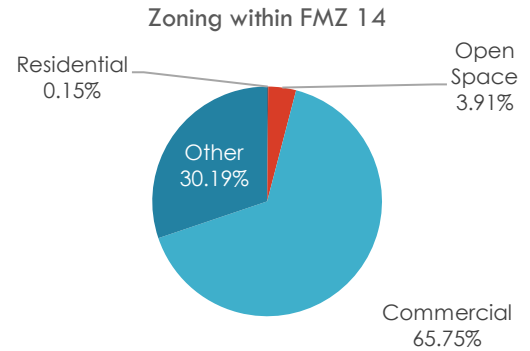
Housing

- Median Home Value: \$0
- Number of Housing Units: 3,372
- Average Household Size: 29
- Housing Structure Built After 1990: 0
- Housing Structure Built Before 1940: 0
- Median Year Housing Structure Built: 1975
- Median Year Householder Moved into Unit: 0

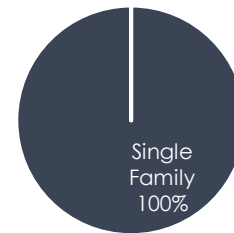


FMZ 14 Characteristics

Resources	
Fire Rescue District	33
Station	3
First Due Engine/Truck	43
First Due Rescue	43
Development	
Total Square Miles	0.438002
Total Structures	154
Buildings per Square Mile	351.6
Total Square Feet (all structures)	9,471,320
Number of Buildings > 75 ft.	11
Commercial Buildings > 10,000 ft²	166
Road miles	0
Total Assessed Valuation	\$1,783,394,487
Mitigating Factors	
Fire Sprinklers in Structures	
Commercial	77.2%
Residential	0.0%



FMZ 14 Residential Zoning



Specific Risks

Fire	Multiple high-rise occupancies
EMS	Significant daytime population increase
Tech Rescue	405 freeway
Haz Mat	Four facilities containing hazardous materials; 16" diameter pipeline (crude oil, diesel fuel, fuel oil, gasoline); natural gas transmission pipeline
Other	Westfield Shopping Mall; electric substation; sewer pump station

FMZ 14 All Risk Response Times		2019-2023	2023	2022	2021	2020	2019
Alarm Handling	Pick-up to Dispatch	1:33	1:09	1:13	1:22	1:41	1:53
Turnout	1st Unit	2:08	2:00	1:58	2:29	2:10	1:59
Travel	1st Uni	3:52	3:59	4:05	4:06	3:46	3:21
	Effective Response Force (ERF)	7:29	6:29	7:30	7:49	7:19	8:04
Total Response Time	1st Unit	6:15	6:10	6:03	6:31	6:19	6:06
		n = 2,036	440	406	330	397	463
	Effective Response Force (ERF)	9:56	9:08	9:39	10:38	9:58	10:38
		n = 1,981	433	419	316	379	434





