

# Notice and Agenda

**City Council** 

	nbers and West Conference City Hall, 456 W. Olive Ave., Sunnyvale, CA 94086
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Special Meeting: Closed Session- 6 PM | Regular Meeting - 7 PM

# 6 P.M. SPECIAL COUNCIL MEETING (Closed Session)

# 1 Call to Order in the West Conference Room

2 Roll Call

# 3 Public Comment

The public may provide comments regarding the Closed Session item(s) just prior to the Council beginning the Closed Session. Closed Sessions are not open to the public.

# 4 Convene to Closed Session

17-0679Closed Session held pursuant to California Government Code<br/>Section 54956.8: CONFERENCE WITH REAL PROPERTY<br/>NEGOTIATORS<br/>Property: 1484 Kifer Road, Sunnyvale (Unilever site)<br/>Agency negotiator: Deanna J. Santana, City Manager<br/>Negotiating parties: REOM Development and Fore Property<br/>Company<br/>Under negotiation: Price and terms of a potential purchase

# 5 Adjourn Special Meeting

# 7 P.M. COUNCIL MEETING

Pursuant to Council Policy, City Council will not begin consideration of any agenda item after 11:30 p.m. without a vote. Any item on the agenda which must be continued due to the late hour shall be continued to a date certain. Information provided herein is subject to change from date of printing of the agenda to the date of the meeting.

# CALL TO ORDER

Call to Order in the Council Chambers (Open to the Public)

### SALUTE TO THE FLAG

## ROLL CALL

### **CLOSED SESSION REPORT**

### ORAL COMMUNICATIONS

This category provides an opportunity for members of the public to address Council on items not listed on the agenda and is limited to 15 minutes (may be extended or continued after the public hearings/general business section of the agenda at the discretion of the Mayor) with a maximum of up to three minutes per speaker. Please note the Brown Act (Open Meeting Law) does not allow Councilmembers to take action on an item not listed on the agenda. If you wish to address the Council, please complete a speaker card and give it to the City Clerk. Individuals are limited to one appearance during this section.

### CONSENT CALENDAR

All matters listed on the consent calendar are considered to be routine and will be acted upon by one motion. There will be no separate discussion of these items. If a member of the public would like a consent calendar item pulled and discussed separately, please submit a speaker card to the City Clerk prior to the start of the meeting or before approval of the consent calendar.

**1.A** <u>17-0183</u> Approve the List(s) of Claims and Bills Approved for Payment by the City Manager

**Recommendation:** Approve the list(s) of claims and bills.

- **1.B** <u>17-0754</u> Authorize the Issuance of a Purchase Order for the Purchase of Turnout Fire Protective Clothing for the Department of Public Safety (DPS)
  - **Recommendation:** Authorize the issuance of a purchase order in substantially the same form as Attachment 1 to the report in the amount of \$401,679 to L.N. Curtis & Sons.
- 1.C17-0730Award of Bid No. PW17-32 for the Pavement Rehabilitation<br/>2017 Project, and Finding of California Environmental Quality<br/>Act (CEQA) Categorical Exemption

	<u>Recommendation:</u>	1) Make a finding of a California Environmental Quality Act (CEQA) categorical exemption pursuant to CEQA Guidelines Section 15301 for the restoration or rehabilitation of existing highways and streets, sidewalks, gutters, bicycle and pedestrian trails, and similar facilities, involving negligible or no expansion of use beyond that presently existing; 2) Award a contract in substantially the same form as Attachment 2 to the report in the amount of \$567,355 to Interstate Grading & Paving, Inc. for the Pavement Rehabilitation 2017; Project # ST-17-05, and authorize the City Manager to execute the
		ST-17-05, and authorize the City Manager to execute the contract when all necessary conditions have been met; and 3) approve a 10% construction contingency in the amount of \$56,736.
1.0	<b>)</b> <u>17-0694</u>	Adopt a Resolution Regarding President's Day Storm Damage and CalEMS/FEMA Assistance

- **Recommendation:** Adopt a resolution to authorize designated staff to handle all matters related to state disaster assistance for Items 1-16 on the List of Projects (Attachment 3 to the report) and for any qualifying future disasters that occur up to three years from date of Council adoption.
- **1.E**<u>17-0761</u>Reject Sole Bid Received for SMaRT Station Stormwater<br/>Management System Upgrade (PW17-04)
  - **Recommendation:** Reject sole bid received in response to Invitation for Bids No. PW17-04 for SMaRT Station Stormwater Management System Upgrade.
- **1.F** <u>17-0798</u> Amend Council Policy 7.3.19 (Council Meetings)
  - Recommendation:Approve an Amended Council Policy 7.3.19 (Council<br/>Meetings) to: 1) hear by a single motion the following agenda<br/>items: Councilmembers Reports on Activities from<br/>Intergovernmental Committee Assignments, Non-Agenda<br/>Items and Comments and Information Only Reports/Items;<br/>and 2) to assure that the Standard Code of Parliamentary<br/>Procedures used by Council will be superseded by Council<br/>adopted policies, rules or procedures and any state or federal<br/>law(s) that require the Council to act in a certain manner.

### PUBLIC HEARINGS/GENERAL BUSINESS

If you wish to speak to a public hearings/general business item, please fill out a

speaker card and give it to the City Clerk. You will be recognized at the time the item is being considered by Council. Each speaker is limited to a maximum of three minutes. For land-use items, applicants are limited to a maximum of 10 minutes for opening comments and 5 minutes for closing comments.

2	<u>17-0826</u>	CONTINUED FROM AUGUST 15, 2017 CITY COUNCIL MEETING
		Proposed Project: GENERAL PLAN AMENDMENT INITIATION to consider a 100% FAR combining district on 11 parcels in the M-S zoning district totaling 17.85 acres. File #: 2017-7382
		Locations: 893-909 Kifer Road (APN 205-42-011), 905 Kifer Road (APN 205-42-009)
		917 Kifer Road (APN 205-42-008), 133-135 Commercial Street and 919-921 Kifer Road (APN 205-42-007), 155 Commercial Street (APN 205-42-006), 165 Commercial Street (APN 205-42-010), 167-171 Commercial Street (APN 205-42-012), 181 Commercial Street (APN 205-42-003), 183 Commercial Street (APN 205-42-004), 193 Commercial Street (APN 205-42-002), No address (APN 205-42-001) Applicant / Owner: ARC TEC, Inc. (applicant) / Fortinet (owner) Environmental Review: The project is exempt from the California Environmental Quality Act (CEQA) pursuant to
	<u>Recommendation:</u>	CEQA Guidelines Section 15378 (a). Alternative 3: Initiate a General Plan Amendment study of a larger study area (bounded by Central Expressway to the north, Kifer Road to the south, a private park to the east, and Wolfe Road to the west) as an industrial intensification site in the General Plan to allow 100 percent FAR with the preparation of a Specific, Area, or Precise Plan.
3	<u>17-0204</u>	Appoint Applicants to the Board of Library Trustees, Personnel Board and Sustainability Commission
	Recommendation:	Staff makes no recommendation.
4	<u>17-0770</u>	Approve an Update of the Transportation Strategic Program and Adopt a Resolution Amending the City's Master Fee Schedule for Traffic Impact Fees
	<u>Recommendation:</u>	Alternative 1: Approve Update of the Transportation Strategic Program and Adopt a Resolution Amending the City's Master

Fee Schedule for Traffic Impact Fees.

5	<u>17-0728</u>	Award of Contract for Professional Design Services Associated with the Secondary Treatment and Dewatering Project at the Water Pollution Control Plant in an Amount Not to Exceed \$17,746,116 (F17-086), with a 10% Design Contingency of \$1,599,533, and Approve Budget Modification No. 8				
	<u>Recommendation:</u>	1) Award a contract in substantially the same form as Attachment 1 to the report in an amount not to exceed \$17,746,116 for Professional Design Services Associated with the Secondary Treatment and Dewatering at the Water Pollution Control Plant and authorize the City Manager to execute the contract when all necessary conditions have been met; 2) approve a 10% contract contingency on the base services in the amount of \$1,599,533; and 3) approve Budget Modification No. 8.				
6	<u>17-0733</u>	Consider Expanding the Purpose of the Standing Subcommittee to Discuss Issues of Mutual Interest with Local School Districts				
	<u>Recommendation:</u>	Alternative 1: Authorize Vice Mayor Larsson and Councilmember Melton to determine the expanded purpose of the Standing Subcommittee regarding Issues of Mutual Interests with Local School Districts as it relates to their meetings with the Cupertino Union School District and the City of Los Altos.				
7	<u>17-0752</u>	Appoint a Councilmember as the City's Representative to the Expressway Plan 2040 Policy Advisory Board (Formerly the Comprehensive County Expressway Planning Study Advisory Board)				
	<u>Recommendation:</u>	Alternative 1: Appoint a Councilmember to serve as the City's representative on the Expressway Plan 2040 Policy Advisory Board.				
COUNCILMEMBERS REPORTS ON ACTIVITIES FROM INTERGOVERNMENTAL COMMITTEE ASSIGNMENTS						

# **NON-AGENDA ITEMS & COMMENTS**

-Council

# -City Manager

### **INFORMATION ONLY REPORTS/ITEMS**

<u>17-0643</u>	Tentative Council Meeting Agenda Calendar
<u>17-0713</u>	Information/Action Items

### ADJOURNMENT

### NOTICE TO THE PUBLIC

The agenda reports to council (RTCs) may be viewed on the City's website at sunnyvale.ca.gov after 7 p.m. on Thursdays or at the Sunnyvale Public Library, 665 W. Olive Ave. as of Fridays prior to Tuesday City Council meetings. Any agenda related writings or documents distributed to members of the City of Sunnyvale City Council regarding any open session item on this agenda will be made available for public inspection in the Office of the City Clerk located at 603 All America Way, Sunnyvale, California during normal business hours and in the Council Chamber on the evening of the Council Meeting, pursuant to Government Code §54957.5. Please contact the Office of the City Clerk at (408) 730-7483 for specific questions regarding the agenda.

PLEASE TAKE NOTICE that if you file a lawsuit challenging any final decision on any public hearing item listed in this agenda, the issues in the lawsuit may be limited to the issues which were raised at the public hearing or presented in writing to the Office of the City Clerk at or before the public hearing. PLEASE TAKE FURTHER NOTICE that Code of Civil Procedure section 1094.6 imposes a 90-day deadline for the filing of any lawsuit challenging final action on an agenda item which is subject to Code of Civil Procedure 1094.5.

Pursuant to the Americans with Disabilities Act, if you need special assistance in this meeting, please contact the Office of the City Clerk at (408) 730-7483. Notification of 48 hours prior to the meeting will enable the City to make reasonable arrangements to ensure accessibility to this meeting. (28 CFR 35.160 (b) (1))

### Planning a presentation for a City Council meeting?

To help you prepare and deliver your public comments, please review the "Making Public Comments During City Council or Planning Commission Meetings" available on the City website at sunnyvale.ca.gov.

### Planning to provide materials to Council?

If you wish to provide the City Council with copies of your presentation materials, please provide 12 copies of the materials to the City Clerk (located to the left of the

Council dais). The City Clerk will distribute your items to the Council.

# **Upcoming Meetings**

*Visit https://sunnyvaleca.legistar.com for upcoming Council, board and commission meeting information.* 



Agenda Item

# 17-0679

Agenda Date: 8/22/2017

Closed Session held pursuant to California Government Code Section 54956.8: CONFERENCE WITH REAL PROPERTY NEGOTIATORS Property: 1484 Kifer Road, Sunnyvale (Unilever site) Agency negotiator: Deanna J. Santana, City Manager Negotiating parties: REOM Development and Fore Property Company Under negotiation: Price and terms of a potential purchase



Agenda Item

# 17-0183

Agenda Date: 8/22/2017

# **REPORT TO COUNCIL**

# <u>SUBJECT</u>

Approve the List(s) of Claims and Bills Approved for Payment by the City Manager

# BACKGROUND

Pursuant to Sunnyvale Charter Section 802(6), the City Manager has approved for payment claims and bills on the following list(s); and checks have been issued.

<u>List No.</u>	Date	Total Disbursements
880	07-30-17 through 08-05-17	\$1,543,132.60

Payments made by the City are controlled in a variety of ways. In general, payments are reviewed by the appropriate City staff for compliance with the goods or services provided. Any discrepancies are resolved and re-submitted for payment. Different levels of dollar amounts for payments require varying levels of approval within the organization. Ultimately payments are reviewed and processed by the Finance Department. Budgetary control is set by Council through the budget adoption resolution.

# ENVIRONMENTAL REVIEW

The action being considered does not constitute a "project" with the meaning of the California Environmental Quality Act ("CEQA") pursuant to CEQA Guidelines section 15378(b)(4) in that it is a fiscal activity that does not involve any commitment to any specific project which may result in a potential significant impact on the environment.

# PUBLIC CONTACT

Public contact was made by posting the Council agenda on the City's official-notice bulletin board outside City Hall, at the Sunnyvale Senior Center, Community Center and Department of Public Safety; and by making the agenda and report available at the Sunnyvale Public Library, the Office of the City Clerk and on the City's website.

# RECOMMENDATION

Approve the list(s) of claims and bills.

Prepared by: Timothy J. Kirby, Director of Finance Reviewed by: Walter C. Rossmann, Assistant City Manager Approved by: Deanna J. Santana, City Manager

# **ATTACHMENTS**

1. List(s) of Claims and Bills Approved for Payment

## Attachment 1

# LIST # 880

# List of All Claims and Bills Approved for Payment For Payments Dated 7/30/2017 through 8/5/2017

City of Sunnyvale

### Sorted by Payment Number

Payment No.	Payment Date	Vendor Name	Invoice No.	Description	Invoice Amount	Discount Taken	Amount Paid	Payment Total
xxx294114	8/1/17	4LEAF INC	J0607-17A	Consultants	7,992.50	0.00	7,992.50	\$12,650.00
			J0607-17B	Consultants	4,657.50	0.00	4,657.50	
xxx294115	8/1/17	ABLE SEPTIC TANK SERVICE	AC17-024-LS	Construction Services	29,840.00	0.00	29,840.00	\$29,840.00
xxx294116	8/1/17	ACKERLY ENTERTAINMENT	JULY/29/2017	Special Events	500.00	0.00	500.00	\$500.00
xxx294117	8/1/17	ACUSHNET CO	300109674	Inventory Purchase	-1,184.00	0.00	-1,184.00	\$4,959.48
			903574051	Inventory Purchase	684.00	0.00	684.00	
			903684236	Inventory Purchase	108.24	0.00	108.24	
			903693917	Inventory Purchase	4,225.19	0.00	4,225.19	
			903732689	Inventory Purchase	1,126.05	0.00	1,126.05	
			904162842	Inventory Purchase	-298.16	0.00	-298.16	
			904162843	Inventory Purchase	298.16	0.00	298.16	
xxx294118	8/1/17	ADVANCED CHEMICAL TRANSPORT INC	148030	HazMat Disposal - Hazardous Waste	9,092.80	0.00	9,092.80	\$9,092.80
				Disposal				
xxx294119	8/1/17	AIRGAS USA LLC	9061688259	General Supplies	575.96	0.00	575.96	\$5,474.75
			9062669266	General Supplies	578.62	0.00	578.62	
			9063172917	Chemicals	67.59	0.00	67.59	
			9063222500	Chemicals	181.82	0.00	181.82	
			9063419756	General Supplies	578.62	0.00	578.62	
			9064029705	General Supplies	93.60	0.00	93.60	
			9064272595	General Supplies	578.62	0.00	578.62	
			9064417735	General Supplies	235.65	0.00	235.65	
			9064755722	General Supplies	578.62	0.00	578.62	
			9943398344	General Supplies	222.67	0.00	222.67	
			9944125672	General Supplies	247.03	0.00	247.03	
			9944867635	General Supplies	231.50	0.00	231.50	
			9945573395	General Supplies	234.49	0.00	234.49	
			9946248145	Equipment Rental/Lease	676.17	0.00	676.17	
			9946248146	Equipment Rental/Lease	172.17	0.00	172.17	
			9946283167	General Supplies	221.62	0.00	221.62	

8/7/2017

LIST # 880

# List of All Claims and Bills Approved for Payment For Payments Dated 7/30/2017 through 8/5/2017

### Sorted by Payment Number

Payment	Payment							
No.	Date	Vendor Name	Invoice No.	Description	Invoice Amount	Discount Taken		Payment Total
xxx294121	8/1/17	AL CLANCY & ASSOC	COS16104	Professional Services	300.00	0.00	300.00	\$300.00
xxx294122	8/1/17	ANISSA BENABBAS	JULY/29/2017	Special Events	320.00	0.00	320.00	\$320.00
xxx294123	8/1/17	ASSOCIATED INFRASTRUCTURE MGMT SERVICES	2017-050	Consultants	3,493.23	0.00	3,493.23	\$3,493.23
xxx294124	8/1/17	BACKFLOW PREVENTION SPECIALISTS INC	5851	Water Backflow Valves	116.30	0.00	116.30	\$116.30
xxx294125	8/1/17	BAUER COMPRESSORS INC	0000227607	Safety Equipment Maintenance & Repair	5,179.09	0.00	5,179.09	\$5,179.09
xxx294126	8/1/17	BEE FRIENDLY HONEY BEE MGMT SOLUTIONS	357	Services Maintain Land Improv	775.00	0.00	775.00	\$775.00
xxx294127	8/1/17	BELLECCI & ASSOC INC	16155-C	Engineering Services	10,822.00	0.00	10,822.00	\$78,910.00
			16155-D	Engineering Services	68,088.00	0.00	68,088.00	
xxx294128	8/1/17	BIGGS CARDOSA ASSOC INC	69982	Consultants	735.33	0.00	735.33	\$25,515.65
			70575	Consultants	24,780.32	0.00	24,780.32	
			71953	Consultants	0.00	0.00	0.00	
xxx294129	8/1/17	CDM SMITH	90008297	Engineering Services	4,755.00	0.00	4,755.00	\$4,755.00
xxx294130	8/1/17	CUES INC	603208	Computer Software	2,725.00	0.00	2,725.00	\$2,725.00
xxx294131	8/1/17	CALIFORNIA MUNICIPAL STATISTICS INC	17071905	Financial Services	500.00	0.00	500.00	\$500.00
xxx294132	8/1/17	CALIFORNIA SPORTS CENTER	CSC0517	Rec Instructors/Officials	53,481.26	0.00	53,481.26	\$53,481.26
xxx294133	8/1/17	CALLAWAY GOLF CO	928011756	Inventory Purchase	1,226.64	0.00	1,226.64	\$1,226.64
xxx294134	8/1/17	CAROLLO ENGINEERS	0159079	Professional Services	196,196.77	0.00	196,196.77	\$196,196.77
xxx294135	8/1/17	COUNTY OF SANTA CLARA OFC OF THE SHERIFF	1800058025	Prisoner Transport - Transport	688.05	0.00	688.05	\$688.05
xxx294136	8/1/17	CROP PRODUCTION SERVICES INC	33593901	Materials - Land Improve	1,247.35	0.00	1,247.35	\$1,247.35
xxx294137	8/1/17	DA LUBRICANT CO INC	2017-80812-00	Fuel, Oil & Lubricants	1,372.85	0.00	1,372.85	\$1,372.85
xxx294138	8/1/17	DCSE INC	BL007800-1	Consultants	10,460.00	0.00	10,460.00	\$10,460.00
xxx294139	8/1/17	DEPARTMENT OF JUSTICE	240758	Software As a Service	1,876.98	0.00	1,876.98	\$1,876.98
xxx294140	8/1/17	DISCOUNT SCHOOL SUPPLY	P35678440101	General Supplies	334.86	0.00	334.86	\$1,548.77
			W28239420102	General Supplies	126.85	0.00	126.85	
			W28274180102	General Supplies	1,087.06	0.00	1,087.06	
xxx294141	8/1/17	EOA INC	SU58-0617	Consultants	13,467.05	0.00	13,467.05	\$13,467.05
xxx294142	8/1/17	EQUIFAX INFORMATION SERVICES LLC	4360999	General Supplies	38.54	0.00	38.54	\$38.54
xxx294144	8/1/17	FERGUSON ENTERPRISES INC 1423	1276080	Construction Services	4,405.36	0.00	4,405.36	\$4,405.36

8/7/2017

### City of Sunnyvale

LIST # 880

# List of All Claims and Bills Approved for Payment For Payments Dated 7/30/2017 through 8/5/2017

### Sorted by Payment Number

Payment	Payment							
No.	Date	Vendor Name	Invoice No.	Description	Invoice Amount	Discount Taken		Payment Total
xxx294145	8/1/17	FIRST UNITED METHODIST CHURCH	4	Outside Group Funding	3,750.00	0.00	3,750.00	\$3,750.00
xxx294146	8/1/17	SUNNYVALE GRM INFORMATION MANAGEMENT	0085610	Records Related Services	1,668.25	0.00	1,668.25	\$1,668.25
		SERVICES	0085010		-,		-,	
xxx294147	8/1/17	GEORGE HILLS CO INC	INV1012136	Liability Claims Adjustor	5,983.80	0.00	5,983.80	\$5,983.80
xxx294148	8/1/17	GOATS R US	GGRAZING2017	Services Maintain Land Improv	16,185.00	0.00	16,185.00	\$16,185.00
201110	0/1/15		-2		154.00	0.00	15000	
xxx294149	8/1/17	GOLDEN GATE MECHANICAL INC	32168	Misc Equip Maint & Repair - Labor	456.00	0.00	456.00	\$1,659.85
			32327	Facilities Maintenance & Repair Labor	1,203.85	0.00	1,203.85	
xxx294150	8/1/17	GRANICUS INC	87965	Professional Services	5,475.00	0.00	5,475.00	\$5,475.00
xxx294151	8/1/17	GRANITE CONSTRUCTION CO	1191757	Materials - Land Improve	160.99	0.00	160.99	\$160.99
xxx294152	8/1/17	GRAYBAR ELECTRIC CO INC	991896269	Comm Equip Maintain & Repair -	4,675.61	0.00	4,675.61	\$4,675.61
204152	0/1/17	CROUND ZERO ANALVEIE DIC		Materials 2	402 50	0.00	402 50	¢ 402 50
xxx294153	8/1/17	GROUND ZERO ANALYSIS INC	26769	Consultants	402.50	0.00	402.50	\$402.50
xxx294154	8/1/17	H & R PLUMBING AND DRAIN CLEANING INC	1841	Construction Services	24,990.00	0.00	24,990.00	\$24,990.00
xxx294155	8/1/17	HACH CO INC	10460177	General Supplies	275.05	0.00	275.05	\$275.05
xxx294156	8/1/17	HEXAGON TRANSPORTATION	10758	Consultants	7,202.50	0.00	7,202.50	\$7,202.50
		CONSULTANTS INC						
xxx294157	8/1/17	HULA HALAU'O PI'ILANI	JULY/29/2017	Special Events	150.00	0.00	150.00	\$150.00
xxx294158	8/1/17	HUMANE SOCIETY SILICON VALLEY	125383	Contracts/Service Agreements	67,171.52	0.00	67,171.52	\$67,171.52
xxx294159	8/1/17	HYDROSCIENCE ENGINEERS INC	262-015-022	Engineering Services	7,645.00	0.00	7,645.00	\$7,645.00
xxx294160	8/1/17	IBI GROUP	720170000	Engineering Services	13,000.00	0.00	13,000.00	\$13,000.00
xxx294161	8/1/17	IDEXX DISTRIBUTION GROUP	3016277092	General Supplies	2,157.93	0.00	2,157.93	\$2,157.93
xxx294162	8/1/17	ICE MACHINE RENTALS	36324	Miscellaneous Services	150.08	0.00	150.08	\$300.16
			37674	Miscellaneous Services	150.08	0.00	150.08	
xxx294163	8/1/17	INFOSEND INC	120946	Mailing & Delivery Services	880.47	0.00	880.47	\$2,363.46
			120947	Postage	1,482.99	0.00	1,482.99	
xxx294164	8/1/17	JENSEN INSTRUMENT CO	18216	Water/Wastewater Treat Equip	3,222.52	0.00	3,222.52	\$3,222.52
xxx294165	8/1/17	KAISER FOUNDATION HOSPITALS	800014582-0717	Pre-Employment Testing	1,044.00	0.00	1,044.00	\$1,044.00
xxx294166	8/1/17	KELLY MOORE PAINT CO INC	820-329819	Chemicals	394.56	0.00	394.56	\$394.56
xxx294167	8/1/17	LANDCARE USA LLC	77732	Services Maintain Land Improv	485.00	0.00	485.00	\$485.00
xxx294168	8/1/17	LAWSON PRODUCTS INC	9305098119	Miscellaneous Equipment Parts & Suppli	es 52.97	0.00	52.97	\$706.13

### City of Sunnyvale

LIST # 880

# List of All Claims and Bills Approved for Payment For Payments Dated 7/30/2017 through 8/5/2017

### Sorted by Payment Number

Payment No.	Payment Date	Vendor Name	Invoice No.	•	Invoice Amount	Discount Taken	Amount Paid	Payment Total
			9305098120	Miscellaneous Equipment Parts & Supplies		0.00	175.82	
004160	0/1/17		9305112086	Miscellaneous Equipment Parts & Supplies		0.00	477.34	
xxx294169	8/1/17	LESLIES POOL SUPPLIES INC	3025-53630	Facilities Maint & Repair - Materials	51.76	0.00	51.76	\$51.76
xxx294170	8/1/17	LEVEL 3 COMMUNICATIONS LLC	57542026	Telecommunication Services	3,622.18	0.00	3,622.18	\$3,622.18
xxx294171	8/1/17	LINEAR TECH STRIPING	MDEPILTSTRP# 01	Construction Services	37,681.04	0.00	37,681.04	\$37,681.04
xxx294172	8/1/17	LOZANO SUNNYVALE CAR WASH	038	Auto Maint & Repair - Labor	1,305.00	0.00	1,305.00	\$1,305.00
xxx294173	8/1/17	MCMASTER CARR SUPPLY CO	39951303	Miscellaneous Equipment Parts & Supplies	340.25	0.00	340.25	\$430.65
			41002733	Miscellaneous Equipment Parts & Supplies	5 77.30	0.00	77.30	
			41247346	Miscellaneous Equipment Parts & Supplies	s 13.10	0.00	13.10	
xxx294174	8/1/17	NATIONAL COMEDY INC	13-594	Special Events	450.00	0.00	450.00	\$450.00
xxx294175	8/1/17	NICK GONZALES	20170508	Audio Visual Products	325.00	0.00	325.00	\$325.00
xxx294176	8/1/17	PROJECT SENTINEL INC	PS-1617-4	Outside Group Funding	15,997.31	0.00	15,997.31	\$15,997.31
xxx294177	8/1/17	READYREFRESH BY NESTLE	17G0023360647	General Supplies	6.53	0.00	6.53	\$19.59
			17G5740132005	Miscellaneous Services	6.53	0.00	6.53	
			17G5740156004	General Supplies	6.53	0.00	6.53	
xxx294179	8/1/17	REED & GRAHAM INC	892936	Materials - Land Improve	2,688.59	0.00	2,688.59	\$10,008.19
			893084	Materials - Land Improve	3,033.88	0.00	3,033.88	
			893351	Materials - Land Improve	978.36	0.00	978.36	
			893488	Materials - Land Improve	403.69	0.00	403.69	
			893651	Materials - Land Improve	1,782.22	0.00	1,782.22	
			893779	Materials - Land Improve	1,121.45	0.00	1,121.45	
xxx294180	8/1/17	ROOFING AND SOLAR CONSTRUCTION INC	ROOFFIRENO5# 03	Construction Services	53,211.42	0.00	53,211.42	\$53,211.42
xxx294181	8/1/17	STC INC	2035962	Construction Services	41,400.00	0.00	41,400.00	\$41,400.00
xxx294182	8/1/17	SAFEWAY INC	804194-072517	Inventory Purchase	97.88	0.00	97.88	\$108.86
			804889-072617	General Supplies	10.98	0.00	10.98	
xxx294183	8/1/17	SANTA CLARA VALLEY WATER DISTRICT	GM100423	Taxes & Licenses - Misc	8,303.20	0.00	8,303.20	\$8,303.20
xxx294184	8/1/17	SANTA CLARA VLY TRANSPORTATION	0000017963	DED Services/Training - Transportation	140.00	0.00	140.00	\$215.00
		AUTHORITY	0000017964	DED Services/Training - Transportation	75.00	0.00	75.00	
xxx294185	8/1/17	SHELLEY CAPOVILLA	JULY/29/2017	Special Events	360.00	0.00	360.00	\$360.00
xxx294186	8/1/17	SIGNCO USA						\$4,969.10

### City of Sunnyvale

LIST # 880

## List of All Claims and Bills Approved for Payment

For Payments Dated 7/30/2017 through 8/5/2017

No.DateVendor NameInvoice No.DescriptionInvoice AmountDiscount T14105Permit Fees3,007.100	ken         Amount Paie           00         3,007.10           00         1,962.00	
	00 1 962 0	
14187 Permit Fees 1,962.00 0	1,902.00	
xxx294187 8/1/17 STEVEN C DOLEZAL PHD JUNE2017 Professional Services 1,800.00 0	00 1,800.0	\$1,800.00
xxx294188 8/1/17 SUNNYVALE BUILDING MAINTENANCE 99695 Professional Services 1,414.00 0	00 1,414.0	\$2,479.08
99696 Professional Services 708.24 0	00 708.24	
99697 Professional Services 356.84 0	00 356.84	
xxx294189 8/1/17 SYLVAN LEARNING INC 2216 Rec Instructors/Officials 5,438.40 0	00 5,438.4	\$5,438.40
xxx294190 8/1/17 SYNAGRO-WWT INC 03-102945 Miscellaneous Services 17,389.72 0	00 17,389.72	\$17,389.72
xxx294191         8/1/17         THE COVELLO GROUP INC         2015.003-26         Engineering Services         62,793.40         0	62,793.4	\$62,793.40
xxx294192 8/1/17 THE CULTURAL PLANNING GROUP PAYMENT#1 Professional Services 19,000.00 0	00 19,000.0	\$19,000.00
xxx294193         8/1/17         THOMSON REUTERS WEST         834717235         Books & Publications         264.53         0	00 264.5	\$1,716.38
836374942 Books & Publications 984.73 0	00 984.7	
836480536 Books & Publications 467.12 0	00 467.12	
xxx294194         8/1/17         VALI COOPER & ASSOC INC         170018000102         Engineering Services         20,118.59         0	20,118.5	\$20,118.59
xxx294195 8/1/17 WOWZY CREATION CORP 88298 Customized Products 107.78 0	00 107.7	\$107.78
xxx294196 8/1/17 WINSUPPLY OF SILICON VALLEY 674278 01 Miscellaneous Equipment Parts & Supplies 493.59 0	00 493.5	\$1,055.16
674353 01Miscellaneous Equipment Parts & Supplies80.290	00 80.2	
674355 00Miscellaneous Equipment Parts & Supplies481.280	00 481.2	
xxx294197         8/1/17         YWCA OF SILICON VALLEY         1617-827550 #3         Outside Group Funding         3,727.69         0	00 3,727.6	\$3,727.69
xxx294198 8/1/17 WAITER.COM INC G1115649929 Food Products 87.05 0	00 87.0	\$87.05
xxx294199 8/1/17 ARLEEN MEARS LIC SN24 Animal Control Fees 10.00 0	00 10.0	\$10.00
xxx294200 8/1/17 FRED PRYOR SEMINARS INC AUG/28/2017 Training and Conferences 179.00 0	00 179.0	\$179.00
xxx294201         8/1/17         G&K SERVICES         6083112519         Laundry & Cleaning Services         77.09         0	00 77.09	\$8,524.01
6083112520Laundry & Cleaning Services170.350	00 170.3	
6083112521Laundry & Cleaning Services309.390	00 309.3	
6083112522Laundry & Cleaning Services158.230	00 158.2	
6083112523Laundry & Cleaning Services64.350	64.3	
6083112524Laundry & Cleaning Services39.360	00 39.3	
6083112525Laundry & Cleaning Services6.720	00 6.72	
6083112526Laundry & Cleaning Services10.970	00 10.9	
6083112527Laundry & Cleaning Services19.250	00 19.2	

# LIST # 880

# List of All Claims and Bills Approved for Payment For Payments Dated 7/30/2017 through 8/5/2017

Payment	Payment							
No.	Date	Vendor Name	Invoice No.	Description	<b>Invoice Amount</b>	Discount Taken	<b>Amount Paid</b>	<b>Payment Total</b>

<b>Invoice No.</b> 6083112528	<b>Description</b> Laundry & Cleaning Services	Invoice Amount 19.11	Discount Taken 0.00	Amount Paid 19.11	Payment Total
6083112529	Laundry & Cleaning Services	171.04	0.00	171.04	
6083112530	Laundry & Cleaning Services	13.18	0.00	13.18	
6083112531	Laundry & Cleaning Services	0.90	0.00	0.90	
6083112532	Laundry & Cleaning Services	106.18	0.00	106.18	
6083112533	Laundry & Cleaning Services	215.50	0.00	215.50	
6083112534	Laundry & Cleaning Services	19.11	0.00	19.11	
6083112535	Laundry & Cleaning Services	16.31	0.00	16.31	
6083112536	Laundry & Cleaning Services	45.28	0.00	45.28	
6083112539	Laundry & Cleaning Services	16.31	0.00	16.31	
6083112540	Laundry & Cleaning Services	8.40	0.00	8.40	
6083112541	Laundry & Cleaning Services	14.34	0.00	14.34	
6083112542	Laundry & Cleaning Services	47.56	0.00	47.56	
6083112543	Laundry & Cleaning Services	22.02	0.00	22.02	
6083112544	Laundry & Cleaning Services	20.58	0.00	20.58	
6083112545	Laundry & Cleaning Services	16.31	0.00	16.31	
6083112546	Laundry & Cleaning Services	16.31	0.00	16.31	
6083115215	Laundry & Cleaning Services	77.09	0.00	77.09	
6083115216	Laundry & Cleaning Services	170.35	0.00	170.35	
6083115217	Laundry & Cleaning Services	309.39	0.00	309.39	
6083115218	Laundry & Cleaning Services	158.23	0.00	158.23	
6083115219	Laundry & Cleaning Services	64.35	0.00	64.35	
6083115220	Laundry & Cleaning Services	39.36	0.00	39.36	
6083115221	Laundry & Cleaning Services	6.72	0.00	6.72	
6083115222	Laundry & Cleaning Services	10.97	0.00	10.97	
6083115223	Laundry & Cleaning Services	19.25	0.00	19.25	
6083115224	Laundry & Cleaning Services	19.11	0.00	19.11	
6083115225	Laundry & Cleaning Services	171.04	0.00	171.04	
6083115226	Laundry & Cleaning Services	13.18	0.00	13.18	
6083115227	Laundry & Cleaning Services	0.90	0.00	0.90	
6083115228	Laundry & Cleaning Services	106.18	0.00	106.18	

# LIST # 880

# List of All Claims and Bills Approved for Payment For Payments Dated 7/30/2017 through 8/5/2017

Payment	Payment							
No.	Date	Vendor Name	Invoice No.	Description	Invoice Amount	Discount Taken	Amount Paid	<b>Payment Total</b>

<b>Invoice No.</b> 6083115229	<b>Description</b> Laundry & Cleaning Services	Invoice Amount 215.50	Discount Taken 0.00	Amount Paid 215.50	Payment Total
6083115230	Laundry & Cleaning Services	19.11	0.00	19.11	
6083115231	Laundry & Cleaning Services	54.78	0.00	54.78	
6083115232	Laundry & Cleaning Services	16.31	0.00	16.31	
6083115233	Laundry & Cleaning Services	42.48	0.00	42.48	
6083115234	Laundry & Cleaning Services	45.28	0.00	45.28	
6083115235	Laundry & Cleaning Services	20.88	0.00	20.88	
6083115236	Laundry & Cleaning Services	58.62	0.00	58.62	
6083115237	Laundry & Cleaning Services	53.46	0.00	53.46	
6083115240	Laundry & Cleaning Services	16.31	0.00	16.31	
6083115241	Laundry & Cleaning Services	16.31	0.00	16.31	
6083115242	Laundry & Cleaning Services	16.31	0.00	16.31	
6083117890	Laundry & Cleaning Services	77.09	0.00	77.09	
6083117891	Laundry & Cleaning Services	170.35	0.00	170.35	
6083117892	Laundry & Cleaning Services	309.39	0.00	309.39	
6083117893	Laundry & Cleaning Services	158.23	0.00	158.23	
6083117894	Laundry & Cleaning Services	64.35	0.00	64.35	
6083117895	Laundry & Cleaning Services	39.36	0.00	39.36	
6083117896	Laundry & Cleaning Services	6.72	0.00	6.72	
6083117897	Laundry & Cleaning Services	10.97	0.00	10.97	
6083117898	Laundry & Cleaning Services	19.25	0.00	19.25	
6083117899	Laundry & Cleaning Services	19.11	0.00	19.11	
6083117900	Laundry & Cleaning Services	211.62	0.00	211.62	
6083117901	Laundry & Cleaning Services	13.18	0.00	13.18	
6083117902	Laundry & Cleaning Services	0.90	0.00	0.90	
6083117903	Laundry & Cleaning Services	150.99	0.00	150.99	
6083117904	Laundry & Cleaning Services	215.50	0.00	215.50	
6083117905	Laundry & Cleaning Services	19.11	0.00	19.11	
6083117906	Laundry & Cleaning Services	16.31	0.00	16.31	
6083117907	Laundry & Cleaning Services	45.28	0.00	45.28	
6083117910	Laundry & Cleaning Services	16.31	0.00	16.31	

# LIST # 880

# List of All Claims and Bills Approved for Payment For Payments Dated 7/30/2017 through 8/5/2017

Payment	Payment							
No.	Date	Vendor Name	Invoice No.	Description	<b>Invoice Amount</b>	Discount Taken A	mount Paid	Payment Total

<b>Invoice No.</b> 6083117911	<b>Description</b> Laundry & Cleaning Services	Invoice Amount 8.40	Discount Taken 0.00	Amount Paid 8.40	Payment Total
6083117912	Laundry & Cleaning Services	14.34	0.00	14.34	
6083117913	Laundry & Cleaning Services	47.56	0.00	47.56	
6083117914	Laundry & Cleaning Services	22.02	0.00	22.02	
6083117915	Laundry & Cleaning Services	20.58	0.00	20.58	
6083117916	Laundry & Cleaning Services	16.31	0.00	16.31	
6083117917	Laundry & Cleaning Services	16.31	0.00	16.31	
6083120579	Laundry & Cleaning Services	77.09	0.00	77.09	
6083120580	Laundry & Cleaning Services	200.38	0.00	200.38	
6083120581	Laundry & Cleaning Services	309.39	0.00	309.39	
6083120582	Laundry & Cleaning Services	158.23	0.00	158.23	
6083120583	Laundry & Cleaning Services	64.35	0.00	64.35	
6083120584	Laundry & Cleaning Services	39.36	0.00	39.36	
6083120585	Laundry & Cleaning Services	6.72	0.00	6.72	
6083120586	Laundry & Cleaning Services	10.97	0.00	10.97	
6083120587	Laundry & Cleaning Services	19.25	0.00	19.25	
6083120588	Laundry & Cleaning Services	19.11	0.00	19.11	
6083120589	Laundry & Cleaning Services	172.15	0.00	172.15	
6083120590	Laundry & Cleaning Services	13.18	0.00	13.18	
6083120591	Laundry & Cleaning Services	0.90	0.00	0.90	
6083120592	Laundry & Cleaning Services	83.99	0.00	83.99	
6083120593	Laundry & Cleaning Services	215.50	0.00	215.50	
6083120594	Laundry & Cleaning Services	19.11	0.00	19.11	
6083120595	Laundry & Cleaning Services	54.78	0.00	54.78	
6083120596	Laundry & Cleaning Services	16.31	0.00	16.31	
6083120597	Laundry & Cleaning Services	42.48	0.00	42.48	
6083120598	Laundry & Cleaning Services	45.28	0.00	45.28	
6083120599	Laundry & Cleaning Services	20.88	0.00	20.88	
6083120600	Laundry & Cleaning Services	58.62	0.00	58.62	
6083120601	Laundry & Cleaning Services	53.46	0.00	53.46	
6083120604	Laundry & Cleaning Services	16.31	0.00	16.31	

xxx294212

xxx294213

xxx294214

8/1/17

8/1/17

8/1/17

GP RESIDENTIAL DESIGNS

UNITED STATES POSTAL SERVICE

OFFICE DEPOT INC

### City of Sunnyvale

## LIST # 880

# List of All Claims and Bills Approved for Payment For Payments Dated 7/30/2017 through 8/5/2017

### Sorted by Payment Number

Payment	Payment							
No.	Date	Vendor Name	Invoice No.	Description	<b>Invoice Amount</b>	Discount Taken	Amount Paid	<b>Payment Total</b>
			6083120605	Laundry & Cleaning Services	16.31	0.00	16.31	

<b>Invoice No.</b> 6083120605	<b>Description</b> Laundry & Cleaning Services	Invoice Amount 16.31	Discount Taken 0.00	Amount Paid 16.31	Payment Total	
6083120606	Laundry & Cleaning Services	16.31	0.00	16.31		
6083123230	Laundry & Cleaning Services	77.09	0.00	77.09		
6083123231	Laundry & Cleaning Services	170.35	0.00	170.35		
6083123232	Laundry & Cleaning Services	309.39	0.00	309.39		
6083123233	Laundry & Cleaning Services	253.59	0.00	253.59		
6083123234	Laundry & Cleaning Services	39.36	0.00	39.36		
6083123235	Laundry & Cleaning Services	6.72	0.00	6.72		
6083123236	Laundry & Cleaning Services	64.35	0.00	64.35		
6083123237	Laundry & Cleaning Services	19.25	0.00	19.25		
6083123238	Laundry & Cleaning Services	19.11	0.00	19.11		
6083123239	Laundry & Cleaning Services	10.97	0.00	10.97		
6083123240	Laundry & Cleaning Services	172.15	0.00	172.15		
6083123241	Laundry & Cleaning Services	13.18	0.00	13.18		
6083123242	Laundry & Cleaning Services	0.90	0.00	0.90		
6083123243	Laundry & Cleaning Services	83.99	0.00	83.99		
6083123244	Laundry & Cleaning Services	215.50	0.00	215.50		
6083123245	Laundry & Cleaning Services	19.11	0.00	19.11		
6083123246	Laundry & Cleaning Services	16.31	0.00	16.31		
6083123247	Laundry & Cleaning Services	45.28	0.00	45.28		
6083123250	Laundry & Cleaning Services	16.31	0.00	16.31		
6083123251	Laundry & Cleaning Services	8.40	0.00	8.40		
6083123252	Laundry & Cleaning Services	14.34	0.00	14.34		
6083123253	Laundry & Cleaning Services	47.56	0.00	47.56		
6083123254	Laundry & Cleaning Services	22.02	0.00	22.02		
6083123255	Laundry & Cleaning Services	20.58	0.00	20.58		
6083123256	Laundry & Cleaning Services	16.31	0.00	16.31		
6083123257	Laundry & Cleaning Services	16.31	0.00	16.31		
17-039	Customer Loans Disbursed	2,500.00	0.00	2,500.00	\$2,500.00	
941794884001	Supplies, Office 1	38.67	0.00	38.67	\$38.67	
P#584-072817	Postage	11,219.72	0.00	11,219.72	\$11,219.72	

### City of Sunnyvale

## LIST # 880

# List of All Claims and Bills Approved for Payment For Payments Dated 7/30/2017 through 8/5/2017

### Sorted by Payment Number

Payment No. xxx294216	Payment Date 8/3/17	<b>Vendor Name</b> ABODE SERVICES	<b>Invoice No.</b> TBRA2016/17-12	<b>Description</b> Contracts/Service Agreements	Invoice Amount 3,320.79	<b>Discount Taken</b> 0.00	<b>Amount Paid</b> 3,320.79	Payment Total \$33,509.79
			TBRA2016/17-12	Outside Group Funding	30,189.00	0.00	30,189.00	
xxx294217	8/3/17	ACADEMY OF TRUCK DRIVING INC	1699	DED Services/Training - Training	5,400.00	0.00	5,400.00	\$5,400.00
xxx294218	8/3/17	AGILENT TECHNOLOGIES INC	9100262276	Water Lab Services	4,500.00	0.00	4,500.00	\$4,500.00
xxx294219	8/3/17	AIRGAS USA LLC	9945544825	Equipment Rental/Lease	698.13	0.00	698.13	\$698.13
xxx294220	8/3/17	ALISTAIR RICHARDSON	CK REQ 18-15	DED Services/Training - Books	44.41	0.00	44.41	\$44.41
xxx294221	8/3/17	AMERICAN TEXTILE & SUPPLY INC	88683	Inventory Purchase	259.42	0.00	259.42	\$259.42
xxx294222	8/3/17	AMFASOFT CORP	BRANDNAP-02	DED Services/Training - Training	437.50	0.00	437.50	\$1,902.50
			CARKUM-02	DED Services/Training - Training	590.00	0.00	590.00	
			EIRCCHEN-02	DED Services/Training - Training	437.50	0.00	437.50	
			JOHNADAMS-0 2	DED Services/Training - Training	437.50	0.00	437.50	
xxx294223	8/3/17	ANDREY STRIGIN	CK REQ 18-14	DED Services/Training - Books	139.00	0.00	139.00	\$139.00
xxx294224	8/3/17	BAKER & TAYLOR	4011961791	Library Acquisitions, Books	116.09	0.00	116.09	\$120.01
			4011961791	Library Materials Preprocessing	3.92	0.00	3.92	
xxx294225	8/3/17	BAY AREA VIDEO COALITION INC	26784	DED Services/Training - Training	4,163.50	0.00	4,163.50	\$4,163.50
xxx294226	8/3/17	BIGGS CARDOSA ASSOC INC	71810	Consultants	17,324.39	0.00	17,324.39	\$22,529.26
			71953	Consultants	5,204.87	0.00	5,204.87	
xxx294227	8/3/17	BILL WILSON CENTER	4-FY2016/17	Outside Group Funding	6,414.78	0.00	6,414.78	\$6,414.78
xxx294228	8/3/17	CALIFORNIA DEPT OF GENERAL SERVICES	1412211	Utilities - Gas	19,320.19	0.00	19,320.19	\$19,320.19
xxx294229	8/3/17	CALIFORNIA WORKFORCE ASSN	MEMB1718BOA RD	Membership Fees	6,800.00	0.00	6,800.00	\$6,800.00
xxx294230	8/3/17	CORIX WATER PRODUCTS (US) INC	17703019794	Water Meters	2,421.37	0.00	2,421.37	\$17,090.51
			17713016479	Inventory Purchase	3,099.69	0.00	3,099.69	
			17713019520	Construction Services	50.55	0.00	50.55	
			17713019521	Construction Services	918.01	0.00	918.01	
			17713019794	Water Meters	0.00	0.00	0.00	
			17713019835	Water Meters	396.79	0.00	396.79	
			17713020177	Construction Services	493.98	0.00	493.98	
			17713020328	Construction Services	489.24	0.00	489.24	
			17713020329	Materials - Land Improve	1,251.50	0.00	1,251.50	

