



Memorandum

TO: HONORABLE MAYOR
AND CITY COUNCIL

FROM: Robert Sapien, Jr.

SUBJECT: MEASURE T – NEW FIRE STATION
PLACEMENT PRIORITIZATION

DATE: June 6, 2019

Approved

Date

6/7/19

RECOMMENDATION

Accept the Fire Department's fire station relocation and new fire station placement prioritization list.

Proposed Station Number	Priority	City Area	New/Relocation
37	1	Willow Glen	New
8	2	Downtown East	Relocation
32	3	Santee	New
23	4	Vinci/Berryessa	Relocation
36	5	Ramblewood/Sylvandale	New

OUTCOME

The City Council's approval of the recommendation will allow the City to proceed with property search and acquisition for placement of new and relocated fire stations.

BACKGROUND

On November 6, 2018 the City of San José voters passed Measure T - The Disaster Preparedness, Public Safety and Infrastructure Bond which authorized the City to issue up to \$650 million in general obligation bonds to fund emergency and disaster responses, infrastructure, and roads. On November 14, 2018, the Joint Meeting for the Rules and Open Government Committee and Committee of the Whole adopted the recommendation contained in the November 7, 2018 General Obligation Bond (Measure T) memorandum from Mayor

Liccardo¹, which directed that the Proposed General Obligation Bond Project Categories² heard by City Council on September 11, 2018 be revised, in part, to include:

- Build Fire Station 37 “as a priority project”;
- “Build at least two new fire stations, including property acquisition, or conversion of existing City land”; and,
- “Rebuild/relocate Fire Stations 8 and 23, including property acquisition or conversion of existing City land.”

Additionally, the adopted November 7, 2018 memorandum also directed, “Pursuant to the 2015 SJFD Strategic Business Plan, accelerate the development of a facilities master plan that addresses fire station location, along with staffing and budget impacts, within 12 months (Goal#2, 9.4 Infrastructure and Support). The facilities master plan should include specific timelines for the construction and rehabilitation of each of the new and rehabilitated fire stations called for under Measure T.”

With clear direction set for a minimum number of fire station construction projects, the Fire Department (Department) proceeded to work with the Department of Public Works to immediately move forward with Fire Station 37 and to evaluate available information and performance data toward establishing a prioritization of locations for rebuilding and/or relocating Fire Stations 8 and 23 and building new fire stations.

All Hazard Fire Department

The Department maintains capabilities to effectively engage in emergency response efforts against all physical hazards that may threaten our community. Resources are strategically deployed across the city to rapidly address fire suppression, rescue, hazardous materials, emergency medical services (EMS), and other hazard mitigation needs. Deployment is principally based upon the response time of the first responding Engine Companies at each fire station to quickly initiate fire suppression actions, with Truck Companies deployed more sparsely to support suppression, rescue, and other needs. Squads are positioned to serve EMS high demand and/or hard to serve areas. Specialized resources such as the Urban Search and Rescue (USAR) and Hazardous Incident Team (HIT) respond citywide. Additional resources such as wildland apparatus are paired with Engine Companies and positioned based upon risk. The thirty-three fire station response areas are divided into five battalions, each overseen by an on-duty battalion chief.

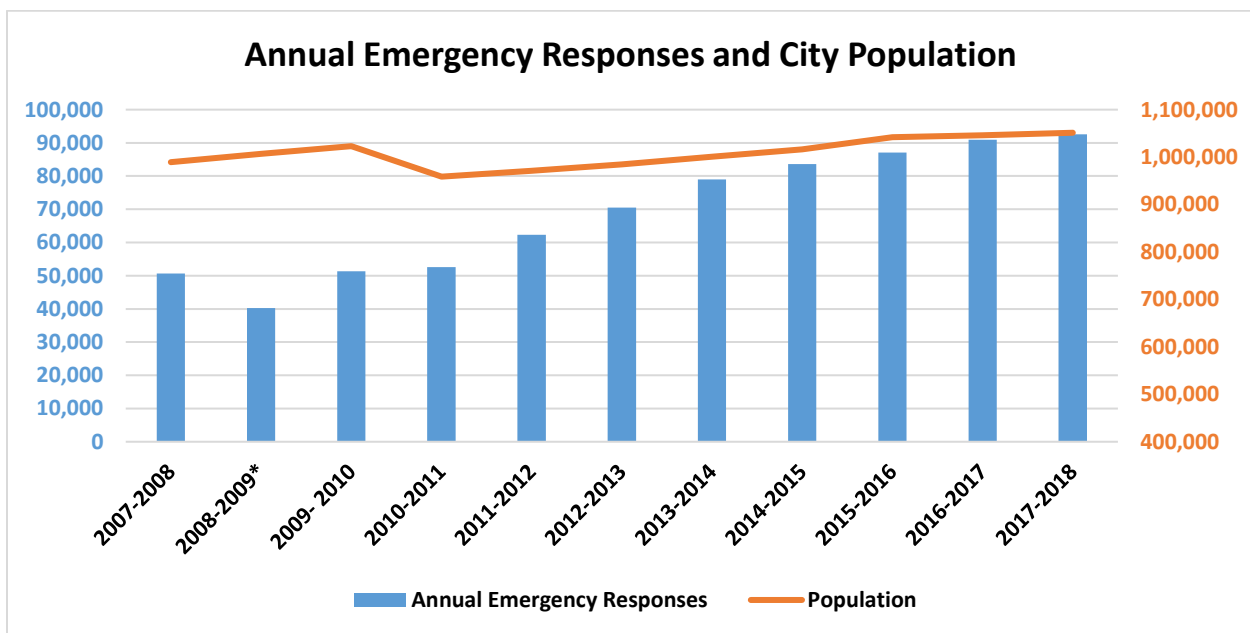
¹ [November 7, 2018 General Obligation Bond \(Measure T\) memorandum from Mayor Liccardo](#)

² [September 11, 2018 Disaster Preparedness, Public Safety, and Infrastructure General Obligation Bond Measure: proposed Project Categories memorandum from Matt Cano, Director of Public Works](#)

Increased Emergency Response Demand

Emergency responses have increased by approximately 83% between FY 2007-2008 and FY 2017-2018. In FY 2007-2008, the Department was operating from 34 fire stations, whereas 33 fire stations were operational in FY 2017-2018. During this period, increasing emergency responses and increasing traffic congestion resulting from rising population and regional economic growth had a compounding effect and challenged Department resources. Response capabilities were further stretched following the great recession budget actions beginning in FY 2010-2011 which resulted in the elimination of multiple fire companies including Engine 30, Engine 33, Engine 34, Engine 35, Truck 3, Hazardous Incident Team 29 (HIT 29); and “flexible brown-outs” of two fire companies. Chart 1 below reflects emergency response volume and population increases from FY 2007-2008 to 2017-2018.

Chart 1: Fire Department Annual Emergency Responses and City Population (FY 2007-2008 to FY 2017-2018)



Source: San José City Auditor Annual Report on City Services (2007-2008 to 2017-2018)

*2008-2009 Data estimated in Annual Report due to Computer Aided Dispatch (CAD)/Records Management System (RMS) transition.

2016 City of San José - Fire Department Organizational Review

The 2014-2015 Adopted Operating Budget included an allocation of \$150,000 one-time funding to conduct a comprehensive review of the Fire Department organization. The completed City of San José - Fire Department Organization Review was presented to City Council on June 7, 2016³ included Standards of Response Coverage (SOC) analysis with a suggested prioritization for placement of additional fire stations to address nine coverage gap areas identified in the study. The nine coverage gap areas were locations estimated to be beyond a 4-minute travel time reach from a fire station. To prioritize placement of additional fire stations the study also considered various demographics for each gap area. These included size (in square miles and road miles), population, overall risk and building fire risk, and availability of neighboring fire station response area resources based upon unit hour utilization (UHU). Table 1 below reflects the SOC suggested order for adding new fire stations.

