Attachment B

Citywide Public Safety Master Plan Update

City of Tracy, California

12/4/2023

Indigo | Hammond & Playle Architects, LLP
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ACKNOWLEDGEMENTS

The Citywide Public Safety Master Plan is a City of Tracy document. It has been prepared by INDIGO | Hammond & Playle Architects, LLP, in coordination with City leaders, staff and consultants listed here.

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EXECUTIVE SUMMARY

The City of Tracy initiated this Citywide Public Safety Master Plan (CPSMP) update to maintain a clear statement of community objectives for public safety, establish a vision of the future, and include strategies to achieve that vision. The CPSMP update promotes a future land use pattern that is consistent with the community's long-range goals.

The information and concepts presented in the CPSMP update are used to guide local decisions regarding public uses of land and the provision of public safety facilities and services. The Plan is long-range in its view and is intended to guide Police Department development in the City through Horizon Year 2040 and to guide Fire Department development through buildout of Tracy's sphere of influence.

This CPSMP update includes evaluation of current conditions; space standards and functional flow; staff and space need projections; alternative facility plans; and comparative cost estimations.

This CPSMP update is intended to be used as a guideline document for the identification of public safety facilities needed to serve future land development projects within the City's Sphere of Influence. This CPSMP update is also a guideline document for the identification of public safety upgrades needed to adapt existing spaces to new or expanded uses. Finally, this CPSMP update serves as a reference document for existing public safety facilities and their functional characteristics. Modifications and refinement to the public safety master plan represented herein may be considered by the City during the Specific Plan and development review process for new development. Any significant modifications to the elements of this CPSMP update should be approved by the City and will require that a formal "Supplement" be adopted by the City Council. The study area for this CPSMP update is the City's 42 square mile Sphere of Influence area (see Figure 1).

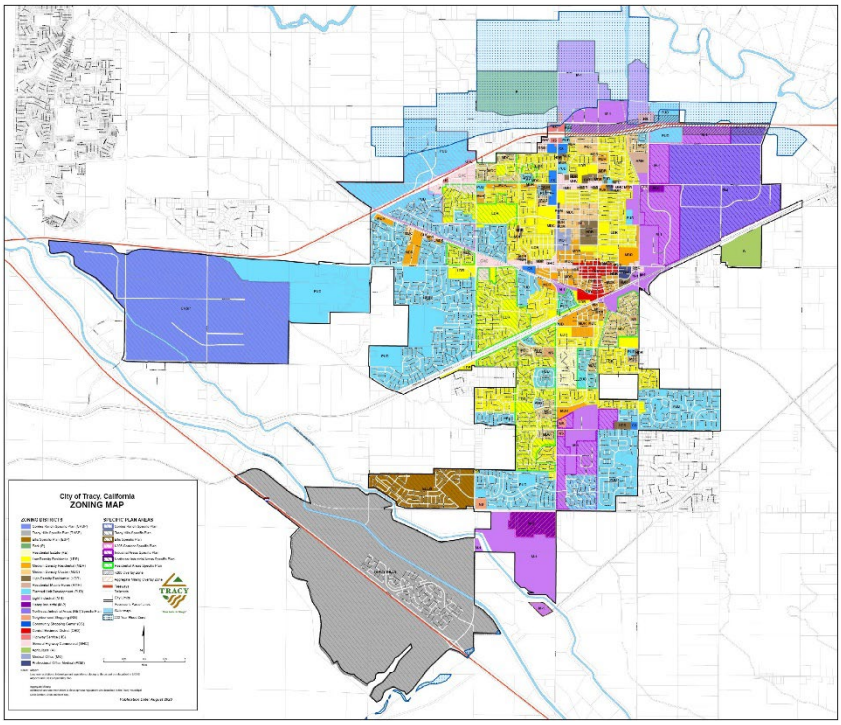

Figure 1 – 2020 Zoning Map

The combination of existing and proposed public safety facilities shall meet the needs to serve the City's Sphere of Influence area whether under Horizon Year 2040 land use conditions, in the case of the Police, or at buildout per the General Plan, in the case of the Fire Department. At Horizon Year 2040, Tracy will have approximately 141,000 residents. The growth assumptions in this Master Plan are based on data from September 2021, received from the City of Tracy. They don't include the growth assumed in the City of Tracy 6th cycle Housing Element.

Citywide Public Safety Master Plan Update - Summary

South San Joaquin County Fire Authority

In 1999, the City Fire Department and the Tracy Rural Fire District consolidated to form the South San Joaquin County Fire Authority (SSJCFA). The SSJCFA was created to provide fire protection services to the entire jurisdictional area of both the corporate City limits and surrounding rural community, including Banta, Lammersville, and Vernalis. Both Tracy Rural and the City of Tracy contract with the SSJCFA to receive fire protection services. The SSJCFA in turn contracts with the City of Tracy to provide employee and administrative services.

Tracy Operating Joint Powers Authority

In 2011, the Tracy Operating Joint Powers Authority (TOJPA) was formed to issue $13.7 million in public bonds. The bonds were issued to raise $770,000 to help finance the acquisition and construction of certain public capital improvements, which are intended to consist generally of police range facilities, a new fire station, an animal shelter, a Police CAD/RMS system, remodeling of the City's maintenance service yard including building renovation, way finding signage, park improvements and HVAC system upgrades. The TOJPA has already played a role in the construction of fire stations 92, 95, and 96 in addition to the animal shelter (phase 1), and ongoing training facility upgrades.

Recommendations

This public safety master plan continues to further the purpose of the TOJPA, by implementing the 2017 recommendations of the SSJCFA's Standards of Cover Study, proposing four new fire stations and the expansion of the Fire Training Facility. Further, by consensus of City leadership, this master plan proposes keeping the Police Department in the downtown civic center, adding a proposed substation to the southern service area of the City, and expanding the animal shelter. Lastly, this public safety master plan proposes implementation of the 2020 South San Joaquin County Fire Authority Radio System Overall Assessment's recommendations for short and long term upgrades.

Fire Facilities Citywide

Existing City Fire Department facilities to remain include the following:

- 1916 - 9,700 square foot Fire Administration building on a 0.6 acre site at 835 Central Avenue.
- 2005 - 7,400 square foot Fire Station 91 at 1701 West 11th Street.
- 2014 - 5,100 square foot Fire Station 92 1035 E. Grant Line Road.
- 2014 - 5,100 square foot Fire Station 96 1800 W. Grant Line Road.

New City Fire Department stations and facilities:

- Proposed relocated 7,750 square foot Fire Station 97 on a 2 acre site in the Valpico area. This Station includes an extra 700 square feet for an extended ladder truck bay.
- Proposed 9,900 square foot Fire Training Facility expansion on 5.13 acre site at 1399 S. Chrisman Rd.
- Proposed 7,070 square foot Fire Station 99 on a 0.9 acre site near Ellis.

Existing Rural Fire District Stations to remain include the following:

- 2006 - 6,200 square foot Fire Station 93 at 1400 W. Durham Ferry Road.
- 2021 - 7,100 square foot Fire Station 95 on 0.9 acre site at 7151 Tracy Hills Drive.

New Rural Fire District station:

- Proposed relocated 7,750 square foot Fire Station 94 on a 2 acre site in the Cordes Ranch area.

<u>Police Facilities Citywide</u>

Existing Police Department facilities, citywide, to remain include the following:

- 1996 - 27,600 square foot City of Tracy Police Facility on 2.7 acres at 1000 Civic Center Drive.
- 2015 - 9,700 square foot Animal Shelter on 2.2 acres at 2375 Paradise Road.
- 2,300 square foot Capt. John J. Serpa Memorial Training Facility on 2 acres at 6649 S. Tracy Blvd.

New City Police Department stations and facilities:

- Proposed 5,900 square foot Animal Shelter addition on City-owned land at 2375 Paradise Road.
- Proposed 19,800 square foot Public Safety Facility addition on 4.7 acres of City-owned Civic Center campus land at 1000 Civic Center Drive.
- Proposed 8,800 square foot South Tracy Substation on 2.2 acres to be purchased by City near Ellis, South Linne, and Tracy Hills developments.
- Proposed 12,900 expansion of Capt. John J. Serpa Memorial Training Facility on City-owned land at 6649 S. Tracy Blvd..

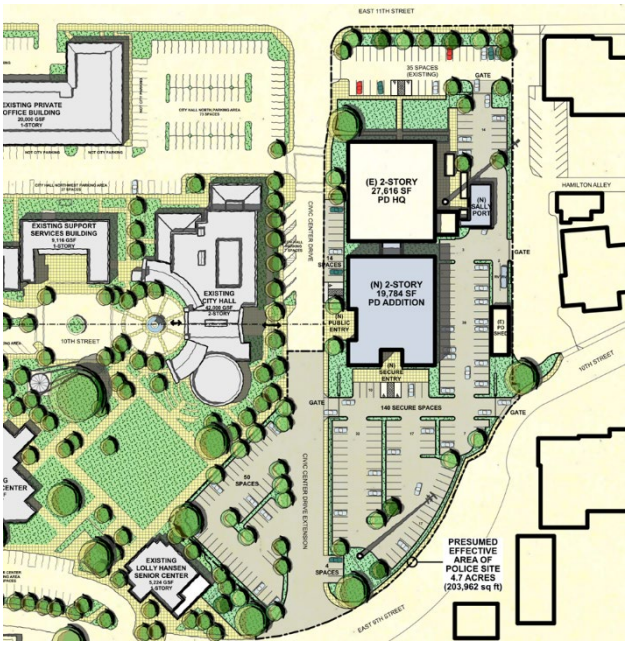

Figure 2 – Civic Center Expansion of Police Headquarters

The City's 2023 population is projected to exceed 100,000 people. The Police Department consists of 154 personnel, 99 of those sworn officers, for a ratio of 0.99 to this population.

The population of Tracy is expected to exceed 141,000 by Horizon Year 2040. The department will need to grow to 230 personnel to serve this population, with 152 of those sworn officers, for a ratio of 1.08.

Figure 3 - Bird's Eye View of Proposed Public Safety Addition

This 2023 Citywide Public Safety Master Plan Update supports the complete renovation of the 27,600 square foot Police Facility at 1000 Civic Center Drive; and, it further proposes to add on to this facility with a 2-acre expansion of the site and a 2-story addition of 19,784 square feet. The result: a new 47,400 square foot all-in-one Public Safety Center at City Hall on 4.7 acres.

This 2023 Citywide Public Safety Master Plan Update also supports the construction of a new 8,800 square foot Police Substation on 2.3 acres to be purchased by City near Ellis, South Linne, and Tracy Hills developments. This new site adds 94 parking spaces, with 74 of those inside a secure enclosure.

Figure 4 - Proposed Police Substation

This Substation along with the Public Safety Center renovation and addition will provide the Police Department with the building and site space it requires to serve the City through Horizon Year 2040.

For training facilities, this master plan supports the Police Department upgrading 900 square feet of the existing 2,300 square foot Capt. John J. Serpa Memorial Training Facility at 6649 S. Tracy Blvd and adding an additional 12,900 square feet of training facilities.

In addition to the above, small office space (approx. 323 SF) will be included for the Police at the proposed Multi-Gen Rec Center. See the concurrent Public Facilities Master Plan update for more information.

<u>Public Safety Radio Communications Facilities</u>

The City shall upgrade its communications infrastructure for P25 radio and microwave voter connectivity. All police and fire facilities to have SCD TAC 16 voted receivers, local radios, and microwave connections. The Police Department headquarters shall receive corresponding transmission upgrades.

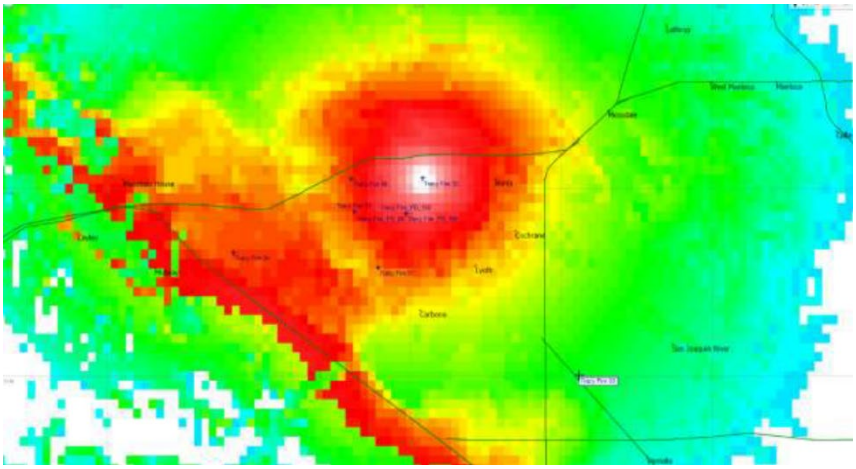

Figure 5 – Public Safety Radio Communications Systems Modeling

Cost Estimate Summary

The Public Safety Master Plan carries a total project development cost of approximately $130.8 million as shown below. Included are estimated 2023 direct construction bid day costs ($84.2 million), indirect and contingency costs ($29.5 million), vehicles and furnishings, fixtures, and equipment (FF&E, $13.9 million), and land acquisition ($3.7 million). See also Appendix D.

PLACE NAME	2023 Construction Bid Day Cost	35% Indirect & Contingency: 10% Design & Planning; 10% CM; 15% General Contingency	FF&E & Vehicles	Land Acquisition	2023 Total Project Cost
Fire Headquarters | Station "A"					
Fire Station 91					
Fire Station 92					
Fire Station 93					
~~Fire Station 94~~ (To Be Relocated. Property ownd by SCFA.)					
Fire Station 94 (Relocation - Cordes Ranch Area)	$6,942,300	$2,429,805	$2,600,000	$500,000	$12,472,000
Fire Station 95 (Tracy Hills Area)	$6,197,192	$2,169,017	$874,518	$192,837	$9,433,000
Fire Station 96					
~~Fire Station 97~~ (To Be Relocated. Sell property.)					*($451,350)*
Fire Station 97 (Relocation - Valpico) incl. Ladder Bay	$6,942,300	$2,429,805	$1,000,000	$500,000	$10,872,000
Fire Station 99 (Ellis Area)	$5,427,849	$1,899,747	$1,000,000	$233,012	$8,561,000
Fire Training Facility - Phases 2 & 3	$6,793,881	$2,377,858	$500,000	$0	$9,672,000
SUBTOTAL FIRE DEPARTMENT	**$32,303,500**	**$11,306,200**	**$5,974,500**	**$1,425,800**	**$50,558,700**
PD Remodel & Addition on Expanded Civic Center Site	$31,599,384	$11,059,784	$2,160,114	$0	$44,819,000
~~PD Annex~~ (1979 Police Station to be Demolished)					
~~PD North Annex~~ (Leased - to be let go)					
South Tracy Police Substation	$9,479,695	$3,317,893	$648,049	$1,760,000	$15,206,000
Police Department Training Facility	$4,887,202	$1,710,521	$36,098	$402,925	$7,037,000
Police Department Animal Shelter - Phase 2	$5,044,104	$1,765,436	$1,000,000	$0	$7,810,000
SUBTOTAL POLICE DEPARTMENT	**$51,010,400**	**$17,853,600**	**$3,844,300**	**$2,162,900**	**$74,872,000**
Public Safety Radio Communications Facilities	$862,240	$301,784	$4,067,185	$125,000	$5,356,000
SUBTOTAL COMMUNICATIONS FACILITIES	**$862,200**	**$301,784**	**$4,067,185**	**$125,000**	**$5,356,000**
TOTAL PUBLIC SAFETY FACILITIES (rounded)	**$84,177,000**	**$29,462,000**	**$13,886,000**	**$3,714,000**	**$130,790,000**

Figure 6 - Public Safety Master Plan Cost Estimate Summary

Cost Attributions

This study identifies and projects public safety facility needs for the City of Tracy and it estimates the total project costs for these facilities in current dollars. The City is providing a separate study to document the required nexus findings to implement a fee program. This study will establish a nexus between future development in Tracy, the public facilities that will serve those projects, and the impact fees that will fund those facilities. The purpose of this separate, concurrent study is to ensure that a rational nexus exists between future development in the area and the use and need of the proposed infrastructure.

Solar Nanogrid Cost Estimate Summary

Effective January 1, 2023, the 2022 California Energy Code has been mandated by the California Building Standards Commission for all California jurisdictions (including the City of Tracy) to begin enforcement thereof. This forthcoming edition of the energy code requires electrical solar systems on all new City office buildings, including, by and large, the proposed public safety facilities envisioned in this report.

Also, effective January 1, 2023, the 2022 California Energy Code will require battery storage systems for these building types. The storage of electrical energy allows for the use of electricity from the battery during high peak period demands for electricity, the time when such delivered energy is the most expensive. This, of course, will reduce the cost of energy consumption even further.

This combination of solar and battery storage scaled to individual buildings is referred to as a "Solar Nanogrid." Providing Solar Nanogrids for all proposed new public safety facilities and additions will cost an estimated $6.8 million per Figure 8 (below). The attributable costs, if this CEC measure is adopted, will be incorporated into the City's concurrent nexus study fee structure in addition to the Public Safety Master costs shown in Figure 6 (previous page). See Appendix E for full details.

KEY	PLACE NAME	Program Area	Loads		Rooftop Solar			Solar Carport (e)			
		New	Predicted (N) Facility Load	Predicted Maximum Battery Load	Rooftop Solar Maximum Capacity	Rooftop Solar Maximum Size	Estimated Rooftop Solar Cost @ $3K/kW	Needed Solar Carport Capacity	Needed Solar Carport Size	Needed Solar Carport System Size	Estimated Solar Carport Cost @ $3.4K/kW
94	Fire Station 94 (Reloc. Cordes Ranch Area) incl. Ladder Bay	7,750 sf	104 MWh/Yr	99 kW	70 MWh/Yr	74 kW	$222,000	34 MWh/Yr	3,800 sf	36 kW	$122,400
97	Fire Station 97 (Relocation - Valpico) incl. Ladder Bay	7,750 sf	104 MWh/Yr	99 kW	70 MWh/Yr	74 kW	$222,000	34 MWh/Yr	3,800 sf	36 kW	$122,400
99	Fire Station 99 (Ellis Area)	7,070 sf	95 MWh/Yr	90 kW	64 MWh/Yr	67 kW	$201,000	31 MWh/Yr	3,500 sf	33 kW	$112,200
T	Fire Training Facility - Phases 2 & 3	9,868 sf	132 MWh/Yr	126 kW	89 MWh/Yr	94 kW	$282,000	43 MWh/Yr	4,800 sf	46 kW	$156,400
	SUBTOTAL FIRE DEPARTMENT	**39,500 sf**	**435 MWh/Yr**	**414 kW**	**293 MWh/Yr**	**309 kW**	**$927,000**	**142 MWh/Yr**	**15,900 sf**	**151 kW**	**$513,400**
P	PD Remodel & Addition on Expanded Civic Center Site	19,809 sf	265 MWh/Yr	253 kW	89 MWh/Yr	94 kW	$282,000	176 MWh/Yr	19,600 sf	186 kW	$632,400
S	South Tracy Police Substation	8,794 sf	118 MWh/Yr	113 kW	79 MWh/Yr	84 kW	$252,000	39 MWh/Yr	4,300 sf	41 kW	$139,400
T	Police Department Training Facility	12,866 sf	173 MWh/Yr	165 kW	116 MWh/Yr	123 kW	$369,000	57 MWh/Yr	6,300 sf	60 kW	$204,000
D	Police Department Animal Shelter - Phase 2	5,900 sf	79 MWh/Yr	76 kW	53 MWh/Yr	56 kW	$168,000	26 MWh/Yr	2,900 sf	27 kW	$91,800
	SUBTOTAL POLICE DEPARTMENT	**47,400 sf**	**635 MWh/Yr**	**607 kW**	**337 MWh/Yr**	**357 kW**	**$1,071,000**	**298 MWh/Yr**	**33,100 sf**	**314 kW**	**$1,067,600**
	SUBTOTAL PUBLIC SAFETY FACILITIES	**87,300 sf**	**1,070 MWh/Yr**	**1,021 kW**	**630 MWh/Yr**	**666 kW**	**$1,998,000**	**440 MWh/Yr**	**49,000 sf**	**465 kW**	**$1,581,000**

(continued)

KEY	PLACE NAME	2020 Subtotal Solar Carport Cost	Annual Construction Input Inflation 2021 & 2022	2023 Subtotal Solar Carport Bid Day Cost	Battery		Annual Construction Input Inflation 2021 & 2022	2023 Subtotal Battery System Bid Day Cost	2023 Total Project Bid Day Cost for Solar and Battery Installation	35% Indirect & Contingency: 10% Design & Planning; 10% CM; 15% General Contingency	2023 Total Project Cost for Solar and Battery Installation
					Needed Code-Required 6-Hour Battery	Estimated Battery System Cost					
94	Fire Station 94 (Reloc. Cordes Ranch Area) incl. Ladder Bay	$122,400	26.8%	$155,203	0.30 MWh	$240,000	26.8%	$304,320	$459,523	$160,833	$620,356
97	Fire Station 97 (Relocation - Valpico) incl. Ladder Bay	$122,400	26.8%	$155,203	0.30 MWh	$240,000	26.8%	$304,320	$459,523	$160,833	$620,356
99	Fire Station 99 (Ellis Area)	$112,200	26.8%	$142,270	0.27 MWh	$216,000	26.8%	$273,888	$416,158	$145,655	$561,813
T	Fire Training Facility - Phases 2 & 3	$156,400	26.8%	$198,315	0.31 MWh	$248,000	26.8%	$314,464	$512,779	$179,473	$692,252
	SUBTOTAL FIRE DEPARTMENT	**$513,400**		**$651,000**	**1.18 MWh**	**$944,000**		**$1,197,000**	**$1,848,000**	**$646,800**	**$2,494,800**
P	PD Remodel & Addition on Expanded Civic Center Site	$632,400	26.8%	$801,883	0.76 MWh	$608,000	26.8%	$770,944	$1,572,827	$550,490	$2,123,317
S	South Tracy Police Substation	$139,400	26.8%	$176,759	0.34 MWh	$272,000	26.8%	$344,896	$521,655	$182,579	$704,235
T	Police Department Training Facility	$204,000	26.8%	$258,672	0.50 MWh	$400,000	26.8%	$507,200	$765,872	$268,055	$1,033,927
D	Police Department Animal Shelter - Phase 2	$91,800	26.8%	$116,402	0.23 MWh	$184,000	26.8%	$233,312	$349,714	$122,400	$472,114
	SUBTOTAL POLICE DEPARTMENT	**$1,067,600**		**$1,353,700**	**1.83 MWh**	**$1,464,000**		**$1,856,400**	**$3,210,100**	**$1,123,500**	**$4,333,600**
	TOTAL PUBLIC SAFETY FACILITIES (rounded)	**$1,581,000**	26.8%	**$2,005,000**	**3.01 MWh**	**$2,408,000**	26.8%	**$3,054,000**	**$5,059,000**	**$1,771,000**	**$6,829,000**

Figure 7 - Estimated Solar Nanogrid Cost Summary

METHODOLOGY

Beginning 2021, the master plan team led by INDIGO coordinated with City of Tracy personnel and its separate consultants to prepare an interim and now DRAFT REPORT for a Citywide Public Safety Master Plan (CPSMP update) which assesses current and future public safety building needs. Included in the CPSMP update are Police Department and Fire Department facilities. Problems, opportunities, and community assets were identified.

The consultant worked with a Facilities Committee formed by the City composed of leadership from the Fire Department, the Police Department, the City Engineer, and other City staff. Periodic meetings with this committee have been attended by this consultant.

The CPSMP update establishes division-by-division programmatic needs, basing projections on standards of service and the staffing of other cities that are geographically and demographically similar to the community at Horizon Year 2040. This comparison approach substantiates the space required for City operations by making adjustments on the basis of statistical procedures to enhance predictive accuracy. The CPSMP update is based on projections in the City's General Plan and detail in the Sphere of Influence as provided by the City. The CPSMP update takes full advantage of several pre-existing studies and development land use types which have been provided by the City. See Figure 9 for current City organization.

