2019 MASTER PLAN UPDATE
VOLUME 1 OF 2: TECHNICAL REPORT
CITY OF GILROY FIRE DEPARTMENT
NOVEMBER 14, 2019
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VOLUME 2 of 2 – Map Atlas (separately bound)
EXECUTIVE SUMMARY

The City of Gilroy (City) Fire Department (Department) retained Citygate Associates, LLC (Citygate) to prepare an update to its 2004 Master Plan in parallel to conducting a regional Standards of Coverage Assessment for the Cities of Gilroy and Morgan Hill and the South Santa Clara County Fire District (Fire District), to provide a foundation for future fire service planning.

This Master Plan Update is presented in several parts, including this Executive Summary outlining key challenges and findings and recommendations, and the Master Plan Update supported by maps and response statistics. Volume 2 is a Map Atlas that contains all the maps referenced throughout the report.

POLICY CHOICES FRAMEWORK

There are no mandatory federal or state regulations directing the level of fire service staffing, response times, or outcomes. Thus, the level of fire protection services provided is a local policy decision and communities have the level of fire services they can afford, which may not always be the level desired. However, if services are provided, all local, state, and federal regulations relating to firefighter and citizen safety must be followed.

OVERALL SUMMARY OF FIRE DEPARTMENT DEPLOYMENT

Citygate finds the Department is well organized to accomplish its mission to serve an urban population across a varied municipal land-use pattern. The Department is using best practices and is data driven, as necessary.

Simply stated, fire service deployment is about the speed and weight of the response. Speed refers to initial response (first-due) of all-risk intervention resources (engines, trucks, and/or ambulances) strategically deployed across a jurisdiction for response to emergencies within a time interval to achieve desired outcomes. Weight refers to multiple-unit responses (Effective Response Force (ERF) also commonly called a First Alarm) for more serious emergencies such as building fires, multiple-patient medical emergencies, vehicle collisions with extrication required, or technical rescue incidents. In these situations, enough firefighters must be assembled within a reasonable time interval to safely control the emergency and prevent it from escalating into a more serious event.

If desired outcomes include limiting building fire damage to only part of the inside of an affected building and/or minimizing permanent impairment resulting from a medical emergency, then in an urban area such as the City, the first unit should arrive within 7:30 minutes from 9-1-1 notification, and a multiple-unit ERF or First Alarm should arrive within 11:30 minutes of 9-1-1 notification at the City’s 9-1-1 dispatch center, all at 90 percent or better reliability. Total response
time to emergency incidents includes three distinct components: (1) 9-1-1 call processing/dispatch time; (2) crew turnout time; and (3) travel time. Recommended best practices for these response components are 1:30 minutes, 2:00 minutes, and 4:00/8:00 minutes respectively for first-due and multiple-unit ERF responses in urban areas.

Table 1 summarizes current first-due and ERF response performance for each current fire station location, and the Glen Loma / Santa Teresa special study area.

Table 1—90th Percentile Response Performance – 2016–2018 (Taken from Table 6)

<table>
<thead>
<tr>
<th>Response Performance Component</th>
<th>Best Practice Goal</th>
<th>90th Percentile Performance</th>
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<tbody>
<tr>
<td></td>
<td>Overall</td>
<td>Chestnut</td>
</tr>
<tr>
<td>Call Processing/Dispatch¹</td>
<td>1:30</td>
<td>2:35</td>
</tr>
<tr>
<td>Crew Turnout²</td>
<td>2:00</td>
<td>1:59</td>
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<tr>
<td>First-Due Travel³</td>
<td>4:00</td>
<td>5:30</td>
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<tr>
<td>First-Due Call-to-Arrival⁴</td>
<td>7:30</td>
<td>8:43</td>
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<tr>
<td>ERF Call-to-Arrival⁵</td>
<td>11:30</td>
<td>17:07</td>
</tr>
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</table>

Source: Gilroy Fire Department incident data

1 Time interval from pick-up of 9-1-1 call at fire dispatch center to completion of dispatch
2 Time interval from receipt of dispatch to response apparatus boarded with seatbelts fastened
3 Time interval from start of response apparatus movement to setting of parking brake upon arrival
4 Time interval from receipt of 9-1-1 call at dispatch center to arrival of first-due response resource
5 Time interval from receipt of 9-1-1 call at dispatch center to arrival of last ERF response resource
6 No incidents with full ERF arrival from January 1, 2016, through December 31, 2018

Highlights from Table 1 include:

◆ Call processing/dispatch performance is significantly slower than best practice standards
◆ Crew turnout performance meets the recommended best practice goal
◆ First-due travel time is significantly slower than a 4:00-minute desirable goal for urban areas, and in the southwestern Santa Teresa area is closer to 8:00 minutes
◆ Overall first-due call-to-arrival performance is significantly slower than best practices to achieve desired outcomes to keep small fires small and to provide lifesaving care in serious medical emergencies.

Additionally, simultaneous incidents requiring at least two of the City’s three staffed units occur on average at least once per day, leaving only one unit for a subsequent emergency response.
Overall, given the extensive evaluation in our concurrent regional Standards of Cover Assessment, Citygate finds the City is facing three primary challenges in the provision of fire services as follows:

**Challenge #1—Daily Staffing Capacity**

The Department’s physical resources are appropriate to protect against the hazards likely to impact the City, but the daily staffing of 10–12 response personnel provides a total response force only minimally sufficient for a single emerging to serious fire incident or a one- to three-patient emergency medical services (EMS) incident. Serious multiple-unit incident responses within the City should deliver at least 17 personnel including four Gilroy engines and a Chief Officer and one mutual aid engine and a Chief Officer.

In terms of emergency incident workload per unit, no single fire unit or station area is approaching workload saturation; however, during peak hours of the day, there is one simultaneous incident occurrence to consider on average. A major shopping holiday at the outlet mall or a downtown community event can significantly affect service demand. When high service demand occurs or incident needs require more than the 10–12 on-duty personnel, the City is dependent on its neighboring fire agencies, including the South Santa Clara County Fire District and CAL FIRE, to provide both first-due and ERF response staffing capacity.

Given increasing annual service demand and the fact the City is continuing to grow, Citygate is concerned about overall daily staffing, the Department’s ability to respond with more weight of response, and also to have the capacity to respond to more than one concurrent incident.

**Challenge #2—Fire Station Locations**

Overall longer-than-desired first-due unit travel times are the result of current fire station spacing, the non-grid street network design in some sections of the City, gated/limited-access communities, topography, natural and built barriers (hills and the highways), simultaneous incidents at peak hours of the day, and traffic congestion.

**Fourth Fire Station**

The City has already taken significant steps toward adding a fourth fire station in the southwest Glen Loma area in partnership with a developer. Recently, in the interim, the City is pilot-testing a two-firefighter EMS unit (an Alternative Service Model or ASM) that will shortly be in a temporary location on the future Glen Loma Ranch station site. These are all positive steps in improving total daily capacity as well as lowering response times to medical emergencies in the southwest area of the City. The proposed Glen Loma station also reinforces and stabilizes the overall Citywide deployment coverage model.
Chestnut Station Relocation

Due to a potential agreement to sell the current Chestnut station site, Citygate evaluated three alternate sites identified by Department staff to relocate the station. Citygate recommends the 7150 Chestnut Alternate Site #1 as the best-fit choice if the smaller parcel size is adequate to accommodate all planned uses, or Alternate Site #3 at the southeast corner of Alexander Street and East 8th Street if a larger parcel is needed.

Fire District Deployment Study Status

As part of the concurrent regional Standards of Cover Assessment, the Fire District is also evaluating its options. While it has strong reasons to keep the current Gilroy Gardens station location, it is considering all options as part of its future planning efforts. In the event the Fire District elects to move this station, Gilroy would be impacted. The western side of Gilroy is too large for a single fourth fire station. While it might be possible to move the Glen Loma station further north, that would leave 4:00-minute first-due travel time coverage gaps in the far southwest area as well as the northwest corners of the City. Such a move would also slow the Glen Loma station’s travel time to backup the Chestnut station. A compromise move such as this could also require relocating the Las Animas station to the west. Doing so, even if a parcel could be found at an affordable cost, would result in another 4:00-minute travel time coverage gap in the northeast corner of the City.

Restated this way, the current City shape and road network really calls for five fire stations. It might be possible to provide 4:00- to 5:00-minute travel time coverage from four stations but doing so would require the parcel availability and costs of possibly moving the Glen Loma station and the relocations of both the Las Animas and Sunrise stations.

If one or more of these moves were to be considered, it is Citygate’s opinion that the City and Fire District should explore one or more joint fire station locations, including sharing staffing costs.

Challenge #3—Fire Dispatch Services

While fire dispatch services in Gilroy are provided by the Gilroy Police Department Communications Center, dispatch services for the Fire District and the City of Morgan Hill Fire Department are provided by the CAL FIRE Santa Clara Unit Emergency Communications Center in Morgan Hill. Although these three jurisdictions have reciprocal automatic mutual aid agreements to send the closest resource to any emergency regardless of jurisdiction, it is important to understand that there is a time delay when one dispatch center must contact the other dispatch center to dispatch the closest response unit.
A 2016 consultant report\(^1\) found that the Gilroy Communications Center was understaffed for the given workload, resulting in numerous challenges. The report recommended that Communications Center staffing be increased by a total of 6.0 full-time equivalent (FTE) personnel to ensure a minimum of three Public Safety Communicators (PSCs) on duty at all times. To date, this recommendation has not been fully implemented, and normal Communications Center staffing remains at two PSCs.

As discussed in Section 2.2.7, call processing / dispatch performance, the first of three distinct elements of total response time, is more than 72 percent (1:05 minutes) \textit{slower} than the best practice goal of 90 seconds or less, which also impacts automatic mutual aid response times from neighboring fire agencies. Combined with the inherent delays associated with the transfer of calls between communications centers as needed to provide closest-unit response, this is a significant factor contributing to slower-than-desired total response times in the City.

The City has the following options to resolve this call processing / dispatch performance deficiency:

1. Implement the recommendations from the Novak study, including additional daily staffing, developing a fire dispatching training program, and developing a service level agreement with the Fire Department to ensure fire dispatch call processing / dispatch performance meet best practice standards.

2. Contract with another public safety communications center to provide fire dispatching services.

Regardless of which option it chooses to pursue, the City should work aggressively to improve its fire service call processing / dispatch performance to align with industry best practice standards.

\textbf{FINDINGS AND RECOMMENDATIONS}

Following are Citygate’s findings and recommendations from this Master Plan Update.

\textbf{Finding #1:} The City is projected to experience significant growth over the next 21 years.

\textbf{Finding #2:} The City Council has not adopted fire response performance objectives meeting all best practice elements for time and desired outcomes.

\(^1\) The Novak Consulting Group, City of Gilroy, California Emergency Communications Center Staffing Assessment (September 2016)
Finding #3: Call processing / dispatch performance is more than 72 percent (1:05 minutes) slower than the best practice goal of 90 seconds or less, which also impacts automatic mutual aid response times from neighboring fire agencies.