Table 1: Coverage gaps and suggested order for adding new fire stations (Recommended in Fire Department Organizational Review)

Priority	Area	Area Size (Miles)	Road Miles	Population	Risk and Building Fire	Second Due Unit UHU%
1	Willow Glen	3 X 2.5	63.6	20,403	Moderate	High
2	East Foothills	2.8 X 2.5	33.7	8,564	Moderate	High
3	Centerwood	2 X 1.75	29.9	14,012	Low	High
4	South San José	3.5 X 2	33.0	9,902	Low	High
5	Santee	1.5 X 1	18.0	10,958	Moderate	Moderate
6	Oak Ridge	2.5 X 1.5	34.2	12,650	Low	Moderate
7	Westmont	1.5 X 1.5	24.7	10,346	Low	Moderate
8	Cambrian	3 X 2.5	46.5	16,035	Moderate	Low
9	Vinci/Berryessa	2.5 X 2	38.3	11,162	Low	Low

Response Time Performance

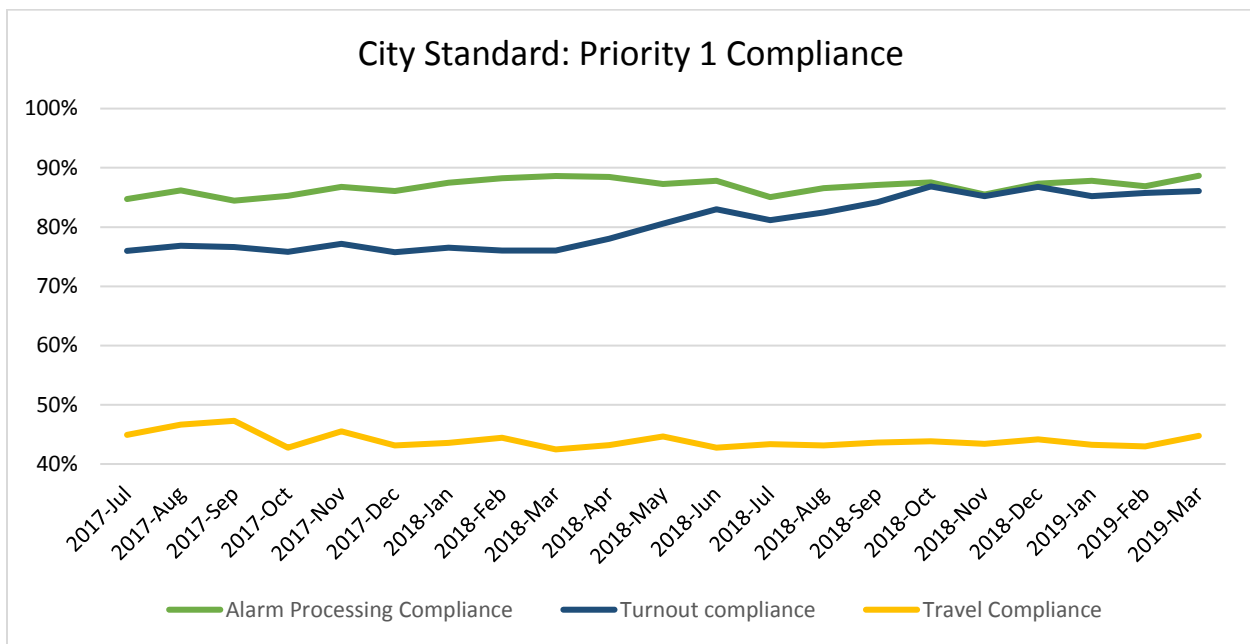
The increasing number of emergency responses challenged the Department's ability to meet the City response time standard and the response time standard required under the 911 Emergency Medical Services (EMS) Provider Agreement between the City of San José and the County of Santa Clara. Upon recognizing mounting response time performance deficiencies, the Department began to improve data collection, analytics, reporting capabilities, and began implementing a variety of strategies to optimize response time performance with available resources. Since June 2014, response time performance and response time work plan updates have been reported semi-annually to the Public Safety, Finance and Strategic Support Committee⁴.

³ City of San José - [Fire Department Organizational Review \(February 2016\)](#)

⁴ [April 18, 2019 Fire Department Emergency Response Times Performance Semi-Annual Report to the Public Safety, Finance and Strategic Support Committee](#)

The City of San José's adopted response time standard is arrival within 8-minutes, 80% of the time for Priority 1 incidents. Priority 1 incidents are those responses requiring immediate response utilizing lights and sirens as allowed under the California Vehicle Code. The 8-minute standard allows approximately 2-minutes for alarm processing time, 2-minutes for turnout time, and 4-minutes for travel time. Presently, the Department consistently performs above the 80% level for the alarm processing and turnout time segments, however the 4-minute travel time goal is achieved less than 50% of the time as indicated in Chart 2 below.

Chart 2: Priority 1 Compliance for alarm processing, turnout, and travel time segments (July 2017 to March 2019)



ANALYSIS

Combining information and recommendations from the 2016 Organizational Review, internal performance data, Envision San José 2040 General Plan information, and feedback from battalion chiefs, the Department has prioritized 11 areas where additional new fire stations would benefit system performance. These are indicated in Table 2 below in the fourth column titled 2019 Fire Station Placement Priority Order. Gap areas identified in the 2016 Organizational Review are included for comparison purposes.

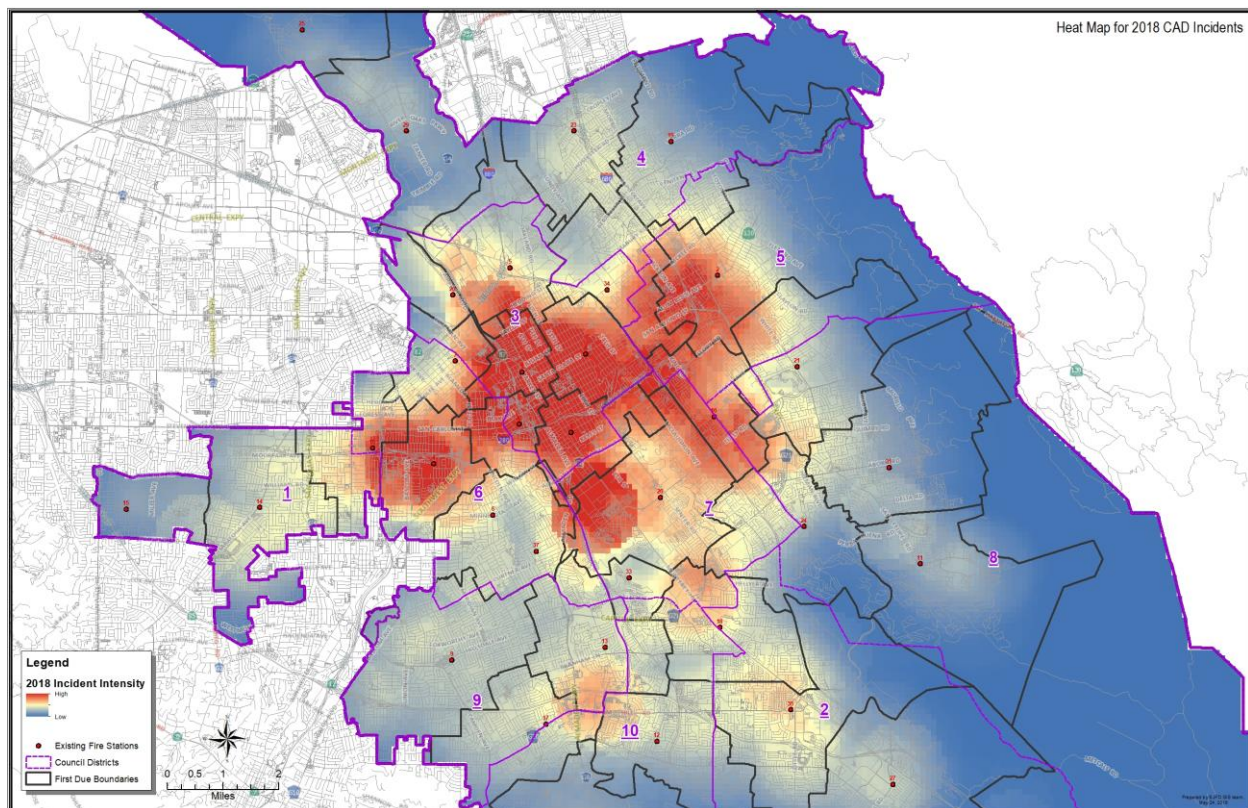
Table 2: Coverage gaps and suggested prioritization for adding new and relocating fire stations (Fire Department Recommended)

Area	Proposed Station Number	2019 Fire Station Placement Priority Order	2016 Organizational Review Gap Priority Order
Willow Glen	37 (new)	1	1
Downtown East	8 (relocation)	2	-
Santee	32 (new)	3	5
Vinci/Berryessa	23 (relocation)	4	9
Ramblewood/Sylvandale	36 (new)	5	-
Cambrian	9 (relocation)	6	8
Diridon Station Area	38 (new)	7	-
East Foothills	39 (new)	8	2
Westmont	40 (new)	9	7
Pamilar-Borello/Cadillac West	41 (new)	10	-
Oakridge	42 (new)	11	6
Centerwood	43 (new)	-	3
South San José	44 (new)	-	4