### City of Sunnyvale

LIST # 880

# List of All Claims and Bills Approved for Payment For Payments Dated 7/30/2017 through 8/5/2017

### Sorted by Payment Number

Payment	Payment							
No.	Date	Vendor Name	<b>Invoice No.</b> 17713020423	Description Inventory Purchase	Invoice Amount 8,772.03	Discount Taken 80.48	<b>Amount Paid</b> 8,691.55	Payment Total
			17713020725	Water Meters	79.99	0.00	79.99	
			17713020728	Construction Services	2,297.54	0.00	2,297.54	
			1771501173	Inventory Purchase	-3,099.70	0.00	-3,099.70	
xxx294232	8/3/17	D W NICHOLSON CORP	81799	Misc Equip Maint & Repair - Labor	72,583.00	0.00	72,583.00	\$122,538.65
			81799	Misc Equip Maint & Repair - Materials	34,160.00	0.00	34,160.00	
			SMRTELCTRCL #05	Construction Services	15,795.65	0.00	15,795.65	
xxx294233	8/3/17	DAPPER TIRE CO INC	44734770	Inventory Purchase	1,171.47	0.00	1,171.47	\$1,171.47
xxx294234	8/3/17	DOUGHERTY & DOUGHERTY	2149614	Consultants	13,930.00	0.00	13,930.00	\$28,090.00
		ARCHITECTS LLP	2149615	Consultants	3,810.00	0.00	3,810.00	
			2149616	Consultants	10,350.00	0.00	10,350.00	
xxx294235	8/3/17	DU-ALL SAFETY	18847	Occupational Health and Safety Services - Other	2,500.00	0.00	2,500.00	\$4,250.00
			18847	Training and Conferences	1,750.00	0.00	1,750.00	
xxx294236	8/3/17	EOA INC	SU59-0617	Professional Services	5,022.09	0.00	5,022.09	\$5,022.09
xxx294237	8/3/17	EMPIRE SAFETY & SUPPLY	0088379-IN	Inventory Purchase	359.70	0.00	359.70	\$1,064.84
			0088558-IN	Inventory Purchase	622.61	0.00	622.61	
			0088692-IN	Inventory Purchase	82.53	0.00	82.53	
xxx294238	8/3/17	FERGUSON ENTERPRISES INC 1423	1265094	Inventory Purchase	4,503.92	0.00	4,503.92	\$4,503.92
xxx294239	8/3/17	GALE/CENGAGE LEARNING	60889086	Library Acquisitions, Books	131.67	0.00	131.67	\$131.67
xxx294240	8/3/17	JAMES SUNDBY	CK REQ 18-10	DED Services/Training - Books	166.97	0.00	166.97	\$166.97
xxx294241	8/3/17	JENNIFER GREENWOOD	TRN#8975	DED Services/Training - Support Services	5 19.90	0.00	19.90	\$19.90
xxx294242	8/3/17	JUAN QUINTERO	CK REQ 18-12	DED Services/Training - Books	200.00	0.00	200.00	\$200.00
xxx294243	8/3/17	KELLY PAPER CO	8653553	General Supplies	348.80	0.00	348.80	\$1,078.45
			8669828	General Supplies	729.65	0.00	729.65	
xxx294244	8/3/17	KENNETH LEKASHMAN	CK REQ 18-018	DED Services/Training - Books	21.79	0.00	21.79	\$21.79
xxx294245	8/3/17	KOHLWEISS AUTO PARTS INC	01PI8886	Inventory Purchase	466.64	9.33	457.31	\$457.31
xxx294246	8/3/17	L N CURTIS & SONS INC	INV112542	Inventory Purchase	471.31	0.00	471.31	\$691.31
			INV113775	Safety Equipment Maintenance & Repair	220.00	0.00	220.00	
xxx294247	8/3/17	LAWSON PRODUCTS INC	9305122382	Miscellaneous Equipment Parts & Supplie	es 37.80	0.00	37.80	\$37.80
xxx294248	8/3/17	LINDA NGUYEN	CK REQ 18-09	DED Services/Training - Books	39.74	0.00	39.74	\$39.74

### City of Sunnyvale

LIST # 880

# List of All Claims and Bills Approved for Payment For Payments Dated 7/30/2017 through 8/5/2017

Payment	Payment							
<b>No.</b> xxx294249	<b>Date</b> 8/3/17	Vendor Name M&M COMMUNICATIONS INC	Invoice No.	····	Invoice Amount	Discount Taken 0.00		Payment Total \$7,200.00
xxx294249 xxx294250	8/3/17	M&M COMMONICATIONS INC MSI FUEL MANAGEMENT INC	US0494	Miscellaneous Services Auto Maint & Repair - Labor	7,200.00 570.00	0.00	7,200.00 570.00	\$7,200.00
			4277	1				
xxx294251	8/3/17	MALLORY SAFETY & SUPPLY LLC	4291976	Inventory Purchase	168.34	0.00	168.34	\$168.34
xxx294252	8/3/17	MCMASTER CARR SUPPLY CO	41650732	Miscellaneous Equipment Parts & Supplies		0.00	475.01	\$903.72
			41651220	General Supplies	410.99	0.00	410.99	
			41728731	Electrical Parts & Supplies	17.72	0.00	17.72	
xxx294253	8/3/17	MIDWEST TAPE	95191473	Library Acquis, Audio/Visual	40.85	0.00	40.85	\$2,711.15
			95191474	Library Acquis, Audio/Visual	421.06	0.00	421.06	
			95191476	Library Acquis, Audio/Visual	265.51	0.00	265.51	
			95191540	Library Acquis, Audio/Visual	710.51	0.00	710.51	
			95209311	Library Acquis, Audio/Visual	127.86	0.00	127.86	
			95209312	Library Acquis, Audio/Visual	598.28	0.00	598.28	
			95209313	Library Acquis, Audio/Visual	32.67	0.00	32.67	
			95209315	Library Acquis, Audio/Visual	61.27	0.00	61.27	
			95209316	Library Acquis, Audio/Visual	208.01	0.00	208.01	
			95212032	Library Acquis, Audio/Visual	58.83	0.00	58.83	
			95212053	Library Acquis, Audio/Visual	186.30	0.00	186.30	
xxx294254	8/3/17	MISSION GLASS CO	12421	Bldg Maint Matls & Supplies	89.12	0.00	89.12	\$89.12
xxx294255	8/3/17	MISSION VALLEY FORD TRUCK SALES	713515	Parts, Vehicles & Motor Equip	311.22	0.00	311.22	\$392.14
		INC	713521	Parts, Vehicles & Motor Equip	80.92	0.00	80.92	
xxx294256	8/3/17	MONARCH TRUCK CENTER	241754P	Parts, Vehicles & Motor Equip	21.45	0.00	21.45	\$21.45
xxx294257	8/3/17	MORAGOD KANJANAPLANG	CK REO 18-17	DED Services/Training - Books	77.52	0.00	77.52	\$77.52
xxx294258	8/3/17	MORNINGSTAR INC	092717-092718	Library Periodicals/Databases	1,971.00	0.00	1,971.00	\$1,971.00
xxx294259	8/3/17	MUNICIPAL MAINTENANCE EQUIPMENT	0120257-IN	Parts, Vehicles & Motor Equip	678.39	0.00	678.39	\$1,286.15
		INC	0120458-IN	Parts, Vehicles & Motor Equip	607.76	0.00	607.76	
xxx294260	8/3/17	NAMEETA LAL	CK REO 18-004	DED Services/Training - Books	166.95	0.00	166.95	\$166.95
xxx294261	8/3/17	NETFILE	5134	Software As a Service	4,162.50	0.00	4,162.50	\$4,162.50
xxx294262	8/3/17	NEWCOMB MECHANICAL INC	10463	Bldg Maint Matls & Supplies	2,964.80	0.00	2,964.80	\$2,964.80
xxx294263	8/3/17	NOTHING WASTED CONSULTING	00101	Recycling Services	900.00	0.00	900.00	\$900.00
xxx294264	8/3/17	OMEGA ENGRAVING	215763	General Supplies	47.50	0.00	47.50	\$73.00
				Supplies, Office 1	25.50	0.00	25.50	<i></i>
			215764	Supplies, Office 1	25.50	0.00	25.50	

### City of Sunnyvale

## LIST # 880

# List of All Claims and Bills Approved for Payment For Payments Dated 7/30/2017 through 8/5/2017

### Sorted by Payment Number

Payment No. xxx294265	Payment Date 8/3/17	Vendor Name OMEGA PACIFIC ELECTRICAL SUPPLY INC	<b>Invoice No.</b> 03-31353	<b>Description</b> Inventory Purchase	Invoice Amount 6,174.85	<b>Discount Taken</b> 0.00	<b>Amount Paid</b> 6,174.85	Payment Total \$6,174.85
xxx294266	8/3/17	ORLANDI TRAILER INC	163144	Parts, Vehicles & Motor Equip	69.40	0.00	69.40	\$69.40
xxx294267	8/3/17	P&R PAPER SUPPLY CO INC	30136537-01	Inventory Purchase	121.93	0.00	121.93	\$5,584.82
			30140485-00	Inventory Purchase	2,919.57	0.00	2,919.57	
			30140485-01	Inventory Purchase	90.96	0.00	90.96	
			30140485-02	Inventory Purchase	119.33	0.00	119.33	
			30141692-00	Inventory Purchase	1,464.96	0.00	1,464.96	
			30142481-00	Inventory Purchase	868.07	0.00	868.07	
xxx294268	8/3/17	PAYFLEX SYSTEMS USA INC	128934-1020094	Insurances - Depend Care & Health Care	812.00	0.00	812.00	\$836.72
			128934-1020094	Rmb Admin Fees Professional Services	24.72	0.00	24.72	
xxx294269	8/3/17	PACIFIC JANITORIAL SUPPLY CO	30043355	Inventory Purchase	699.85	0.00	699.85	\$699.85
xxx294270	8/3/17	PACIFIC WEST SECURITY INC	1052233-IN	Alarm Services	79.00	0.00	79.00	\$368.00
			1052478-IN	Alarm Services	90.00	0.00	90.00	
			1052479-IN	Facilities Maintenance & Repair Labor	199.00	0.00	199.00	
xxx294271	8/3/17	PETER KOEHLER	VA2017	Rec Instructors/Officials	1,969.00	0.00	1,969.00	\$1,969.00
xxx294272	8/3/17	PINE CONE LUMBER CO INC	704425	Electrical Parts & Supplies	17.49	0.00	17.49	\$563.07
			711331	Inventory Purchase	137.50	1.38	136.12	
			711332	Inventory Purchase	413.60	4.14	409.46	
xxx294273	8/3/17	PRIORITY 1 PUBLIC SAFETY EQUIPMENT	6316	Auto Maint & Repair - Labor	520.00	0.00	520.00	\$520.00
xxx294274	8/3/17	PROQUEST LLC	70360796	Library Periodicals/Databases	4,641.00	0.00	4,641.00	\$4,641.00
xxx294275	8/3/17	ROOTX	49540	Chemicals	4,190.96	0.00	4,190.96	\$4,190.96
xxx294276	8/3/17	SAFEWAY INC	430421-072617	General Supplies	4.34	0.00	4.34	\$209.54
			437640-062617	Special Events	30.76	0.00	30.76	
			439846-072517	Special Events	18.00	0.00	18.00	
			439908-060717	Special Events	43.66	0.00	43.66	
			728195-051117	Special Events	31.90	0.00	31.90	
			804900-072617	General Supplies	5.86	0.00	5.86	
			808061-071217	Food Products	17.64	0.00	17.64	
			809472-072417	Food Products	32.37	0.00	32.37	
			809571-072417	General Supplies	3.78	0.00	3.78	

## LIST # 880

# List of All Claims and Bills Approved for Payment For Payments Dated 7/30/2017 through 8/5/2017

### Sorted by Payment Number

Payment	Payment							
No.	Date	Vendor Name	<b>Invoice No.</b> 809773-072517	<b>Description</b> Food Products	Invoice Amount 21.23	Discount Taken 0.00	Amount Paid 21.23	Payment Total
xxx294277	8/3/17	SANTA CLARA COUNTY FIRE CHIEFS ASSN	070117-063018	Membership Fees	500.00	0.00	500.00	\$500.00
xxx294278	8/3/17	SILICON VALLEY SECURITY & PATROL INC	2032621	Professional Services	500.00	0.00	500.00	\$500.00
xxx294279	8/3/17	SMART & FINAL INC	032354-072817	Food Products	145.16	0.00	145.16	\$333.12
			052988-072717	General Supplies	56.64	0.00	56.64	
			057893-071217	Food Products	86.73	0.00	86.73	
			058653-071417	Food Products	44.59	0.00	44.59	
xxx294280	8/3/17	SUBURBAN PROPANE	2199938	Materials - Land Improve	128.82	0.00	128.82	\$853.82
			9487	Fuel, Oil & Lubricants	725.00	0.00	725.00	
xxx294281	8/3/17	SUNNYVALE COMMUNITY SERVICES	CBDO2016/17-4	Outside Group Funding	48,207.03	0.00	48,207.03	\$48,207.03
xxx294282	8/3/17	SUNNYVALE FORD	100335	Inventory Purchase	461.95	0.00	461.95	\$2,797.79
			101037	Parts, Vehicles & Motor Equip	42.63	0.00	42.63	
			101190	Parts, Vehicles & Motor Equip	13.11	0.00	13.11	
			101223	Parts, Vehicles & Motor Equip	75.64	0.00	75.64	
			101268	Parts, Vehicles & Motor Equip	109.53	0.00	109.53	
			101286	Parts, Vehicles & Motor Equip	222.91	0.00	222.91	
			101312	Parts, Vehicles & Motor Equip	13.29	0.00	13.29	
			101323	Inventory Purchase	751.34	0.00	751.34	
			101333	Parts, Vehicles & Motor Equip	13.29	0.00	13.29	
			101344	Parts, Vehicles & Motor Equip	46.26	0.00	46.26	
			101555	Parts, Vehicles & Motor Equip	52.56	0.00	52.56	
			101589	Parts, Vehicles & Motor Equip	82.97	0.00	82.97	
			101611	Parts, Vehicles & Motor Equip	63.38	0.00	63.38	
			101914	Parts, Vehicles & Motor Equip	122.01	0.00	122.01	
			102236	Inventory Purchase	586.97	0.00	586.97	
			FOCS759648	Auto Maint & Repair - Labor	139.95	0.00	139.95	
xxx294284	8/3/17	SUNNYVALE TOWING INC	299824	Vehicle Towing Services	40.00	0.00	40.00	\$40.00
xxx294285	8/3/17	SUPPLYWORKS	407864982	Inventory Purchase	77.35	0.71	76.64	\$76.64
xxx294286	8/3/17	TRENDTEC INC	266762	Salaries - Contract Personnel	1,456.96	0.00	1,456.96	\$2,913.92
			266824	Salaries - Contract Personnel	1,456.96	0.00	1,456.96	

8/7/2017

### City of Sunnyvale

LIST # 880

# List of All Claims and Bills Approved for Payment For Payments Dated 7/30/2017 through 8/5/2017

Payment	Payment							
<b>No.</b> xxx294287	<b>Date</b> 8/3/17	<b>Vendor Name</b> TURF & INDUSTRIAL EQUIPMENT CO	Invoice No.	Description	Invoice Amount	Discount Taken	Amount Paid 168.73	Payment Total \$495.57
XXX294207	8/3/1/	TURF & INDUSTRIAL EQUIPMENT CO	IV22025	Parts, Vehicles & Motor Equip Parts, Vehicles & Motor Equip	168.73 326.84	0.00 0.00	326.84	\$495.57
xxx294288	8/3/17	TURF STAR INC	IV22104		913.08	0.00	913.08	\$913.08
			6980588-00	Parts, Vehicles & Motor Equip				
xxx294289	8/3/17	UNIVAR USA INC	SJ825408	Chemicals	3,431.43	0.00	3,431.43	\$6,873.97
20.4200	0.0.11		SJ827684	Chemicals	3,442.54	0.00	3,442.54	
xxx294290	8/3/17	VWR INTERNATIONAL LLC	8049091351	General Supplies	66.99	0.00	66.99	\$1,049.28
			8049093672	General Supplies	235.13	0.00	235.13	
			8049096871	General Supplies	272.86	0.00	272.86	
			8049109096	General Supplies	63.55	0.00	63.55	
			8049151992	General Supplies	207.96	0.00	207.96	
			8049170965	General Supplies	25.59	0.00	25.59	
			8049224386	General Supplies	152.49	0.00	152.49	
			8049231020	General Supplies	24.71	0.00	24.71	
xxx294291	8/3/17	VALLEY OIL CO	37187	Fuel, Oil & Lubricants	697.21	0.00	697.21	\$14,201.25
			881437	Inventory Purchase	13,504.04	0.00	13,504.04	
xxx294292	8/3/17	VIASYN	26300	Utilities - Electric	2,825.00	0.00	2,825.00	\$2,825.00
xxx294293	8/3/17	W A KRAUSS & CO INC	201707	Professional Services	167.75	0.00	167.75	\$167.75
xxx294294	8/3/17	WATER ONE INDUSTRIES INC	98617	Facilities Maintenance & Repair Labor	1,200.00	0.00	1,200.00	\$1,200.00
xxx294295	8/3/17	WESTERN STATES TOOL & SUPPLY CORP	107033	Inventory Purchase	407.93	0.00	407.93	\$407.93
xxx294296	8/3/17	WINSUPPLY OF SILICON VALLEY	676693 01	Electrical Parts & Supplies	130.76	0.00	130.76	\$130.76
xxx294298	8/3/17	PACIFIC GAS & ELECTRIC CO	11008300870717	Utilities - Electric	446.57	0.00	446.57	\$129,761.83
			11054204050717	Utilities - Electric	9,409.34	0.00	9,409.34	
			11059220090717	Utilities - Electric	3,459.73	0.00	3,459.73	
			11059220250717	Utilities - Gas	1,126.25	0.00	1,126.25	
			11059220400717	Utilities - Gas	133.86	0.00	133.86	
			11059220450717	Utilities - Gas	579.97	0.00	579.97	
			11059220500717	Utilities - Gas	16.68	0.00	16.68	
			11059220550717	Utilities - Electric	700.28	0.00	700.28	
			11059220600717	Utilities - Gas	3,339.86	0.00	3,339.86	
			11059220640717	Utilities - Electric	1,885.77	0.00	1,885.77	
			11059220750717	Utilities - Gas	213.58	0.00	213.58	
			11037220730717					

### City of Sunnyvale

LIST # 880

# List of All Claims and Bills Approved for Payment For Payments Dated 7/30/2017 through 8/5/2017

### Sorted by Payment Number

Payment	Payment							
No.	Date	Vendor Name	<b>Invoice No.</b> 11059220810717	<b>Description</b> Utilities - Electric	Invoice Amount 329.95	Discount Taken 0.00	Amount Paid 329.95	Payment Total
			11059220900717	Utilities - Gas	73.66	0.00	73.66	
			11059220930717	Utilities - Electric	340.26	0.00	340.26	
			11059221020717	Utilities - Electric	328.89	0.00	328.89	
					47.01	0.00	47.01	

11039220900/17	e unities ous	75.00	0.00	,5.00	
11059220930717	Utilities - Electric	340.26	0.00	340.26	
11059221020717	Utilities - Electric	328.89	0.00	328.89	
11059221050717	Utilities - Gas	47.81	0.00	47.81	
11059221060717	Utilities - Electric	672.23	0.00	672.23	
11059221080717	Utilities - Electric	659.84	0.00	659.84	
11059221150717	Utilities - Gas	62.12	0.00	62.12	
11059221180717	Utilities - Electric	7,182.40	0.00	7,182.40	
11059221280717	Utilities - Electric	981.98	0.00	981.98	
11059221350717	Utilities - Gas	70.18	0.00	70.18	
11059221400717	Utilities - Gas	581.13	0.00	581.13	
11059221600717	Utilities - Gas	54.00	0.00	54.00	
11059221680717	Utilities - Electric	183.02	0.00	183.02	
11059221700717	Utilities - Gas	54.81	0.00	54.81	
11059221730717	Utilities - Electric	1,321.58	0.00	1,321.58	
11059221930717	Utilities - Electric	8,606.95	0.00	8,606.95	
11059222630717	Utilities - Electric	2,874.70	0.00	2,874.70	
11059222720717	Utilities - Electric	649.45	0.00	649.45	
11059224060717	Utilities - Electric	9,194.57	0.00	9,194.57	
11059224270717	Utilities - Electric	9.85	0.00	9.85	
11059224730717	Utilities - Electric	273.45	0.00	273.45	
11059225100717	Utilities - Gas	96.30	0.00	96.30	
11059225290717	Utilities - Electric	603.73	0.00	603.73	
11059225320717	Utilities - Electric	172.72	0.00	172.72	
11059225550717	Utilities - Electric	2,873.74	0.00	2,873.74	
11059225650717	Utilities - Gas	866.19	0.00	866.19	
11059226380717	Utilities - Electric	6,035.98	0.00	6,035.98	
11059226470717	Utilities - Electric	339.30	0.00	339.30	
11059226810717	Utilities - Electric	7,921.12	0.00	7,921.12	
11059227030717	Utilities - Electric	523.26	0.00	523.26	

### City of Sunnyvale

LIST # 880

# List of All Claims and Bills Approved for Payment For Payments Dated 7/30/2017 through 8/5/2017

### Sorted by Payment Number

Payment	Payment							
No.	Date	Vendor Name	<b>Invoice No.</b> 11059227060717	<b>Description</b> Utilities - Electric	Invoice Amount 2,539.21	Discount Taken 0.00	<b>Amount Paid</b> 2,539.21	Payment Total
			11059227230717	Utilities - Electric	5,145.33	0.00	5,145.33	
			11059227650717	Utilities - Electric	316.22	0.00	316.22	
			11059227850717	Utilities - Electric	5,092.93	0.00	5,092.93	
			11059228050717	Utilities - Electric	5,673.20	0.00	5,673.20	
			11059228580717	Utilities - Electric	9,505.89	0.00	9,505.89	
			11059228670717	Utilities - Electric	345.60	0.00	345.60	
			11059229250717	Utilities - Electric	5,438.29	0.00	5,438.29	
			11059229470717	Utilities - Electric	7,044.15	0.00	7,044.15	
			11059229910717	Utilities - Electric	8,771.43	0.00	8,771.43	
			11059229990717	Utilities - Electric	3,868.85	0.00	3,868.85	
			61266000050717	Utilities - Gas	723.67	0.00	723.67	
xxx294303	8/3/17	CHESNOS PAINTING INC	068795	Business License Tax	37.15	0.00	37.15	\$37.15
xxx294304	8/3/17	GIRAS DAYCARE	053726	Business License Tax	37.15	0.00	37.15	\$37.15
xxx294305	8/3/17	KULDEEP SINGH	358089	Refund Recreation Fees	92.00	0.00	92.00	\$92.00
xxx294306	8/3/17	PASTORIA EL CAMINO PARTNERSHIP	178727-43488	Refund Utility Account Credit	7,935.40	0.00	7,935.40	\$7,935.40
xxx294307	8/3/17	SILVIA RODRIGUEZ	358043	Refund Recreation Fees	92.00	0.00	92.00	\$92.00

**Grand Total Payment Amount** 

\$1,543,132.60



Agenda Item

# 17-0754

Agenda Date: 8/22/2017

# **REPORT TO COUNCIL**

# <u>SUBJECT</u>

Authorize the Issuance of a Purchase Order for the Purchase of Turnout Fire Protective Clothing for the Department of Public Safety (DPS)

# REPORT IN BRIEF

Approval is requested to issue a purchase order in the amount of \$401,679 to L.N. Curtis & Sons of Oakland, for 171 sets (87 sets released in 2017 and 84 sets released in 2018) of Structural Firefighting, Turnout Fire Protective Clothing for sworn staff assigned to DPS Fire Services.

# EXISTING POLICY

Section 2.08.070(b)(3) of the Sunnyvale Municipal Code exempts from competitive bidding those purchases in which solicitations of bids or proposals would be impractical, unavailing or impossible. L.N. Curtis provided the first set of DPS's current brand of fire protective clothing, which was custom produced to meet Sunnyvale specifications, and this vendor provides immediate access to both the turnouts and repair thereof if needed.

# ENVIRONMENTAL REVIEW

The purchase of supplies does not constitute a "project" within the meaning of the California Environmental Quality Act ("CEQA") pursuant to CEQA Guidelines section 15378(b)(5) in that it is an administrative activity that will not result in direct or indirect changes in the environment.

# BACKGROUND AND DISCUSSION

Pursuant to National Fire Protection Association (NFPA) standards, and Occupational Safety and Health Administration (OSHA) and the Center for Disease Control and Prevention (CDC) recommendations, fire services personnel should have a second set of structural firefighting ensembles (otherwise known as turnouts) to ensure a reduction in exposure to cancer causing contaminants. A survey of all fire departments in Santa Clara County, conducted by DPS staff in FY 2016/17, indicated Sunnyvale to be the only agency in the County that did not issue a second set of turnouts to their fire personnel. To come into compliance with the aforementioned recommendations, the addition of a second set of turnouts for all sworn personnel in DPS will be phased in over the next several years. Eighty-Seven (87) sets will be purchased in FY 2018/19 for sworn personnel assigned to police services. Five sets will be purchased in each of the fiscal years thereafter, for the next several years, for sworn personnel assigned to Special Operations and the Traffic Unit. A second set of turnouts allows our personnel to be able to launder their turnouts after a fire and immediately have another set available to wear to a subsequent call for service.

The department's primary vendor for the turnouts is L.N. Curtis & Sons. L.N. Curtis & Sons is the only vendor in California that offers DPS' select style of turnouts, "Globe Advance G-Xtreme", and

# 17-0754

provides local service, measuring and repairs. Changing to a different style of type of turnout would not be financially feasible to the City, nor would it be desirable to mix a new style of turnout with current stock as this could present potential risk issues due to varying turnout protection.

# FISCAL IMPACT

Funding for the purchase of 171 turnouts has been approved and is included in the FY 2017/18 Adopted Budget in the Public Safety Equipment account. Funding for turnouts in FY 2018/19 and future turnout purchases are included in the City's 20-Year Financial Plan.

# Funding Source

The funding source is the General Fund.

# PUBLIC CONTACT

Public contact was made by posting the Council agenda on the City's official-notice bulletin board outside City Hall, at the Sunnyvale Senior Center, Community Center and Department of Public Safety; and by making the agenda and report available at the Sunnyvale Public Library, the Office of the City Clerk and on the City's website.

# RECOMMENDATION

Authorize the issuance of a purchase order in substantially the same form as Attachment 1 to the report in the amount of \$401,679 to L.N. Curtis & Sons.

Prepared by: Gregory Card, Purchasing Officer Reviewed by: Timothy J. Kirby, Director of Finance Reviewed by: Phan S. Ngo, Director of Public Safety Reviewed by: Walter C. Rossmann, Assistant City Manager Approved by: Deanna J. Santana, City Manager

# ATTACHMENTS

1. Draft Purchase Order

Attachment 1



PO005755

ORDERED FROM 00096 - 001 L N Curtis & Sons Inc 1800 Peralta St Oakland CA 94607-1603	(800) 443-3556	ORDER DATE 07/17/2017 DELIVERY DATE 10/31/2018 PAYMENT TERMS N/30 BID NO/RFQ NO	BILL TO: City of Sunnyvale Finance Department Accounts Payable PO Box 3707 Sunnyvale, CA 94088-3707
DELIVER TO Department of Public Safety/Admin 700 All America Wy Sunnyvale CA 94086 Phone: (408) 730-7711		FOB POINT DEST REQ. NO RQ018416 CHARGE/OBJ CODE(S 020901 5025	FREIGHT CHARGES Destination, freight included in price REQUISITIONER: GCARD 5): \$401,679.00

ITEM	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL
1	171 Total Quantity Turnout Fire Protective Clothing Produce as per Quotation No. 42797 dated 06/26/2017	101679.00	DLR	\$1.0000	\$401,679.00
	FIRST YEAR 2017 RELEASE Line Item #1: 87 Quantity 7.0oz Black Advance GXTreme Turnout Coat @ \$1,281 ea.				
	Line Item #2: 87 Quantity 7.0oz Black Advance GXTreme Turnout Pants @ \$976.00 ea.				
	Line Item #3: 87 Quantity Seco Red XL Turnout Gear Bag @ \$92.00 ea.				
	SECOND YEAR 2018 RELEASE Line Item #1: 84 Quantity 7.0oz Black Advance GXTreme Turnout Coat @ \$1,281 ea.				
	Line Item #2: 84 Quantity 7.0oz Black Advance GXTreme Turnout Pants @ \$976.00 ea.				
	Line Item #3: 84 Quantity Seco Red XL Turnout Gear Bag @ \$92.00 ea.				



ITEM	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL		
	Requisition No. RQ018416						
Amount does not reflect applicable taxes. <b>TOTAL</b> \$401,679.00							

Document Terms:

Invoices must be sent directly to Accounts Payable by mail to the address above or by e-mail to accountspayable@sunnyvale.ca.gov and must reference the purchase order number. Failure to comply will result in a delay in payment processing.

This purchase order is subject to the City of Sunnyvale Standard Terms and Conditions for the Purchase of Goods, dated 10/8/2010, a copy of which is attached and incorporated by reference (Form #TCPO-G).

BUYER:	
Penick, Andy	
<b>PHONE</b> (408) 730-7632	<b>FAX</b> (408) 730-7710



Agenda Item

# 17-0730

Agenda Date: 8/22/2017

# **REPORT TO COUNCIL**

# <u>SUBJECT</u>

Award of Bid No. PW17-32 for the Pavement Rehabilitation 2017 Project, and Finding of California Environmental Quality Act (CEQA) Categorical Exemption

# REPORT IN BRIEF

Approval is requested to award a construction contract in the amount of \$567,355 to Interstate Grading & Paving, Inc. of San Francisco for pavement rehabilitation. Approval is also requested for a 10% construction contingency in the amount of \$56,736.

# EXISTING POLICY

Section 1309 of the City Charter requires public works construction contracts to be awarded to the lowest responsive and responsible bidder.

Pursuant to Chapter 2.08 of the Sunnyvale Municipal Code, City Council approval is required for construction contracts exceeding \$100,000.

# ENVIRONMENTAL REVIEW

The California Environment Quality Act (CEQA) determination for the project is a categorical exemption pursuant to CEQA Guidelines Section 15301(c), for the restoring and rehabilitating of existing highways and streets, sidewalks, gutters, bicycle and pedestrian trails, and similar facilities, involving negligible or no expansion of use beyond that presently existing.

# BACKGROUND AND DISCUSSION

Capital Project 825290 (Pavement Rehabilitation) provides funding for ongoing roadway infrastructure rehabilitation. Each year, staff surveys one half of the City's streets and inputs the data in the City's pavement management system. The system produces a list of deteriorated streets and plans are made to repair, slurry seal, double chip seal overlay, or reconstruct the streets as needed.

The Pavement Rehabilitation 2017 project includes nearly 70,000 square feet of pavement rehabilitation, which is approximately half a mile of roadway. This project includes rehabilitation of the following streets: Murre Lane, from Exmoor Way to Meadowlark Lane, and Lakeside Drive, from Calabazas Creek bridge to 790 feet west of the bridge. These streets are in poor condition and have medium to severe block cracking and alligator cracking, in addition to roadway settlement from previous trench repairs. The roadways have a Pavement Condition Index (PCI) of 52 and 71 respectively.

An Invitation for Bids for this project was advertised on June 9, 2017. Sealed bids were opened on June 28, 2017, with two bids received (the Bid Summary is attached). The lowest responsive and responsible bid was submitted by Interstate Grading & Paving of San Francisco in the amount of

# 17-0730

\$567,355. The lowest bid is approximately 11% below the engineer's estimate of \$642,000.

# FISCAL IMPACT

Project costs include the base bid of \$567,355 and a recommended 10% contingency in the amount of \$56,736, for a total of \$624,091. Budgeted funds are available in Capital Project 825290 (Pavement Rehabilitation).

# Funding Source

Funding for pavement rehabilitation comes from the General Fund, SB83 VRF Road Improvement Fund, and Gas Tax. The Wastewater Management (Project 831680-Adjust Sewer Utilities in Support of Pavement) and Water Supply and Distribution (Project 831550-Adjust Sewer Utilities in Support of Pavement) funds pay for adjusting manholes and other utility infrastructure affected by the project.

# PUBLIC CONTACT

Public contact was made by posting the Council agenda on the City's official-notice bulletin board outside City Hall, at the Sunnyvale Senior Center, Community Center and Department of Public Safety; and by making the agenda and report available at the Sunnyvale Public Library, the Office of the City Clerk and on the City's website.

## RECOMMENDATION

1) Make a finding of a California Environmental Quality Act (CEQA) categorical exemption pursuant to CEQA Guidelines Section 15301 for the restoration or rehabilitation of existing highways and streets, sidewalks, gutters, bicycle and pedestrian trails, and similar facilities, involving negligible or no expansion of use beyond that presently existing; 2) Award a contract in substantially the same form as Attachment 2 to the report in the amount of \$567,355 to Interstate Grading & Paving, Inc. for the Pavement Rehabilitation 2017; Project # ST-17-05, and authorize the City Manager to execute the contract when all necessary conditions have been met; and 3) approve a 10% construction contingency in the amount of \$56,736.

Prepared by: Gregory Card, Purchasing Officer Reviewed by: Timothy J. Kirby, Director of Finance Reviewed by: Manuel Pineda, Director of Public Works Reviewed by: Walter C. Rossmann, Assistant City Manager Approved by: Deanna J. Santana, City Manager

# **ATTACHMENTS**

1. Bid Summary

2. Draft General Construction Contract

Invitatio	on for Bids No . PW17-32			Interstate Grading	g & Paving, Inc.	Granite Constructi	on Company	
Pavement Rehabilitation 2017 Project # ST-17-05				128 So. Maple Av	enue	715 Comstock St.		
				San Francisco, CA 94080		Santa Clara, CA 95	054	
				H. Michael Paria	ni	James Roberts		
BID ITEMS	S	UOM	QTY	Unit Price	Total	Unit Price	Total	
1 Mol	bilization (5% Max)	LS	1	\$18,400.00	\$18,400.00	\$30,000.00	\$30,000.00	
2 Tra	ffic Control	LS	1	\$41,000.00	\$41,000.00	\$25,000.00	\$25,000.00	
3 Cle	aring and Grubbing and Implementation of Construction BMPs	LS	1	\$3,000.00	\$3,000.00	\$20,000.00	\$20,000.00	
4 Cor	nstruction Staking and Surveys	LS	1	\$13,000.00	\$13,000.00	\$8,500.00	\$8,500.00	
5 Cha	angeable Message Boards	EA	3	\$3,000.00	\$9,000.00	\$3,000.00	\$9,000.00	
6 Sar	mpling and Testing	LS	1	\$4,000.00	\$4,000.00	\$6,000.00	\$6,000.00	
7 Cor	ncrete Improvements - PCC Sidewalk Replacement	SF	350	\$21.00	\$7,350.00	\$20.00	\$7,000.00	
8 Cor	ncrete Improvements - PCC Curb & Gutter Replacement	LF	260	\$58.00	\$15,080.00	\$94.00	\$24,440.00	
9 Cor	ncrete Improvements - PCC Curb Ramp (Various Cases)	EA	6	\$8,700.00	\$52,200.00	\$7,660.00	\$45,960.00	
10 Cor	ncrete Improvements - PCC Driveway	SF	600	\$27.00	\$16,200.00	\$21.00	\$12,600.00	
11 Cor	ncrete Removal	SF	650	\$12.00	\$7,800.00	\$7.50	\$4,875.00	
12 Asp	ohalt Concrete Grinding - 1 Inch Wedge Grind	LF	2,200	\$1.00	\$2,200.00	\$1.25	\$2,750.00	
13 Asp	ohalt Concrete Grinding - Conform Grind	SY	250	\$7.00	\$1,750.00	\$10.00	\$2,500.00	
14 Asp	ohalt Concrete Grinding - 1.5 Inch Full Grind	SY	4,500	\$4.20	\$18,900.00	\$3.50	\$15,750.00	
15 Asp	ohalt Concrete Grinding - 2.5 Inch Full Grind	SY	5,500	\$7.00	\$38,500.00	\$3.50	\$19,250.00	
16 Add	ditive Cost for Disposal of Grindings with Fabric (REVOCABLE BID ITEN	SY	8,500	\$0.10	\$850.00	\$0.95	\$8,075.00	
17 Bas	se Repair - 4 Inch Digouts	SF	2,300	\$5.00	\$11,500.00	\$6.50	\$14,950.00	
18 Bas	se Repair - 9.5 Inch Digouts	SF	4,300	\$12.00	\$51,600.00	\$12.00	\$51,600.00	
19 Cra	ack Sealing	LS	1	\$7,500.00	\$7,500.00	\$8,500.00	\$8,500.00	
20 Hig	h Strength (HS) Paving Mat Interlayer	SY	8,500	\$6.00	\$51,000.00	\$5.25	\$44,625.00	
21 HM	IA Paving - 0.5 Inch Thick Leveling Course	TON	250	\$155.00	\$38,750.00	\$130.00	\$32,500.00	
22 HM	IA Paving - 2 Inch Thick	TON	950	\$114.00	\$108,300.00	\$175.00	\$166,250.00	
23 HM	IA Paving - Deeplift AC Pavement Conform	SF	400	\$25.00	\$10,000.00	\$2.30	\$920.00	
24 The	ermoplastic Pavement Striping - Various Stripes	LF	3,000	\$1.30	\$3,900.00	\$1.90	\$5,700.00	
25 The	ermoplastic Pavement Striping - 12 Inch Stripe	LF	200	\$6.00	\$1,200.00	\$8.70	\$1,740.00	
26 The	ermoplastic Pavement Markings	SF	200	\$6.00	\$1,200.00	\$9.50	\$1,900.00	
27 Blue	e Fire Hydrant Pavement Marker	EA	7	\$25.00	\$175.00	\$39.60	\$277.20	
28 Adj	ust Storm Drain Manhole Rim to Grade	EA	2	\$1,200.00	\$2,400.00	\$1,600.00	\$3,200.00	
29 Adj	ust Sewer Manhole Rim to Grade	EA	6	\$1,200.00	\$7,200.00	\$1,600.00	\$9,600.00	

Invitation for Bids No . PW17-32				Interstate Grading & Paving, Inc. 128 So. Maple Avenue		Granite Construction Company		
Pave	Pavement Rehabilitation 2017 Project # ST-17-05					715 Comstock St.		
				San Francisco, CA	94080	Santa Clara, CA 95054		
				H. Michael Pariar	ni	James Roberts		
BID I	TEMS	UOM	QTY	Unit Price	Total	Unit Price	Total	
30	Adjust Water Valve Rim to Grade	EA	20	\$900.00	\$18,000.00	\$1,100.00	\$22,000.00	
31	Adjust Monument Rim to Grade	EA	6	\$900.00	\$5,400.00	\$1,100.00	\$6,600.00	
	BID TOTAL				\$567,355.00		\$612,062.20	
	Surety			10% Bid Bond		10% Bid Bond		
	Primary License			А		A, B		
	Subs			JCC; Utility Adj.		Pavement Recyclin	cling Systems; Grinder	
				Chrisp Co.; Striping	)	Johnson Constructi	struction; Utilities	
				Bond Blacktop; Crack Seal		Pacific Northwest; Paving Mat		
				Pacific Northwest Oil; Fabric		Sposeto; Concrete		
				Sposetto; Concrete				

# DRAFT GENERAL CONSTRUCTION CONTRACT

THIS CONTRACT dated \_\_\_\_\_\_ is by and between the CITY OF SUNNYVALE, a municipal corporation of the State of California ("Owner") and INTERSTATE GRADING & PAVING, INC. a California corporation ("Contractor").

**RECITALS:** 

The parties to this Contract have mutually covenanted and agreed, as follows:

1. The Contract Documents. The complete Contract consists of the following documents: Notice Inviting Bids; Instructions to Bidders; Performance Bond and Payment Bond; Guaranty; City of Sunnyvale Standard Specifications for Public Works Construction, 2006 Edition; City of Sunnyvale Standard Details for Public Works Construction, 2006 Edition; Plans and Specifications, "Pavement Rehabilitation 2017, Project No. ST-17-05, Invitation for Bids No.PW17-32", including one addenda; OSHA, and other standards and codes as outlined in the Specifications. These documents are all incorporated by reference. The documents comprising the complete contract are collectively referred to as the Contract Documents.

Any and all obligations of the Owner and the Contractor are fully set forth and described therein.

All of the above documents are intended to work together so that any work called for in one and not mentioned in the other or vice versa is to be executed the same as if mentioned in all documents.

2. The Work. Contractor agrees to furnish all tools, equipment, apparatus, facilities, labor, transportation, and material necessary to perform and complete the project in a good and workmanlike manner. The work consist(s) of rehabilitating portions of Lakeside Drive and Murre Lane, within the limits shown on the plans. Pavement rehabilitation shall include AC grinding, digouts, and AC overlay. In addition: minor concrete work, sign relocation, crack sealing and repair, striping, and adjusting utility boxes to finished grade, as called for, and in the manner designated in, and in strict conformity with, the Plans and Specifications prepared by CSG Consultants and adopted by the Owner. These Plans and Specifications are entitled respectively, Pavement Rehabilitation 2017, Project No. ST-17-05.

It is understood and agreed that the work will be performed and completed as required in the Plans and Specifications under the sole direction and control of the Contractor, and subject to inspection and approval of the Owner, or its representatives. The Owner hereby designates as its representative for the purpose of this contract the Senior Civil Engineer for Construction or an employee of the Owner who will be designated in writing by the Director of Public Works.

**3. Contract Price.** The Owner agrees to pay and the Contractor agrees to accept, in full payment for the work above agreed to be done, the sum of Five Hundred Sixty Seven Thousand Three Hundred Fifty Five And No/100 Dollars (\$567,355.00) subject to final determination of the work performed and materials furnished at unit prices per "Exhibit A" attached hereto and incorporated by this reference, and subject to additions and deductions in accordance, as provided in the Documents and in accordance with Contract Documents.

**4. Permits; Compliance with Law.** Contractor shall, at its expense, obtain all necessary permits and licenses, easements, etc., for the construction of the project, give all necessary notices, pay all fees required by law, and comply with all laws, ordinances, rules and regulations relating to the work and to the preservation of the public health and safety.

**5. Inspection by Owner.** Contractor shall at all times maintain proper facilities and provide safe access for inspection by the Owner to all parts of the work, and to the shops wherein the work is in preparation. Where the Specifications require work to be specially tested or approved, it shall not be tested or covered up without timely notice to the Owner of its readiness for inspection and without the approval thereof or consent thereto by the latter. Should any such work be covered up without such notice, approval, or consent, it must, if required by Owner, be uncovered for examination at the Contractor's expense.

6. Extra or Additional Work and Changes. Should Owner at any time during the progress of the work request any alterations, deviations, additions or omissions from the Specifications or Plans or other Contract Documents it shall be at liberty to do so, and the same shall in no way affect or make void the contract, but will be added to or deducted from the amount of the contract price, as the case may be, by a fair and reasonable valuation, agreed to in writing between the parties hereto. No extra work shall be performed or change be made unless in pursuance of a written order from the Director of Public Works or authorized representative, stating that the extra work or change is authorized and no claim for an addition to the contract sum shall be valid unless so ordered.

**7. Time for Completion.** All work under this contract shall be completed before the expiration fifty-five (55) working days from the date specified in the Notice to Proceed.

If Contractor shall be delayed in the work by the acts or neglect of Owner, or its employees or those under it by contract or otherwise, or by changes ordered in the work, or by strikes, lockouts by others, fire, unusual delay in transportation, unavoidable casualties or any causes beyond the Contractor's control, or by delay authorized by the Owner, or by any cause which the Owner shall decide to justify the delay, then the time of completion shall be extended for such reasonable time as the Owner may decide.

This provision does not exclude the recovery of damages for delay by either party under other provisions.

**8.** Inspection and Testing of Materials. Contractor shall notify Owner a sufficient time in advance of the manufacture or production of materials, to be supplied under this contract, in order that the Owner may arrange for mill or factory inspection and testing of same, if Owner requests such notice from Contractor.

9. Termination. If Contractor should file a bankruptcy petition and/or be judged bankrupt, or if Contractor should make a general assignment for the benefit of creditors, or if a receiver should be appointed on account of insolvency, or if Contractor or any subcontractors should violate any of the provisions of the Contract, Owner may serve written notice upon Contractor and its surety of Owner's intention to terminate the Contract. The notice shall contain the reasons for such intention to terminate the Contract, and, unless within ten days after serving such notice, such violation shall cease and satisfactory arrangements for correction thereof be made, upon the expiration of the ten days, the Contract shall cease and terminate. In the event of any such termination, Owner shall immediately serve written notice thereof upon the surety and the Contractor, and the surety shall have the right to take over and perform the Contract; provided, however that, if the surety within fifteen days after the serving upon it of notice of termination does not give Owner written notice of its intention to take over and perform the Contract or does not commence performance thereof within thirty days from the date of the serving of such notice, Owner may take over the work and prosecute the same to completion by contract or by any other method it may deem advisable, for the account and at the expense of Contractor, and Contractor and its surety shall be liable to Owner for any excess cost occasioned Owner thereby, and in such event Owner may without liability for so doing take possession of and utilize in completing the work, such materials, appliances, plant and other property belonging to Contractor as may be on the site of the work and necessary therefor.

10. Owner's Right to Withhold Certain Amounts and Make Application Thereof. In addition to the amount which Owner may retain under Paragraph 21 until the final completion and acceptance of all work covered by the Contract, Owner may withhold from payment to Contractor such amount or amounts as in its judgment may be necessary to pay just claims against Contractor or any subcontractors for labor and services rendered and materials furnished in and about the work. Owner may apply such withheld amount or amounts to the payment of such claims in its discretion. In so doing Owner shall be

deemed the agent of Contractor and any payment so made by Owner shall be considered as a payment made under the Contract by Owner to the Contractor and Owner shall not be liable to Contractor for any such payment made in good faith. Such payment may be made without prior judicial determination of the claim or claims.