Finding #4: Crew turnout performance meets the recommended 2:00-minute-or-less goal.

Finding #5: First Due travel performance is significantly slower than the 4:00-minute-or-less goal for urban areas and is closer to 8:00 minutes in the southwestern Glen Loma / Santa Teresa area of the City.

Finding #6: First-Due call-to-arrival performance is 16 percent (1:13 minutes) slower than the recommended 7:30-minute goal for urban areas.

Finding #7: Effective Response Force call-to-arrival response performance is 49 percent (5:37 minutes) slower than the recommended 11:30-minute goal for urban areas; however, this is based on a very small number of incidents where the full Effective Response Force arrived at the incident.²

Finding #8: Simultaneous incidents occur on average at least once per day requiring two of the three fire station crews, which leaves only one unit for a subsequent emergency incident response.

Finding #9: The City is not geographically located for prompt mutual aid and is very dependent on the South Santa Clara County Fire District for both first-Due and Effective Response Force staffing capacity.

Finding #10: The City does not deploy enough firefighters daily to safely resolve even a single serious fire or EMS incident, or to provide adequate capacity for simultaneous incidents.

Finding #11: The City is geographically too large to effectively serve with three fire stations.

Finding #12: A fourth fire station in southwest Gilroy would improve five needs: (1) first-Due travel time coverage; (2) daily Citywide staffing; (3) multiple-unit Effective Response Force staffing; (4) traffic congestion impacts on travel time coverage; and (5) reduced dependence on South Santa Clara County Fire District Station #3 at Gilroy Gardens for both first-Due and ERF capacity.

² Results from small data sets such as this can vary significantly.
Finding #13: If the South Santa Clara County Fire District closes or relocates Station #3 at Gilroy Gardens, the City would need to seriously consider a fifth fire station to ensure equitable service delivery across all neighborhoods, particularly if the Las Animas station is relocated further west from its current location.

Finding #14: The City has multiple viable options to relocate the Chestnut station should it desire or need to do so.

Finding #15: The Las Animas station is appropriately located until the South Santa Clara County Fire District closes or relocates its Station #3 at Gilroy Gardens or until significant new development occurs in the northeast section of the City east of U.S. 101.

Finding #16: If the South Santa Clara County Fire District closes or relocates its Station #3 at Gilroy Gardens, the City should carefully consider relocating the Las Animas station further west toward 1st Street and Santa Teresa Boulevard.

Finding #17: The City has options to resolve its significantly slower-than-desired fire service call processing / dispatch performance.

Finding #18: The City has multiple options to resolve challenges with its current fire records management system.

Recommendation #1: **Adopt Deployment Policies:** The City Council should adopt the following fire deployment goals to deliver outcomes that will save medical patients when possible upon arrival and to keep small but serious fires from becoming more serious:

1.1 **Distribution of Fire Stations:** The first-due units should arrive within 7:30 minutes, 90 percent of the time from the receipt of the 9-1-1 call at the fire dispatch center, which equates to a 90-second dispatch time, a 2:00-minute crew turnout time, and a 4:00-minute travel time.

1.2 **Multiple-Unit Effective Response Force (ERF) for Serious Emergencies:** A multiple-unit ERF of at least 13 personnel, including one Chief Officer, should arrive within 11:30 minutes from the time of 9-1-1 call receipt at fire dispatch 90 percent of the time. This equates to a 90-second dispatch time, 2:00-minute company turnout time, and 8:00-minute travel time. One mutual aid engine and Chief Officer should also arrive as soon as possible to provide a total ERF of 17 personnel.
1.3 **Hazardous Materials Response:** Provide hazardous materials response designed to protect the communities from the hazards associated with uncontrolled release of hazardous and toxic materials. The fundamental mission of the Department’s response is to isolate the hazard, deny entry into the hazard zone, and notify appropriate officials/resources to minimize impacts on the community. This can be achieved with a first-due total response time of 7:30 minutes or less to provide initial hazard evaluation and/or mitigation actions. After the initial evaluation is complete, a determination can be made whether to request additional resources from the regional hazardous materials team.

1.4 **Technical Rescue:** Respond to technical rescue emergencies as efficiently and effectively as possible with enough trained personnel to facilitate a successful rescue with a first-due total response time of 7:30 minutes or less to evaluate the situation and/or initiate rescue actions. Following the initial evaluation, assemble additional resources as needed within a total response time of 11:30 minutes to safely complete rescue/extrication and delivery of the victim to the appropriate emergency medical care facility.

**Recommendation #2:** The City should add a fourth fire station in the southwest section of the City as soon as fiscally feasible.

**Recommendation #3:** The City should construct and staff the Glen Loma station with a full-time three-person crew as soon as fiscally feasible.

**Recommendation #4:** The City should continue the current pilot Alternative Service Model until such time as the Glen Loma station is constructed and staffed with a full-time crew.

**Recommendation #5:** The City and South Santa Clara County Fire District should consider a potential shared service solution in western Gilroy to provide long-term fire services and pre-hospital EMS to serve both jurisdictions.

**Recommendation #6:** Should the City eventually expand northeasterly beyond the current boundary, or if the Las Animas station is relocated substantially west from its current location, the City should seriously consider a fifth station in the northeast quadrant to ensure equitable delivery of fire services and pre-hospital EMS to all areas of the City.
**Recommendation #7:** The City should aggressively work to improve its fire service call processing / dispatch performance to better align with industry best practice standards.

**Recommendation #8:** The City should either upgrade its current fire records management system or replace it as soon as possible as part of an outsourced fire services dispatch contract.

**NEXT STEPS**

Citygate’s recommended immediate next steps for Department and City leadership are:

- Review and absorb the content, findings, and recommendations of this Master Plan Update
- Prepare a staff report and draft Resolution for the City Council to adopt the included recommended response performance goals
- Collaborate with South Santa Clara County Fire District staff and Commissioners to evaluate joint planning of fire crew staffing, deployment, cost sharing, and outsourcing of fire dispatch services with the intent to develop a mutually beneficial long-term commitment and solution that optimizes the use of both jurisdictions’ resources to provide the highest level of fire service delivery in South Santa Clara County within available current and future fiscal resources.

Recommended intermediate-term next steps include:

- Monitor response time performance and unit workload at least annually
- Continue the project to site the ASM unit in a temporary facility at the proposed future Glen Loma station site
- Monitor the number of overtime assignments required to maintain daily ASM staffing for adverse impacts on Department personnel
- Once the regional issues are settled, proceed with the capital financing and construction steps for a fourth fire station in the southwest Glen Loma section of the City.
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SECTION 1—INTRODUCTION AND BACKGROUND

The City of Gilroy (City) Fire Department (Department) retained Citygate Associates, LLC (Citygate) to prepare an update to its 2004 Master Plan in parallel to conducting a regional Standards of Coverage Assessment for the Cities of Gilroy and Morgan Hill and the South Santa Clara County Fire District (Fire District), to provide a foundation for future fire service planning.

1.1 REPORT ORGANIZATION

This report is organized into the following sections. Volume 2 (Map Atlas) is separately provided.

Executive Summary: Summary of significant fire service challenges, key findings and recommendations, and next steps.

Section 1 Introduction and Background: An introduction to the Master Plan Update goals and limitations and overview of the Master Plan Update approach and methodology.

Section 2 2019 Master Plan Update: An overview of Gilroy and the Fire Department as well as detailed analysis of the Department’s ability to deploy and mitigate emergency risks within the City, including analysis of future growth, community risk, operational deployment capabilities and performance, future service needs, and alternatives to current dispatch services and the Department records management system.

1.2 GOALS OF THE REPORT

This Master Plan Update cites findings and provides recommendations, as appropriate, related to each finding. Findings and recommendations throughout this report are sequentially numbered. A complete list of all these same findings and recommendations is provided in the Executive Summary and Section 2.6.

This document provides technical information about the way fire services are provided and legally regulated, and how the Department currently deploys and operates. This information is presented in the form of recommendations and policy choices for consideration by City and Department leadership.

The result is a solid technical foundation upon which to understand the advantages and disadvantages of the choices facing the City and Department regarding future fire services and, more specifically, at what level of desired outcome and expense.
1.3 LIMITATIONS OF REPORT

In the United States, there are no federal or state regulations requiring a specific minimum level of fire services. Each community, through the public policy process, is expected to understand the local fire and non-fire risks and its ability to pay, and then choose its level of fire services. If fire services are provided at all, federal and state regulations specify how to do so safely for the public and for the personnel providing the services.

While this Master Plan Update and technical explanation can provide a framework for the discussion of future fire services in the City, neither this report nor the Citygate team can make the final decisions. Once final strategic choices receive policy approval, Department staff can conduct any cost and fiscal analysis required as part of its normal operating and capital budget cycle.

1.4 MASTER PLAN UPDATE APPROACH AND METHODOLOGY

1.4.1 Master Plan Approach and Research Methods

Citygate utilized multiple sources to gather, understand, and model information about the City and Department. Citygate requested a large amount of background data and information to better understand current costs, service levels, history of service level decisions, and other prior studies.

In subsequent site visits, Citygate conducted focused interviews of the Department’s project team members and reviewed demographic information about the Department’s service area and the potential for future growth and development. Citygate further obtained map and response data from which to model current and projected future fire service deployment, with the goal to identify the location(s) of stations and crew quantities required to best serve the City and to facilitate future deployment planning.

Once Citygate understood the Department’s service area and its fire and non-fire risks, the Citygate team then developed a model of fire services that was tested against the travel time mapping and prior response data to ensure an appropriate fit. Citygate also evaluated future service area growth and service demand by risk types. This resulted in Citygate proposing an approach to address current needs with the effective and efficient use of existing resources, as well as address long-range needs. The result is a framework for enhancing Department services while meeting reasonable community expectations and fiscal realities.

1.4.2 Project Scope of Work

Citygate’s approach to this Master Plan Update involved:

◆ Requesting and reviewing relevant project background data and information as well as conducting stakeholder listening sessions with project stakeholders
◆ Utilizing a geographic mapping software program to model fire station travel time coverage
◆ Using an incident response time analysis program called StatsFD™ to review the statistics of prior incident performance, then plotting the results on graphs and geographic mapping exhibits
◆ Identifying and evaluating future City population and related development growth
◆ Projecting future service demand by risk type
◆ Identifying and evaluating potential alternative service delivery models
◆ Recommending appropriate risk-specific response performance goals
◆ Utilizing the Commission on Fire Accreditation International (CFAI) self-assessment criteria and National Fire Protection Association (NFPA) standards as the basis for evaluating the deployment services provided.
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2.1 CITY OF GILROY OVERVIEW

2.1.1 Community Description

The City of Gilroy, incorporated as a charter city in March 1870, is located 12 miles north of Gilroy and 70 miles south of San Francisco at the southern end of Santa Clara County. Best known as the Garlic Capital of the World and home to the annual Garlic Festival each July, the City encompasses 16 square miles with a 2017 population of just over 54,000, which is projected to grow by up to 10 percent over the next five years. While the City’s economy has historically centered on agricultural products and processing, Silicon Valley technology has more recently expanded as far south as Gilroy. The City is also home to more than 145 Premium Outlet stores, as well as Gavilan Community College.³

2.1.2 Values to be Protected

Broadly defined, values at risk are tangibles of significant importance or value to the community or jurisdiction potentially at risk of harm or damage from a hazard occurrence. Values at risk typically include people, critical facilities/infrastructure, buildings, and key economic, cultural, historic, and/or natural resources.