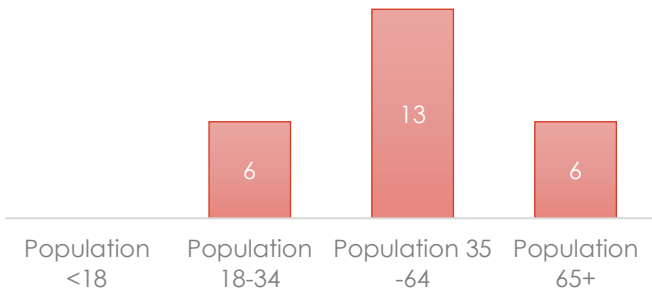
Population

29

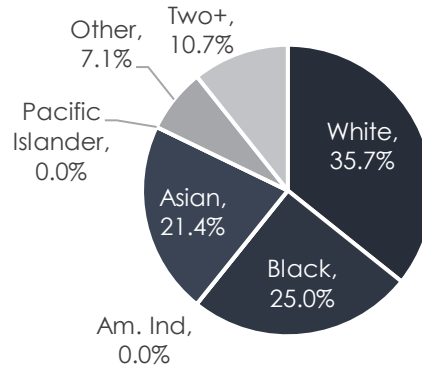
Daytime Population
56,438% Increase ↑

Annual
Population
Growth
0%

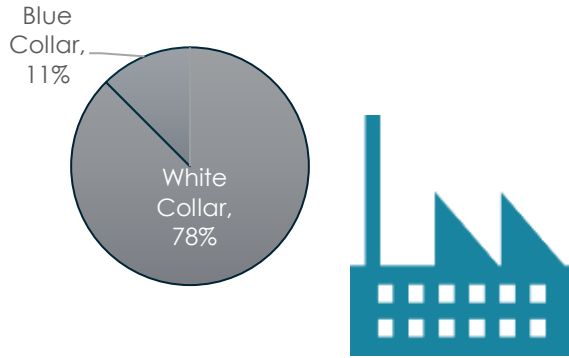
FMZ 14 Population by Age



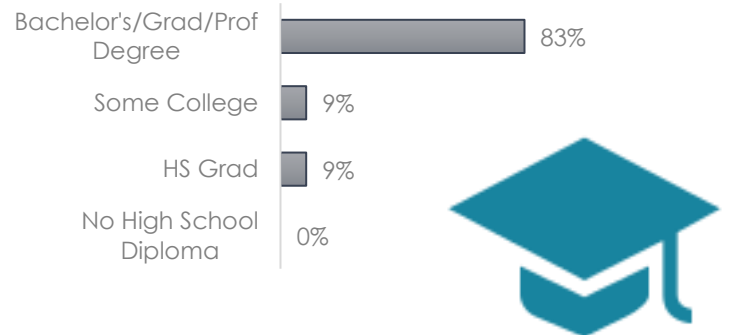
FMZ 14 Population by Race



FMZ 14 Occupation



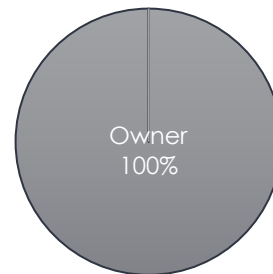
FMZ 14 Education



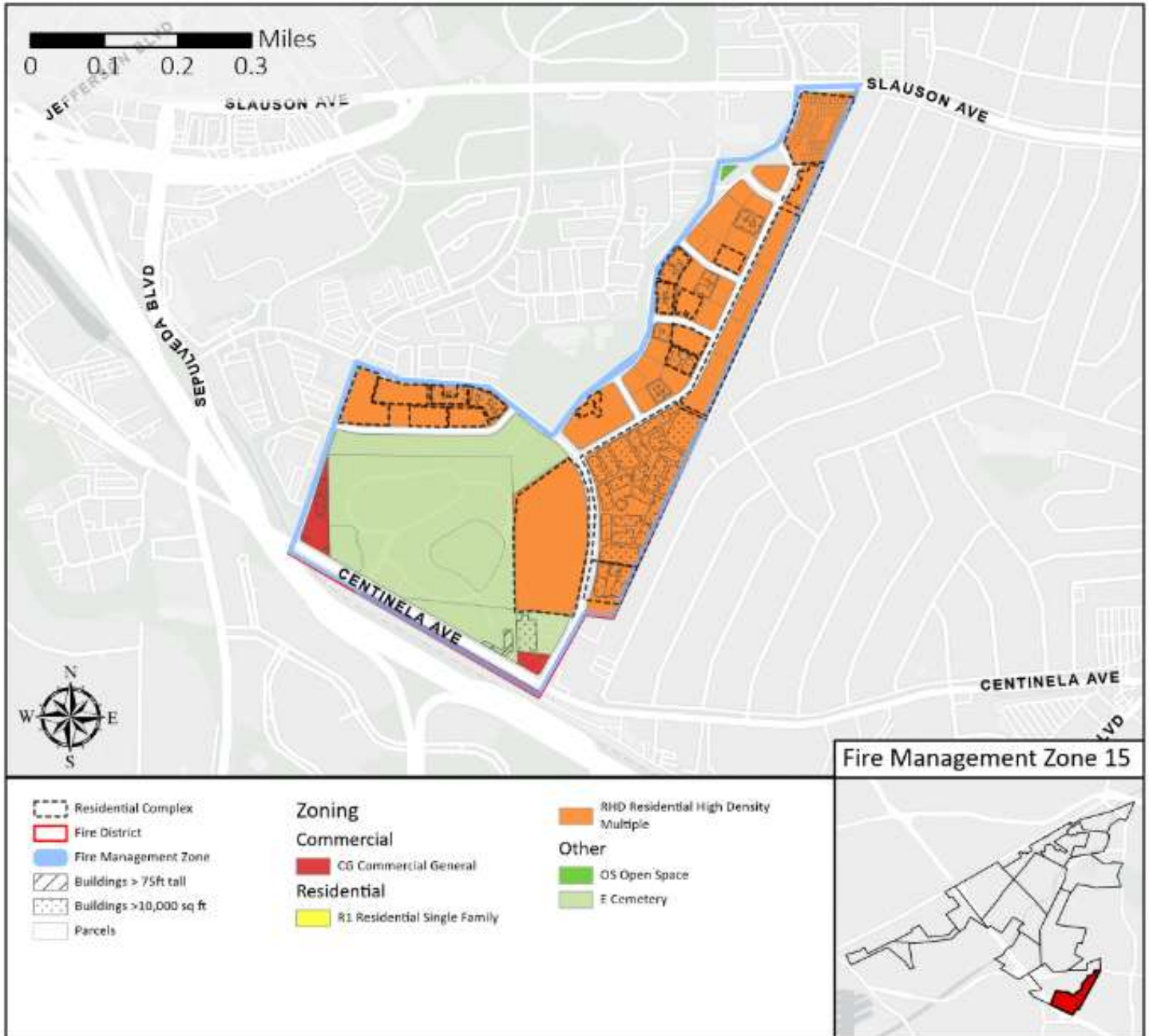
FMZ 14 Housing Units by Value



FMZ 14 Housing Units



FMZ 15



Fire Management Zone 15 is a general corridor consisting of 0.22 square miles, which is located in the southern part of the City. 58 percent of Zone 15 is a residential community and 38 percent is a cemetery. This is the most densely populated portion of the City during the nighttime. Zone 15 also borders the wildland-urban interface.




FMZ 15 Historical Call Volume

	2019	2020	2021	2022	2023	2019-2023
Fire	4	1	6	1	3	15
EMS	243	163	170	215	195	986
Technical Rescue	11	9	6	3	9	38
Hazardous Materials	-	2	2	2	2	8
Wildland Fire	-	1	-	-	-	1




Demographics




Population

- Population: 5,403
- Daytime Population (workers & residents): 3,419
- Population Density per Square Mile: 25,028
- Daytime Population Density: 15,837