11. Notice and Service Thereof. All notices required pursuant to this Contract shall be communicated in writing, and shall be delivered in person, by commercial courier or by first class or priority mail delivered by the United States Postal Service. Nothing in this provision shall be construed to prohibit communication by more expedient means, such as by email or fax, to accomplish timely communication. Each party may change the address by written notice in accordance with this paragraph. Notices delivered personally shall be deemed communicated as of actual receipt; mailed notices shall be deemed communicated as of three business days after mailing. All notices sent pursuant to this Contract shall be addressed as follows:

Owner:	City of Sunnyvale Department of Public Works Construction Contract Administrator P. O. Box 3707 Sunnyvale, CA 94088-3707
Contractor:	Interstate Paving & Grading, Inc. 128 So. Maple Ave. So. San Francisco, CA 94080

**12.** Assignment of Contract. Neither the Contract, nor any part thereof, nor moneys due or to become due thereunder may be assigned by Contractor without the prior written approval of Owner.

**13. Compliance with Specifications of Materials.** Whenever in the Specifications, any material or process is indicated or specified by patent or proprietary name, or by name of manufacturer, such Specifications must be met by Contractor, unless Owner agrees in writing to some other material, process or article offered by Contractor which is equal in all respects to the one specified.

14. Contract Security. Contractor shall furnish a surety bond in an amount at least equal to 100 percent of the contract price as security for the faithful performance of this Contract. Contractor shall also furnish a separate surety bond in an amount at least equal to 100 percent of the contract price as security for the payment of all persons for furnishing materials, provisions, provender, or other supplies, or teams, used in, upon, for or about the performance of the work contracted to be done, or for performing any work or labor thereon of any kind, and for the payment of amounts due under the Unemployment Insurance Code with respect to such work or labor in connection with this Contract, and for the payment of a reasonable attorney's fee to be fixed by the court in case suit is brought upon the bond. Bonds shall be issued by an admitted surety insurer authorized to operate in the state of California.

**15. Insurance.** Contractor shall not commence work under this Contract until all insurance required under this paragraph has been obtained and such insurance has been approved by the Owner, nor shall Contractor allow any subcontractor to commence work on a subcontract until all similar insurance required of the subcontractor has been so obtained and approved. Contractor shall furnish the Owner with satisfactory proof of the carriage of insurance required, and there shall be a specific contractual liability endorsement extending the Contractor's coverage to include the contractual liability assumed by the Contractor pursuant to this Contract and particularly Paragraph 16 hereof. Any policy of insurance required of the Contractor under this Contract shall also contain an endorsement providing that thirty (30) days' notice must be given in writing to the Owner of any pending change in the limits of liability or of any cancellation or modification of the policy. Insurance carrier shall be California-admitted.

(a) Compensation Insurance and Employer's Liability Insurance. Contractor shall take out and maintain during the life of this Contract Workers' Compensation Insurance and Employer's Liability Insurance for all of employees employed at the site of the project and, in case any work is sublet, Contractor shall require the subcontractor similarly to provide Workers' Compensation Insurance and Employer's Liability Insurance for all of the latter's employees unless such employees are covered by the protection afforded by Contractor.

In signing this Contract, Contractor makes the following certification, required by Section 1861 of the Labor Code:

"I am aware of the provision of Section 3700 of the Labor Code which requires every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the work of this contract."

(b) General and Automobile Liability Insurance. Contractor, at its own cost and expense, shall maintain personal injury liability and property damage insurance for the period covered by the Contract in the amount of Two Million Dollars (\$2,000,000.00) per occurrence and \$4,000,000 annual aggregate combined single limit coverage. Such coverage shall include, but shall not be limited to, protection against claims arising therefrom, and damage to property resulting from activities contemplated under this Contract, use of owned automobiles, products and completed operations, including U, C and X. Such insurance shall be with insurers and under forms of policies satisfactory in all respects to the Owner and shall provide that notice must be given to Owner at least thirty (30) days prior to cancellation or material change. The following endorsements shall be attached to the policy:

Policy shall cover on an "occurrence" basis. Policy must cover personal injuries as well as bodily injuries. Exclusion of contractual liability must be eliminated from personal injury endorsement. Broad form property damage endorsement must be attached. Owner is to be named as an additional insured on any contracts of insurance under this paragraph (b). Coverage shall not extend to any indemnity coverage for the active negligence of the additional insured in any case where an agreement to indemnify the additional insured would be invalid under Subdivision (b) of Section 2782 of the Civil Code. The policies of insurance shall be considered primary insurance before any policies of insurance maintained by Owner.

**16.** Indemnification and Hold Harmless. Contractor agrees to defend, save, indemnify and hold harmless Owner and all its officers, employees, and agents, against any and all liability, claims, judgments, or demands, including demands arising from injuries or death of persons (Contractor's employees included) and damage to property, arising directly or indirectly out of the obligations herein undertaken or out of the operations conducted by Contractor, save and except claims or litigation arising through the active negligence or willful misconduct of Owner, or of Owner's officials, agents, employees, servants, or independent contractors who are directly responsible to Owner. Contractor shall make good and reimburse Owner for any expenditures, including reasonable attorneys' fees, Owner may make by reason of such claim or litigation, and, if requested by Owner, Contractor shall defend any such suits at the sole cost and expense of Contractor.

17. Hours of Work. Eight hours of labor during any one calendar day and forty hours of labor during any one calendar week shall constitute the maximum hours of service upon all work done hereunder, and it is expressly stipulated that no laborer, worker, or mechanic employed at any time by the Contractor or by any subcontractor or subcontractors under this Contract, upon the work or upon any part of the work contemplated by this Contract, shall be required or permitted to work thereon more than eight hours during any one calendar day and forty hours during any one calendar week, except, as provided by Section 1815 of the Labor Code of the State of California, work performed by employees of contractors in excess of eight hours per day and forty hours during any one week shall be permitted upon public work upon compensation for all hours worked in excess of eight hours per day at not less than one and one-half times the basic rate

of pay. It is further expressly stipulated that for each and every violation of Sections 1811-1815, inclusive, of the Labor Code of the State of California, all the provisions whereof are deemed to be incorporated herein, Contractor shall forfeit, as a penalty to Owner, twenty-five dollars (\$25.00) for each laborer, worker, or mechanic employed in the execution of this Contract by Contractor, or by any subcontractor under this Contract, for each calendar day during which the laborer, worker, or mechanic is required or permitted to work more than eight hours in any one calendar day and forty hours in any one calendar week in violation of the provisions of the Sections of the Labor Code.

Contractor, and each subcontractor, shall, in accordance with California Labor Code Section 1776 or as the same may be later amended, keep accurate payroll records showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by him or her in connection with work under this agreement. Each payroll record shall contain or be verified by a written declaration under penalty of perjury, in accordance with Labor Code Section 1776(a). Such payroll records shall be made available at all reasonable times at the Contractor's principal office to the persons authorized to inspect such records pursuant to Labor Code Section 1776. A certified copy of all payroll records shall be made available for inspection or furnished upon request to a representative of the Division of Labor Standards Enforcement, and the Division of Apprenticeship Standards of the Department of Industrial Relations, as well as to the Owner's representative. In the event the Contractor or a Subcontractor fails to comply in a timely manner within ten days to a written notice requesting the records, such contractor or subcontractor shall forfeit one hundred dollars (\$100.00) for each calendar day, or portion thereof, for each worker, until strict compliance is effectuated, in accordance with Labor Code Section 1776(h).

**18. Wage Rates.** Pursuant to the Labor Code of the State of California, or any applicable local law, Owner has ascertained the general prevailing rate per diem wages and rates for holidays, and overtime work in the city, for each craft, classification or type of laborer, worker, or mechanic needed to execute this Contract. Owner has adopted, by reference, the general prevailing rate of wages applicable to the work to be done under the Contract, as adopted and published by the Division of Labor Standards Enforcement and Labor Statistics and Research of the State of California, Department of Industrial Relations, to which reference is hereby made for a full and detailed description. A copy of the prevailing wage rates may be reviewed in the office of the Director of Public Works, City of Sunnyvale, 456 West Olive Avenue, Sunnyvale, California. Wage rates can also be obtained through the California Department of Industrial Relations website at: <a href="http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm">http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm</a>

Neither the notice inviting bids nor this Contract shall constitute a representation of fact as to the prevailing wage rates upon which the Contractor or any subcontractor may base any claim against Owner.

It shall be mandatory upon Contractor and upon any subcontractor to pay not less than the specified rates to all laborers, workers, and mechanics employed in the execution of the Contract. It is further expressly stipulated that Contractor shall, as a penalty to Owner, forfeit two hundred dollars (\$200.00) for each calendar day, or portion thereof, for each laborer, worker, or mechanic paid less then the stipulated prevailing rates for any work done under this Contract by Contractor or by any subcontractor; and Contractor agrees to comply with all provisions of Section 1775 of the Labor Code.

In case it becomes necessary for Contractor or any subcontractor to employ on the project under this Contract any person in a trade or occupation (except executives, supervisory, administrative, clerical, or other non-manual workers as such) for which no minimum wage rate is herein specified, Contractor shall immediately notify Owner who will promptly thereafter determine the prevailing rate for such additional trade or occupation and shall furnish Contractor with the minimum rate based thereon. The minimum rate thus furnished shall be applicable as a minimum for such trade or occupation from the time of the initial employment of the person affected and during the continuance of such employment.

**19. Accident Prevention.** Precaution shall be exercised at all times for the protection of persons (including employees) and property. The safety provisions of applicable laws, building and construction codes shall be observed. Machinery, equipment, and other hazards shall be guarded or eliminated in accordance with the safety provisions of the Construction Safety Orders issued by the Industrial Accident

Commission of the State of California.

**20.** Contractor's Guarantee. Owner shall not, in any way or manner, be answerable or suffer loss, damage, expense or liability for any loss or damage that may happen to the building, work, or equipment or any part thereof, or in, on, or about the same during its construction and before acceptance. Contractor unqualifiedly guarantees the first-class quality of all workmanship and of all materials, apparatus, and equipment used or installed by Contractor or by any subcontractor or supplier in the project which is the subject of this Contract, unless a lesser quality is expressly authorized in the Plans and Specifications, in which event Contractor unqualifiedly guarantees such lesser quality; and that the work as performed by Contractor will conform with the Plans and Specifications or any written authorized deviations therefrom. In case of any defect in work, materials, apparatus or equipment, whether latent or patent, revealed to Owner within one year of the date of acceptance of completion of this Contract by Owner, Contractor will forthwith remedy such defect or defects without cost to Owner.

**21. Liquidated Damages.** Time shall be the essence of this Contract. If Contractor fails to complete, within the time fixed for such completion, the entire work mentioned and described and contracted to be done and performed, Contractor shall become liable to Owner for liquidated damages in the sum of one thousand and no/100 (\$1,000), for each and every calendar day during which work shall remain uncompleted beyond such time fixed for completion or any lawful extension thereof. The amount specified as liquidated damages is presumed to be the amount of damage sustained by Owner since it would be impracticable or extremely difficult to fix the actual damage; and the amount of liquidated damages may be deducted by Owner from moneys due Contractor hereunder, or its assigns and successors at the time of completion, and its sureties shall be liable to Owner for any excess.

22. Governing Law, Jurisdiction and Venue. This Agreement shall be governed by and construed in accordance with the laws of the State of California, without regard to conflict of law or choice of law principles. Proper venue for legal actions will be exclusively vested in a state court in the County of Santa Clara. The parties agree that subject matter and personal jurisdiction are proper in state court in the County of Santa Clara, and waive all venue objections.

**23.** Severability Clause. In case any one or more of the provisions contained herein shall, for any reason, be held invalid, illegal or unenforceable in any respect, it shall not affect the validity of the other provisions which shall remain in full force and effect.

**24. Entire Agreement; Amendment.** This writing constitutes the entire agreement between the parties relating to the services to be performed or materials to be furnished hereunder. No modification of this Agreement shall be effective unless and until such modification is evidenced by writing signed by all parties.

**25. Execution and Counterparts.** This Agreement may be executed in multiple counterparts and/or with the signatures of the Parties set forth on different signature sheets and all such counterparts, when taken together, shall be deemed one original.

IN WITNESS WHEREOF, two identical counterparts of this contract, each of which shall for all purposed be deemed an original thereof, have been duly executed by the parties.

CITY OF SUNNYVALE a Municipal Corporation, Owner INTERSTATE GRADING & PAVING, INC. Contractor

License No. 366020

Ву	/ /	Ву	
City Manager	Date	,	/ /
		Title	Date
Attest:			
City Clerk		Ву	
			/ /
		Title	Date
By	1 1	The	Dale
City Clerk	Date		
	(SEAL)		
APPROVED AS TO FORM:			
	/ /		
City Attorney	Date		

# **EXHIBIT A**

No.	Description	QTY	Unit	Unit Cost
1	Mobilization (5% Max)	1	LS	\$18,000.00
2	Traffic Control	1	LS	\$41,000.00
3	Clearing and Grubbing and Implementation of Construction BMPs	1	LS	\$3,000.00
4	Construction Staking and Surveys	1	LS	\$13,000.00
5	Changeable Message Boards	3	EA	\$3,000.00
6	Sampling and Testing	1	LS	\$4,000.00
7	Concrete Improvements - PCC Sidewalk Replacement	350	SF	\$21.00
8	Concrete Improvements - PCC Curb & Gutter Replacement	260	LF	\$58.00
9	Concrete Improvements - PCC Curb Ramp (Various Cases)	6	EA	\$8,700.00
10	Concrete Improvements - PCC Driveway	600	SF	\$27.00
11	Concrete Removal	650	SF	\$12.00
12	Asphalt Concrete Grinding - 1 Inch Wedge Grind	2,200	LF	\$1.00
13	Asphalt Concrete Grinding - Conform Grind	250	SY	\$7.00
14	Asphalt Concrete Grinding - 1.5 Inch Full Grind	4,500	SY	\$4.20
15	Asphalt Concrete Grinding - 2.5 Inch Full Grind	5,500	SY	\$7.00
16	Additive Cost for Disposal of Grindings	8,500	SY	\$0.10
17	with Fabric (REVOCABLE BID ITEM)	2,300	SF	\$5.00
18	Base Repair - 4 Inch Digouts	4,300	SF	\$12.00
19	Base Repair - 9.5 Inch Digouts	1	LS	\$7,500.00
20	Crack Sealing	8,500	SY	\$6.00

21	High Strength (HS) Paving Mat Interlayer	250	TON	\$155.00
22	HMA Paving - 0.5 Inch Thick Leveling Course	950	TON	\$114.00
23	HMA Paving - 2 Inch Thick	400	SF	\$25.00
24	HMA Paving - Deeplift AC Pavement Conform	3,000	LF	\$1.30
25	Thermoplastic Pavement Striping - Various Stripes	200	LF	\$6.00
26	Thermoplastic Pavement Striping - 12 Inch Stripe	200	SF	\$6.00
27	Thermoplastic Pavement Markings	7	EA	\$25.00
28	Blue Fire Hydrant Pavement Marker	2	EA	\$1,200.00
29	Adjust Storm Drain Manhole Rim to Grade	6	EA	\$1,200.00
30	Adjust Sewer Manhole Rim to Grade	20	EA	\$900.00
31	Adjust Water Valve Rim to Grade	6	EA	\$900.00

#### **EXHIBIT B**

<u>Utilization of Local Workforce in Construction Projects</u> – The Sunnyvale City Council has adopted a policy which encourages utilization of local workforces, including State-certified apprentices, as a means of supporting economic opportunities for all members of the community. Local workforce is defined as workers residing in Santa Clara County. The lowest responsive and responsible bidder must provide a projection of locally-hired workers utilized for this contract.

Contractor	Projected Number of Locally Hired Workers Projected Percent of Locally Hired Workers%
Subcontractor(s)	Projected Number of Locally Hired Workers Projected Percent of Locally Hired Workers%



Agenda Item

17-0694

Agenda Date: 8/22/2017

# **REPORT TO COUNCIL**

### <u>SUBJECT</u>

Adopt a Resolution Regarding President's Day Storm Damage and CalEMS/FEMA Assistance

### BACKGROUND

The City of Sunnyvale, along with the rest of California, experienced above average rainfall totals this past winter. Some of the heaviest storms caused flooding, infrastructure failures, and other storm damage. In response, the California Office of Emergency Services (CalOES) made storm related financial assistance available to agencies throughout the State.

On February 23, 2017 the Santa Clara County Office of Emergency Services (County OES) asked jurisdictions in the county to provide damage related losses due to storms experienced in the previous two weeks. Sunnyvale experienced multiple streetlight issues, parks and tree damage, flooding, and a power outage that caused the generator in the City's 911 communication center to fail, resulting in temporary closure. Staff gathered the cost impact of the damages, and submitted a preliminary assessment to the County.

### EXISTING POLICY

Council Policy 4.0 Long-term Advocacy Positions - Public Safety

**Goal 4.3.4** Support prompt reimbursement of approved disaster recovery expenses to cities determined to be part of a declared disaster area.

Council Policy 7.1.1 *Fiscal - Long Range Goals and Policies* Section B, Revenue Policies:

**Goal 3.1** The City will seek all Federal and State reimbursement for mandated projects and/or programs.

#### DISCUSSION

Governor Brown and President Trump made disaster declarations for much of the State of California during the recent storms, including Santa Clara County. This opens the door for financial assistance to areas impacted by the storms.

Sunnyvale's preliminary damage assessment (Attachment 1) included approximately \$39,420 in damages. The preliminary assessment covers damages that occurred between February 13 and February 23, 2017. FEMA guidelines require that the County OES categorize damages into various categories. The damages that occurred in Sunnyvale are in three of those categories: Public Buildings & Facilities, Public Utilities, and Parks and Recreation.

### Agenda Date: 8/22/2017

### Public Buildings & Facilities (preliminary damage of \$13,558)

The largest impact to the City was a PG&E brown-out that occurred on February 21<sup>st</sup> and impacted the Department of Public Safety. Full power was not delivered to the public safety building during the brown-out, which caused the back-up generators not to function as expected. Sunnyvale's 911 calls had to be rerouted to the County's emergency call center. The cost for the PG&E issues in the amount of \$4,439 includes staff time spent resolving the issue as well as the cost of an outside contractor needed to restore function to the generators.

During the storms, flooding occurred throughout the City. Most of the flooding was addressed by the Environmental Services Department staff by clearing debris from storm drain inlets. The City Hall and Community Center sites experienced flooding, which staff worked to remediate. The storms also damaged a road at the landfill. Clearing storm drains is not reimbursable, since this is a typical activity that Environmental Services staff would handle during a storm. However, the flooding remediation at the City facilities and road damage at the landfill in the amount of \$9,119 is included.

#### Public Utilities (preliminary damage of \$3,898)

Multiple traffic signals in Sunnyvale malfunctioned during the storm, to which the City's contractor responded. Repairs ranged from simply resetting the signals to replacing parts that failed during the storms. Repairs were made at the following intersections

Homestead Road and Mary Avenue Mathilda Avenue and California Avenue Fair Oaks Avenue and Old San Francisco Road Mary Avenue and Heatherstone Way Java Drive and Crossman Avenue

**Parks and Recreation** (preliminary damage of \$21,962) There was tree damage at numerous locations throughout Sunnyvale. The damaged trees were removed and replaced. The impacted locations were:

Raynor Park: Removal of one 40 foot Liquidamber tree Baylands Park: Removal of four Eucalyptus trees Murphy Park: Removal of one Purple Leaf Plum tree Ortega Park: Removal of one Shamel Ash tree Sunnyvale Golf Course: Removal of one Eucalyptus tree City Parking Lot: Removal of one Calery Pear tree

A resolution by City Council is required to authorize the acceptance of funds and designate authorized agents to act on behalf of the City in all matters pertaining to disaster assistance. CalOES provides the resolution on their Form 130 (Attachment 2) The resolution can either include only the damages associated with this storm, or Council may elect to make the resolution valid for up to three years. Staff is recommending a longer term, as that would enable the City to seek additional funding if any additional eligible damages from future events occur during the term of the resolution.

#### FISCAL IMPACT

The City and its contractors have already completed all work to clean up and repair any damages from these storms. The preliminary damage assessment of \$39,420 may change as FEMA works through the approval process. Any reimbursement approved by FEMA will be accounted for in the

General Fund for the Public Utilities and Parks and Recreation damages and the Facilities Management Internal Service Fund for the Public Buildings and Facilities damages.

### PUBLIC CONTACT

Public contact was made by posting the Council agenda on the City's official-notice bulletin board outside City Hall, at the Sunnyvale Senior Center, Community Center and Department of Public Safety; and by making the agenda and report available at the Sunnyvale Public Library, the Office of the City Clerk and on the City's website.

#### RECOMMENDATION

Adopt a resolution to authorize designated staff to handle all matters related to state disaster assistance for Items 1-16 on the List of Projects (Attachment 3 to the report) and for any qualifying future disasters that occur up to three years from date of Council adoption.

Prepared by: Stephen Napier, Administrative Services Manager Reviewed by: Timothy J. Kirby, Director of Finance Reviewed by: Walter C. Rossmann, Assistant City Manager Approved by: Deanna J. Santana, City Manager

### **ATTACHMENTS**

- 1. Preliminary Damage Assessment
- 2. Designation of Applicant's Agent Resolution for Non-State Agencies
- 3. List of Projects

#### Attachment 1

#### PRELIMINARY DAMAGE ASSESSMENT

	Location	Dept	Description	Personnel	Equipment	Outside Contract	Materials	Overhead @ 10%	ΤΟΤΑ	L
	Buildings & Facilities		Devues Outeres 0.1.1 Sustem Devue							
1.)	DPS HQ	DPS	Power Outage - 9-1-1 System Down	222.42				22.24		244.6
		ITD	OVERTIME OVERTIME	1,047.63				22.24 104.76		244.6
		DPW	OVERTIME OVERTIME + ELECTRO MOTION INC.	,		1 220 00		276.57		1,152.39 3,042.28
		DPVV	OVERTIME + ELECTRO MOTION INC.	1,445.71		1,320.00		276.57	<i>.</i>	,
									\$	4,439.33
2.)	City Hall & Community Center	DPW	Remediate Flooding	607.52				60.75	\$	668.27
3.)	De Anza Park	DPW	Repair Roof Damage to Park Building			4,355.00		435.50	\$	4,790.50
4.)	Sunnyvale Landfill Site	ESD	Damaged Roadway	3,660.00					\$	3,660.00
,				6,983.28	-	5,675.00	-	899.82	\$	13,558.10
Publi	c Utilities									
1.)	Homestead Road @ Mary	DPW		326.19	50.00	0	65.25	44.14	\$	485.58
2.)	Mathilda Ave @ California	DPW		180.86	50.00	0		23.09	\$	253.95
3.)	Fair Oaks @ Old San Francisco	DPW		180.86	50.00	0		23.09	\$	253.95
4.)	Mary Avenue @ Heatherstone	DPW		90.43	25.00	0		11.54	\$	126.97
5.)	Java Drive @ Crossman Ave	DPW		817.80	150.00	0		96.78	\$	1,064.58
6.)	Inside Wireman	DPW		1,338.84	218.75	5		155.76	\$	1,713.35
				2,934.98	543.7	5 -	65.25	354.40	\$	3,898.38
Park	s & Rec									
1.)	Raynor Park	DPW	Removal of 1 40ft Liquidamber tree	2,218.43				221.84	\$	2,440.27
2.)	Baylands Park	DPW	Removal of 4 Eucalyptus (each \$4010) tree	8,873.70				887.37	\$	9,761.07
3.)	Murphy Park	DPW	Removal of 1 Purple Leaf Plum tree	2,218.43				221.84	\$	2,440.27
4.)	Ortega Park	DPW	Removal of 1 Shamel Ash tree	2,218.43				221.84	\$	2,440.27
5.)	Sunnyvale Parking Lot	DPW	Removal of 1 Calery Pear tree	2,218.42				221.84	\$	2,440.26
6.)	Sunnyvale Golf Course	DPW	Removal of 1 Eucalyptus tree	2,218.42				221.84	\$	2,440.26
				19,965.83				1,996.57	Ś	21,962.40

TOTAL DAMAGE ESTIMATE \$ 39,418.88

Attachment 2



STATE OF CALIFORNIA GOVERNOR'S OFFICE OF EMERGENCY SERVICES Cal OES 130

Cal OES ID No: \_\_\_\_\_

#### DESIGNATION OF APPLICANT'S AGENT RESOLUTION FOR NON-STATE AGENCIES

BE IT RESOLVED BY THE	City Council	OF THE	City of Sunnyvale	
	(Governing Body)		(Name of Applicant)	
THAT	Finance Director		OR	
	(Title of Auth	orized Agent)	, on	
	Assistant Finance		, OR	
-	(Title of Auth	orized Agent)		
	(Title of Auth	orized Agent)		
is hereby authorized to execute	for and on behalf of the		· · · · · · · · · · · · · · · · · · ·	a public entity
Services for the purpose of obta Disaster Relief and Emergency THAT the <u>City of Sun</u> (Na hereby authorizes its agent(s) to assistance the assurances and ag Please check the appropriate l	ining certain federal financial as Assistance Act of 1988, and/or s nyvale, a public of me of Applicant) provide to the Governor's Office reements required. <b>box below</b> : and is effective for all open and	ation and to file it with t sistance under Public La state financial assistance entity established under the of Emergency Servic I future disasters up to t	Applicant) he California Governor's Office aw 93-288 as amended by the Ro ounder the California Disaster As the laws of the State of Californi es for all matters pertaining to su nree (3) years following the date	obert T. Stafford ssistance Act. ia, ch state disaster
Passed and approved this	day of	, 20 <u>_17</u>	_	
		lricks, Mayor		
		f Governing Body Represe		
	and the second s	sson, Vice Mayor f Governing Body Represe		
	(Ivanie and Thie o	r Governing Body Represe	manve)	
	(Name and Title o	f Governing Body Represe	ntative)	
		- , ,	manve)	
	CE	RTIFICATION		
I,		appointed and		of
(Nar			(Title)	
(Name of A	, d	lo hereby certify that	the above is a true and correc	t copy of a
Resolution passed and appro	ved by the	of	he(Name of Applicant)	
	(Govern	ing Body)	(Name of Applicant)	
on the	_day of	, 20		
(	Signature)		(Title)	

Attachment 3

State of California Office of Emergency Services Page \_\_\_\_ 0f\_\_\_\_

APPLICANT:

CITY OF SUNNYVALE

DATE COMPLETED:

5/22/2017

CONTACT NAME AND PHONE NUMBER: Stephen Napier (408) 730-7385

IS THIS AN AMENDED LIST OF PROJECTS? Y

₩ ₩ ₩ ₩ ₩	DESCRIPTION OF DAMAGE AND SCOPE OF WORK	COST ESTIMATE	CATEGORY*	WAS WORK COMPLETED BY FORCE ACCT. <b>(FA)</b> , CONTRACT <b>(C)</b> OR BOTH <b>(F/C)</b> ?	ENTER "ENV" IF THERE ARE ENVIRONMENTAL ISSUES OR "HIST" FOR HISTORIC ISSUES, OR BOTH	WAS THERE INSURANCE COVERAGE? IF YES, ENTER DEDUCTIBLE AMOUNT	WAS THE FACILITY DAMAGED IN A PRIOR DISASTER(S)? IF YES, ENTER DISASTER NAME(S) OR NUMBER(S	ARE THERE COST EFFECTIVE HAZARD MITIGATION MEASURES THAT MAY PREVENT FUTURE DAMAGE?
1 Public Safety Headquarters	Repair 9-1-1 dispatch system, failure due to power outage	\$ 4,439.33	E	F/C		\$		
2 City Hall & Community Center	Remediate interior flooding	\$ 668.27		F/C		\$		
3 Homestead Road @ Mary	Call: W/B Overhead red light is out.	\$ 485.58	F	FA		\$		
4 Mathilda Ave @ California	Repair Traffic Signals lost due to storm	\$ 253.95	F	FA		\$		
5 Fair Oaks @ Old San Francisco	Repair Traffic Signals lost due to storm	\$ 253.95	F	FA		\$		
6 Mary Avenue @ Heatherstone	Repair Traffic Signals lost due to storm	\$ 126.97	F	FA		\$		
7 Java Drive @ Crossman Ave	Repair Traffic Signals lost due to storm	\$ 1,064.58	F	FA		\$		
8 Inside Wireman	Repair Traffic Signals lost due to storm	\$ 1,713.35	F	FA		\$		
9 Raynor Park	Removal of 1 - 40 ft Liquidamber tree, debris cleanup	\$ 2,440.27	A	FA		\$		

\*CATEGORY: A) Debris Clearance; B) Protective Measures; C) Road System; D) Water Control Facility; E) Buildings and Equipment;

F) Public Utility System; G) Other. (Note: if a single site has more than one category, indicate the category that represents the majority of damage.)

APPLICANT:

CITY OF SUNNYVALE

DATE COMPLETED:

5/22/2017

CONTACT NAME AND PHONE NUMBER: Stephen Napier (408) 730-7385

#### IS THIS AN AMENDED LIST OF PROJECTS? Y

ITEM #	LOCATION	DESCRIPTION OF DAMAGE AND SCOPE OF WORK	E	COST ESTIMATE	CATEGORY*	WAS WORK COMPLETED BY FORCE ACCT. <b>(FA)</b> , CONTRACT <b>(C)</b> OR BOTH <b>(F/C)</b> ?	ENTER "ENV" IF THERE ARE ENVIRONMENTAL ISSUES OR "HIST" FOR HISTORIC ISSUES, OR BOTH	WAS THERE INSURANCE COVERAGE? IF YES, ENTER DEDUCTIBLE AMOUNT	WAS THE FACILITY DAMAGED IN A PRIOR DISASTER(S)? IF YES, ENTER DISASTER NAME(S) OR NUMBER(S	ARE THERE COST EFFECTIVE HAZARD MITIGATION MEASURES THAT MAY PREVENT FUTURE DAMAGE?
10	Baylands Park	Removal of 4 Eucalyptus trees, debris cleanup	\$	9,761.07	A	FA		\$		
11		Removal of 1 Purple Leaf Plum Tree, debris cleanup	\$	2,440.27	A	FA		\$		
12	Ortega Park	Removal of 1 Shamel Ash Tree, debris cleanup	\$	2,440.27	A	FA		\$		
13		Removal of 1 Claery Pear Tree, debris cleanup	\$	2,440.26	A	FA		\$		
14	Sunnyvale Golf Course	Removal of 1 Eucalyptus Tree, debris cleanup	\$	2,440.26	A	FA		\$		
15	De Anza Park	Repair damage to roof of park building caused by fallen tree	\$	4,790.50	E	С		\$		
16	Sunnyvale Land Fill	Repair road damage (one foot deep gully) caused by storm	\$	3,660.00	с	FA		\$		
17								\$		
18								\$		

\*CATEGORY: A) Debris Clearance; B) Protective Measures; C) Road System; D) Water Control Facility; E) Buildings and Equipment;

F) Public Utility System; G) Other. (Note: if a single site has more than one category, indicate the category that represents the majority of damage.)



Agenda Item

17-0761

Agenda Date: 8/22/2017

# **REPORT TO COUNCIL**

### <u>SUBJECT</u>

Reject Sole Bid Received for SMaRT Station Stormwater Management System Upgrade (PW17-04)

### REPORT IN BRIEF

Approval is requested to reject the sole bid received in response to Invitation for Bids No. PW17-04 for the SMaRT Station Stormwater Management System Upgrade Project.

#### EXISTING POLICY

Section 2.09.140(b) of the Municipal Code permits the City Council to reject bids or proposals received in response to formal competitive bid solicitations. This Code section also provides that "if all bids are rejected, the City has the discretion to re-advertise."

#### ENVIRONMENTAL REVIEW

The action being considered does not constitute a "project" within the meaning of the California Environmental Quality Act ("CEQA") pursuant to CEQA Guidelines section 15378(a) as it has no potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment.

#### BACKGROUND AND DISCUSSION

An Invitation for Bids was issued on May 26, 2017 for the upgrade of the SMaRT Station Stormwater Management System. Although six potential bidders attended the mandatory pre-bid conference, only one bid was received, in the amount of \$2,173,330, as shown in Attachment 1. The bid amount is 83% higher than the engineer's estimate of \$1,185,870. While staff hasn't confirmed with the other plan holders, it appears that the lack of bids is due primarily to the very busy construction market and corresponding unavailability of contractors for work.

Rejecting the sole bid will allow staff an opportunity to reevaluate the construction specifications and determine whether changes can be made that could lower construction costs. Also, the engineer's estimate will be reviewed. The project would then be re-advertised with increased outreach to encourage a higher bidder response rate. It is, however, important to note that rebidding the project may result in higher, instead of lower bids.

#### FISCAL IMPACT

No Fiscal impact results from rejecting the bids.

#### Funding Source

This project is funded by the SMaRT Station Equipment Replacement Fund, which is funded by contributions from the cities of Sunnyvale (Solid Waste Management Fund), Mountain View, and Palo Alto.

## PUBLIC CONTACT

Public contact was made by posting the Council agenda on the City's official-notice bulletin board outside City Hall, at the Sunnyvale Senior Center, Community Center and Department of Public Safety; and by making the agenda and report available at the Sunnyvale Public Library, the Office of the City Clerk and on the City's website.

#### **RECOMMENDATION**

Reject sole bid received in response to Invitation for Bids No. PW17-04 for SMaRT Station Stormwater Management System Upgrade.

Prepared by: Gregory Card, Purchasing Officer Reviewed by: Timothy J. Kirby, Director of Finance Reviewed by: Kent Steffens, Assistant City Manager Reviewed by: Manuel Pineda, Director of Public Works Reviewed by: Walter C. Rossmann, Assistant City Manager Approved by: Deanna J. Santana, City Manager

### **ATTACHMENT**

1. Bid Summary

nvitation for Bids No . PW17-04			JMB Construction Ir	nc
SMaRT Station Stormwater Management System Upgrade			132 South Maple Av	/e.
Project # UY-15-01			South San Francisco	, CA 94080
			Margaret Burke	
BID ITEMS	QTY	UOM	Unit Price	Total
1 Mobilization and Demobilization (Shall Not Exceed 5% of Total Base Bid)	1	LS	\$90,000.00	\$90,000.00
2 Temporary Traffic Control	1	LS	\$42,000.00	\$42,000.00
3 Stormwater Pollution Prevention Plan Measures	1	LS	\$3,800.00	\$3,800.00
4 Potholing	1	LS	\$16,000.00	\$16,000.00
5 Demolition of Existing Structures	1	LS	\$25,000.00	\$25,000.00
6 Dewatering	1	LS	\$35,000.00	\$35,000.00
7 Sheeting, Shoring and Bracing	1	LS	\$38,000.00	\$38,000.00
8 Type-I Concentric Manhole	9	EA	\$15,000.00	\$135,000.00
9 Drop Manhole	1	EA	\$16,000.00	\$16,000.00
10 Flow Diversion Structure	3	EA	\$18,000.00	\$54,000.00
11 Water Quality Sampling Port	4	EA	\$3,500.00	\$14,000.00
12 Pump Station, Wet Well and Valve Vault	1	LS	\$293,000.00	\$293,000.00
13 Flow Meter and Sampling Vault	1	LS	\$54,000.00	\$54,000.00
14 36-in Curb Drop Inlet	1	EA	\$12,000.00	\$12,000.00
15 6" HDPE SDR-11 Force Main	1025	LF	\$115.00	\$117,875.00
16 6" Corrugated HDPE Dual Wall Pipe	85	LF	\$170.00	\$14,450.00
17 8" Corrugated HDPE Dual Wall Pipe	930	LF	\$245.00	\$227,850.00
18 10" Corrugated HDPE Dual Wall Pipe	470	LF	\$180.00	\$84,600.00
19 12" Corrugated HDPE Dual Wall Pipe	575	LF	\$270.00	\$155,250.00
20 15" Corrugated HDPE Dual Wall Pipe	55	LF	\$280.00	\$15,400.00
21 18" Corrugated HDPE Dual Wall Pipe	370	LF	\$325.00	\$120,250.00
22 18" Corrugated Metal Pipe	7	LF	\$815.00	\$5,705.00
23 Roof Gutter Connection Assembly with or without Cleanout	17	EA	\$8,000.00	\$136,000.00
24 In-line Backflow Preventer	2	EA	\$5,000.00	\$10,000.00
25 Outlet with Backflow Check Valve	3	EA	\$6,000.00	\$18,000.00
26 Pipe Bollards	11	EA	\$900.00	\$9,900.00
27 Electrical Work/SCADA	1	LS	\$420,000.00	\$420,000.00
28 Disposal of Contaminated Soil (REVOCABLE)	50	CY	\$157.00	\$7,850.00
29 Connecting to Temporary Drainage Pipe or Sealing of Pipe Outlets (REVOCABLE)	3	EA	\$800.00	\$2,400.00
BID TOTAL				\$2,173,330.00
Surety			10% Bid Bond	
Primary License			"A"	
Subs			Blocka Construction	, Inc.



Agenda Item

17-0798

Agenda Date: 8/22/2017

# **REPORT TO COUNCIL**

### <u>SUBJECT</u>

Amend Council Policy 7.3.19 (Council Meetings)

### BACKGROUND

Council Policy 7.3.19, which outlines Council-established policies relative to Council meetings was initially adopted on November 20, 2004 and has been amended several times; the last time being in October 2012. The policy addresses: how items are placed on the agenda, public noticing regarding Council meeting agendas, distribution of Council meeting materials, start and ending times of Council meetings, and Council meeting protocol and minutes.

### EXISTING POLICY

Council Policy 7.3.19 (Council Meetings)

### ENVIRONMENTAL REVIEW

The action being considered does not constitute a "project" with the meaning of the California Environmental Quality Act ("CEQA") pursuant to CEQA Guidelines section 15378 (b) (5) in that it is a governmental organizational or administrative activity that will not result in direct or indirect changes in the environment.

#### DISCUSSION

The final three items on the agenda are: Councilmembers Reports on Activities from Intergovernmental Committee Assignments, Non-Agenda Items and Comments and Information Only Reports/Items. Under the current Council Policy, a separate vote must be taken to hear these reports. If they are to be heard after 11:30 p.m., then a majority of the Council must vote to hear the item. If they are to be heard after 12:30 a.m., then a supermajority, as defined in the Council Policy, of the Council must vote to hear the item. For the Council to hear these items without a separate vote, it is necessary to amend the Policy. In order to remain consistent with the Council intent to encourage public participation and to expedite the process for the Council to hear these three items after 11:30 p.m. or 12:30 a.m., it is proposed to amend the Policy so that Council may agree to hear these items by a single motion. The requirements for passage will remain unchanged. The proposed amendment is shown below, with the added text underlined:

Limiting late night meetings is intended to encourage public participation. Council will not begin hearing any new item after 11:30 p.m. unless, by a majority vote of those present, it agrees to do so. A separate vote must be taken for each matter to be considered after 11:30 p.m.

Notwithstanding the above, Council will not begin hearing any of the following agenda items: Councilmembers Reports on Activities from Intergovernmental Committee

Assignments, Non-Agenda Items and Comments and Information Only Reports/Items, unless by a single motion it agrees to do so.

Council will need a supermajority vote to start a new item after 12:30 a.m. For purposes of this rule, a supermajority shall mean one more vote than a simple majority (for example, if seven members are present a supermajority is five; if five members are present a supermajority is four).

Council Policy 7.3.19 defines supermajority and this definition conflicts with how a supermajority vote is defined in The Standard Code of Parliamentary Procedures (Sturgis), which serves as a guide for meeting protocol under the Policy. Under Sturgis a supermajority is defined as 2/3 of the Council. Consequently, if there are only 6 councilmembers present at the time of the vote, a supermajority pursuant to the Council Policy's definition would be 5, whereas pursuant to Sturgis it would be 4.

In order, to assure that Sturgis does not supersede Council adopted policies, rules or procedures it is proposed to add clarifying language to the Council Policy. The proposed amendment is shown below, with the added text underlined:

Meetings will be chaired and presided over by the Mayor, who shall be guided by The Standard Code of Parliamentary Procedure (Sturgis), <u>as modified by any policy, rule</u> <u>or procedure adopted by the Council, or as otherwise required by law</u>, and the City's Code of Ethics and Conduct for Elected and Appointed Officials. The City Attorney shall serve as advisory parliamentarian to the Mayor. Any ruling by the Mayor that is challenged and seconded may be overruled by a majority vote of the Council.

The amendment also acknowledges that Sturgis will be superseded when it is conflict with any state or federal law(s) that require the Council to act in a certain manner.

#### FISCAL IMPACT

Approval of this action does not have an impact on the General Fund.

#### PUBLIC CONTACT

Public contact was made by posting the Council agenda on the City's official-notice bulletin board outside City Hall, at the Sunnyvale Senior Center, Community Center and Department of Public Safety; and by making the agenda and report available at the Sunnyvale Public Library, the Office of the City Clerk and on the City's website.

#### RECOMMENDATION

Approve an Amended Council Policy 7.3.19 (Council Meetings) to: 1) hear by a single motion the following agenda items: Councilmembers Reports on Activities from Intergovernmental Committee Assignments, Non-Agenda Items and Comments and Information Only Reports/Items; and 2) to assure that the Standard Code of Parliamentary Procedures used by Council will be superseded by Council adopted policies, rules or procedures and any state or federal law(s) that require the Council to act in a certain manner.

Prepared by: John A. Nagel, City Attorney

## **ATTACHMENT**

1. Draft Amended Council Policy 7.3.19

### COUNCIL POLICY MANUAL

### Policy 7.3.19 Council Meetings

#### POLICY PURPOSE:

The purpose of this policy is to outline Council-established policies relative to Council meetings. Council has underscored the importance of community input and citizen engagement in the conduct of City business, and the critical role of City Council meetings in this effort.

#### **POLICY STATEMENT:**

#### Placing Items on the Agenda

Items may be placed on the agenda by the Mayor, a majority of a quorum of the Council, or by the City Manager. The order in which items appear on the agenda shall be determined by the City Manager and approved by the Mayor.

#### **Public Noticing of Council Meeting Agendas**

Every effort shall be made to publically notice Council meeting agendas for regularly scheduled meetings five days in advance of the meeting (on Thursday preceding a Tuesday meeting). At a minimum, Council meeting agendas for regularly scheduled meetings shall be noticed three days in advance of the meeting.

#### **Distribution of Council Meeting Materials**

Every effort shall be made to publically distribute all approved reports to Council (both online and hard copies) five days in advance of Council meetings (e.g. on Thursdays preceding Tuesday Council meetings). Hard copies should be made available at the Library and the City Clerk's Office.

When possible, Reports to Council should be distributed earlier than five days in advance whenever finalized and approved by the City Manager in advance of their due date.

When possible, Study Issues and Reports to Council with Planning Commission advisory action should be made available online at least seven days prior to the date the item appears on the Council agenda, and Utility Rate reports should be posted online at least 14 days in advance of a Council hearing (every effort shall be made to distribute hard copies of these reports five days in advance, like any other report).

#### **Start and Ending Times**

Study sessions will start no earlier than 5 p.m. on dates when regular Council meetings are held, except that the Mayor may schedule earlier sessions as his/her discretion.

Council has adopted a resolution providing that Regular Council meetings will start at 7:00 p.m. (Resolution No. 141-04.)

Limiting late night meetings is intended to encourage public participation. Council will not begin

hearing any new item after 11:30 p.m. unless, by a majority vote of those present, it agrees to do so. A separate vote must be taken for each matter to be considered after 11:30 p.m.

Notwithstanding the above, Council will not begin hearing any of the following agenda items: Councilmembers Reports on Activities from Intergovernmental Committee Assignments, Non-Agenda Items and Comments and Information Only Reports/Items, unless by a single motion it agrees to do so.

Council will need a supermajority vote to start a new item after 12:30 a.m. For purposes of this rule, a supermajority shall mean one more vote than a simple majority (for example, if seven members are present a supermajority is five; if five members are present a supermajority is four).

No new items or other Council business will be introduced after 1:30 a.m.

Any item on an agenda for a regular meeting which must be continued due to the late hour, shall be continued to a date certain.

Study sessions will start no earlier than 5 p.m. on dates when regular Council meetings are held, except that the Mayor may schedule earlier sessions at his/her discretion.

#### **Meeting Protocol**

Meetings will be chaired and presided over by the Mayor, who shall be guided by The Standard Code of Parliamentary Procedure (Sturgis), as modified by any policy, rule or procedure adopted by the Council, or as otherwise required by law, and the City's Code of Ethics and Conduct for Elected and Appointed Officials. The City Attorney shall serve as advisory parliamentarian to the Mayor. Any ruling by the Mayor that is challenged and seconded may be overruled by a majority vote of the Council.

#### **Meeting Minutes**

Minutes of general meetings shall be prepared and approved in accordance with parliamentary procedure (Sturgis). In general, they shall be a record of all actions and proceedings, but not a record of discussion. No Councilmember shall have views or protests on a motion recorded in the minutes unless a motion permitting such action is passed by majority vote. Adverse criticism of Councilmembers or staff should never be included except in the form of a motion censoring or reprimanding a member. Praise should appear only in the form of officially adopted votes of thanks, gratitude, or commendation.

Minutes of special meetings shall be prepared in similar fashion.

There shall be no minutes for closed sessions.

Minutes of Council Sub-committees shall generally be brief, but in some cases may be more detailed than those of general meetings as they often serve as the basis for the committee's report and subsequent Council action.

(Adopted: RTC 04-410 (11/20/2004); (Clerical/clarity update, Policy Update Project 7/2005); Amended RTC 06-376 (11/28/2006); Amended RTC 12-233 (10/2/2012) Lead Department: Office of the City Manager



Agenda Item

### 17-0826

Agenda Date: 8/22/2017

# **REPORT TO COUNCIL**

## <u>SUBJECT</u>

CONTINUED FROM AUGUST 15, 2017 CITY COUNCIL MEETING **Proposed Project:** GENERAL PLAN AMENDMENT INITIATION to consider a 100% FAR combining district on 11 parcels in the M-S zoning district totaling 17.85 acres. **File #**: 2017-7382 **Locations:** 893-909 Kifer Road (APN 205-42-011), 905 Kifer Road (APN 205-42-009) 917 Kifer Road (APN 205-42-008), 133-135 Commercial Street and 919-921 Kifer Road (APN 205-42 -007), 155 Commercial Street (APN 205-42-006), 165 Commercial Street (APN 205-42-010), 167-171 Commercial Street (APN 205-42-012), 181 Commercial Street (APN 205-42-003), 183 Commercial Street (APN 205-42-004), 193 Commercial Street (APN 205-42-002), No address (APN 205-42-001) **Applicant / Owner:** ARC TEC, Inc. (applicant) / Fortinet (owner)

**Environmental Review:** The project is exempt from the California Environmental Quality Act (CEQA) pursuant to CEQA Guidelines Section 15378 (a).

Project Planner: George Schroeder, (408) 730-7443, gschroeder@sunnyvale.ca.gov

City Council continued this item from the August 15, 2017 meeting due to the lateness of the hour.