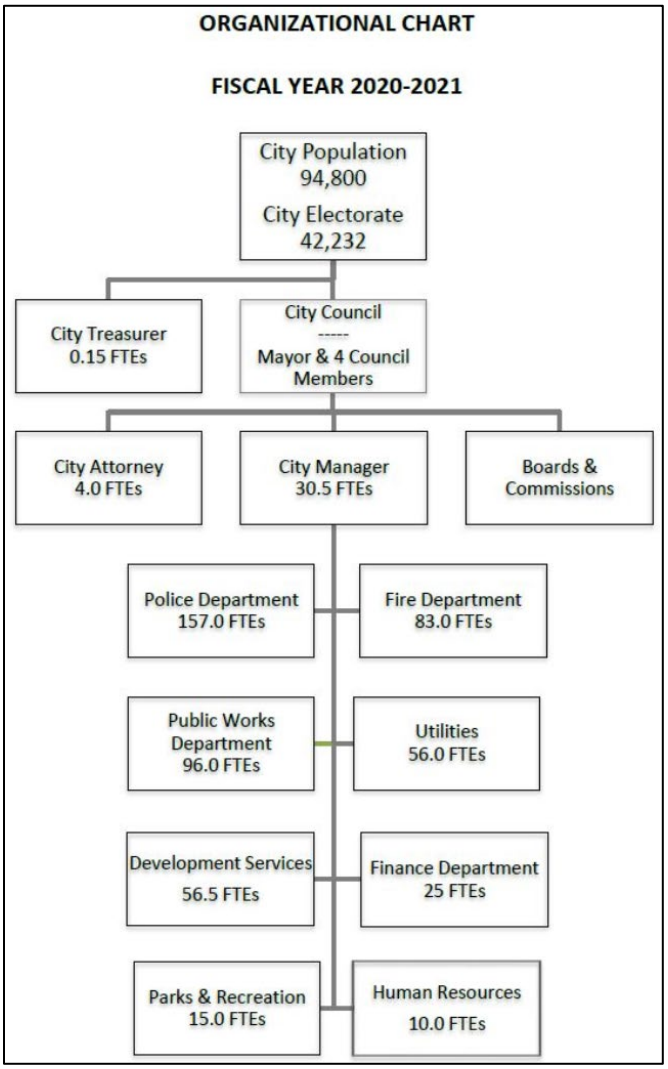

Figure 8 - City Organizational Chart

The scope of this report is subdivided into the following sections:

- EVALUATION OF CURRENT CONDITIONS
- SPACE STANDARDS AND FUNCTIONAL FLOW
- STAFF AND SPACE NEED PROJECTIONS
- MASTER PLAN
- COST
- FUNDING OPTIONS
- DESIGN GUIDELINES

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EVALUATION OF CURRENT CONDITIONS

Existing Staff Levels and Space Utilization

Generally, the City of Tracy's 240 FTE of public safety staff – out of 533 FTE total City staff - are located in public safety facilities adding up to 108,000 square feet in area. These facilities are organized in as efficient manner as possible, given significant space separation issues and building deficiencies confronting both Police and Fire. Of the 108,000 square feet, the following 35,200 square feet of existing facilities require replacement:

- In 1995, Station 94 was relocated to a 5,600 square foot facility at 16502 W. Schulte Road. The condition of this 26-year-old facility is poor. The station houses a 2003 Pierce/Saber type 1 pumper ALS unit staffed with three personnel and a 2016 HME type 3 engine. The station is located on a site adjacent to CAL FIRE Santa Clara Unit, Station 26.

Figure 9 – 1995 Tracy Rural Fire Station 94, 16502 West Schulte Road (to be relocated)

- In 1986, the City built the 3,000 square foot Fire Station 97 at 595 West Central Ave. The condition of this 35-year-old facility is fair, and more significantly it is 40% of the size the South San Joaquin County Fire Authority (SSJCFA) now needs. Station 97 currently houses a 2015 Spartan Hi-Tech, type 1 pumper and is also staffed with three personnel trained to the Advanced Life Support (ALS) level.

Figure 10 – 1986 Tracy Fire Station 97, 595 West Central Ave (to be relocated)

- In 1979, the Police Department moved into the newly built 9,800 square foot Tracy Public Safety Facility Building at 400 East 10th Street as part of the new Civic Center complex. This 1-story building

included cast-in-place concrete partition walls for the 2,400 square foot jail. The department at this time consisted of less than 30 personnel.

- The condition of this 44-year-old building is poor;
- The facility requires demolition due to lack of accessibility, lack of essential service compliance, and unsuitability for renovation due to concrete jail infrastructure;
- Demolition also facilitates Civic Center expansion in place of existing Police Department.

Figure 11 - 1979 Tracy Police Building, 400 East 10th Street (to be demolished)

- In 2019, the department leased a 16,800 square foot "North Annex" industrial space at 1325 N MacArthur Drive to serve as an offsite evidence facility. The facility is outfitted with evidence lockers, 3 large evidence vaults, a drying room, a property release room, space for evidence vehicles, and a car lift. The condition of this leased facility is excellent. However, any time evidence is separated from the main police building, including its sallyport and holding facilities, it creates a more challenging chain-of-custody environment for the department and separates the Evidence Technician from Records and Patrol personnel, potentially weakening esprit de corps. The existing 1,000 square foot Evidence space in the 1996 building is now potentially made redundant, but it is not easily adapted to other uses. Because this is a leased space, this master plan does not count the department's space use at 1325 N MacArthur Drive as "Existing Space" in its summary of attributable space.

Figure 12 - Leased North Annex Space, 1325 North MacArthur Drive (to be let go)

The end result of these needed adjustments to existing area is that 240 FTE of public safety staff are located in 73,100 square feet of existing space anticipated to remain in operation through Horizon Year 2040 and buildout. Figure 13 shows current staffing and space allocations organized by City departments and Figure 9 shows current City Organizational Chart.

Departments	Budget-listed Staff (FTE)	Existing Space to Remain (SF)
Police		39,600
Sworn	99	
Civilian	58	
Police Subtotal	157	39,600
Fire		
Certified Firefighters/ Fire Stations/ Training	77	9,700
Civilian/ Administration	6	23,800
Fire Subtotal	83	33,500
Public Safety Total	**240**	**73,100**

Figure 13 - Summary of Existing Public Safety Staffing & Space

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Evaluation of Existing Facilities

A very general assessment of existing facilities conditions was conducted, based on prior tours of the facilities, approximate age of the facilities, and review of photos. Detailed assessments of existing conditions, including roofing conditions, mechanical and electrical systems conditions, hazardous materials present, complete accessibility code compliance, etc., was not included in the scope of this study.

The three condition types identified are “good,” “fair,” and “poor,” as described below. These assessments indicate the physical condition of the facilities and are not intended to rate programmatic functionality of the uses within. See Figure 14 for a tabular list of all public safety within the scope of this study and an assessment of their condition.

Good Condition:

- The facility is in good or excellent condition;
- The facility has benefitted from ongoing maintenance;
- The facility’s key systems may be worn but utility is not impaired;
- Key building systems, such as roof, windows, mechanical, electrical, etc., are estimated to have an average minimum of 10-20 years of life remaining;
- Relatively few accessibility compliance issues are present.

Fair Condition:

- The facility is in fair condition;
- The facility has received intermittent maintenance;
- The facility’s key systems may be soiled or shopworn, rusted, deteriorated or damaged, with utility slightly impaired;
- Renovation or repair is expected in the near future;
- Key building systems, such as roof, windows, mechanical, electrical, etc., are estimated to have an average minimum of 5-15 years of life remaining;
- Accessibility compliance issues are present.

Poor Condition:

- The facility is in poor condition;
- The facility has received little or no maintenance;
- The facility’s key systems may be badly broken, soiled, mildewed, deteriorated or damaged with utility seriously impaired;
- Prompt renovation or repair is needed;
- Serious accessibility compliance issues may be present.

EXISTING PUBLIC SAFETY FACILITIES						
KEY	PLACE NAME	YEAR	CONDITION	ADDRESS	(E)	(E) to Remain
A	Fire Headquarters | Station "A"	1916	Good	835 Central Avenue	9,646 sf	9,646 sf
91	Fire Station 91	2005	Good	1701 West 11th Street	7,401 sf	7,401 sf
92	Fire Station 92	2014	Good	1035 E. Grant Line Road	5,136 sf	5,136 sf
93	Fire Station 93	2006	Good	1400 W. Durham Ferry Rd	6,147 sf	6,147 sf
~~94~~	~~*Fire Station 94 (To Be Relocated)*~~	*1995*	*Poor*	*16502 West Schulte Rd*	~~*5,552* sf~~	*0 sf*
96	Fire Station 96	2014	Good	1800 W. Grant Line Road	5,136 sf	5,136 sf
~~97~~	~~*Fire Station 97 (To Be Relocated)*~~	*1986*	*Fair*	*595 West Central Av.*	~~*3,009* sf~~	*0 sf*
					42,027 sf	33,466 sf
P	Police Department HQ	1996	Good	1000 Civic Center Dr.	27,616 sf	27,616 sf
I	~~*Police Department Annex - Investigations*~~	*1979*	*Poor*	*400 E. Tenth Street*	~~*9,800* sf~~	*0 sf*
A	~~*Police Department N. Annex - Leased Bldg*~~	*N/A*	*Excellent*	*1325 N. MacArthur Dr.*	~~*16,759* sf~~	*0 sf*
T	Police Department Training Facility	Varies	Fair	6649 S. Tracy Blvd.	2,296 sf	2,296 sf
D	Police Department Animal Shelter	2015	Excellent	2375 Paradise Rd.	9,692 sf	9,692 sf
					66,163 sf	39,604 sf
				TOTAL EXISTING PUBLIC SAFETY FACILITY SPACE	108,190 sf	**73,070** sf

Figure 14 - Existing Public Safety Assessment

Figure 16 – Existing Fire Dept Administration Site

Figure 15 - Existing Police Department Site

SPACE STANDARDS AND FUNCTIONAL FLOW

Recommendations for Operational Efficiency

As described above, the City of Tracy's 240 FTE of public safety staff are located in 73,100 square feet of existing space anticipated to remain in operation, along with all proposed modifications and additions, through Horizon Year 2040 and buildout. The current space needed for efficient operations shall be estimated and weighed against future needs in the City's concurrent nexus study. Meanwhile, this study recommends the following:

- Retain existing 16,800 square foot leased North Annex, housing Evidence, until permanent replacement co-located with Police Department for improved chain-of-custody and esprit de corps can be built.
- Begin 12,904 square foot expansion of Police Training Facility as soon as possible.
- Begin 9,900 square foot expansion of Fire Training Facility as soon as possible.

The end result of these needed adjustments to existing area is that 240 FTE of public safety staff will be located in 92,100 square feet of space.

The Figure 17 (below) shows the ideal relationships between departments within the Police Department.

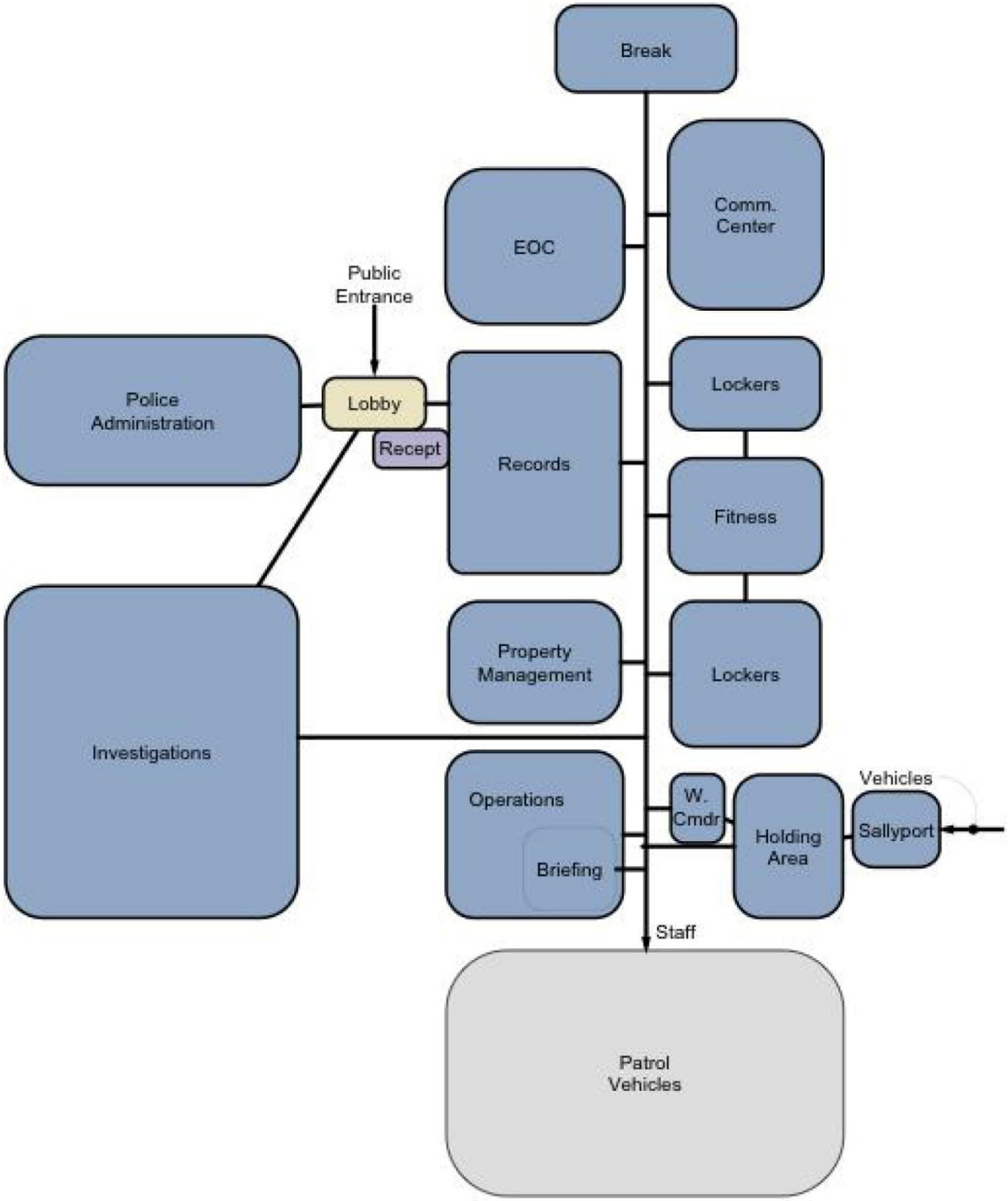

Figure 17 – Police Department Relationship Diagram

Space & Facility Standards

Space standards were informed by a combination of existing space and normal and customary space for similar functions in other jurisdictions. The 25-year-old Police Department building is a "relatively new" facility. While it has a number of deficiencies, the basic quality and space allocation of the facility as built is a good indicator of the size and quality of spaces the city intended for the employees of the Police Department. Most of the Police Department's space deficiencies relate to increased demand since completion of the building, so space standards are based on the original intent where it is clear from the original drawings. The space projections described in a section below provide adjustments for functions that expanded, displacing other functions.

Similarly, the relatively recent renovation of the Fire Administration Building provides a good indication of the intended provision for the administrative and office functions. The real growth issue for the Fire Department is the placement of new stations to cover growth areas of the city. Fire Station 95, under construction, will become the department's newest facility, representing the operational characteristics it wants for future stations. It is unnecessary to provide a line item breakdown of spaces for the purposes of this master plan, so the gross building area of Fire Station 95 is used as the model for each needed fire station. Figure 18 shows space standards for the CPSMP update.

Position	Net Sq. Ft.	Comment
Police Department		
Chief of Police	300	Existing
Captain	190	Existing
Lieutenant	190	Existing
Executive Assistant	160	Existing
Sergeant	105	Existing
Typical Enclosed Office	100	Existing
Typical Open Workstation	64	
Detective	24	
Copy/Supply Enclosed	100	
Copy/Supply Open Office	64	
Coffee Counter	20	
Fire Department		
Fire Chief	320	Existing
Division Chief	220	Existing
Fire Captain	120	
Typical Open Workstation	64	
Fire Station	7,100	Gross SF

Figure 18 - Public Safety Space Standards

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STAFF AND SPACE NEED PROJECTIONS

Staff projections provide an intermediate step in the development of an organization's space needs. There are a number of methods for projecting staffing at Horizon Year 2040 and buildout. The method used here is to project staffing based on the staffing of six other cities that are geographically and demographically similar to the City of Tracy's projected population for Horizon Year 2040, in the case of the Police Department, and buildout, in the case of the Fire Department. The growth assumptions in this Master Plan are based on data from September 2021, received from the City of Tracy. They don't include the growth assumed in the City of Tracy 6th cycle Housing Element.

Growth Factors & Staff Projection Table

The staff levels of the six cities, and current and required staff at Horizon Year 2040 and buildout for the City of Tracy are shown in Figure 19. These closely matched cities have a range of 92,000 to 160,000 residents. As would be expected, increases in city staff generally correspond to increases in population, ranging from a low of 1.02 sworn officers per 1,000 population in Vallejo and a low of 0.53 certified firefighters in Fairfield to a high of 1.18 sworn in Hayward and 0.89 certified in Vacaville.

		Police				Fire			
City	General Pop.	Sworn Officers	Sworn/ 1,000 Pop.	Civilian	Civilian / 1,000 Pop.	Cert. Fire-fighters	Cert./ 1,000 Pop.	Civilian	Civilian / 1,000 Pop.
Tracy 2023	**100,000**	**99.0**	**0.99**	**58.0**	**0.57**	**77**	**0.77**	**6**	**0.06**
Horizon Year 2040 / Buildout	**141,000 / General Plan**	**152.2**	**1.08**	**77.9**	**0.55**	**97.5**	**0.69**	**12**	**0.08**
Concord	129,300	154.0	1.19	57.0	0.44				
Fairfield	117,000	125.0	1.07	73.1	0.62	62	0.53	7	0.06
Hayward	160,300	189.0	1.18	119.5	0.75	130	0.81	24.4	0.15
Livermore	91,900	95.0	1.03	50.5	0.55	55.5	0.60	7	0.08
Vacaville	98,900	113.0	1.14	59.0	0.60	88	0.89	12	0.12
Vallejo	119,100	122.0	1.02	53.0	0.45	81	0.68	6	0.05

Figure 19 - Population and Staffing

On the Police side of the matched cities, the average ratio of staff per 1,000 population in each category comes to 1.11 sworn officers and 0.57 civilian employees. Tracy's current ratios are 0.99 sworn (89% of the average) and 0.57 civilian (100% average). Tracy's projected 2040 ratios are 1.08 sworn and 0.55 civilian (both 97% of the average).

On the Fire side of the matched cities, the average ratio of staff per 1,000 population in each category comes to 0.70 certified firefighters and 0.09 civilian employees. Tracy's current ratios are 0.77 certified (110% of the average) and 0.06 civilian (67% of the average). Tracy's projected buildout ratios are 0.69 sworn (99% of the average) and 0.08 civilian (both 89% of the average).

Staffing for firefighters was based on current staffing plus those needed for the additional fire stations needed to serve the community at buildout. The South San Joaquin County Fire Authority Standards of Cover study by Citygate Associates dated May, 2017 clearly considered all of the city's proposed expansion areas with an efficient distribution of stations, so assumptions regarding fire stations for the Public Safety Master Plan Update are consistent with those recommendations.

The Citygate study recommends four new fire stations for the entire fire authority. The average staffing of each existing station (not including the ladder company at Fire Station #91) is 3 fire captains, 3 fire engineers, 3 firefighters, and 0.3 fire reserves. This results in a small drop in the ratio of certified firefighters from 0.77 to 0.69 per 1,000 population. Inspection of the Citygate study and staffing patterns consistent with that seem to validate that the same level of service is provided at buildout as currently exists.

A table with current and Horizon Year 2040 and buildout staffing for public safety agencies is provided in Appendix A.

Space Projection Tables

Space projections were developed on a line item basis using the staffing projections, reviews of existing space and plans, and spaces that are normal and customary for public safety. Appendix B provides the spaces needed under the current budget and at Horizon Year 2040 and buildout. Subtotals of net space are provided for each department with estimates of "departmental" space, effectively equivalent to lease space in a commercial building with allowances for internal circulation, columns, etc. Gross building area is provided by use of an efficiency factor that provides allowances for exterior building walls, vertical circulation elements, primary circulation, public toilets, and mechanical rooms. The efficiency factor varies from 75% to 90% depending on type of facility.

Building		Police															Subtotal w/ 33% Gross Circulation
		Admin	Field Operations	Community Services	Traffic	Code Enforcement	Support Services	Animal Services	Records	Dispatch	Shared Support	Investigations	Crime Scene	Holding	Ancillary Areas	Training	
P	PD Remodel & Addition	1,890 sf	1,331 sf	1,630 sf	764 sf	1,170 sf	410 sf		1,737 sf	1,220 sf	510 sf	3,770 sf	9,261 sf	1,890 sf	7,855 sf		47,425 sf
S	South Tracy Police Substation		1,839 sf		236 sf				463 sf				309 sf		3,765 sf		8,794 sf
T	PD Training Facility															11,400 sf	15,162 sf
D	PD Animal Shelter - Phase 2							15,592 sf									15,592 sf
SUBTOTAL POLICE DEPARTMENT		1,900 sf	3,200 sf	1,600 sf	1,000 sf	1,200 sf	400 sf	15,600 sf	2,200 sf	1,200 sf	500 sf	3,800 sf	9,600 sf	1,900 sf	11,600 sf	11,400 sf	87,000 sf

Figure 20 - Summary of Police Department Space Needs

	Building	Fire			Subtotal
		Admin	Training	Stations	
A	Fire Headquarters | Station "A"	9,646 sf			**9,646 sf**
91	Fire Station 91			7,401 sf	**7,401 sf**
92	Fire Station 92			5,136 sf	**5,136 sf**
93	Fire Station 93			6,147 sf	**6,147 sf**
94	Fire Station 94 (Reloc. Cordes Ranch Area) incl. Ladder Bay			7,750 sf	**7,750 sf**
95	Fire Station 95 (Tracy Hills Area)			7,070 sf	**7,070 sf**
96	Fire Station 96			5,136 sf	**5,136 sf**
97	Fire Station 97 (Relocation - Valpico) incl. Ladder Bay			7,750 sf	**7,750 sf**
99	Fire Station 99 (Ellis Area)			7,070 sf	**7,070 sf**
T	Fire Training Facility - Phases 2 & 3		9,868 sf		**9,868 sf**
	SUBTOTAL FIRE DEPARTMENT	**9,600 sf**	**9,900 sf**	**53,500 sf**	**73,000 sf**

Figure 21 - Summary Fire Department of Space Needs

KEY	PLACE NAME	Program Area			
		Existing	*Remodel*	New	2040/ Buildout
A	Fire Headquarters | Station "A"	9,646 sf			9,646 sf
91	Fire Station 91	7,401 sf			7,401 sf
92	Fire Station 92	5,136 sf			5,136 sf
93	Fire Station 93	6,147 sf			6,147 sf
~~94~~	~~Fire Station 94~~ (To Be Relocated. Land owned by SCFA.)	*5,552 sf*			
94	Fire Station 94 (Reloc. Cordes Ranch Area) incl. Ladder Bay			7,750 sf	7,750 sf
95	Fire Station 95 (Tracy Hills Area)			7,070 sf	7,070 sf
96	Fire Station 96	5,136 sf			5,136 sf
~~97~~	~~Fire Station 97~~ (To Be Relocated. Sell property.)	*3,009 sf*			
97	Fire Station 97 (Relocation - Valpico) incl. Ladder Bay			7,750 sf	7,750 sf
99	Fire Station 99 (Ellis Area)			7,070 sf	7,070 sf
T	Fire Training Facility - Phases 2 & 3			9,868 sf	9,868 sf
	SUBTOTAL FIRE DEPARTMENT	**33,500 sf**	***0 sf***	**39,500 sf**	**73,000 sf**
P	PD Remodel & Addition on Expanded Civic Center Site	27,616 sf	*27,616 sf*	19,809 sf	47,425 sf
I	~~PD Annex~~ (1979 Police Station to be Demolished)	*9,800 sf*			
A	~~PD North Annex~~ (Leased - to be let go)	*16,759 sf*			
S	South Tracy Police Substation			8,794 sf	8,794 sf
T	Police Department Training Facility	2,296 sf	*918 sf*	12,866 sf	15,162 sf
D	Police Department Animal Shelter - Phase 2	9,692 sf		5,900 sf	15,592 sf
	SUBTOTAL POLICE DEPARTMENT	**39,600 sf**	***28,500 sf***	**47,400 sf**	**87,000 sf**
RCT	Public Safety Radio Communications Facilities			400 sf	400 sf
	SUBTOTAL COMMUNICATIONS FACILITIES	**0 sf**	***0 sf***	**400 sf**	**400 sf**
	SUBTOTAL PUBLIC SAFETY FACILITIES	**73,100 sf**	***28,500 sf***	**87,300 sf**	**160,400 sf**

Figure 22 – Existing Space Available and Space Need through Horizon 2040 and Buildout

The scope of the proposed Police Department Headquarters and Training Facility remodels and additions includes renovation of the existing facilities to both provide for future development and to correct existing deficits. The percent of the cost attributable to growth can be determined by dividing the square footage related to future development by the square footage of the proposed renovation. The City's concurrent nexus study will provide estimates of the square footage related to future development for this purpose. The proposed Animal Shelter and South Tracy Substation additions include no anticipated renovation of existing facilities.