People

Residents, employees, visitors, and travelers through a community or jurisdiction are vulnerable to harm from a hazard occurrence. Particularly vulnerable are specific at-risk populations, including those unable to care for themselves or to self-evacuate in the event of an emergency. At-risk populations typically include children younger than 10 years of age, the elderly, and people housed in institutional settings. Table 2 summarizes key demographic data for Gilroy.

³ Reference: City of Gilroy website and 2020 General Plan
Table 2—Key Demographic Data – City of Gilroy

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<td>Under 10 Years</td>
<td>7,936</td>
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<td>10–19 Years</td>
<td>9,355</td>
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<tr>
<td>20–64 Years</td>
<td>31,572</td>
<td>58.30%</td>
</tr>
<tr>
<td>65–74 Years</td>
<td>3,012</td>
<td>5.56%</td>
</tr>
<tr>
<td>75 Years and Older</td>
<td>2,284</td>
<td>4.22%</td>
</tr>
<tr>
<td>Median Age</td>
<td>34.1</td>
<td>N/A</td>
</tr>
<tr>
<td>Housing Units</td>
<td>16,145</td>
<td></td>
</tr>
<tr>
<td>Owner-Occupied</td>
<td>9,201</td>
<td>56.99%</td>
</tr>
<tr>
<td>Renter-Occupied</td>
<td>6,673</td>
<td>41.33%</td>
</tr>
<tr>
<td>Average Household Size</td>
<td>3.41</td>
<td>N/A</td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caucasian (Includes White and Hispanic/Latino)</td>
<td>41,964</td>
<td>77.48%</td>
</tr>
<tr>
<td>Asian</td>
<td>4,856</td>
<td>8.97%</td>
</tr>
<tr>
<td>Black / African American</td>
<td>1,187</td>
<td>2.19%</td>
</tr>
<tr>
<td>Other</td>
<td>6,152</td>
<td>11.36%</td>
</tr>
<tr>
<td>Education (Population over 24 Years of Age)</td>
<td>33,185</td>
<td>61.27%</td>
</tr>
<tr>
<td>High School Graduate</td>
<td>26,150</td>
<td>78.80%</td>
</tr>
<tr>
<td>Undergraduate Degree</td>
<td>5,617</td>
<td>16.93%</td>
</tr>
<tr>
<td>Graduate/Professional Degree</td>
<td>2,921</td>
<td>8.80%</td>
</tr>
<tr>
<td>Employment (Population over 15 Years of Age)</td>
<td>40,279</td>
<td>74.37%</td>
</tr>
<tr>
<td>In Labor Force</td>
<td>28,441</td>
<td>70.61%</td>
</tr>
<tr>
<td>Unemployed</td>
<td>1,746</td>
<td>6.14%</td>
</tr>
<tr>
<td>Population below Poverty Level</td>
<td>6,445</td>
<td>11.90%</td>
</tr>
<tr>
<td>Population without Health Insurance Coverage</td>
<td>4,560</td>
<td>8.42%</td>
</tr>
</tbody>
</table>

Source: US Census Bureau (2017 data)

Of note from Table 2 is:

◆ More than 24 percent of the City’s population is under 10 or over 65 years of age.
◆ The City’s population is predominantly Caucasian (77 percent), followed by Asian (9 percent), Black / African American (2 percent), and Other ethnic origins (11 percent).
Of the City population over 24 years of age, nearly 79 percent has completed high school or higher.

Of the City population over 24 years of age, nearly 26 percent has an undergraduate, graduate, or professional degree.

Nearly 71 percent of the City population 16 years of age or older is in the workforce; of those, slightly more than 6 percent are unemployed.

The total City population below the federal poverty level is nearly 12 percent.

Just below 8.5 percent of the City population does not have health insurance coverage.

**Buildings**

The City contains more than 16,000 housing units, as well as a large inventory of non-residential buildings including offices, professional services, retail/wholesale, restaurants/bars, hotels/motels, churches, schools, government facilities, healthcare facilities, and other non-residential uses.

**Critical Facilities**

Critical facilities typically include structures or other improvements, both public and private, that, due to function, size, service area, or uniqueness, have the potential to cause serious bodily harm, extensive property damage, or disruption of vital socioeconomic activities if damaged or destroyed, or if their functionality is significantly impaired. Critical facilities may include, but are not limited to, health and public safety facilities, utilities, government facilities, hazardous materials sites, or vital community economic facilities.

The 2017 Santa Clara County Operational Area Hazard Mitigation Plan (HMP) identifies 118 critical facilities in Gilroy. A hazard occurrence with significant impact severity affecting one or more of these facilities would likely adversely impact critical public or community services.

**Economic Resources**

Key economic resources for Gilroy include:

- Gilroy Premium Outlets (145 retail stores)
- Olam Spices and Vegetables
- Costco
- Auto dealerships
- Walmart
- Christopher Ranch Foods
2.1.3 Outcome Goals

Outcome expectations include determining why the emergency response system exists and whether the governing body has adopted response performance goals or standards that can deliver desired emergency incident outcomes.

Many types of medical emergencies have the most severe time constraints, including heart attacks and other events such as drowning, choking, trauma constrictions, or other similar events that can cause oxygen deprivation to the brain. Humans can only survive without oxygen for 4:00 to 6:00 minutes without impairment. Similarly, a small incipient fire within a building can grow to involve an entire room in 6:00 to 8:00 minutes. Thus, if desired emergency incident outcomes include preventing permanent impairment from a medical emergency where possible and keeping building fires from spreading beyond the room of origin, the first responding resource must arrive within a 7:00- to 8:00-minute total response time, and all responding resources must arrive within a 10:00- to 11:00-minute total response time.

It is also important to note that fire and medical emergencies continue to deteriorate from the time of inception, not the time the fire engine starts to drive the response route. Ideally, the emergency is noticed immediately and the 9-1-1 system is activated promptly. Response time includes three distinct components: call processing / dispatch time, crew turnout time, and travel time. Call processing includes the time from the dispatch center answering the 9-1-1 call to the completion of the dispatch of the appropriate response resources. Best practice for this response element is 90 seconds or less, 90 percent of the time. Crew turnout quantifies the time from receipt of the dispatch notification until the response apparatus is ready to move, including verifying the response route, donning appropriate safety clothing, boarding the apparatus, and fastening seat belts. Best practice for this response element is 2:00 minutes or less, 90 percent of the time. Travel includes the time from initial vehicle movement to arrival at the emergency and application of the parking brake. Best practice for this response element is 4:00 minutes or less, 90 percent of the time for urban population areas. Table 3 summarizes the performance goals for each response time element to facilitate positive outcomes.

<table>
<thead>
<tr>
<th>Response Element</th>
<th>Best Practice Performance Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dispatch / Call Processing</td>
<td>1:30 minutes or less 90%</td>
</tr>
<tr>
<td>Crew Turnout</td>
<td>2:00 minutes or less 90%</td>
</tr>
<tr>
<td>Travel</td>
<td>4:00 minutes or less 90%</td>
</tr>
<tr>
<td><strong>Total Response Time</strong></td>
<td><strong>7:30 minutes or less 90%</strong></td>
</tr>
</tbody>
</table>
Unfortunately, there are times when the emergency has become too severe, even before the 9-1-1 notification and/or fire department response, for the responding crew to reverse; however, when an appropriate response time policy is combined with a well-designed deployment system, only anomalies like bad weather, poor traffic conditions, or multiple emergencies slow the response system down. Consequently, a properly designed system will give citizens the hope of a positive outcome for their tax dollar expenditure.

2.1.4 Future Growth

Gilroy’s 2020 General Plan defines the general pattern of future development within the City, as shown in Figure 1. This map covers the area within the “20-Year Boundary” that the City expects to be serviced and developed within that time frame. It also identifies the Urban Growth Boundary (UGB), adopted by voter initiative in 2016, that focuses future growth within the City to prevent urban sprawl into agriculturally and environmentally important areas surrounding the City. With limited exceptions, lands outside of the UGB are to be preserved for agriculture and open space uses. It should be noted that recent state legislation, which overrides local growth measures, could increase near-term and longer-term growth and related service demand in the City.

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The 2020 General Plan projects a population of 60,500–62,500 by the year 2020, reflecting an approximately 11.7–15.0 percent increase over the 2017 population in Table 2. The Plan also projects a 15–19 percent increase in housing units over the same period.

The City’s economic consultant projects a population of 72,800–84,400 by the year 2040 based on market demand projections, which reflects a 34–56 percent growth from the 2017 population in Table 2. The UGB initiative expires in 2040 unless extended or modified by voters.

Finding #1: The City is projected to experience significant growth over the next 21 years.

2.1.5 Community Risk Assessment

The objective of a community risk assessment includes:

- Identifying the values at risk to be protected within the community or service area
- Identifying the specific hazards with the potential to adversely impact the community or service area
Quantifying the overall risk associated with each hazard

Establishing a foundation for current/future deployment decisions and risk-reduction/hazard mitigation planning and evaluation.

A hazard is broadly defined as a situation or condition that can cause or contribute to harm. Examples include fire, medical emergency, vehicle collision, earthquake, flood, etc. Risk is broadly defined as the probability of hazard occurrence in combination with the likely severity of resultant impacts to people, property, and the community as a whole.

Risk Assessment Methodology

The methodology used to assess community risk incorporates the following elements:

- Identification of geographic planning sub-zones (risk zones) appropriate to the community or jurisdiction
- Identification and quantification (to the extent data is available) of the specific values at risk to various hazards within the community or service area
- Identification of the fire and non-fire hazards to be evaluated
- Determination of the probability of occurrence for each hazard
- Identification and evaluation of multiple, relevant impact severity factors for each hazard by planning zone using agency/jurisdiction-specific data and information
- Quantification of overall risk for each hazard based on probability of occurrence in combination with probable impact severity as shown in Figure 2.
Hazard Identification

Following an evaluation of the hazards identified in the Santa Clara County Operational Area Hazard Mitigation Plan, and the fire and non-fire hazards as identified by the CFAI as they relate to services provided by the City’s Fire Department, the following five hazards were evaluated:

- Building Fire
- Vegetation/Wildland Fire
- Medical Emergency
- Hazardous Material Release/Spill
- Technical Rescue

Because building fires and medical emergencies have the most severe time constraints, if desirable outcomes are to be achieved, the following is a brief overview of building fire and medical emergency risk.