### SUMMARY OF PLANNING COMMISSION ACTION

The Planning Commission considered this item on July 24, 2017. No members of the public spoke on the item.

The Planning Commission voted 6-0 to recommend approval of Alternative 3 to initiate a General Plan Amendment study of a larger study area (bounded by Central Expressway to the north, Kifer Road to the south, a private park to the east, and Wolfe Road to the west) as an industrial intensification site in the General Plan to allow 100 percent FAR with the preparation of a Specific, Area, or Precise Plan.

The Planning Commission inquired about the differences in cost and timing between the applicant's and staff's proposed study area (Alternative 2 and Alternative 3, respectively). The applicant expressed concern about how a larger study area and initiation of an area plan (e.g., Specific Plan) would affect their intended schedule to develop an office campus. If the City Council authorizes initiation of a General Plan study, and the applicant moves forward with the process, the estimated cost and schedule would be provided by planning/environmental consultants selected by the City. Staff anticipates that the cost differential of the environmental review between the two alternatives would be minimal because similar environmental impacts, particularly traffic, are anticipated. There would be additional costs and a longer time frame associated with preparation of a Specific, Area, or Precise Plan for a larger area. This applicant would be responsible for its pro rata share of the study

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preparation costs attributable to its project. Additional sources of funding would be necessary for the balance of the study preparation costs, such as the adoption of a Specific Plan Fee that would be charged to all future development projects in the Specific Plan Area for their pro rata share of the study preparation costs. The adoption of such a fee would need to be considered by Council for approval at a late date.

See Attachment 1 (July 24, 2017 Planning Commission staff report and attachments) for a detailed discussion and Attachment 8 for the meeting minutes. Staff received a public comment (Attachment 9) after production of the staff report. The comment was from a nearby industrial property owner north of Central Expressway that requested their properties be included in the study area. Properties across Central Expressway are not within staff's recommended boundary.

### PUBLIC CONTACT

Public contact was made by posting the Council agenda on the City's official-notice bulletin board outside City Hall, at the Sunnyvale Senior Center, Community Center and Department of Public Safety; and by making the agenda and report available at the Sunnyvale Public Library, the Office of the City Clerk and on the City's website.

### ALTERNATIVES

- Do not initiate a General Plan Amendment study and leave the current zoning designation as M-S. The applicant could apply for a Use Permit for the City to consider a FAR greater than 35% for a specific development project.
- 2. Initiate a General Plan Amendment study to consider identifying the 11 parcels within the GPI request area as an industrial intensification site in the General Plan to allow 100 percent FAR.
- 3. Initiate a General Plan Amendment study of a larger study area (bounded by Central Expressway to the north, Kifer Road to the south, a private park to the east, and Wolfe Road to the west) as an industrial intensification site in the General Plan to allow 100 percent FAR with the preparation of a Specific, Area, or Precise Plan.

#### STAFF RECOMMENDATION

Alternative 3: Initiate a General Plan Amendment study of a larger study area (bounded by Central Expressway to the north, Kifer Road to the south, a private park to the east, and Wolfe Road to the west) as an industrial intensification site in the General Plan to allow 100 percent FAR with the preparation of a Specific, Area, or Precise Plan.

Staff and the Planning Commission find that a larger GPI study area is a more thorough approach to planning for this area. A Specific Plan could provide a thorough study of the types of uses and intensities, a holistic view of traffic impacts and area improvements and sense of place additions. It is possible the area will experience more redevelopment interest in the future, and doing a study of the larger area would provide a broader approach rather than taking projects on a piecemeal basis. Excluding properties along the east side of Commercial Street would create a small pocket of light industrial uses that would be isolated from other similarly zoned properties. A specialized plan could also consider a range of uses different than allowed in the M-S zoning district (e.g., community serving places of assembly). All studies required for a general plan amendment or preparation of a specialized plan would be paid for by the applicant and future development projects as discussed above. If City Council authorizes the GPA study, staff would prepare a budget modification for City Council consideration. The budget modification would include the entire costs of the studies and plan; sources of revenue, including future payments by developers within the study area, would be

identified.

Prepared by: George Schroeder, Senior Planner Reviewed by: Andrew Miner, Planning Officer Reviewed by: Trudi Ryan, Director of Community Development Reviewed by: Kent Steffens, Assistant City Manager Approved by: Deanna J. Santana, City Manager

### **ATTACHMENTS**

- 1. Report to Planning Commission 17-0642, July 24, 2017 (without attachments)
- 2. Applicant's GPI Request Letter and Fortinet Company Information
- 3. Aerial Vicinity Map
- 4. Applicant's Conceptual Development Plan
- 5. LUTE Changing Conditions Map
- 6. General Plan Land Use Map of vicinity
- 7. Noticing Map

### Additional Attachments for Report to Council

- 8. Excerpt of Draft Minutes of the Planning Commission Meeting of July 24, 2017
- 9. Public comments received since Planning Commission staff report



Agenda Item

### 17-0642

Agenda Date: 7/24/2017

### REPORT TO PLANNING COMMISSION

### <u>SUBJECT</u>

File #: 2017-7382

Locations: 893-909 Kifer Road (APN 205-42-011), 905 Kifer Road (APN 205-42-009) 917 Kifer Road (APN 205-42-008), 133-135 Commercial Street and 919-921 Kifer Road (APN 205-42 -007), 155 Commercial Street (APN 205-42-006), 165 Commercial Street (APN 205-42-010), 167-171 Commercial Street (APN 205-42-012), 181 Commercial Street (APN 205-42-003), 183 Commercial Street (APN 205-42-004), 193 Commercial Street (APN 205-42-002), No address (APN 205-42-001)

**Proposed Project:** General Plan Amendment Initiation: to consider a 100% FAR combining district on 11 parcels in the M-S zoning district totaling 17.85 acres.

Applicant / Owner: ARC TEC, Inc. (applicant) / Fortinet (owner)

**Environmental Review:** The project is exempt from the California Environmental Quality Act (CEQA) pursuant to CEQA Guidelines Section 15378 (a).

Project Planner: George Schroeder, (408) 730-7443, gschroeder@sunnyvale.ca.gov

### BACKGROUND

General Plan Amendment Initiation (GPI) requests are heard on a quarterly basis through a recommendation from the Planning Commission and then action by the City Council. The process for considering a General Plan Amendment (GPA) begins with a written request from a property owner or applicant. If the Council approves the GPI, a formal application for a GPA can be filed by the property owner/applicant. The current City Council practice is to consider the GPA before the specific project application.

Staff received the GPI request from the applicant on May 10, 2017. The applicant is requesting an industrial-intensification designation in the General Plan to allow for development of up to 100 percent floor area ratio (FAR) for 11 contiguous parcels where a master-planned office campus is envisioned (see Attachment 2 for the applicant's GPI request letter). Fortinet would be the intended tenant, and according to the applicant, the General Plan designation and subsequent rezoning would allow the company to grow and stay headquartered in the City. Fortinet was founded in 2000 and provides network and content security across information technology infrastructure.

The City Council is scheduled to consider this item on August 15, 2017.

### EXISTING POLICY

### SUNNYVALE GENERAL PLAN:

The General Plan is the primary policy plan that guides the physical development of the City. When used together with a larger body of City Council policies, it provides direction for decision-making on

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City services and resources. The recently adopted Land Use and Transportation Element (LUTE) within the General Plan created an integrated set of policies to guide land use, development, and transportation choices with a horizon year of 2035. The LUTE anticipates that the proposed project area would experience minor infill, improvements, and redevelopment up to 35 percent FAR through 2035. The LUTE has several policies to improve the jobs-to-housing ratio, promote business retention and expansion, and ensure coordinated development with community benefits.

#### **Regional Participation**

*Policy 3*: Contribute to a healthy jobs-to-housing ratio in the region by considering jobs, housing, transportation, and quality of life as inseparable when making planning decisions that affect any of these components.

#### Effective Integration of Transportation and Land Use Planning

*Policy 22:* Require large employers to develop and maintain transportation demand management programs to reduce the number of vehicle trips generated by their employees.

#### **Open Space, Parks, and Wetlands**

*Policy 70:* Ensure that the planned availability of open space in both the city and region is adequate. Action 4: Integrate useable open spaces and plazas into commercial and office developments.

#### Supportive Economic Development Environment

*Policy 74:* Provide existing businesses with opportunities to grow in Sunnyvale and provide opportunities to expand into new technologies.

Policy 76: Promote business opportunities and business retention in Sunnyvale.

#### A Balanced Economic Base

*Policy 82:* Attract and retain a diversity of commercial enterprises and industrial uses to sustain and bolster the local economy and provide a range of job opportunities.

*Policy 83:* Encourage land uses that generate revenue while preserving a balance with other community needs, such as housing.

#### **Protected Commercial Districts**

*Policy 95:* Require high design standards for office, industrial, and research and development (R&D) buildings in all business districts.

<u>Action 2</u>: Maintain and review, as needed, criteria for superior quality architecture, landscaping, and site development for office, industrial, and R&D projects that request to develop beyond standard floor area ratio limits.

*Policy 96:* Maintain areas of Class B and C buildings to support all types of businesses and provide a complete community.

#### Specialized Plans and Zoning Tools

*Policy 97:* Prepare specific area plans and special zoning tools (including, but not limited to specific plans, precise plans, design guidelines, specialized zoning, and sense of place plans) to guide change in areas that need special attention.

### **Community Benefits**

*Policy 104:* Ensure that development projects provide appropriate improvements or resources to meet the City's future infrastructure and facility needs, and provide development incentives that result in community benefits and enhance the quality of life for residents and workers.

<u>Action 3</u>: Include a discussion of community benefits in area plans and specific plans that defines the City's priorities and outlines and implementation program.

#### General Plan Land Use Map

The entire area has a General Plan designation of Industrial and is zoned M-S (Industrial and Service). The General Plan designation provides for research and development, manufacturing, office, and heavy industrial uses. Attachment 6 is a General Plan land use map of the vicinity.

### COUNCIL POLICY 1.1.13 - Review Criteria for Projects Greater than 35% FAR:

This policy establishes criteria to evaluate the merits of Use Permit applications that exceed the baseline FAR in industrial zoning districts. The review criteria consist of: community character; environmental (traffic and air quality); site design and architectural; and an optional category of economic and fiscal factors.

### ZONING STANDARDS

The M-S zoning district allows a maximum FAR of 35 percent, with building heights up to 75 feet and eight stories. An additional 10 percent FAR can be earned by exceeding the minimum standards in the City's Green Building program. Requests for FAR beyond 45 percent require a Use Permit with Planning Commission and City Council review, and are subject to the review criteria for higher intensity industrial development.

There are certain industrial areas in the City that are designated for more intensive development (up to 100 percent FAR). Properties zoned M-S/100% are allowed an additional 25 feet in height for a maximum of 100 feet and eight stories (not including rooftop equipment and elevator shafts). Transportation Demand Management (TDM) programs are also required for projects in designated high-intensity industrial zoning districts.

### DEVELOPMENT POOL

The City maintains a limited amount of available office/industrial square footage (Citywide development pool) that may be applied to higher FAR projects that provide community benefits. The square footage given to a specific project is subtracted from the citywide development pool. There is no formal Council policy on whether the development pool should be adjusted if there are zoning changes to higher FARs. However, one example of how the City has previously addressed this issue is the site at Central Expressway and Wolfe Road, which was rezoned in 2014. In that case, the additional development potential approved was deducted from the development pool. The current balance of the pool is 1.94M square feet.

#### ENVIRONMENTAL REVIEW

The decision to initiate a General Plan study does not require environmental review under the California Environmental Quality Act (CEQA) because the mere initiation of a study does not constitute a project with the meaning of CEQA pursuant to CEQA Guidelines section 15378 (a) as it has no potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment. If initiated, the proposed GPA and

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associated Rezoning (RZ) would be subject to the provisions of CEQA. If the applicant proceeds with the project concept as currently envisioned, preliminary analysis suggests that a Mitigated Negative Declaration may be appropriate, which will include a traffic analysis and other technical studies. If significant impacts are identified during the study, then an environmental impact report (EIR) may be required.

#### DISCUSSION

The requested study area is bound by Central Expressway to the north; Kifer Road to the south; Commercial Street to the east; and generally, by San Lazaro Avenue to the west (Wolfe Road is a block west of San Lazaro Avenue). There are seven parcels between San Lazaro Avenue and the requested boundary for the study area. See Attachment 4 for the applicant's conceptual site plan.

The total GPI request area is 17.85 acres or 777,457 square feet. Except for the Moose Lodge (a place of assembly use), the existing land uses in the area are industrial, with the largest use being the Fortinet headquarters. There is approximately 290,000 square feet building area in nine existing buildings, per County records.

The GPI request area is surrounded by industrial uses. The Lawrence Station Area Plan (LSAP) boundary and the City of Santa Clara border are located 0.2 miles to the east. Industrial uses are currently located within the portions of the LSAP and City of Santa Clara that are near the GPI request area. The Central and Wolfe office project (100 percent FAR) and Arques Site Specific Plan (up to 73 percent FAR) are located to the north across Central Expressway. The nearest residential uses are single-family homes on Bartlett Avenue 0.3 miles to the west. There are also multifamily residential uses 0.4 miles to the south at Wolfe Road and Evelyn Avenue. See Attachment 3 for an aerial vicinity map of the area.

The GPI request area is located one mile from the Lawrence Caltrain station and 1.4 miles from the Sunnyvale Caltrain station. Although not considered within walking distance, these major transit sites are conveniently located for potential new commuters with rides to transit or who may bicycle the distance.

#### Conceptual Proposal

The applicant, representing Fortinet, Inc., is requesting that the City consider a study to enable rezoning the proposed study area from M-S to M-S/FAR 100% and facilitate a master-planned office campus project that would be built in three phases. A conceptual project proposal was submitted with the GPI application to illustrate the request (Attachment 4). The actual project would require separate permit consideration if the GPI is initiated and a GPA and Rezoning are ultimately approved.

The conceptual proposal consists of the following elements:

- Demolition of all existing buildings and associated structures (including the Fortinet headquarters building), except the 10,000-square foot Moose Lodge building, which would remain;
- Construction of four, five-story office buildings totaling 766,000 square feet (height in feet not yet specified). A total of approximately 486,000 net new square feet would be requested;
- Construction of a six-level, above-ground parking structure (height in feet not yet specified);
- Amenity space (details not yet specified), which would count towards FAR if located in separate buildings; and

### • New surface parking, landscaping, and site improvements.

The Moose Lodge at 905 Kifer Road was established by Use Permit in 1972 and is a legal nonconforming use because community-serving place of assembly uses are currently prohibited in M -S zoning districts. The Moose Lodge would remain within the existing industrial building and would not expand in size or operational intensity as part of the conceptual proposal. Section 19.50.060 of the Sunnyvale Municipal Code (SMC) permits legal nonconforming uses to continue if no enlargement of the area, space or volume occupied by the use occurs. Therefore, an intensification of the FAR permitted would not increase the nonconformity of the existing building, because it would have no physical effect on the existing building or expansion of the use. Parking details for the Moose Lodge have yet to be provided.

### **Recent Examples of Projects with 100 Percent or Greater FAR**

The applicant notes that the proposed density is similar to the nearby Central and Wolfe office campus, which is currently under construction. That property was rezoned from M-S to M-S/FAR 100% based on the site's existing industrial designation, proximity to arterial roadways, and sufficient distance away from single-family residential and other sensitive land uses. The City also approved a rezoning from M-S/FAR 55% and 75% to M-S/FAR 100% for the office campus at the northwest corner of Mathilda and Maude Avenues in 2012 because of the site's gateway location, and because of how the project met the City's objectives of encouraging Class A office development while being able to provide traffic mitigation measures and public improvements. That campus is now in the Peery Park Specific Plan (PPSP) with a different zoning designation.

All properties within the PPSP can be considered for 100 percent FAR if specified community benefits are provided and approved by the Planning Commission or City Council. Properties along the west side of Mathilda Avenue between Maude Avenue and US-101 can be considered for up to 120 percent FAR with City Council approval. Since the adoption of the PPSP in 2016, four office projects have been approved for 100 percent FAR or greater.

### Proposed General Plan Amendment and Rezoning

If initiated by the City Council, subsequent GPA and RZ applications would be required to consider the 100 percent FAR. The recently adopted LUTE did not identify the proposed study area as an industrial intensification area; therefore, the General Plan would need to be amended to reflect the change. The Changing Conditions Map contained in the LUTE (Attachment 5) identifies the study area as where enhancement is to occur over the next 20 years. This enhancement would entail minor infill, improvements and redevelopment where urban form may change, but would still be consistent with the current character. The LUTE categorizes industrial intensification sites as "transform" areas where major redevelopment would occur with significant changes to urban form and character, including FAR. The subsequent GPA request would designate the study area as a "Transform - Office/Industrial" character of change area in the LUTE.

The Rezone would be needed to amend the existing M-S zoning designation to M-S/FAR 100% to be consistent with a General Plan change. Appropriate studies would be completed as part of the application. A recommendation hearing would be conducted by the Planning Commission and the final determination would be made by the City Council. The following finding is required to approve a future GPA and RZ:

The City Council may approve a General Plan or zoning amendment upon finding that the

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### amendment, as proposed, changed or modified is deemed to be in the public interest.

To study the applicant's proposal, the City would analyze the potential benefits of increasing the allowable floor area or retaining similar existing land uses. The study would analyze traffic and transportation implications and other environmental impacts, as well as potential visual impacts associated with increased building heights and massing. The City would also review the appropriateness of the proposed boundary for the industrial intensification area. The applicant would be responsible for the costs of all studies as part of the GPA/RZ review process.

Staff suggested the GPA process for this potential development because of the programmatic nature of the request. The request affects several properties and was not contemplated with the recently adopted LUTE. The applicant could apply for a Use Permit for higher FAR without changing the General Plan and Zoning, but the application would still require review by the Planning Commission and City Council. The differences in the processes are as follows:

- A GPA/RZ requires conceptual-level design details. If a GPA is approved, a subsequent application with specific project design features would be submitted for Planning Commission and possibly City Council consideration;
- A Use Permit application to exceed 35 percent Floor Area Ratio (FAR) would be subject to the specific review criteria for projects over 35 percent FAR as specified in Council Policy 1.1.13;
- The City does not have the discretion to specify the boundary of a study area with a Use Permit application, but may do so for a GPA/RZ; and
- Use Permits expire if not exercised within two years, whereas GPAs and RZs do not expire.

#### **Recent Development Activity in the Vicinity**

As noted earlier in the report, the GPI request area is located within proximity to the LSAP boundary (see Attachment 3). The City recently approved a project within the LSAP to construct two new fourstory office buildings and associated parking structures resulting in 80% FAR for Intuitive Surgical's campus on Kifer Road. At the same time, the City approved a mixed-use, 520-unit residential and 7,000 square foot retail project for Greystar, which is immediately east of the Intuitive Surgical campus. The Greystar project involves a new north-south public road, which would eventually connect Kifer Road to Sonora Court with access to the Lawrence Caltrain station. The roadway would most likely connect to Sonora Court through the parcel at 1159 Sonora Court, but this has not been confirmed. Both projects were consistent with the LSAP and were developed in concert with the plan.

#### Potential Expanded Study Area Option

The proposed Fortinet area entails more than half the area between Wolfe Road and the private park adjacent to the Texas Instruments campus, and Central Expressway and Kifer Road. Given the changing nature of real estate in Sunnyvale, it is possible that future requests will be made for the other properties in the area, or an interest to protect some lighter industrial uses from future land use changes. Expanding the study area to include the entire area described above (see Attachment 3 to see a map of the area) could provide better guidance of how to plan the area. If that option is chosen, a new Specific Plan would provide the best direction for Fortinet, future projects, and decision-makers reviewing the projects.

An expanded study area would help ensure a coordinated review of traffic and environmental impacts, provision of community benefits, sense of place and infrastructure improvements, and

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support for retention and expansion of existing businesses. Housing opportunities could also be considered. The LUTE suggests preparation of specific plans to guide change in areas that need special attention.

The recently adopted PPSP is an example of a comprehensive plan for a larger industrial area that includes a community benefits program, provisions for open space, and requirements to fund transportation improvements. The PPSP encourages a range of workplace types and expansion opportunities to ensure the continued success of existing businesses in the area. The PPSP also rezoned industrial sites that were found suitable to accommodate residential uses, which is consistent with the City's goals to improve the jobs-housing ratio. Potential residential uses within this study area would be close to new residential uses in the LSAP, major transit, and employment opportunities in the greater area.

#### FISCAL IMPACT

There are no fiscal impacts associated with initiating a General Plan Amendment study. All fees and costs for development processing, related special studies and CEQA analysis would be covered by the applicant.

#### PUBLIC CONTACT

Public contact was made through posting the agenda on the City's official-notice bulletin board and on the City's website and the agenda and report were made available in the Reference Section of the City Library. Notices were sent to all property owners and tenants within 2,000 feet of the site (2,611 notices) (Attachment 7); email messages with notices were sent to the SNAIL, Lowlanders, and Heritage District neighborhood associations. Voicemail messages were received from an anonymous caller with concerns about expansion and gentrification in the neighborhood. Another call was received from a neighboring property owner supporting the industrial intensification and inclusion of their property in an expanded study area, which would be within the boundaries of staff's recommended study area described in Alternative 3.

#### **ALTERNATIVES**

Recommend to City Council:

- Do not initiate a General Plan Amendment study and leave the current zoning designation as M-S. An applicant could apply for a Use Permit for the City to consider a FAR greater than 35% for a specific development project.
- 2. Initiate a General Plan Amendment study to consider identifying the 11 parcels within the GPI request area as an industrial intensification site in the General Plan to allow 100 percent FAR.
- Initiate a General Plan Amendment study of a larger study area (bounded by Central Expressway to the north, the Kifer Road to the south, the private park to the east, and Wolfe Road to the west) as an industrial intensification site in the General Plan to allow 100 percent FAR with the preparation of a Specific, Area, or Precise Plan.

#### STAFF RECOMMENDATION

Alternative 3: Recommend to the City Council to initiate a General Plan Amendment study of a larger study area (bounded by Central Expressway to the north, the Kifer Road to the south, the private park to the east, and Wolfe Road to the west) as an industrial intensification site in the General Plan to allow 100 percent FAR with the preparation of a Specific, Area, or Precise Plan.

Staff finds that a larger GPI study area is a more thorough approach to planning for this area. A

### Agenda Date: 7/24/2017

Specific Plan could provide a thorough study of the types of uses and intensities, a holistic view of traffic impacts and area improvements and sense of place additions. It is possible the area will experience more redevelopment interest in the future, and doing a study of the larger area would provide a broader approach rather than taking projects on a piecemeal basis. A specialized plan could also consider a range of uses different than allowed in the M-S zoning district (e.g. community serving places of assembly). All studies required for a general plan amendment or preparation of a specialized plan would be paid for by the applicant.

Prepared by: George Schroeder, Senior Planner Reviewed by: Rosemarie Zulueta, Acting Principal Planner Reviewed by: Andrew Miner, Planning Officer Reviewed by: Trudi Ryan, Director of Community Development Reviewed by: Kent Steffens, Assistant City Manager Approved by: Deanna J. Santana, City Manager

#### **ATTACHMENTS**

- 1. Not Used, Reserved for Report to Council
- 2. Applicant's GPI Request Letter and Fortinet Company Information
- 3. Aerial Vicinity Map
- 4. Applicant's Conceptual Development Plan
- 5. LUTE Changing Conditions Map
- 6. General Plan Land Use Map of vicinity
- 7. Noticing Map

### ATTACHMENT 2 PAGE 1 OF 2



May 9, 2017

Trudi Ryan, Director City of Sunnyvale Department of Community Development 456 W. Olive Ave. Sunnyvale, CA 94086

Re: Application to Initiate General Plan Amendment

Dear Trudi:

Please consider this letter our formal request for a General Plan Amendment Initiation to allow a change of the existing zoning to increase the density of the combined parcels from the current maximum permitted FAR of 45% to a new density of 100% FAR.

The proposed project includes eleven parcels totaling 777,457 square feet / 17.85 acres which are further clarified in the attached master plan. The master planned project consists of four new multi-story commercial buildings with an internally located parking structure. We believe the increased density is justified because of the following:

- The proposed project density is similar to projects within the area and matches the allowed density of the MS-100 directly across Central Expressway.
- 2. Further growth in the area both for this project and others will support the increased density and provide growth along the Central Expressway corridor.
- 3. The proposed project not only maintains the existing Moose Lodge through all phases, but provides significant amenity space within the site.
- 4. Most importantly, the increased density for the proposed project provides the necessary space for a valuable growing company to stay in the City of Sunnyvale.

We believe the City of Sunnyvale will benefit from providing the increased density for both this project and others in the area. The adjustment of the density from 45% to the proposed 100% FAR will allow the City to further direct growth in a logical manner.

Sincerely,

ARC TEC, Inc.

aluht

Craig Almeleh, AIA

Arizona 2960 E. Northern Avenue Building C Phoenix, AZ 85028 602.953.2355 t 602.953.2988 f

California 99 Almaden Boulevard Suite 840 San Jose, CA 95113 408.496.0676 t 408.496.1121 f

www.arctecinc.com

#### Fortinet in Sunnyvale

Fortinet was founded in 2000 by Ken Xie, a serial entrepreneur, founder and former CEO of NetScreen, which was later sold to Juniper. From the beginning, the company foresaw the explosion of the Internet of Things (IoT) and set out to deliver the broadest, most integrated, high-performance security platform in the industry. Today, we have more than 300,000 customers worldwide and offices in over 77 countries.

From its inception and through its IPO, the company has called Sunnyvale home. In February 2014, we moved to our present location at 899 Kifer Road. Previously used for manufacturing, our Sunnyvale building has been transformed into the research and administrative headquarters of Fortinet.

The company has grown to more than 5,000 employees worldwide. Our Sunnyvale staff totals 750 employees, up from 120 in 2006. Fortinet has created high-paying jobs in Sunnyvale across a range of professions: engineering, sales, marketing, finance & supply-chain management. These Sunnyvale-based employees support many local businesses. One hundred of our employees are residents of the City of Sunnyvale.

Fortinet is committed to the City of Sunnyvale and positioned to deepen its involvement with the surrounding Sunnyvale community:

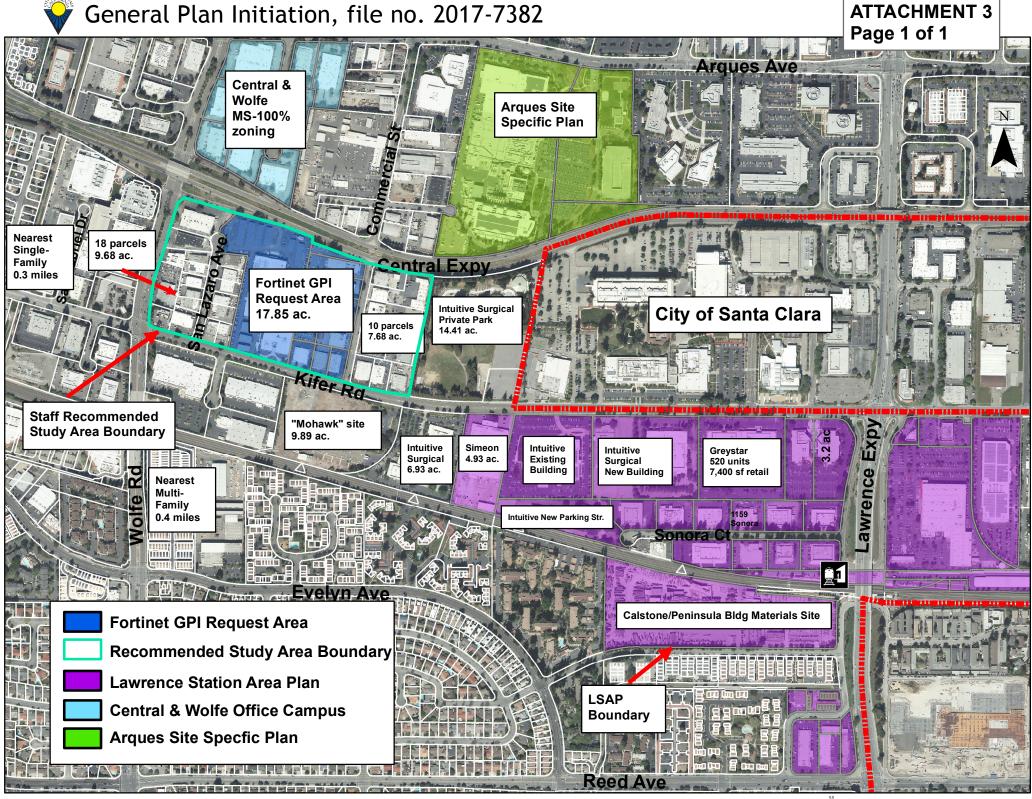
• The security industry has three times the shortage of talent compared to other high tech industries and this is expected to increase over time. Fortinet Network Security Academy program partners with schools to provide industry-recognized Fortinet training and certification programs, which prepare students to become part of the rapidly-growing cyber-security profession.

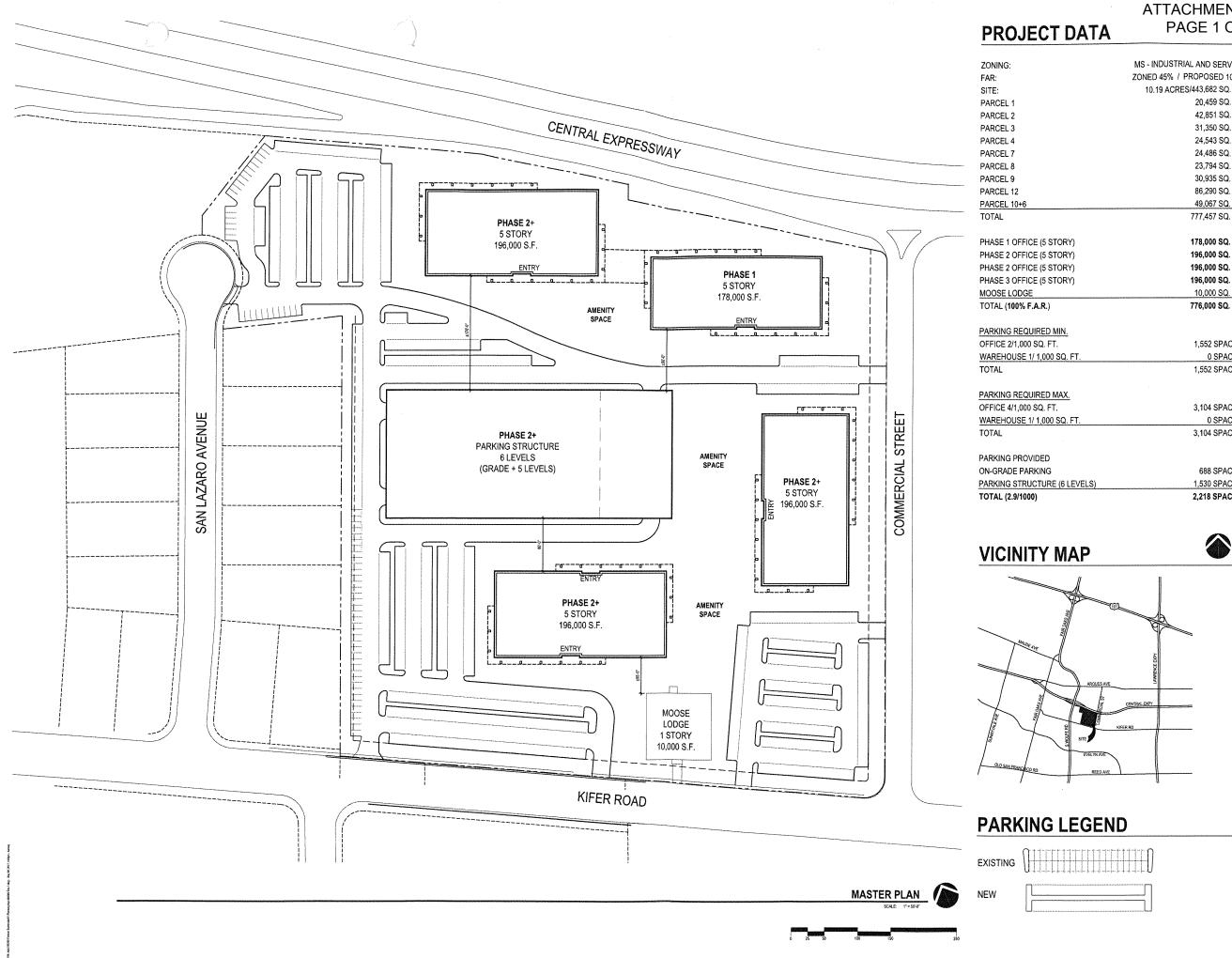
https://www.fortinet.com/support-and-training/training/fortinet-network-securityacademy.html

https://www.fortinet.com/content/dam/fortinet/assets/training/Fortinet-Network-Security-Academy.pdf

• Fortinet employees are encouraged to donate their time to the community and the company provides employees 8 hours per year to volunteer with local non-profit organizations. We would like to leverage this program to deepen our ties with our community.







#### ATTACHMENT 4 PAGE 1 OF 2

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	30,935 SQ. FT.	www.arctecinc.co Arizona
	86,290 SQ. FT.	2960 East Northern Avenue, Bu Phoenix, Artzona 85020
+6	49,067 SQ. FT.	P 602,953.2355 F 602.953. California
	777,457 SQ. FT.	99 Almaden Boulevard, Suite San Jose, California 951
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A General Plan Amendment for: **FUNET** 899 Kifer Road Sunnyvale, CA 94086

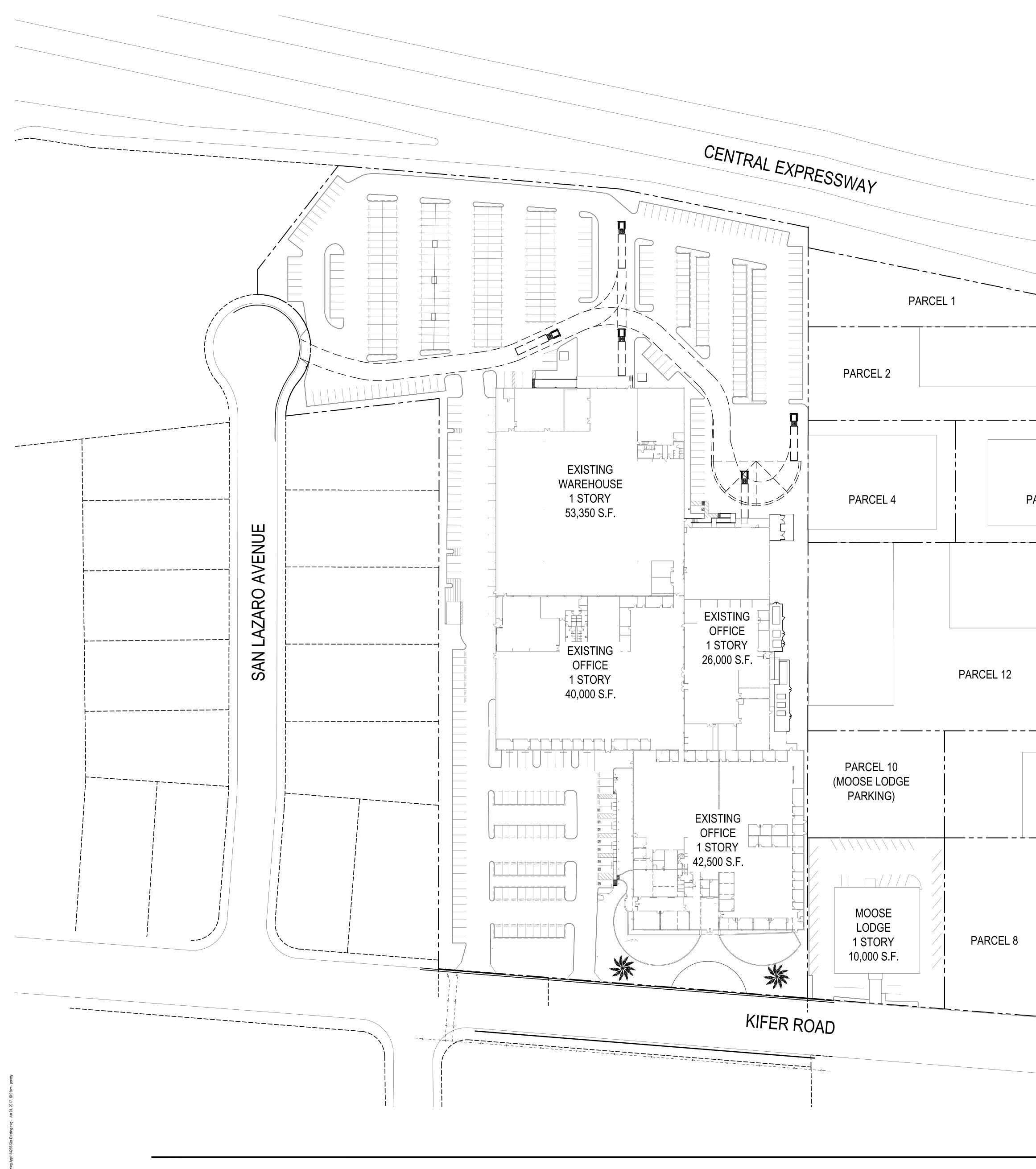
DATE 05.10.2017

DESCRIPTION Planning Submitte

MASTER PLAN

164265

A1 PROJECT NO:



# **PROJECT DATA-EXISTING**

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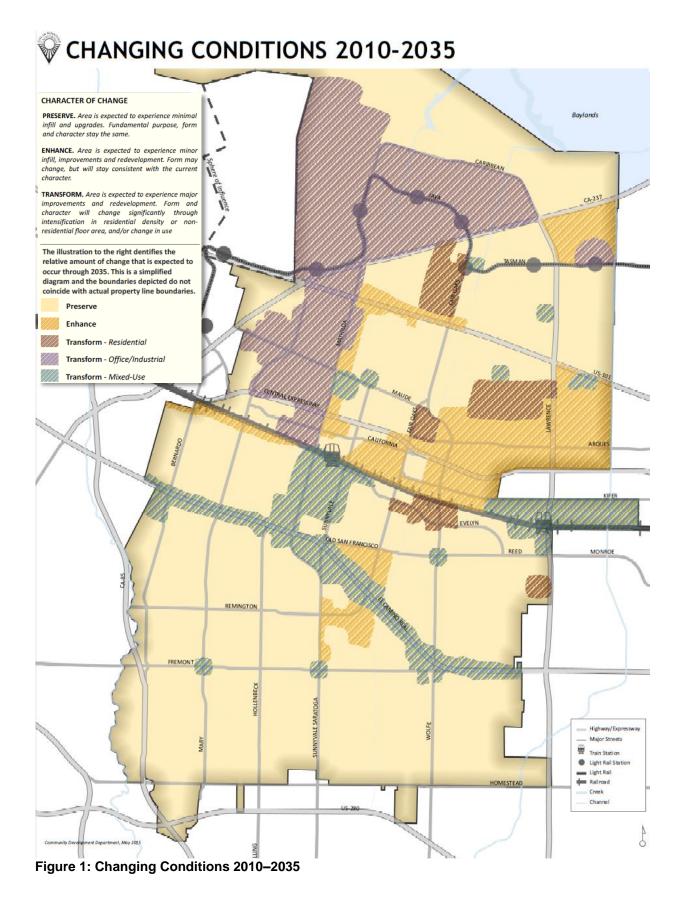
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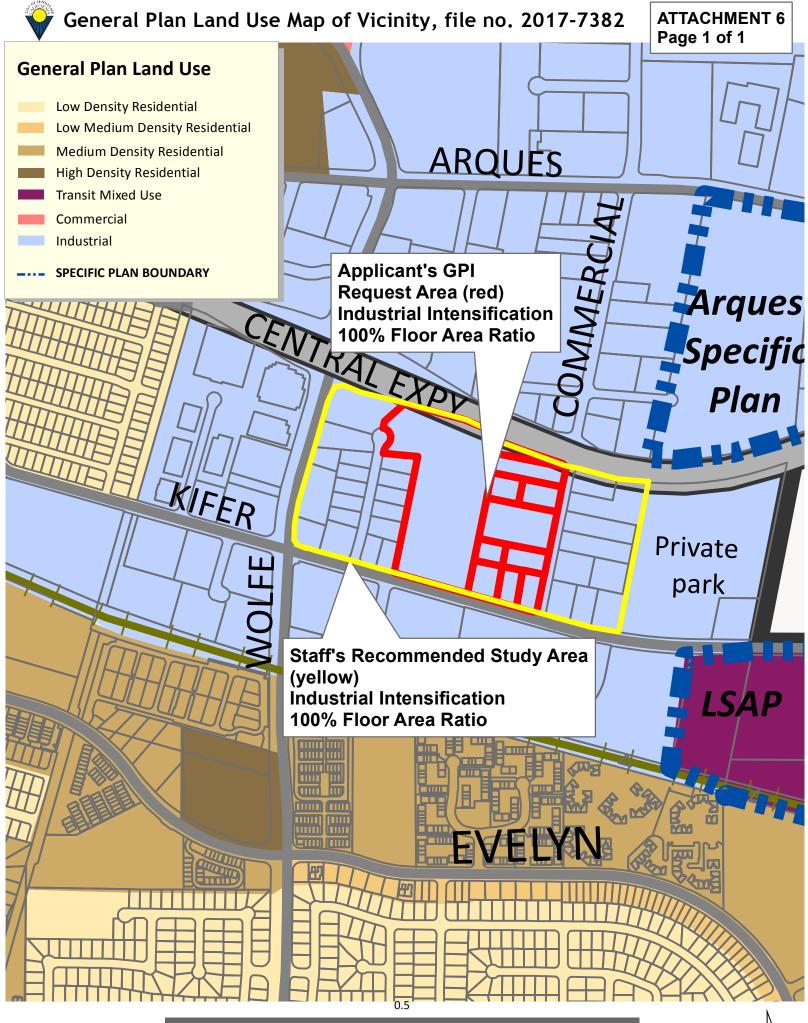
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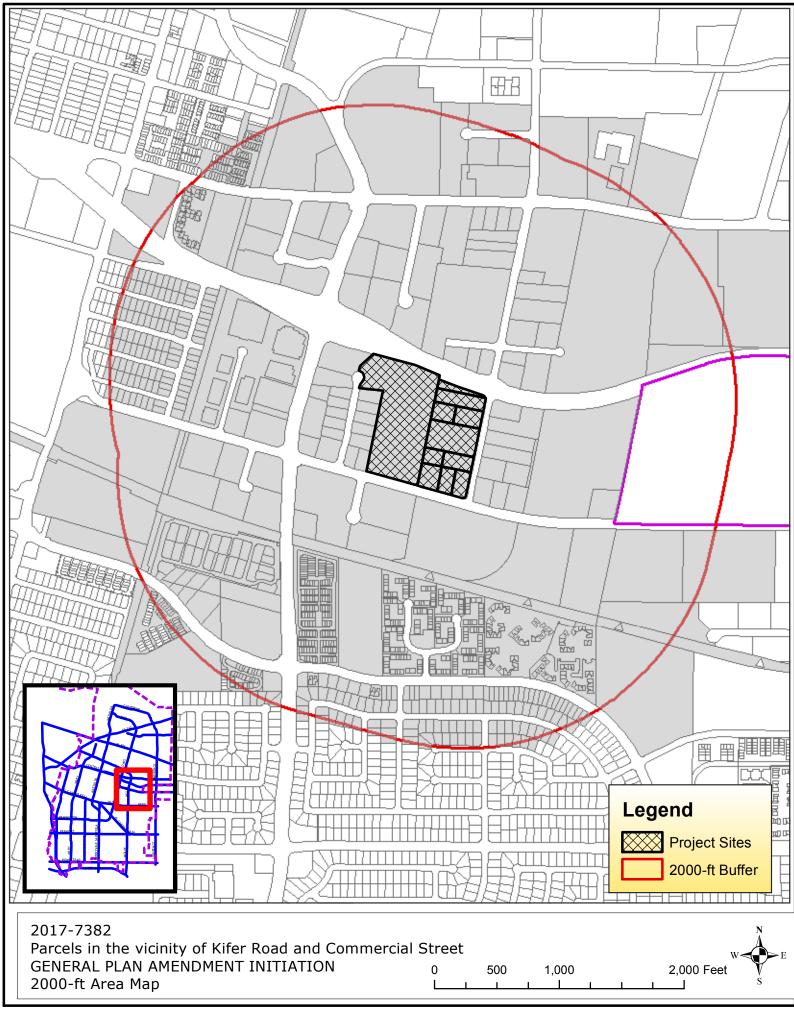


PROJECT NO:

164265







#### EXCERPT

Planning Commission Meeting Mir	Minutes - Draft
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additional fees if they wanted to expand the GPA study area.

MOTION: Commissioner Howe moved and Commissioner Olevson seconded the motion for Alternative 1 – Deny the request to initiate a General Plan Amendment (GPA) study and retain the subject property as Neighborhood Commercial.

Vice Chair Rheaume stated that he will not supporting the motion. Vice Chair Rheaume commented on length of time since the previous denial and noted that he would have supported Alternative 3.

Commissioner Simons stated that he will be supporting this motion. Commissioner Simons commented on the importance of undisturbed parks and commercial space for residents and noted an opinion that it's not appropriate to change this zoning designation.

Commissioner Howard stated that he will not be supporting this motion. Commissioner Howard reiterated the applicant's belief that the site is not commercially viable and commented that consideration to change the zoning would be worthwhile. Commissioner Howard noted that he would have supported Alternative 3.

The motion carried by the following vote:

- Yes: 4 Commissioner Howe Commissioner Olevson Commissioner Simons Commissioner Weiss
- No: 2 Vice Chair Rheaume Commissioner Howard
- Absent: 1 Chair Harrison

Planning Officer Miner advised that this item goes to the City Council on August 15th.

5. 17-0642
 File #: 2017-7382
 Locations: 893-909 Kifer Road (APN 205-42-011), 905 Kifer Road (APN 205-42-009)
 917 Kifer Road (APN 205-42-008), 133-135 Commercial Street and 919-921 Kifer Road (APN 205-42-007), 155 Commercial Street (APN 205-42-006), 165 Commercial Street (APN 205-42-010), 167-171 Commercial Street (APN 205-42-012), 181 Commercial Street (APN

Planning Commission	Meeting Minutes - Draft	July 24, 2017
	<ul> <li>205-42-003), 183 Commercial Street (APN 205-42-004), Street (APN 205-42-002), No address (APN 205-42-001)</li> <li>Proposed Project: General Plan Amendment Initiation: 1 100% FAR combining district on 11 parcels in the M-S zo totaling 17.85 acres.</li> <li>Applicant / Owner: ARC TEC, Inc. (applicant) / Fortinet Environmental Review: The project is exempt from the Environmental Quality Act (CEQA) pursuant to CEQA Gu 15378 (a).</li> <li>Project Planner: George Schroeder, (408) 730-7443, gschroeder@sunnyvale.ca.gov</li> </ul>	to consider a oning district (owner) California

Senior Planner George Schroeder presented the staff report.