Fire administration does have some vacant offices, but the remodeled station used for the department's administrative offices also has old crew quarters that are under-utilized.

Additional fire stations are required to meet future increases in demand. The need for expanded training facilities is as much a strategic question of whether to use in-house or regional resources as it is a calculation of development-driven demand.

A related issue is the distribution of future fire stations to meet the needs of the incorporated and unincorporated areas. Based on Citygate's proposed locations for future fire stations 94, 95, 97, and 99; the service areas for each were determined by Harris & Associates and areas within each service area calculated separately for incorporated city, developed unincorporated area, and undeveloped unincorporated area.

Impact fees cannot charge for the future correction of current unmet needs. The City's concurrent nexus study will demonstrate that unmet needs have been excluded from the final impact fees.

CITYWIDE PUBLIC SAFETY MASTER PLAN UPDATE

The consensus public safety master plan continues to implement the 2017 recommendations of the Fire Department Standards of Cover Study and, by consensus of City leadership, keeps the Police Department in the downtown civic center. The consensus public safety master plan proposes implementation of the 2020 South San Joaquin County Fire Authority Radio System Overall Assessment's recommendations for short and long term upgrades.

Fire Facilities Citywide

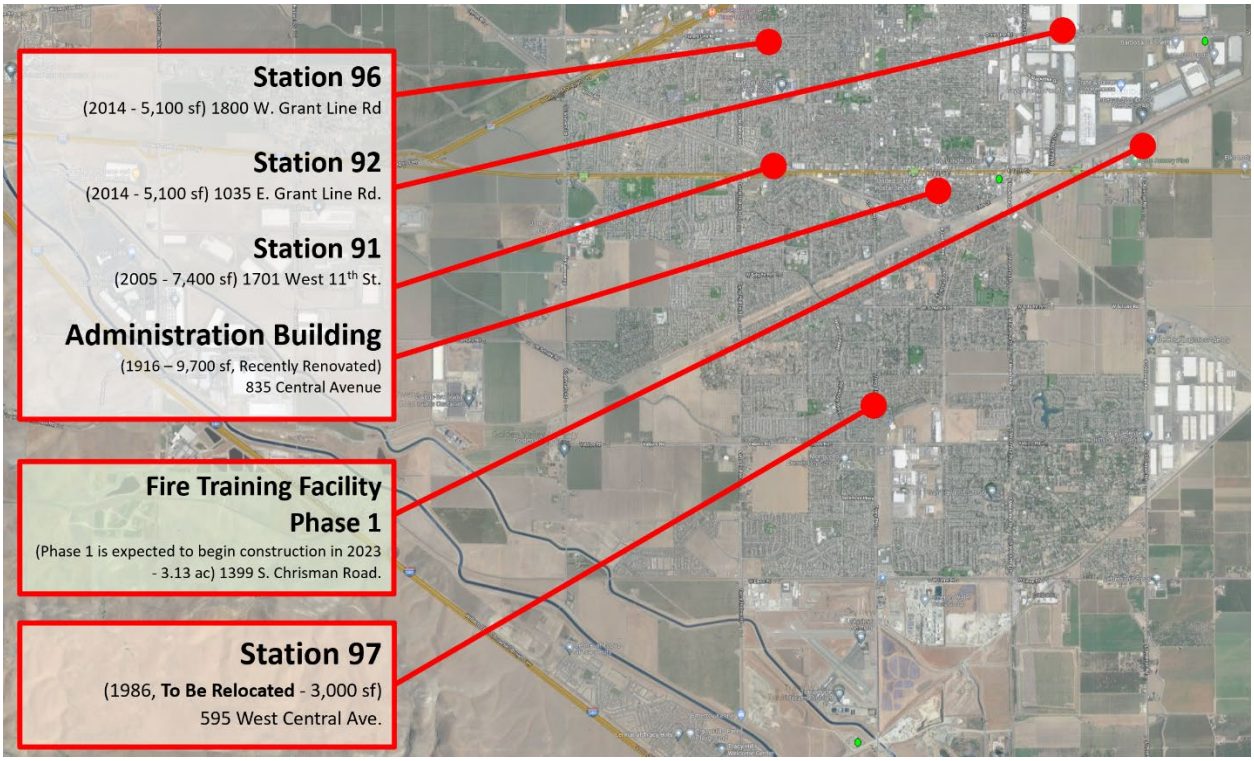

Figure 23 – Map of Existing City Fire Facilities

City Fire Administration Building

In 1916, the City passed a bond that provided for renovations of the Administration Building on a 0.6 acre site at 835 Central Avenue. This building also served as the City Hall and Jail until city offices were moved out in 1947. With the recent renovations completed, this landmark building continues to serve as the Fire Department's headquarters 106 years later and remains in good condition. The use of office spaces have changed since the previous master plan, including the South San Joaquin County Fire Authority's addition of a prevention bureau, and just more overall staff in general. These offices have displaced some existing Fire Training space, which will be relocated to the new Fire Training Facility site, currently under Phase 1 construction and to be expanded to 5.13 acres with classroom and office space during future Phase 2 & 3 renovations.

Figure 24 – 1916 Tracy Fire Department Building, 835 Central Avenue (to be upgraded)

Tracy Rural Fire Protection District

In 1945, the Tracy Rural Fire Protection District (TRFPD) was established to protect the greater Tracy region. This 200 square mile region is bounded (clockwise) by the Grant Line Canal to the north, the Paradise Cut to the northeast, the San Joaquin River to the east, the Stanislaus County line to the southeast, I-580 to the south, and the Alameda County line to the west. Per the 2017 Fire Department Standards of Cover Study, Rural Area first-due response time maximum is 11 minutes. This measure includes a 7:30-minute travel time. See below for TRFPD and City stations discussed in chronological order.

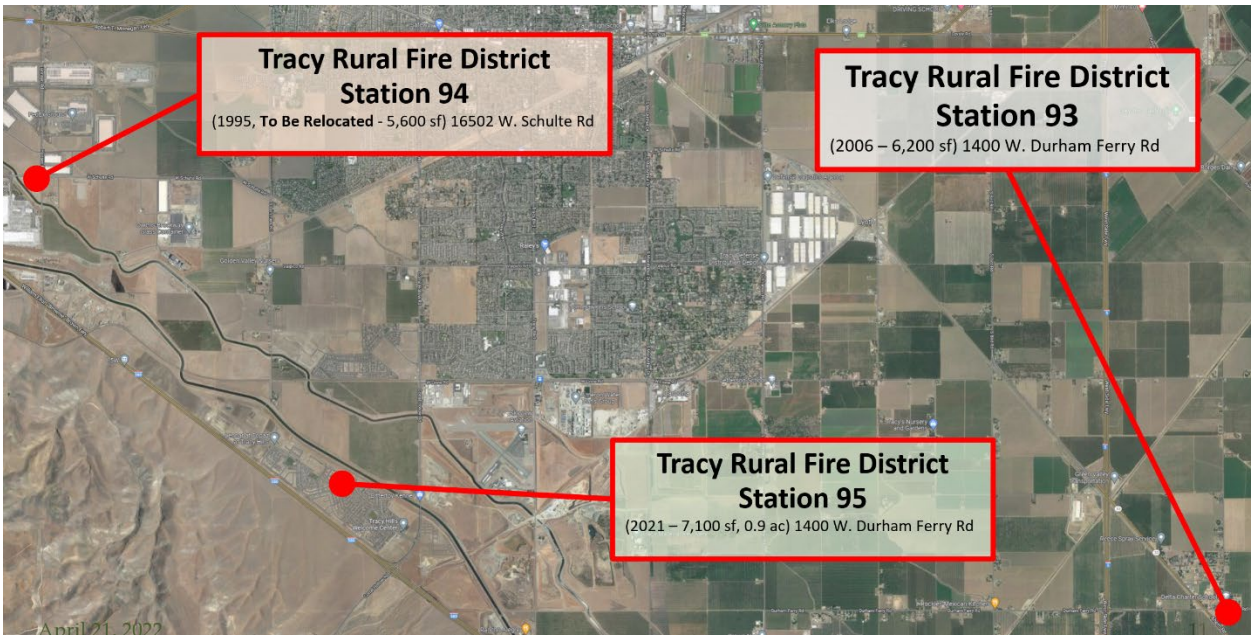

Figure 25 – Map of Existing Rural Fire District Stations

2017 Standards of Cover Study

The 2017 Fire Department Standards of Cover Study recommends an eight-station deployment to provide substantially improved first-due and multiple-unit coverage to serious emergencies in the growing urban areas. The Study also identified additional response time issues with the dispatch call handling. These issues have since been resolved as addressed by Fire Division Chief, David A. Bramell:

We have worked to speed up the dispatch process through Stockton Fire Dispatch taking the live caller directly from the Public Safety Answering Point (PSAP) instead of the live caller being questioned by AMR before sending it to Stockton. In 2019 (after the 2017 SOC study), our staff and particularly Chief Bradley, led an effort to introduce and change state legislation that provided a pathway to improve the dispatch process. The particulars of this legislation are found in Senate Bill 438.

City Fire Station 97

In 1986, the City built the 3,000 square foot Fire Station 97 at 595 West Central Ave. The condition of this 35-year-old facility is fair, and more significantly it is 40% of the size the South San Joaquin County Fire Authority (SSJCFA) now needs. Station 97 currently houses a 2015 Spartan Hi-Tech, type 1 pumper and is also staffed with three personnel trained to the Advanced Life Support (ALS) level.

Figure 26 – 1986 Tracy Fire Station 97, 595 West Central Ave (to be relocated w/ expanded ladder truck bay)

This master plan supports the relocation of Fire Station 97 to a new 7,750 square foot facility on a 2 acre site in the Valpico area. This proposed station will include an extra 700 square feet for an extended ladder truck bay. This plan proposes that the City sell that decommissioned property once the replacement station has been built.

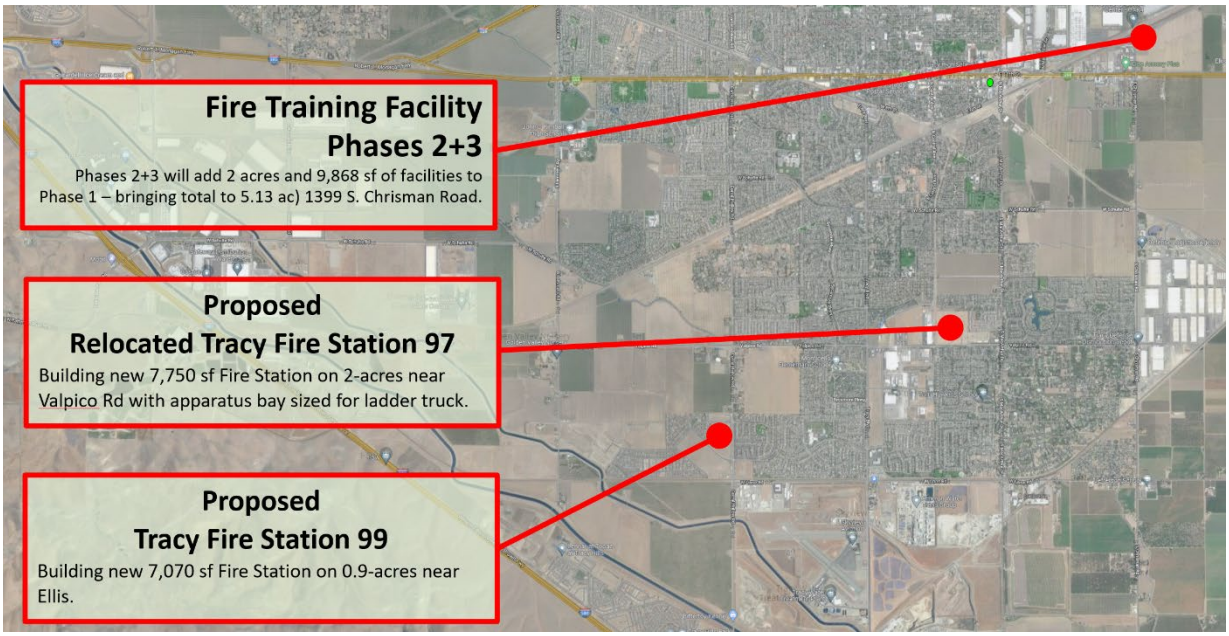

Figure 27 – Map indicating locations of Proposed City Fire Facilities

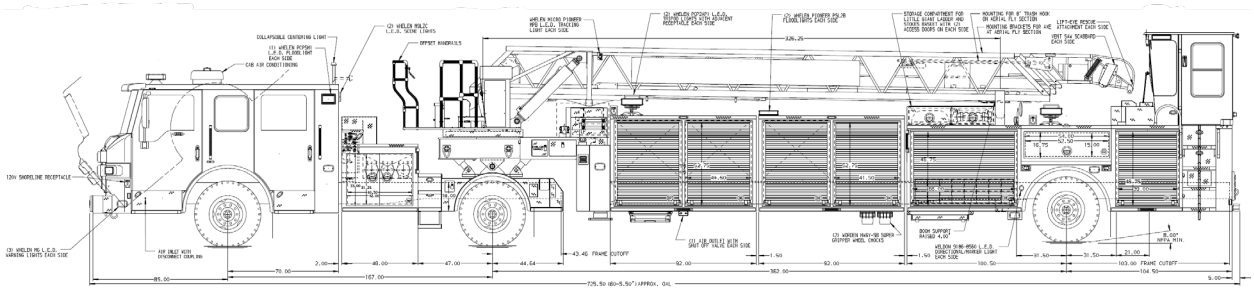

Figure 28 - 2021 60.5-ft Ladder Truck requires Larger Facility

<u>Rural Fire District Station 94</u>

In 1995, Station 94 was relocated to a 5,600 square foot facility at 16502 W. Schulte Road. The condition of this 26-year-old facility is poor. The station houses a 2003 Pierce/Saber type 1 pumper ALS unit staffed with three personnel and a 2016 HME type 3 engine. The station is located on a site adjacent to CAL FIRE Santa Clara Unit, Station 26.

Figure 29 – 1995 Tracy Rural Fire Station 94, 16502 West Schulte Road (to be relocated)

This master plan supports the relocation of Fire Station 94 to a new 7,750 square foot facility on a 2 acre site in the Cordes Ranch area, sized appropriately to incorporate a new ladder truck.

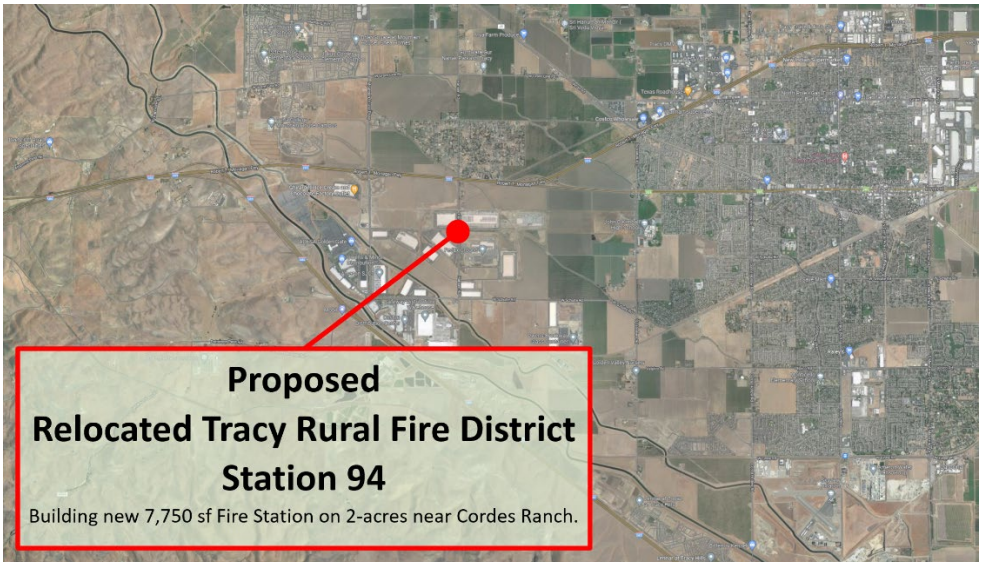

Figure 30 – Map indicating approximate location of Relocated Station 94

South San Joaquin County Fire Authority

In 1999, the City Fire Department and the Tracy Rural Fire District consolidated to form the South San Joaquin County Fire Authority (SSJCFA). The SSJCFA was created to provide fire protection services to the entire jurisdictional area of both the corporate City limits and surrounding rural community, including Banta, Lammersville, and Vernalis. Both Tracy Rural and the City of Tracy contract with the SSJCFA to receive fire protection services. The SSJCFA in turn contracts with the City of Tracy to provide employee and administrative services.

City Fire Station 91

In 2005, Tracy's Fire Station 91, dedicated "Eagan Station", was relocated from the downtown area to a new 7,400 square foot facility at 1701 West 11th Street. This met the recommendations of the 1998 Standards of Response Coverage report. Further review by Kirchhoff and Associates in 2008 confirmed that Station 91's new location would conform to the City's adoption of the NFPA 1710 Standard for 6.5 minutes total reflex response time. Station 91 is in good condition and it is the City's only "double house" station staffing both an engine and truck company. Staffed with three personnel, Engine 91 is a 2015 Spartan Hi-Tech type 1 pumper. Truck 91, a 2017 Pierce Tractor-Drawn Aerial, is also staffed with three personnel. A 2005 Pierce Kenworth Water Tender is also housed at Station 91. Both Engine 91 and Truck 91 are staffed to the Advanced Life Support (ALS) level.

Figure 31 – 2005 Tracy Fire Station 91, 1701 West 11th Street (to remain)

Rural Fire District Station 93

In 2006, Tracy Rural Fire District's Station 93 was relocated to a new 6,200 square foot facility at 1400 W. Durham Ferry Road. Station 93 houses a 2008 Pierce Saber type 1 pumper ALS unit staffed with three personnel. This facility is in good condition.

Figure 32 – 2006 Fire Station 93, 1400 W. Durham Ferry Road (to remain)

City Fire Station 92

In 2014, Tracy's Fire Station 92 and Fire Station 96 were relocated per the recommendations of the 2007 Standards of Cover Study. Both stations moved into identical new 5,100 square foot facilities.

Tracy's Fire Station 92 moved into the Northeast industrial area at 1035 E. Grant Line Road. Station 92 houses a 2015 Spartan Hi-Tech, type 1 pumper ALS unit staffed with three personnel and a 2008 HME, type 1 pumper from the California Office of Emergency Services (CalOES). Station 92 shall receive radio system upgrades – see Figure 20 for more information.

Figure 33 – 2014 Fire Station 92, 1035 East Grant Line Road (to remain)

City Fire Station 96

Tracy's Fire Station 96 moved closer to I-205 at 1800 W. Grant Line Road. Station 96 houses a 2009 Spartan HI-TECH type 1 pumper ALS unit staffed with three personnel. Station 96 also houses HazMat 42, a Type 2 Hazardous Materials response unit assigned from CalOES. The Fire Authority is one of only 12 local government agencies in the State of California to be assigned a fully-equipped Type 2 Hazardous Materials response vehicle from CalOES. The vehicle is available to respond to both local and statewide Hazardous Materials incidents. Personnel assigned to this station are certified Hazardous Materials Specialists.

Figure 34 – 2014 Tracy Fire Station 96, 1800 West Grant Line Road (to remain)

Tracy's Fire Station 92 and Fire Station 96 remain in good condition, but there are some functional issues as addressed by Fire Division Chief, David A. Bramell:

Neither floor plan included a public access bathroom (a citizen would have to walk through the station to use a restroom) and there is very limited space for the Captain to conduct a supervisory meeting in the office space (current Captain's office is within their bedroom).

Rural Fire District Station 95

Tracy Rural Fire District's Station 95, built in 2021, is a new 7,100 square foot facility at 7151 Tracy Hills Drive. Fire Station 95's plan addresses the aforementioned issues with Station 92 and Station 96. This facility is in accord with the 2017 Standards of Cover Study. This master plan supports the adoption of

Station 95 as the basis of design for future 7,100 square foot SSJCFA fire stations on similar 0.9 acre sites. Station 95 houses an ALS engine company staffed with three personnel.

Figure 35 – 2021 Fire Station 95, 7151 Tracy Hills Drive

City Fire Station 99

The Standards of Cover Study also recommends the construction of a new 7,100 square foot Tracy Fire Station 99 in the Ellis area, on 0.9 acres per this basis of design, bringing total fire station facilities to 52,800 square feet through buildout.

City Fire Training Facility

Finally, also in 2023, Phase 1 of a new Fire Training Facility is under construction at 1399 S. Chrisman Road. This facility represents a much needed upgrade, including training apparatus specifically designed for fire training. The existing 2,300 square foot Training Facility at 6649 S. Tracy Blvd, now the Capt. John J. Serpa Memorial Training Facility, once shared with Police, will similarly be upgraded for use solely by Police.

- Phase 1, funded prior to this study, consists of a fire training tower, site utilities, parking, and driveway on 3.13 acres.
- Phases 2+3, included in this study, consist of 2 acres of the following improvements:
    - Forty (40) person pre-manufactured classroom, two offices, clinical space, kitchenette, and restrooms
    - Additional Site Utilities (Electrical)
    - Rail Car props
    - Drafting pit
    - Above grade and below grade rescue props
    - Large apparatus and equipment storage facility
    - Connection to city wastewater and storm water systems

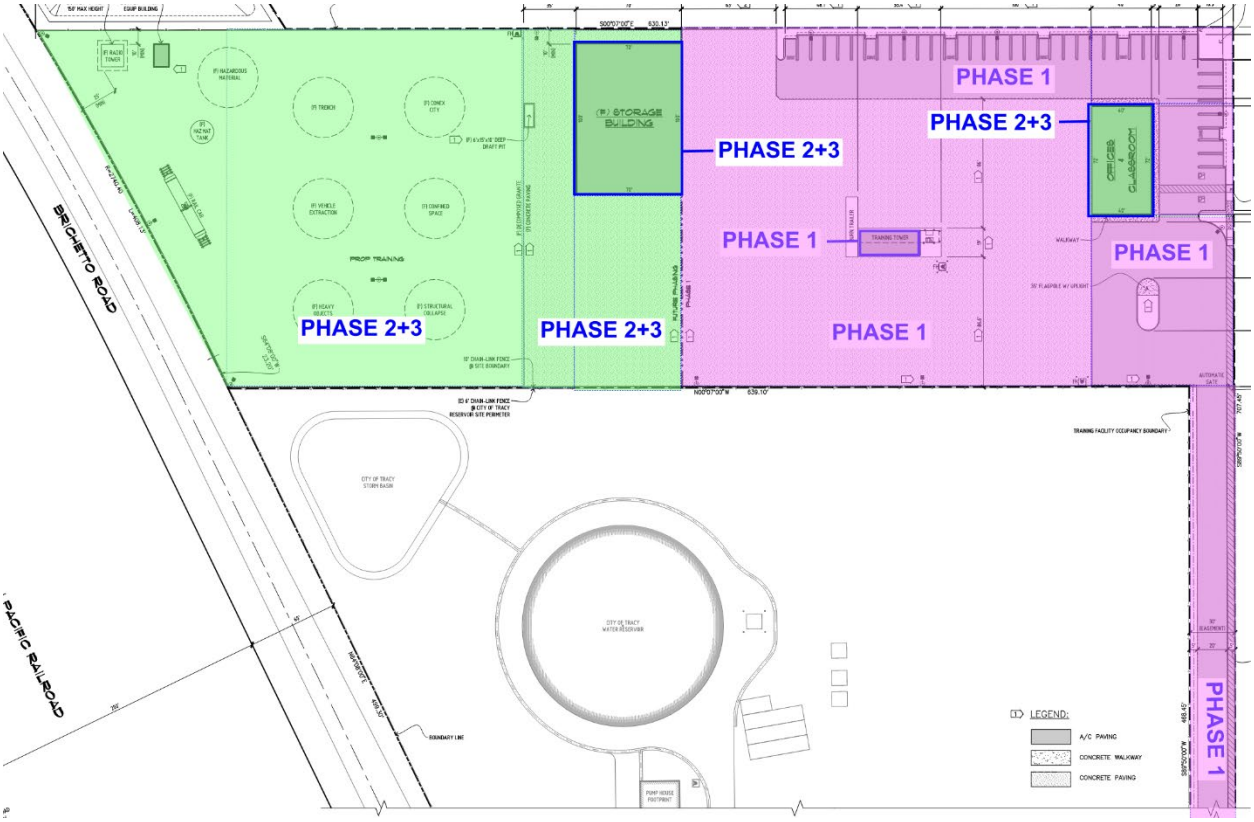

Figure 36 – 2022 Tracy Fire Training Apparatus at NEI Reservoir, 1399 S. Chrisman Rd (under construction)

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Police Facilities Citywide

1940 Police Building

In 1940, the City's first standalone Police station and jail was built on West 8th Street. The building is still standing to this day but is now a business office.