Response Network Performance

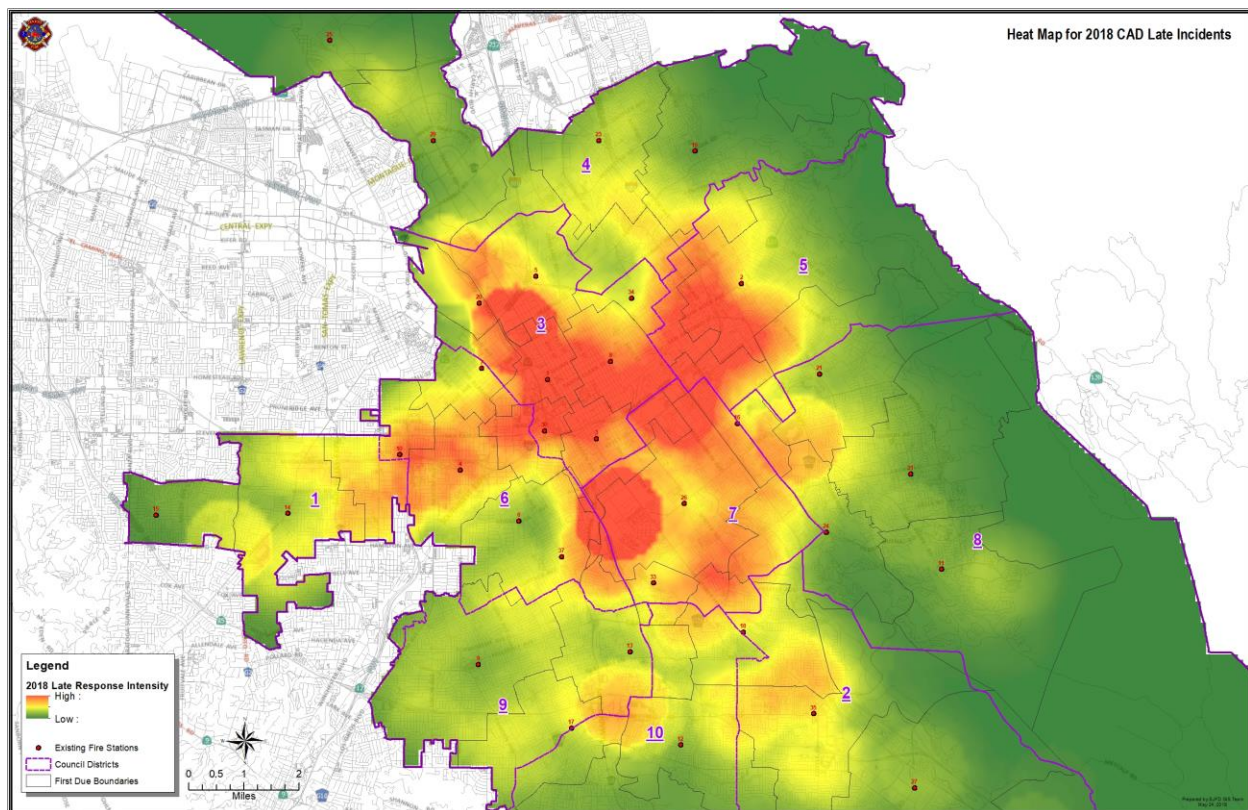
To understand emergency response network performance, the Department plotted calendar 2018 Computer Aided Dispatch (CAD) system data onto a citywide response area map. In 2018 the greatest number of emergency responses were located in central areas of the City. This finding is consistent with known historical fire station emergency response totals. In Chart 3 below, the red areas indicate the highest concentration of emergency responses.

Chart 3: All emergency responses (Calendar Year 2018)



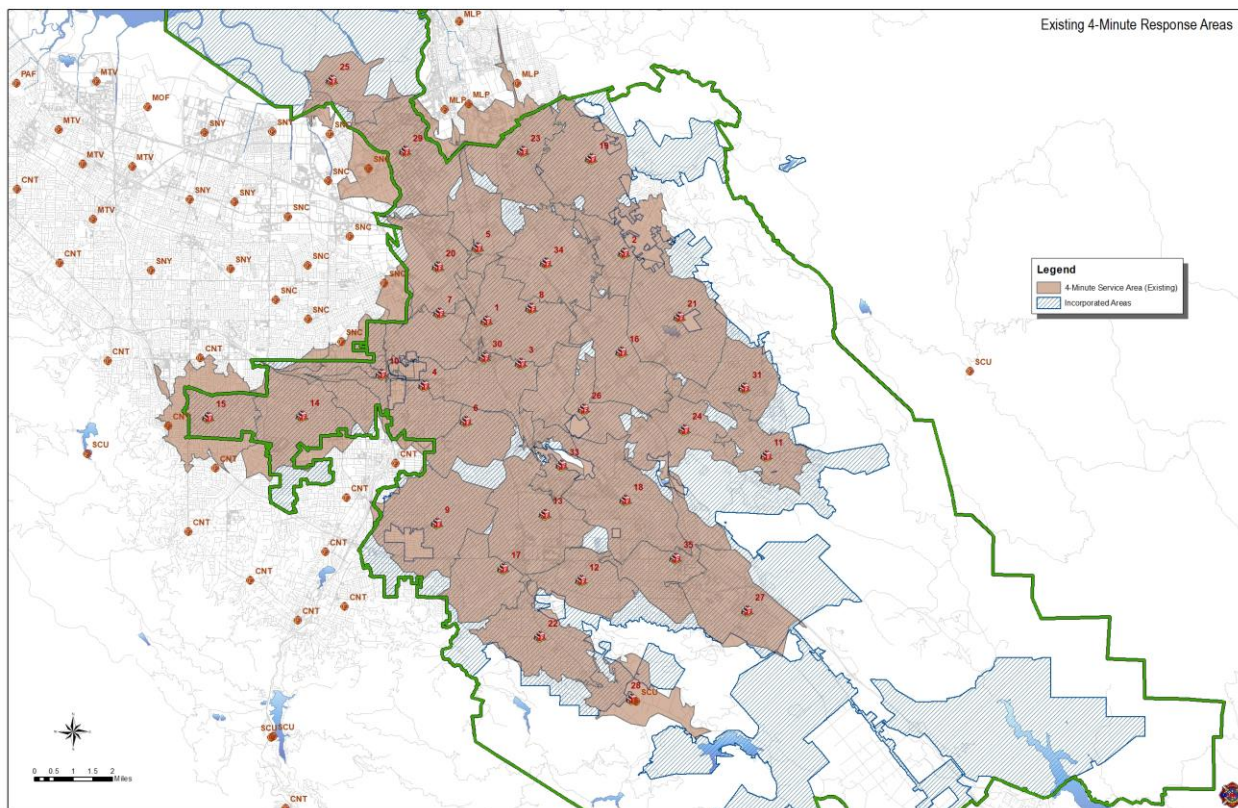
As indicated in Chart 2 above, the Department achieves its 4-minute travel time goal less than 50% of the time. In Calendar Year 2018, 38,323 Priority 1 responses exceeded the 4-minute travel time goal. To understand where the Department was not meeting its travel time goals, these “late” responses were plotted onto a citywide response area map. As indicated in Chart 4 below, the highest concentration of late responses were in the central areas of the City.

Chart 4: Responses exceeding the 4-minute travel time goal (Calendar Year 2018)



To assess the estimated 4-minute average travel time reach from each fire station, the Department utilized historical traffic data. The travel time calculation included all daily traffic patterns including peak and low traffic periods. The brown areas in Chart 5 below indicate 4-minute average travel time coverage from each fire station. The areas shaded in blue (not overlapped by brown areas) indicate incorporated City areas that are outside of the 4-minute travel time reach. This analysis generally matches analysis provided in the 2016 Organizational Review report. The average travel time includes all hours inclusive of low and peak traffic periods.

Chart 5: 4-minute average travel time estimate from all fire stations



To further understand response time performance, 2018 Priority 1 responses with greater than 4-minute travel time were sorted by fire station area. This data is reflected in Chart 6 below. As indicated by heat mapping shown in Charts 3 and 4, the busiest response areas also experience the highest numbers of responses greater than 4-minutes. To better understand the relationship between high volume emergency response areas and fire station response area late response performance the data in Table 3 below was overlaid onto the heat map shown in Chart 3. Table 3 reflects Priority 1 responses longer than 4 minutes by fire station response area.