Commissioner Olevson asked staff about the cost to the applicant if the Planning Commission supports an expanded study area. Senior Planner Schroeder provided details about what would be required for an expanded study area. Planning Officer Andrew Miner stated that the applicant is already committed to the cost for one site and that expanding the study area is an incremental cost by comparison.

Vice Chair Rheaume opened the Public Hearing.

Larry Burnett, Senior Director with Fortinet, presented images and information about the proposed project.

Commissioner Howard confirmed with Mr. Burnett that the current industrial activity is comprised of research and development labs. Commissioner Howard asked about industrial use in the new headquarters. Mr. Burnett stated that it would mainly be research and development labs and a new data center but that it would not house manufacturing.

Commissioner Olevson reiterated the applicant's concern that an expanded study area would impact their timing and asked for the applicant's input. Mr. Burnett stated that they must prioritize their growth needs and that the first building is required for their near-term growth.

Commissioner Howard asked the applicant if they would consider using another site. Mr. Burnett stated that their best option is to stay and grow on this site since they own it and are committed to it.

Vice Chair Rheaume closed the Public Hearing.

Commissioner Howe asked for staff comments on the difference in timing between the alternatives, the standard cost for this study and the expected cost increase if

Planning Commission	Meeting Minutes - Draft	July 24, 2017

the study area is expanded. Planning Officer Miner provided details about the application with and without an expanded study area. Planning Officer Miner advised that staff recommends expanding the study area to create a specific plan.

Commissioner Howe confirmed with Planning Officer Miner that the applicant hasn't submitted a plan for their current building. Planning Officer Miner provided details about the potential analyses that could be required.

Commissioner Howard asked for staff clarification about the use of M-S (Industrial and Service) zoning. Planning Officer Miner stated that it is the most common industrial zoning in the City and advised that usually large high Floor Area Ratio (FAR) projects are within specific plans.

MOTION: Commissioner Howard moved and Commissioner Simons seconded the motion for Alternative 3 – Initiate a General Plan Amendment study of a larger study area (bounded by Central Expressway to the north, Kifer Road to the south, the private park to the east, and Wolfe Road to the west) as an industrial intensification site in the General Plan to allow 100 percent FAR with the preparation of a Specific, Area, or Precise Plan.

Commissioner Howard commented that he supports the applicant's proposed project and noted that there are no community objections. Commissioner Howard spoke to the potential increase in tax revenues and the importance of keeping businesses rooted in the community. Commissioner Howard noted his agreement with the staff recommendation that the adjacent parcels should be evaluated in regards to the overall zoning. Commissioner Howard noted his respect for the applicant's concern regarding timing and stated a belief that the applicant should be able to accommodate their office space needs in the interim.

Commissioner Simons commented that grouping this land together will allow for a more effective review of any impacts and noted that a specific plan is appropriate for this site. Commissioner Simons stated that he will be supporting the motion.

The motion carried by the following vote:

- Yes: 6 Vice Chair Rheaume Commissioner Howard Commissioner Howe Commissioner Olevson Commissioner Simons Commissioner Weiss
- **No:** 0

#### Absent: 1 - Chair Harrison

Planning Officer Miner advised that this item goes to the City Council on August 15th.

#### 6. 17-0717 Selection of Chair

Vice Chair Rheaume was selected as the new Chair for the Planning Commission.

#### 7. 17-0718 Selection of Vice Chair

Commissioner Weiss was selected as the new Vice Chair for the Planning Commission.

#### 8. 17-0721 Selection of Seats

Seats were selected by the Planning Commissioners in order of seniority.

#### STANDING ITEM: CONSIDERATION OF POTENTIAL STUDY ISSUES

Commissioner Weiss commented on the potential for a safe exchange area for goods purchased online, such as through Craigslist, and asked staff about a study session on this topic. Planning Officer Miner advised that this would go through the Department of Public Safety (DPS) and that staff would obtain information for the Planning Commission.

#### NON-AGENDA ITEMS AND COMMENTS

#### -Commissioner Comments

#### -Staff Comments

#### ADJOURNMENT

Vice Chair Rheaume adjourned the meeting at 12:38 AM.

#### **George Schroeder**

#### Subject:

FW: FILE 2017-7382

From: Edward L. Hickey
Sent: Wednesday, July 19, 2017 9:47 AM
To: George Schroeder <GSchroeder@sunnyvale.ca.gov>
Subject: FILE 2017-7382

Hello,

I am the owner of the properties at 198 Commercial, 190 Commercial and 930 California (Hickey Properties). I would like to know how we can expand the study to include these properties which are directly across Central Expressway. Thank you in advance for your response.

Sincerely,

Edward Hickey

President W.L. Hickey Sons, Inc. 190 Commercial Street Sunnyvale, CA 94085



Agenda Item

#### 17-0204

Agenda Date: 8/22/2017

#### **REPORT TO COUNCIL**

#### <u>SUBJECT</u>

Appoint Applicants to the Board of Library Trustees, Personnel Board and Sustainability Commission

#### DISCUSSION

The City has ten Council-appointed boards and commissions to recommend and advise City Council on specific policy-related issues for possible Council study and action, and to provide a forum and opportunity for broad community participation in the identification and prioritization of those issues. The term length for boards and commissions is four years, with staggered terms expiring June 30 of each year. Council makes appointments annually in May/June to fill seats with expiring terms to serve terms effective July 1, and fills vacancies as necessary quarterly throughout the year. Below is the list of new and continuing vacancies, current applicants, the applicants' preferences as indicated on their application (when the applicant has applied for more than one board or commission), and terms of appointments. The term lengths of the current openings vary, as some openings are to fill unexpired terms due to resignations, and/or some vacancies are to fill expired terms that remained vacant following the previous recruitment process.

Per Council Policy 7.2.19, *Boards and Commissions* appointments of board and commission members are placed on the City Council meeting agenda. The appointment process is conducted according to one of the following two methods, at the discretion of the Mayor:

Individual Candidate Votes: The Mayor will announce by board or commission each vacancy including its term, and then will read each applicant's name. Council will vote on each applicant. The candidate receiving the most affirmative votes and at least four affirmative votes will be appointed. The process is repeated for each board or commission.

Paper Votes: The Mayor will announce each board or commission in an order predetermined by the City Clerk to facilitate a speedy process and to accommodate applicants who specify multiple preferences. The City Clerk will distribute individual voting sheets to be completed by each Councilmember. The candidate receiving the most votes and at least four affirmative votes will be appointed.

Resolving ties: Should a tie between the candidates receiving the most affirmative votes occur, the affected applicants will be voted on again. If a tie remains, and the affected applicants each have received at least four affirmative votes, the Mayor would ask the city attorney to draw the name of the person to be appointed.

Should no candidate receive at least four affirmative votes, the vacancy will remain.

Board of Building Code Appeals (1 term to 6/30/2019)

No applicants.

<u>Board of Library Trustees (1 term to 6/30/2021)</u> Mason Fong (1<sup>st</sup> preference) Jocelyn Garcia-Thome (1<sup>st</sup> preference)

Adam Solomon (only preference) Sekari Vaidyanathan (only preference)

#### Personnel Board (Employee-Nominated Seat, 1 term to 6/30/2020\*, Council Nominated Seat, 1 term

<u>to 6/30/2019)</u> Johan Bastiaens (only preference) Ericka Reguerin (only preference) Patti Selan (only preference)

Sustainability Commission (1 term to 6/30/2018 - Category One or Two)

Laura Alvarez-Santos (Category One - only preference) Mason Fong (Category One - 2<sup>nd</sup> preference) Jocelyn Garcia-Thome (Category One - 2<sup>nd</sup> preference) Adriana Imbre (Category Two - only preference) Malahat Owrang (Category One - only preference) Neela Shukla (Category One - only preference)

\*Regarding the vacancy on the Personnel Board in the employee-nominated category, City Charter Section 1007 states that two of the members of the Personnel Board shall be appointed by the City Council from a list of five persons nominated by election of the employees in the Classified Service. The Charter states that if the employees in the Classified Service do not nominate one or more persons to fill a vacancy within six months of written notification, the City Council may appoint the person directly to fill the vacancy. The six-month period for receiving nominations from employees has expired, and no nominations were received for this vacancy.

Terms filled at this time will be effective August 23, 2017. Following appointments, the staff liaison for each board or commission will provide a board/commission-specific orientation and each new member is required to take the Oath of Office, sign the Model of Excellence and attend the Board and Commission Orientation hosted by the Office of the City Clerk. A ceremonial oath will be offered to all incoming members.

#### EXISTING POLICY

Council Policy 7.2.19 *Boards and Commissions,* Section 2.D provides that the appointments may be conducted by either individual candidate votes or paper votes, at the discretion of the Mayor.

#### PUBLIC CONTACT

Public contact was made by posting the Council agenda on the City's official-notice bulletin board outside City Hall, at the Sunnyvale Senior Center, Community Center and Department of Public Safety; and by making the agenda and report available at the Sunnyvale Public Library, the Office of the City Clerk and on the City's website.

#### **ALTERNATIVES**

1. Appoint commissioners from the applicants listed in this report.

2. Provide other direction to staff on how to proceed.

#### **STAFF RECOMMENDATION**

Staff makes no recommendation.

Prepared by: Lisa Natusch, Deputy City Clerk Reviewed by: Walter C. Rossmann, Assistant City Manager Approved by: Deanna J. Santana, City Manager



Agenda Item

#### 17-0770

Agenda Date: 8/22/2017

#### **REPORT TO COUNCIL**

#### <u>SUBJECT</u>

Approve an Update of the Transportation Strategic Program and Adopt a Resolution Amending the City's Master Fee Schedule for Traffic Impact Fees

#### SUMMARY OF COMMISSION ACTION

The Bicycle and Pedestrian Advisory Commission (BPAC) considered this item on July 20, 2017 (Attachment 1).

The BPAC voted to approve the staff recommendation with the addition that Council increase fees further to account for more spending for bike and pedestrian improvements. The vote was 6-0, with Commissioner Rausch absent (Attachment 8 - Excerpt of Draft BPAC Meeting Minutes of July 20).

#### PUBLIC CONTACT

Public contact was made by posting the Council agenda on the City's official-notice bulletin board outside City Hall, at the Sunnyvale Senior Center, Community Center and Department of Public Safety; and by making the agenda and report available at the Sunnyvale Public Library, the Office of the City Clerk and on the City's website.

Staff met with the Moffett Park Business Group on July 11 and held two public meetings with developers on July 17 and 27.

#### ALTERNATIVES

- 1. Approve Update of the Transportation Strategic Program and Adopt a Resolution Amending the City's Master Fee Schedule for Traffic Impact Fees.
- 2. Do not Approve Update of the Transportation Strategic Program and Do Not Adopt a Resolution Amending the City's Master Fee Schedule for Traffic Impact Fees.

#### STAFF RECOMMENDATION

Alternative 1: Approve Update of the Transportation Strategic Program and Adopt a Resolution Amending the City's Master Fee Schedule for Traffic Impact Fees.

The fee was developed thru an updated nexus study and includes a significant increase of funding for bicycle and pedestrian improvements from the previous fee. Staff is not recommending to complete a new nexus study to additionally increase fees per the BPAC recommendation.

Prepared by: Manuel Pineda, Director, Public Works Reviewed by: Trudi Ryan, Director, Community Development Reviewed by: Walter C. Rossmann, Assistant City Manager Approved by: Deanna J. Santana, City Manager

#### 17-0770

#### **ATTACHMENTS**

- 1. Report to Bicycle and Pedestrian Advisory Commission 17-0633, July 20, 2017 (without attachments)
- 2. Traffic Impact Fee Study
- 3. Project List and Cost Breakdown
- 4. Intersection Improvements
- 5. List of Current Improvements
- 6. TIF City Survey
- 7. Resolution to Amend the Master Fee Schedule

Additional Attachments for Report to Council

8. Excerpt of Draft Minutes of the Bicycle and Pedestrian Commission Meeting of July 20, 2017



Agenda Item

#### 17-0633

Agenda Date: 7/20/2017

#### **REPORT TO BICYCLE AND PEDESTRIAN ADVISORY COMMISSION**

#### <u>SUBJECT</u>

Recommendation to City Council on the Update of the Transportation Strategic Program and Adopting a Resolution Amending the City's Master Fee Schedule for Traffic Impact Fees

#### BACKGROUND

In November 2003, the City approved the Transportation Strategic Program and adopted a Transportation Impact Fee (TIF) on land development that generates new automobile trips (RTC No. 03-385). The purpose of the Strategic Program and fee was to identify and fund major roadway improvement projects that would be necessary to improve traffic generated by new development.

A broadly applied transportation impact fee on new development is well suited to addressing transportation capacity needs. It ensures that all development projects that add new trips to the street network pay a fair share of future transportation improvement costs. In addition, large development projects are still required to complete independent Traffic/Operational Impact Analysis Reports and are responsible for any identified additional improvements beyond those covered in the fee. As the City collects fees under the program, it can prioritize which projects are most in need as traffic patterns change.

The fee is based on transportation impacts caused by future growth as determined by the City's transportation model. The model runs traffic analyses for existing land uses and compares them against future growth to determine how many additional vehicle trips are added and what transportation improvements are needed. The cost of the improvements (minus outside funding sources - as an example Measure B projects require a 20% local match) is divided by the total new trips and the result is a cost per trip. The trips are converted to number of units (for residential development) and square footage (for office/industrial/research and development) using trip generation rates for each land use.

The Transportation Strategic Program and Traffic Impact Fee address major roadway improvement needs for development citywide and the fee is a significant revenue source for transportation capital improvements. Impact fees require periodic review and possible updating of the transportation model and land use used in the model that supports the fee, especially when there are significant changes in land use, funding, or policy that could affect it. The last update was completed in December 2013 and accounted for an updated transportation model and buildout of the general plan (RTC No. 12-232).

With the recently adopted major land use changes (Land use and Transportation Element (LUTE), Peery Park Specific Plan (PPSP), and Lawrence Station Area Plan (LSAP)) and Measure B as a new funding source, an update to the model and resulting fee is required.

#### 17-0633

The City Council is scheduled to consider this item on August 22, 2017.

#### EXISTING POLICY

Land Use and Transportation Element Policy LT-5.7, Pursue local, state and federal transportation funding sources to finance City transportation capital improvement projects consistent with City priorities.

#### ENVIRONMENTAL REVIEW

Updating of the Transportation Impact Fee is a funding mechanism not subject to environmental review pursuant to CEQA Guidelines Section 15378; therefore, no CEQA action is necessary. The traffic analysis being used for the Study was part of the recently certified EIR's for the LUTE, PPSP, and LSAP.

#### **DISCUSSION**

Based on the recently approved major land use changes, new policies and priorities, and the passing of Measure B, it was determined that an update of the Transportation Strategic Program and Impact fees was necessary through a new Transportation Fee Study (Attachment 2). The newly updated study builds on the previous 2013 update which entailed the following: (1) updating the future traffic forecasts based on most recent land use assumptions in Sunnyvale and travel demand model results, (2) identifying any locations of substandard conditions, (3) updating the list of required improvements, (4) updating the cost of implementing the improvements, and (5) recalculating the proposed traffic impact fee by distributing the total improvement costs over anticipated future development in the City of Sunnyvale.

Attachments 3 and 4 provide the full list of improvements, costs, and funding splits between Moffett Park and the remainder of the City as discussed below. Within the study there are additional details of how the improvements were identified and analyzed. Below is a summary of the key or major changes from the previous study (Attachment 5 provides the list of current improvements included in the Transportation Impact Fee program):

- Recently approved land use plans The City identified new impacts that required mitigation as part of the new land use plans (Land use and Transportation Element (LUTE), Peery Park Specific Plan (PPSP), and Lawrence Station Area Plan (LSAP)). The recommended fees include improvements that were identified as part of these recent land use approvals.
- Caltrain grade separations These have been added to the impact fees.
- Pedestrian and Bicycle Improvements Due to Transportation Demand Management requirements, the City's complete streets policies, and increased project costs a new pedestrian item was added to the list of improvements and the bike portion of the improvements was increased from \$1.5 million to \$10.0 million. As part of completing the new bicycle master plan staff intends to review the impact on the traffic impact fees.
- Lawrence Expressway grade separations The grade separations were updated to account for new estimates, Measure B funding, and adjust for Sunnyvale's traffic and funding contributions.
- Intelligent Transportation Systems (ITS) A new item has been added for ITS including the upgrade of the signal system and necessary infrastructure such as new fiber.
- Wolfe/El Camino Inclusion of the "Triangle" project approved by Council as part of the Wolfe Corridor Study on June 21, 2016 (RTC No. 14-0273).

#### 17-0633

Consistent with previous Council direction, there will continue to be two fees in the City (one for Moffett Park and one for the rest of the City). The recommended fees are shown below:

Land Use	Existing	Recommended	% Change
Research & Development (1000 S.F.)	\$5,959	\$6,375	7%
Industrial (1000 S.F.)	\$4,507	\$5,779	28%
Destination Retail (1000 S.F.)	\$14,286	\$11,052	-23%
Neighborhood Retail (1000 S.F.)	\$7,142	\$5,526	-23%
Hotel (Room)	\$4,660	\$3,575	-23%
Other Uses (Per Trip)	\$6,150	\$5,958	-3%

#### **Rest of Sunnyvale**

Land Use	Existing	Recommended	% Change
Single-Family Detached (Unit)	\$2,278	\$3,114	37%
Multi-Family Attached (Unit)	\$1,398	\$1,931	38%
General Office (1000 S.F.)	\$3,360	\$4,640	38%
Research & Development (1000 S.F.)	\$2,210	\$3,332	51%
Industrial (1000 S.F.)	\$1,670	\$3,021	81%
Retail (1000 S.F.)	\$4,217	\$5,776	37%
Hotel (Room)	\$1,376	\$1,868	36%
Other Uses (Per Trip)	\$2,278	\$3,114	37%

The fees generally increase based on an updated model, the delta in trips to existing conditions, and a less conservative ratio of trips to impacts. The fees are on par with Cities such as Palo Alto, Menlo Park, San Carlos, and Fremont but lower than San Jose, Los Altos, and the North Bayshore Mountain View area. The City of Santa Clara has the lowest fees of any of the Cities surveyed (Attachment 6).

#### FISCAL IMPACT

The previous fee included \$287M of improvements with \$136M from the TIF. The new fee includes \$906M of improvements with \$126M from the TIF. The change from the \$287M to \$906M is predominantly due to the inclusion of the Caltrain grade separations (\$180M), updated estimates for Lawrence expressway grade separations (from \$170M to \$440M based on the recently completed County Expressway Study), and the inclusion of two new Lawrence Expressway projects (\$80M).

Although the project list has increased from \$287M to \$906M, the projects can be built with less local funding because the City contributions have been decreased to reflect the requirements of Measure B, and to also to align with typical funding matching rates for federal and grant funded projects. As an example, as part of the current fee the Lawrence Expressway Grade Separations were planned to have 60% outside funding. With Measure B that Expressway project is expected to be 90% outside

Agenda Date: 7/20/2017

#### 17-0633

funded.

#### PUBLIC CONTACT

Public contact was made through posting of the Bicycle and Pedestrian Advisory Commission agenda on the City's official-notice bulletin board, on the City's website, and the availability of the agenda and report in the Office of the City Clerk.

#### **ALTERNATIVES**

- 1. Recommend to City Council the Update of the Transportation Strategic Program and Adopt a Resolution Amending the City's Master Fee Schedule for Traffic Impact Fees.
- 2. Do not recommend to City Council the Update of the Transportation Strategic Program and Adopt a Resolution Amending the City's Master Fee Schedule for Traffic Impact Fees.

#### RECOMMENDATION

Alternative 1: Recommend to City Council the Update of the Transportation Strategic Program and Adopt a Resolution Amending the City's Master Fee Schedule for Traffic Impact Fees.

Prepared by: Manuel Pineda, Director, Public Works Reviewed by: Trudi Ryan, Director, Community Development Reviewed by: Timothy J. Kirby, Director, Finance Reviewed by: Walter C. Rossmann, Assistant City Manager Approved by: Deanna J. Santana, City Manager

- 1. Reserved for Report to Council
- 2. Traffic Impact Fee Study
- 3. Project List and Cost Breakdown
- 4. Intersection Improvements
- 5. List of Current Improvements
- 6. TIF City Survey
- 7. Resolution to Amend the Master Fee Schedule





# HEXAGON TRANSPORTATION CONSULTANTS, INC.

### **City of Sunnyvale**

**Draft Traffic Impact Fee Update Study** 



#### Prepared for: **City of Sunnyvale**

June 8, 2017









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#### Hexagon Transportation Consultants, Inc.

Hexagon Office: 4 North Second Street, Suite 400 San Jose, CA 95113 Hexagon Job Number: 15GB34 Phone: 408.971.6100 Client Name: Mr. Manuel Pineda

#### San Jose · Gilroy · Pleasanton · Phoenix

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Areawide Circulation Plans Corridor Studies Pavement Delineation Plans Traffic Handling Plans Impact Fees Interchange Analysis Parking Transportation Planning Traffic Calming Traffic Control Plans Traffic Simulation Traffic Impact Analysis Traffic Signal Design Travel Demand Forecasting

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Appendix B	Intersection Level of Service Calculation Sheets
Appendix C	Sunnyvale Travel Demand Forecast Model Validation Memorandum

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### 1. Introduction

This report presents the results of the study for an update to the Sunnyvale Transportation Strategic Plan, which outlines the process, assumptions, and results associated with implementing the City's traffic impact fee program. The study entailed the following: (1) updating the future traffic forecasts based on most recent land use assumptions in Sunnyvale and travel demand model results, (2) identifying any locations of substandard conditions, (3) updating the list of required improvements, (4) updating the cost of implementing the improvements, (5) recalculating the proposed traffic impact fee by distributing the total improvement costs over anticipated future development in the City of Sunnyvale.

#### **Study Scenarios**

Traffic conditions were evaluated for the following scenarios:

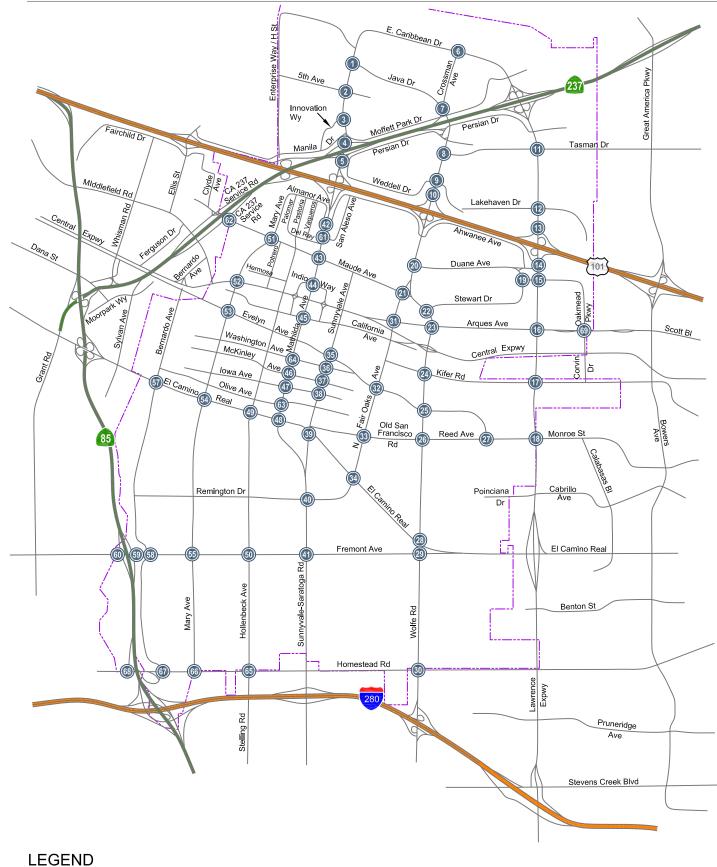
- Scenario 1: Existing Conditions. Existing traffic volumes are based on traffic counts conducted between the years of 2014 and 2015, the 2014 CMP TRAFFIX database, as well as County records for the expressways.
- **Scenario 2:** *Future Conditions.* Future conditions are represented by the planned future land uses in Sunnyvale, which include buildout of the proposed 2035 General Plan (GP). Traffic volumes were estimated using the Sunnyvale Travel Demand Forecasting Model, and conditions were evaluated within the context of what is primarily the existing roadway network.

#### Methodology

The impacts of the planned future land uses were evaluated following the standards and methodologies set forth by the City of Sunnyvale and the Santa Clara Valley Transportation Authority (VTA). The VTA administers the county Congestion Management Program (CMP). The traffic analysis is based on AM and PM peak-hour levels of service for 69 signalized intersections within the City of Sunnyvale. Twelve of the study intersections are CMP intersections. The study intersections are identified below and shown on Figure 1.



**ATTACHMENT 2** 



------ = City of Sunnyvale Limits

= Study Intersection

 $(\mathbf{X})$ 

Figure 1 Study Intersections



#### **Study Intersections**

- 1. Mathilda Avenue & Java Drive (CMP),
- 2. Mathilda Avenue & 5<sup>th</sup> Avenue,
- 3. Mathilda Avenue & Innovation Way,
- 4. Mathilda Avenue & SR 237 Westbound Ramps,
- 5. Mathilda Avenue & SR 237 Eastbound Ramps,
- 6. Crossman Avenue & Caribbean Drive,
- 7. Crossman Avenue & Java Drive,
- 8. Fair Oaks Avenue & Tasman Drive,
- 9. Fair Oaks Avenue & Weddell Drive,
- 10. Fair Oaks Avenue & US 101 Northbound Ramps,
- 11. Lawrence Expressway & Tasman Drive (CMP),
- 12. Lawrence Expressway & Lakehaven Drive,
- 13. Lawrence Expressway & US 101 Northbound Ramps,
- 14. Lawrence Expressway & US 101 Southbound Ramps,
- 15. Lawrence Expressway & Oakmead Parkway,
- 16. Lawrence Expressway & Arques Avenue (CMP),
- 17. Lawrence Expressway & Kifer Road,
- 18. Lawrence Expressway & Reed Avenue (CMP),
- 19. Duane Avenue/Stewart Drive & Duane Avenue,
- 20. Fair Oaks Avenue & Duane Avenue,
- 21. Fair Oaks Avenue & Maude Avenue,
- 22. Wolfe Road & Stewart Drive,
- 23. Wolfe Road & Arques Avenue,
- 24. Wolfe Road & Kifer Road,
- 25. Wolfe Road & Evelyn Avenue,
- 26. Wolfe Road & Reed Avenue,
- 27. Evelyn Avenue & Reed Avenue,
- 28. Wolfe Road & El Camino Real (CMP),
- 29. Wolfe Road & Fremont Avenue,
- 30. Wolfe Road & Homestead Road,
- 31. Fair Oaks Avenue & Arques Avenue
- 32. Fair Oaks Avenue & Evelyn Avenue,
- 33. Fair Oaks Avenue & Old San Francisco Road,
- 34. Fair Oaks Avenue & El Camino Real (CMP),
- 35. Sunnyvale Avenue & Evelyn Avenue,
- 36. Sunnyvale Avenue & Washington Avenue,
- 37. Sunnyvale Avenue & McKinley Avenue,
- 38. Sunnyvale Avenue & Iowa Avenue,
- 39. Sunnyvale Avenue & El Camino Real,
- 40. Sunnyvale-Saratoga Road & Remington Drive (CMP),
- 41. Sunnyvale-Saratoga Road & Fremont Avenue (CMP),
- 42. Mathilda Avenue & Almanor Avenue,
- 43. Mathilda Avenue & Maude Avenue (CMP),
- 44. Mathilda Avenue & Indio Avenue,
- 45. Mathilda Avenue & California Avenue,
- 46. Mathilda Avenue & McKinley Avenue,
- 47. Mathilda Avenue & Iowa Avenue,
- 48. Mathilda Avenue & El Camino Real (CMP),
- 49. Hollenbeck Avenue & El Camino Real,



- 50. Hollenbeck Avenue & Fremont Avenue,
- 51. Mary Avenue & Maude Avenue,
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- 53. Mary Avenue & Evelyn Avenue,
- 54. Mary Avenue & El Camino Real (CMP),
- 55. Mary Avenue & Fremont Avenue,
- 56. Bernardo Avenue & Evelyn Avenue,
- 57. Bernardo Avenue & El Camino Real,
- 58. Bernardo Avenue & Fremont Avenue,
- 59. SR 85 Northbound Ramps & Fremont Avenue,
- 60. SR 85 Southbound Ramps & Fremont Avenue,
- 61. Mathilda Avenue & San Aleso Avenue,
- 62. SR 237 Ramps & Maude Avenue,
- 63. Mathilda Avenue & Olive Avenue,
- 64. Mathilda Avenue & Washington Avenue,
- 65. Hollenbeck Avenue & Homestead Road,
- 66. Mary Avenue & Homestead Road,
- 67. Mary Avenue & Homestead Road,
- 68. SR 85 Southbound Ramp & Homestead Road, and
- 69. Oakmead Parkway & Arques Avenue.

Traffic conditions at the study intersections were analyzed for the weekday AM and PM peak hours of commute traffic. In the study area, the AM peak hour is typically between 7:00 AM and 9:00 AM, while the PM peak hour is typically between 4:00 PM and 6:00 PM.

#### Analysis Methodologies and Level of Service Standards

#### Signalized Study Intersections

The City of Sunnyvale level of service methodology for signalized intersections is the 2000 *Highway Capacity Manual* (HCM) method. This method is applied using the TRAFFIX software. The 2000 HCM operations method evaluates signalized intersection operations on the basis of average control delay time for all vehicles at the intersection. Since TRAFFIX is also the CMP-designated intersection level of service methodology, the methodologies employ the CMP default values for the analysis parameters.

The City of Sunnyvale level of service standards for signalized intersections is LOS D or better, except on roadways considered "regionally significant" within Sunnyvale, which have a standard of LOS E. Within Sunnyvale, the signalized intersections along Lawrence Expressway, El Camino Real, and Sunnyvale-Saratoga Road with its extensions into Mathilda Avenue and Sunnyvale Avenue are considered regionally significant.

The correlation between average control delay and level of service is shown in Table 1.

#### Table 1

#### Signalized Intersection Level of Service Definition Based on Average Delay

Level of Service	Description	Average Control Delay Per Vehicle (sec.)
A	Signal progression is extremely favorable. Most vehicles arrive during the green phase and do not stop at all. Short cycle lengths may also contribute to the very low vehicle delay.	10.0 or less
В	Operations characterized by good signal progression and/or short cycle lengths. More vehicles stop than with LOS A, causing higher levels of average vehicle delay.	10.1 to 20.0
с	Higher delays may result from fair signal progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant, though many still pass through the intersection without stopping.	20.1 to 35.0
D	The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable signal progression, long cycle lengths, or high volume-to-capacity (V/C) ratios. Many vehicles stop and individual cycle failures are noticeable.	35.1 to 55.0
E	This is considered to be the limit of acceptable delay. These high delay values generally indicate poor signal progression, long cycle lengths, and high volume-to-capacity (V/C) ratios. Individual cycle failures occur frequently.	55.1 to 80.0
F	This level of delay is considered unacceptable by most drivers. This condition often occurs with oversaturation, that is, when arrival flow rates exceed the capacity of the intersection. Poor progression and long cycle lengths may also be major-contributing causes of such delay levels.	greater than 80.0
Source:	Transportation Research Board, 2010 Highway Capacity Manual (Washington, D.C	C., 2010) p18-6.

#### **Report Organization**

The remainder of this report is divided into four chapters. Chapter 2 describes existing conditions for the study intersections. Chapter 3 presents all the study intersection levels of service under future conditions. Chapter 4 updates the recommended roadway improvements. Chapter 5 describes the impact fees and the mechanics of implementation.

# 2. Existing Conditions

This chapter describes existing traffic conditions during both the AM and PM peak hours at the principal signalized intersections in Sunnyvale. The purpose of analyzing existing conditions is to identify any existing deficiencies. Intersections that operate at a substandard level under existing conditions might not qualify for funding by an impact fee in cases where the future conditions are not shown to be appreciably worse. The rationale for this is that an impact fee cannot be assessed for improvements that are needed to remedy an existing deficient condition.

#### **Existing Intersection Lane Configurations**

The existing lane configurations at the study intersections were confirmed by observations in the field and are shown on Figure 2.

#### **Existing Traffic Volumes**

Existing traffic volumes are based on traffic counts conducted between the years of 2014 and 2015, the 2014 CMP TRAFFIX database, as well as County records for the expressways (see Figure 3). The traffic count data are included in Appendix A.

#### **Existing Intersection Levels of Service**

Intersection levels of service were evaluated against the Sunnyvale standards (see Table 2). The results of the analysis show that most of the study intersections currently operate at acceptable levels during both the AM and PM peak hours, with the following exceptions:

- Lawrence Expressway & Arques Avenue (#16) PM Peak Hour (LOS F)
- Lawrence Expressway & Kifer Road (#17) AM & PM Peak Hour (LOS F)
- Lawrence Expressway & Reed Avenue (#18) AM & PM Peak Hour (LOS F)

The intersection levels of service calculation sheets are included in Appendix B.

The intersections on Mathilda Avenue at the SR 237 ramps are closely-spaced intersections with multiple turning movements that operate as a single coordinated signal system. These intersections experience operational issues beyond what is reflected in the typical HCM level of service calculations by TRAFFIX. Therefore, the Synchro software was used to provide a more accurate assessment of the Mathilda Avenue corridor operational issues. The Synchro analysis results for the intersections along Mathilda Avenue at the SR 237 ramps are shown on Table 2. The Synchro results match the field observations that Hexagon conducted during the AM and PM peak hours at these intersections.



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Figure 2 Existing Intersection Lane Configurations





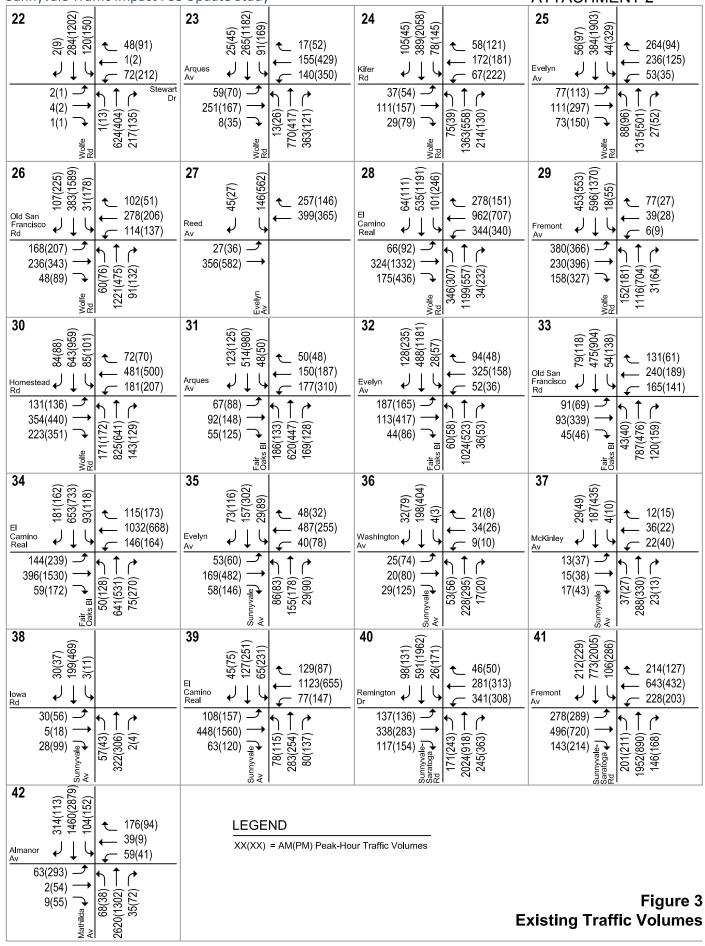
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5 (8822) (916) SR 237 EB Ramps →	$\begin{array}{c c} 6 & & \\ & & & \\ & & & \\ & & & \\ & & $	$\begin{array}{c} \textbf{7} \\ (61) & (6$	$ \begin{array}{c} 8 \\ (12) 2 \\ 1 \\ 7 \\ 8 \\ 7$
Ramps       809(165)       1(22)       78(209)       V       78(209)       V       78(209)	$\begin{array}{c} \underbrace{(0,0)}{33(919)} \\ 0(5) \\ 0(10$	$\begin{array}{c}12(24) \\ 61(677) \\ 9(71) \\ 9(71) \\ \end{array} $	$\begin{array}{c c} \hline & & & \\ \hline & & & \\ & & & & \\ & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\$
$\begin{array}{c c} 9 & (0211) \\ (112111) \\ (11211) \\ $	$\begin{array}{c c} 10 & & & \\ & (111) & (111) & (111) \\ & & (111) & (111) \\ US \ 101 \ NB \\ Ramps \end{array} \qquad $	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c c} 12 & (C1 $
$\begin{array}{c} 11(15) \xrightarrow{\frown} (15) \xrightarrow{\bullet} (15) $	Teatr Coaks BI 768(806) →	224(86) → 138(237) → 325(171) → 1325(171) → 1325(171	25(48) 25(22) 25(22) 25(22) 23(100(1321) 23(288) 23(2
<b>13</b> (120(544) US 101 NB US 101 NB (120(544) (131) (101) (	<b>14</b> (1503(3033)) 1503(3033) 1503(101 SB	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	<b>16</b> (c; $(2, 1, 2, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3,$
US 101 NB Ramps 424(1418)	US 101 SB 218(397) 412(886) B(225) 412(886) LT LT LT LT LT LT LT LT LT LT	Oakmead Pkwy 310(455) 111(243) 174(254) 174(254) 0 270(95) 111(243) 174(254) 0 174(254) 174(254) 174(254) 1	$\begin{array}{c} \text{Arques} \\ \text{Av} \\ A$
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	<b>18</b> $(1617)$ $(1617$	$19 \qquad (12) \qquad (12) (12) (12) (12) (12) (12) (12) (12)$	$20 \qquad (360, 880, 991, 145(153)) \\ (99, 12, 145(153)) \\ (10, 10, 10, 10, 10, 10, 10, 10, 10, 10, $
Lawrence       Lawrence         Lawrence       ↓         B07(44)       ↓         466(414)       ↓         466(414)       ↓	463(240) 154(389) 136(367) 133(120) 4251(1283) 113(120) 113	$0(4) \xrightarrow{\text{Distance}} (3(98)) \xrightarrow{\text{Distance}} $	$\begin{array}{c} 93(53) \\ 45(84) \\ 8(11) \\ 53(126) \\ 6118 \\ 113(1762) \\ 28(18) \\ 113(1762) \\ 113(176$
$\begin{array}{c c} 21 & (\widehat{\mathbf{G}}_{\mathbf{F}}) \\ & (\widehat{\mathbf{G}}_{\mathbf{F}})$	LEGEND XX(XX) = AM(PM) Peak-Ho		
$\begin{array}{c} 113(162) & \checkmark \\ 93(177) & & & & \\ 87(101) & & & & \\ 85(101) & & & & \\ 85(101) & & & & \\ 10(27) & & & & \\ \end{array}$		E	Figure 3 xisting Traffic Volumes
Hexagon			









**ATTACHMENT 2** 

Sunnyvale frame inp	act ree opuate Study				ATTACHINE	
	$\begin{array}{c} 44 \\ (2(120)) \\ (2(122)) \\ (118) \\ (112) \\ (122) \\ (110$	<ul> <li>▲ 375(66)</li> <li>▲ 7(0)</li> </ul>	78(150)	$\begin{array}{c} 114(52) \\ 5439(908) \\ 59(42) \\ 251(247) \\ 251(24$	46 (012) McKinley Av A	$\begin{array}{c} 26(40) \\ 2436(831) \\ & & \\ 83(45) \\ & & \\$
	Av Av	$\begin{array}{c} 317(230) \\ \hline \\ 317(230) \\ \hline \\ 1054(914) \\ \hline \\ 17(199) \\ \hline \\ \\ 1054(914) \\ \hline \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ $	$\begin{array}{c} \textbf{49} \\ (00000000000000000000000000000000000$	€ 45(51) € 1078(862) • 146(325) • (\$P1)(25) • (\$P1)(	$\overbrace{\overset{V}{\leftarrow}}^{\text{Fremont}} \underbrace{\overset{V}{\leftarrow}}_{172(152)} \underbrace{\overset{V}{\leftarrow}}_{178(413)} \underbrace{\overset{V}{\leftarrow}}_{128(151)} \underbrace{\overset{V}{\leftarrow}}_{128(15$	$\begin{array}{c} \bullet \\ \bullet $
	$\begin{array}{c} 52 \\ (331) \\ 3(217) \\ 1(293) \\ \hline \\ 166(134) \\ \hline \\ 799(1685) \\ \hline \\ 799(1685) \\ \hline \\ 799(1685) \\ \hline \\ \\ 799(1685) \\ \hline \\ \end{array}$	<ul> <li>€ 264(305)</li> <li>€ 1992(1311)</li> </ul>	$53 \xrightarrow{\text{velv}} 120(261)$ $386(1197) \xrightarrow{\text{velv}} 23(97)$ $40(429) \xrightarrow{\text{velv}} 23(97)$	$\begin{array}{c} \bullet \\ \bullet $	54 (212) $El Camino Real 169(198) \rightarrow 538(1354)$	$\begin{array}{c} \bullet \\ \bullet $
$\begin{array}{c} \textbf{55} \\ \textbf{Freemont} \\ \textbf{Av} \\ \textbf{C235(252)} \\ \textbf{S16(837)} \\ \textbf{S6(145)} \\ S6$	D(147) 7(480) (140) 2 4 2 4 2 4 2 4 5 6 4 2 5 6 4 2 4 2 5 6 4 2 4 2 9(3) → 194(615) 98(535) → 98(535) → 194(615)	$ \begin{array}{c} \leftarrow 518(301) \\ \hline 77(233) \\ \hline \\ \hline$	$\begin{array}{c} \textbf{B}_{\text{Bernardo}}^{\text{Bernardo}} (127) \\ \textbf{B}_{\text{Mino}}^{\text{Bernardo}} (127) \\ \textbf{B}_{\text{Mino}}^{\text{B}_{\text{Mino}}^{\text{B}_$	$ \begin{array}{c} 102(114) \\ 1329(806) \\ \hline 108(149) \\ \hline 108(149) \\ \hline 108(120) \\ $	$\begin{array}{c} \textbf{58} \\ \textbf{(342)} \\ \textbf{Fremont} \\ \textbf{(342)} \\ (34$	$\begin{array}{c} \bullet & 57(58) \\ \bullet & 1369(799) \\ \hline & 29(17) \\ \hline & \uparrow & \uparrow \\ (92) \\ & 592 \\ & $
59 Fremont Av $409(141) \rightarrow (0L7)ZSE$ 141 $763(962) \rightarrow Sure VS$ Solure VS Solure VS	$\begin{array}{c} 60 \\ (051) \\ (1280) \\ (12869) \\ \hline \\ \\ \hline \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ $	← 1157(618) ← 600(524) -	$ \begin{array}{c} 1 \\ 35(14) \\ 1417(2832)$	$\begin{array}{c} 23(51) \\ 1(1) \\ 32(73) \\ \hline \\ San \\ Av \\ Av \\ San \\ Av \\ A$	$\underbrace{\mathbf{P}_{V}^{Wande}}_{Off_{R}^{Namb}} \underbrace{\mathbf{P}_{V}^{V}}_{Off_{R}^{Namb}} \underbrace{\mathbf{P}_{V}^{V}}_{Off_{R}^{V}} \underbrace{\mathbf{P}_{V}^{V}} \underbrace{\mathbf{P}_{V}^{V}}_{V} \underbrace{\mathbf{P}_{V}^{V}} \underbrace{\mathbf{P}_{V}$	$\begin{array}{c} 21(14) \\ \hline \\ 248(64) \\ \hline \\ 248(514) \\ \hline \\ 248(514) \\ \hline \\ \hline \\ 248(514) \\ \hline \\ \hline \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ $

#### LEGEND

XX(XX) = AM(PM) Peak-Hour Traffic Volumes

#### Figure 3 Existing Traffic Volumes



#### **ATTACHMENT 2**

$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c cccccccccccc} \textbf{65} & \textbf{66} \\ \textbf{69} & \textbf{174} \\ \textbf{101enbeck} \\ \textbf{101enbeck} \\ \textbf{101} \\ \textbf$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
$\begin{array}{c c} 67 & & & \\ & & & & \\ \hline & & & & \\ \hline & & & &$	$\begin{array}{c c} \textbf{68} & (121) \\ \textbf{68} & (121) \\ \textbf{H}_{\text{Rd}}^{\text{Homestead}} & \textbf{10} \\ \textbf{10} & \textbf{10} \\ \textbf{655} & \textbf{887} \\ \textbf{655} & \textbf{887} \\ \textbf{655} & \textbf{10} \\ $	$\begin{array}{c} \textbf{69} \\ (900) \\ \text{Arques} \\ \text{Arques} \\ \text{Arques} \\ 333(245) \\ 333(245$	

LEGEND

XX(XX) = AM(PM) Peak-Hour Traffic Volumes





#### Table 2

#### **Existing Intersection Levels of Service**

					_	Existing		
#	Intersection	СМР	Peak Hour	Count Date	LOS Std.	Avg. Delay (sec)	LOS	
1	Mathilda Ave & Java Dr	*	AM PM	01/00/15 10/01/14	Е	26.6 28.0	C C	
2	Mathilda Ave & 5th Ave	+	AM PM	06/04/15 06/04/15	Е	13.5 22.1	В С+	
3	Mathilda Ave & Innovation Way	+	AM PM	06/04/15 06/04/15	Е	18.5 19.8	В- В-	
4	Mathilda Ave & SR 237 WB <sup>1</sup>	+	AM PM	06/04/15 06/04/15	Е	-	E E	
5	Mathilda Ave & SR 237 EB <sup>1</sup>	+	AM PM	06/04/15 06/04/15	Е	-	E E	
6	Crossman Ave & Caribbean Dr	+	am Pm	05/14/15 05/14/15	Е	10.3 36.0	B+ D+	
7	Crossman Ave & Java Dr		AM PM	11/00/14 11/00/14	D	17.0 29.4	B C	
8	Fair Oaks Ave & Tasman Dr		AM PM	06/04/15 06/04/15	D	17.1 19.4	В В-	
9	Fair Oaks Ave & Weddell Dr		AM PM	06/04/15 06/04/15	D	19.0 13.8	B- B	
	N Fair Oaks Ave & US 101 NB		AM PM	10/00/14 10/00/14	D	16.5 21.0	B C+	
	Lawrence Expwy & Tasman Dr	*	AM PM	05/18/15	Е	40.2 64.8	D E	
	Lawrence Expwy & Lakehaven Dr	+	AM PM	05/18/15 05/18/15	Е	59.6 63.5	E+ E	
	Lawrence Expwy & US 101 NB	+	AM PM	05/22/15 05/22/15	Е	21.7 24.4	C+ C	
	Lawrence Expwy & US 101 SB	+	AM PM	05/18/15 05/18/15	Е	15.1 43.1	B D	
	Lawrence Expwy & Oakmead Pkwy	+	AM PM	05/18/15 05/18/15	Е	48.7 57.5	D E+	
	Lawrence Expwy & Arques Ave	*	AM PM	05/18/15 05/18/15	Е	66.6 <b>95.5</b>	E F	
	Lawrence Expwy & Kifer Rd	+	AM PM	05/18/15 05/18/15	Е	168.2 81.0	F	
18	Lawrence Expwy & Reed Ave/Monroe St	*	AM PM	05/18/15 05/18/15	Е	203.1 86.5	F F	

Notes:

\* Denotes CMP intersection (LOS E threshold)

+ Denotes an intersection on a CMP roadway (LOS E threshold)

1. At the intersections at the Mathilda/SR 237 interchange, the calculated LOS does not reflect the unmet vehicle demand that cannot get through the intersections during the peak hours. The LOS reflect the micro-simulation analysis results using Synchro/Sim Traffic software.