Figure 37 – 1940 Tracy Hall of Justice (decommissioned)

1979 Police Building

In 1979, the Police Department moved into the newly built 9,800 square foot Tracy Public Safety Facility Building at 400 East 10th Street as part of the new Civic Center complex. This 1-story building included cast-in-place concrete partition walls for the 2,400 square foot jail. The department at this time consisted of less than 30 personnel. The condition of this 42-year-old building is poor.

Figure 38 - 1979 Tracy Police Building, 400 East 10th Street (to be demolished)

1996 Police Building

In 1996, the Police Department relocated into the newly built 27,600 square foot City of Tracy Police Facility at 1000 Civic Center Drive. This 2-story building included a 1,000 square foot Evidence space, 1,000 square foot Holding Facility, and an 800 square foot Holding Facility Sallyport. The department at this time consisted of approximately 110 personnel. Tracy's population at the time was approximately 50,000 people. The condition of this 25-year-old building is good.

Figure 39 - 1996 Tracy Police Department, 1000 Civic Center Dr (to receive tenant improvement & addition)

Between 1996 and 2021, the Police Department repurposed space within their existing facility to accommodate population growth and the corresponding growth within the department. When repurposing and accommodating no longer proved sufficient, the department began to move some police functions into other facilities.

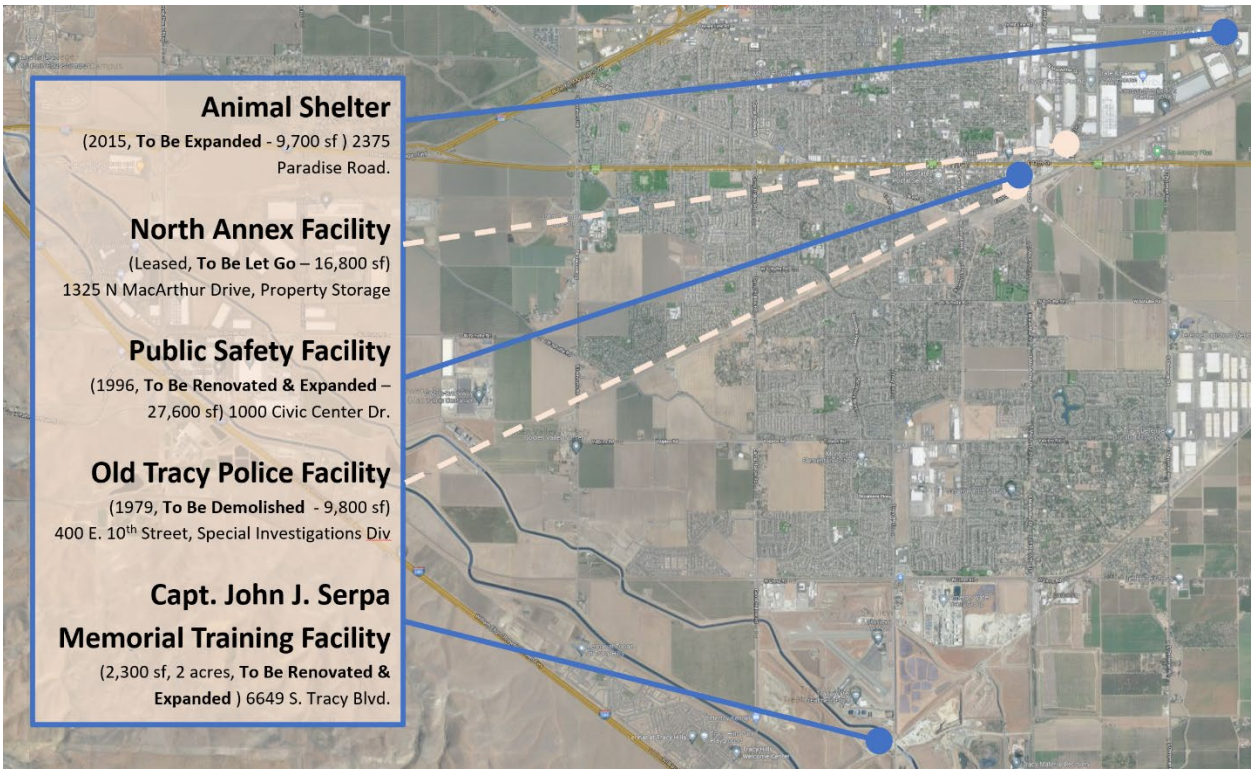


Figure 40 – Map of Existing Police Facilities

1979 Police Building, cont.

In 2012, the Police Department's Special Investigations Division returned to the 1979-era police building still standing at 400 E. 10th Street. This facility is inherently inadequate for meeting modern accessibility clearances and other code compliance standards. The concrete jail cell walls make renovations or any real use of that 2,400 square foot space impractical. In addition to the poor condition, space adaptation and non-compliance issues, separating detectives from the rest of the department potentially weakens esprit de corps. Because of these fundamental issues, this master plan does not count the department's space use at 400 E. 10th Street as "Existing Space" in its summary of attributable space and recommends its demolition.

Figure 41 – Back of 1979 Tracy Police Building, 400 East 10th Street (to be demolished)

City Animal Shelter

In 2015 the Police Department Animal Services Division moved into the newly built $3.8 million 6,000 square foot (9,700 square foot, including kennels) Animal Shelter at 2375 Paradise Road. The Animal Services Unit is comprised of nine employees consisting of a Supervisor, four Animal Services Officers, two Shelter Assistants, and two Administrative Assistants. Since Tracy had no animal shelter prior to 2015, this move did not alleviate the primary growth pressures impacting the 1996-era facility. The move did, however, expand the department's ability to serve the growing animal-loving population. The condition of this 6-year-old facility is excellent.

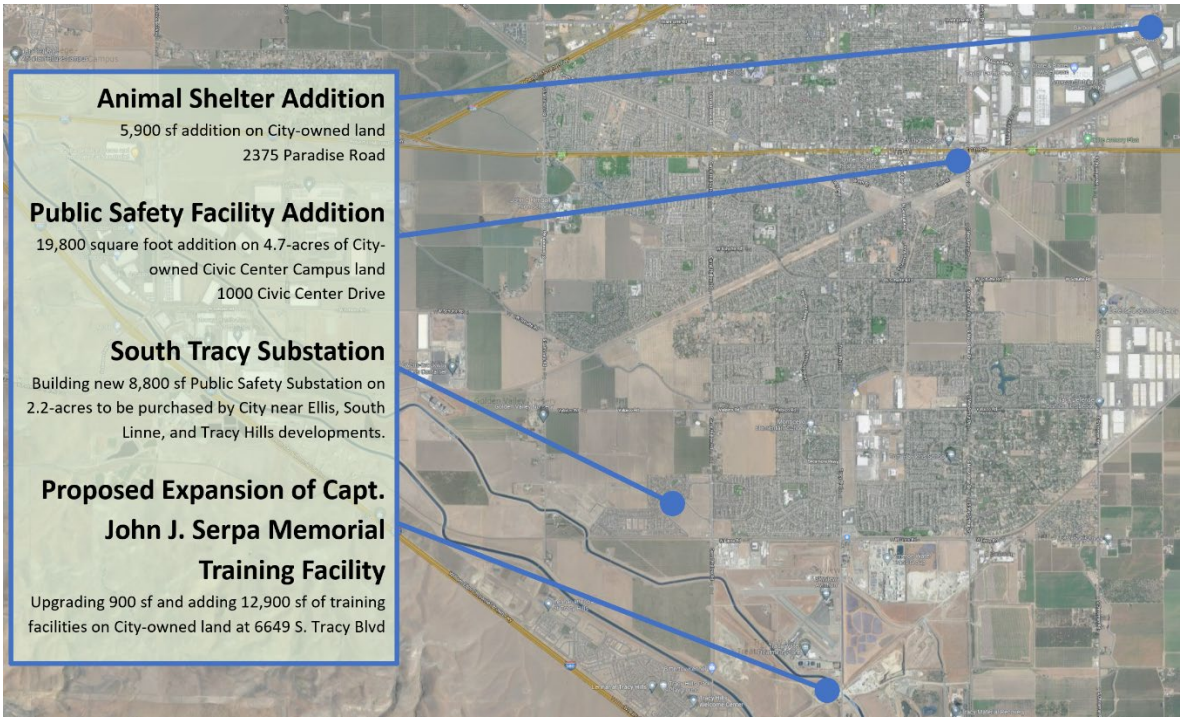


Figure 42 – Map indication locations of Proposed Police Facilities

This master plan supports the second phase addition of 5,900 square feet to the animal shelter to serve the City through Horizon Year 2040.

Figure 43 - 2015 Tracy Animal Shelter, 2375 Paradise Road (to receive addition)

2013 Police Facilities Master Plan

The prior 2013 Citywide Public Safety Master Plan proposed renovating the existing 25-year-old police building at 1000 Civic Center Drive to serve as a mixed use Downtown Police Substation, Emergency Operations Center, Dispatch Call Center, and IS Division office building. This plan also called for the construction of a 41,000 square foot Police Department Service Center on 4-6 acres along the 11th Street corridor to meeting the needs of a growing community through build out.

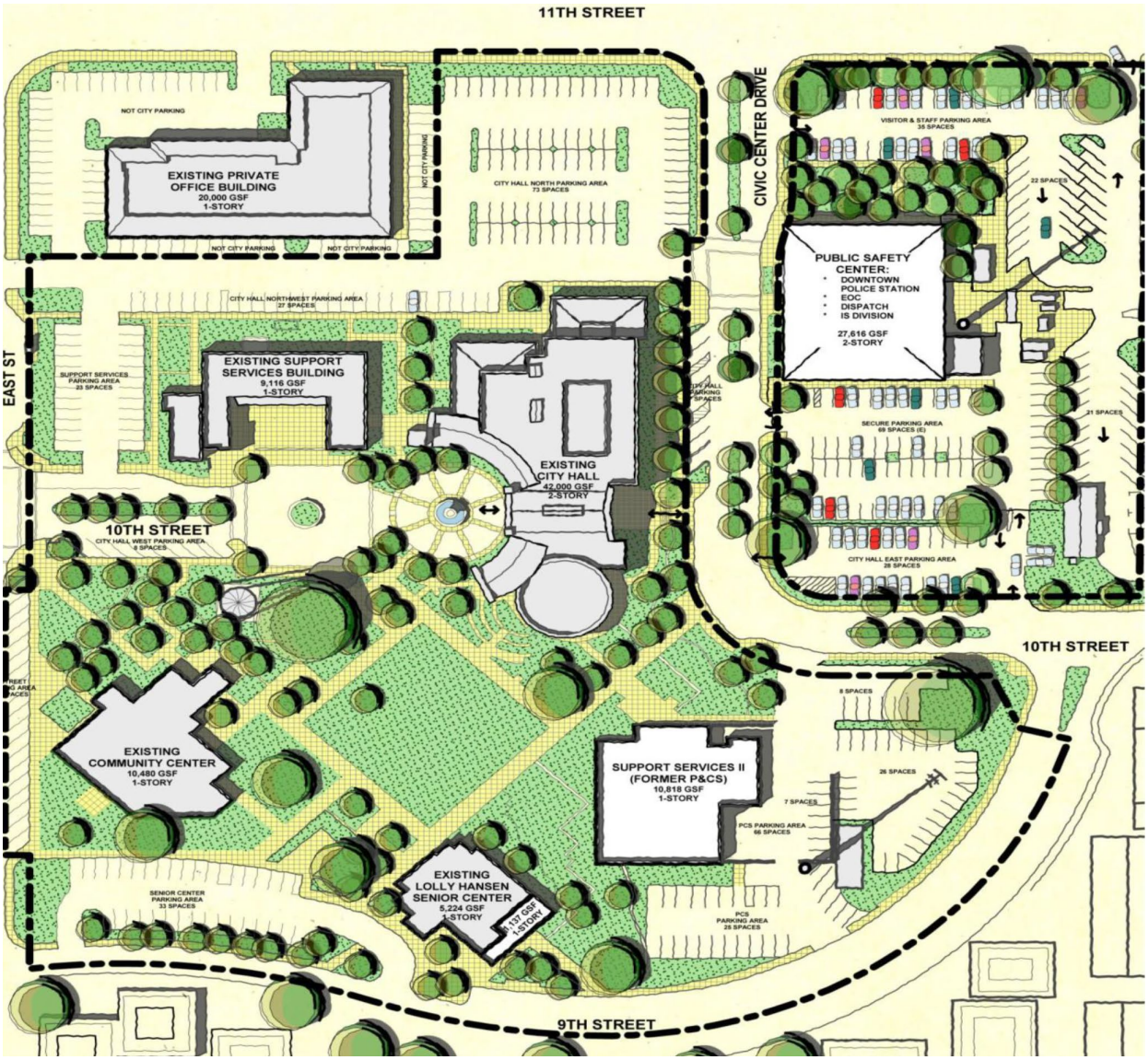


Figure 44 - 2013 Civic Center Master Plan

2023 Police Facilities Master Plan Update

Now, in 2023, the City's population has grown to approximately 95,000 people. The Police Department now consists of 154 personnel, 99 of those sworn officers, for a ratio of 1.03 to this population. The population of Tracy is expected to exceed 141,000 by Horizon Year 2040. The department will need to grow to 230 personnel to serve this population, with 152 of those sworn officers, for a ratio of 1.11. This need for 230 personnel is over twice the capacity of what the original 1996 facility was designed to accommodate, let alone the other ancillary spaces and functions needed to serve a growing population.

Having Investigations and Evidence Divisions operating out of separate facilities is not optimal with the deficiencies described in the preceding paragraphs above.

Civic Center Expansion of Police Building

This 2023 Citywide Public Safety Master Plan Update also supports the complete renovation of the 27,600 square foot Police Facility at 1000 Civic Center Drive; however, it further proposes to add to this facility in place with an expansion of the existing site. A 2-story addition of 19,784 square feet will result in a new 47,400 square foot all-in-one Civic Center Public Safety Facility at Horizon Year 2040. This requires the demolition of the nearby 1979-era police building and partial closure of 10th Street to expand the existing Police Department site at the Civic Center complex from 2.7 acres to 4.7 acres. In addition to providing room for the building expansion, a new vehicle sallyport and ancillary building, this site extension increases parking from 175 existing spaces, with 69 of those secure, up to 243 spaces, with 140 of those inside a secure enclosure. This renovation and addition will provide the Police Department with the building and site space it requires to serve the City through Horizon Year 2040.

Figure 45 - Bird's Eye View of Proposed Civic Center Expansion of Police Building and Site

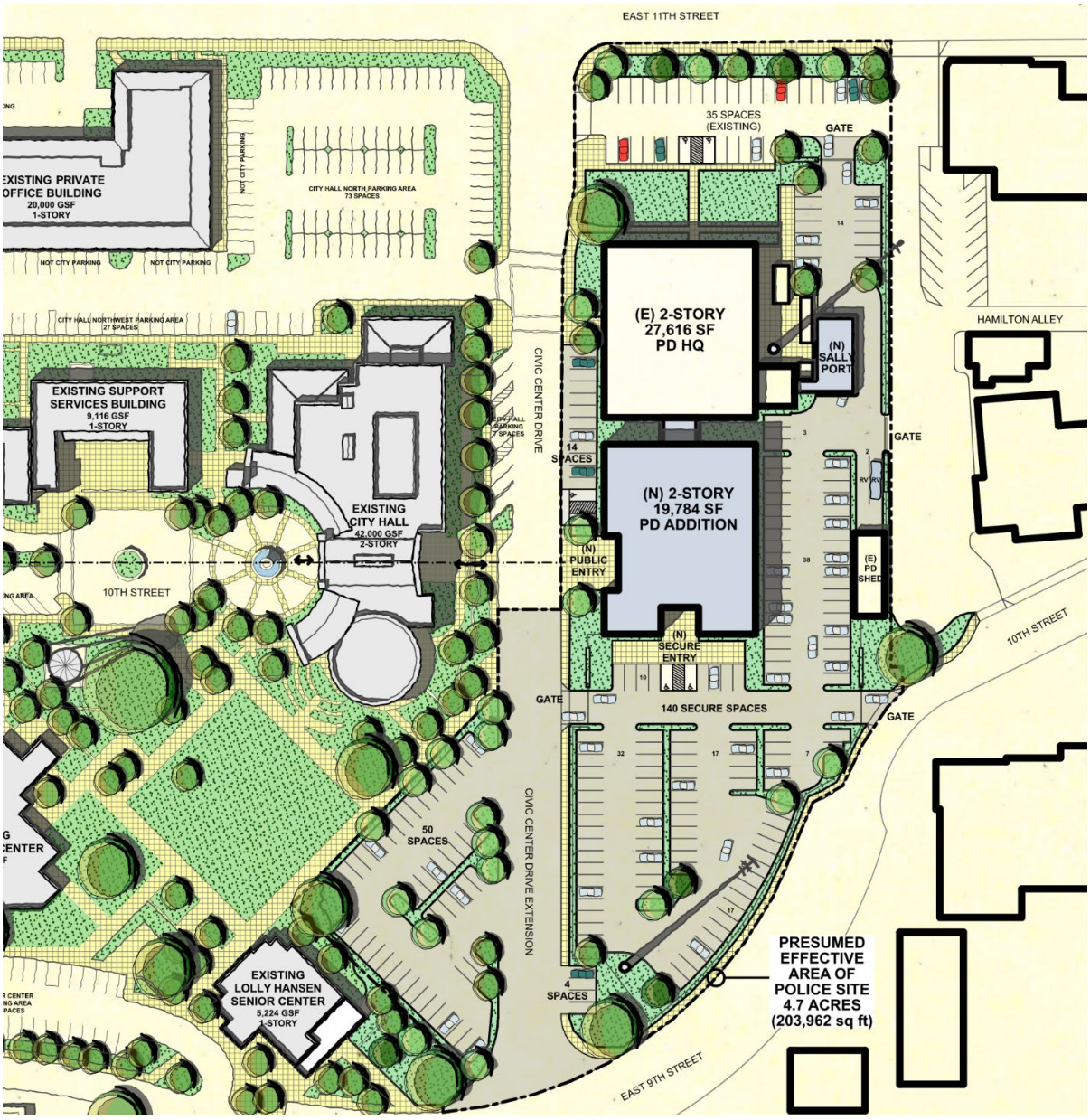


Figure 46 – Civic Center Expansion of Police Building and Site (at Horizon Year 2040)

Police Substation

This 2023 Citywide Public Safety Master Plan Update also supports the construction of a new 8,800 square foot facility on 2.3 acres to be purchased by City near Ellis, South Linne, and Tracy Hills developments. This new site adds 94 parking spaces, with 74 of those inside a secure enclosure. With 20 visitor, 20 secure staff, and 54 secure police vehicle spaces, the substation site relieves some of the parking pressures on the Civic Center facility. The site further includes a covered space for an EOC "RV" Vehicle and covered motorcycle parking. This new substation will provide the Police Department with the building and site space it requires to serve the growing southern areas of the City through Horizon Year 2040.

Figure 47 – Civic Center Expansion of Police Building and Site (at Horizon Year 2040)

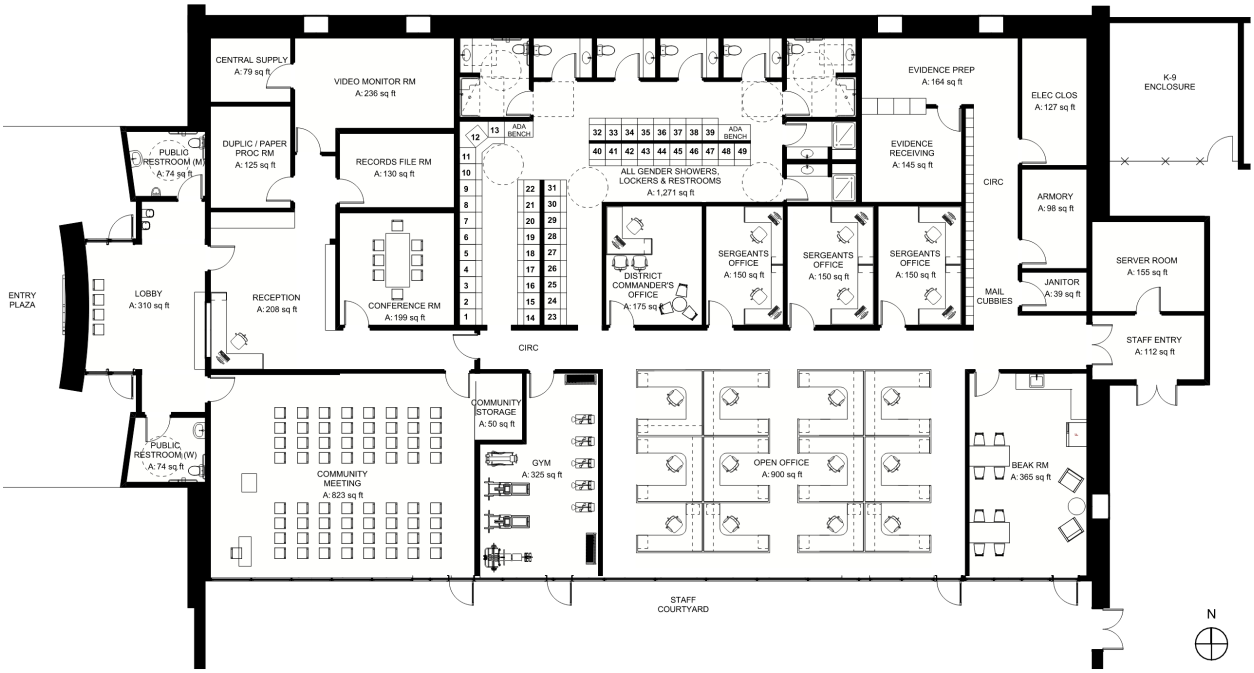
The following conceptual floor plan options for this facility provide open office space for twelve workstations and private office space for six sergeants workstations. The plans include a public lobby with restrooms and secure access to an 823 square foot Community Meeting room. The Community Meeting room, in turn, has access to a covered outdoor patio. For staff, across from lockers, is a 325 square foot Gym.