Building Fire Risk

One of the primary hazards in any community is building fire. Building fire risk factors include building density, size, age, occupancy, and construction materials and methods, as well as the number of stories, the required fire flow, the proximity to other buildings, built-in fire
protection/alarm systems, an available fire suppression water supply, building fire service capacity, fire suppression resource deployment (distribution/concentration), staffing, and response time.

Figure 3 illustrates the building fire progression timeline and shows that flashover, which is the point at which the entire room erupts into fire after all the combustible objects in that room reach their ignition temperature, can occur as early as 3:00 to 5:00 minutes from the initial ignition. Human survival in a room after flashover is extremely improbable.

**Figure 3—Building Fire Progression Timeline**

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**Medical Emergency Risk**

Fire agency service demand in most jurisdictions is predominantly for medical emergencies. Figure 4 illustrates the reduced survivability of a cardiac arrest victim as time to defibrillation increases.
The Department currently provides first responder Advanced Life Support (ALS) or Basic Life Support (BLS) pre-hospital emergency medical services, with operational personnel trained to the Emergency Medical Technician (EMT) or EMT-Paramedic level.

**Risk Assessment Summary**

Citygate’s assessment of the values at risk and hazards likely to impact the City yielded the following overall risk ratings ranging from *Low* to *High* for the five identified hazards, as summarized in the following table by fire station area planning zone.
Table 4—Overall Risk by Hazard

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Risk Planning Zone</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Chestnut</td>
</tr>
<tr>
<td>Building Fire</td>
<td>Moderate</td>
</tr>
<tr>
<td>Vegetation/Wildland Fire</td>
<td>Low</td>
</tr>
<tr>
<td>Medical Emergency</td>
<td>High</td>
</tr>
<tr>
<td>Hazardous Material</td>
<td>Moderate</td>
</tr>
<tr>
<td>Technical Rescue</td>
<td>Low</td>
</tr>
</tbody>
</table>

2.2 Fire Department Overview

The Gilroy Fire Department, operating under the authority of the City Charter, provides all-risk fire, rescue, and ALS pre-hospital emergency medical services with a staff of 42 personnel. An organizational chart is shown in Figure 5.
2.2.1 Facilities, Resources, and Staffing

The Department currently provides services from three stations and one 12-hour temporary location with a daily response force of 10–12\(^5\) personnel including a Division Chief, as summarized in Table 5. Response personnel work a 48/96-hour shift schedule of two consecutive 24-hour days on duty, followed by four consecutive days off.

\(^5\) 12 personnel from 8:00 a.m. to 8:00 p.m., and 10 personnel from 8:00 p.m. to 8:00 a.m.
### Table 5—Fire Department Facilities and Resources

<table>
<thead>
<tr>
<th>Station</th>
<th>Address</th>
<th>Assigned Resources</th>
<th>Resource Type</th>
<th>Minimum Staffing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chestnut</td>
<td>7070 Chestnut Street</td>
<td>E-47 T-47 E-647 M-47 DC-47</td>
<td>Type-1 Engine Type-1 Ladder Truck Type-6 Engine Type-1 Ambulance Division Chief</td>
<td>3</td>
</tr>
<tr>
<td>Las Animas</td>
<td>8383 Wren Avenue</td>
<td>E-48 E-148 E-348</td>
<td>Type-1 Engine Type-1 Engine (Reserve) Type-6 Engine</td>
<td>3</td>
</tr>
<tr>
<td>Sunrise</td>
<td>880 Sunrise Drive</td>
<td>E-49 E-149 E-649</td>
<td>Type-1 Engine Type-1 Engine (Reserve) Type-6 Engine</td>
<td>3</td>
</tr>
<tr>
<td>Glen Loma¹</td>
<td>Miller Ave. / W. Luchessa Ave.</td>
<td>E-50²</td>
<td>Type-3 Engine</td>
<td>2</td>
</tr>
</tbody>
</table>

Total Daily Staffing: 10–12

Source: Gilroy Fire Department  
Staffed resources shown in **bold**  
¹ Temporary Alternative Service Model posting site  
² Staffed from 8:00 a.m. to 8:00 p.m.

The Department also has automatic or mutual aid agreements with all Santa Clara County fire agencies and is a signatory to the State of California Master Mutual Aid Agreement.

#### 2.2.2 Operational Deployment Goals/Policies

Chapter 7 of the City’s General Plan 2020 states in *Policy 18.01 Standards of Service*, “Continue to provide and maintain police and fire services that are adequate in manpower, equipment, and resources to respond to localized emergencies and calls for service within the City. The departments’ current levels of service should be maintained or improved as the City continues to grow, with average emergency response times for police services of approximately 4.5 minutes and average emergency response times for fire services of less than 5.0 minutes.”

Other City documents reflect general wording about acceptable risk but do not really define what that means for various types of fire, medical, and technical emergencies. One of the City Council’s 2018 Strategic Goals is to “Enhance Public Safety Capabilities.”

The Fire Department has operating goals to:

- Respond to emergency calls for service within 5:00 minutes 75 percent of the time
- Contain building fires to the room of origin 70 percent of the time
Provide an effective response force (First Alarm) of 12–15 personnel within 10:00 minutes of initial dispatch for 95 percent of fires to contain the escalation of the emergency

Have crew turnout time after notification be 60–80 seconds based on protective clothing needed and time of day.

**Finding #2:** The City Council has not adopted fire response performance objectives meeting all best practice elements for time and desired outcomes.

**Recommendation #1:** *Adopt Deployment Policies:* The City Council should adopt the following fire deployment goals to deliver outcomes that will save medical patients when possible upon arrival and to keep small but serious fires from becoming more serious:

1.1 Distribution of Fire Stations: The first-due units should arrive within 7:30 minutes, 90 percent of the time from the receipt of the 9-1-1 call at the fire dispatch center, which equates to a 90-second dispatch time, a 2:00-minute crew turnout time, and a 4:00-minute travel time.

1.2 Multiple-Unit Effective Response Force (ERF) for Serious Emergencies: A multiple-unit ERF of at least 13 personnel, including one Chief Officer, should arrive within 11:30 minutes from the time of 9-1-1 call receipt at fire dispatch 90 percent of the time. This equates to a 90-second dispatch time, 2:00-minute company turnout time, and 8:00-minute travel time. One mutual aid engine and Chief Officer should also arrive as soon as possible to provide a total ERF of 17 personnel.
1.3 Hazardous Materials Response: Provide hazardous materials response designed to protect the communities from the hazards associated with uncontrolled release of hazardous and toxic materials. The fundamental mission of the Department’s response is to isolate the hazard, deny entry into the hazard zone, and notify appropriate officials/resources to minimize impacts on the community. This can be achieved with a first_due total response time of 7:30 minutes or less to provide initial hazard evaluation and/or mitigation actions. After the initial evaluation is complete, a determination can be made whether to request additional resources from the regional hazardous materials team.

1.4 Technical Rescue: Respond to technical rescue emergencies as efficiently and effectively as possible with enough trained personnel to facilitate a successful rescue with a first_due total response time of 7:30 minutes or less to evaluate the situation and/or initiate rescue actions. Following the initial evaluation, assemble additional resources as needed within a total response time of 11:30 minutes to safely complete rescue/extrication and delivery of the victim to the appropriate emergency medical care facility.

2.2.3 Fire Station Siting Guidelines

Over more than a decade of assisting clients in determining where to best site or relocate fire stations, Citygate has developed the following fire station siting guidelines:

1. Serve the most population possible in the shortest travel time
2. Provide a 360-degree first_due service area
3. Avoid political, natural, and human-built barriers within the first_due travel time goal\(^6\)
4. Provide direct access to primary travel routes in all cardinal directions.

\(^6\) This guideline may not apply in auto-aid or “boundary drop” situations.
Key human-built travel barriers considered for this analysis include U.S. 101 and the Union Pacific railroad tracks running generally north-south through the City on the east side of Monterey Road.

There are five U.S. 101 crossings within the City: a six-lane undercrossing at Leavesley Road on the north end, a two-lane overcrossing at East 6th Street, a four-lane overcrossing at East 10th Street, a two-lane undercrossing at East Luchessa Avenue, and a four-lane undercrossing at Monterey Road on the south end. In Citygate’s opinion, the Leavesley Road and East 10th Street crossings provide the best access to the east side service area of the City, even though they are impacted by traffic congestion during peak travel times. The East 6th Street overcrossing is less desirable as it is a relatively narrow two-lane residential road on the west side of U.S. 101, with five stop-sign-controlled intersections from the overpass to Monterey Road and limited lateral sighting distance at each intersection, requiring a full stop during emergency responses. East Luchessa Avenue is also less desirable due to its two-lane configuration as well as lack of direct access to parcels northeast of Rossi Lane and parcels north of the drainage canal on the south side of Venture Way. The Monterey Road undercrossing is a viable alternative on the south end of the City and also provides onramps to both northbound and southbound U.S. 101.

Railway traffic in the City includes more than 12 train movements a day, with a reasonable expectation that the number of daily train movements will increase as passenger rail service continues to expand south through the Santa Clara Valley. According to Department staff, it is not unusual for multiple street crossings to be blocked for 10:00 minutes or longer as freight trains stop to add/remove cars. This is a significant factor to consider in siting fire stations as it impacts both first due travel time as well as multiple-unit ERF travel time to more serious emergencies.

2.2.4 Operational Deployment Capability

Simply stated, fire service deployment is about the speed and weight of the response. Speed refers to initial response (first due) of all-risk intervention resources (engines, trucks, and/or ambulances) strategically deployed across a jurisdiction for response to emergencies within a time interval to achieve desired outcomes. Weight refers to multiple-unit responses (Effective Response Force (ERF) also commonly called a First Alarm), for more serious emergencies such as building fires, multiple-patient medical emergencies, vehicle collisions with extrication required, or technical rescue incidents. In these situations, a sufficient number of firefighters must be assembled within a reasonable time interval to safely control the emergency and prevent it from escalating into a more serious event.

If desired outcomes include limiting building fire damage to only part of the inside of an affected building and/or minimizing permanent impairment resulting from a medical emergency, then in an urban area such as the City, the first unit should arrive within 7:30 minutes from 9-1-1.

Source: Federal Railroad Administration railroad crossing data (2016)
notification; and a multiple-unit Effective Response Force (ERF or First Alarm) should arrive within 11:30 minutes of 9-1-1 notification at the City’s 9-1-1 dispatch center, all at 90 percent or better reliability. Total response time to emergency incidents includes three distinct components: (1) 9-1-1 call processing / dispatch time; (2) crew turnout time; and (3) travel time. Recommended best practices for these response components are 1:30 minutes, 2:00 minutes, and 4:00/8:00 minutes respectively for first-due and multiple-unit ERF responses in urban areas.

**Map #1—General Geography, Station Locations, and Response Resource Types**

Map #1 shows the City boundary and the existing fire station locations, including the South Santa Clara County Fire District Station #3 at Gilroy Gardens. This is a reference map for other maps that follow. Station symbols denote the type of staffed fire apparatus at each station. This map also shows the first-due response area for each station in a different color, including the Glen Loma / Santa Teresa special study area.