### Table 2 (Continued)Existing Intersection Levels of Service

					_	Existing		
			Peak	Count	LOS	Avg. Delay		
#	Intersection	CMP	Hour	Date	Std.	(sec)	LOS	
19	Duane/Stewart & Duane Ave		AM PM	10/00/14 10/00/14	D	31.4 30.6	C C	
20	N Fair Oaks Ave & Duane Ave		AM PM	10/00/14 10/00/14	D	26.3 32.1	C C-	
21	Fair Oaks Ave & Maude Ave <sup>1</sup>		AM PM	N/A N/A	D	28.6 28.5	C C	
22	Wolfe Rd & Stewart Dr		AM PM	10/00/14 10/00/14	D	16.1 19.1	В В-	
23	Wolfe Rd & Arques Ave		AM PM	10/00/14 10/00/14	D	24.8 28.4	C C	
24	Wolfe Rd & Kifer Rd		AM PM	05/00/14 05/00/14	D	21.1 26.8	C+ C	
25	Wolfe Rd & Evelyn Ave		AM PM	05/00/14 05/00/14	D	26.0 24.6	C C	
26	Wolfe Rd & Reed Ave		AM PM	05/00/14 05/00/14	D	28.8 28.8	C C	
27	Evelyn Ave & Reed Ave		AM PM	05/14/15 05/14/15	D	10.8 18.9	В+ В-	
28	Wolfe Rd & El Camino Real	*	AM PM	05/00/14 09/19/14	Е	49.8 55.1	D E+	
29	Wolfe Rd & Fremont Ave		AM PM	05/00/14 05/00/14	D	48.9 49.8	D D	
30	Wolfe Rd & Homestead Rd		AM PM	05/00/14 05/00/14	D	30.9 31.9	C C	
31	Fair Oaks Ave & Arques Ave		AM PM	05/14/15 05/14/15	D	29.7 34.4	C C-	
32	N Fair Oaks Ave & Evelyn Ave		AM PM	05/14/15 05/14/15	D	28.1 26.7	C C	
33	N Fair Oaks Ave & Old San Francisco		AM PM	05/14/15 05/14/15	D	35.4 36.7	D+ D+	
34	Fair Oaks Ave & El Camino Real	*	AM PM	05/00/14 10/15/14	Е	34.9 39.3	C- D	
35	Sunnyvale Ave & Evelyn Ave	+	AM PM	05/14/15 05/14/15	Е	24.6 27.9	C C	
36	Sunnyvale Ave & Washington Ave	+	AM PM	05/14/15 05/14/15	Е	17.7 20.3	B C+	

Notes:

\* Denotes CMP intersection (LOS E threshold)

+ Denotes an intersection on a CMP roadway (LOS E threshold)

1. Existing volumes for the Fair Oaks/Maude intersection is extrapolated based on 2013 counts.



## Table 2 (Continued)Existing Intersection Levels of Service

					_	Existing		
#	Intersection	СМР	Peak Hour	Count Date	LOS Std.	Avg. Delay (sec)	LOS	
37	Sunnyvale Ave & McKinley Ave	+	AM PM	05/14/15 05/14/15	Е	15.3 15.8	B B	
38	Sunnyvale Ave & Iowa Ave	+	AM PM	05/14/15 05/14/15	Е	12.8 16.0	B B	
39	Sunnyvale Ave & El Camino Real	+	AM PM	05/14/15 05/14/15	Е	23.3 30.0	C C	
40	Sunnyvale-Saratoga Rd & Remington Dr	*	AM PM	05/14/15 09/19/14	Е	42.2 45.8	D	
41	Sunnyvale-Saratoga Rd & Fremont Ave	*	AM PM	05/00/14 10/01/14	Е	34.7 45.7	C- D	
42	Mathilda Ave & Almanor Ave	+	AM PM	06/04/15 06/04/15	Е	17.1 27.1	B C	
43	Mathilda Ave & Maude Ave	*	AM PM	06/04/15 09/18/14	Е	39.0 40.4	D+ D	
44	Mathilda Ave & Indio Way	+	AM PM	06/04/15 06/04/15	Е	24.5 24.9	C C	
45	Mathilda Ave & California	+	AM PM	06/04/15 06/04/15	Е	19.9 25.3	B- C	
46	Mathilda Ave & McKinley Ave	+	AM PM	06/04/15 06/04/15	Е	15.1 16.4	B B	
47	Mathilda Ave & Iowa Ave	+	AM PM	06/04/15 06/04/15	Е	13.1 16.7	B B	
48	Mathilda Ave & El Camino Real	*	AM PM	06/04/15 09/18/14	Е	44.0 48.4	D	
49	Hollenbeck Ave & El Camino Real	+	AM PM	05/14/15 05/14/15	Е	27.9 28.9	C C	
50	Hollenbeck Ave & Fremont Ave		AM PM	05/00/14	D	34.6 36.7	C- D+	
51	Mary Ave & Maude Ave		AM PM	05/14/15	D	25.8 29.1	C C	
52	Mary Ave & Central Expwy	*	AM PM	05/22/15	Е	50.0 61.6	DE	
53	Mary Ave & Evelyn Ave		AM PM	05/14/15	D	30.0 30.3	C	
54	Mary Ave & El Camino Real	*	AM PM	05/14/15 05/19/14	Е	37.3 37.8	D+ D+	

Notes:

\* Denotes CMP intersection (LOS E threshold)

+ Denotes an intersection on a CMP roadway (LOS E threshold)



## Table 2 (Continued)Existing Intersection Levels of Service

					_	Existing Avg.		
#	Intersection	СМР	Peak Hour	Count Date	LOS Std.	Delay (sec)	LOS	
55	Mary Ave & Fremont Ave		AM PM	05/00/14 05/00/14	D	41.8 42.0	D D	
56	Bernardo Ave & Evelyn Ave		AM PM	05/12/15 05/12/15	D	24.3 19.0	C B-	
57	Bernardo Ave & El Camino Real	+	AM PM	05/14/15 05/14/15	Е	40.1 35.6	D D+	
58	Bernardo Ave & Fremont Ave		AM PM	05/00/14 05/00/14	D	26.6 22.6	C C+	
59	SR 85 NB & Fremont Ave		AM PM	05/00/14 05/00/14	D	30.3 26.6	C C	
60	SR 85 SB & Fremont Ave		AM PM	05/00/14 05/00/14	D	37.5 31.6	D+ C	
61	Mathilda Ave & San Aleso Ave	+	AM PM	06/04/15 06/04/15	Е	12.6 17.3	B B	
62	SR 237 Service Road & Maude Ave		AM PM	09/15/15 09/15/15	D	29.2 34.7	C C-	
63	Mathilda Ave & Olive Ave	+	AM PM	06/04/15 06/04/15	Е	13.7 16.9	B	
64	Mathilda Ave & Washington Avenue	+	AM PM	06/04/15 06/04/15	Е	32.2 32.0	C- C-	
65	Hollenbeck Avenue & Homestead Road		AM PM	09/15/15 09/15/15	D	32.7 35.5	C- D+	
66	Mary Ave & Homestead Road		AM PM	09/15/15 09/15/15	D	25.5 24.8	C C	
67	Bernardo Avenue & Homestead Road		AM PM	09/15/15 09/15/15	D	15.5 13.7	B B	
68	SR 85 SB Ramp & Homestead Road		AM PM	09/15/15 09/15/15	D	15.4 18.0	B B	
69	Oakmead Pkwy & Arques Ave		AM PM	09/15/15 09/15/15	D	21.2 23.9	C+ C	
<u>Note</u> * De	<u>es</u> : notes CMP intersection (LOS E threshold)							

Denotes CMP intersection (LOS E threshold)

+ Denotes an intersection on a CMP roadway (LOS E threshold)

# 3. Future Traffic Conditions

This chapter describes the future traffic conditions expected with the planned growth in the City of Sunnyvale. The land uses, roadway network, and traffic analysis results are presented below. The forecast year for this analysis is 2035.

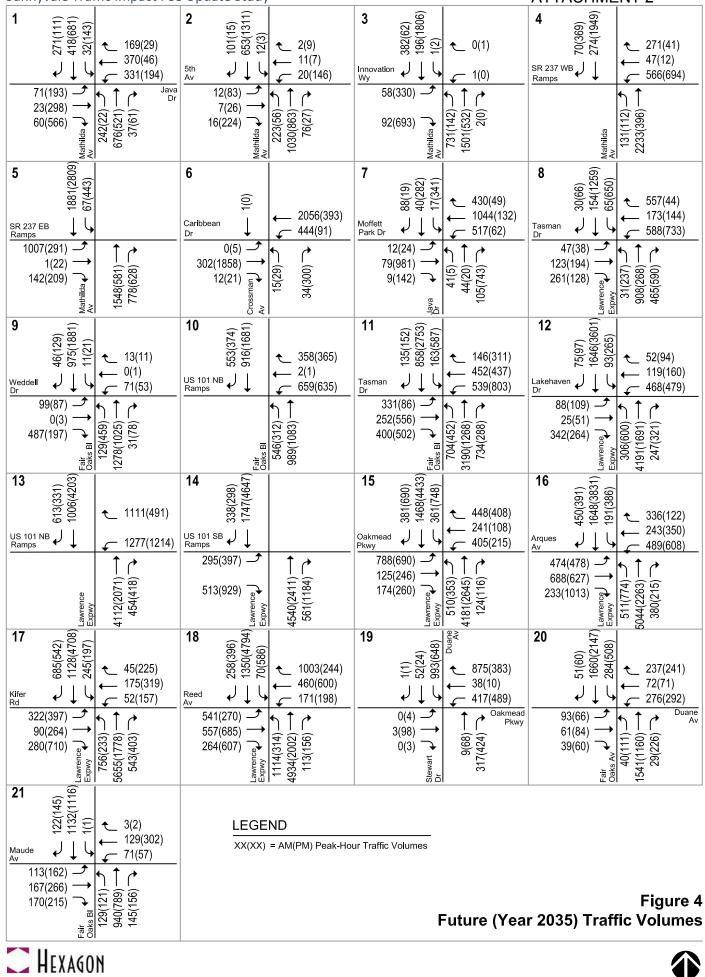
#### **Traffic Volumes under Future Conditions**

The 2035 forecasts of intersection turning movements were completed using the Sunnyvale Travel Demand Forecasting Model (STFM). The STFM is a mathematical representation of travel within the nine counties in the San Francisco Bay Area, and is focused to represent travel within the City of Sunnyvale. The model uses socioeconomic data, such as number of jobs and households, for different geographic areas (transportation analysis zones) to predict the travel from place to place in the future. The model is adjusted (validated) using year 2013 socioeconomic data supplied by the City of Sunnyvale and VTA to predict existing (year 2013) traffic volume. Model forecasts are compared to actual counts in order to make the adjustments. There are 172 transportation analysis zones within the model to represent the City of Sunnyvale.

The 2035 socioeconomic data are generated by the Association of Bay Area Governments and refined by VTA. The 2035 socioeconomic data within the City of Sunnyvale are based on the recently adopted 2035 Land Use and Transportation Element (LUTE) update, and were supplied by the Sunnyvale Planning Department. Table 3 shows the model inputs for the City of Sunnyvale. For the purposes of this study, the planned future land uses in Sunnyvale assume buildout of the 2035 LUTE update, which will result in a net increase of 15,100 residential units and 42,410 jobs (see Table 3).

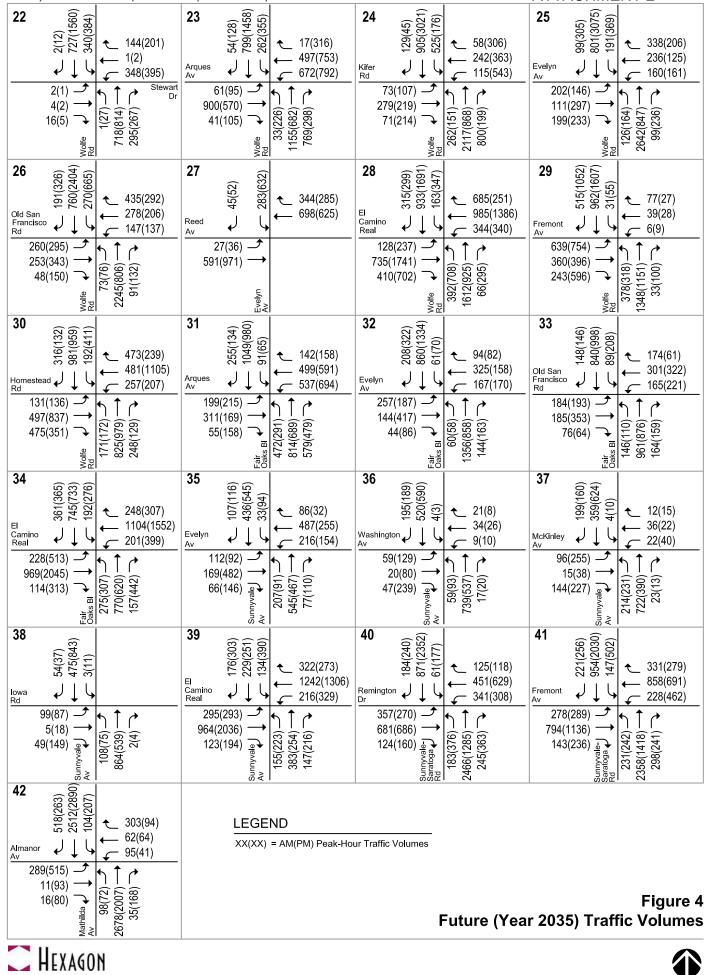
The forecast intersection turning movement volumes were adjusted based on the 2013 model run and existing traffic counts. The difference between the 2013 model volume and count was applied to the 2035 raw model turning movements to create the adjusted forecasts (see Figure 4).

#### ATTACHMENT 2





#### ATTACHMENT 2





#### **ATTACHMENT 2**

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650(186) 1345(2914)	(118) 118)	<b>44</b> (6867)2821 (1362(2383) (6867)281 (1011)21 (	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	<b>46</b> (912)991 (912)99
Maude ↓↓	$4 = \frac{300(223)}{42(122)}$	Indio Wy $\downarrow \downarrow \downarrow \downarrow \downarrow 4$ 67(1) = 348(16)	Colifornia	$ \begin{array}{c} \text{McKinley} \\ \text{Av} \end{array} \downarrow \downarrow \downarrow \downarrow 4 \\ \hline \qquad \qquad$
95(619) — 99(518) —	$\frac{1}{1}$	18(142) - 18(142)		$\begin{array}{c} 91(63) \xrightarrow{} \\ 27(85) \xrightarrow{} \\ \end{array} \begin{array}{c} \uparrow \\ \hline \\$
04(400) -	530(463) 530(463) 30(1248) 77(76)	187(193) - 187(193)		
	Matrinida	Mathilda ↓ 304(55) 187(193) 187(193)	Mathilda ↓ (562) 977 (562	Mathilda ↓ (05))17 Aw 31(51) 253(236) 253(236)
37(46) 1247(2585)		96) 98) <b>84</b>	40	F0
37(46) 1247(2	( <u>1</u> ) <sub>6</sub> ↓ 41(75)	<b>48</b> (962) (10,10)		(201)001 → 129(226) (211)001 → 129(226) (212)001 → 129(26) (212)001 → 129(26) (212)001 → 129(26) (212)001 →
lowa Av ↓↓	$\bigcup_{j=1}^{n} \underbrace{\underset{j=1}{\overset{k=1}{\leftarrow}} 87(170)}{26(194)}$	$\begin{array}{c} \text{EI} \\ \text{Camino} \\ \text{Real} \end{array} \xrightarrow{\leftarrow} 1177(1) \\ \begin{array}{c} \leftarrow \\ \leftarrow \\ \leftarrow \\ \hline \\$	$(580)   \stackrel{\text{EI}}{\text{Carriero}}                                     $	Fremont $\downarrow \downarrow \downarrow \downarrow \downarrow \downarrow \downarrow 98(223)$
44(37) - 91(148) -	$\frac{1}{1}$	$\begin{array}{c} 708(447) \xrightarrow{} \\ 1021(1844) \xrightarrow{} \\ \hline \end{array} \qquad \qquad$		
	57(141) 57(141) 66(1298) 141(132)		Image: 100 model       1000 model       1000 model       1000 model         364(146)       -       -       1000 model       1000 model         433(346)       -       1000 model       1000 model       1000 model	511(181) 511(1
	Av 57(141) 3066(1298) 141(132)	Mathhilda ↓ 554(37) 2126(644) 65(7)	Hollenbeck (56L)65 364(14 433(34,14) 433(34)	211(187) 211(187) 211(187) 211(181) 21(
51		52	53 _ 6	54
28(92) 35(458)	( <u>6</u> , <u>8</u> , <u>6</u> , <u>238(46)</u>	05)767 → 125(431) 124(650) 119(642)		<b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b>
Maude ↓↓	← 654(381) ← 194(352)	Central Expwy Central Expwy Central		$ \begin{array}{c} \text{EI} \\ \text{Camino} \\ \text{Real} \end{array}  \checkmark  \downarrow  \downarrow  \downarrow  \downarrow  \downarrow  \downarrow  \downarrow  \downarrow  \downarrow$
57(37) - 190(934) -	$\frac{1}{1}$	$\begin{array}{c} 271(141) \xrightarrow{} \\ 1543(1819) \xrightarrow{} \\ \end{array} $	$237(371) \xrightarrow{\uparrow} \uparrow \uparrow \uparrow$ $235(439) \xrightarrow{\uparrow} \uparrow \uparrow \uparrow \uparrow$	$\begin{array}{c} 291(287) \xrightarrow{} \\ 1350(1830) \xrightarrow{} \\ \end{array} $
93(389)	<sup>17</sup> ← 377(169) 447(79) 157(192)	1216(2) 508(24	23(34) 23(34)	1330(1830) → 138(146) 138(134) → 138(134) 138(134) → 138(134)
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<sup>21)</sup> <sup>22</sup>	57)	56	57	58 (L9 (0)
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Fremont	1033(900) 272(247)	Evelyn Av 568(52	/)  ⊟ 1393(1613)	$ \begin{array}{c c} & & & & \\ \hline \\ Fremont \\ Av \end{array}  \downarrow \downarrow$
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428(153) -	1 + 1 + 1			
897(1521) -	706(633) <sup>1</sup>	$ \begin{array}{c} 1042(743) \longrightarrow \\ 435(490) \longrightarrow \\ \hline \end{array} $	$2(4) \rightarrow 10^{10} + 10^{10}$	
	706(6:	435(490) m % sature % 20 % 20 % 20 % 20 % 20 % 20 % 20 % 20	Mathilda → 34(14) 54(139) 54(139)	286(2) 286(2) 215(3) 286(2)
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XX(XX) = AM(PM) Peak-Hour Traffic Volumes

### Figure 4 Future (Year 2035) Traffic Volumes





#### **ATTACHMENT 2**

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XX(XX) = AM(PM) Peak-Hour Traffic Volumes





#### Table 3 2035 Sunnyvale Model Inputs

	Sunnyvale					
	2013 Existing	Year 2035				
Housing Units	57,000	72,100				
Population	147,055	174,500				
I/O/C Square Feet (million s.f.) <sup>1</sup>	47.3	59.8				
Jobs	82,000	124,410				
<u>Notes:</u> 1. I/O/C = Industrial/Office/Commercial						

### **Roadway Network under Future Conditions**

The STFM includes improvements to the roadway network within and outside of Sunnyvale as part of the Valley Transportation Plan (VTP). Within the City of Sunnyvale, only roadway improvements that are fully funded and will be constructed by outside agencies are included. The improvements included in the STFM are listed below:

- Construct auxiliary lanes on eastbound SR 237 between Mathilda Avenue and Fair Oaks Avenue.
- Extend express lanes on SR 237 to SR 85.
- Construct auxiliary lanes on southbound US 101 between Lawrence Expressway and Great America Parkway, and between Ellis Street and SR 237.
- Construct auxiliary lanes on southbound SR 85 between SR 237 and El Camino Real.
- Widen the ramp from northbound SR 85 to eastbound SR 237 to two lanes. Construct an auxiliary lane on eastbound SR 237 from SR 85 to Middlefield Road.
- Construct a loop on-ramp from westbound Middlefield Road to westbound SR 237. Eliminate the intersection at Middlefield Road and westbound SR 237 off-ramp, and re-align the off-ramp to the intersection on Middlefield Road at Ferguson Drive.
- Construct an auxiliary lane on southbound Lawrence Expressway between the SR 237 loop ramps.
- Construct auxiliary lanes on Central Expressway between Lawrence Expressway and Mary Avenue.
- Widen Central Expressway between Lawrence Expressway and San Tomas Expressway to six lanes.

Proposed intersection improvements in Sunnyvale that are included in the *VTP 2040* and the Santa Clara County *Expressway Plan 2040* but that are not funded are not included in the STFM. Examples of such improvements are the US 101/SR 237/Mathilda interchange reconfiguration, the grade separations along Lawrence Expressway, and the Mary Avenue extension over US 101.



The following intersection improvements that are fully funded or under construction at the time of the intersection counts were assumed under future conditions:

- At the intersection of Java Drive and Crossman Avenue, the southbound leg has been reduced from the existing two through lanes to one through lane.
- At the intersection of Lawrence Expressway and Kifer Road, Kifer Road is planned to be narrowed to one travel lane in each direction. This improvement is part of the planned Kifer road diet under the Lawrence Station Area Plan.
- At the intersection of Lawrence Expressway and Reed Avenue/Monroe Street, the westbound leg has been widened to two through lanes.
- At the intersection of Fair Oaks Avenue and Duane Avenue, the westbound leg has been restriped to include one left-turn lane, one through lane, and one right-turn lane. This improvement is part of the complete street improvement along Duane Avenue between Stewart Drive and Fair Oaks Avenue.
- At the intersection of Sunnyvale Avenue and Evelyn Avenue, the eastbound leg has been restriped to include a dedicated right-turn pocket.

Lane configurations at all other study intersections under future conditions are assumed to be the same as under existing conditions. The intersection lane configurations under future conditions are shown on Figure 5.

#### Intersection Levels of Service under Future Conditions

The level of service results for the study intersections under future conditions are summarized in Table 4 and shown on Figure 6. The results show that several of the signalized intersections would operate at unacceptable levels of service under future conditions:

- Mathilda Avenue & SR 237 Westbound Ramps AM & PM Peak Hours (LOS F)
- Mathilda Avenue & SR 237 Eastbound Ramps AM & PM Peak Hours (LOS F)
- Crossman Avenue & Java Drive PM Peak Hour (LOS F)
- Lawrence Expressway & Tasman Drive AM & PM Peak Hours (LOS F)
- Lawrence Expressway & Lakehaven Drive AM & PM Peak Hours (LOS F)
- Lawrence Expressway & Oakmead Parkway AM & PM Peak Hours (LOS F)
- Lawrence Expressway & Argues Avenue AM & PM Peak Hours (LOS F)
- Lawrence Expressway & Kifer Road AM & PM Peak Hours (LOS F)
- Lawrence Expressway & Reed Avenue/Monroe Street AM & PM Peak Hours (LOS F)
- Duane/Stewart & Duane Avenue AM Peak Hour (LOS E)
- Wolfe Road & Arques Avenue AM Peak Hour (LOS E)
- Wolfe Road & Kifer Road AM & PM Peak Hours (LOS F)
- Wolfe Road & Fremont Avenue AM & PM Peak Hours (LOS E & LOS F, respectively)
- Fair Oaks Avenue & Arques Avenue AM & PM Peak Hours (LOS F)
- Fair Oaks Avenue & El Camino Real PM Peak Hour (LOS F)
- Sunnyvale-Saratoga Road & Remington Drive AM & PM Peak Hours (LOS F)
- Mathilda Avenue & El Camino Real PM Peak Hour (LOS F)
- Hollenbeck Avenue & El Camino Real PM Peak Hour (LOS F)
- Mary Avenue & Central Expressway PM Peak Hour (LOS F)
- Mary Avenue & Fremont Avenue AM & PM Peak Hours (LOS E & LOS F, respectively)
- SR 85 Northbound Ramp & Fremont Avenue AM Peak Hour (LOS E)
- SR 85 Southbound Ramp & Fremont Avenue AM & PM Peak Hours (LOS F)

Of the intersections that would operate unacceptably under future conditions, the following intersections are already operating at unacceptable levels of service under existing conditions. Therefore, any improvements planned to address traffic operations at these intersections cannot be completely funded by future developments. These intersections are listed below and shown on Figure 6:

- Lawrence Expressway & Arques Avenue
- Lawrence Expressway & Kifer Road
- Lawrence Expressway & Reed Avenue/Monroe Street

The intersections of Mathilda Avenue/SR 237 westbound ramps, and Mathilda Avenue/SR 237 eastbound ramps are closely-spaced intersections with multiple turning movements that operate as a single coordinated signal system. These intersections experience operational issues beyond what is reflected in the typical HCM level of service calculations. The tight intersection spacing, high conflicting traffic volumes within the limited weave points, and lack of vehicular storage between intersections would continue to cause excessive delays and low travel speeds throughout the corridor under future conditions. Therefore, under future conditions, it is assumed that the intersections at the Mathilda/SR 237 interchange would operate at LOS F.

**ATTACHMENT 2** 

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← = Future Configuration Changes





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← = Future Configuration Changes





#### **ATTACHMENT 2**





#### Table 4

#### **Future Conditions Intersection Levels of Service**

					-	Existing		Future Co	onditions
			Peak	Count	LOS	Avg. Delay		Avg. Delay	
#	Intersection	СМР	Hour	Date	Std.	(sec)	LOS	(sec)	LOS
1	Mathilda Ave & Java Dr	*	AM PM	01/00/15 10/01/14	Е	26.6 28.0	C C	29.1 31.5	C C
2	Mathilda Ave & 5th Ave	+	AM PM	06/04/15 06/04/15	Е	13.5 22.1	B C+	15.4 26.1	B C
3	Mathilda Ave & Innovation Way	+	AM PM	06/04/15 06/04/15	Е	18.5 19.8	В- В-	18.8 32.4	В- С-
4	Mathilda Ave & SR 237 WB <sup>1</sup>	+	AM PM	06/04/15 06/04/15	Е	-	E E		F F
5	Mathilda Ave & SR 237 EB <sup>1</sup>	+	AM PM	06/04/15 06/04/15	Е	-	E E	-	F F
6	Crossman Ave & Caribbean Dr	+	AM PM	05/14/15 05/14/15	Е	10.3 36.0	B+ D+	12.7 21.1	B C+
7	Crossman Ave & Java Dr		AM PM	11/00/14 11/00/14	D	17.0 29.4	B C	19.9 <b>93.6</b>	В- <b>F</b>
8	Fair Oaks Ave & Tasman Dr		AM PM	06/04/15 06/04/15	D	17.1 19.4	B B-	22.0 36.6	C+ D+
9	Fair Oaks Ave & Weddell Dr		AM PM	06/04/15 06/04/15	D	19.0 13.8	В- В	25.0 12.3	C B
10	N Fair Oaks Ave & US 101 NB		AM PM	10/00/14 10/00/14	D	16.5 21.0	В С+	36.9 37.8	D+ D+
11	Lawrence Expwy & Tasman Dr	*	AM PM	05/18/15 05/18/15	Е	40.2 64.8	D E	102.3 123.6	F F
12	Lawrence Expwy & Lakehaven Dr	+	AM PM	05/18/15 05/18/15	Е	59.6 63.5	E+ E	109.9 169.8	F F
13	Lawrence Expwy & US 101 NB	+	AM PM	05/22/15 05/22/15	Е	21.7 24.4	C+ C	64.8 27.7	E C
14	Lawrence Expwy & US 101 SB	+	AM PM	05/18/15 05/18/15	Е	15.1 43.1	B D	18.8 36.9	В- D+
15	Lawrence Expwy & Oakmead Pkwy	+	AM PM	05/18/15 05/18/15	Е	48.7 57.5	D E+	163.1 160.4	F F
16	Lawrence Expwy & Arques Ave	*	AM PM	05/18/15 05/18/15	Е	66.6 <b>95.5</b>	E	158.9 181.9	F
17	Lawrence Expwy & Kifer Rd	+	AM PM	05/18/15 05/18/15	Е	168.2 81.0	F	295.1 257.7	F
18	Lawrence Expwy & Reed Ave/Monroe St	*	AM PM	05/18/15 05/18/15	Е	203.1 86.5	F	304.0 149.7	F F

Notes:

\* Denotes CMP intersection (LOS E threshold)

+ Denotes an intersection on a CMP roadway (LOS E threshold)

calculations. The tight intersection spacing, high conflicting traffic volumes within the limited weave points, and lack of vehicular storage between intersections would continue to cause excessive delays and low travel speeds throughout the corridor under future conditions. Therefore, under future conditions, it is assumed that the intersections at the Mathilda/SR 237 interchange would operate at LOS F.



#### Table 4 (Continued)

#### **Future Conditions Intersection Levels of Service**

							sting	Future Conditions		
#	Intersection	СМР	Peak Hour	Count Date	LOS Std.	Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS	
19	Duane/Stewart & Duane Ave		AM PM	10/00/14 10/00/14	D	31.4 30.6	C C	<b>63.7</b> 32.6	<b>Е</b> С-	
20	N Fair Oaks Ave & Duane Ave		AM PM	10/00/14 10/00/14	D	26.3 32.1	C C-	37.4 52.3	D+ D-	
21	Fair Oaks Ave & Maude Ave <sup>1</sup>		AM PM	N/A N/A	D	28.6 28.5	C C	33.3 36.1	C- D+	
22	Wolfe Rd & Stewart Dr		AM PM	10/00/14 10/00/14	D	16.1 19.1	В В-	27.0 25.4	C C	
23	Wolfe Rd & Arques Ave		AM PM	10/00/14 10/00/14	D	24.8 28.4	C C	<b>70.6</b> 43.1	E D	
24	Wolfe Rd & Kifer Rd		AM PM	05/00/14 05/00/14	D	21.1 26.8	C+ C	83.2 101.5	F F	
25	Wolfe Rd & Evelyn Ave		am Pm	05/00/14 05/00/14	D	26.0 24.6	C C	42.8 49.6	D D	
26	Wolfe Rd & Reed Ave		am Pm	05/00/14 05/00/14	D	28.8 28.8	C C	53.9 48.4	D- D	
27	Evelyn Ave & Reed Ave		AM PM	05/14/15 05/14/15	D	10.8 18.9	B+ B-	11.9 18.0	B+ B	
28	Wolfe Rd & El Camino Real	*	AM PM	05/00/14 09/19/14	Е	49.8 55.1	D E+	61.2 77.0	E E-	
29	Wolfe Rd & Fremont Ave		AM PM	05/00/14 05/00/14	D	48.9 49.8	D D	61.9 91.7	E F	
30	Wolfe Rd & Homestead Rd		AM PM	05/00/14 05/00/14	D	30.9 31.9	C C	34.0 42.9	C- D	
31	Fair Oaks Ave & Arques Ave		AM PM	05/14/15 05/14/15	D	29.7 34.4	С С-	105.4 80.3	F	
32	N Fair Oaks Ave & Evelyn Ave		AM PM	05/14/15 05/14/15	D	28.1 26.7	C C	31.2 30.8	C C	
33	N Fair Oaks Ave & Old San Francisco	*	AM PM	05/14/15 05/14/15	D	35.4 36.7	D+ D+	43.2 47.3	D D	
34	Fair Oaks Ave & El Camino Real		AM PM	05/00/14 10/15/14	E	34.9 39.3	C- D	46.4 <b>118.9</b>	D F	
35	Sunnyvale Ave & Evelyn Ave	+	AM PM	05/14/15 05/14/15	E	24.6 27.9	C C	34.0 30.7	C- C	
36	Sunnyvale Ave & Washington Ave	+	am Pm	05/14/15 05/14/15	E	17.7 20.3	B C+	12.7 24.3	B C	

Notes:

\* Denotes CMP intersection (LOS E threshold)

+ Denotes an intersection on a CMP roadway (LOS E threshold)

1. Existing volumes for the Fair Oaks/Maude intersection is extrapolated based on 2013 counts.



## Table 4 (Continued)Future Conditions Intersection Levels of Service

					-	Existing Avg.		Future Co	onditions
#	Intersection	СМР	Peak Hour	Count Date	LOS Std.	Delay (sec)	LOS	Delay (sec)	LOS
37	Sunnyvale Ave & McKinley Ave	+	AM PM	05/14/15 05/14/15	E	15.3 15.8	B B	23.1 48.2	C D
38	Sunnyvale Ave & Iowa Ave	+	AM PM	05/14/15 05/14/15	Е	12.8 16.0	B	13.6 17.4	B B
39	Sunnyvale Ave & El Camino Real	+	AM PM	05/14/15 05/14/15	Е	23.3 30.0	C C	30.2 50.2	C D
40	Sunnyvale-Saratoga Rd & Remington Dr	*	AM PM	05/14/15 09/19/14	Е	42.2 45.8	D D	95.6 121.4	F F
41	Sunnyvale-Saratoga Rd & Fremont Ave	*	am Pm	05/00/14 10/01/14	Е	34.7 45.7	C- D	42.4 62.9	D E
42	Mathilda Ave & Almanor Ave	+	am Pm	06/04/15 06/04/15	Е	17.1 27.1	B C	32.3 34.8	C- C-
43	Mathilda Ave & Maude Ave	*	am Pm	06/04/15 09/18/14	Е	39.0 40.4	D+ D	42.8 54.3	D D-
44	Mathilda Ave & Indio Way	+	AM PM	06/04/15 06/04/15	Е	24.5 24.9	C C	37.4 33.9	D+ C-
45	Mathilda Ave & California	+	am Pm	06/04/15 06/04/15	Е	19.9 25.3	B- C	37.8 46.8	D+ D
46	Mathilda Ave & McKinley Ave	+	am Pm	06/04/15 06/04/15	Е	15.1 16.4	B B	20.2 22.5	C+ C+
47	Mathilda Ave & Iowa Ave	+	am Pm	06/04/15 06/04/15	Е	13.1 16.7	B B	14.6 28.9	B C
48	Mathilda Ave & El Camino Real	*	am Pm	06/04/15 09/18/14	Е	44.0 48.4	D D	68.7 <b>92.6</b>	E F
49	Hollenbeck Ave & El Camino Real	+	am Pm	05/14/15 05/14/15	Е	27.9 28.9	C C	42.3 <b>93.2</b>	D F
50	Hollenbeck Ave & Fremont Ave		am Pm	05/00/14 05/00/14	D	34.6 36.7	C- D+	43.8 42.9	D D
51	Mary Ave & Maude Ave		AM PM	05/14/15 05/14/15	D	25.8 29.1	C C	28.3 35.2	C D+
52	Mary Ave & Central Expwy	*	AM PM	05/22/15 05/22/15	Е	50.0 61.6	D E	76.3 <b>155.6</b>	E- F
53	Mary Ave & Evelyn Ave		AM PM	05/14/15 05/14/15	D	30.0 30.3	C C	38.8 34.2	D+ C-
54	Mary Ave & El Camino Real	*	AM PM	05/14/15 09/19/14	Е	37.3 37.8	D+ D+	43.2 54.4	D D-

Notes:

\* Denotes CMP intersection (LOS E threshold)

+ Denotes an intersection on a CMP roadway (LOS E threshold)



## Table 4 (Continued)Future Conditions Intersection Levels of Service

					-	Existing Avg.		Future Co Avg.	onditions
#	Intersection	СМР	Peak Hour	Count Date	LOS Std.	Delay (sec)	LOS	Delay (sec)	LOS
55	Mary Ave & Fremont Ave		AM PM	05/00/14 05/00/14	D	41.8 42.0	D D	62.8 90.0	E F
56	Bernardo Ave & Evelyn Ave		AM PM	05/12/15 05/12/15	D	24.3 19.0	С В-	25.7 18.5	C B-
57	Bernardo Ave & El Camino Real	+	AM PM	05/14/15 05/14/15	Е	40.1 35.6	D D+	42.6 46.0	D D
58	Bernardo Ave & Fremont Ave		AM PM	05/00/14 05/00/14	D	26.6 22.6	C C+	31.9 25.4	C C
59	SR 85 NB & Fremont Ave		AM PM	05/00/14 05/00/14	D	30.3 26.6	C C	<b>62.2</b> 30.8	E C
60	SR 85 SB & Fremont Ave		AM PM	05/00/14 05/00/14	D	37.5 31.6	D+ C	84.4 204.2	F F
61	Mathilda Ave & San Aleso Ave	+	AM PM	06/04/15 06/04/15	Е	12.6 17.3	B B	15.2 30.2	B C
62	SR 237 Service Road & Maude Ave		AM PM	09/15/15 09/15/15	D	29.2 34.7	C C-	33.2 41.0	C- D
63	Mathilda Ave & Olive Ave	+	AM PM	06/04/15 06/04/15	Е	13.7 16.9	B B	21.3 31.1	C+ C
64	Mathilda Ave & Washington Avenue	+	AM PM	06/04/15 06/04/15	Е	32.2 32.0	C- C-	52.4 49.4	D- D
65	Hollenbeck Avenue & Homestead Road		AM PM	09/15/15 09/15/15	D	32.7 35.5	C- D+	34.3 40.2	C- D
66	Mary Ave & Homestead Road		AM PM	09/15/15 09/15/15	D	25.5 24.8	C C	26.1 29.2	C C
67	Bernardo Avenue & Homestead Road		AM PM	09/15/15 09/15/15	D	15.5 13.7	B B	17.6 14.5	B B
68	SR 85 SB Ramp & Homestead Road		AM PM	09/15/15 09/15/15	D	15.4 18.0	B B	32.6 28.2	C- C
69	Oakmead Pkwy & Arques Ave		AM PM	09/15/15 09/15/15	D	21.2 23.9	C+ C	39.4 26.2	D C

Notes:

\* Denotes CMP intersection (LOS E threshold)

+ Denotes an intersection on a CMP roadway (LOS E threshold)

### 4. Recommended Roadway Improvements

This chapter identifies the roadway and intersection improvements that would be necessary to maintain acceptable transportation conditions, as defined by current level of service policy, with buildout of the planned future land uses. The improvements to be funded by the Traffic Impact Fee is shown on Tables 5 and 6, and discussed in detail below. Improvement project costs are taken from the Santa Clara County Expressway Plan, Valley Transportation Plan 2040, as available. Improvement project costs for the remaining projects were provided by City staff or estimated by Hexagon.



June 8, 2017

### Table 5 Recommended Roadway Improvements

Improvement		_	Funding Sources					Sunnyvale Funding Attributable to Future Growth				
		Total Cost	% External Funding		External Contribution		y Contribution	%Responsibility	Note Tr		ffic Impact Fee	
Expressway Improvements												
Mary/Central Intersection add 3rd westbound left-turn lane <sup>1</sup>	\$	1,500,000	80%	\$	1,200,000	\$	300,000	100%		\$	300,000	
Lawrence Grade Separations at Reed/Monroe, Kifer, and Arques <sup>2</sup>	\$	440,000,000	90%	\$	396,000,000	\$	44,000,000	30%	6	\$	13,200,000	
Lawrence/Oakmead Grade Separation <sup>1</sup>	\$	60,000,000	80%	\$	48,000,000	\$	12,000,000	100%		\$	12,000,000	
Lawrence/Lakewood Intersection Signalization <sup>4</sup>	\$	5,800,000	50%	\$	2,900,000	\$	2,900,000	100%		\$	2,900,000	
Lawrence/Tasman Depress LRT under intersection <sup>1</sup>	\$	23,600,000	80%	\$	18,880,000	\$	4,720,000	100%		\$	4,720,000	
Mathilda Corridor Improvements												
Mathilda/SR237, Mathilda/US 101 Interchange Reconfiguration <sup>1</sup>	\$	40,000,000	80%	\$	32,000,000	\$	8,000,000	100%		\$	8,000,000	
Mary Avenue Extension <sup>3</sup>	\$	78,000,000	70%	\$	54,600,000	\$	23,400,000	100%		\$	23,400,000	
Citywide Intersection Improvements												
Caltrain Grade Separation at Mary Avenue and at Sunnyvale Avenue <sup>1</sup>	\$	180,000,000	80%	\$	144,000,000	\$	36,000,000	40%	7	\$	14,400,000	
ITS projects (including Mathilda Avenue) <sup>4</sup>	\$	20,000,000	50%	\$	10,000,000	\$	10,000,000	100%		\$	10,000,000	
Future Traffic Signal Construction <sup>5</sup>	\$	10,000,000	20%	\$	2,000,000	\$	8,000,000	100%		\$	8,000,000	
Intersection Improvements <sup>5</sup>	\$	13,000,000	20%	\$	2,600,000	\$	10,400,000	100%		\$	10,400,000	
Bicycle and Pedestrian Facilities												
Complete Bike Network <sup>4</sup>	\$	10,000,000	50%	\$	5,000,000	\$	5,000,000	100%		\$	5,000,000	
Bernardo.Caltrain Bike-Ped Undercrossing <sup>1</sup>	\$	9,400,000	80%	\$	7,520,000	\$	1,880,000	100%		\$	1,880,000	
Complete Sidewalks	\$	9,800,000	0%	\$	-	\$	9,800,000	100%		\$	9,800,000	
Pedestrian Facility Improvements <sup>4</sup>	\$	5,000,000	50%	\$	2,500,000	\$	2,500,000	100%		\$	2,500,000	
							Total Cost			\$	126,500,000	

Notes:

1. The City of Sunnyvale will contribue 20% towards the identified regional projects.

2. The City of Sunnyvale will contribute 10% towards the identified Lawrence Expressway grade separation projects.

3. The City of Sunnyvale will contribute 30% towards the cost for the Mary Avenue extension project.

4. The City of Sunnyvale will contribute 50% towards the cost for the the Lawrence/Lakewood intersection signalization, City-wide ITS projects and City-wide pedestrian and bicycle improvements.

5. The City of Sunnyvale will contribute 80% towards the cost for the City-wide intersection improvements.

6. These three intersections are operating at an unacceptable LOS F under existing conditions. Therefore, new development fair share equals traffic added by new developments. Based on the Sunnyvale Travel Demand Forecast Model, new development added traffic would be approximately 32% of future traffic volume at these three intersections.

7. The Caltrain Grade Separation projects are designed to address existing issues. Therefore, new development fair share equals traffic added by new developments on the north legs of the two intersections (the leg affected by Caltrain). Based on the Sunnyvale Travel Demand Forecast Model, new developments added traffic at the north legs of the two intersections would be approximately 40% of future traffic volume at the north legs.



### Table 6Recommended Intersection Improvement Cost Breakdown

Intersection	Improvement	Estin	nated Cost <sup>1</sup>
Duane/Stewar & Duane Ave	Widen westbound to include two right-turn lanes, one shared through-left lane and one left-turn lane	\$	700,000
Wolfe Rd & Arques Ave	Restripe northbound to include one left-turn lane, two through lanes, and two right-turn lanes	\$	100,000
Wolfe Rd & Kifer Rd	Widen intersection to accommodate two left-turn lanes on all approaches	\$	2,800,000
Wolfe Rd & Fremont Ave	Mitigation measure from Wolfe Road traffic study	\$	5,500,000
Fair Oaks Ave & Arques Ave	Widen eastbound to include a dedicated right-turn lane	\$	300,000
Fair Oaks Ave & El Camino Real	Widen eastbound and westbound to include a second left-turn lane	\$	2,100,000
Sunnyvale-Saratoga Rd & Remington Dr	Widen northbound and westbound to include a dedicated right-turn lane	\$	600,000
Hollenbeck Ave & El Camino Real	Restripe southbound to include two left-turn, one through, and one shared through-right lane	\$	100,000
SR 85 Northbound Ramps & Fremont Ave	Modify the SR 85 northbound off-ramp	\$	200,000
SR 85 Southbound Ramps & Fremont Ave	Modify the SR 85 southbound off-ramp	\$	200,000
	Total Cost (rounded to the nearest million)	)\$	13,000,000

Notes:

1. Cost estimates were based on Year 2015 economic conditions with a 40% contingency included.

#### **Expressway Improvements**

As shown in Table 4 above in Chapter 3, seven expressway intersections are forecast to operate at unacceptable levels of service by City standards under future conditions. The discussion below identifies the needed improvements at these intersections.

#### Lawrence Expressway & Tasman Drive (#11)

Under future conditions, this intersection is forecast to operate at an unacceptable LOS F during both the AM and PM peak hours. The needed improvement is discussed below:

**Improvement:** The August 2015 update of the *County of Santa Clara Expressway Plan 2040* identified a Tier 3 project to depress the light rail tracks under the intersection. At the time of this report, there are no finalized plans for this improvement. It is assumed that the finalized reconfiguration plan would restore intersection operations to an acceptable level of service.

**Responsibility:** It is assumed that 80% of the funding for this improvement would come from external sources such as federal/state grants. The City of Sunnyvale expects to contribute 20% towards the improvement funding. Since this intersection is operating at acceptable levels of service under existing conditions, future developments within Sunnyvale would be required to contribute 100% towards the City of Sunnyvale's funding share.