Table 3: Priority 1 4-minute travel time compliance by fire station (Calendar Year 2018)

Fire Station	# of Responses > 4 Minutes Travel Time	Percent of Total > 4 Minutes
26	3,375	8.81
2	2,131	5.56
3	1,685	4.40
18	1,547	4.04
8	1,495	3.90
5	1,484	3.87
35	1,457	3.80
16	1,422	3.71
14	1,401	3.66
21	1,382	3.61
10	1,367	3.57
4	1,346	3.51
9	1,266	3.30
7	1,194	3.12
13	1,190	3.11
24	1,175	3.07
34	1,144	2.99
1	1,111	2.90
12	989	2.58
30	978	2.55
23	962	2.51
17	921	2.40
19	908	2.37
6	856	2.23
29	815	2.13
27	587	1.53
11	579	1.51
31	578	1.51
22	480	1.25
15	461	1.20
20	385	1.00
33	264	0.69
28	194	0.51
25	177	0.46
Other	1,017	2.65
Total	38,323	

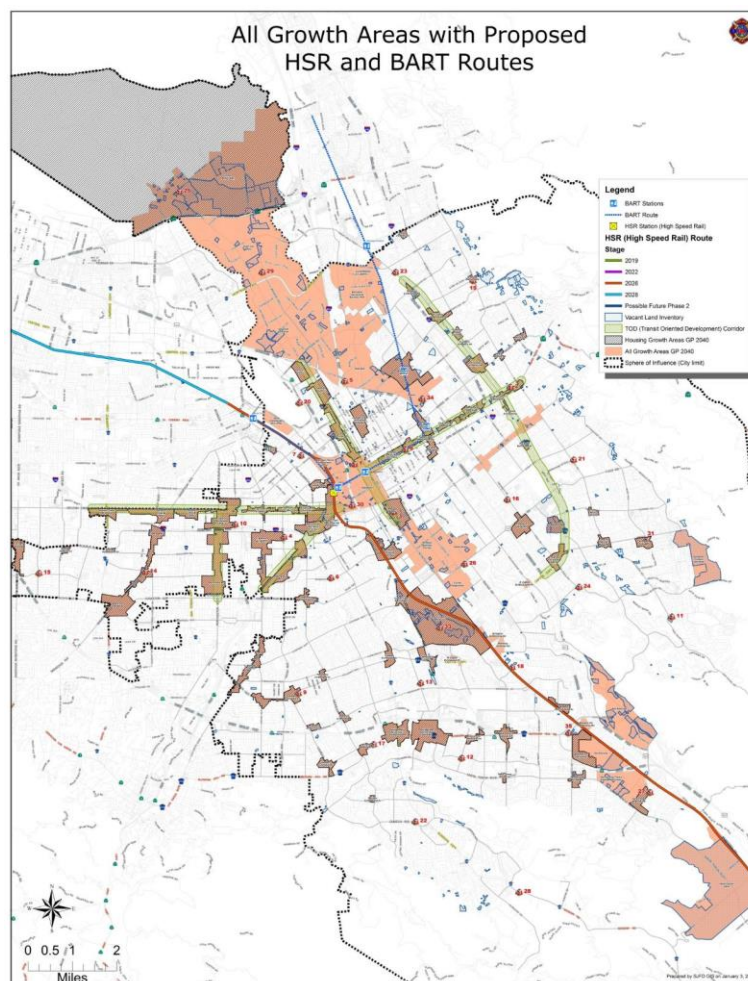
Fire Station 33 has been closed since August 1, 2010. Atop Communications Hill, Fire Station 33 offers limited travel time reach with road access only to the south and southwest. As indicated in Table 3 above, Fire Station 33's response area accounts for 0.69% of total responses beyond the 4-minute travel time response standard (While Fire Station 33's response area is divide amongst adjoining stations, the response area is also identifiable in the Computer Aided Dispatch system). While not currently prioritized for reopening based upon emergency response demands in other areas of the City, it should be noted that in FY 2017-2018, Fire Station 33's overall Priority 1 response time performance (alarm processing, turnout, and travel time) was the lowest citywide. Road access to Curtner Avenue is expected in approximately 5 years. Once the Curtner Avenue access is available, Fire Station 33 will be able to support higher demand areas.

The Department provided estimated cost and timeline for the staffing/operations of Fire Station 37 to Council on February 12, 2019⁵. Fire Station 33 would have similar operating costs dependent upon the timing of reopening the facility.

Anticipated Growth

Anticipated increases in emergency response activity generated by future developments as described in the Envision San José 2040 General Plan was factored against current response system performance and travel time analysis. Fire station placement and prioritization recommendations include consideration of Envision San José 2040 General Plan developments. The emergency response demand and traffic impacts of projected growth areas can only be estimated and must therefore be reevaluated periodically.

Chart 7: Envision San José 2040 General Plan Growth Areas



⁵ [February 12, 2019 Measure T – Fire Station 37 Staffing/Operations Costs](#)

Willow Glen (Priority 1/ Proposed Fire Station)

The Willow Glen area near the Lincoln Avenue/Curtner Avenue intersection is outside of 4-minute travel time reach from surrounding fire stations and was previously identified for placement of Fire Station 37. At the City's general election held on March 5, 2002, voters approved Measure O, the 911, Fire, Police, Paramedic, and Neighborhood Security Act, authorizing the City to issue general obligation bonds up to \$159 million to fund public safety projects for the Police and Fire Departments. On November 4, 2008, voters approved Measure L (Fire Station Construction) which authorized the City to construct a single-company fire station on up to $\frac{3}{4}$ of an acre on a portion of the Lincoln Glen Park parking lot. Fire Station 37 was the last fire station to be constructed with Measure O bond funds however there was not enough remaining funding to complete the project. City Manager Budget Addendum #17⁶ issued on May 21, 2014 provides additional background on the Fire Station 37 project. The 2016 organizational review and updated Department analysis maintain the Willow Glen area as priority 1 for the placement of a new fire station.

Fire Station 8 (Priority 2/ Proposed Fire Station 8)

Fire Station 8, located on East Santa Clara Street at 17th Street on the Coyote Creek creekbank, is amongst the top 6 highest emergency response areas in the City and is surrounded by the top 4 highest emergency response areas (Fire Stations 1, 2, 3, 26). Fire Station 8 must be relocated from its current location due to risk of land erosion which could compromise structural integrity. The Department finds that the fire station is otherwise ideally located and recommends relocation to the closest available site and is priority 2 for fire station placement.

Santee (Priority 3/ Proposed Fire Station 32)

The Department has identified the area near the intersection of McLaughlin Avenue and Story Road as Priority 3 for fire station placement. The five existing station response areas surrounding this location (Fire Stations 2, 3, 8, 16, and 26) accounted for 26.6%, or more than 10,000, responses citywide in 2018 that exceeded the 4-minute travel time goal. The addition of a fire station in this area is expected to significantly reduce late responses and reinforce surrounding response areas with high UHU levels.

Vinci/Berryessa (Priority 4/ Proposed Fire Station 23)

The Department's fourth priority is the relocation of Fire Station 23 from its current location at the Via Cinco de Mayo/Capitol Avenue intersection toward the area of the Lundy Avenue/McKay Drive intersection. From its current location, 4-minute travel time to the north of Fire Station 23 reaches far into the City of Milpitas. The Fire Station 23 relocation will provide 4-minute travel time reach into existing coverage gap areas, improve positioning to serve new and planned developments identified in the Envision San José 2040 General Plan, and

⁶ [May 21, 2014 City Manager Budget Addendum #17](#)

reduce response area for Fire Station 5, which is amongst the highest ten stations in response volume and the lowest ten stations in response time performance.

Ramblewood/Sylvandale (Priority 5/ Proposed Fire Station 36)

Response to the Ramblewood/Sylvandale areas near Capitol Expressway and McLaughlin Avenue are challenged by distance and traffic which is further limited by the 101 Freeway corridor. The four fire stations surrounding this area (Stations 16, 18, 24, and 26) accounted for 19.6% of or more than 7,500 responses citywide in 2018 that exceeded the 4-minute travel time goal. The Department identified new Fire Station 36 as the 4th most important addition to address the coverage issue noted by this delay in travel time.

Cambrian (Priority 6/ Proposed Fire Station 9)

With Fire Station 37 anticipated to be completed in January 2022, the opportunity to prepare for projected growth identified in the Envision San José 2040 General Plan, reduces 4-minute travel time reach along the Bascom corridor and areas near Good Samaritan Hospital that are currently out of 4-minute response reach. The Department recommends relocating Fire Station 9 to the west of its current location.

Diridon Station Area (Priority 7/ Proposed Fire Station 38)

The Diridon Station Area project will intensify area emergency response demands placing increased burden on Fire Stations 1, 4, 7 and 30 which accounted for 14% (5,365 responses) citywide in 2018, that exceeded the 4-minute travel time goal. Increased service demand and altered area road access in this area will require an additional new fire station.

East Foothills (Priority 8/ Proposed Fire Station 39)

Service areas across San Jose's east foothills are beyond 4-minute travel time as shown in Chart 5. The Alum Rock hills area, east of Fire Station 2 was ranked as Priority 2 in the 2016 organizational review. The Department also includes this area as a priority however based upon 4-minute travel time analysis, placement of a fire station in the Santee area (Priority 3) is critical to improve response time performance to the west of Fire Station 2 and to improve Station 2 resource availability.

Westmont (Priority 9/ Proposed Fire Station 40)

Neighborhoods surrounding the Westmont Avenue and Quito Road area are beyond the 4-minute travel time reach from Fire Station 14. Additionally, projected development along Winchester Boulevard and Saratoga Avenue will intensify service demand in Fire Station 14's response area. Fire Stations 10 and 14, currently servicing South Winchester Blvd. and Saratoga Ave. areas accounted for 7.21% (2,763 responses) of total citywide responses that exceeded the 4-minute travel time goal in Calendar Year 2018.