**Map #2—4:00-Minute Non-Congested First-Due Travel – Existing Stations**

This map shows the road segments in green (and blue for South Santa Clara County Fire District Station #3) that a fire engine should be expected to reach within 4:00 minutes travel time from existing City fire station locations, including South Santa Clara County Fire District Station #3 at Gilroy Gardens.

*Note the significant travel time coverage gaps in the northwest and southwest sections of the City.*

**Map #2a—4:00-Minute Non-Congested First-Due Travel – Existing Stations and Proposed Glen Loma Station**

Map #2a shows the current road network a fire engine should be expected to reach within 4:00 minutes from the current City fire stations in green, for South Santa Clara County Fire District Station #3 at Gilroy Gardens in blue, and for the proposed Glen Loma station site in purple, assuming the apparatus are in the station and encounter no traffic congestion.

*Note that this station scenario closes nearly all of the southwest travel time coverage gap.*

**Map #3—4:00-Minute Congested vs. Non-Congested First-Due Travel – Current Chestnut Station**

This map shows 4:00-minute congested and non-congested first-due travel time coverage from the current Chestnut station, with green indicating no traffic congestion, and red depicting 4:00-minute travel time coverage under traffic congestion. Thus, the outer green areas are the maximum expected 4:00-minute travel time coverage (red + green = total minutes).
Map #3a—4:00-Minute Congested vs. Non-Congested First-Due Travel – Current Chestnut Station with Proposed 10th Street Bridge

This scenario shows 4:00-minute congested and non-congested first-due travel time coverage from the current Chestnut station including the proposed 10th Street bridge. As the map depicts, the proposed bridge provides only minimal additional travel time coverage from the current Chestnut station into the Glen Loma Ranch area.

Map #4—4:00-Minute Congested vs. Non-Congested First-Due Travel – Las Animas Station

Map #4 shows 4:00-minute congested and non-congested first-due travel time coverage from the current Las Animas station with green indicating no traffic congestion and red indicating traffic congestion coverage.

Note the travel time coverage overlap into the Chestnut and Sunrise station response areas. This is an important feature of an effective deployment model to provide quick response times when the first-due response unit is coming from a station other than that in which the emergency is occurring due to concurrent incident activity, training, etc.

Map #5—4:00-Minute Congested vs. Non-Congested First-Due Travel – Sunrise Station

This map shows 4:00-minute congested and non-congested first-due travel time coverage from the current Sunrise station with teal indicating no traffic congestion and red indicating traffic congestion coverage.

Note both congested and non-congested travel time coverage overlap into the Sunrise station response area. Also note that the travel time coverage excludes the western edges of the City off of Mantelli Drive due to the hilly topography.

Map #6—4:00-Minute Congested vs. Non-Congested First-Due Travel – Proposed Glen Loma Station

Map #6 shows 4:00-minute congested and non-congested first-due travel time coverage from the proposed Glen Loma station site at Miller Road and West Luchessa Avenue, with purple indicating no traffic congestion and red indicating traffic congestion coverage.

Note the travel time coverage overlap into the Chestnut and Las Animas station response areas.

Map #6a—4:00-Minute Congested vs. Non-Congested First-Due Travel – Proposed Glen Loma Station with Miller Avenue Closed at Uvas Creek Southwest of Uvas Park Drive

This scenario shows 4:00-minute congested and non-congested first-due travel time coverage from the proposed Glen Loma station site with Miller Avenue closed at Silva’s Crossing.

Note the reduced travel time coverage northeast of Silva’s Crossing.
Map #6b—4:00-Minute Congested vs. Non-Congested First-Due Travel – Proposed Glen Loma Station with Proposed 10th Street / Uvas Creek Bridge

Map #6b shows 4:00-minute congested and non-congested first-due travel time coverage from the proposed Glen Loma station site with the proposed 10th Street bridge at Uvas Creek. As the map shows, the proposed bridge provides only minimal additional travel time coverage from the Glen Loma station into the current Chestnut station response area.

Map #6c—4:00-Minute Congested vs. Non-Congested First-Due Travel – Existing Gilroy Stations and Proposed Alternate Glen Loma Station Site at Santa Teresa Boulevard and Club Drive

This map shows 4:00-minute congested and non-congested first-due travel time coverage from the current three City stations and an alternate Glen Loma site at Santa Teresa Boulevard and Club Drive. As the map shows, this alternate site provides first-due travel time coverage into only about one-third of the District’s Station #3 current first-due area of the City and also leaves a first-due coverage gap in the southwestern section of Glen Loma Ranch. In addition, this site does not provide quick access to a primary east/west travel route through the City. For these reasons, Citygate does not recommend this as a viable alternative site for the Glen Loma station.

Map #7—4:00-Minute Congested vs. Non-Congested First-Due Travel – Fire District Gilroy Gardens Station

This map shows 4:00-minute congested and non-congested first-due travel time coverage from the South Santa Clara County Fire District Station #3 at Gilroy Gardens. This station provides both first-due and ERF response into the City.

Map #8—4:00-Minute Congested vs. Non-Congested First-Due Travel – Alternate Chestnut Station Site #2 at Monterey Road and West 7th Street

Map #8 shows 4:00-minute congested and non-congested first-due travel time coverage from the Chestnut station Alternate Site #2 at Monterey Road and West 7th Street.

Note the reduced travel time coverage from Map #3 around the Gilroy Premium Outlets.

Map #9—4:00-Minute Congested vs. Non-Congested First-Due Travel – Alternate Chestnut Station Site #3 at Alexander Street and West 8th Street

This map shows 4:00-minute congested and non-congested first-due travel time coverage from the Chestnut station Alternate Site #3 at Alexander Street and West 8th Street.

Note that the travel time coverage is very similar to the current Chestnut station site in Map #3 with the exception of the northeast corner in and around the Premium Outlets.
Map #10—4:00-Minute Congested vs. Non-Congested First-Due Travel – Alternate Las Animas Station Site #1 at 1st Street and Santa Teresa Boulevard

Map #10 shows 4:00-minute congested and non-congested first-due travel time coverage from the Las Animas station Alternate Site #1 at First Street and Santa Teresa Boulevard. This scenario depicts travel time coverage from a potential alternate Las Animas station site should the South Santa Clara County Fire District elect to close or re-locate the Gilroy Gardens station.

Note the coverage of approximately 40 percent of the City area currently covered by South Santa Clara County Fire District Station #3 from Map #7, and also the reduced travel coverage in the northeast section of the City from Map #4. Selection of this alternate site would likely trigger the need for an additional station in the northeast quadrant of the City in the vicinity of the Premium Outlets.

Map #11—8:00-Minute Congested vs. Non-Congested ERF Travel from Current Station Locations (Four Engines)

This map shows 8:00-minute congested and non-congested ERF (four engines) travel time coverage from the three existing City stations and the South Santa Clara County Fire District Station #3 at Gilroy Gardens.

Note that only small areas on the west, southwest, and southeast sections of the City cannot be reached by the fourth responding engine within 8:00 minutes travel time. This is very good ERF travel time coverage.

Map #11a—8:00-Minute ERF Congested vs. Non-Congested Travel from Current Station Locations and Proposed Glen Loma Station Site (Four Engines)

Map #11a shows 8:00-minute congested and non-congested ERF (four engines) travel time coverage from the three existing City stations, the South Santa Clara County Fire District Station #3 at Gilroy Gardens, and the proposed Glen Loma station.

Note the improved ERF travel time coverage with the addition of the proposed Glen Loma station, leaving only a very small section in the very southeast area of the City that cannot be reached by the fourth responding engine within 8:00 minutes travel time. This is excellent ERF travel time coverage.

Map #11b—8:00-Minute ERF Congested vs. Non-Congested Travel from Proposed Alternate Chestnut Station Site #2 and Current Las Animas, Sunrise, and Proposed Glen Loma Station Locations (Four Engines)

This map shows 8:00-minute ERF congested and non-congested travel time coverage from the proposed Chestnut station Alternate Site #2 and current Las Animas, Sunrise, and proposed Glen Loma station locations.
Note the nearly identical ERF travel time coverage as Map #11a, except for a very small area in the northwest section of the City. This is also excellent ERF coverage; thus, ERF travel time is not a factor if this site is considered for the relocation of the Chestnut station.

Map #11c—8:00-Minute ERF Congested vs. Non-Congested Travel from Proposed Alternate Chestnut Station Site #3 and Current Las Animas, Sunrise, and Proposed Glen Loma Station Locations (Four Engines)

Map #11c shows 8:00-minute ERF congested and non-congested travel time coverage from the proposed Chestnut station Alternate Site #3 and current Las Animas, Sunrise, and proposed Glen Loma station locations.

Note the essentially identical ERF travel time coverage as Map #11a, which again is excellent ERF travel time coverage. ERF travel time is thus not a factor in considering this alternate Chestnut station site.

2.2.5 Operational Response Performance

Table 6 summarizes the Department’s response performance by station for the period from January 1, 2016, through December 31, 2018.8

<table>
<thead>
<tr>
<th>Response Performance Component</th>
<th>Best Practice Goal</th>
<th>90th Percentile Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Overall</td>
<td>Chestnut</td>
</tr>
<tr>
<td>Call Processing/Dispatch1</td>
<td>1:30</td>
<td>2:35</td>
</tr>
<tr>
<td>Crew Turnout2</td>
<td>2:00</td>
<td>1:59</td>
</tr>
<tr>
<td>First-Due Travel3</td>
<td>4:00</td>
<td>5:30</td>
</tr>
<tr>
<td>First-Due Call-to-Arrival4</td>
<td>7:30</td>
<td>8:43</td>
</tr>
<tr>
<td>ERF Call-to-Arrival5</td>
<td>11:30</td>
<td>17:07</td>
</tr>
</tbody>
</table>

Source: Gilroy Fire Department incident data
1 Time interval from pick-up of 9-1-1 call at fire dispatch center to completion of dispatch
2 Time interval from receipt of dispatch to response apparatus boarded with seatbelts fastened
3 Time interval from start of response apparatus movement to setting of parking brake upon arrival
4 Time interval from receipt of 9-1-1 call at dispatch center to arrival of first-due response resource
5 Time interval from receipt of 9-1-1 call at dispatch center to arrival of last ERF response resource
6 No incidents with full ERF arrival from January 1, 2016, through December 31, 2018

8 Reference: Section 2.7.4 of the 2019 Citygate South Santa Clara County Regional Standards of Coverage Assessment
Finding #3: Call processing / dispatch performance is more than 72 percent (1:05 minutes) slower than the best practice goal of 90 seconds or less, which also impacts automatic mutual aid response times from neighboring fire agencies.

Finding #4: Crew turnout performance meets the recommended 2:00-minute-or-less goal.

Finding #5: First Due travel performance is significantly slower than the 4:00-minute-or-less goal for urban areas and is closer to 8:00 minutes in the southwestern Glen Loma / Santa Teresa area of the City.