Where the options differ is in the locker room configuration. Option 1 (below) features a typical layout for separate men's and women's locker facilities with semi-private toilet rooms. Changing is assumed to take place in the locker area itself. The trade-off for the higher locker count in this Option (22 women, 32 men, 4 day lockers) is there's only space for 1 semi-private shower each. This Option is less flexible in that if more than 22 women or more than 32 men are posted to this Substation, some staff may miss out on having a full-size locker.

Floor Plan - Option 1

Figure 48 – Conceptual Floor Plan Option 1 with typical Male & Female locker rooms.

Conceptual floor plan Option 2 (below) features an all-gender locker room configuration, providing 49 lockers for any ratio of staff gender posted to this Substation. The locker room features 4 fully-private shower rooms, each with lavs, two of these rooms are fully-accessible and include toilets. In addition, the locker room features 4 fully-private toilet rooms, each with lavs. These 6 single-occupant rooms provide private changing space as well.



Floor Plan - Option 2

Figure 49 – Conceptual Floor Plan Option 2 with an all-gender locker room.

North Annex Leased Building

In 2019, the department leased a 16,800 square foot "North Annex" industrial space at 1325 N MacArthur Drive to serve as an offsite evidence facility. The facility is outfitted with evidence lockers, 3 large evidence vaults, a drying room, a property release room, space for evidence vehicles, and a car lift. The condition of this leased facility is excellent. However, any time evidence is separated from the main police building, including its sallyport and holding facilities, it creates a more challenging chain-of-custody environment for the department and separates the Evidence Technician from Records and Patrol personnel, potentially weakening esprit de corps. The existing 1,000 square foot Evidence spaces in the 1996 are now potentially made redundant and are specialized and not easily adapted to other uses. Because this is a leased space, this master plan does not count the department's space use at 1325 N MacArthur Drive as "Existing Space" in its summary of attributable space.

Figure 50 - Leased North Annex Space, 1325 North MacArthur Drive (to be let go)

For training facilities, this master plan supports the Police Department upgrading 900 square feet of the existing 2,300 square foot Capt. John J. Serpa Memorial Training Facility at 6649 S. Tracy Blvd and adding a much needed additional 12,900 square feet of training facilities. The Fire Department is currently constructing their own separate 8,100 square foot Fire Training Facility at 1399 S. Chrisman Road.

Figure 51 - Captain John J. Serpa Memorial Police Training Facility (to be upgraded and expanded)

Public Safety Radio Communications Facilities

As summarized in "South San Joaquin County Fire Authority (SSJCFA) Radio System Overall Assessment" (2020) by Silke Communications, the City shall upgrade its communications infrastructure as follows.

Future Radio System:

- Two channel, repeated VHF analog voted unicast system, digital (P25) ready, with remote monitoring capability.
- New subscriber radios shall be P25 capable with just software licensing upgrades.

Microwave network for voter connectivity:

- Microwave links to Station 91, 92, 93, 94, future 95, 96, current or future 97, Fire Training Facility, and Fire Administration.

Station Infrastructure:

All stations have SCD South, TAC 16 voted receivers, local radios and microwave connections.

- Station 91: tower upgrade to 100 feet depending on future Station locations to West
- Station 92: minimum 100 foot tower
- Station 93: minimum 150 foot tower
- Proposed Station 94: minimum 100 foot tower
- Recently Completed Station 95: minimum 100 foot tower
- Station 96: up to 100 foot tower depending on neighbors
- Proposed Station 97 or Fire Training Center: 180 foot tower that will become system hub
- All future Stations to have minimum 100 foot tower.

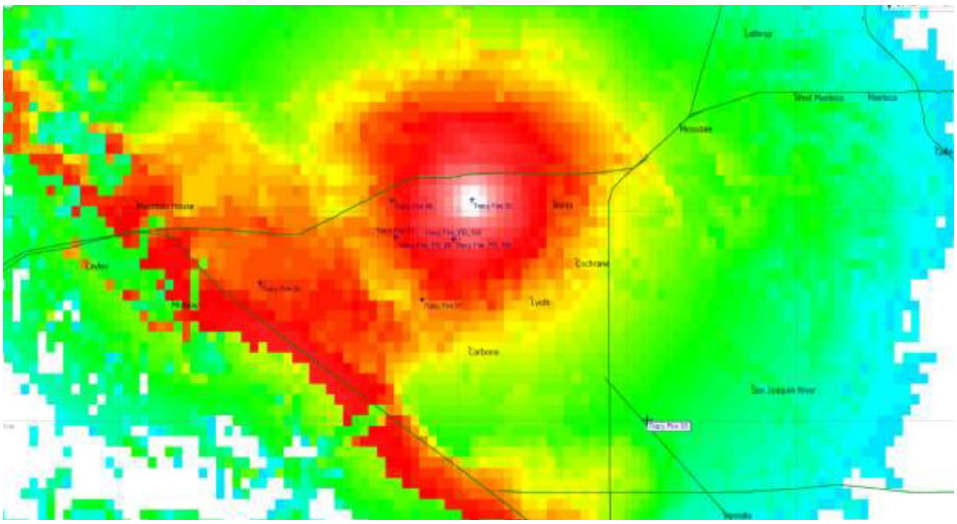


Figure 52 – Tracy Public Safety Radio Communications Systems Modeling

In addition, this master plan supports upgrades to the radio room at the 1996 Police Department Building, including replacing the voting hardware with new network enabled voters and improving the SCD and TAC 16 transmission system. These upgrades will provide the best near term radio system improvements for the least cost and least disruption. Also recommended is for the police to employ dual band portable and mobile (UHF/VHF) radios that will provide inter-operability with the Fire Department and other law enforcement agencies.

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COST

Estimate Summary

The Public Safety Master Plan carries a total project development cost of approximately $130.8 million as shown on Figure 53. Included are estimated construction costs ($84.2 million), indirect and contingency costs ($29.5 million), vehicles and furnishings, fixtures, and equipment (FF&E, $13.9 million), and land acquisition ($3.7 million). See also Appendix D.

PLACE NAME	2023 Construction Bid Day Cost	35% Indirect & Contingency: 10% Design & Planning; 10% CM; 15% General Contingency	FF&E & Vehicles	Land Acquisition	2023 Total Project Cost
Fire Headquarters | Station "A"					
Fire Station 91					
Fire Station 92					
Fire Station 93					
~~Fire Station 94~~ (To Be Relocated. Property ownd by SCFA.)					
Fire Station 94 (Relocation - Cordes Ranch Area)	$6,942,300	$2,429,805	$2,600,000	$500,000	$12,472,000
Fire Station 95 (Tracy Hills Area)	$6,197,192	$2,169,017	$874,518	$192,837	$9,433,000
Fire Station 96					
~~Fire Station 97~~ (To Be Relocated. Sell property.)					*($451,350)*
Fire Station 97 (Relocation - Valpico) incl. Ladder Bay	$6,942,300	$2,429,805	$1,000,000	$500,000	$10,872,000
Fire Station 99 (Ellis Area)	$5,427,849	$1,899,747	$1,000,000	$233,012	$8,561,000
Fire Training Facility - Phases 2 & 3	$6,793,881	$2,377,858	$500,000	$0	$9,672,000
SUBTOTAL FIRE DEPARTMENT	**$32,303,500**	**$11,306,200**	**$5,974,500**	**$1,425,800**	**$50,558,700**
PD Remodel & Addition on Expanded Civic Center Site	$31,599,384	$11,059,784	$2,160,114	$0	$44,819,000
~~PD Annex~~ (1979 Police Station to be Demolished)					
~~PD North Annex~~ (Leased - to be let go)					
South Tracy Police Substation	$9,479,695	$3,317,893	$648,049	$1,760,000	$15,206,000
Police Department Training Facility	$4,887,202	$1,710,521	$36,098	$402,925	$7,037,000
Police Department Animal Shelter - Phase 2	$5,044,104	$1,765,436	$1,000,000	$0	$7,810,000
SUBTOTAL POLICE DEPARTMENT	**$51,010,400**	**$17,853,600**	**$3,844,300**	**$2,162,900**	**$74,872,000**
Public Safety Radio Communications Facilities	$862,240	$301,784	$4,067,185	$125,000	$5,356,000
SUBTOTAL COMMUNICATIONS FACILITIES	**$862,200**	**$301,784**	**$4,067,185**	**$125,000**	**$5,356,000**
TOTAL PUBLIC SAFETY FACILITIES (rounded)	**$84,177,000**	**$29,462,000**	**$13,886,000**	**$3,714,000**	**$130,790,000**

Figure 53 - Public Safety Master Plan Cost Estimate Summary

<u>Public Safety Radio Communications Facilities</u>

The total project cost of the Public Safety Radio Communications Facilities have been estimated at approximately $5.4 million. See description on page 43 for more information about the system.

Facility Allocations

The City is conducting an independent analysis of the public safety impact fees necessary to cover the costs of the proposed new public safety buildings in the City of Tracy. This analysis includes a review of the facilities needs, and resulting building program and cost estimates, in this report. The purpose of this review shall be:

- to validate public safety facility improvement needs to support Horizon Year 2040 and buildout of the Tracy General Plan;
- to identify and segregate costs attributable to current deficiencies for existing development versus costs for facility expansion and upgrade requirements associated with new development; and
- to then provide an estimate of the impact fee burdens that would be placed on different categories of new development in accordance with their relative contribution to demand for the new or upgraded facilities, in order to fund the capital facilities program.

Land Acquistion Value

For the purposes of estimating land acquisition value, this report estimates $250,000 per acre. This unit cost derives from the Harris & Associates 2019 Public Safety Impact Fee Update. Notable exceptions to this unit cost (also deriving from the 2019 Fee Update):

- $402,925 for PD Training Facility land acquistion, and
- $1,760,000 for 2.2 acres of South Tracy Police Substation land acquistion.

Site Development Cost

For the purposes of estimating site development cost, this report estimates $800,000 per acre. This unit cost derives from cost data averaged from multiple comparable public safety projects. Notable exceptions to this unit cost are the following facility upgrades and additions not requiring comprehensive landscaping or parking additions:

- $275,000 per acre for FD Training Facility expansion,
- $250,000 per acre for PD Training Facility expansion,
- $200,000 per acre for PD Animal Shelter Phase 2 expansion, and
- $360,000 per acre for the Radio Communications Tower improvements.

Building Construction Cost Inflation

For the purposes of building construction cost, this report estimates an average 2023 Bid Day Unit Cost of $730 per square foot of combined remodel and new construction across all projects.

- Fire facility unit costs average $820 per square foot for all new construction.
- Police facility unit costs average $670 per square foot for approximately 38% remodel construction and 62% new construction.
- The Radio Communications Tower unit costs reflects much more dense construction necessities for its 400 square feet, with a unit cost of $2,160.

These unit costs derive from cost data averaged from multiple comparable public safety projects.

FUNDING OPTIONS

This study identifies and projects public safety facility needs for the City of Tracy and it estimates the total project costs for these facilities in current dollars. The City is providing a separate study, looking at all proposed master plan updates, examining the nexus of attributions of these costs, whether existing vs new development, or facilities serving populations inside the City limits vs those outside those limits.

Per above, the City of Tracy is conducting a concurrent study to document the required nexus findings to implement a fee program. This study will establish a nexus between future development in Tracy, the public facilities that will serve those projects, and the impact fees that will fund those facilities. The purpose of this separate, concurrent study is to ensure that a rational nexus exists between future development in the area and the use and need of the proposed infrastructure.

As outlined previously, the vast majority of Public Safety Master Plan costs are the responsibility of the City of Tracy. A small portion of the costs for fire protection facilities are attributable to existing rural (as opposed to newly developed) properties within the service areas of the proposed new fire facilities. After discussion of this matter with Tracy fire authorities, it was deemed prudent to leave it up to the City to negotiate any cost sharing with their rural neighbors.

Funding for Costs Attributable to Existing Development

The Public Safety Master Plan update provides the basis to identify the new facilities that are needed as the City grows as well as the cost of those facilities. The City of Tracy follows the principle that new development pays its fair share of costs for public facilities and services. Most, but not all, Public Safety Master Plan costs are attributable to new development, because without the increase in demand for City services created by new development, the City would have only limited need for new or expanded Public Safety facilities. However, the City still has the need to fund a portion of the Public Safety Master Plan costs that cannot be collected from new development. Following are a number of options that the City could consider for funding existing development's share of costs:

- **Existing Public Safety Facilities Impact Fee Fund Balance** – Funds previously collected from developments that have been completed (i.e., now part of the base of existing development) but not yet expended are likely to be the first source of funding to pay for existing development's share of required facilities. The City will need to confirm that funds are eligible to be spent on the improvements included in this Master Plan.
- **Funds Collected as Part of Development Agreements –** To the extent that the City has or will collect revenues from prior or future development agreements to help fund public benefits in general, or specific public safety improvements, the City may have the ability to utilize some of these funds to pay for existing development's share of costs. This will depend on the specific terms of individual development agreements. Similarly, if existing or future development agreements call for developers to provide in-kind contributions towards public safety improvements, this may help to offset some of the responsibility of existing development to help fund improvements.
- **Grants from Other Governmental or Charitable Sources** – The City may be able to gain access to grant funds from programs for which improvements included as part of this Master Plan would be permissible uses of funds. Such grant funds could help to pay for existing development's share of the improvements. This may include sources such as Community Development Block Grants from the U.S. Department of Housing and Urban Development and

public safety grants from agencies such as the U.S. Department of Homeland Security, and the Federal Emergency Management Agency. Some local, regional, or national charitable organizations may also offer grant funding opportunities from time to time.

- **Parcel Taxes, Assessment Districts and Other Funding Mechanisms Requiring Voter Approval** – If other funding mechanisms discussed above do not provide sufficient funding to cover existing development's share of costs for public safety improvements, the City could utilize funding from voter-approved revenue mechanisms to cover existing development's share. For example, in November 2016 the City Council and voters passed an additional ½ cent local sales tax (known as Measure V). This measure replaced a prior ½ cent sales tax measure that expired. The City began collecting the extra half-cent sales tax in April of 2017 for a term of 20 years. It is expected to generate approximately $9 million annually for the City's General Fund. Depending on other needs, the City could allocate portions of this annual revenue to help pay for existing development's share of public safety facilities costs. If Measure V funds are not available, or insufficient, the City could pursue voter approval to establish a new funding source that could involve new parcel taxes, special taxes, special assessments, or other mechanisms. The City would need to hold an election to allow the affected voters to decide if they wish to tax themselves in order to raise the necessary funds. If a new tax measure was property-based, new development areas that will pay impact fees or make contributions through development agreements, and other areas that have already contributed their fair share of costs through prior payment of impact fees or through development agreements could be exempted from paying the new levies.
- **Infrastructure Financing District** – With the abolition of California Redevelopment Agencies in 2011, cities lost a powerful tool to fund public facilities using property tax increment that otherwise would have accrued to various tax-receiving entities. To partially address the loss of Redevelopment Agency tax increment financing, the State enacted legislation to allow formation of Enhanced Infrastructure Financing Districts (EIFD) and Community Revitalization Investment Authorities (CRIA). Powers of these districts include tax increment financing, but they each have different authorized activities and carry different requirements for how they operate. An element that EIFDs and CRIAs share in common is that they are typically only able to access the tax increment that is directly controlled by the local jurisdiction (e.g., City of Tracy); thus, their ability to generate revenues is limited, particularly in areas where there will be limited new development, such as in existing developed parts of the City.
- **Bond Proceeds** – If the City has an ongoing source of annual revenues that it can dedicate to debt service payments, the City can issue different types of bonds in order to obtain funds to pay for "up front" costs and then repay the bonds over time. General Obligation bonds, which are backed by the City's full faith and credit, require voter approval. Other types of bonds, such as Mello-Roos Community Facility District bonds, or certificates of participation (COPs), which involve more limited security for repayments to bondholders may not require voter approval but have different legal requirements.
- **General Fund Allocations** – After other possible funding sources have been exhausted, the City Council will have the discretion to allocate General Fund monies to help pay for existing development's share of required new facilities, to fill remaining funding gaps. Through its annual budgeting process, the City Council would approve a transfer of money from the General

Fund to its General Projects Fund (#301) where the funds could then be allocated to support specific Public Safety capital projects. For example, this would be the mechanism to allocate a portion of Measure V funds towards Public Safety Master Plan projects.

Funding for Costs Attributable to New Development

New development may contribute its fair share of costs through any of the other funding mechanisms that have previously been mentioned. However, the most typical mechanisms to fund new development's share are:

- Development Impact Fees (i.e., Tracy Infrastructure Master Plan (TRIMP) fees)
- Mello-Roos Community Facilities Districts
- Special Assessment Districts
- Development Agreements (including provision of in-kind improvements, such as construction of new facilities, or provision of sites for new public facilities)

These funding mechanisms are typically established as part of the process of entitling new developments, so voter approvals are not typically necessary. In the case of development impact fees, the City will update the TRIMP fee program to reflect the updated Public Safety Master Plan and ensure that the appropriate level of funds is collected to pay for new development's share of the facilities costs, and to ensure that the City can then expend fee revenues collected through the TRIMP in accordance with an updated fee program.

When mechanisms other than development impact fees are used to pay for only a portion of new development's share of costs, credits can be given to reduce the amount of development impact fees that would otherwise be paid. In addition, sometimes developers provide more than their fair share of public improvements and agree to be repaid over time by impact fees that are paid by subsequent developers who benefit from the improvements.

In addition to development impact fees and the mechanisms listed above, private transaction fees are another mechanism that is being utilized more frequently in California and other states to collect funds from new development. A private transaction fee uses a private sale of real estate to trigger a contractual requirement that funds be paid for a certain purpose. For example, a private transaction fee could stipulate that a certain dollar amount be paid into a fund to pay for public safety improvements every time a home or commercial property is sold, within a specific area. If utilized in place of development impact fees, the City should be aware that private transaction fees may defer the ability to fund new public facilities, since impact fees are typically paid before homes are constructed, while private transaction fees might not be collected until homes are completed and sold to homebuyers.

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DESIGN GUIDELINES

In order to assure consistency with existing City guidelines, a review of relevant existing guidelines is shown here, supplemented with additional recommendations relevant to the CPSMP update.

General Plan Land Use Guidelines

The City's General Plan Land Use Element includes goals, objectives, policies and actions for all public facilities and specified private improvements:

- Establish a clearly defined urban form and city structure.
- Comprehensively plan for new development in the City's Sphere of Influence.
- Ensure that the public facilities such as schools, parks, and other community facilities are accessible and distributed evenly and efficiently throughout the City.
- Promote efficient residential development patterns and orderly expansion of residential areas to maximize the use of existing public services and infrastructure.
- Encourage development near transit stations including the multi-modal station in Downtown, and the Altamont Commuter Express (ACE) station or stations.
- Expand the City's cultural and arts facilities.
- Locate services and amenities within walking distance of neighborhoods.
- Target new uses for the Downtown to reinforce its role as the heart of the City.
- Establish the Downtown as the governmental and cultural focus for the City and the region.
- Ensure land use patterns that minimize conflicts between transportation corridors and neighboring uses.

See "City of Tracy General Plan" (2011).

Civil Engineering and Construction Guidelines

The City has previously commissioned a study that includes minimum standards for the design, construction, maintenance, repair, and alteration of all public facilities and specified private improvements:

- Roadways.
- Storm Drainage.
- Wastewater Facilities.
- Water Facilities.

See "City of Tracy Engineering Design & Construction Standards" (2020).

Streetscape Design Guidelines

Guidelines ensuring that the installed landscape enjoys a long lifespan, is aesthetically pleasing, with minimal maintenance and watering requirements. Tracy's Downtown has a compact, grid street system and serves as the historical heart of the City. There are numerous historical buildings that enhance the City's identity, walkable main streets with a diverse mix of uses, and a small town urban fabric. The City has previously commissioned a study that includes:

- Sound Wall Design.
- Planting Design.
- Irrigation Design.
- Side Streetscapes, Medians and Intersections.

See "City of Tracy Standard Plans" (2020).

General Plan Community Character Urban Design Principles

The City's General Plan Community Character Element includes urban design principles for all public facilities and specified private improvements:

- Human-scale Design.
- Focal Points.
- Edges.
- Visual Landmarks and Entryways.
- Building Siting to Hold Corners.
- Pedestrian Orientation.

See "City of Tracy General Plan" (2011).

Urban Design Guidelines[1]

- Parcel Geometries
- City buildings shall, with some exceptions, be oriented parallel to the existing public streets.
- Civic Center buildings south of 10th Street shall remain oriented 45 degrees to the other parcels in order to align with the existing diagonal walkways.
- Build-to Lines
- To create clearly defined public spaces, the City shall impose build-to lines.
- The goal is to have a minimum of 80% of each building conform to a typical build-to line.
- Pedestrian Plazas, Arcades and Entries
- Buildings shall be designed to enhance the definition and the quality of the plazas they face.
- Major pedestrian entries of civic buildings shall be from boulevards or major plazas.
- Entries shall be easy to find and inviting and shall be protected from the elements by covered arcades.
- Arcades shall be provided to unify civic buildings co-located on the same site and not separated by a vehicular way.
- Landmark Buildings
- All landmark buildings will have prominent roof forms developed from a three tiered hierarchy: major, secondary, and minor.
- Major landmarks shall be the tallest, rising significantly above the nearest roofs.
- The major landmarks are to be the most recognizable from afar and have the most memorable forms.
- The secondary landmarks shall be visibly distinct when seen from the vantage of the nearest public street or easement. These landmarks should not compete with the major landmarks.
- The minor landmarks are special buildings that should be architecturally distinct from, be easier to find, and be more inviting than the other non-landmark buildings.
- All other buildings shall have flat roofs with natural colored roof ballast.

Architectural Design Guidelines[2]

These guidelines have been developed to maintain a high quality appearance and to assure compatibility and harmony of all buildings. The guidelines are not intended to limit creative design or individuality. These guidelines shall apply unless an exceptional quality of design, materials, and contribution to the common character and public spaces can be demonstrated.

The architecture of Tracy's public buildings should promote a civic identity appropriate to the importance of the site. Each building should be reflective of the following:

[1] Adapted from Civic Center Urban Design Guidelines, Group 4, 1999
[2] Adapted from Civic Center Urban Design Guidelines, Group 4, 1999

- Be of enduring quality.
- Demonstrate design excellence.
- Unacceptable styles or themes
- Overtly historical.
- Mission or Spanish revival.
- Residential scale or imagery.
- Commercial or retail imagery.
- Corporate or office building style or imagery.
- Required Building Features
- Arcades.
- Varied building forms.
- Pedestrian scaled elements
- Articulated building “bases” at a pedestrian scale. Building bases should, at appropriate locations, be suitable as places to sit.
- Rhythm of windows and wall scaled to the walking pace of a pedestrian.
- Interesting elements and details to look at.
- Places to gather.
- Garden walls and trellises.
- Prominent roofs
- Visible from major boulevards and promenades.
- Material shall be metal, concrete, or concrete tile of a neutral shade.
- Articulated from the building mass.
- Flat roofs are not acceptable for landmark buildings.
- Materials and Finishes
- Stone, brick or concrete masonry
- Cast-in-place or precast concrete
- Cement Plaster
- Metal, concrete, or clay tile (flat profile) roofing for landmark buildings
- Parapet bordered, ballasted, membranes for flat roofs.
- Color Strategy
- Bright and sunny
- Light colors predominate
- Neutral shades on roofs and special wall surfaces
- Complimentary colors on accent features

Sustainability Measures

The City’s Sustainability Action Plan includes measures to achieve sustainability targets as applicable for all public facilities and specified private improvements:

- Green Building Ordinance
- Energy Efficiency in Site Planning and Design
- Energy Efficient Products
- Energy Efficient Retrofits for City Street Lights
- Solar Panel Installations on Municipal Facilities
- Energy Efficiency Settings for City Desktop Computers
- Reduced Parking Requirements
- Support for Bicycling
- Support for Transit
- Smart Growth, Urban Design and Planning
- Parking Cash-Out Programs for Employees
- Increased Use of Low Carbon Fueled Vehicles
- High-Density Infill Projects
- Non-Toxic Building Materials
- Green Building Training for City Staff
- Emerald Tracy Website
- San Joaquin Council of Governments Sustainable Communities Strategy

See "City of Tracy *Sustainability Action Plan*" (2011).