Pamlar-Borello/Cadillac West (Priority 10/ Proposed Fire Station 41)

Projected growth along Bascom Avenue and Winchester Boulevard will increase service demands. Surrounding Fire Stations 4, 6, and 10 account for 9.3% (3,596 responses) of total citywide responses that exceeded the 4-minute travel time goal in 2018.

Oakridge (Priority 11/Proposed Fire Station 42)

The Oakridge area is identified as Priority 4 by battalion chiefs and Priority 6 by the 2016 organizational review. This location encompasses the area west of Santa Teresa Boulevard between Snell Avenue and Cottle Road, which includes the Wildland Urban Interface of Santa Teresa foothills. As indicated in Table 5, the Oakridge area exceeds the 4-minute travel time of Fire Stations 12, 27, and 35, which accounted for 3,033 responses exceeding the 4-minute travel time goal in Calendar Year 2018. The surrounding service areas of Fire Stations 12, 27, and 35 have been identified for increased housing and population growth.

Centerwood

Although identified as Priority 3 in the organizational review SOC analysis, Department analysis indicates that the much of the Centerwood area is no longer outside of 4-minute travel time reach. Fire Station 21 was relocated from 1749 Mt. Pleasant Road to 2100 South White Road on January 23, 2016, after the SOC analysis was completed. Wildland Urban Interface areas to the east of this area continue to be out of the 4-minute travel time reach.

South San José

Several sparsely developed areas in south San José are outside of 4-minute travel time reach. Future development of this area will drive the need for additional fire station(s).

Conclusion

This analysis is a point-in-time assessment of response time performance and should be performed periodically to reassess fire station placement and service priorities. The Department has prioritized the placement of 11 fire station locations including relocation of three fire stations and eight new fire stations. These fire station placements will reinforce the existing emergency response system, improve travel time to areas currently beyond 4-minute travel time reach, and in preparation of anticipated growth and development. Priorities 1 through 5 in Table 4 below will be the focus of Measure T funding investments.

Table 4: New fire station placement prioritization

Proposed Station Number	Priority	Area	New/Relocation	Funding Source
37	1	Willow Glen	New	Measure T
8	2	Downtown East	Relocation	Measure T
32	3	Santee	New	Measure T
23	4	Vinci/Berryessa	Relocation	Measure T
36	5	Ramblewood/Sylvandale	New	Measure T
9	6	Cambrian	Relocation	TBD/future
38	7	Diridon Station Area	New	TBD/future
39	8	East Foothills	New	TBD/future
40	9	Westmont	New	TBD/future
41	10	Pamilar-Borello/Cadillac West	New	TBD/future
42	11	Oakridge	New	TBD/future

Prioritized fire station placements are approximated in Chart 8 below. Final placement will depend upon land acquisition.

Chart 8: Approximated new and relocated fire station placement

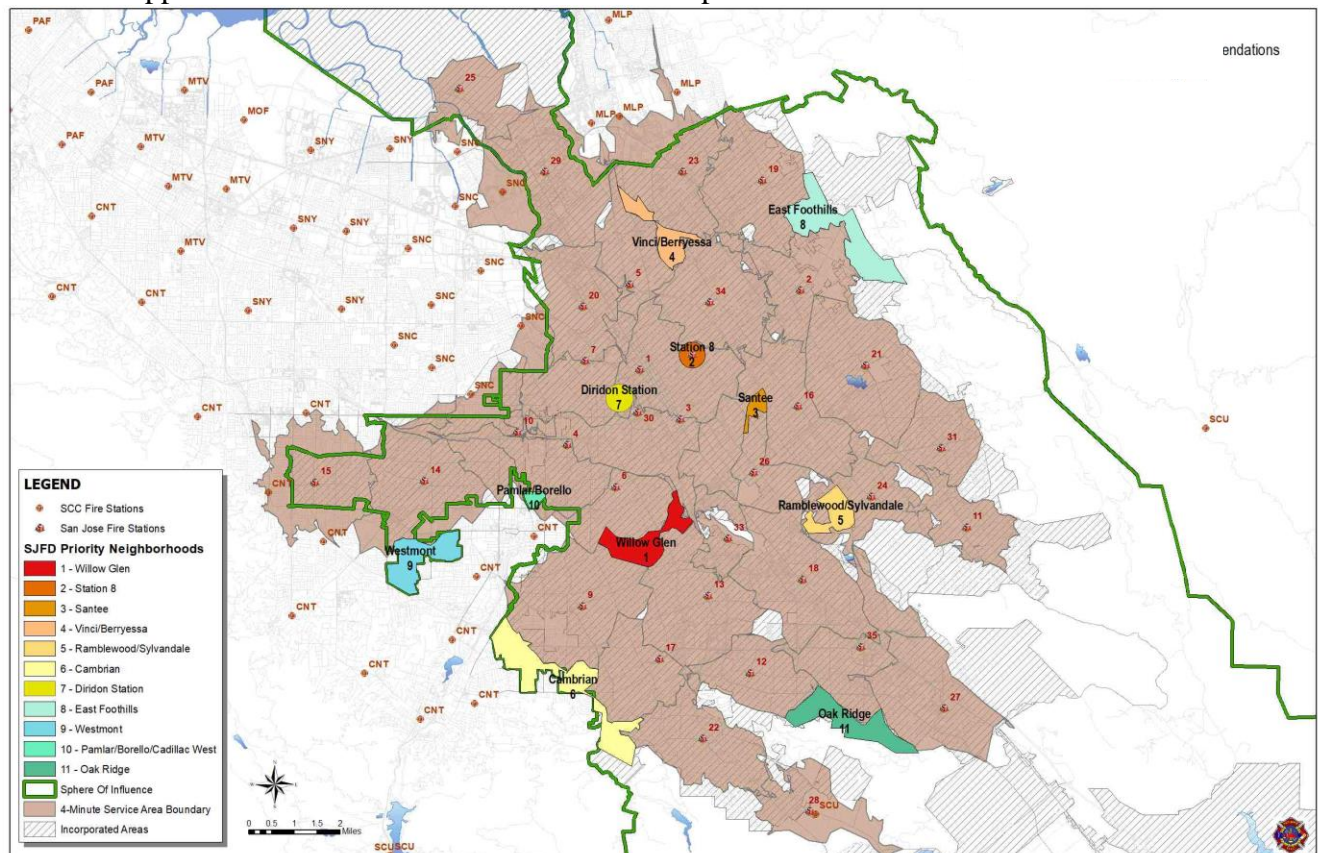
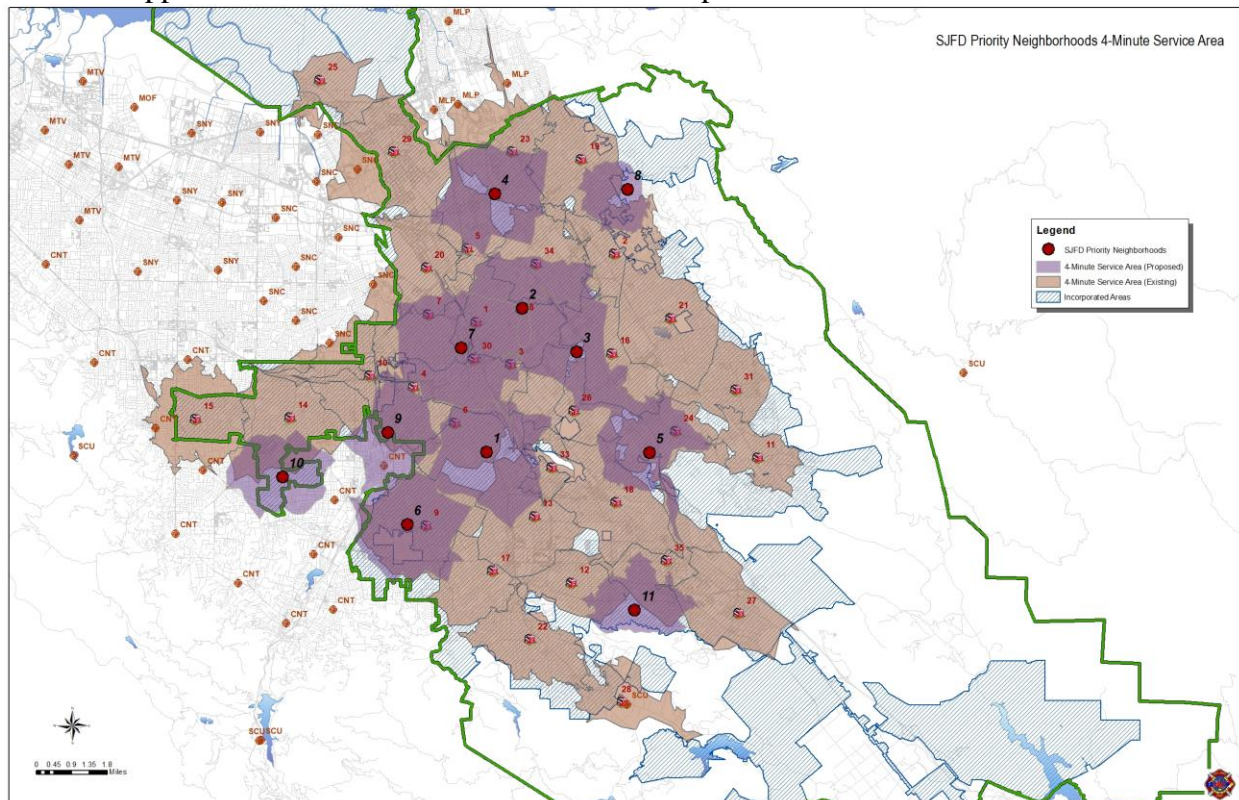


Chart 9 below describes estimated travel times from proposed fire station areas. It should be noted that locations can only be estimated until land is acquired. As in Chart 5 above, historical traffic data was used to estimate travel time reach. The brown shaded area reflects current estimated travel time reach from existing fire stations and purple shaded areas reflect estimated average travel time reach from prioritized new/relocated fire station inclusive of peak and low traffic periods.