Finding #6: First due call-to-arrival performance is 16 percent (1:13 minutes) slower than the recommended 7:30-minute goal for urban areas.

Finding #7: Effective Response Force call-to-arrival response performance is 49 percent (5:37 minutes) slower than the recommended 11:30-minute goal for urban areas; however, this is based on a very small number of incidents where the full Effective Response Force arrived at the incident.\(^9\)

Simultaneous Incident Activity

Simultaneous incident activity is when two or more incidents are occurring at the same time. As Table 7 shows, slightly more than 23 percent of all calls for service involved one or more simultaneous incidents, which equates to approximately one per day on average.

<table>
<thead>
<tr>
<th>Number of Simultaneous Incidents</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 or more simultaneous incidents</td>
<td>23.31%</td>
</tr>
<tr>
<td>2 or more simultaneous incidents</td>
<td>4.24%</td>
</tr>
<tr>
<td>3 or more simultaneous incidents</td>
<td>0.40%</td>
</tr>
</tbody>
</table>

\(^9\) Results from small data sets such as this can vary significantly.
Finding #8: Simultaneous incidents occur on average at least once per day requiring two of the three fire station crews, which leaves only one unit for a subsequent emergency incident response.

2.2.6 First-Due Travel Time Coverage

Citygate utilizes a customized geographic information system mapping tool to determine travel time over a given road network. Among other factors, this algorithm includes road type, design speed, controlled intersections, one-way travel, highway on/off ramps, and traffic calming measures such as roundabouts and speed bumps to calculate projected road network coverage over a given travel time. The resultant model is then calibrated using a sampling of historic travel times to accurately project apparatus travel speeds across the given road network.

Table 8 shows 4:00-minute first Due congested and non-congested travel time coverage from existing fire station locations, including the South Santa Clara County Fire District Station #3 at Gilroy Gardens.

<table>
<thead>
<tr>
<th>Travel Time Measure</th>
<th>Total Public Road Miles</th>
<th>Non-Congested Miles Covered</th>
<th>Non-Congested Percent of Total Miles</th>
<th>Congested Miles Covered</th>
<th>Congested Percent of Total Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>4:00-Minute First-Due Existing Stations¹</td>
<td>223.2</td>
<td>185.4</td>
<td>83.06%</td>
<td>141.2</td>
<td>63.26%</td>
</tr>
</tbody>
</table>

¹ Including South Santa Clara County Fire District Station #3 at Gilroy Gardens

As Table 8 shows, 83 percent of existing and known future roads in the City should be reachable within 4:00 minutes travel time from existing fire station locations during normal traffic conditions; however, the analysis shows a significant gap in 4:00-minute travel time coverage in the Glen Loma / Eagle Ridge area in the southwest quadrant of the City on both the north and south sides of Santa Teresa Boulevard.

2.2.7 Overall Deployment Evaluation

Citygate finds that the Department is well organized to accomplish its mission to serve an urban population in a municipal land-use pattern. The Department is using best practices and is data driven, as necessary.

While the state fire code now requires fire sprinklers even in residential dwellings, it will be many more decades before the majority of homes are replaced or remodeled with automatic fire sprinklers. If desired outcomes include limiting building fire damage to only part of the inside of
an affected building and/or minimizing permanent impairment resulting from a medical emergency, then the Department will need both first-due unit and multiple-unit ERF coverage in all urban/suburban neighborhoods consistent with a Citygate response performance recommendation of first-due arrival within 7:30 minutes from 9-1-1 dispatch notification and ERF arrival within 11:30 minutes of 9-1-1 notification, all at 90 percent or better reliability.

With significantly slower-than-recommended best practice call processing / dispatch performance, combined with traffic congestion and simultaneous incidents, the result is significantly longer-than-desirable first-due total response times.

While the Department’s physical resources are appropriate to protect against the hazards likely to impact the City, the daily staffing level of 10–12 is insufficient to safely resolve even a single serious ERF incident, or multiple concurrent, less serious incidents. Many cities the size of Gilroy have more firefighters on duty daily. Therefore, the City is currently very co-dependent on South Santa Clara County Fire District resources for both first-due and ERF capacity.

The City is also not in a good location for prompt mutual aid, which cannot realistically be obtained from the west, east, or south in a timely manner, or from the north if south San Jose units are not readily available or encounter major rush hour traffic on U.S. 101.

**Finding #9:** The City is not geographically located for prompt mutual aid and is very dependent on the South Santa Clara County Fire District for both first-due and Effective Response Force staffing capacity.

As the geographic mapping indicates, while the stations are appropriately located in all the major neighborhoods, they are spaced too far apart. While longer-than-desired first-due unit travel times are partially due to fire station spacing, other factors include the non-grid street network design in some areas of the City, natural and built barriers (hills and highways), simultaneous incidents at peak hours of the day, and traffic congestion.

In terms of emergency incident workload per unit, no single fire unit or station area is approaching workload saturation. However, simultaneous incidents requiring at least two of the Department’s three staffed resources occur at least once per day. If another incident should occur at that point, the Department would have to rely on mutual aid assistance.

Given increasing service demand and the City’s growing population, the current daily staffing level significantly limits the Department’s ability to respond with more “weight of attack” on more serious incidents.
Finding #10: The City does not deploy enough firefighters daily to safely resolve even a single serious fire or EMS incident, or to provide adequate capacity for simultaneous incidents.

In Citygate’s opinion, the City is growing past its current station spacing, while continuing to be very dependent on the Fire District for both first-due and ERF staffing. Lowering call processing / dispatch time will not entirely resolve longer-than-desired first-due and ERF response times; only an additional station in the southwest section of the City can do that.

Finding #11: The City is geographically too large to effectively serve with three fire stations.

Finding #12: A fourth fire station in southwest Gilroy would improve five needs: (1) first-due travel time coverage; (2) daily Citywide staffing; (3) multiple-unit Effective Response Force staffing; (4) traffic congestion impacts on travel time coverage; and (5) reduced dependence on South Santa Clara County Fire District Station #3 at Gilroy Gardens for both first-due and Effective Response Force capacity.

Finding #13: If the South Santa Clara County Fire District closes or relocates Station #3 at Gilroy Gardens, the City would need to seriously consider a fifth fire station to ensure equitable service delivery across all neighborhoods, particularly if the Las Animas station is relocated further west from its current location.

Recommendation #2: The City should add a fourth fire station in the southwest section of the City as soon as fiscally feasible.

2.3 Future Service Needs

2.3.1 Future Service Demand

Given the significant projected population growth over the next 21 years as discussed in Section 2.1.4, Fire Department service demand can be expected to increase significantly as well. Over the three-year period examined for this Master Plan Update, total service demand increased 4.4 percent for an average annual increase of 2.2 percent, with EMS-related calls accounting for nearly all of
that increase. It is reasonable to expect this trend to continue, including the increasing percentage of EMS-related service demand and concurrent calls for service.

2.3.2 Future Deployment Considerations

Glen Loma / Eagle Ridge Area

As discussed in Section 2.2, current City fire station locations, including the South Santa Clara County Fire District Station #3 at Gilroy Gardens, cannot provide desired 4:00-minute first-due travel time coverage to the Glen Loma Ranch / Eagle Ridge area of the City where new residential and future commercial development is occurring. Based on this significant service gap, Citygate collaborated first with Department executive staff to identify a suitable site for a temporary fire station facility as part of a proposed pilot Alternative Service Model (ASM) study to serve this area until the development agreement triggers construction of a permanent fire station facility.

Utilizing Citygate’s fire station siting guidelines, Department staff identified a City-owned parcel northwest of Miller Avenue and West Luchessa Avenue for further analysis. Key factors considered for analysis of this site included:

◆ Existing and known future roads
◆ The occasional closure of Miller Avenue at Silva’s Crossing (Uvas Creek) due to flooding during some winter storm events
◆ Future construction of a bridge over Uvas Creek connecting both existing segments of West 10th Street.

Map #6 (Volume 2—Map Atlas) shows 4:00-minute first-due congested and non-congested travel time coverage from this proposed station site. As the map shows, the addition of a fourth station at this site improves 4:00-minute non-congested first-due travel time coverage by slightly more than 10 percent to 87 percent of total City public road miles as shown in Table 9, and improves congested travel time coverage by nearly 7 percent to 70 percent, which is very good first-due coverage. This site also closes nearly all of the Glen Loma / Eagle Ridge travel time coverage gap shown in Map #2, and conforms with all four recommended fire station siting guidelines referenced in Section 2.2.3, except for the occasional closure of Miller Avenue at Silva’s Crossing, which will eventually be eliminated with the construction of the 10th Street bridge.
### Table 9—Travel Time Coverage – Existing Stations and Proposed Glen Loma Site

<table>
<thead>
<tr>
<th>Travel Time Measure</th>
<th>Total Public Road Miles</th>
<th>Non-Congested Miles Covered</th>
<th>Non-Congested Percent of Total Miles</th>
<th>Congested Miles Covered</th>
<th>Congested Percent of Total Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>4:00-Minute First-Due with Proposed Glen Loma¹</td>
<td>223.2</td>
<td>193.9</td>
<td>86.87%</td>
<td>156.5</td>
<td>70.12%</td>
</tr>
</tbody>
</table>

¹ Including South Santa Clara County Fire District Station #3 at Gilroy Gardens

An alternate Glen Loma station site at Santa Teresa Boulevard and Club Drive was also evaluated as a possible location should the Fire District elect to close or relocate its Fire Station #3 at Gilroy Gardens. Map #6c ([**Volume 2—Map Atlas**](#)) shows that 4:00-minute congested and non-congested first-due travel time coverage from that site would provide first-due travel time coverage into only about one-third of the District’s Station #3 current first-due area of the City, and would also leave a first-due coverage gap in the southwestern section of Glen Loma Ranch. In addition, this site does not provide quick access to a primary east/west travel route through the City. For these reasons, Citygate does not recommend this as a viable alternative site for the Glen Loma station.

In Citygate’s opinion, the preferred Glen Loma station site at Miller Avenue and West Luchessa Avenue reinforces and stabilizes the overall Citywide deployment coverage model and is a suitable site for both a temporary and future permanent fire station site given the information available at the time of this analysis.

The Department implemented the pilot ASM study in the Glen Loma Ranch area on July 1, 2019, staffing either a Type-1 ambulance or a Type-6 wildland fire engine with two personnel on overtime status daily from 8:00 a.m. to 8:00 p.m. at the proposed future Glen Loma station site at Miller Avenue and West Luchessa Avenue.