- Median Age: 40.2
- Male Population: 46.1%
- Female Population: 53.9%
- Number of Households: 2641
- Households with Disability: 486
- Population 65+ That Speak No English: 46
- Households Income Below Poverty Level: 135



Education/
Employment

- Businesses: 99
- Employees: 1,083
- Median Household Income: \$109,381
- Per Capita Income: \$71,181
- Unemployment: 7.6%
- No High School Diploma: 1%



Housing

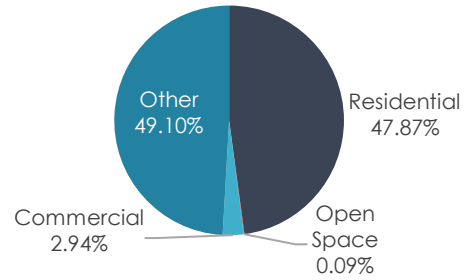
- Median Home Value: \$720,993
- Number of Housing Units: 3,165
- Average Household Size: 2
- Housing Structure Built After 1990: 81
- Housing Structure Built Before 1940: 4
- Median Year Housing Structure Built: 1970
- Median Year Householder Moved into Unit: 2014



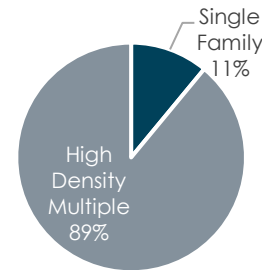
FMZ 15 Characteristics

Resources	
Fire Rescue District	33
Station	3
First Due Engine/Truck	43
First Due Rescue	43
Development	
Total Square Miles	0.215882
Total Structures	212
Buildings per Square Mile	982.0
Total Square Feet (all structures)	3,392,176
Number of Buildings > 75 ft.	1
Commercial Buildings > 10,000 ft ²	9
Road miles	0
Total Assessed Valuation	\$808,661,550
Mitigating Factors	
Fire Sprinklers in Structures	
Commercial	84.6%
Residential	2.6%