Chart 9: Approximated new and relocated fire station placement and 4-minute travel estimates.



EVALUATION AND FOLLOW-UP

This analysis is a point-in-time assessment of response time performance and should be performed periodically to reassess fire station placement and service priorities. Any changes to placement or prioritization of fire stations will be brought forward to City Council through the Measure T updates.

PUBLIC OUTREACH

A community meeting was hosted at the Willow Glen Community Center on May 22, 2019 by Public Works to solicit feedback on Fire Station 37 design concepts. In addition, this memorandum will be posted on the City Council Agenda website for the June 18, 2019 City Council Meeting.

COORDINATION

This memorandum has been coordinated with the City Attorney's Office, City Manager's Office, City Manager's Budget Office, Public Works, and Transportation.

COMMISSION RECOMMENDATION/INPUT

No commission recommendation or input is associated with this report.

COST SUMMARY/IMPLICATIONS

Measure O – The 911, Fire, Police Paramedic, and Neighborhood Security Act bond funds, passed in 2002, will partially fund the construction of the new Fire Station 37. The recent Measure T- The Disaster Preparedness, Public Safety and Infrastructure Bond, passed in 2018, will fund the remainder of Fire Station 37 construction costs in addition to funding costs associated with building new Fire Stations 32 and 36 and the relocation of Fire Stations 8 and 23.

Ongoing General Fund operating and maintenance costs will be required once the new fire stations have been built and are in operation. The Department will bring forward these actions as part of future budget processes. Estimated staffing/operations costs for Fire Station 37 were provided in the following memorandum: [February 12, 2019 Measure T – Fire Station 37 Staffing/Operations Costs](#)

CEQA

Not a Project, File No. PP17-009, Staff Reports, Assessments, Annual Reports, and Informational Memos that involve no approvals of any City action.

/s/
ROBERT SAPIEN, JR.
Fire Chief, Fire Department

For questions, please contact Robert Sapien, Jr., Fire Chief at (408) 794-6952.

Attachments

Chart 3: All emergency responses
(Calendar Year 2018)

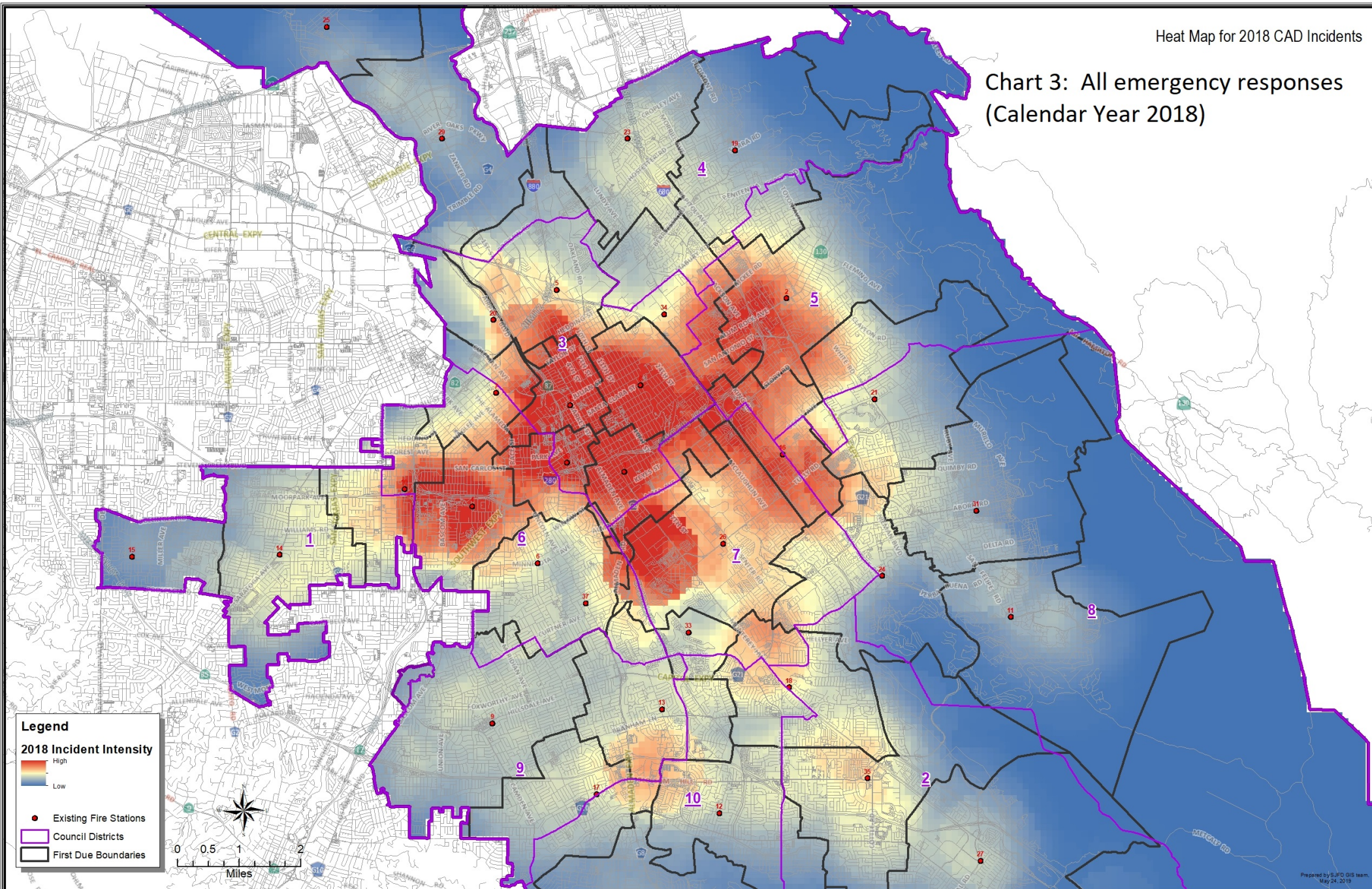


CHART 4: Responses exceeding the 4-minute travel time goal (Calendar Year 2018)