While the ASM pilot study was implemented primarily to provide ALS pre-hospital emergency medical services to this newly developing area of the City beyond 4:00-minute first-due travel time from other existing fire stations, this resource cannot initiate fire suppression activity due to the two-person staffing level and the City’s labor agreement with the Firefighter’s Association, which creates both a benefit and a liability. While it serves a very specific purpose of reducing response time for life-saving intervention on the most frequent calls for service, it also creates the perception that initial fire suppression services are being made available in this area when the Type-6 wildland fire engine is the only staffed ASM resource. The ASM does, however, provide additional critical Citywide first-due and ERF staffing capacity during peak service demand hours. A potential negative impact of the ASM pilot study relates to the cumulative effects on Department personnel given the relatively small workforce and the number of overtime assignments required to maintain daily ASM staffing.
Citygate recommends the following information, in addition to standard incident response data, be collected to facilitate evaluation of the effectiveness of the pilot ASM study:

- Emergency incident responses in the Glen Loma / Santa Teresa response area where the first-due unit responds from outside of the Glen Loma / Santa Teresa response zone
- Number of emergency incidents that occur in the Glen Loma / Santa Teresa response area outside of the ASM unit hours (8:00 p.m. to 8:00 a.m.)
- Number of ASM overtime shifts worked per employee
- Number of ASM overtime shifts requiring forced overtime.

What needs to be determined, in the context of this Master Plan Update, is when the pilot ASM study should be upgraded to a fully staffed fire station able to provide the full range of services provided by the other three City stations seven days per week. While construction of the future Glen Loma fire station is currently tied to issuance of the 1,100th Glen Loma Ranch building permit pursuant to the City Council-approved Developer Agreement, no one can accurately predict when that will occur. In addition, while the developer is required to build the fire station as a development mitigation, staffing costs typically are funded through additional property taxes or other fees generated by the new development. Based on the City’s adopted 2020–2021 biennial budget, it would take an additional 11.25 full-time equivalent (FTE) personnel, including 3.0 FTE Fire Captains, 3.0 FTE Fire Engineers, and 5.25 FTE Firefighter I/IIIs to staff an additional single-resource station with three personnel daily.

Therefore, the City faces three choices relative to providing fire services to the Glen Loma / Eagle Ridge area:

1. Continue the ASM as an EMS resource only until the future Glen Loma station is constructed and new revenue is available to provide full-time staffing.
2. Discontinue the ASM and provide services from existing City and automatic aid stations until the future Glen Loma station is constructed and new revenue is available to provide full-time staffing.
3. Construct the Glen Loma station staffed with a full-time three-person full-service engine company as soon as possible.

**Recommendation #3:** The City should construct and staff the Glen Loma station with a full-time three-person crew as soon as fiscally feasible.
**Recommendation #4:** The City should continue the current pilot Alternative Service Model until such time as the Glen Loma station is constructed and staffed with a full-time crew.

**Western Gilroy**

Fire services and pre-hospital EMS in the western section of the City immediately surrounding Gilroy Gardens are provided by South Santa Clara County Fire District Station #3 at Gilroy Gardens pursuant to an automatic mutual aid agreement between the two agencies. The District engine is staffed with two personnel daily, including at least one EMT-Paramedic. As Map #7 (Volume 2—Map Atlas) shows, this station’s 4:00-minute first-due travel time coverage is limited to the very western section of the City just east of Gilroy Gardens due to the station location and curvilinear road network in that area.

As an element of the concurrent regional Standards of Cover Assessment study for the Cities of Gilroy and Morgan Hill and the South Santa Clara County Fire District, the Fire District asked Citygate to evaluate alternative site(s) for the Gilroy Gardens station to provide better coverage of the District’s western response area. Should the District elect to relocate that station, it would create a first-due and ERF travel time coverage and staffing gap for the City. Because the two jurisdictions are co-dependent on each other to provide both first-due and ERF response coverage and staffing, one alternative would be for the City and Fire District to cost-share staffing at a western Gilroy station that would serve both jurisdictions.

**Recommendation #5:** The City and South Santa Clara County Fire District should consider a potential shared service solution in western Gilroy to provide long-term fire services and pre-hospital EMS to serve both jurisdictions.

**South Gilroy**

Based on a prospective agreement to sell the current Chestnut station site, Citygate evaluated three alternate sites identified by Department staff as follows:

**Alternate Site #1:** Vacant parcel at 7150 Chestnut Street, two parcels north of the existing Chestnut station location

**Alternate Site #2:** City-owned parcel on the northwest corner of Monterey Road and West 7th Street

**Alternate Site #3:** Santa Clara County-owned parcel on the southeast corner of Alexander Street and East 8th Street
Key factors considered for this analysis included:

◆ Quick access to both northbound and southbound U.S. 101
◆ Quick access to the service areas on the east side of U.S. 101
◆ Potential travel time delays due to daily railway traffic and the potential for increased future railway traffic, including the California High Speed Rail Project.

Alternate Site #1 – 7150 Chestnut Street

Citygate’s analysis of Alternative Site #1 concludes that it is the best-fit choice considering 4:00-minute first due non-congested travel time coverage (as shown in Map #3) and related 8:00-minute ERF travel time coverage (as shown in Map #11). Desirable features of this site include:

◆ It provides quick access to northbound and southbound U.S. 101.
◆ It would be the only fire station facility on the east side of the Union Pacific Railroad tracks.
◆ It provides direct access to the service areas on the west side of Uvas Creek once the East 10th Street bridge is constructed over Uvas Creek.
◆ It provides excellent 4:00-minute first due travel time coverage on the east side of U.S. 101 south to Southside Drive.

A potentially less desirable feature of this site is that it is approximately 34 percent smaller in area than the current Chestnut station parcel.

Alternate Site #2 – Northwest Corner of Monterey Road and West 7th Street

This site is approximately the same size as Alternate Site #1, or about 34 percent smaller than the existing Chestnut station site. Citygate’s analysis concludes that this site would provide good first due and ERF non-congested travel time coverage, with some reduction of coverage in the very southeast quadrant of the City and around the Gilroy Premium Outlets as shown in Map #8 (Volume 2—Map Atlas).

Less desirable features of this site include:

◆ It is a smaller parcel than the current Chestnut station site.
◆ There is generally slower traffic flow on Monterey Road.
◆ It provides slower access to both northbound and southbound U.S. 101 than Alternate Site #1.
◆ All four stations would be located on the west side of the Union Pacific Railroad tracks, likely resulting in significant response time delays to the east side of the tracks whenever trains are stopped or moving very slowly through the City.

◆ The default travel route to the service areas on the east side of U.S. 101 would be the East 6th Street overcrossing, with the concerns previously cited regarding street width, lateral sighting distances, and the numerous intersections controlled by stop signs to be navigated along that route. The two-lane design allows very little, if any, room for traffic to move out of the way of a responding apparatus.

◆ It reduces 4:00-minute first due non-congested travel time coverage in the very southeast corner of the City and around the Gilroy Premium Outlets.

Alternate Site #3 – Southeast Corner Alexander Street and East 8th Street

This parcel is approximately two percent larger in area than the current Chestnut station site, allowing space for similar Department administrative and/or support functions as desired. Citygate’s analysis concludes that this alternate site would provide similar first due coverage (as shown in Map #9) and ERF non-congested travel time coverage (as shown in Map #11c) as Alternate Site #2, with some improvement in 4:00-minute non-congested travel time coverage around the Gilroy Premium Outlets. Desirable features of this site include:

◆ It is a larger parcel than Alternate Site #1 or Alternate Site #2.
◆ It is slightly larger than the current Chestnut station site.
◆ It provides generally similar access to East 10th Street as the current Chestnut Street site and Alternate Site #1.
◆ It is located on the east side of the Union Pacific railroad tracks.
◆ There are only two controlled intersections to access East 6th Street to the east side of U.S. 101, providing an alternative travel route to the east side service area as needed.

A less desirable feature of this site includes:

◆ It provides slightly slower access to U.S. 101 and the east side service area than the current Chestnut station site or Alternate Site #1.

Chestnut Station Relocation Analysis Summary

Based on this analysis, Citygate ranks the three identified alternate Chestnut fire station sites in the following order to provide the best-fit first due and ERF travel time coverage within the current City boundaries:
1. Alternate Site #1 – 7150 Chestnut Street
2. Alternate Site #3 – Southeast corner of Alexander Street and East 8th Street
3. Alternate Site #2 – Northwest corner of Monterey Road and West 7th Street

**Finding #14:** The City has multiple viable options to relocate the Chestnut station should it desire or need to do so.

**Central Gilroy**

As Maps #10 and #11 (Volume 2—Map Atlas) show, the current Las Animas station site in central Gilroy provides overlapping first-due travel time coverage into the other two current City stations, the proposed Glen Loma station, and the Fire District’s Station #3 at Gilroy Gardens as well as 8:00-minute ERF travel time coverage for the entire City.

Relative to the potential relocation of the Chestnut station, Citygate finds that the two preferred alternate sites should have minimal to no impact on Las Animas service demand, as the new Chestnut station site would be 0.3 miles or less from the current site. The proposed Glen Loma station site should relieve some Las Animas service demand, as that proposed site’s first-due response zone will encompass some of the current Las Animas response zone. In Citygate’s opinion, the Las Animas station is appropriately located to provide optimal first-due and ERF travel time coverage for Central Gilroy until either of the following occurs:

- Closure or relocation of the Fire District Station #3 at Gilroy Gardens. Should the Fire District move forward with either of these scenarios, it would result in a significant 4:00-minute first-due travel time gap southwest of Highway 152 and Santa Teresa Boulevard, in which case the City should consider evaluating relocating the Las Animas station further west toward 1st Street and Santa Teresa Boulevard.

- Significant northeastward expansion of the City boundary, in association with additional new development along the Leavesley Road corridor east of U.S. 101. If future development trends in that direction, the City should carefully evaluate the boundary of potential build-out and the need for a fifth fire station on the east side of U.S. 101.

**Finding #15:** The Las Animas station is appropriately located until the South Santa Clara County Fire District closes or relocates its Station #3 at Gilroy Gardens or until significant new development occurs in the northeast section of the City east of U.S. 101.
Finding #16: If the South Santa Clara County Fire District closes or relocates its Station #3 at Gilroy Gardens, the City should carefully consider relocating the Las Animas station further west toward 1st Street and Santa Teresa Boulevard.

Map #10 (Volume 2—Map Atlas) shows 4:00-minute first-due congested and non-congested travel time coverage from 1st Street and Santa Teresa Boulevard to illustrate what the travel time coverage would look like from this alternate Las Animas site if the Fire District were to elect to close or relocate its Station #3.

North Gilroy

North Gilroy is served by the Sunrise station located just south of Christopher High School on Sunrise Drive west of Santa Teresa Boulevard. While this station is located within a quarter mile of the current northern City boundary, which will likely not expand until 2040 or later due to the voter-approved Urban Growth Boundary, it is well sited to serve future City expansion to the north.

Northeastern Gilroy

As discussed in Section 2.2.7, the current three City station sites, the South Santa Clara County Fire District Station #3 at Gilroy Gardens, the proposed Glen Loma station site at Miller Avenue and West Luchessa Avenue, and the first two alternate Chestnut station sites provide nearly 87 percent non-congested 4:00-minute first-due travel time coverage, and 70 percent congested 4:00-minute first-due travel time coverage, both of which Citygate considers very good first-due coverage for a community the size of Gilroy. In addition, these sites provide nearly 100 percent 8:00-minute congested and non-congested multiple-unit ERF travel time coverage, which is excellent coverage for more serious incidents requiring multiple units.