This study augments the above already published measures with the following regional-appropriate measures to achieve sustainability, including extending the survivability of facilities. These are recommended as design guidelines for the public facilities to be built resulting from this master plan.

Extended Survivability – Facilities built under the CPSMP update should be designed with extended survivability built-in. The recent earthquake & tsunami in Japan is yet another example of what happens in disasters when structures are not able to survive and remain in service. This was probably a 300-year event, but the probability of such events is often misunderstood and misused. This event could easily have happened today, here in California. While an ocean tsunami is not possible in Tracy, the area is certainly earthquake-prone. The USGS database shows that there is a 98.035% chance of a major earthquake within 50 kilometers of Tracy – well within the lifetime of Tracy's public buildings and representing a serious threat to the delivery of public services when they are needed most. This may be the City of Tracy's highest duty and responsibility - to serve the public during times of critical emergency. (See Figure 54.)

Figure 54 - Earthquake, Chile

To do so, the City must have facilities that have survived any predicted event and remain functional and can support emergency service delivery. Most planning and building design standards for earthquakes are based on the ability of a structure to withstand only a 100-year event. The earthquake and tsunami in Japan, Hurricane Katrina, and other major events demonstrate the need for facilities to remain useable post disaster for extended periods without electric power and other services. Designing for this is called the "*extended survivability*" design process.

Figure 55 – Viscous Damper Retrofit, Kent WA

Extended Survivability Defined - "*Extended Survivability*" is the ability of a facility to remain useable even when disaster has stricken and electric and other utilities are down for extended periods. As an urban planning and architectural design concept, it defines how a district or building is able to continue to operate even during a protracted outage of utility services such as electric power, natural gas, water and sewerage. As applied in California, it defines the ability to survive the maximum anticipated earthquake, forest fire, flood or other natural disaster, and to endure the prolonged power and other outages that may follow. At present, public safety facilities need only to comply with minimum building code requirements and provide for emergency power generation for a limited period of time, up to 72 hours. Largely unaddressed, however, is the long term functionality of the post-disaster facility. Examples of earthquake-resistant design are shown in Figure 55, Figure 56, Figure 57, and Figure 58.

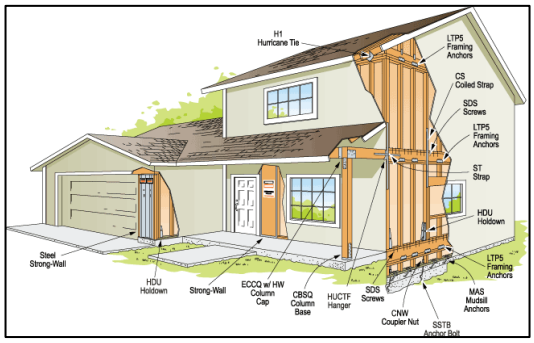

Figure 56 – Code-Prescribed Earthquake-Resistance

This is where extended survivability comes in. This is especially critical for Police and Fire essential services buildings which need to function after a disaster. Advances in earthquake engineering, energy conservation, and design with climate and onsite energy production have made this possible to achieve. However, it requires the adoption of a new architectural and engineering design paradigm. A major component of this paradigm is the use of sustainable and passive design with climate-adapted techniques.

Passive planning and design principles utilize the forces of nature to help ensure continued building functionality. Structural design techniques such as using "shock absorbers" in the frame to soften the blow of earthquake forces, allow the building to respond with minimal impact to structure and contents. (See Figure 61, p.58) Use of natural lighting from skylights and windows allows daytime building use without electric power for lighting.

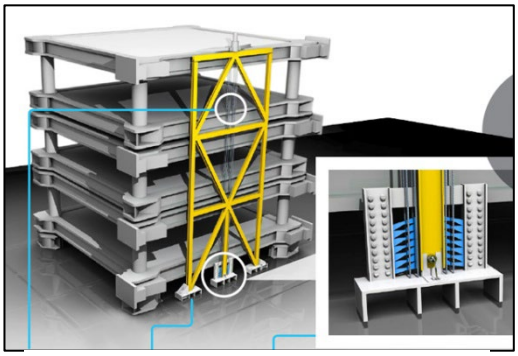

Figure 57 – Steel Fuse Technology, Stanford & Northeastern Universities

Natural ventilation and operable windows help ensure that the building can be used even when power or fuel supply for mechanical systems is compromised. Heating and cooling load avoidance strategies, passive solar design principles, and use of thermal mass to reduce indoor temperature fluctuation are all effective techniques. The reduced demand on emergency power generation resulting from the above listed strategies greatly extends the period of time when the building can remain operational. Finally, small photovoltaic electric systems can then maintain computer and critical communications functionality.

Benefits & Relation To Sustainability **-** The three main benefits of extended survivability in buildings are: 1) *extended emergency operations* are provided long after onset of an emergency, 2) *workplace quality* is dramatically improved and 3) *energy-efficiency* is improved substantially reducing energy costs and making LEED certification easier.

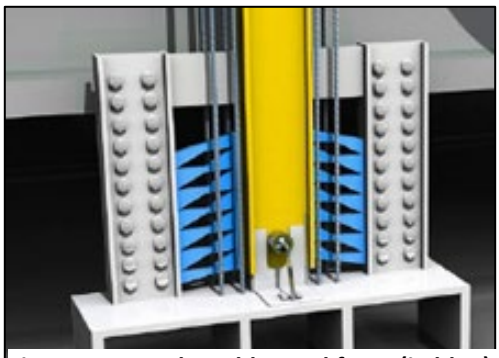

Figure 58 – Replaceable steel fuses (in blue) contort to absorb seismic energy.

Extended Emergency Operations - The first benefit is that services remain available in a post-emergency scenario and allow for continuous, operations long after the onset of an emergency event such as earthquake, flood, fire, etc. Services required for functionality, building envelope integrity, safety provisions, water and energy availability and the presence of light and air are all provided in a cascading arrangement depending on the extent and duration of emergency. (See Figure 59.)

OPERATION		NORMAL MODE	EMERGENCY MODE	EXTENDED SURVIVABILITY MODE
		normally available	<72 hr. post-event	>72 hr. post-event
		(N)	(E)	(ES)
FUNCTION	All functions fully operational	X		
	Most functions are operational	X	X	
	Critical functions are operational	X	X	X
ENVELOPE	Envelope is intact and fully functional	X		
	Envelope, if damaged, can be immediately occupied	X	X	
	Envelope, if damaged, operates in manual mode	X	X	X
	Envelope admits natural light and air for occupancy	X	X	X
SAFETY	Structure resists all normal and lateral loads	X		
	Structure may be damaged but is safe to occupy	X	X	
	Structure and utilities may be damaged but safe to oc	X	X	X
WATER	Water systems are fully available	X		
	Water supplied by City pressure or e-generator pumps	X	X	
	Water provided only by storage or solar pumps	X	X	X
ENERGY	Normal heating and cooling is available	X		
	Heating and cooling powered by e-generator	X	X	
	Passive heating and cooling, thermal mass	X	X	X
	Photovoltaic with battery backup	X	X	X
LIGHT & AIR	Mechanical ventilation fully available	X		
	Electric lighting fully available	X		
	Electric lighting available assist from e-generator	X	X	
	Natural ventilation with power assist from e-generator	X	X	
	Natural lighting available with battery nightlighting	X	X	X
	Natural ventilation available	X	X	X

Figure 59 - Table of Extended Emergency Operations

Normal (N) Mode operations provide for full serviceability. Emergency (E) Mode operation takes effect during the first 72 hours of an emergency and provides most services normally available, thanks in large part to the presence of emergency power generation with proper fuel supply. (See Figure 60.) Extended Survivability (ES) Mode provides for continued serviceability during protracted emergencies when the grid may be down for long periods of time, beyond the 72-hour duration fuel supply and when refueling may not be an option due to the nature of the emergency, for example in a major earthquake. In this mode of operation, unlimited and ongoing operations of critical systems are possible.

Figure 60 – Emergency Generator with Shear Lugs Added to Seismic Skid Mount

The traditional code-based design approach does not design with extended survivability in mind. Design to code-only assures life safety for typical structures so people can get out, but does not limit damage to the degree that the building can remain in use. After an earthquake, for example, buildings still standing must often undergo major rehabilitation or be completely replaced due to the prohibitive cost of repair. Extended survivability design protocol includes the use of high performance engineering methodologies instead of prescriptive code-based design techniques. (See Figure 61.)

Figure 61 - Earthquake Protected Police Building with Seismic Dampers & Daylighting, Vacaville, CA

Workplace Quality Improved - The second benefit of designing for extended survivability is that a much higher quality workplace environment results from the use of natural lighting and ventilation. Daylight provides building users with superior visual acuity, a sense of psychological well being, and dramatic energy savings. Extensive research has shown that naturally lit buildings which control the use of daylight for the benefit of the occupants improve worker satisfaction and productivity as well as reduce absenteeism. This is due to the superior quality of natural light, exposure to the diurnal cycle and the provision of exterior views which are all part of a daylighting strategy. Just as we bring daylight and air inside the building envelope, we understand the importance of bringing people to the outside of buildings. Shelter, good solar orientation, courtyards and covered walkways provide outdoor spaces which can be used year-round.

Energy-efficiency, LEED and Sustainability - The third benefit is that the planned absence of energy to run the building causes the designer to consider the climate of a region in its design, which in turn makes a building inherently more energy-efficient. Designing for the specifics of climate is the most powerful way to reduce energy consumption. By designing with natural systems instead of trying to override them, low-cost or even no-cost energy reduction gains are made. In simple terms, passive solar, thermal mass storage, natural lighting and ventilation and other low-cost sensible techniques are employed to reduce reliance on energy-intensive mechanized solutions.

Developing a strong, simple extended survivability rationale results in elegant building designs that harness natural forces with the latest in technology and, in the process, make buildings more easily certifiable in high-performance building programs such as LEED. The path to LEED, zero net-energy buildings and carbon neutrality becomes easier to follow under the extended survivability framework, helping Tracy meet those goals, as well as creating highly energy-efficient public facilities which are better, more productive work environments.

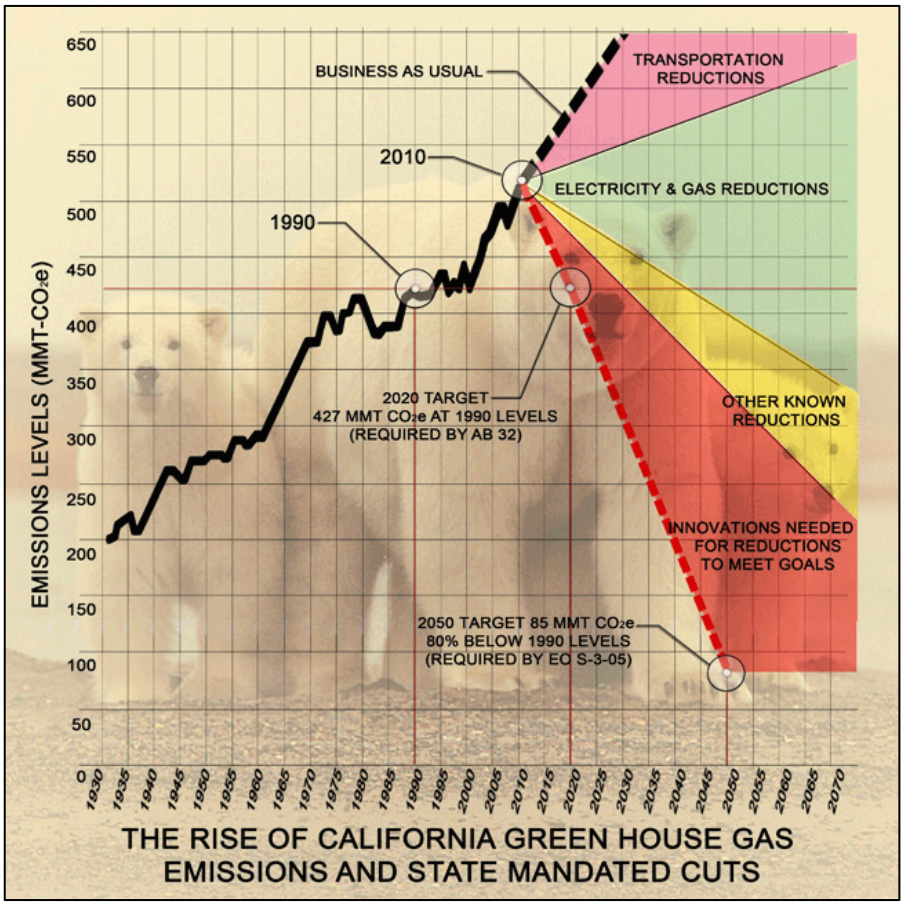

Figure 62 - Green House Gas Mandate

Green House Gas Reduction **-** Extended survivability and energy efficiency measures directly mitigate greenhouse gas (GHG) emissions, facilitating City of Tracy compliance with AB 32 and EO S-3-05. The GHG target from Tracy's Sustainability Action Plan is a 15 percent reduction in per capita emissions from the 2006 baseline of 11.6 metric tons of carbon dioxide equivalent. This target is adopted as a facility design guideline for the public facilities resulting from this CPSMP update.

Green house gases (GHG) trap heat in the atmosphere, causing the earth to warm. The scientific consensus on climate change is that the fossil fuel driven increase in CO2 emissions has caused a rapid increase in global average temperatures over the past one hundred years; this is particularly evident over the last five decades.

In response, California has enacted climate change legislation, most notably AB 32, which establishes climate change emissions reduction targets for the state. AB 32 requires GHG emissions to be reduced to 1990 levels by 2020 and EO S-3-05 would see emissions drop to preindustrial levels by 2050. General Plan update CEQA approvals offer the path to AB 32 compliance for Cities, with the State Attorney General providing ultimate oversight and enforcement.

Local governments have a unique ability to effect GHG mitigation by adopting Climate Action Plans (CAPs). When successfully amended to the General Plan, City and county CAPs provide a roadmap to reduce not only direct operational GHG emissions, but also influence the GHG footprints of citizens, industries, and businesses within their jurisdiction. Through visibility and purchasing power, local governments can set an example for households and businesses in their GHG-reduction practices. Nearly every local, county and state agency in California is acting to mitigate GHG emissions. (See Figure 62 and Figure 62)

Net Zero-Energy Buildings (ZEB) Definition - Net zero-energy buildings (ZEB), including their site, consume zero net energy and emit zero net carbon annually. The result is net zero energy costs, when averaged over a year, for the City.

Simplified ZEB Protocol - Designing for the specifics of climate is the most powerful way to reduce energy consumption and achieve zero-net energy buildings. By designing with natural systems instead of trying to override them, low-cost or even no-cost energy reduction gains are made. In simple terms, passive solar, thermal mass storage, natural lighting and ventilation and other low-cost sensible techniques are first employed. Once the basic building envelope has been optimized for the particular Central Valley climate zone for Tracy, efficient mechanical and electrical systems are used that support all facility uses such as lobbies, office, and training space. Total yearly energy demand is then calculated and converted to photovoltaic capacity in kW to offset this demand. (See Figure 63, p.61.)

ZEB and Life Cycle Cost - Choices at every stage - from standards and specifications to design and construction - are made based on efficacy of function, energy-efficiency, durability and cost. Cost is not only first cost but life cycle cost including maintenance, operations, recycling and replacement cost. Since total envelope and process loads are reduced to minimum, there is a corresponding reduction in the offset cost to achieve zero-net energy since less on-site renewable energy (e.g. photovoltaics) is required. This means less cost to installed KW capacity.

Figure 63 - Net Zero-Energy Transportation Center, Vacaville, Ca.

Facility Design Recommendations – A menu of key extended survivability and sustainability features, where appropriate, recommended for the buildings included in the CPSMP update, includes:

- **Photovoltaic power for critical needs** – Consider small-scale rooftop photovoltaics array to power critical emergency circuits, IT, radio, etc. Could be rooftop mounted or site racks.
- **Isolate and protect critical utilities** – Evaluate each building system for criticality including but not limited to radio, telecommunications, power, sanitary sewer, potable water, etc. Identify feasible measures which can be cost-effectively taken to harden against flooding, earthquake or other threat to be determined.
- **Design structures to "immediate-occupancy" level** – The new Police Department Service Center and Fire Stations will be designed to the highest structural level, that of immediate occupancy, which means that the structural frame and all building services will be available after a seismic event.
- **Use seismic dampening to improve survivability at same cost** – Consider use of viscous fluid dampers (VFD) or other structural dampening techniques to increase the resilience of the building frame under earthquake loads, improving survivability during and serviceability after an earthquake.
- **Use energy-efficient design to extend survivability and reduce utility bills –** A variety of measures such as east-west building orientation, use of thermal mass, high-efficiency mechanical strategies,

etc. will reduce energy consumption and extend the duration in which emergency power can be provided.

- **Use natural light and ventilation to improve workplace quality and extend survivability –** Use of natural lighting and ventilation provides for a high-quality workplace day-in and day-out, but also means that the building can be passively operated and inhabited when emergency power has been exhausted.
- **Make full use of daylighting** – Make full use of windows for daylight, use skylights at roof so that most of building can be naturally lit for use in emergency. Daylighting means that primary work spaces are provided with natural light from skylights and/ or high windows with light shelves, with the electric lighting system controlled by light sensors which automatically turn them off when there is sufficient natural light. 30% - 50% of the energy used by most buildings in the U.S. goes into lighting, a large share of that can be saved by a daylighting system.
- **Add window shading** – Use overhangs, solar screens and other devices to permit view out, yet reduce summer heat load, reduce air conditioning demand and extend duration of emergency generator power due to reduced rate of fuel consumption. Saves on utility bill, too.
- **Provide super-insulation** – Maximum insulation values are utilized. Wall insulation of up to R-40 is encouraged, twice the usual thermal resistance of a wall. Roof insulation values between R-30 and R-40 are desired. Consider alternative building technologies like using California's Central Valley's own straw bale as insulation for buildings which provides up to R-40 walls.
- **Increase thermal mass** – Heat storage capacity is maximized through the use of high specific heat and heat capacity materials such as concrete, masonry and even interior wallboard assemblies. Novel use of materials to increase thermal mass should be considered such as straw bale covered concrete exterior walls, concrete floor and concrete roof to name a few. The large heat storage capacity of these surfaces will moderate temperature swings in the building and reduce the demand for heating and cooling. The resulting "thermal flywheel" effect can be amplified through use of nighttime ventilation strategies to help "carry" the building through hot summer days with less mechanical cooling required.
- **Nighttime ventilation** – During the summer, when the night air is cool, buildings can be ventilated with outside air to cool the heavy mass of interior and exterior walls. A cool slab and heavy mass walls will help keep the building cool for much of the day. Thus, demand for mechanical refrigeration cooling can be greatly reduced in Tracy's hot climate.
- **Reflective cool roof** – Where re-roofing is required, use "cool roof" products. Roofs should be cool roof designs which reduce roof surface temperatures, reduce heat transmission into the building and reduce "heat island" effect.
- **Use natural ventilation** – Natural ventilation or mixed-ventilation delivery of outside air could be provided. Naturally ventilated air will flow from low vents to high vents.
- **High-efficiency mechanical systems** – Use high-efficiency mechanical systems which will reduce utility bills at same time as extending duration of emergency generator power due to reduced rate

of fuel consumption. Consider water-based systems in order to avoid the inherently less-efficient heat transfer provided by air-based systems.

- **Raise sites for minimum 100-year flood protection** – Public facility sites should be raised minimum 1' above base flood elevation (BFE) to protect against projected 100-year flood events. Consider berming to further protect against flooding.
- **Design two-story buildings** – This provides a second level retreat in case of severe flooding, helping ensure delivery of public services during emergencies. Also saves land. The resulting compact building design allows multiple departments to share one elevator, resulting in a resource-efficient and energy-efficient design.
- **Place critical functions on second floor** – In order to provide an area of retreat in case of flooding which exceeds the 100-year projection, place critical functions on second floor where flood water will not reach. Critical functions include the Emergency Operations Center (EOC), Dispatch/ Communications, other.
- **Elevate emergency generator and fuel supply** – Raise emergency power generator and its 72-hour fuel supply to be able to withstand any flooding risk, also includes transfer switch and emergency power panels. Space below to be used for storage and hardened against flooding.

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APPENDIX A – PUBLIC SAFETY STAFFING PROJECTIONS

Projected staffing for public safety agencies are shown in the table below. It should be emphasized that staffing projections are an intermediate step to determine needed facilities, and are not a basis for budgeting future positions.

Police Department Staffing Projections

	Current	2040	Comment
Police Department			
Office of the Chief			
Chief of Police	1.0	1.0	Sworn
Deputy Chief	0.0	1.0	Sworn
Professional Standards Officer	1.0	1.6	Sworn
Executive Assistant	1.0	1.0	Civilian
Bureau of Field Operations			
Captain	1.0	1.0	Sworn
Administrative Assistant	1.0	1.4	Civilian
Patrol Division			
Lieutenant	4.0	4.0	Sworn
Day Shift			
Sergeant	2.0	4.2	Sworn
Corporal	2.0	4.2	Sworn
Officer	12.0	19.1	Sworn
Community Service Officer	2.0	2.8	Civilian
Swing Shift			
Sergeant	2.0	4.2	Sworn
Corporal	2.0	4.1	Sworn
Officer	12.0	19.0	Sworn
Community Service Officer	2.0	2.8	Civilian
Night Shift			
Sergeant	2.0	3.6	Sworn
Corporal	2.0	3.6	Sworn
Officer	12.0	19.0	Sworn
Community Services Division			
Lieutenant	1.0	1.0	Sworn
Neighborhood Resource Unit			
Sergeant	1.0	2.0	Sworn
Corporal	1.0	2.0	Sworn
Officer	1.0	1.6	Sworn
School Resource Officer	3.0	4.7	Sworn
DARE Officer	1.0	1.6	Sworn
Crime Prevention Specialist	2.0	2.8	Civilian
Volunteers in Police Services	25.0	35.6	Unpaid Civilian
Traffic Safety Unit			
Sergeant	1.0	1.0	Sworn
Corporal	1.0	1.0	Sworn
Officer	3.0	4.7	Sworn
Traffic Interns	2.0	2.8	Unpaid Civilian

(table continued on following page)

Police Department Staffing (continued)			
Code Enforcement			
Community Preservation Manager	1.0	1.0	Civilian
Code Compliance Analyst	1.0	1.4	Civilian
Administrative Assistant II	1.0	1.4	Civilian
Building Inspector II	1.0	1.4	Civilian
Code Enforcement Officer	3.0	4.3	Civilian
Bureau of Support Serivces			
Police Support Operations Manager	1.0	1.0	Civilian
Police Support Services Technician	1.0	1.4	Civilian
Animal Services			
Supervisor	1.0	1.0	Civilian
Administrative Assistant II	2.0	2.8	Civilian
Animal Services Officer	4.0	5.7	Civilian
Animal Services Aide	2.0	2.8	Civilian
Records			
Records Unit Supervisor	1.0	1.0	Civilian
Police Records Assistants	7.0	10.1	Civilian
Dispatch			
Communications Unit Supervisor	1.0	1.0	Civilian
Lead Public Safety Dispatchers	4.0	4.0	Civilian
Public Safety Dispatchers	12.0	17.3	Civilian
Bureau of Investigations			
Captain	1.0	1.0	Sworn
Lieutenant	1.0	1.0	Sworn
Administrative Assistant II	1.0	1.4	Civilian
Crime Analyst	1.0	1.4	Civilian
General Investigations Unit			
Sergeant	1.0	2.7	Sworn
Corporal	1.0	2.7	Sworn
Detective	9.0	14.2	Sworn
Special Investigations			
Sergeant	1.0	1.0	Sworn
Corporal	1.0	1.0	Sworn
Detective	3.0	4.7	Sworn
Special Enforcement			
Sergeant	2.0	2.0	Sworn
Corporal	1.0	1.6	Sworn
Officer	6.0	9.5	Sworn
Crime Scene Unit			
Crime Scene Supervisor	1.0	1.0	Civilian
Crime Scene Technician	4.0	5.7	Civilian
Subtotal Sworn Officers	96.0	152.2	
Subtotal Civilians	58.0	77.9	
Police Department Budgeted Total	**154.0**	**230.1**	
Interns and Volunteers	27.0	38.4	
Police Department Occupant Total	**181.0**	**268.5**	