#### Lawrence Expressway & Lakehaven Drive (#12)

Under future conditions, this intersection is forecast to operate at an unacceptable LOS F during both the AM and PM peak hours. The needed improvement is discussed below:

**Improvement:** To restore intersection levels of service to acceptable levels, the required at-grade improvement would displace homes and businesses. The County of Santa Clara, which has jurisdiction over the intersection, currently has no plans to grade-separate this intersection. This intersection currently experiences long queues in the northbound left turn lane, which is partially caused by vehicles entering Lawrence Expressway from Bridgewood Way. The traffic consists of local residents and visitors from the Mercado Shopping Center on Wildwood Avenue. Since these vehicles cannot make a left turn directly onto Lawrence Expressway from Bridgewood Way, vehicles wishing to proceed southbound on Lawrence Expressway must turn right and make a U-turn at the intersection of Lawrence Expressway and Lakehaven Drive/Sandia Avenue, contributing to the long queues in the left turn lane. While currently manageable, the queue is expected to grow to unacceptable levels in the future due to expected growth in the area. Therefore, Sunnyvale plans to convert the Lawrence Expressway/Bridgewood Way intersection into a signalized four-way intersection. This will make it possible to make a left turn directly from Bridgewood Way onto Lawrence Expressway. It is expected that the signal at Bridgewood Way would partially improve the intersection operations at the Lakehaven Drive intersection.

**Responsibility:** It is assumed that 50% of the funding for this improvement would come from external sources such as federal/state grants. The City of Sunnyvale expects to contribute 50% towards the improvement funding. Since this intersection is operating at acceptable levels of service under existing conditions, future developments within Sunnyvale would be required to contribute 100% towards the City of Sunnyvale's funding share.

#### Lawrence Expressway & Oakmead Parkway (#15)

Under future conditions, this intersection is forecast to operate at an unacceptable LOS F during both the AM and PM peak hours. The needed improvement is discussed below:

**Improvement:** The August 2015 update of the *County of Santa Clara Expressway Plan 2040* identified a Tier 3 project to grade separate this intersection. At the time of this report, there are no finalized plans for this improvement. It is assumed that the finalized reconfiguration plan would restore intersection operations to an acceptable level of service.

**Responsibility:** It is assumed that 80% of the funding for this improvement would come from external sources such as federal/state grants. The City of Sunnyvale expects to contribute 20% towards the improvement funding. Since this intersection is operating at acceptable levels of service under existing conditions, future developments within Sunnyvale would be required to contribute 100% towards the City of Sunnyvale's funding share.

#### Lawrence Expressway & Arques Avenue (#16)

Under future conditions, this intersection is forecast to operate at an unacceptable LOS F during both the AM and PM peak hours. The needed improvement is discussed below:

**Improvement:** The August 2015 update of the *County of Santa Clara Expressway Plan 2040* identified a Tier 1 project to grade separate this intersection. At the time of this report, there are no finalized plans for this improvement. It is assumed that the finalized reconfiguration plan would restore intersection operations to an acceptable level of service.

**Responsibility:** It is assumed that 90% of the funding for this improvement would come from external sources such as federal/state grants. It is expected that the City of Sunnyvale would contribute 10% towards the improvement funding. Since this intersection is operating at unacceptable levels of service under existing conditions, the identified improvement cannot be fully funded by future developments. A select link analysis in the STFM determined that 32% of the total traffic at this intersection is generated by future developments within the City of Sunnyvale. Therefore, future developments would be responsible for 32% of Sunnyvale's share.

#### Lawrence Expressway & Kifer Road (#17)

Under future conditions, this intersection is forecast to operate at an unacceptable LOS F during both the AM and PM peak hours. The needed improvement is discussed below:

**Improvement:** The August 2015 update of the *County of Santa Clara Expressway Plan 2040* identified a Tier 1 project to grade separate this intersection. At the time of this report, there are no finalized plans for this improvement. It is assumed that the finalized reconfiguration plan would restore intersection operations to an acceptable level of service.

**Responsibility:** It is assumed that 90% of the funding for this improvement would come from external sources such as federal/state grants. It is expected that the City of Sunnyvale would contribute 10% towards the improvement funding. Since this intersection is operating at unacceptable levels of service under existing conditions, the identified improvement cannot be fully funded by future developments. A select link analysis in the STFM determined that 32% of the total traffic at this intersection is generated by future developments within the City of Sunnyvale. Therefore, future developments would be responsible for 32% of Sunnyvale's share.

#### Lawrence Expressway & Reed Avenue/Monroe Street (#18)

Under future conditions, this intersection is forecast to operate at an unacceptable LOS F during both the AM and PM peak hours. The needed improvement is discussed below:

**Improvement:** The August 2015 update of the *County of Santa Clara Expressway Plan 2040* identified a Tier 1 project to grade separate this intersection. At the time of this report, there are no finalized plans for this improvement. It is assumed that the finalized reconfiguration plan would restore intersection operations to an acceptable level of service.

**Responsibility:** It is assumed that 90% of the funding for this improvement would come from external sources such as federal/state grants. It is expected that the City of Sunnyvale would contribute 10% towards the improvement funding. Since this intersection is operating at unacceptable levels of service under existing conditions, the identified improvement cannot be fully funded by future developments. A select link analysis in the STFM determined that 32% of the total traffic at this intersection is generated by future developments within the City of Sunnyvale. Therefore, future developments would be responsible for 32% of Sunnyvale's share.

#### Mary Avenue & Central Expressway (#52)

Under future conditions, this intersection is forecast to operate at an unacceptable LOS F during the PM peak hour. The needed improvement is discussed below:

**Improvement:** The August 2015 update of the *County of Santa Clara Expressway Plan 2040* identified a Tier 3 project to install a third westbound left-turn lane on Central Expressway. This improvement would partially improve the intersection operations under future conditions.

**Responsibility:** It is assumed that 80% of the funding for this improvement would come from external sources such as federal/state grants. The City of Sunnyvale expects to contribute 20% towards the improvement funding. Since this intersection is operating at acceptable levels of service under existing conditions, future developments within Sunnyvale would be required to contribute 100% towards the City of Sunnyvale's funding share.

#### Intersection Improvements

#### Improvements at Intersections with Unacceptable LOS

As shown in Table 4 above in Chapter 3, 15 intersections are forecast to operate at unacceptable levels of service by City standards under future conditions. No feasible improvements are identified for the following two intersections:

- Mathilda Avenue & El Camino Real (#48)
- Mary Avenue & Fremont Avenue (#55)

The discussion below identifies the needed improvements at the remaining 13 intersections. The City of Sunnyvale routinely gets grants to improve intersection operations. It is assumed that, in general, the City of Sunnyvale would be able to receive grants to cover 20% of the cost of the intersection improvements listed below. The City of Sunnyvale expects to contribute 80% towards the improvement funding. All the intersections needing improvements below are operating at acceptable levels of service under existing conditions (see Table 2). Therefore, future developments within the City of Sunnyvale would be required to contribute 100% towards the City of Sunnyvale's funding share. The improvement funding contributions for the Mathilda Avenue and SR 237 ramps are different and are described in detail below.

#### Mathilda Avenue & SR 237 Ramps

Under future conditions, the intersections at the Mathilda Avenue and SR 237 ramps are forecast to operate at an unacceptable LOS F during both the AM and PM peak hours. The needed improvement is discussed below:

**Improvement:** The Valley Transportation Plan 2040 identifies a project to reconstruct the Mathilda/US 101 and Mathilda/SR 237 interchange area (VTP ID: H33). The identified project is expected to help alleviate traffic congestion along Mathilda Avenue at the SR 237 interchanges.

The recently adopted 2035 Land Use and Transportation Element (LUTE) includes extending Mary Avenue from its current terminus at Almanor Avenue over the SR 237/US 101 interchange to connect with Enterprise Way in the Moffett Park business area. It is anticipated that the Mary Avenue extension would divert a portion of the Moffett Park traffic from Mathilda Avenue to Mary Avenue, thus helping alleviate the traffic congestion along Mathilda Avenue at the US 101 and SR 237 interchanges.

**Responsibility:** It is assumed that 80% of the funding for the Mathilda interchange reconfiguration project and 70% of the funding for the Mary Avenue extension project would come from external sources such as federal/state grants. The City of Sunnyvale expects to contribute 20% towards the Mathilda interchange reconfiguration improvement funding and 30% towards the Mary Avenue extension improvement funding. Since the intersections are operating at acceptable levels of service under existing conditions, future developments within Sunnyvale would be required to contribute 100% towards the City of Sunnyvale's funding share.

#### Crossman Avenue & Java Drive (#7)

Under future conditions, this intersection is forecast to operate at an unacceptable LOS F during the PM peak hour. The unacceptable LOS F is mainly due to traffic avoiding using Mathilda Avenue to exit the Moffett Park area. It is expected that the above mentioned Mathilda Avenue/US 101/SR 237 interchange reconfiguration project, as well as the Mary Avenue extension project, would improve vehicle circulation along Mathilda Avenue and keep the diverted traffic on Mathilda Avenue. As a result, it is expected that the Mathilda interchange reconfiguration project and the Mary Avenue extension project would restore intersection operations at Crossman Avenue and Java Drive to acceptable conditions. Intersection improvements are thus not needed at the intersection of Crossman Avenue and Java Drive.

#### Duane Avenue/Stewart Drive & Duane Avenue (#19)

Under future conditions, this intersection is forecast to operate at an unacceptable LOS E during the AM peak hour. The needed improvement is discussed below:

**Improvement:** The westbound leg would require restriping to include one left-turn lane, one shared through-right lane, and two right-turn lanes. Right-of-way acquisition would be required. This improvement would restore intersection operations to acceptable levels of service under future conditions.

#### Wolfe Road & Argues Avenue (#23)

Under future conditions, this intersection is forecast to operate at an unacceptable LOS E during the AM peak hour. The needed improvement is discussed below:

**Improvement:** The westbound leg would require restriping to include one left-turn lane, one shared through-right lane, and one right-turn lane. Alternatively, the intersection could be converted to a two-lane roundabout. Right-of-way acquisition would be required with either improvement option. This improvement would restore intersection operations to acceptable levels of service under future conditions.

#### Wolfe Road & Kifer Road (#24)

Under future conditions, this intersection is forecast to operate at an unacceptable LOS F during both the AM and PM peak hours. The needed improvement is discussed below:

**Improvement:** This intersection would require widening on all approaches to accommodate two leftturn lanes. Right-of-way acquisition would be required. This improvement would restore intersection operations to acceptable levels of service under future conditions.

#### Wolfe Road & Fremont Avenue (#29)

Under future conditions, this intersection is forecast to operate at an unacceptable LOS E during the AM peak hour and at an unacceptable LOS F during the PM peak hour. The needed improvement is discussed below:

**Improvement:** According to the *Wolfe Road Corridor Traffic Improvement Study*, prepared by Kimley Horn, dated February 2016, Wolfe Road between Homestead Road and El Camino Real is recommended for multimodal improvements to improve vehicle operations as well as bicycle and pedestrian facilities. At the time of this report, the multimodal improvements have not been finalized. Potential improvement alternatives include removal of on-street parking along Wolfe Road to improve bicycle facilities, narrowing Wolfe Road to two lanes in each direction, modifying and coordinating the signals on Wolfe Road at the El Camino Real intersection and Fremont intersection, and constructing a new signalized intersection at Fremont Avenue and El Camino Real. It is assumed that the implementation of the Wolfe corridor multimodal improvements would restore intersection operations at Wolfe Road and Fremont Avenue to acceptable levels of service. The cost estimate for the Wolfe Road and Fremont Avenue improvement assumes the highest cost alternative identified in the traffic improvement study.

#### Fair Oaks Avenue & Argues Avenue (#31)

Under future conditions, this intersection is forecast to operate at an unacceptable LOS F during both the AM and PM peak hours. The needed improvement is discussed below:

**Improvement:** The eastbound leg would require widening to include one left-turn lane, one through lane, and one dedicated right-turn lane. This improvement would not require additional right-of-way acquisition. This improvement would partially improve the intersection operations under future conditions.

#### Fair Oaks Avenue & El Camino Real (#34)

Under future conditions, this intersection is forecast to operate at an unacceptable LOS F during the PM peak hour. The needed improvement is discussed below:

**Improvement:** The eastbound and westbound legs would require widening to include two left-turn lanes. Right-of-way acquisition would be required for this improvement. This improvement would restore intersection operations to acceptable levels of service under future conditions.

#### Sunnyvale-Saratoga Road & Remington Drive (#40)

Under future conditions, this intersection is forecast to operate at an unacceptable LOS F during both the AM and PM peak hours. The needed improvement is discussed below:

**Improvement:** The northbound and westbound legs would require widening to include two left-turn lanes. Right-of-way acquisition would be required for this improvement. This improvement would restore intersection operations to acceptable levels of service under future conditions during only the AM peak hour. During the PM peak hour under future conditions, this improvement would partially improve the intersection operations.



#### Hollenbeck Avenue & El Camino Real (#49)

Under future conditions, this intersection is forecast to operate at an unacceptable LOS F during the PM peak hour. The needed improvement is discussed below:

**Improvement:** The southbound leg would require restriping to include two left-turn lanes, one through lane, and one shared through-right lane. No right-of-way acquisition would be required. This improvement would restore intersection operations to acceptable levels of service under future conditions.

#### SR 85 & Fremont Avenue (#59, 60)

Under future conditions, the intersection at SR 85 northbound ramps and Fremont Avenue is forecast to operate at an unacceptable LOS E during the AM peak hour. The intersection at SR 85 southbound ramps and Fremont Avenue is forecast to operate at an unacceptable LOS F during both the AM and PM peak hours. The needed improvement is discussed below:

**Improvement:** The SR 85 northbound off-ramp would require widening to restore intersection operations to acceptable levels of service. No right-of-way acquisition would be required. The SR 85 southbound off-ramp would require restriping to partially restore intersection operations to acceptable levels of service.

#### **Caltrain Grade Separations**

The City of Sunnyvale currently has two at-grade crossings with the Caltrain railroad: at Mary Avenue and at Sunnyvale Avenue. During the AM and PM peak hours, there are frequent train services requiring frequent interruptions to vehicular circulation. Future developments would generate more traffic on both Mary Avenue and Sunnyvale Avenue that would result in longer delays during train crossings. To prevent potential capacity issues on both roadways, both roadways would need to be grade separated from the Caltrain railroad.

**Responsibility:** It is assumed that 80% of the funding for this improvement would come from external sources such as federal/state grants. The City of Sunnyvale expects to contribute 20% towards the improvement funding. Since the Caltrain grade separations are designed to address existing issues, the identified improvements cannot be fully funded by future developments. A select link analysis in the STFM determined that 40% of the total traffic on the north legs (affected legs) of both roadways is generated by future developments within the City of Sunnyvale. Therefore, future developments would be responsible for 40% of Sunnyvale's funding share.

#### Intelligent Transportation System (ITS) Projects

Intelligent Transportation Systems (ITS) are advanced technological applications aimed at better serving all modes of transportation. Examples of ITS projects include bicycle detection at signals, pedestrian detection at crosswalks, and corridor signal coordination. These improvements can smooth traffic flow and reduce delays. It is anticipated that future developments would generate increased traffic volumes along major roadway corridors (i.e. Mathilda Avenue, El Camino Real), and would generate increased pedestrian and bicycle activities at intersections. Not all of the intersections that would be made deficient by future development can be improved through widening. ITS projects would be needed to ensure adequate vehicular circulation and ensure pedestrian and bicycle safety while crossing roadways.

**Responsibility:** It is assumed that 20% of the funding for this improvement would come from external sources such as federal/state grants. The City of Sunnyvale expects to contribute 80% towards the improvement funding. Because this improvement is needed as a result of increased traffic, pedestrian and bicycle volumes from future developments, future developments within the City of Sunnyvale would be required to contribute 100% towards the City of Sunnyvale's funding share.

#### New Signals and Signal Upgrades

The City currently has 128 signalized intersections. It is anticipated that additional intersections will be signalized through the term of this update. Additional traffic signals will be needed because of increases in traffic due to new or intensified development. It is not advisable to identify the precise locations warranting signalization in the future based on traffic forecasts derived from the model since the locations and intensity of development may vary from that assumed in the travel demand model. It is therefore recommended that the traffic fee reflect historical trends without specifying the exact intersections to be included in the fee program. In addition to the funding of new signals with the mitigation fee, development projects also may be required to install signals at locations where traffic signal warrants are met as a result of project generated traffic. It is also anticipated that traffic signal and signal system improvements will be required as traffic increases and the existing system ages.

**Responsibility:** It is assumed that 20% of the funding for this improvement would come from external sources such as federal/state grants. The City of Sunnyvale expects to contribute 80% towards the improvement funding. Future developments within the City of Sunnyvale would be responsible for 100% of the cost of installing signals at locations that do not warrant signals today but would warrant signals, or modifications to existing signals, in the future. The cost estimate for constructing new signals and signal upgrades is based on the assumption that each new signalized intersection/signal upgrades would cost approximately \$500,000 and that one new signal/upgrade would be implemented annually until year 2035.

#### **Bicycle and Pedestrian Facilities**

The recently adopted Land Use and Transportation Element (LUTE) establishes various policies to develop a transportation network that supports all modes of transportation. The LUTE uses transportation demand management (TDM) as a tool to reduce automobile trips and encourage alternative modes of transportation. The City has recently adopted TDM Program guidelines requiring development projects to implement TDM measures to achieve project-specific trip reductions. To effectively promote alternative modes of transportation, and help ensure that the development-specific TDM programs are effective, a safe and continuous bicycle and pedestrian network needs to be established.

Physical improvements are not possible at all intersections that would be made deficient by new development. To partially offset these deficiencies, which are caused by new development, Sunnyvale will invest in bicycle and sidewalk improvements. Future developments within the City of Sunnyvale will be responsible for 100% of the City's funding share for the improvements discussed below.

#### **Complete Bicycle Network and Pedestrian Facilities**

The City of Sunnyvale *Bicycle Master Plan* identifies a list of bicycle improvements throughout the City of Sunnyvale. City's Public Works Department has also identified numerous locations where pedestrian sidewalks are discontinuous. To promote walking for short trips, existing pedestrian facilities would also require improvements to ensure pedestrians feel safe while walking. These improvements could include crosswalks, detached sidewalks, etc. The Traffic Impact Fee will be used for funding completion of the City's bicycle network, providing continuous pedestrian sidewalks, and improving existing pedestrian facilities. These improvements would be needed to create and maintain a safe and logical bikeways system and walkable community, which would help ensure the effectiveness of development-specific TDM programs.

**Responsibility:** It is assumed that 50% of the funding for completing the City's bicycle network and improving the City's existing pedestrian facilities would come from external sources such as federal/state grants. The City of Sunnyvale expects to contribute 50% towards the improvement funding for these two projects. The City of Sunnyvale expects to contribute 100% towards the cost of completing the City's sidewalk network.

#### Caltrain Bike/Ped Undercrossing at Bernardo Avenue

One of the major bicycle facility improvements identified in the Bicycle Master Plan is a pedestrian/bicycle undercrossing beneath the Caltrain tracks at Bernardo Avenue. According to the Bicycle Master Plan, an undercrossing at this location would provide an opportunity to shorten the bicycle commute distance and times for Sunnyvale residents working in nearby Mountain View workplaces. The undercrossing would encourage alternative modes of transportation and would help ensure the effectiveness of development-specific TDM programs.

**Responsibility:** It is assumed that 80% of the funding for this improvement would come from external sources such as federal/state grants. The City of Sunnyvale expects to contribute 20% towards the improvement funding.

# 5. Derivation of Traffic Impact Fee

To develop a traffic impact fee, it is necessary to first find the estimated cost of improvements per additional peak hour trip generated. The expected PM peak-hour trip growth to year 2035 was obtained from the Sunnyvale travel demand forecasting model (see Table 7). Following past planning practice in Sunnyvale, the growth in trips generated within the Moffett Park area was calculated separately from growth in trips in the remainder of the city.

### Table 7Peak-Hour Trip Growth

	Growth in Peak-Hour Trips								
	Growth (trips)	% of Sunnyvale Growth							
Moffett Park	4,134	11%							
Remainder of Sunnyvale	32,713	89%							
Total	36,847	100%							

The model also allowed the determination of whether the need for transportation improvements is triggered by trip growth in the Moffett Park area or by trip growth in other parts of the city (see Table 8). The reason for separating out the Moffett Park growth is that because of the limited number of roads that serve the area, Moffett Park growth places a proportionately larger burden on the City's transportation system. The cost allocation percentages shown in Table 8 are based on the following:

- *Citywide Intersection Improvements and Bicycle/Pedestrian Facilities*: For these projects, the allocation used was based on the percentage share of peak-hour trip growth, as shown in Table 7.
- Mathilda/US 101/SR 237 Complex and Mary Avenue extension: The Sunnyvale travel demand forecasting model determined that 39% of the Sunnyvale trips that would use the improvements to the Mathilda/US 101/SR 237 complex, as well as the Mary Avenue extension, would be generated by growth in the Moffett Park area, so costs of those improvements were allocated accordingly.



- Mary Avenue and Central Expressway Improvements: The Sunnyvale travel demand forecasting model determined that 2% of the Sunnyvale trips at the intersection of Mary Avenue and Central Expressway would come from Moffett Park growth, so costs of those improvements were allocated accordingly.
- Lawrence Expressway Improvements South of US 101: The Sunnyvale travel demand forecasting model determined that 13% of the Sunnyvale trips along Lawrence Expressway south of US 101 would come from Moffett Park growth, so costs of those improvements were allocated accordingly.
- Lawrence Expressway Improvements North of US 101: The Sunnyvale travel demand forecasting model determined that 30% of the Sunnyvale trips along Lawrence Expressway north of US 101 would come from Moffett Park growth, so costs of those improvements were allocated accordingly.

The results of the cost allocation calculations show that growth in Moffett Park will necessitate about \$24.6 million in improvement costs, and growth in the remainder of the city will necessitate about \$101.9 million in improvement costs, as shown in Table 8.

#### Table 8 Cost Breakdown

Improvement		Total Improvement Cost		Sunnyvale Traffic Impact Fee	Mof	Park	Remainder of Sunnyvale			
				Contribution	%Traffic		Cost	% Traffic	Cost	
Expressway Improvements										
Mary/Central Intersection add 3rd westbound left-turn lane	\$	1,500,000	\$	300,000	2%	\$	6,000	98%	\$	294,000
Lawrence Grade Separations at Reed/Monroe, Kifer, and Arques	\$	440,000,000	\$	13,200,000	13%	\$	1,716,000	87%	\$	11,484,000
Lawrence/Oakmead Grade Separation	\$	60,000,000	\$	12,000,000	13%	\$	1,560,000	87%	\$	10,440,000
Lawrence/Lakewood Intersection Signalization	\$	5,800,000	\$	2,900,000	30%	\$	870,000	70%	\$	2,030,000
Lawrence/Tasman Depress LRT under intersection	\$	23,600,000	\$	4,720,000	30%	\$	1,416,000	70%	\$	3,304,000
Mathilda Corridor Improvements										
Mathilda/SR237, Mathilda/US 101 Interchange Reconfiguration	\$	40,000,000	\$	8,000,000	39%	\$	3,120,000	61%	\$	4,880,000
Mary Avenue Extension	\$	78,000,000	\$	23,400,000	39%	\$	9,126,000	61%	\$	14,274,000
Citywide Intersection Improvements										
Caltrain Grade Separation at Mary Avenue and at Sunnyvale Avenue	\$	180,000,000	\$	14,400,000	11%	\$	1,584,000	89%	\$	12,816,000
ITS projects (including Mathilda Avenue)	\$	20,000,000	\$	10,000,000	11%	\$	1,100,000	89%	\$	8,900,000
Future Traffic Signal Construction	\$	10,000,000	\$	8,000,000	11%	\$	880,000	89%	\$	7,120,000
Intersection Improvements (including Wolfe and El Camino Real)	\$	13,000,000	\$	10,400,000	11%	\$	1,144,000	89%	\$	9,256,000
Bicycle and Pedestrian Facilities										
Complete Bike Network	\$	10,000,000	\$	5,000,000	11%	\$	550,000	89%	\$	4,450,000
Bernardo.Caltrain Bike-Ped Undercrossing	\$	9,400,000	\$	1,880,000	11%	\$	207,000	89%	\$	1,673,000
Complete Sidewalks	\$	9,800,000	\$	9,800,000	11%	\$	1,078,000	89%	\$	8,722,000
Pedestrian Facility Improvements	\$	5,000,000	\$	2,500,000	11%	\$	275,000	89%	\$	2,225,000
			\$	126,500,000		\$	24,632,000		\$ <sup>·</sup>	101,868,000



The cost per new trip can be calculated by dividing the improvement cost per area by the number of expected new trips per area (see Table 9).

#### Table 9 Cost per Trip

	Moffett Park	Remainder of Sunnyvale
Cost	\$ 24,632,000	\$ 101,868,000
Growth (trips)	4,134	32,713
Cost/Trip	\$ 5,958	\$ 3,114

Table 10 shows the final calculated traffic impact fees. The impact fees were derived by multiplying the cost per trip by the typical PM peak-hour trip generation rate for each land use, using rates from the Institute of Traffic Engineers' *Trip Generation*, 9<sup>th</sup> *Edition*. For example, the trip generation rate for single family detached housing is one peak-hour trip per unit, so the fee per dwelling unit is equal to the cost per trip. It should be noted that a 50% pass-by trip reduction is assumed for retail land use. Also, it should be noted that no residential or office development is planned in the Moffett Park area.

#### Table 10 Impact Fee per Land Use Type

				Proposed Ir			ict Fee
Land Use	ITE Code	PM Peak Hour	Unit of Measure	Moffett Park Area		F	Remainder of Sunnyvale
			Per Trip Cost	\$	5,958	\$	3,114
Single-Family Detached Housing	210	1	per dwelling unit	\$	-	\$	3,114
Multi-Family Attached Housing	220	0.62	per dwelling unit	\$	-	\$	1,931
General Office	710	1.49	per 1,000 sq. ft.	\$	-	\$	4,640
Research & Development	760	1.07	per 1,000 sq. ft.	\$	6,375	\$	3,332
Industrial	110	0.97	per 1,000 sq. ft.	\$	5,779	\$	3,021
Retail <sup>1</sup>	820	1.855	per 1,000 sq. ft.	\$	11,052	\$	5,776
Hotel	310	0.6	per room	\$	3,575	\$	1,868

#### Notes:

All rates are from: Institute of Transportation Engineers, *Trip Generation, 9th Edition*.

1. Retail rate is reduced by 50 percent to account for pass-by trips.



## Implementation of the Traffic Impact Fee Program

It is recommended that the fee be applied to the following:

- 1. New residential, commercial, industrial, or other non-residential development projects.
- 2. Additions or alterations to existing residential development that create one or more additional dwelling units.
- 3. Additions or alterations to existing non-residential development that increase the gross square footage of the development.

It is recommended that the fee be paid in full to the City before the first building permit is issued. If no building permit is required, the fee shall be paid before a conversion of use may take place. It is recommended that the sums derived from the collection of the traffic impact fees be used for the projects identified in the Traffic Mitigation program. In no case shall any of the moneys be used for regular street maintenance.

It is recommended that the Traffic Mitigation Program be implemented in five or ten-year phases for the purpose of ensuring that the accumulated fees are sufficient in amount to fund the planned improvements and are actually expended on the improvements within the given time frame.

## Periodic Adjustments to the Fee

It is recommended that the traffic impact fees be adjusted periodically to reflect the current status of traffic impact requirements, projected development square footage, construction and land costs, and other factors. The Director of Public Works shall make an annual review, or more frequent review if deemed necessary, of the Traffic Mitigation Program and make recommendations for amendment, if any. The review will be submitted with recommendations to the City Council.

ATTACHMENT 2

City of Sunnyvale Traffic Impact Fee Update Technical Appendices

# Appendix A Traffic Counts

ATTACHMENT 2

# **Appendix B** Intersection Level of Service Calculation Sheets

ATTACHMENT 2

# **Appendix C** Sunnyvale Travel Demand Forecast Model Validation Memorandum

# Project List and Cost Breakdown

							Remainder of		
	Tota	al Improvement	S	Sunnyvale Traffic Impact Fee	м	offett Park		Sunnyvale	
Improvement		Cost		Contribution		Cost		Cost	
Expressway Improvements									
Mary/Central Intersection add 3rd westbound left- turn lane	\$	1,500,000	\$	300,000	\$	6,000	\$	294,000	
Lawrence Grade Separations at Reed/Monroe, Kifer, and Arques	\$	440,000,000	\$	13,200,000	\$	1,716,000	\$	11,484,000	
Lawrence/Oakmead Grade Separation	\$	60,000,000	\$	12,000,000	\$	1,560,000	\$	10,440,000	
Lawrence/Lakewood Intersection Signalization	\$	5,800,000	\$	2,900,000	\$	870,000	\$	2,030,000	
Lawrence/Tasman Depress LRT under intersection	\$	23,600,000	\$	4,720,000	\$	1,416,000	\$	3,304,000	
Mathilda Corridor Improvements									
Mathilda/SR237, Mathilda/US 101 Interchange Reconfiguration	\$	40,000,000	\$	8,000,000	\$	3,120,000	\$	4,880,000	
Mary Avenue Extension	\$	78,000,000	\$	23,400,000	\$	9,126,000	\$	14,274,000	
Citywide Intersection Improvements									
Caltrain Grade Separation at Mary Avenue and at Sunnyvale Avenue	\$	180,000,000	\$	14,400,000	\$	1,584,000	\$	12,816,000	
ITS projects (including Mathilda Avenue)	\$	20,000,000	\$	10,000,000	\$	1,100,000	\$	8,900,000	
Future Traffic Signal Construction	\$	10,000,000	\$	8,000,000	\$	880,000	\$	7,120,000	
Intersection Improvements (including Wolfe and El Camino Real)	\$	13,000,000	\$	10,400,000	\$	1,144,000	\$	9,256,000	
Bicycle and Pedestrian Facilities									
Complete Bike Network	\$	10,000,000	\$	5,000,000	\$	550,000	\$	4,450,000	
Bernardo.Caltrain Bike-Ped Undercrossing	\$	9,400,000	\$	1,880,000	\$	207,000	\$	1,673,000	
Complete Sidewalks	\$	9,800,000	\$	9,800,000	\$	1,078,000	\$	8,722,000	
Pedestrian Facility Improvements	\$	5,000,000	\$	2,500,000	\$	275,000	\$	2,225,000	
			\$	126,500,000	\$	24,632,000	\$	101,868,000	

## **ATTACHMENT 3**

## **ATTACHMENT 4**

# Intersection Improvements

Intersection	Improvement	Estimate	d Cost <sup>1</sup>
Duane/Stewar & Duane Ave	Two-lane rounadbout	\$	2,300,000
Wolfe Rd & Arques Ave	Restripe northbound to include one left-turn lane, two through lanes, and two right-turn lanes	\$	100,000
Wolfe Rd & Kifer Rd	Widen intersection to accommodate two left-turn lanes on all approaches	\$	2,800,000
Wolfe Rd & Fremont Ave	Mitigation measure from Wolfe Road traffic study	\$	3,500,000
Fair Oaks Ave & Arques Ave	Widen eastbound to include a dedicated right-turn lane	\$	300,000
Fair Oaks Ave & El Camino Real	Widen eastbound and westbound to include a second left-turn lane	\$	2,100,000
Sunnyvale-Saratoga Rd & Remington Dr	Widen northbound and westbound to include a dedicated right-turn lane	\$	600,000
Hollenbeck Ave & El Camino Real	Restripe southbound to include two left-turn, one through, and one shared through-right lane	\$	100,000
SR 85 Northbound Ramps & Fremont Ave	Modify the SR 85 northbound off-ramp	\$	200,000
SR 85 Southbound Ramps & Fremont Ave	Modify the SR 85 southbound off-ramp	\$	200,000
	Total Cost (rounded to the nearest million)	\$	13,000,000
Notes:			
	economic conditions with a 40% contingency included.		

# List of Current Improvements

Improvement	Cost	Moffett Park Contribution	South of 237 Contribution	Outside Funding
Mathilda Improvements at 237, 101	\$ 20,500,000	\$7,105,000	\$5,145,000	12,250,000
Mary Avenue Extension	\$67,200,000	\$19,488,000	\$14,112,000	\$33,600,000
Lawrence/Kifer Grade Separation	\$59,000,000	\$4,130,000	\$ 19,470,000	\$ 35,400,000
Lawrence/Arques Grade Separation	\$ 52,200,000	\$3,654,000	\$17,226,000	\$31,320,000
Lawrence/Reed- Monroe Grade Separation	\$59,000,000	\$4,130,000	\$ 19,470,000	\$ 35,400,000
Complete Sidewalks	\$ 9,800,000	\$1,372,000	\$8,428,000	0
Complete Bike Network	\$ 1,582,115	\$221,496	\$1,360,619	0
Bernardo/Caltrain Bike/Ped Undercrossing	\$9,451,575	\$264,644	\$1,625,671	\$7,561,260
Future Traffic Signal Construction	\$3,539,200	\$495,488	\$3,043,712	0
Lawrence/Wildwood Intersection	\$5,231,365	\$959,646	\$4,271,719	0
Mathilda/Maude Left Turn Extension	\$300,000	0	\$300,000	0

## ATTACHMENT 6

City or Area within City		Per PM Hour Trip		gle Family er d.u.		lti-Family Per d.u.	Office Per KSF		R&D Per KSF	I	Industrial Per KSF		Retail Per KSF	F	Hotel Per Room
Palo Alto <sup>a</sup> Current Citywide TIF	\$	3,559	\$	3,559	\$	2,207	\$ 5,303	\$	3,808	\$	3,452	\$	13,204	\$	2,135
<b>Menlo Park</b> Citywide Supplemental Downtown	\$ \$		\$ per P	3,139 'M peak ho		1,927 p within EC	4,630 owntown Sp		3,330 ic Plan area	\$	2,280	\$	4,630	\$	1,834
Redwood City Non-Downtown Downtown			\$ \$	1,617 1,212	-	992 744	2,380 1,790		1,710 1,280		1,550 1,160		3,940 2,960	•	945 709
San Carlos			\$	3,052	\$	1,892	\$ 4,547	\$	3,266	\$	2,228	\$	11,323	\$	1,831
San Mateo	\$	3,763	\$	3,422	\$	2,101	\$ 3,135			\$	2,042	\$	5,893		
Los Altos			\$	6,152	\$	3,777	\$ 9,076					\$	11,269		
<b>Mountain View</b> North Bayshore Area							\$ 22,470	\$	22,470			\$	2,350	\$	2,000
Santa Clara							\$ 1,000	\$	1,000	\$	670			\$	400
San Jose North San Jose Area <sup>b</sup> Evergreen-East Hills Area US 101/Oakland Ave/Mabury Rd	\$ \$	15,410	\$	9,677 15,148		7,742	\$ 13,170 use one of th	o im	uproved into	Ş	14,440	\$ \$	19,880 13,170	\$	4,299
I-280/Winchester Blvd.	\$ \$	35,767 25,641	•	•		•	ise the prop		•		-				
Fremont <sup>c</sup>			\$	2,247	\$	2,247	\$ 4,997	\$	3,588	\$	2,515	\$	6,842	\$	2,046

(b) Retail uses under 100,000 square feet in North San Jose are exempt from TIF.

(c) Fremont specifies TIF amounts for residential uses based on the number of bedrooms. Amount shown is for 2-3 bedroom units.

## **RESOLUTION NO.**

## A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SUNNYVALE AMENDING RESOLUTION NO. 836-17, FIXING AND ESTABLISHING FEES, RATES, AND CHARGES RESOLUTION TO AMEND SECTION 8.03, "TRANSPORTATION/ TRAFFIC IMPACT FEES"

WHEREAS, the City Council of the City of Sunnyvale ("City") adopted Resolution No. 836-17, the Master Fee Schedule, on June 20, 2017; and

WHEREAS, Chapter 3.50, Transportation Impact Fees of the Sunnyvale Municipal Code was established to defray the costs of certain transportation improvements required to service new development within the City; and

WHEREAS, recently adopted major land use changes (Land use and Transportation Element (LUTE), Peery Park Specific Plan (PPSP), and Lawrence Station Area Plan (LSAP)) and Measure B as a new funding source, an update to the fee is required; and

WHEREAS, the City desires to amend the transportation/ traffic impact fees as set forth in Exhibit A;

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF SUNNYVALE THAT:

- 1. Section 8.03 "Transportation/ Traffic Impact Fees" of the Master Fee Schedule, is hereby amended as set forth in Exhibit A, attached hereto and incorporated herein.
- 2. The establishment of fees herein is exempt from the requirements of the California Environmental Quality Act pursuant to Public Resources Code 15378(b)(4) because it is related to the creation of government funding mechanisms or other fiscal activities which do not involve any commitment to any specific project.
- 3. This resolution shall be effective and the fees shall be operative 60 days after adoption pursuant to §66017 of California Government Code.
- 4. All other provisions of Resolution No. 836-17 shall remain in effect.

Adopted by the City Council at a regular meeting held on \_\_\_\_\_, by the following vote:

AYES: NOES: ABSTAIN: ABSENT: RECUSAL:

ATTEST:

APPROVED:

City Clerk

Mayor

(SEAL)

APPROVED AS TO FORM:

City Attorney

## EXHIBIT A

	<b>18.03</b> TRANSPORTATION / TRAFFIC FEES Code of Regulations, Title 21, Chapter 4, Subchapter 7, Section 1411.3)	CURRENT Fiscal Year <u>2017/18</u>	PROPOSED Fiscal Year <u>2017/18</u>	Charge <u>Code</u>	Object Level <u>3 &amp; 4</u>	Title (Obj. Lvl. 3)	Title (Obj. Lvl. 4)
Transporta	tion Impact Fee						
А.	Impact FeeArea South of Route 237 Single Family detached, per dwelling unit	<del>\$2,278.00</del>	\$3,114.00	799058	1649 - 2	Transportation Impact Fee	
	Multi-family attached, per dwelling unit	\$1,398.00	\$1,931.00	799058	1649 - 2	Transportation Impact Fee	
	Office, per 1,000 square feet	\$3,360.00	\$4,640.00	799058	1649 - 2	Transportation Impact Fee	
	Retail, per 1,000 square feet	\$4,217.00	\$5,776.00	799058	1649 - 2	Transportation Impact Fee	
	Industrial, per 1,000 square feet	\$1,670.00	\$3,021.00	799058	1649 - 2	Transportation Impact Fee	
	Research and Development, per 1,000 square feet	\$2,210.00	\$3,332.00	799058	1649 - 2	Transportation Impact Fee	
	Hotel, per room	<del>\$1,376.00</del>	\$1,868.00	799058	1649 - 2	Transportation Impact Fee	
	Uses not enumerated, per trip	\$2,278.00	\$3,114.00	799058	1649 - 2	Transportation Impact Fee	
В.	Impact FeeIndustrial Area North of Route 237 Industrial, per 1,000 square feet	<del>\$4,507.00</del>	\$5,779.00	799058	1649 - 1	Transportation Impact Fee	
	Research and Development, per 1,000 square feet	<del>\$5,959.00</del>	\$6,375.00	799058	1649 - 1	Transportation Impact Fee	
	Destination Retail, per 1,000 square feet	\$14,286.00	\$11,052.00	799058	1649 - 1	Transportation Impact Fee	
	Neighborhood Retail, per 1,000 square feet	\$7,142.00	\$5,526.00	799058	1649 - 1	Transportation Impact Fee	
	Hotel, per room	\$4,660.00	\$3,575.00	799058	1649 - 1	Transportation Impact Fee	
	Uses not enumerated, per trip	<u>\$6,150.00</u>	\$5,958.00	799058	1649 - 1	Transportation Impact Fee	

**ATTACHMENT 8** 

Bicycle and Pedestrian Advisory Commission

**Meeting Minutes - Draft** 

July 20, 2017

schedule and let him know.

Mr. Jackson expressed his opinion on the Mary Avenue Overcrossing. His first choice would be option 4, pedestrian and bicycle only and his second choice would be option 3, two lanes for busses and shuttles only. He also stressed the difference between designing bike lanes for recreation riders versus commuters.

Dave Simons, VTA BPAC Commissioner, expressed his concerns with integrating the Mary Avenue Overcrossing with the current infrastructure. He suggested adding a link to the John W. Christian Trail and if that is not doable, adding a belvedere to the project.

Matthew Asuncion, a student at Saint Francis High School, said he was in favor of the new overpass. He commented that the surface on parts of the John W. Christian Trail are less than desirable. Many have loose gravel and are not easy to ride on. He suggested that any connections to that trail, have a better surface.

Commissioner Cordes agreed that adding a connection to the John W. Christian Trail would be a good idea and would like to see cycle tracks on Mary Avenue to Central Expressway be included in the Bike Plan. He also noted that If there is no safe way to get to the bridge, it will not be utilized.

3. <u>17-0633</u> Recommendation to City Council on the Update of the Transportation Strategic Program and Adopting a Resolution Amending the City's Master Fee Schedule for Traffic Impact Fees

Alternative 1: Recommend to City Council the Update of the Transportation Strategic Program and Adopt a Resolution Amending the City's Master Fee Schedule for Traffic Impact Fees.

Mr. Pineda gave an overview of the City's Traffic Impact Fees (TIF), which was last updated in 2013. He described how the City collects the fees and how the fees are used. Due to recent land use plans, transportation projects within the City and the inclusion of \$6 billion dollars of Measure B funds for transportation infrastructure, an update to the City's Master Fee Schedule for TIF is needed. He explained how the new fees are calculated using the transportation model and projects are identified using a nexus study. The fees are comparable to fees collected in neighboring cities. The following changes to the TIF were noted:

- Caltrain grade separations added to the fee
- Pedestrian improvements added

Bicycle and Pedestrian Advisory Commission July 20, 2017

- Bicycle improvements increased from \$1.5 million to \$10.0 million

- Previous fee included \$287 million in improvements with \$136 million from TIF and updated fee includes \$906 million in improvements with \$126 million from TIF

Chair Cordes asked why the model uses level of service as a measure instead of evaluating vehicle miles traveled, if the model assumes an increase in alternative transportation mode share and how the projects identified will improve level of service to acceptable levels.

Mr. Pineda stated that Santa Clara Valley Transportation Authority has not provided standards for evaluating vehicle miles traveled at this time. The transportation model assumes travel mode share will change based on existing inputs and anticipated changes such as land use or transit improvements. The Land Use Transportation Element (LUTE) included a comprehensive traffic analysis that identified traffic mitigations to improve the transportation network. The LUTE traffic analysis was used to develop land development plans as well as the projects identified in the updated TIF.

Mr. Simons noted that pedestrian funding traditionally leaves out landscaping which is needed for shading. He also stated that the level of service metric traditionally has only worked for automobiles and is not a good support for bicyclists and pedestrians.

Commissioner Oey moved to approve staff recommendation with the addition that they ask council to increase fees further to account for more spending for bike and pedestrian improvements. Commissioner Swail seconded the motion. The motion carried by the following vote:

Note: Commissioner Rausch left the meeting at 7:30 p.m. before the vote was taken.

Yes 6 - Chair Cordes

Commissioner Oey Commissioner Barry Commissioner Bremond Commissioner Swail Commissioner Welch

**No** 0

Absent 1 - Commissioner Rausch

4. <u>17-0722</u> Election of Officers



Agenda Item

## 17-0728

Agenda Date: 8/22/2017

## **REPORT TO COUNCIL**

## <u>SUBJECT</u>

Award of Contract for Professional Design Services Associated with the Secondary Treatment and Dewatering Project at the Water Pollution Control Plant in an Amount Not to Exceed \$17,746,116 (F17-086), with a 10% Design Contingency of \$1,599,533, and Approve Budget Modification No. 8

## REPORT IN BRIEF

Approval is requested to award a contract to Carollo Engineers of Walnut Creek in an amount not to exceed \$17,746,116 for professional design services associated with the Secondary Treatment and Dewatering Process for the Sunnyvale Clean Water Program and 10% for design contingency on the base services in the amount of \$1,599,533.

## EXISTING POLICY

Consistent with the provisions of Chapter 2.08 of the Sunnyvale Municipal Code, civil engineering work is solicited through a Request for Proposals (RFP) process, unless otherwise exempt from the competitive bidding process. Contracts resulting from RFPs are awarded based on best value to the City, rather than the lowest bid price as in the case of an Invitation for Bids (IFB).

Pursuant to Chapter 2.08 of the Sunnyvale Municipal Code, City Council approval is required for contracts exceeding \$100,000.

## ENVIRONMENTAL REVIEW

This award is for the design phase and construction support services therefore the action being considered does not constitute a "project" within the meaning of the California Environmental Quality Act ("CEQA") pursuant to CEQA Guidelines section 15378(a) as it has no potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment, or a reasonably foreseeable indirect physical change in the environment. However, it is expected that a CEQA memorandum will be filed, which documents the activities, impacts, and mitigation measures presented in the Sunnyvale Clean Water Program's approved Programmatic Environmental Impact Report (RTC No.16-0663) that are applicable to this project. It is anticipated that the project will have no effects beyond those analyzed in the PEIR and that no new environmental document or public notice will be required. If the CEQA memorandum prepared identifies new effects not analyzed and mitigated in the Program's PEIR, an Initial Study will be prepared leading to a Negative Declaration. The consultant will review all CEQA documentation as part of their design review.

## BACKGROUND AND DISCUSSION

The Sunnyvale Clean Water Program is working to rebuild the existing Water Pollution Control Plant (WPCP or Plant), which was initially built in 1956. With additions over the subsequent 15-20 years it has grown to a tertiary treatment facility with an average dry weather flow rate of 14 million gallons per day (MGD) and a permitted average dry weather flow rate of 29.5 MGD. An asset condition

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assessment conducted in 2006 identified several critical Plant structures as at-risk and in need of immediate rehabilitation. Based on this assessment, the City began implementing several rehabilitation projects and also developed a long-term Strategic Infrastructure Plan (SIP) to serve as a road map for the physical improvements and process enhancements needed to maintain a high level of treatment and to meet current and expected regulatory requirements and stewardship objectives. In 2013, to help implement the SIP, the City secured the professional services of Carollo Engineers to develop a comprehensive Master Plan, which included the "basis of design" development for the various process areas to be rebuilt and a programmatic environmental impact report (PEIR). The Master Plan was adopted by City Council in 2016.

The Master Plan consists of more than 30 capital improvement projects. This design project is made up of four individual projects included in Phase 2 of the overall Sunnyvale Clean Water Program and includes (1) Secondary Treatment Improvements - Stage 1, (2) Maintenance Building, (3) Thickening and Dewatering Facility - Stage 1, and (4) Digester Supernatant Pump Station and Drainage Piping Upgrades. Given the magnitude of the Plant reconstruction program and the many individual projects that will be undertaken at any given time, it was determined best to combine these four projects under one design team. These projects all have specific interrelationships and project constraints or sequences that are best managed by one designer. As the design develops, a workshop with City staff, design team members, and Program Management consultants will evaluate if the City should solicit one or two bid packages for the project(s) depending on the bid climate, contractor availability, and site constraints. The second bid package is included in the optional services as noted below.