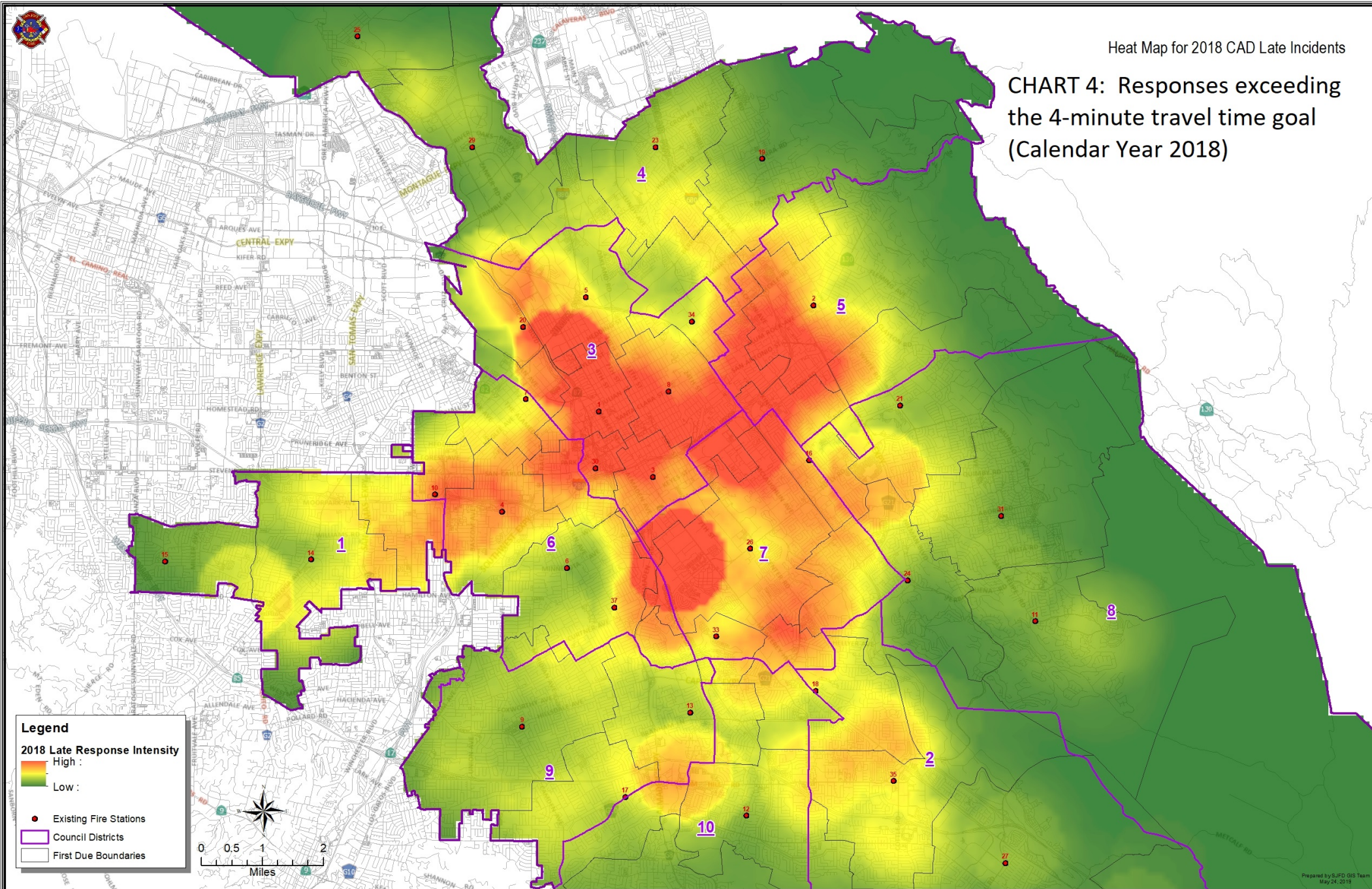


CHART 5: 4-minute average travel time estimate from all fire stations

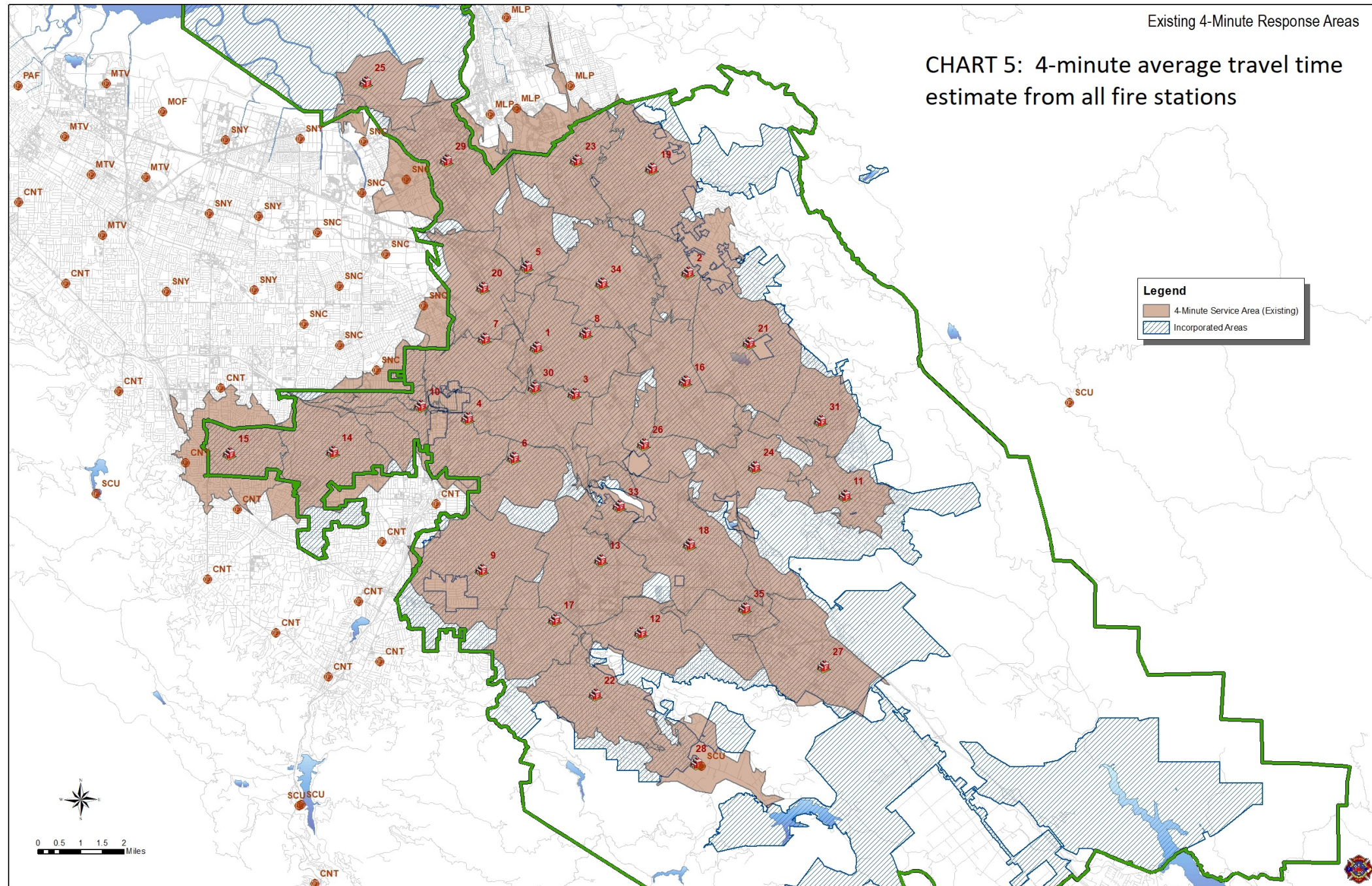


CHART 6: Priority 1 responses with greater than 4-minute travel time (Calendar Year 2018)

2018 Priority 1 Incidents
Late Call Percentage

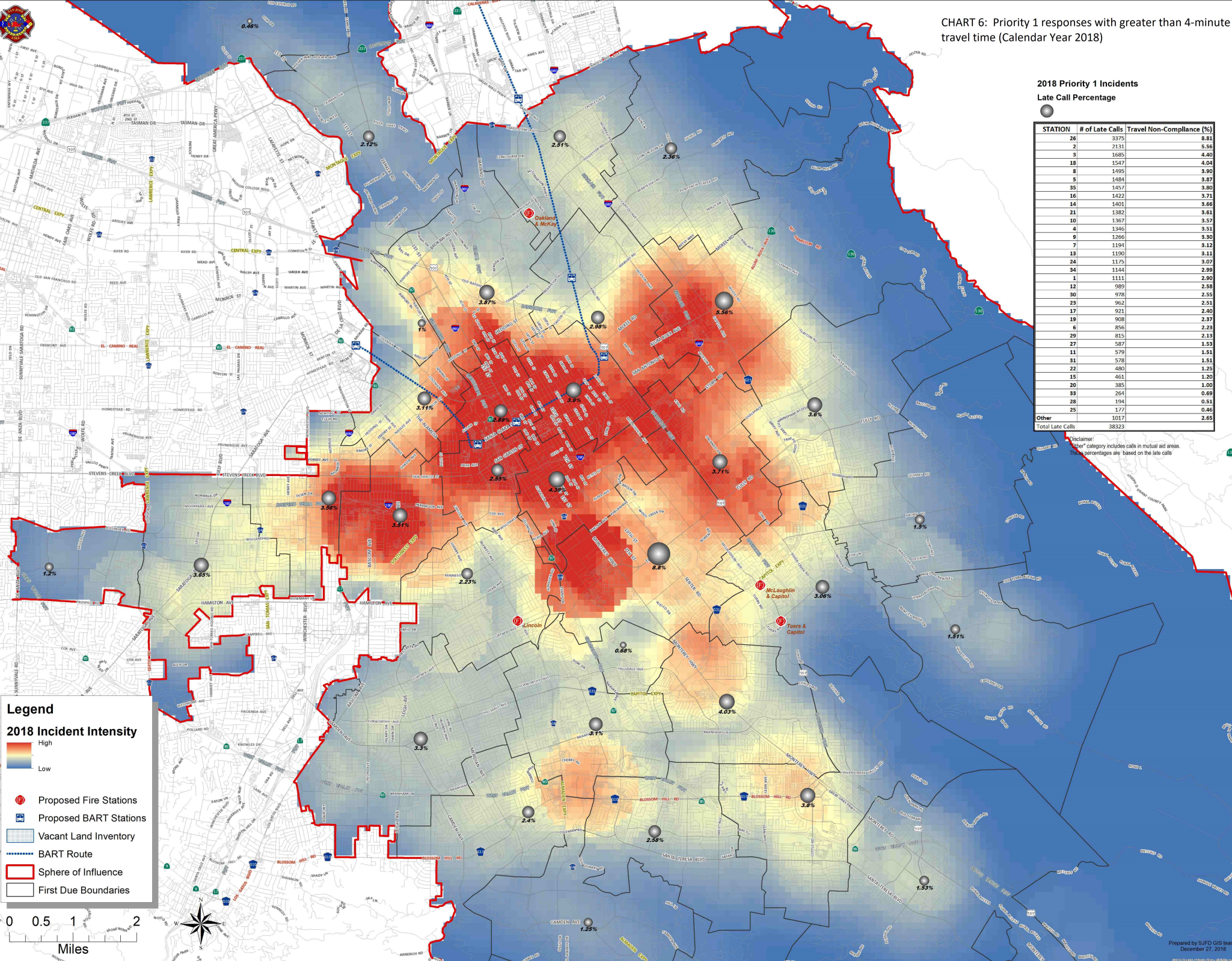
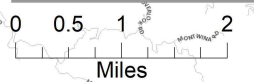
STATION	# of Late Calls	Travel Non-Compliance (%)
26	3375	8.81
2	2131	5.56
3	1685	4.40
18	1547	4.04
8	1495	3.90
5	1484	3.87
35	1457	3.80
16	1422	3.71
14	1401	3.66
21	1382	3.61
10	1367	3.57
4	1346	3.51
9	1266	3.30
7	1194	3.12
13	1190	3.11
24	1175	3.07
34	1144	2.99
1	1111	2.90
12	989	2.58
30	978	2.55
23	962	2.51
17	921	2.40
19	908	2.37
6	856	2.23
29	815	2.13
27	587	1.53
11	579	1.51
31	578	1.51
22	480	1.25
15	461	1.20
20	385	1.00
33	264	0.69
28	194	0.51
25	177	0.46
Other	1017	2.65
Total Late Calls		38323