Fire Department Staffing Projections

Fire Department	Current	Buildout	
Fire Chief	1.0	1.0	Certified
Division Chief	2.0	2.0	Certified
EMS Manager	1.0	1.0	Civilian
Executive Assistant	1.0	1.0	Civilian
Fire Prevention Division			
Fire Marshal	1.0	1.0	Certified
Administrative Assistant II	1.0	2.0	Civilian
Fire Inspectors	3.0	4.5	Certified
Hazardous Materials Inspector	0.0	1.0	Civilian
Plans Check Examiner	1.0	2.0	Civilian
Building Permit Technician	1.0	2.0	Civilian
Fire Operations Division			
Battalion Chief	3.0	3.0	Certified
Administrative Assistant II	1.0	2.0	Civilian
Fire Captain	22.0	28.0	Certified
Fire Engineer	21.0	27.0	Certified
Firefighter	24.0	30.0	Certified
Fire Training Division			
Fire Captain	0.00	1.0	Certified
Administrative Assistant II	0.00	1.0	Civilian
Subtotal Certified Firefighters	77.0	97.50	
Subtotal Civilian	6.0	12.00	
Fire Department Budgeted Total	**83.00**	**109.50**	
Budgeted Separately: Fire Reserve	25.0	37.5	Certified
Fire Department Occupant Total	**108.00**	**147.00**	

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APPENDIX B – PUBLIC SAFETY SPACE PROJECTIONS

Police Department Space Projections

Function/Department	Unit S.F.	Current No. Units	Current Net Area	Horizon 2040 No. Units	Horizon 2040 Net Area	Comments
Police Department						
Administration						
Chief of Police	300	1	300	1	300	
Deputy Chief	200	0	0	1	200	
Professional Standards Officer	120	1	120	2	240	
Executive Assistant	120	1	120	1	120	
Reception/Waiting	225	1	225	1	225	
Conference Room	230	1	230	1	230	
File Room	85	1	85	1	85	
Coffee Counter	20	1	20	1	20	
Supply	30	1	30	1	30	
Subtotal, Net Area			1,130		1,450	
Departmental Area (add 30%)			1,470		1,890	
Bureau of Field Operations						
Captain	160	1	160	1	160	
Administrative Assistant	64	1	64	1	64	1 @ Substation
Patrol Division						
Watch Commander's Office	140	1	140	0	0	1 @ Substation
Sergeants	150	1	150	0	0	1 @ Substation
Corporals	150	1	150	0	0	1 @ Substation
Community Service Officers	150	1	150	0	0	1 @ Substation
Patrol Ready Room	240	1	240	0	0	1 @ Substation
Conference Room	100	1	100	0	0	1 @ Substation
Report Area	24	4	96	0	0	6 @ Substation
Briefing Room	300	1	300	1	300	
Armory	100	1	100	1	100	
SWAT Armory	100	1	100	1	100	
Patrol War Bag Storage	—	1	20	1	20	Shelves with access zone
Files	—	0	160	1	160	See also Substation
Equipment Room	—	0	130	1	130	See also Substation
Mail Boxes	—	1	80	1	80	See also Substation
Subtotal, Net Area			2,140		1,114	
Departmental Area (add 30%)			2,780		1,331	58% Substation reduction
Community Services Division						
Lieutenant Office	160	1	160	1	160	
Neighborhood Resource Unit						
Sergeant Office	120	1	120	2	240	
Corporal	64	1	64	2	128	
Officer	64	1	64	2	128	
School Resource Officer	48	3	144	5	240	
DARE Officer	64	1	64	2	128	
Crime Prevention Specialist	64	2	128	3	192	
Convenience Copier/Printer	20	1	20	1	20	
Coffee Counter	20	1	20	1	20	
Subtotal, Net Area			784		1,256	
Departmental Area (add 30%)			1,020		1,630	

Function/Department	Unit S.F.	Current No. Units	Current Net Area	Horizon 2040 No. Units	Horizon 2040 Net Area	Comments
Police Department						
Bureau of Field Operations, cont…						
Traffic Safety Unit						
Sergeant Office	120	1	120	1	120	
Corporal	64	1	64	1	64	
Officer	64	3	192	3	192	2 @ Substation
Traffic Interns	48	2	96	2	96	1 @ Substation
Equipment Room	80	1	80	1	80	
Convenience Copier/Printer	20	0	0	1	20	
Coffee Counter	20	1	20	1	20	
Subtotal, Net Area			572		592	
Departmental Area (add 30%)			740		764	24% Substation reduction
Code Enforcement						
Community Preservation Mgr	120	1	120	1	120	
Code Compliance Analyst	64	1	64	2	128	
Administrative Assistant II	64	1	64	2	128	
Building Inspector II	64	1	64	2	128	
Code Enforcement Officer	64	3	192	5	320	
Drawing Files	15	1	15	1	15	
Layout Table	20	1	20	1	20	
Convenience Copier/Printer	20	1	20	1	20	
Coffee Counter	20	1	20	1	20	
Subtotal, Net Area			579		899	
Departmental Area (add 30%)			750		1,170	
Total Bureau of Field Operations Net			5,205		5,311	
Departmental			6,760		6,785	

Function/Department	Unit S.F.	Current No. Units	Current Net Area	Horizon 2040 No. Units	Horizon 2040 Net Area	Comments
Police Department						
Bureau of Support Services						
Police Support Operations Manager	190	1	190	1	190	
Police Support Services Technician	64	1	64	2	128	
Subtotal, Net Area			254		318	
Departmental Area (add 30%)			330		410	
Records						
Records Unit Supervisor	120	1	120	1	120	Shared between shifts
Police Record Assistants	64	7	448	9	576	2 @ Substation
Service Counter	50	1	50	1	50	
Fingerprint Livescan	25	1	25	1	25	
File Area	—	1	170	1	170	High density storage
Work Room	220	1	220	1	220	
Document Scanning	100	1	100	1	100	Also @ Substation
Storage	100	1	100	1	100	
Coffee Counter	20	1	20	1	20	
Subtotal, Net Area			1,253		1,381	
Departmental Area (add 30%)			1,630		1,737	21% Substation reduction

Function/Department	Unit S.F.	Current No. Units	Current Net Area	Horizon 2040 No. Units	Horizon 2040 Net Area	Comments
Police Department						
Bureau of Support Services, cont…						
Dispatch						
Communications Supervisor	160	1	160	1	160	spare console in office
Communications Operator	115	6	690	10	1,150	
Lockers	—	1	42	1	63	
Storage	100	1	100	1	100	
Break Room	100	1	100	1	100	
Toilet	50	1	50	1	50	
Equipment Room	80	1	80	1	80	
Subtotal, Net Area			1,222		1,703	
Departmental Area (add 30%)			1,590		2,210	
Shared Support						
Conference Room	150	1	150	1	150	
Mail Room	100	1	100	1	100	
Mail Boxes	20	1	20	1	20	Alcove outside mail room
Shipping & Receiving	120	1	120	1	120	
Subtotal, Net Area			390		390	
Departmental Area (add 30%)			510		510	
Total Bureau of Support Services Net			3,119		3,792	
Departmental			4,060		4,867	

Function/Department	Unit S.F.	Current No. Units	Current Net Area	Horizon 2040 No. Units	Horizon 2040 Net Area	Comments
Police Department						
Bureau of Investigations						
Captain	160	1	160	1	160	
Lieutenant	160	1	160	1	160	
Administrative Assistant II	64	1	64	2	128	
Crime Analyst	64	1	64	2	128	
General Investigations Unit						
Sergeant	120	1	120	3	360	
Corporal	64	1	64	3	192	
Detective	24	9	216	15	360	
Special Investigations						
Sergeant	120	1	120	1	120	
Corporal	64	1	64	1	64	
Detective	24	3	72	5	120	
Special Enforcement						
Sergeant	120	2	240	2	240	
Officer	24	6	144	10	240	
Shared Spaces						
Equipment Room	50	1	50	1	50	
Reception Counter	50	1	50	1	50	
Interview Room	50	3	150	4	200	
Conference Room	250	1	250	1	250	
Copy/Supply	80	1	80	1	80	with plotter
Subtotal, Net Area			2,068		2,902	
Departmental Area (add 30%)			2,690		3,770	

Function/Department	Unit S.F.	Current No. Units	Current Net Area	Horizon 2040 No. Units	Horizon 2040 Net Area	Comments
Police Department						
Bureau of Investigations, cont…						
Crime Scene Unit						
Crime Scene Supervisor	120	1	120	1	120	
Crime Scene Technician	64	4	256	6	384	
Property Receiving & Staging						
Work Area	100	1	100	1	100	
Lockers	60	1	60	1	60	
Receiving & Processing Area	260	1	260	1	260	
Evidence Viewing	100	1	100	1	100	
Laboratory	90	4	360	6	540	
Computer Forensics	320	1	320	1	320	
Chemical Storage	100	1	100	1	100	
Equipment Storage	100	1	100	1	100	
Waste Area	80	1	80	1	80	
Property Room	—	1	3,600	1	5,200	All forms of prop storage
Subtotal, Net Area			5,456		7,364	
Departmental Area (add 30%)			7,090		9,261	3% Substation reduction
Temporary Holding Facility						
Vehicular Sallyport	430	1	430	1	430	
Pedestrian Sallyport	50	1	50	1	50	
Prebooking	100	1	100	1	100	
Identification	100	1	100	1	100	
Shower	50	1	50	1	50	
Property	100	1	100	1	100	
Holding Cell	60	5	300	8	480	
ADA Holding Cell	60	1	60	1	60	
Interview Room	80	1	80	1	80	
Subtotal, Net Area			1,270		1,450	
Departmental Area (add 30%)			1,650		1,890	
Total Bureau of Investigations Net			8,794		11,716	
Departmental			11,430		14,921	

Function/Department	Unit S.F.	Current No. Units	Current Net Area	Horizon 2040 No. Units	Horizon 2040 Net Area	Comments
Police Department						
Ancillary Areas						
Lobby	1,000	1	1,000	1	542	458 sq ft Lobby @ Substation
Probation Office	100	1	100	1	100	
Community/Conference Room	250	1	250	0	0	200 sq ft Conf @ Substation
Live Scan	70	1	70	1	70	
Interview Room	70	1	70	1	70	
Break Room	255	1	255	1	255	
Staff Lactation Room	70	1	70	1	70	
Fitness Room	860	1	860	1	535	325 sq ft Gym @ Substation
Men's Lockers	22	60	1,290	119	2,559	33 Lockers @ Substation
Women's Lockers	22	36	774	42	903	16 Lockers @ Substation
DOC	900	1	900	1	900	Former EOC
DOC Conference	300	1	300	1	300	
DOC Table & Chair Storage	145	1	145	1	145	
Computer Room	400	1	400	1	245	155 sq ft IT @ Substation
Subtotal, Net Area			6,484		6,694	
Departmental Area (add 30%)			8,430		7,855	32% Substation reduction
Emergency Operations Center						
EOC	1,000	0	0	1	1,000	
Conference	240	0	0	2	480	
Table & Chair Storage	150	0	0	1	150	
Intermediate Distribution Frame	80	0	0	1	80	
Subtotal, Net Area			0		1,710	
Departmental Area (add 30%)			0		2,220	
Summary for Police Department Total Needs						
Net Area			23,602		29,223	
Departmental Area			30,680		36,648	
Gross Area (add 30%)			40,800		47,400	

Function/Department	Unit S.F.	Current No. Units	Current Net Area	Horizon 2040 No. Units	Horizon 2040 Net Area	Comments
Police Substation						
Public Spaces						
Lobby	310	0	0	1	310	
Public Toilets	74	0	0	2	148	
Community Meeting/ Briefing	823	0	0	1	823	
Community Room Storage	50	0	0	1	50	
Conference Room	200	0	0	1	200	
Secure Spaces						
Reception	208	0	0	1	208	
Kitchen/ Break Room	365	0	0	1	365	
Video Monitor Room	236	0	0	1	236	
Records Files	130	0	0	1	130	
Duplication/ Paper Processing Rm	125	0	0	1	125	
Central Supply	79	0	0	1	79	
Open Office Workstations	75	0	0	12	900	
District Commander's Office	175	0	0	1	175	
Sergeants Office Workstations	75	0	0	6	450	
Showers, Lockers, and Toilets	26	0	0	49	1,274	49+ Lockers
Gym	325	0	0	1	325	
Janitor Closet	39	0	0	1	39	
Evidence Prep	164	0	0	1	164	
Evidence Receiving	145	0	0	1	145	
Electrical Closet	127	0	0	1	127	
Armory	62	0	0	1	62	
Server Room	155	0	0	1	155	
Staff Entry	112	0	0	1	112	
Subtotal, Net Area			0		6,602	
Gross Area (+33%)			0		8,800	

Function/Department	Unit S.F.	Current No. Units	Current Net Area	Horizon 2040 No. Units	Horizon 2040 Net Area	Comments
Animal Services (net subtotals)						
Public Areas			733		1,680	
Animal Areas			3,572		4,817	
Staff Areas			1,300		1,877	
Shelter Veterinary			0		644	
Subtotal, Net Area			5,605		9,018	
Departmental Area (add 30%)			7,287		11,723	
Gross Area (add 33%)			9,692	-	15,592	-

Function/Department	Unit S.F.	Current No. Units	Current Net Area	Horizon 2040 No. Units	Horizon 2040 Net Area	Comments
Police Training						
Administrative						
Training Office	120	1	120	1	120	
Clerk	64	0	0	1	64	
Visiting Instructor	64	0	0	1	64	
Reception/Waiting	100	0	0	1	100	
Copy/Workroom	200	1	143	1	200	
Supplies Storage	100	1	72	1	100	
Instructional Areas						
Classroom	1,085	1	777	1	1,085	
Arrest & Control Activity Area	3,100	1	2,220	1	3,100	
Tactical Firearms Simulator	970	1	695	1	970	
Furniture Storage	150	1	107	1	150	
Supplies Storage	150	1	107	1	150	
Break Area	450	1	322	1	450	
Weight Room	900	1	645	1	900	
Men's Shower	818	1	586	1	818	
Women's Shower	502	1	360	1	502	
Subtotal, Net Area			6,170		8,773	
Departmental Area (add 30%)			8,021		11,400	
Training Total Gross Area (+33%)			10,694		15,200	

Function/Department		Current Area	Horizon 2040 Area	Comments
Police Building Totals				
Police Total Net Area		35,377	53,616	
Police Total Departmental Area		45,988	59,771	Substation is Gross Only
Police Total Gross Area		61,186	86,992	

Function/Department	Unit S.F.	Current No. Units	Current Net Area	Horizon Year 2040 No. Units	Horizon Year 2040 Net Area	Comments
Police Training						
Site Elements						
Firearms Training Range	1,378	1	1,378	1	1,378	
Storage Building	400	0	0	1	400	Pre-Engineered Bldg.
Site Vehicular Circulation	—	—	345	—	445	
Subtotal Training Site Elements			1,723		2,223	

Function/Department	Unit S.F.	Current No. Units	Horizon Year 2040 No. Units	Comments
Police Department Vehicles				
Administration				
Misc. Equipment UD		1	1	
Sedan		2	4	
SUV		3	5	
Off-Road EV		2	3	
Patrol Force				
Sedan		5	8	
SUV		37	62	
Pickup		3	5	
Community Services Division				
Sedan		1	2	
SUV		2	3	
Pickup		3	5	
Traffic				
Pickup		1	1	
Motorcycles		9	12	
Electric Motorcycle		2	3	
Car Trailer		3	4	
Speed Trailer		2	3	
Parking Enforcement				
Pickup		2	3	
Animal Services				
Pickup		2	3	
General Investigations				
Sedan		5	9	
SUV		4	7	
Undercover		1	2	
Special Enforcement				
SUV		2	3	
Property/Evidence				
Pickup		3	4	
SWAT				
Armored Personnel Carrier		1	1	
Van		1	1	
Generator		1	1	
Mobile Command Post				
KVM Switch		1	1	
Generator		1	1	
Police Vehicles Total		100	157	

Fire Department Space Projections

Function/Department	Unit S.F.	Current No. Units	Current Net Area	Buildout No. Units	Buildout Net Area	Comments
Fire Department						
Administration						
Fire Chief	320	1	320	1	320	
Division Chief	220	2	440	2	440	
EMS Manager	190	1	190	1	190	
Executive Assistant	100	1	100	1	100	
Fire Prevention						
Fire Marshal	190	1	190	1	190	
Administrative Assistant II	64	1	64	2	128	
Fire Inspectors	64	3	192	5	320	
Hazardous Materials Inspector	64	0	0	1	64	
Plans Check Examiner	64	1	64	2	128	
Layout	32	1	32	1	32	
Fire Operations (Administrative)						
Battalion Chief	190	3	570	3	570	
Administrative Assistant II	64	1	64	2	128	
Fire Training Division						
Fire Captain	120	0	0	1	120	
Administrative Assistant II	64	0	0	1	64	
Shared Spaces						
Reception	100	1	100	1	100	
Conference Room	530	1	530	1	530	
Training Room	740	1	740	1	740	Becomes DOC in future
Copy Room	80	1	80	1	80	
Break Room	100	1	100	1	100	
Storage	20	1	20	1	20	
Equipment Storage	400	1	400	1	400	
Subtotal, Net Area			4,196		4,764	
Departmental Area (add 30%)			5,450		6,190	
Fire Admin Total Gross Area			7,270		8,250	
Note: at 9,646 gsf, existing Station "A" exceeds Horizon Year 2040 demand by 1,396 gsf.						
Operations						
Existing Fire Stations	—	5	29,372	4	23,820	without Stations A or 97
Fire Stations 94,95,and 99	7,070	0	0	3	21,210	
Fire Station 97	7,750	0		1	7,750	
Subtotal, Operations Gross Area			29,372		52,780	

Function/Department	Unit S.F.	Current No. Units	Current Net Area	Buildout No. Units	Buildout Net Area	Comments
Fire Training						
Administrative						
Training Office	120	0	0	1	120	
Clerk	64	0	0	1	64	
Visiting Instructor	64	0	0	1	64	
Reception/Waiting	100	0	0	1	100	
Copy/Workroom	200	0	0	1	200	
Supplies Storage	100	0	0	1	100	
Instructional Areas						
Classroom	1,085	0	0	1	1,085	
Furniture Storage	150	0	0	1	150	
Supplies Storage	150	0	0	1	150	
Break Area	450	0	0	1	450	
Weight Room	900	0	0	1	900	
Men's Shower	818	0	0	1	818	
Women's Shower	502	0	0	1	502	
Subtotal, Net Area			0		4,703	
Departmental Area (add 30%)			0		6,114	
Training Total Gross Area			0		8,130	
Site Elements						
Drill /Burn Tower	9,000	0	0	1	9,000	
Drill/Burn Tower Apron	—	0	0	1	49,700	
Misc Training Apron	—	0	0	1	14,000	
Storage Building	400	0	0	1	400	Pre-Engineered Bldg.
Site Vehicular Circulation	—	—	0	—	18,275	
Subtotal Training Site Elements			0		91,375	

Function/Department	Unit S.F.	Current No. Units	Current Net Area	Buildout No. Units	Buildout Net Area	Comments
Fire Department Vehicles						
Administration (SUVs)			9		9	
Fire Prevention (Light Pickups)			3		5	
Fire Training Division (SUV)			0		1	
Fire Operations						
SUV			2			
Mid Size Pickup			4		4	
Heavy Duty Pickup			1		1	
Engine			10		14	Ownership of new engines proportionate to each new station's service to city.
Ladder			1		2	
Water Tender			1		1	Additonal tender used primarily for unincorporated areas.
Hazmat Trailer			1		1	
Fire Vehicles Total			32		38	

APPENDIX C – PUBLIC SAFETY SPACE PROGRAM DISTRIBUTION TABLE

	Building	Shared	Fire			Police													Subtotal
		EOC	Admin	Training	Stations	Admin	Field Operations	Community Services	Traffic	Code Enforcement	Support Services	Animal Services	Records	Dispatch	Shared Support	Investigations	Crime Scene	Holding	Ancillary Areas	Training	w/ 33% Gross Circulation
A	Fire Headquarters	Station "A"		9,646 sf																9,646 sf	
91	Fire Station 91				7,401 sf															7,400 sf	
92	Fire Station 92				5,136 sf															5,136 sf	
93	Fire Station 93				6,147 sf															6,147 sf	
94	Fire Station 94 (Reloc. Cordes Ranch Area) incl. Ladder Bay				7,750 sf															7,750 sf	
95	Fire Station 95 (Tracy Hills Area)				7,070 sf															7,070 sf	
96	Fire Station 96				5,136 sf															5,136 sf	
97	Fire Station 97 (Relocation - Valpico) incl. Ladder Bay				7,750 sf															7,750 sf	
99	Fire Station 99 (Ellis Area)				7,070 sf															7,070 sf	
T	Fire Training Facility - Phases 2 & 3			9,868 sf																9,868 sf	
			9,600 sf	9,900 sf	53,500 sf															73,000 sf	
P	PD Remodel & Addition on Expanded Civic Center Site	2,220 sf				1,890 sf	1,331 sf	1,630 sf	764 sf	1,170 sf	410 sf		1,737 sf	1,220 sf	510 sf	3,770 sf	9,261 sf	1,890 sf	7,855 sf		47,425 sf
S	South Tracy Police Substation						1,839 sf		236 sf				463 sf				309 sf		3,765 sf		8,794 sf
T	Police Department Training Facility																			11,400 sf	15,162 sf
D	Police Department Animal Shelter - Phase 2											15,592 sf									15,592 sf
	SUBTOTAL POLICE DEPARTMENT	2,220 sf				1,890 sf	3,200 sf	1,600 sf	1,000 sf	1,200 sf	400 sf	15,600 sf	2,200 sf	1,200 sf	500 sf	3,800 sf	9,600 sf	1,900 sf	11,600 sf	11,400 sf	87,000 sf
RCT	Public Safety Radio Communications Facilities	400 sf																			400 sf
	SUBTOTAL COMMUNICATIONS FACILITIES	400 sf																			400 sf
	SUBTOTAL PUBLIC FACILITIES	2,600 sf	9,600 sf	9,900 sf	53,500 sf	1,900 sf	3,200 sf	1,600 sf	1,000 sf	1,200 sf	400 sf	15,600 sf	2,200 sf	1,200 sf	500 sf	3,800 sf	9,600 sf	1,900 sf	11,600 sf	11,400 sf	160,400 sf