Zoning within FMZ 15



FMZ 15 Residential Zoning



Specific Risks

Fire	
EMS	Densely populated residential area
Tech Rescue	
Haz Mat	16" pipeline (crude oil, diesel fuel, fuel oil, gasoline); 12" pipeline (gasoline, crude oil); natural gas transmission pipeline; one sewer pump station
Other	SB 1000 Priority Neighborhood

FMZ 15 All Risk Response Times		2019-2023	2023	2022	2021	2020	2019
Alarm Handling	Pick-up to Dispatch	1:32	1:05	1:06	1:18	1:33	1:57
Turnout	1st Unit	2:26	2:16	2:24	2:38	2:32	2:16
Travel	1st Uni	4:04	4:15	4:15	4:22	3:54	3:42
	Effective Response Force (ERF)	9:11	8:39	10:14	7:59	10:26	8:56
Total Response Time	1st Unit	6:47	6:49	6:25	6:55	6:49	6:53
		n = 917	178	192	164	156	227
	Effective Response Force (ERF)	12:06	10:52	13:37	11:15	14:02	11:34
		n = 873	182	187	149	140	215



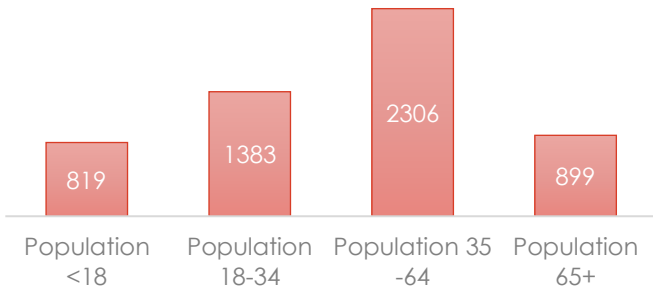


Population
5,403

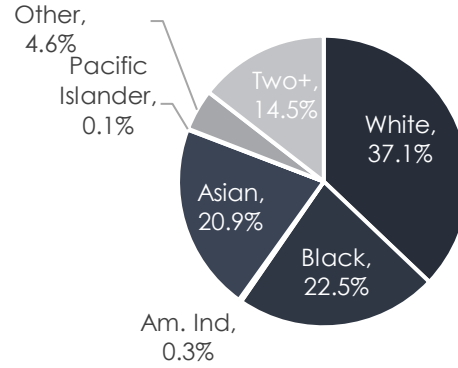
Daytime Population
37% Decrease ↓

Annual
Population
Growth
-0.11%

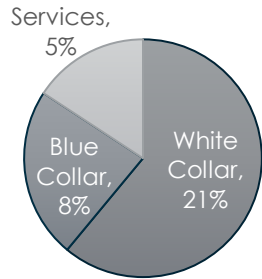
FMZ 15 Population by Age



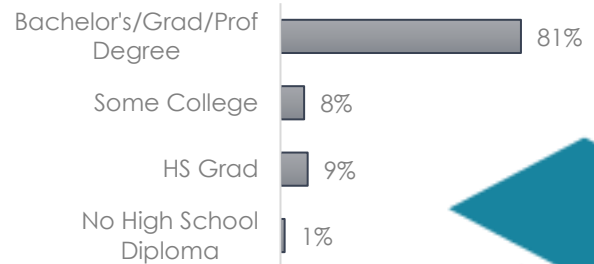
FMZ 15 Population by Race



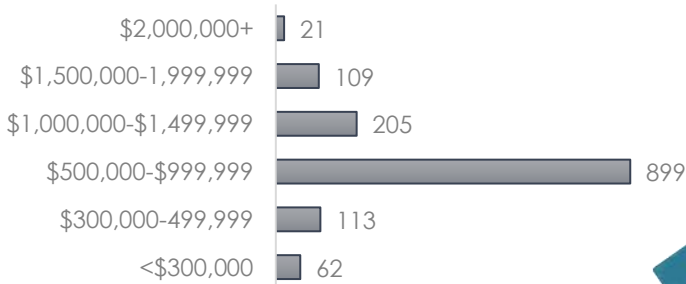
FMZ 15 Occupation



FMZ 15 Education



FMZ 15 Housing Units by Value



FMZ 15 Housing Units