Disclaimer:
"Other" category includes calls in mutual aid areas.
The percentages are based on the late calls

Legend

2018 Incident Intensity

Proposed Fire Stations
 Proposed BART Stations
 Vacant Land Inventory
 BART Route
 Sphere of Influence
 First Due Boundaries



All Growth Areas with Proposed HSR and BART Routes

CHART 7: Envision San Jose 2040
General Plan Growth Areas

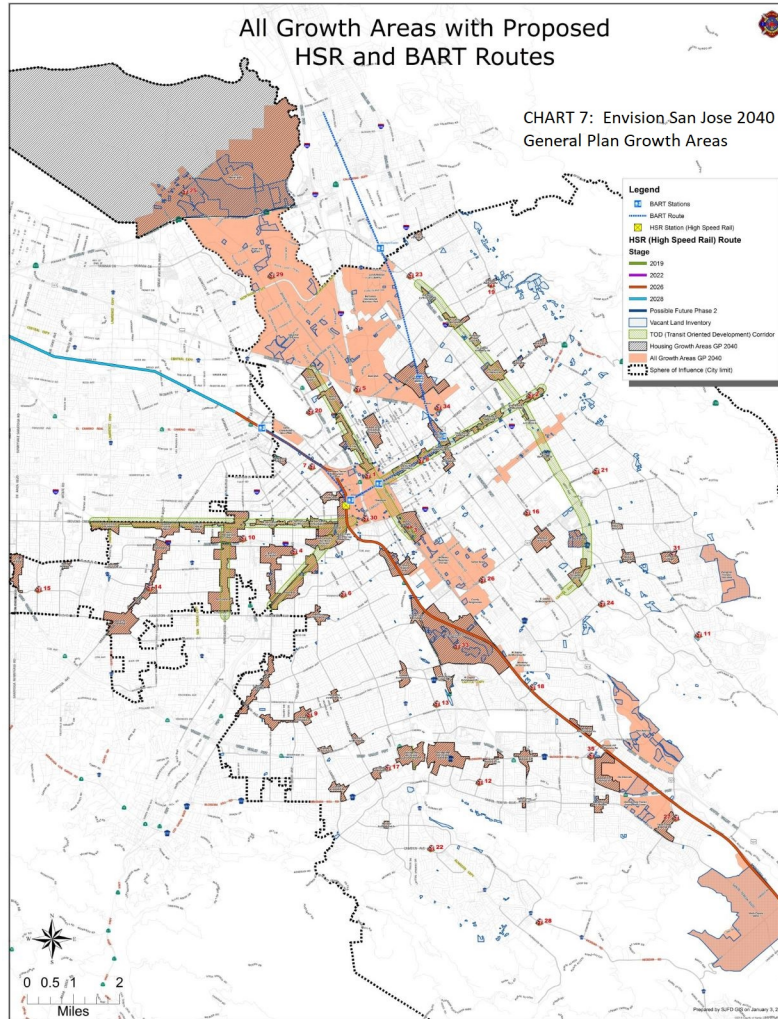


CHART 8: Approximated new and relocated fire station placement

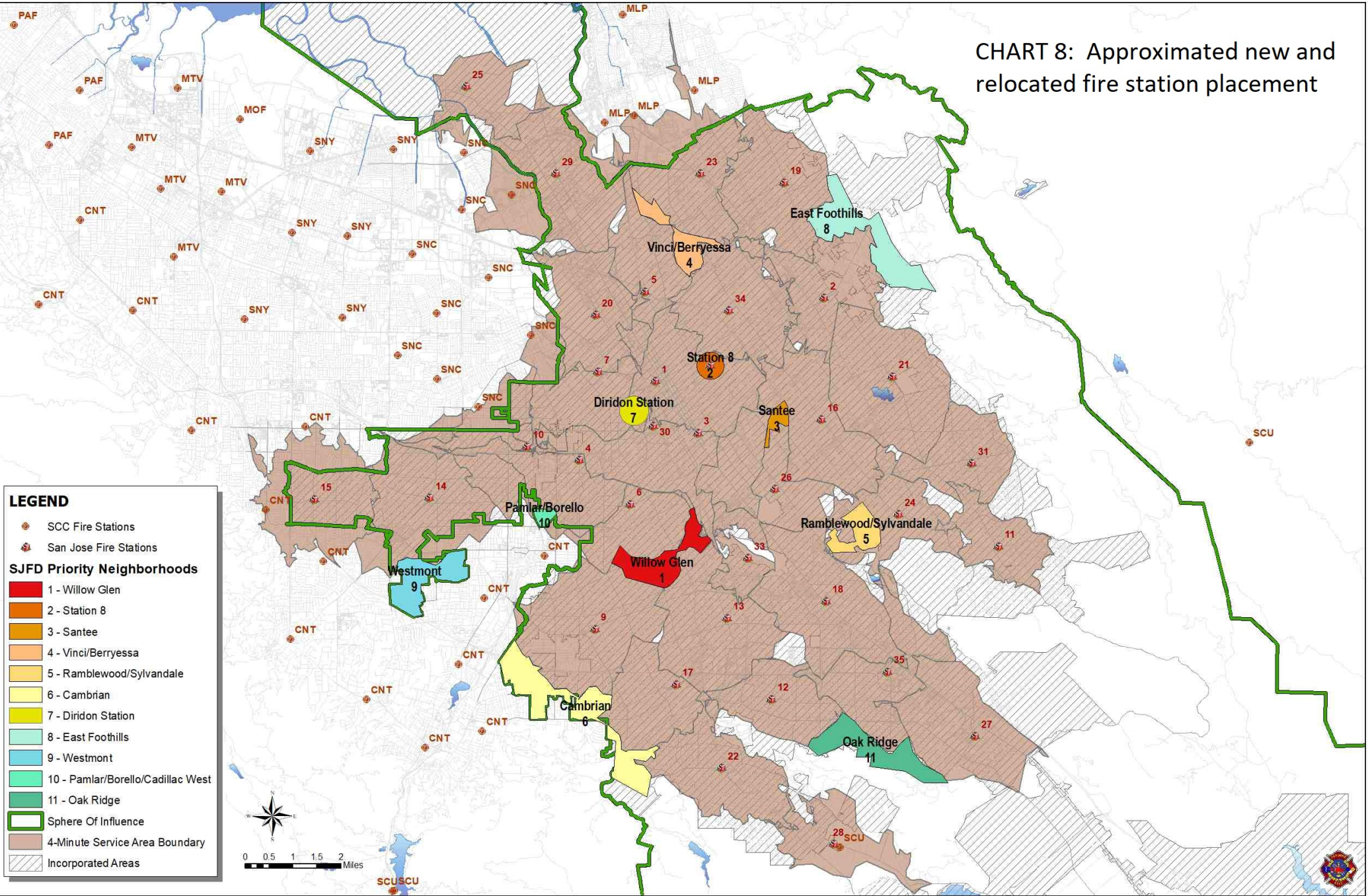


CHART 9: Approximated new and relocated fire station placement and 4-minute travel estimates