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KEY	PLACE NAME	Program Area			Site Development Cost			Remodel Cost			New Cost		2020 Direct Construction Bid Day Cost
		Existing	Remodel	New	2040	Site Area	Site Unit Cost	Subtotal	Remodel Area	Unit Cost	Subtotal	New Area	Unit Cost	Subtotal	
A	Fire Headquarters | Station "A"	9,646 sf			9,646 sf	0.6 ac									
91	Fire Station 91	7,401 sf			7,401 sf										
92	Fire Station 92	5,136 sf			5,136 sf										
93	Fire Station 93	6,147 sf			6,147 sf										
94	~~Fire Station 94~~ (To Be Relocated. Land owned by SCFA.)	5,552 sf													
94	Fire Station 94 (Reloc. Cordes Ranch Area) incl. Ladder Bay			7,750 sf	7,750 sf	2.0 ac	$800,000	$1,600,000				7,750 sf	$500	$3,875,000	$5,475,000
95	Fire Station 95 (Tracy Hills Area)			7,070 sf	7,070 sf	0.9 ac						7,070 sf			$4,887,376
96	Fire Station 96	5,136 sf			5,136 sf										
97	~~Fire Station 97~~ (To Be Relocated. Sell property.)	3,009 sf													
97	Fire Station 97 (Relocation - Valpico) Incl. Ladder Bay			7,750 sf	7,750 sf	2.0 ac	$800,000	$1,600,000							
99	Fire Station 99 (Ellis Area)			7,070 sf	7,070 sf	0.9 ac	$800,000	$745,638				7,070 sf	$500	$3,535,000	$4,280,638
T	Fire Training Facility - Phases 2 & 3			9,868 sf	9,868 sf	5.1 ac	$275,000	$1,410,750				9,868 sf	$400	$3,947,200	$5,357,950
	SUBTOTAL FIRE DEPARTMENT	**33,500 sf**	**0 sf**	**39,500 sf**	**73,000 sf**	**11.6 ac**	**$462,000**	**$5,356,400**	**0 sf**	**$0**	**$0**	**39,500 sf**	**$390**	**$15,232,200**	**$25,476,000**
P	PD Remodel & Addition on Expanded Civic Center Site	27,616 sf	27,616 sf	19,809 sf	47,425 sf	4.7 ac	$800,000	$3,760,000	27,616 sf	$300	$8,284,800	19,809 sf	$650	$12,875,850	$24,920,650
I	~~PD Annex~~ (1979 Police Station to be Demolished)	9,800 sf													
A	~~PD North Annex~~ (Leased - to be let go)	16,759 sf													
S	South Tracy Police Substation			8,794 sf	8,794 sf	2.2 ac	$800,000	$1,760,000				8,794 sf	$650	$5,716,100	$7,476,100
T	Police Department Training Facility	2,296 sf	918 sf	12,866 sf	15,162 sf	2.0 ac	$250,000	$500,000	918 sf	$150	$137,760	12,866 sf	$250	$3,216,500	$3,854,260
D	Police Department Animal Shelter - Phase 2	9,692 sf		5,900 sf	15,592 sf	2.2 ac	$200,000	$438,000				5,900 sf	$600	$3,540,000	$3,978,000
	SUBTOTAL POLICE DEPARTMENT	**39,600 sf**	**28,500 sf**	**47,400 sf**	**87,000 sf**	**11.1 ac**	**$582,300**	**$6,458,000**	**28,500 sf**	**$300**	**$8,422,600**	**47,400 sf**	**$530**	**$25,348,500**	**$40,229,000**
RCT	Public Safety Radio Communications Facilities	0 sf	0 sf	400 sf	400 sf	0.5 ac	$360,000	$180,000				400 sf	$1,250	$500,000	$680,000
	SUBTOTAL COMMUNICATIONS FACILITIES	**0 sf**	**0 sf**	**400 sf**	**400 sf**	**0.5 ac**	**$360,000**	**$180,000**				**400 sf**	**$1,250**	**$500,000**	**$680,000**
	SUBTOTAL PUBLIC SAFETY FACILITIES	**73,100 sf**	**28,500 sf**	**87,300 sf**	**160,400 sf**	**23.2 ac**	**$517,355**	**$11,994,400**	**28,500 sf**	**$296**	**$8,422,600**	**87,300 sf**	**$471**	**$41,080,700**	**$66,385,000**

(continued)

KEY	PLACE NAME	2020 Direct Construction Bid Day Cost	Annual Construction Input Inflation 2021 & 2022* (Construction Financial Management Association)	2023 Direct Construction Bid Day Cost	2023 Bid Day Unit Cost per SF	35% Indirect & Contingency: 10% Design & Planning; 10% CM; 15% General Contingency	Subtotal Direct + Indirect Cost	FF&E & Vehicles (f)	Land Acquisition (e)	2023 Total Project Cost	Other Funding Sources	Remaining Cost
A	Fire Headquarters | Station "A"											
91	Fire Station 91											
92	Fire Station 92											
93	Fire Station 93											
94	~~Fire Station 94~~ (To Be Relocated. Property ownd by SCFA.)											
94	Fire Station 94 (Reloc. Cordes Ranch Area) incl. Ladder Bay	$5,475,000	26.8%	$6,942,300	$900	$2,429,805	$9,372,000	$2,600,000	$500,000	$12,472,000	($1,000,000)	$11,472,000
95	Fire Station 95 (Tracy Hills Area)	$4,887,376	26.8%	$6,197,192	$880	$2,169,017	$8,366,000	$874,518	$192,837	$9,433,000	($1,511,450)	$7,921,550
96	Fire Station 96											
~~97~~	~~Fire Station 97~~ (To Be Relocated. Sell property.)									($451,350)		($451,350)
97	Fire Station 97 (Relocation - Valpico) Incl. Ladder Bay	$5,475,000	26.8%	$6,942,300	$900	$2,429,805	$9,372,000	$1,000,000	$500,000	$10,872,000	($4,470,000)	$6,402,000
99	Fire Station 99 (Ellis Area)	$4,280,638	26.8%	$5,427,849	$770	$1,899,747	$7,328,000	$1,000,000	$233,012	$8,561,000	($825,332)	$7,735,668
T	Fire Training Facility - Phases 2 & 3	$5,357,950	26.8%	$6,793,881	$690	$2,377,858	$9,172,000	$500,000		$9,672,000	($2,600,000)	$7,072,000
	SUBTOTAL FIRE DEPARTMENT	**$25,476,000**	26.8%	**$32,303,500**	**$820**	**$11,306,200**	**$43,610,000**	**$5,974,500**	**$1,425,800**	**$50,558,700**	**($10,406,800)**	**$40,151,900**
P	PD Remodel & Addition on Expanded Civic Center Site	$24,920,650	26.8%	$31,599,384	$670	$11,059,784	$42,659,000	$2,160,114	$0	$44,819,000		$44,819,000
I	~~PD Annex~~ (1979 Police Station to be Demolished)											
A	~~PD North Annex~~ (Leased - to be let go)											
S	South Tracy Police Substation	$7,476,100	26.8%	$9,479,695	$1,080	$3,317,893	$12,798,000	$648,049	$1,760,000	$15,206,000		$15,206,000
T	Police Department Training Facility	$3,854,260	26.8%	$4,887,202	$350	$1,710,521	$6,598,000	$36,098	$402,925	$7,037,000		$7,037,000
D	Police Department Animal Shelter - Phase 2	$3,978,000	26.8%	$5,044,104	$850	$1,765,436	$6,810,000	$1,000,000	$0	$7,810,000		$7,810,000
	SUBTOTAL POLICE DEPARTMENT	**$40,229,000**		**$51,010,400**	**$670**	**$17,853,600**	**$68,865,000**	**$3,844,300**	**$2,162,900**	**$74,872,000**	**$0**	**$74,872,000**
RCT	Public Safety Radio Communications Facilities	$680,000	26.8%	$862,240	$2,160	$301,784	$1,164,000	$4,067,185	$125,000	$5,356,000	$0	$5,356,000
	SUBTOTAL COMMUNICATIONS FACILITIES	**$680,000**	26.8%	**$862,200**	**$2,160**	**$301,800**	**$1,164,000**	**$4,067,200**	**$125,000**	**$5,356,000**	**$0**	**$5,356,000**
	TOTAL PUBLIC SAFETY FACILITIES (rounded)	**$66,385,000**	26.8%	**$84,177,000**	**$730**	**$29,462,000**	**$113,639,000**	**$13,886,000**	**$3,714,000**	**$130,790,000**	**($10,407,000)**	**$120,380,000**

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APPENDIX E – PUBLIC SAFETY SOLAR NANOGRID COST ESTIMATE

KEY	PLACE NAME	Program Area	Loads		Rooftop Solar			Solar Carport (e)		
		New	Predicted (N) Facility Load	Predicted Maximum Battery Load	Rooftop Solar Maximum Capacity	Rooftop Solar Maximum Size	Estimated Rooftop Solar Cost @ $3K/kW	Needed Solar Carport Capacity	Needed Solar Carport Size	Needed Solar Carport System Size	Estimated Solar Carport Cost @ $3.4K/kW
94	Fire Station 94 (Reloc. Cordes Ranch Area) incl. Ladder Bay	7,750 sf	104 MWh/Yr	99 kW	70 MWh/Yr	74 kW	$222,000	34 MWh/Yr	3,800 sf	36 kW	$122,400
97	Fire Station 97 (Relocation - Valpico) incl. Ladder Bay	7,750 sf	104 MWh/Yr	99 kW	70 MWh/Yr	74 kW	$222,000	34 MWh/Yr	3,800 sf	36 kW	$122,400
99	Fire Station 99 (Ellis Area)	7,070 sf	95 MWh/Yr	90 kW	64 MWh/Yr	67 kW	$201,000	31 MWh/Yr	3,500 sf	33 kW	$112,200
T	Fire Training Facility - Phases 2 & 3	9,868 sf	132 MWh/Yr	126 kW	89 MWh/Yr	94 kW	$282,000	43 MWh/Yr	4,800 sf	46 kW	$156,400
	SUBTOTAL FIRE DEPARTMENT	**39,500 sf**	**435 MWh/Yr**	**414 kW**	**293 MWh/Yr**	**309 kW**	**$927,000**	**142 MWh/Yr**	**15,900 sf**	**151 kW**	**$513,400**
P	PD Remodel & Addition on Expanded Civic Center Site	19,809 sf	265 MWh/Yr	253 kW	89 MWh/Yr	94 kW	$282,000	176 MWh/Yr	19,600 sf	186 kW	$632,400
S	South Tracy Police Substation	8,794 sf	118 MWh/Yr	113 kW	79 MWh/Yr	84 kW	$252,000	39 MWh/Yr	4,300 sf	41 kW	$139,400
T	Police Department Training Facility	12,866 sf	173 MWh/Yr	165 kW	116 MWh/Yr	123 kW	$369,000	57 MWh/Yr	6,300 sf	60 kW	$204,000
D	Police Department Animal Shelter - Phase 2	5,900 sf	79 MWh/Yr	76 kW	53 MWh/Yr	56 kW	$168,000	26 MWh/Yr	2,900 sf	27 kW	$91,800
	SUBTOTAL POLICE DEPARTMENT	**47,400 sf**	**635 MWh/Yr**	**607 kW**	**337 MWh/Yr**	**357 kW**	**$1,071,000**	**298 MWh/Yr**	**33,100 sf**	**314 kW**	**$1,067,600**
	SUBTOTAL PUBLIC SAFETY FACILITIES	**87,300 sf**	**1,070 MWh/Yr**	**1,021 kW**	**630 MWh/Yr**	**666 kW**	**$1,998,000**	**440 MWh/Yr**	**49,000 sf**	**465 kW**	**$1,581,000**

(continued)

KEY	PLACE NAME	2020 Subtotal Solar Carport Cost	Annual Construction Input Inflation 2021 & 2022	2023 Subtotal Solar Carport Bid Day Cost	Battery		Annual Construction Input Inflation 2021 & 2022	2023 Subtotal Battery System Bid Day Cost	2023 Total Project Bid Day Cost for Solar and Battery Installation	35% Indirect & Contingency: 10% Design & Planning; 10% CM; 15% General Contingency	2023 Total Project Cost for Solar and Battery Installation
					Needed Code-Required 6-Hour Battery	Estimated Battery System Cost					
94	Fire Station 94 (Reloc. Cordes Ranch Area) incl. Ladder Bay	$122,400	26.8%	$155,203	0.30 MWh	$240,000	26.8%	$304,320	$459,523	$160,833	$620,356
97	Fire Station 97 (Relocation - Valpico) incl. Ladder Bay	$122,400	26.8%	$155,203	0.30 MWh	$240,000	26.8%	$304,320	$459,523	$160,833	$620,356
99	Fire Station 99 (Ellis Area)	$112,200	26.8%	$142,270	0.27 MWh	$216,000	26.8%	$273,888	$416,158	$145,655	$561,813
T	Fire Training Facility - Phases 2 & 3	$156,400	26.8%	$198,315	0.31 MWh	$248,000	26.8%	$314,464	$512,779	$179,473	$692,252
	SUBTOTAL FIRE DEPARTMENT	**$513,400**		**$651,000**	**1.18 MWh**	**$944,000**		**$1,197,000**	**$1,848,000**	**$646,800**	**$2,494,800**
P	PD Remodel & Addition on Expanded Civic Center Site	$632,400	26.8%	$801,883	0.76 MWh	$608,000	26.8%	$770,944	$1,572,827	$550,490	$2,123,317
S	South Tracy Police Substation	$139,400	26.8%	$176,759	0.34 MWh	$272,000	26.8%	$344,896	$521,655	$182,579	$704,235
T	Police Department Training Facility	$204,000	26.8%	$258,672	0.50 MWh	$400,000	26.8%	$507,200	$765,872	$268,055	$1,033,927
D	Police Department Animal Shelter - Phase 2	$91,800	26.8%	$116,402	0.23 MWh	$184,000	26.8%	$233,312	$349,714	$122,400	$472,114
	SUBTOTAL POLICE DEPARTMENT	**$1,067,600**		**$1,353,700**	**1.83 MWh**	**$1,464,000**		**$1,856,400**	**$3,210,100**	**$1,123,500**	**$4,333,600**
	TOTAL PUBLIC SAFETY FACILITIES (rounded)	**$1,581,000**	26.8%	**$2,005,000**	**3.01 MWh**	**$2,408,000**	26.8%	**$3,054,000**	**$5,059,000**	**$1,771,000**	**$6,829,000**

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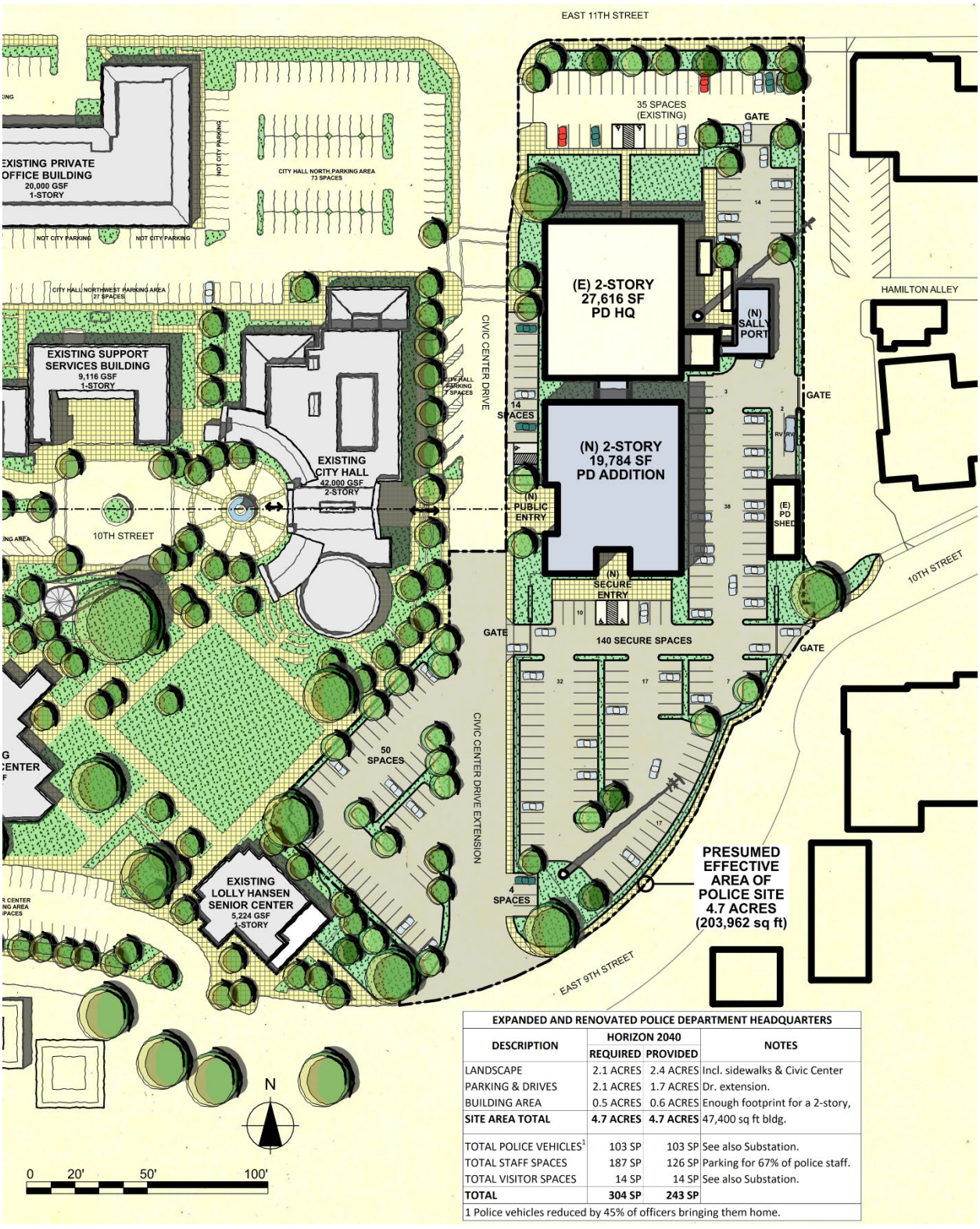
APPENDIX F – CIVIC CENTER PUBLIC SAFETY FACILITY SITE PLAN

Renovate existing 27,600 square foot building. Expand site to 4.7 acres on Civic Center campus by partially closing 10th Street and demolishing former 1979 Police Station. Add 19,784 square foot addition, expanded vehicle sally port, expanded secure parking, and expanded parking.



EXPANDED AND RENOVATED POLICE DEPARTMENT HEADQUARTERS			
DESCRIPTION	HORIZON 2040 REQUIRED	HORIZON 2040 PROVIDED	NOTES
LANDSCAPE	2.1 ACRES	2.4 ACRES	Incl. sidewalks & Civic Center
PARKING & DRIVES	2.1 ACRES	1.7 ACRES	Dr. extension.
BUILDING AREA	0.5 ACRES	0.6 ACRES	Enough footprint for a 2-story,
SITE AREA TOTAL	**4.7 ACRES**	**4.7 ACRES**	47,400 sq ft bldg.
TOTAL POLICE VEHICLES[1]	103 SP	103 SP	See also Substation.
TOTAL STAFF SPACES	187 SP	126 SP	Parking for 67% of police staff.
TOTAL VISITOR SPACES	14 SP	14 SP	See also Substation.
TOTAL	**304 SP**	**243 SP**	
1 Police vehicles reduced by 45% of officers bringing them home.			

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APPENDIX G – POLICE SUBSTATION SITE PLAN

Provide a new 8,800 square foot facility on 2.3 acres to be purchased by City near Ellis, South Linne, and Tracy Hills developments. With 20 visitor, 20 secure staff, and 54 secure police vehicle spaces, the substation site relieves some of the parking pressures on the Civic Center facility. The site further includes a covered space for an EOC "RV" Vehicle and covered motorcycle parking.

POLICE SUBSTATION		
DESCRIPTION	**HORIZON 2040**	**NOTES**
LANDSCAPE	1.0 ACRES	Incl. Sidewalks and Courtyard.
PARKING & DRIVES	1.1 ACRES	Equals 1-Story 8,800 SF Building
BUILDING AREA	0.2 ACRES	Footprint.
SITE AREA TOTAL	**2.3 ACRES**	
TOTAL POLICE VEHICLES	54 SP	Includes 20 "future" spaces as
TOTAL STAFF SPACES	20 SP	shown on site plan.
TOTAL VISITOR SPACES	20 SP	
TOTAL	**94 SP**	

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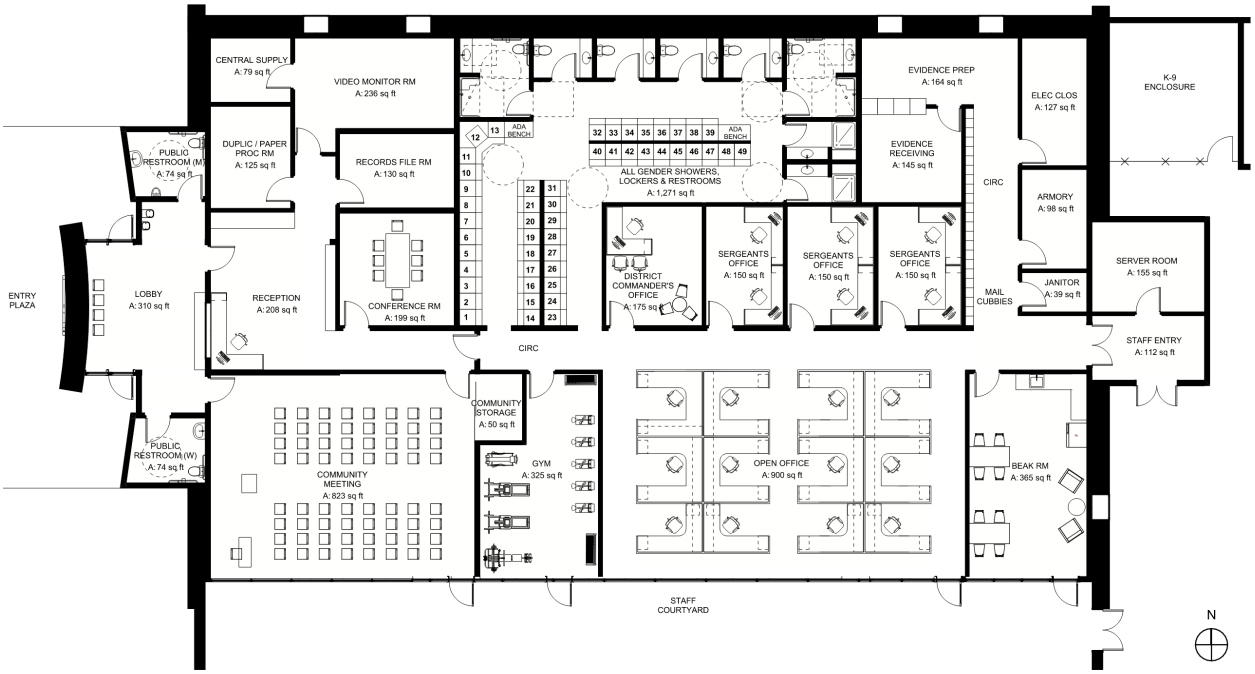
APPENDIX H – POLICE SUBSTATION CONCEPT FLOOR PLAN

The floor plan provides open office space for twelve workstations and private office space for six sergeants workstations. The plan includes a public lobby with restrooms and secure access to an 823 square foot Community Meeting room. The Community Meeting room, in turn, has access to a covered outdoor patio. For staff, across from lockers, is a 325 square foot Gym. For maximum flexibility in staffing, Option 2 below shows an all-gender version of the Locker room, with private changing rooms.

Floor Plan - Option 1



Floor Plan - Option 2

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APPENDIX J – GROWTH PROJECTION DATA

The growth assumptions in this Master Plan are based on data from September 2021, received from the City of Tracy. They don't include the growth assumed in the City of Tracy 6th cycle Housing Element.

Table 3-2. Projected Development by Time Frame within the City's Sphere of Influence[a]

Land Use Type	Total Projected New Development by 2025		Total Projected New Development by 2040[b]		Total Projected New Development at Buildout[c]	
	Dwelling Units	Gross Acres	Dwelling Units	Gross Acres	Dwelling Units	Gross Acres
Residential – Very Low Density[d]	-	-	265	223	1,292[e]	907
Residential – Low Density[d]	2,880	647	6,490	1,438	8,375	1,871
Residential – Medium Density[d]	253	49	5,444	608	8,150	902
Residential – High Density	1,591	81	3,300	181	7,033	380
Residential – Very High Density	110	3	110	3	110	3
Commercial	-	45	-	549	-	818
Office	-	1	-	115	-	256
Industrial	-	859	-	3,136	-	4,093
Institutional	-	3	-	187	-	187
Identified Parks[f]	-	139	-	280	-	280
Total	4,834	1,826	15,609	6,720	24,960	9,698

(a) Includes existing development constructed after 2017.

(b) Includes new development constructed within 2025 and 2040 time frames.

(c) Includes new development constructed within 2025, 2040, and Buildout time frames.

(d) For selected projects and development areas, it was assumed that 11.2% of the total gross acres in the very low, low, and medium density residential land use categories will develop as parks.

(e) Includes existing units from Mountain View Annexation.

(f) Includes park areas identified within the Rocking Horse, Ellis, Avenues, Tracy Hills Phase 1, and Legacy Fields developments.

To calculate population data, use 3.50 people per household for population projections, from CA Department of Finance Table E-5 Population and Housing Estimates for Cities, Counties and the State, 2011-2021 with 2010 Census Benchmark
https://www.dof.ca.gov/Forecasting/Demographics/Estimates/e-5/