Recommendation #6: Should the City eventually expand northeasterly beyond the current boundary, or if the Las Animas station is relocated substantially west from its current location, the City should seriously consider a fifth station in the northeast quadrant to ensure equitable delivery of fire services and pre-hospital EMS to all areas of the City.

2.4 DISPATCH SERVICES

Fire dispatch services for Gilroy are provided by the Gilroy Police Department Communications Center, while dispatch services for the South Santa Clara County Fire District and the City of Morgan Hill are provided by the CAL FIRE Santa Clara Unit Emergency Communications Center in Morgan Hill. Although these three jurisdictions have reciprocal automatic mutual aid
agreements intended to send the closest resource to any emergency regardless of jurisdiction, it is important to understand that there is some time delay when one dispatch center must contact the other dispatch center to dispatch the closest first-due response unit.

A 2016 consultant report\textsuperscript{10} found that the Gilroy Communications Center was understaffed for the workload, resulting in not only recruitment and retention issues, but also the inability to maintain a proactive training and Quality Assurance (QA) program, which impacts the consistency and quality of the broad spectrum of services provided by that center. The report recommended that the Communications Center staffing be increased by a total of 6.0 FTE personnel to ensure a minimum of three Public Safety Communicators (PSCs) on duty at all times. To date, this recommendation has not been fully implemented, and normal Communications Center staffing remains at two PSCs.

As discussed in Section 2.2.7, the recommended best practice for call processing / dispatch of fire department resources is 90 seconds or less with 90 percent or better reliability.\textsuperscript{11} Ninetieth percentile call processing / dispatch performance for fire department emergency calls\textsuperscript{12} over the three most recent years\textsuperscript{13} was 2:35 minutes, more than 72 percent (1:05 minutes) slower than the best practice goal. Combined with the inherent delays associated with the transfer of calls between communications centers as needed to provide closest-unit response, this is a significant factor contributing to slower-than-desired total response times in the City.

The City has two options to resolve this call processing / dispatch performance deficiency:

1. Implement the recommendations included in the Novak study relative to providing a minimum Communications Center staffing standard of three PSCs at all times; implementing a proactive training and QA program; developing a fire dispatching training program; and developing a service level agreement with the Fire Department to ensure call processing / dispatch performance meets best practice standards.

2. Explore having fire dispatching services provided by another agency or vendor.

Relative to option #2, the CAL FIRE Santa Clara Unit advised Citygate and Department executive staff that it has capacity to provide dispatch services for the Gilroy Fire Department, which would consolidate south Santa Clara County fire dispatch into a single communications center and likely

\textsuperscript{10} The Novak Consulting Group, City of Gilroy, California Emergency Communications Center Staffing Assessment (September 2016)


\textsuperscript{12} Fire, EMS, and rescue calls only

\textsuperscript{13} Calendar years 2016, 2017, and 2018

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provide enhanced operational efficiency relative to closest-unit dispatching and emergency incident communications. In addition to CAL FIRE, other potential dispatch service providers include Santa Clara County 9-1-1 Communications, Santa Cruz Regional 9-1-1, and American Medical Response (AMR).

**Finding #17:** The City has options to resolve its significantly slower-than-desired fire service call processing / dispatch performance.

**Recommendation #7:** The City should aggressively work to improve its fire service call processing / dispatch performance to better align with industry best practice standards.

### 2.5 Records Management System

The Department has used Zoll FireRMS as its records management system (RMS) for emergency incident reporting and other record management functions since 2003. This RMS requires in-depth knowledge of database architecture to conduct useful analysis and develop meaningful reports, and lacks the ability to perform user-defined, rules-based error checking.\(^\text{14}\) Last updated in 2016 to improve navigation and usability, the current version is sufficient to meet the Department’s needs relative to required state reporting and record-keeping. However, the inability to present data analysis in easily understood formats remains a challenge. Reduced staffing and resultant Information Technology Department capacity has also impacted training and RMS product support for the Fire Department. Additional RMS challenges include data entry errors and inconsistent entries in some incident report data fields by station personnel. In Citygate’s opinion and experience, these issues can be readily resolved with additional training and a reliable quality assurance procedure. Compatible third-party applications that provide user-defined, rules-based error checking are also available.

Zoll has identified two options to ensure full use of all current FireRMS features and customizable options as follows:

1. Install the most up-to-date version of FireRMS on a leased virtual server with City information technology support

\(^\text{14}\) According to Department staff
2. Utilize a Zoll-hosted version of FireRMS with contract information technology support

CAL FIRE utilizes CALFIRS (California Fire Incident Reporting System), a hosted RMS application with robust analytics. This RMS is also made available to local agencies that contract with CAL FIRE for fire dispatch services.

**Finding #18:** The City has multiple options to resolve challenges with its current fire records management system.

**Recommendation #8:** The City should either upgrade its current fire records management system or replace it as soon as possible as part of an outsourced fire services dispatch contract.

### 2.6 Findings and Recommendations

Following is a complete list of the findings and recommendations contained in this report.

#### 2.6.1 Findings

**Finding #1:** The City is projected to experience significant growth over the next 21 years.

**Finding #2:** The City Council has not adopted fire response performance objectives meeting all best practice elements for time and desired outcomes.

**Finding #3:** Call processing / dispatch performance is more than 72 percent (1:05 minutes) slower than the best practice goal of 90 seconds or less, which also impacts automatic mutual aid response times from neighboring fire agencies.

**Finding #4:** Crew turnout performance meets the recommended 2:00-minute-or-less goal.

**Finding #5:** First-due travel performance is significantly slower than the 4:00-minute-or-less goal for urban areas and is closer to 8:00 minutes in the southwestern Glen Loma / Santa Teresa area of the City.

**Finding #6:** First-due call-to-arrival performance is 16 percent (1:13 minutes) slower than the recommended 7:30-minute goal for urban areas.
Finding #7: Effective Response Force call-to-arrival response performance is 49 percent (5:37 minutes) slower than the recommended 11:30-minute goal for urban areas; however, this is based on a very small number of incidents where the full Effective Response Force arrived at the incident.\footnote{Results from small data sets such as this can vary significantly.}

Finding #8: Simultaneous incidents occur on average at least once per day requiring two of the three fire station crews, which leaves only one unit for a subsequent emergency incident response.

Finding #9: The City is not geographically located for prompt mutual aid and is very dependent on the South Santa Clara County Fire District for both first-due and Effective Response Force staffing capacity.

Finding #10: The City does not deploy enough firefighters daily to safely resolve even a single serious fire or EMS incident, or to provide adequate capacity for simultaneous incidents.

Finding #11: The City is geographically too large to effectively serve with three fire stations.

Finding #12: A fourth fire station in southwest Gilroy would improve five needs: (1) first-due travel time coverage; (2) daily Citywide staffing; (3) multiple-unit Effective Response Force staffing; (4) traffic congestion impacts on travel time coverage; and (5) reduced dependence on South Santa Clara County Fire District Station #3 at Gilroy Gardens for both first-due and Effective Response Force capacity.

Finding #13: If the South Santa Clara County Fire District closes or relocates Station #3 at Gilroy Gardens, the City would need to seriously consider a fifth fire station to ensure equitable service delivery across all neighborhoods, particularly if the Las Animas station is relocated further west from its current location.

Finding #14: The City has multiple viable options to relocate the Chestnut station should it desire or need to do so.

Finding #15: The Las Animas station is appropriately located until the South Santa Clara County Fire District closes or relocates its Station #3 at Gilroy Gardens or until significant new development occurs in the northeast section of the City east of U.S. 101.
Finding #16: If the South Santa Clara County Fire District closes or relocates its Station #3 at Gilroy Gardens, the City should carefully consider relocating the Las Animas station further west toward 1st Street and Santa Teresa Boulevard.

Finding #17: The City has options to resolve its significantly slower-than-desired fire service call processing / dispatch performance.

Finding #18: The City has multiple options to resolve challenges with its current fire records management system.

2.6.2 Recommendations

Recommendation #1: **Adopt Deployment Policies:** The City Council should adopt the following fire deployment goals to deliver outcomes that will save medical patients when possible upon arrival and to keep small but serious fires from becoming more serious:

1.1 **Distribution of Fire Stations:** The first-due units should arrive within 7:30 minutes, 90 percent of the time from the receipt of the 9-1-1 call at the fire dispatch center, which equates to a 90-second dispatch time, a 2:00-minute crew turnout time, and a 4:00-minute travel time.

1.2 **Multiple-Unit Effective Response Force (ERF) for Serious Emergencies:** A multiple-unit ERF of at least 13 personnel, including one Chief Officer, should arrive within 11:30 minutes from the time of 9-1-1 call receipt at fire dispatch 90 percent of the time. This equates to a 90-second dispatch time, 2:00-minute company turnout time, and 8:00-minute travel time. One mutual aid engine and Chief Officer should also arrive as soon as possible to provide a total ERF of 17 personnel.

1.3 **Hazardous Materials Response:** Provide hazardous materials response designed to protect the communities from the hazards associated with uncontrolled release of hazardous and toxic materials. The fundamental mission of the Department’s response is to isolate the hazard, deny entry into the hazard zone, and notify appropriate officials/resources to minimize impacts on the community. This can be achieved with a first-due total response time of 7:30 minutes or less to provide initial hazard evaluation and/or mitigation actions. After the initial evaluation
is complete, a determination can be made whether to request additional resources from the regional hazardous materials team.

1.4 Technical Rescue: Respond to technical rescue emergencies as efficiently and effectively as possible with enough trained personnel to facilitate a successful rescue with a first due total response time of 7:30 minutes or less to evaluate the situation and/or initiate rescue actions. Following the initial evaluation, assemble additional resources as needed within a total response time of 11:30 minutes to safely complete rescue/extrication and delivery of the victim to the appropriate emergency medical care facility.

Recommendation #2: The City should add a fourth fire station in the southwest section of the City as soon as fiscally feasible.

Recommendation #3: The City should construct and staff the Glen Loma station with a full-time three-person crew as soon as fiscally feasible.

Recommendation #4: The City should continue the current pilot Alternative Service Model until such time as the Glen Loma station is constructed and staffed with a full-time crew.

Recommendation #5: The City and South Santa Clara County Fire District should consider a potential shared service solution in western Gilroy to provide long-term fire services and pre-hospital EMS to serve both jurisdictions.

Recommendation #6: Should the City eventually expand northeasterly beyond the current boundary, or if the Las Animas station is relocated substantially west from its current location, the City should seriously consider a fifth station in the northeast quadrant to ensure equitable delivery of fire services and pre-hospital EMS to all areas of the City.

Recommendation #7: The City should aggressively work to improve its fire service call processing / dispatch performance to better align with industry best practice standards.

Recommendation #8: The City should either upgrade its current fire records management system or replace it as soon as possible as part of an outsourced fire services dispatch contract.