The secondary treatment improvements involve implementing the first stage of Conventional Activated Sludge (CAS) secondary treatment facilities. The flow will be split between the existing secondary treatment process at the Plant (oxidation ponds, fixed growth reactors, and air flotation tanks) and the CAS system proposed in this project. The new, approximately 8,400 SF maintenance building will include a maintenance shop, staff space, warehouse, and storage areas. The new Maintenance Building will replace the functionality of the existing Maintenance Shop, Maintenance Storage Yard, Instrumentation Shop, and Primary Control Building. As a result, these buildings will be demolished as part of this project. The thickening and dewatering facility will thicken secondary sludge produced by the new secondary treatment improvements implemented in this project and dewater digested biosolids produced by the anaerobic digestion process.

A Request for Proposal (RFP) process was utilized to solicit proposals to design the project. The RFP specifications were prepared by Public Works and Purchasing staff. The RFP was directly distributed to ten Bay Area design firms and posted on the Demandstar public procurement network. Proposals were received on April 12, 2017. Two responsive proposals were received: (1) Carollo Engineers in association with CH2M and (2) Hazen and Sawyer.

Proposals were reviewed by an evaluation team consisting of Public Works Engineering and Environmental Services Department staff. The firms were evaluated on qualifications, experience, project overview, project approach, and innovation. Following the proposal evaluation process, both firms were invited to provide a presentation during a formal interview. Following the interview and deliberation, the City selected the Carollo/CH2M team as the highest ranked consulting team with the most relevant experience and best understanding of the reconstruction of the Plant.

The City engaged Carollo Engineers in discussions to clarify the level of effort and proposed project scope against the City's intended requirements. These discussions resulted in a cost decrease from

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\$21,799,125 to \$18,618,068. The revised cost amount, which includes the project design and optional services, was subsequently negotiated downward to \$17,746,116 through critically evaluating redundancies between Carollo Engineers and its subconsultants, negotiating hourly rates, and reducing the level of consultant support for certain tasks (without compromising project scope). Additionally, Carollo Engineers and its subconsultants (a total of eight) agreed to hold hourly rates through December 31, 2017, at which point the hourly rate will increase 2% annually for the final years of the agreement. A 10% design contingency in the amount of \$1,599,533 for the base scope of services is also being requested which is within industry standards for projects like this. The design costs were estimated based on a conceptual scope of work and the contingency is included to account for any changes that may need to be made based on further design development, equipment changes, or redesigns during construction due to unforeseen conditions.

## Optional Services

The scope of work has been written to allow the consultant to recommend several design concepts and treatment process alternatives for the project which could add \$1,750,784 in project costs. Since there is a potential that adding some of these items may reduce construction costs, site conflicts, increase wastewater treatment performance, change environmental clearances and/or meet future regulatory requirements, it is recommended that these options be included in the contract. These alternatives, titled Preparation of Tiered Negative Declaration, Electrical Improvements to Migrate Existing Processes to New 12 kV Backbone, Second Bid Package, Perimeter Wall Design, Chemically Enhanced Primary Treatment (CEPT) Design are detailed as subtasks in each element of design of the contract's Scope of Work (Exhibit A of Attachment 1). Each item is listed separately and has a cost estimate associated with it, shown in Exhibit C of Attachment 1.

The design consultant will only proceed with these items if directed in writing by the City. If through the conceptual and preliminary design process, it is determined that some of these items are not sufficiently beneficial, then the use of the funds will not be authorized.

Staff recommends awarding a contract for the Design of the Secondary Treatment and Dewatering Improvements, including the base and optional services, for a total of \$17,746,116.

## FISCAL IMPACT

Project costs are as follows:

Project design (including bid and construction support)	\$15,995,332
Optional Services	<u>\$1,750,784</u>
<b>Contract Amount</b>	<b>\$17,746,116</b>
Contingency (10% on the base services only) Total Cost	<u>\$1,599,533</u> <b>\$19,345,649</b>

The costs for design services are budgeted in several projects in the Wastewater Management Fund. The allocation of the recommended design services contract by capital project are listed below:

833140 (SCWP Secondary Treatment Improvements - Stage 1) \$13,039,006 833150 (SCWP Digester Supernatant Pump Station & Piping) \$160,255 833160 (SCWP Thickening & Dewatering - Stage 1) \$5,345,256 833180 (SCWP Maintenance Building) \$801,132 Total Design Funds including 10% Contingency = \$19,345,649

Budget Modification No. 8 is recommended to aggregate these four projects into one project. Upon further analysis of the design and potential bid packages, administrative efficiencies would be gained by combining the budgets for these projects. These projects were originally separated as part of the Sunnyvale Clean Water Program Master Plan. The figures below represent the full cost of the project over the 20-Year Financial Plan as represented in the 2017/18 Adopted Budget.

## Budget Modification No. 8 FY 2017/18

	Current	Increase/ (Decrease)	Revised
Wastewater Management Fund <u>Expenditures</u> Project 833140 - SCWP Secondary Treatment Improvements-Split Flow CAS Stage 1	\$115,460,000	\$52,780,000	\$168,240,000
Project 833150 - SCWP Digester Supernatant PS and Drainage Piping Upgrades	\$1,130,000	(\$1,130,000)	\$0
Project 833160 - SCWP Thickening and Dewatering Facility - Stage 1	\$45,180,000	(\$45,180,000)	\$0
Project 833180 - SCWP Maintenance Building	\$6,470,000	(\$6,470,000)	\$0

## PUBLIC CONTACT

Public contact was made by posting the Council agenda on the City's official-notice bulletin board outside City Hall, at the Sunnyvale Senior Center, Community Center and Department of Public Safety; and by making the agenda and report available at the Sunnyvale Public Library, the Office of the City Clerk and on the City's website.

## RECOMMENDATION

1) Award a contract in substantially the same form as Attachment 1 to the report in an amount not to exceed \$17,746,116 for Professional Design Services Associated with the Secondary Treatment and Dewatering at the Water Pollution Control Plant and authorize the City Manager to execute the contract when all necessary conditions have been met; 2) approve a 10% contract contingency on the base services in the amount of \$1,599,533; and 3) approve Budget Modification No. 8.

Prepared by: Gregory Card, Purchasing Officer Reviewed by: Timothy J. Kirby, Director of Finance Reviewed by: Manuel Pineda, Director of Public Works

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Reviewed by: Kent Steffens, Assistant City Manager Reviewed by: Walter C. Rossmann, Assistant City Manager Approved by: Deanna J. Santana, City Manager

## **ATTACHMENT**

1. Draft Consultant Services Agreement

#### DRAFT CONSULTANT SERVICES AGREEMENT BETWEEN CITY OF SUNNYVALE AND CAROLLO ENGINEERS FOR DESIGN AND CONSTRUCTION SUPPORT SERVICES FOR THE SECONDARY TREATMENT AND DEWATERING PROJECT

THIS AGREEMENT, dated \_\_\_\_\_\_, is by and between the CITY OF SUNNYVALE, a municipal corporation ("CITY"), and CAROLLO ENGINEERS, a California corporation ("CONSULTANT").

WHEREAS, CITY desires to secure professional services necessary for development of a safe and efficient design, preparation of bid documents for Public Works competitive bidding and, construction support for the Secondary Treatment and Dewatering project and

WHEREAS, CONSULTANT represents that it, and its sub-consultants, if any, possess the professional qualifications and expertise to provide the required services and are licensed by the State of California to practice engineering in the required disciplines;

NOW, THEREFORE, THE PARTIES ENTER INTO THIS AGREEMENT.

#### 1. <u>Services by CONSULTANT</u>

CONSULTANT shall provide services in accordance with Exhibit "A" entitled "Scope of Work" and Exhibit "E" entitled "Preliminary List of Anticipated Drawings." All exhibits referenced in this Agreement are attached hereto and are incorporated herein by reference. To accomplish that end, CONSULTANT agrees to assign Jim Hagstrom to this project, to act in the capacity of Project Manager and personally direct the professional services to be provided by CONSULTANT.

Except as specified in this Agreement, CONSULTANT shall furnish all technical and professional services, including labor, material, equipment, transportation, supervision and expertise to perform all operations necessary and required to satisfactorily complete the services required in this Agreement.

- 2. <u>Notice to Proceed/Completion of Services</u>
  - (a) CONSULTANT shall commence services upon receipt of a Notice to Proceed from CITY. Notice shall be deemed to have occurred three (3) calendar days after deposit in the regular course of the United States mail.
  - (b) When CITY determines that CONSULTANT has satisfactorily completed the services defined in Exhibit "A," CITY shall give CONSULTANT written Notice of Final Acceptance, and CONSULTANT shall not incur any further costs hereunder. CONSULTANT may request this determination of completion when, in its opinion, it has satisfactorily completed the Scope of Work (Exhibit "A"), and if so requested, CITY shall make this determination within fourteen (14) days of such request.
- 3. <u>Project Schedule</u>

The Project Schedule is set forth in the attached Exhibit "A-1."

#### 4. <u>Payment of Fees and Expenses</u>

Payments shall be made to CONSULTANT on a monthly basis as set forth in the attached Exhibit "B" entitled "Compensation Schedule" and Exhibit "C" entitled "Compensation for Reimbursable Expenditures." All compensation will be based on monthly billings, based on hourly

rates, as provided in Exhibit "B" and Exhibit "C". Compensation will not be due until said detailed billing is submitted to CITY within a reasonable time before payment is expected to allow for normal CITY processing. An estimate of the percent of total completion and actual hours completed associated with the various task descriptions of the services shall be furnished by CONSULTANT with said billing. When applicable, copies of pertinent financial records will be included with the submission of billing(s) for all direct reimbursables. Compensation shall not exceed the amounts set forth in Exhibit "B" for each task description total fee, and shall include services as identified in Exhibit "A" in the amount of Fifteen Million Nine Hundred Ninety Five Thousand Three Hundred Thirty Two and No/100 Dollars (\$15,995,332.00) for the duration of the contract, as well as optional services in an amount not to exceed One Million Seven Hundred Fifty Thousand Seven Hundred Eighty Four and No/100 Dollars (\$1,750,784.00) for the duration of the contract. In no event shall the total amount of compensation payable under this agreement exceed the sum of Seventeen Million Seven Hundred Forty Six Thousand One Hundred Sixteen and No/100 Dollars (\$17,746,116.00) unless upon written modification of this Agreement. All invoices, including detailed backup, shall be sent to City of Sunnyvale, attention Accounts Payable, P.O. Box 3707, Sunnyvale, CA 94088-3707.

CONSULTANT will be reimbursed as promptly as fiscal procedures will permit upon receipt by the CITY of itemized invoices in triplicate. Invoices shall be submitted no later than 45 calendar days after the performance of work for which CONSULTANT is billing. Invoices shall detail the work performed on each milestone and each project as applicable. Invoices shall follow the format stipulated in the Compensation Schedule and shall reference the project title. The final invoice must contain the final cost and all credits due CITY. The final invoice should be submitted within 60 calendar days after completion of CONSULTANT's work.

## 5. <u>No Assignment of Agreement</u>

CONSULTANT bind themselves, their partners, successors, assigns, executors, and administrators to all covenants of this Agreement. Except as otherwise set forth in this Agreement, no interest in this Agreement or any of the work provided for under this Agreement shall be assigned or transferred, either voluntarily or by operation of law, without the prior written approval of CITY. However, claims for money due to or to become due to CONSULTANT from CITY under this Agreement may be assigned to a bank, trust company or other financial institutions, or to a trustee in bankruptcy, provided that written notice of any such assignment or transfer shall be first furnished to CITY. In case of the death of one or more members of CONSULTANT's firm, the surviving member or members shall complete the services covered by this Agreement. Any such assignment shall not relieve CONSULTANT from any liability under the terms of this Agreement.

## 6. <u>Consultant is an Independent Contractor</u>

CONSULTANT is not an agent or employee of CITY but is an independent contractor with full rights to manage its employees subject to the requirements of the law. All persons employed by CONSULTANT in connection with this Agreement will be employees of CONSULTANT and not employees of CITY in any respect. CONSULTANT is responsible for obtaining statutory Workers' Compensation coverage for its employees.

#### 7. <u>Consultant's Services to be Approved by a Registered Professional</u>

All reports, costs estimates, plans and other documents which may be submitted or furnished by CONSULTANT shall be approved and signed by a qualified registered professional in the State of California. The title sheet for calculations, specifications and reports, and each sheet of plans, shall bear the professional seal, certificate number, registration classification, expiration date of certificate and signature of the professional responsible for their preparation.

#### 8. <u>Standard of Workmanship</u>

CONSULTANT represents and maintains that it is skilled in the professional calling necessary to perform the services and its duties and obligations, expressed and implied, contained herein, and CITY expressly relies upon CONSULTANT's representations regarding its skills and knowledge. CONSULTANT shall perform such services and duties in conformance to and consistent with the standards generally recognized as being employed by professionals in the same discipline in the State of California.

The plans, designs, specifications, estimates, calculations reports and other documents furnished under the Scope of Work (Exhibit "A") shall be of a quality acceptable to CITY. The criteria for acceptance of the work provided under this Agreement shall be a product of neat appearance, well-organized, technically and grammatically correct, checked and having the maker and checker identified. The minimum standard of appearance, organization and content of the drawings shall be that used by CITY for similar projects.

#### 9. <u>Responsibility of CONSULTANT</u>

CONSULTANT shall be responsible for the professional quality, technical accuracy and the coordination of the services furnished by it under this Agreement. Neither CITY's review, acceptance nor payment for any of the services required under this Agreement shall be construed to operate as a waiver of any rights under this Agreement or of any cause of action arising out of the performance of this Agreement and CONSULTANT shall be and remain liable to CITY in accordance with applicable law for all damages to CITY caused by CONSULTANT's negligent performance of any of the services furnished under this Agreement.

Any acceptance by CITY of plans, specifications, calculations, construction contract documents, reports, diagrams, maps and other material prepared by CONSULTANT shall not, in any respect, absolve CONSULTANT for the responsibility CONSULTANT has in accordance with customary standards of good engineering practice in compliance with applicable Federal, State, County and/or municipal laws, ordinances, regulations, rules and orders.

#### 10. Right of CITY to Inspect Records of CONSULTANT

CITY, through its authorized employees, representatives, or agents, shall have the right, at any and all reasonable times, to audit the books and records including, but not limited to, invoices, vouchers, canceled checks, time cards of CONSULTANT for the purpose of verifying any and all charges made by CONSULTANT in connection with this Agreement. CONSULTANT shall maintain for a minimum period of three (3) years from the date of final payment to CONSULTANT or for any longer period required by law, sufficient books and records in accordance with generally accepted accounting practices to establish the correctness of all charges submitted to CITY by CONSULTANT. Any expenses not so recorded shall be disallowed by CITY.

#### 11. <u>Confidentiality of Material</u>

All ideas, memoranda, specifications, plans, calculations, manufacturing procedures, data, drawings, descriptions, documents, discussions or other information developed or received by or for CONSULTANT and all other written information submitted to CONSULTANT in connection with the performance of this Agreement shall be held confidential by CONSULTANT and shall not, without the prior written consent of CITY be used for any purposes other than the performance of the Project services, nor be disclosed to an entity not connected with the performance of the Project services. Nothing furnished to CONSULTANT which is otherwise known to CONSULTANT or is or becomes generally known to the related industry shall be deemed confidential. CONSULTANT shall not use

CITY's name, insignia or distribute exploitative publicity pertaining to the services rendered under this Agreement in any magazine, trade paper, newspaper or other medium without the express written consent of CITY.

#### 12. <u>No Pledging of CITY's Credit</u>

Under no circumstances shall CONSULTANT have the authority or power to pledge the credit of CITY or incur any obligation in the name of CITY.

#### 13. Ownership of Material

All material, including information developed on computer(s), which shall include, but not be limited to, data, sketches, tracings, drawings, plans, diagrams, quantities, estimates, specifications, proposals, tests, maps, calculations, photographs, reports and other material developed, collected, prepared or caused to be prepared, under this Agreement shall be the property of CITY, but CONSULTANT may retain and use copies thereof.

CITY shall not be limited, in any way, in its use of said material, at any time, for work associated with Project. However, CONSULTANT shall not be responsible for damages resulting from the use of said material for work other than Project, including, but not limited to the release of this material to third parties for work other than on Project.

#### 14. <u>Hold Harmless/Indemnification</u>

To the extent permitted by law (including, without limitation, California Civil Code section 2782.8), CONSULTANT agrees to indemnify, defend and hold harmless CITY, its officers and employees from any and all claims, demands, actions, causes of action, losses, damages, liabilities, known or unknown, and all costs and expenses, including reasonable attorneys' fees in connection with any injury or damage to persons or property to the extent arising out of any negligence, recklessness or willful misconduct of CONSULTANT, its officers, employees, agents, contractor, subcontractors or any officer, agent or employee thereof in relation to CONSULTANT's performance under this Agreement. Such defense and indemnification shall not apply in any instance of and to the extent caused by the sole negligence, recklessness or willful misconduct of CITY, its officers, employees, agents or representatives.

#### 15. <u>Insurance Requirements</u>

CONSULTANT shall take out and maintain during the life of this Agreement policies of insurance as specified in Exhibit "D" attached and incorporated by reference, and shall provide all certificates and/or endorsements as specified in Exhibit "D."

#### 16. <u>No Third Party Beneficiary</u>

This Agreement shall not be construed or deemed to be an agreement for the benefit of any third party or parties and no third party or parties shall have any claim or right of action hereunder for any cause whatsoever.

#### 17. <u>Notices</u>

All notices required by this Agreement, other than invoices for payment which shall be sent directly to Accounts Payable, shall be in writing, and sent by first class with postage prepaid, or sent by commercial courier, to address below.

Nothing in this provision shall be construed to prohibit communication by more expedient

means, such as by email or fax, to accomplish timely communication. Each party may change the address by written notice in accordance with this paragraph. Notices delivered personally shall be deemed communicated as of actual receipt; mailed notices shall be deemed communicated as of three business days after mailing.

To CITY: Craig Mobeck, Assistant Director of Public Works/City Engineer Department of Public Works CITY OF SUNNYVALE P. O. Box 3707 Sunnyvale, CA 94088-3707

To CONSULTANT: Carollo Engineers Attn: Jim Hagstorm 2700 Ygnacio Valley Road, Suite 300 Walnut Creek, CA 94598

#### 18. <u>Waiver</u>

CONSULTANT agrees that waiver by CITY of any one or more of the conditions of performance under this Agreement shall not be construed as waiver(s) of any other condition of performance under this Agreement.

#### 19. <u>Amendments</u>

No alterations or changes to the terms of this Agreement shall be valid unless made in writing and signed by both parties.

#### 20. Integrated Agreement

This Agreement embodies the agreement between CITY and CONSULTANT and its terms and conditions. No verbal agreements or conversation with any officer, agent or employee of CITY prior to execution of this Agreement shall affect or modify any of the terms or obligations contained in any documents comprising this Agreement. Any such verbal agreement shall be considered as unofficial information and in no way binding upon CITY.

#### 21. Conflict of Interest

CONSULTANT shall avoid all conflicts of interest, or appearance of conflict, in performing the services and agrees to immediately notify CITY of any facts that may give rise to a conflict of interest. CONSULTANT is aware of the prohibition that no officer of CITY shall have any interest, direct or indirect, in this Agreement or in the proceeds thereof. During the term of this Agreement CONSULTANT shall not accept employment or an obligation which is inconsistent or incompatible with CONSULTANT'S obligations under this Agreement.

#### 22. Governing Law, Jurisdiction and Venue

This Agreement shall be governed by and construed in accordance with the laws of the State of California, excluding its conflict of law principles. Proper venue for legal actions will be exclusively vested in a state court in the County of Santa Clara. The parties agree that subject matter and personal jurisdiction are proper in state court in the County of Santa Clara, and waive all venue objections.

#### 23. <u>Records, Reports and Documentation</u>

CONSULTANT shall maintain complete and accurate records of its operation, including any and all additional records required by CITY in writing. CONSULTANT shall submit to CITY any and

all reports concerning its performance under this Agreement that may be requested by CITY in writing. CONSULTANT agrees to assist CITY in meeting CITY's reporting requirements to the state and other agencies with respect to CONSULTANT's work hereunder. All records, reports and documentation relating to the work performed under this Agreement shall be made available to City during the term of this Agreement.

#### 24. <u>Termination of Agreement</u>

- A. If CONSULTANT defaults in the performance of this Agreement, or materially breaches any of its provisions, CITY at its option may terminate this Agreement by giving written notice to CONSULTANT. In the event of such termination, CONSULTANT shall be compensated in proportion to the percentage of satisfactory services performed or materials furnished (in relation to the total which would have been performed or furnished) through the date of receipt of notification from CITY to terminate. CONSULTANT shall present CITY with any work product completed at that point in time.
- B. Without limitation to such rights or remedies as CITY shall otherwise have by law, CITY also shall have the right to terminate this Agreement for any reason upon ten (10) days' written notice to CONSULTANT. In the event of such termination, CONSULTANT shall be compensated in proportion to the percentage of services performed or materials furnished (in relation to the total which would have been performed or furnished) through the date of receipt of notification from CITY to terminate. CONSULTANT shall present CITY with any work product completed at that point in time.
- C. If CITY fails to pay CONSULTANT, CONSULTANT at its option may terminate this Agreement if the failure is not remedied by CITY within (30) days after written notification of failure to pay.

#### 25. Subcontracting

None of the services covered by this Agreement shall be subcontracted without the prior written consent of CITY. Such consent may be issued with notice to proceed if subcontract consultants are listed in the project work plan.

#### 26. Fair Employment

CONSULTANT shall not discriminate against any employee or applicant for employment because of race, color, creed, national origin, sex, age, condition of physical handicap, religion, ethnic background or marital status, in violation of state or federal law.

27. <u>Changes</u>

CITY or CONSULTANT may, from time to time, request changes in the terms and conditions of this Agreement. Such changes, which are mutually agreed upon by CITY and CONSULTANT, shall be incorporated in amendments to this Agreement.

#### 28. <u>Other Agreements</u>

This Agreement shall not prevent either Party from entering into similar agreements with others.

#### 29. <u>Severability Clause</u>.

In case any one or more of the provisions contained herein shall, for any reason, be held invalid, illegal or unenforceable in any respect, it shall not affect the validity of the other provisions which shall remain in full force and effect.

#### 30. Captions

The captions of the various sections, paragraphs and subparagraphs, of the contract are for convenience only and shall not be considered nor referred to for resolving questions of interpretation.

#### 31. Entire Agreement; Amendment

This writing constitutes the entire agreement between the parties relating to the services to be performed or materials to be furnished hereunder. No modification of this Agreement shall be effective unless and until such modification is evidenced by writing signed by all parties.

#### 32. Miscellaneous

Time shall be of the essence in this Agreement. Failure on the part of either party to enforce any provision of this Agreement shall not be construed as a waiver of the right to compel enforcement of such provision or any other provision.

IN WITNESS WHEREOF, the parties have executed this Agreement.

ATTEST:

#### CITY OF SUNNYVALE ("CITY")

By\_\_\_

City Clerk

By\_\_\_\_\_ City Manager

CAROLLO ENGINEERS ("CONSULTANT")

APPROVED AS TO FORM:

By

Name/Title

City Attorney

\_\_\_\_\_

Ву\_\_\_\_\_

Name/Title

## EXHIBIT A

### SCOPE OF WORK FOR Secondary Treatment and Dewatering

#### I. General

The scope consists of providing professional services for design and preparation of bid documents and construction support for the following:

- Secondary Treatment Improvements–Split Flow Conventional Activated Sludge (CAS) Stage 1;
- 12 kV Electrical Distribution System–Stage 2;
- Migration of Existing Processes to New 12 kV Backbone (at the City's option);
- ACS (SCADA System) Improvements-Stage 2;
- Maintenance Building;
- Completion of Perimeter Wall (at the City's option);
- Chemically Enhanced Primary Treatment facilities (at City's option);
- Digester Supernatant Pump Station (PS) and Drainage Piping;
- Thickening and Dewatering Facility–Stage 1.

The scope of work generally includes preparation of conceptual design, preliminary design, design development, bid documents, and bidding/construction/commissioning support for Public Works competitive bidding. Ancillary work includes the following:

- Project management;
- Conducting workshops;
- Preparing California Environmental Quality Act (CEQA) documentation;
- Preparing permit application(s);
- Performing geotechnical investigation;
- Assessing existing structures for hazardous materials;
- Sampling and analyzing wastewater;
- Construction cost estimating;
- Schedule development.

At this time, it is expected that all the above projects will be designed as a single set of plans and specifications and bid as a single construction contract. The contract packaging will be evaluated during design development. At that time, the City may elect to implement the project in two phases. It is assumed that implementing the project in two phases would not extend the overall schedule beyond 2024.

#### II. Project Information

#### A. Description

#### **Program Description**

The City has prepared a Master Plan for the Sunnyvale Clean Water Program (SCWP) to guide improvements to the City of Sunnyvale Water Pollution Control Plant (WPCP) facilities and operations over the next 30 or more years (see Item 2 of Available

Documents, Section IV). The Master Plan was developed to address several challenges facing the WPCP today and into the future, as well as to support City policies. These challenges include; aging infrastructure; changes in regulatory requirements; and increases in population, flows and loads. The Master Plan identifies capital improvement projects, estimates costs, and recommends implementation approaches to achieve the planning objectives. Consultant shall review and become familiar with the Master Plan. The City has adopted a final program environmental impact report (PEIR) for the Master Plan in compliance with the California Environmental Quality Act (CEQA) and the CEQA Guidelines (see Item 3 of Available Documents, Section IV).

#### **Project Description**

Several projects of the Master Plan will be underway concurrently with this scope of work. Currently, the City is already proceeding with the replacement of the Headworks and Primary Treatment Facility, a condition assessment for the Existing WPCP Rehabilitation project, planning of the new Administration and Lab Building, and enhancements to trail access and parking at Caribbean Drive. Construction of the Primary Treatment facility is expected to be underway during the planning, design, and bid/award duration of this scope of work. The Existing WPCP Rehabilitation Project is in progress with a condition assessment and will be constructed concurrently with this scope of work, while the new Administration and Lab Building and the Caribbean Drive Parking and Trail Access Enhancements are also in the planning phases and construction is shown to be completed prior to beginning construction of this scope of work in summer 2019. Construction of the Maintenance Building Project is proposed to begin after the construction of the Administration and Lab Building and Caribbean Drive Parking and Trail Access Enhancements Projects because the current facilities and trail entrances are located in the site of the proposed maintenance building. In addition, the WPCP is finishing up other interim project work to maintain continuous operation while transitioning between existing conditions and the future plant.

The current secondary treatment process of oxidation ponds, Fixed Growth Reactors (FGRs), and Air Flotation Tanks (AFTs) cannot meet expected future, stringent nitrogen limits. The Secondary Treatment Improvements – Split Flow CAS Stage 1 element of this project will construct a Conventional Activated Sludge (CAS) system that can operate in parallel with the existing secondary treatment system to reduce effluent nitrogen concentrations while delaying the need for a total replacement of the existing system.

Detailed criteria are available in Part 3.0 of the Basis of Design Report in the Master Plan (see Item 2A of Available Documents, Section IV).

To handle the sludge produced by the expanded secondary treatment system with the introduction of new CAS facilities, two other elements need to be implemented. The Thickening and Dewatering Facility – Stage 1 element will implement a facility to thicken the additional secondary sludge (produced by the CAS facilities) and to dewater digested biosolids produced by the anaerobic digestion process. The Digester Supernatant PS and Drainage Piping Upgrades element is necessary due to the age of the overall facilities and to maintain reliable operation through the new proposed

secondary process upgrades at the WPCP. If implemented, the new solids facilities will improve the cost-effectiveness of solids handling.

The project elements included in this scope of work are further described below:

## Secondary Treatment Improvements – Split Flow CAS Stage 1

This element is Project 2.2 in the Master Plan and involves implementing the first stage of Conventional Activated Sludge (CAS) secondary treatment facilities. The flow will be split between the existing secondary treatment process at the WPCP (oxidation ponds, FGRs, and AFTs) and the CAS system proposed in this project. The new facilities constructed for this project will include the following:

- Aeration basins;
- Blower building and aeration blowers;
- Secondary clarifiers;
- Return activated sludge/ waste activated sludge pump stations;
- Primary effluent distribution structures;
- Demolition of the existing/old primary sedimentation tanks.

## Chemically Enhanced Primary Treatment (CEPT)

This optional element was originally designed as a bid alternate for another project in the Sunnyvale Clean Water Program, the Headworks and Primary Treatment – Package 2 Project. However, the CEPT bid alternate was not exercised in that project and may need to be included in this project. This element consists of new chemical storage and feed facilities to enhance performance of the primary treatment facilities.

## **Maintenance Building**

This element is Project 8.4 in the Master Plan and entails implementing a new Maintenance Building that will include a maintenance shop, staff space, warehouse, and storage areas. The new Maintenance Building will replace the functionality of the existing Maintenance Shop, Maintenance Storage Yard, Instrumentation Shop, and Primary Control Building. As a result, these buildings will be demolished as part of this project. The major project elements include the following:

- Demolition of existing Administration Building and Primary Control Building;
- 8,200 SF one-story building;
- Landscaping;
- Yard space for storage and vehicle access.

## **Digester Supernatant Pump Station and Drainage Piping**

This element is Project 4.1 in the Master Plan and involves rehabilitating selected components of the existing support utility systems. The major elements of this project include the following:

- Repair concrete within supernatant pump station;
- Replace digester supernatant pumps;
- Repair portions of drainage piping from digesters to supernatant pump station.

## Thickening and Dewatering Facility – Stage 1

This element is Project 4.2 in the Master Plan and involves implementing a facility to thicken secondary sludge produced by the new secondary treatment improvements presented above and to dewater digested biosolids produced by the anaerobic digestion process. The facility will be implemented in two Stages. Stage 1 includes implementing thickening and dewatering facilities required to support the first phase of new secondary treatment improvements. The major project elements include the following:

- Building to house the equipment (with bridge crane);
- Thickening units;
- Thickened Waste Activated Sludge (TWAS) pumps;
- Thickening polymer storage and feed system;
- Digester Sludge Feed Piping Upgrades;
- Dewatering units;
- Cake pumps;
- Dewatering polymer storage and feed system;
- Cake storage hopper and truck loading facility;
- Odor control system comprised of biotrickling scrubber;
- Separate pump station and WAS Feed Systems.

## 12 kV Electrical Distribution System – Stage 2

This element is included as Project 6.0 in the Master Plan. Stage 1 of the electrical distribution system element, included with the Headworks and Primary Treatment Facility project, includes implementation of 12 kV primary power distribution to headworks and primary treatment. Stage 2, which is included in this scope of work, includes implementation of 12 kV primary power distribution to all remaining facilities at the WPCP. The major project elements include the following:

- 12 kV cable, conduit, and ductbanks with provisions for fiber optics cable;
- 12 kV 480 V transformers;
- Demolition of 4160 V distribution system to the extent it conflicts with new construction;
- Standby generator including fuel storage tank, protective relays, disconnect switch, and other auxiliary equipment.

## ACS (SCADA System) Improvements – Stage 2

This element is included as Project 7.0 in the Master Plan. The existing plant control system consists of a supervisory control and data acquisition (SCADA) System. The replacement system will be referred to as the Automated Control System (ACS). Stage 1 of ACS will be constructed as part of the Headworks and Primary Treatment Facility project and will establish the new ACS backbone and initial fiber optics distribution for the headworks, primary treatment, and cogeneration facilities. In Stage 2 of the ACS improvements, which is included in this scope of work, the Consultant shall determine the method to expand the WPCP fiber optic duct banks to all remaining facilities at the WPCP. The major items for the fiber optics expansion include the following:

- Communications Backbone
  - o 72 strand single-mode fiber optics cable, installed in a loop configuration;
  - Communications cabinets.

#### Second Bid Package (Optional)

At this time, it is believed that delay claims and site conflicts could be minimized by combining construction of Secondary Treatment Improvements – Split Flow Conventional Activated Sludge (CAS) Stage 1, Air Flotation Tank (AFT) Pump Station and Pipeline, Maintenance Building, Digester Supernatant Pump Station (PS) and Drainage Piping, Thickening and Dewatering Facility–Stage 1, 12 kV Electrical Distribution System–Stage 2, and ACS (SCADA System) Improvements–Stage 2 in a single bid package.

Depending on the economic climate at the time, there may be a cost advantage from increased competition if Digester Supernatant Pump Station (PS) and Drainage Piping and Thickening and Dewatering Facility–Stage 1 were pulled from the main contract and bid as a second contract. As part of Task D–Conceptual Design, Consultant shall make a recommendation as to whether the projects shall be bid as one contract or two.

If two contracts is the selected option, there will be an additional effort to prepare separate bid packages and provide support during bidding, construction, and commissioning. The price for Tasks A3, B2b, F6, G3, H3, I3, and J5 represent the differences between the Consultant's fee for one bid package and the Consultant's fee for two bid packages. These tasks shall not be priced to cover the entire cost of engineering for the Digester Supernatant Pump Station (PS) and Drainage Piping and Thickening and Dewatering Facility–Stage 1.

#### B. Location

The existing WPCP is located at 1444 Borregas Avenue, Sunnyvale, Santa Clara County, California.

The site lies near the South San Francisco Bay, in the northern part of the City of Sunnyvale. The site includes approximately 16.5 acres of land, approximately 440 acres of wetland, and several associated property rights. The City's SMaRT (Sunnyvale Materials Recovery and Transfer) Station lies to the east and the Sunnyvale East Channel forms the eastern boundary of the site. The City's municipal solid waste landfill borders the south and west of the site. The Sunnyvale West Channel forms the western boundary of the site. Several high technology businesses surround the site beyond the City-owned land and Caribbean Drive within Moffett Park. San Francisco Bay is directly north of the site.

#### C. Existing Conditions

The existing WPCP was originally built in 1956. With additions over the subsequent 15-20 years, it grew to a tertiary treatment facility with an average dry weather flow of 14 million gallons per day (MGD) and a permitted average dry weather flow of 29.5 MGD. An asset condition assessment conducted in 2006 identified several critical WPCP structures as at-risk and in need of immediate rehabilitation. Based on this assessment, the City began implementing several rehabilitation projects and also developed a long-term Strategic Infrastructure Plan (SIP) to serve as a road map for the physical improvements and process enhancements needed to maintain a high level of treatment

and to meet current and expected regulatory requirements and stewardship objectives (see Item 2B of Available Documents, Section IV). In 2013, the City secured the professional services of an engineering design team of consultants to develop a comprehensive Master Plan, which included the Basis of Design development for the various process areas to be rebuilt and a programmatic environmental impact report (PEIR). The Master Plan was adopted by City Council in 2016.

The Sunnyvale WPCP operates in accordance with NPDES Permit No. CA0037621, as adopted by Order R2-2003-0079 of the California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB-SF Bay), and other permits. Key permit limits and WPCP performance from 2015 is summarized in the table below. The full table is available in the NPDES report (see Table 1 of Item 4 in Available Documents, Section IV).

Parameter	Effluent Lir	2015 Averages,		
	Average	Max Month	mg/L	
TSS	20	50	8.91	
CBOD5	10	20	4.90	
NH <sub>4</sub> -N, June - September	2	5	0.45	

The existing conditions of the facilities and areas proposed to be upgraded in this scope of work are delineated by project and described in further detail below:

#### Secondary Treatment Improvements – Split Flow CAS Stage 1

Two oxidation ponds covering about 440 acres at the south end of San Francisco Bay are located northwest of the main plant site. Along with the existing FGRs and AFTs, these ponds currently provide secondary treatment. This project proposes a parallel CAS system that would split the flow with the existing secondary treatment process (oxidation ponds, FGRs, and AFTs) to allow for better nitrogen removal.

#### **Maintenance Building**

Currently, there are separate facilities for the existing Maintenance Shop, Maintenance Storage Yard, and Instrumentation Shop that house all the individual components that will be located in a new, centralized Maintenance Building. The new building will be located in the space currently occupied by the existing Administration Building which will be demolished as part of this project.

#### **Digester Supernatant Pump Station and Drainage Piping Upgrades**

The digesters were initially constructed in the 1960s. During the Master Planning period, Digesters No. 1 and 2 were rehabilitated with structural, mixing, heating, gas, electrical, and instrumentation and control modifications, while minor improvements were made to Digester No. 3. Due to the age of the overall digester facilities, key elements of the digester supernatant pump station and drainage piping need to be rehabilitated or replaced to maintain reliable operation.

## Thickening and Dewatering Facility – Stage 1

Currently, digested biosolids are processed by a vendor. This project will implement a more permanent solution to thicken sludge produced by the new secondary treatment facilities and to dewater digested biosolids produced by the anaerobic digestion process.

## 12 kV Electrical Distribution System – Stage 2

The existing 4160 V electrical distribution system was built in the 1960s. Due to the age of the distribution system, it needs to be replaced. When replaced, the electrical distribution system will be converted to a 12 kV system because it will be less expensive to construct and operate than a 4160 V electrical distribution system.

## ACS (SCADA System) Improvements – Stage 2

Currently, the WPCP has a semi-automated control system comprised of obsolete equipment, disparate manufacturers and no unified interface for WPCP staff to monitor or control the various processes. Existing SCADA programmable logic controllers (PLCs) include Opto 22 and GE Fanuc. Existing SCADA software includes GE Proficy iFix and Wonderware Intouch. An ACS Plan TM has been developed which provides the foundation to replace the existing ACS with a unified plant-wide automation control system that leverages state-of-the-art technology (see Item 2C of Available Documents, Section IV). The new ACS platform will be based on Rockwell Automation PlantPAx and ControlLogix PLCs. Stage 1 of the ACS improvements will be implemented as part of the Headworks and Primary Treatment Facility project and will establish the ACS servers, workstations, and initial fiber optics distribution for those facilities. The new ACS will gradually replace the existing SCADA system as major process improvements are implemented. ACS (SCADA System) Improvements – Stage 2, included in this scope of work, will also expand the fiber optics distribution to all remaining facilities at the WPCP.

## III. Consultant Scope of Services

Consultant services shall include, but are not limited to: project management, permit applications, documenting existing conditions, conceptual design, preliminary design, design development, bid documents, bidding support, and construction and commissioning support services, as further detailed below.

## A. Project Management

## 1. Base Scope Project Management

The Consultant will be the primary responsible party for managing the project's schedule and Consultant contract budget. In addition, the Consultant is expected to lead a monthly progress meeting and prepare action item logs for subsequent follow-up. The Consultant is expected to maintain frequent and timely communication with City staff throughout the duration of the project.

The City has engaged a program management consultant (PMC) who provides management services to the City's Public Works Department and oversight of all projects in the Sunnyvale Clean Water Program. This design project will be managed by City staff in collaboration with the PMC.

All on-site investigations including surveying, geotechnical work, hazardous materials assessment, or other work performed by the Consultant shall be scheduled and coordinated with the City. Consultants shall coordinate these efforts with the efforts of the Master Plan, specifically the Geotechnical Study, Existing Utilities TM, and the Land Survey and Monumentation Documents (see Items 2D, 2E, and 2F of Available Documents, Section IV).

Design Consultant shall be responsible for the following items:

- a. <u>Project Management Plan</u>: Consultant shall submit Draft and Final Project Management Plan that includes a calendar of meetings, workshops, and deliverables. This calendar shall be tabular and include the name, date, required attendees, and decisions to be made at each workshop; and the subtask, deliverable name, Draft due date, comment due date, Final due date, and objective of each TM and DIM. Calendar shall show no more than three deliverables under review at any time, not including the deliverables submitted under this Task A.
- b. <u>Meeting Management:</u> Meetings must be scheduled at least one month in advance and the schedule shall identify the purpose of each meeting as well as who is required (or optional) to attend from City staff. Meeting agendas shall be prepared prior to all meetings with City staff and emailed at least three days prior to each meeting. Agendas shall identify the purpose of each meeting and who is required (or optional) to attend from City staff. Meeting minutes shall be provided by the consultant within one week of each meeting and e-mailed to all meeting participants. Consultant shall prepare a final set of meeting minutes that incorporate any comments and shall distribute them to all meeting participants.
- c. <u>Project Schedules:</u> All project schedules shall be prepared in Gantt chart format, utilizing Microsoft Project software. Schedules shall include all required workshops, four weeks for City review of each design submittal in Task F, two weeks for City review of each other deliverable, and adequate time for review of permit applications. Schedule updates shall be provided at all progress meetings.
- d. <u>Quality Assurance/Quality Control:</u> The Consultant's own team shall have provisions for quality assurance/quality control over the work product prepared for the City. A statement of peer review will be required for overall constructability, coordination, and reasonable reduction in errors and omissions.
- e. <u>Document Management:</u> Unifier is the records management system for the Program. Consultant shall use Unifier to submit invoices and deliverables, and to log action items and design decisions made during meetings and ad hoc communications. One hour of training and licenses for up to 4 users will be provided to Consultant by the PMC.
- f. <u>Pay Applications:</u> Consultant shall submit monthly invoices. Invoices shall include complete back-up of all project costs and include a cover page listing the total budget, amount authorized by NTP, previous billed-

to-date, current billing, and total billed-to-date for each task. Invoice shall be accompanied by a brief progress report which lists the work accomplished in the previous month.

## **Deliverables:**

- Draft Project Management Plan
- Final Project Management Plan
- Monthly progress meetings, agenda, minutes
- Monthly invoices and progress report

## 2. Support for Council Study Sessions (Optional)

The City will potentially require Consultant's support for two Council Study Sessions. If such support is required, Consultant's role will be to prepare a PowerPoint presentation and up to three attachments per sessions, presenting the project scope, status, and issues. Presentations and attachments shall provide comprehensive but high-level information about the projects, suitable for an executive decision-making audience. Consultant's Project Manager shall attend the sessions and be prepared to answer questions.

## **Deliverables:**

- Two (2) Draft PowerPoint presentations and attachments
- Two (2) Final PowerPoint presentations and attachments
- Attendance at two (2) Council Study Sessions

## 3. Second Bid Package Project Management (Optional)

If it is determined the project will be constructed as two bid packages, Consultant shall provide project management services, as listed in the Base Scope Project Management Task, Task A1 of this scope of work, through the duration of the second bid package construction phase. The first bid package shall consist of the following elements: Secondary Treatment Improvements – Split Flow CAS – Stage 1, Maintenance Building, 12 kV Electrical Distribution System – Stage 2, and ACS (SCADA System) Improvements – Stage 2. The second bid package will include the Digester Supernatant PS and Drainage Piping and Thickening and Dewatering Facility – Stage 1 elements of the project.

The price for this Task A3 shall represent the additional cost to provide project management services through the additional time required between completion of the first bid package construction and the completion of the second bid package construction. All deliverables required for this optional Task are listed in the Base Scope Project Management Task, Task A1 of this scope of work.

## B. Permitting

1. <u>CEQA</u>

Consultant shall prepare a memorandum to file, which documents the activities, impacts, and mitigation measures in the Program's programmatic EIR (PEIR)

that are applicable to these projects (see Item 3 in Available Documents, Section IV). It is anticipated that these projects will have no effects beyond those analyzed in the programmatic EIR and that no new environmental document or public notice will be required. Consultant is responsible for confirming this assumption. Should the project(s) require additional CEQA documents, these services shall be priced and included in Section B4–Preparation of a Tiered Negative Declaration (Optional).

#### **Deliverables:**

- Draft CEQA memorandum
- Response-to-comments table for Draft CEQA memorandum
- Final CEQA memorandum

## 2. Bay Area Air Quality Management District

The Sunnyvale WPCP operates in accordance with Bay Area Air Quality Management District (BAAQMD) Major Facility Review Permit #A0733, commonly referred to as Title V. Emissions of particulate matter, organic compounds, sulfur dioxide, hydrogen sulfide, mono-nitrogen oxides, and carbon monoxide are regulated under this permit.

## a. Base Scope BAAQMD Permitting

Because this project includes a standby generator, which is considered a source, and odor control, which can be considered an abatement device, an Authority to Construct (ATC) and a Title V Minor Modification are anticipated. Consultant is responsible for confirming this assumption. Consultant shall prepare all information and submittals necessary to obtain these permits. It is anticipated that an odor dispersion model will be developed for the thickening/dewatering building only to support the BAAQMD permitting efforts. The dispersion model will consider DT and H2S at the fence line for the new odor control scrubber. It is assumed the permitting efforts will be limited to the new sources. Scope does not include evaluating the entire plant.

## **Deliverables:**

- Draft ATC/Title V Minor Modification application
- Response-to-comments table for Draft ATC/Title V Minor Modification application
- Final ATC/Title V Minor Modification application
- Draft and Final letter responses to BAAQMD comments on the submitted application
- Method to track and notify BAAQMD prior to startup

## b. Second Bid Package BAAQMD Permitting (Optional)

At the request of the City, Consultant shall prepare separate ATC/Title V Minor Modification applications for the second construction contract.

#### 3. Preparation of a BCDC Permit Amendment

Because West Sunnyvale Channel bordering the WPCP is tidally influenced, the Bay Conservation and Development Commission (BCDC) has jurisdiction of all areas within 100 feet of its bank. In the site layout provided in the Master Plan, the AFT Pump Station and one of the transformers and switchgear included in these projects is located within this 100-foot zone. Construction of a new structure within BCDC jurisdiction requires a permit. Initial conversations with BCDC indicate that a single permit which covers the Program could be amended for each new action.

Consultant shall prepare and obtain a permit amendment and file a copy of the executed amendment with the Santa Clara County Recorder.

#### Deliverables:

- Draft BCDC permit application
- Response-to-comment table for Draft BCDC permit application;
- Final BCDC permit application
- Response to questions and comments from BCDC
- Recorder's Copy of BCDC permit amendment

#### 4. Preparation of a Tiered Negative Declaration (Optional)

If the CEQA memorandum prepared under Task B.1 identifies new effects not analyzed and mitigated in the Program's PEIR, the City will request that Consultant prepare an Initial Study leading to a Negative Declaration. It is assumed for this task that any change from the PEIR would result in impacts at the less-than-significant level. If Consultant identifies one or more new and significant impacts, Consultant shall immediately notify the City.

Consultant shall prepare a draft Project Description and develop the environmental analysis for any changes from the PEIR. Consultant shall complete an Administrative Draft Initial Study checklist, Notice of Intent, Negative Declaration, and Environmental Document Transmittal Form. The PEIR shall be incorporated by reference and used as the basis of the documents, such that discussion in these documents is limited to new effect(s) which had not been considered in the PEIR.

Consultant shall prepare a Public Draft Initial Study, Notice of Intent, Negative Declaration, and Environmental Document Transmittal Form, incorporating any comments on the Administrative Draft. Consultant shall distribute the Public Draft documents to the State Clearinghouse and a distribution list provided by the City. Consultant is responsible for reproduction of all required hardcopies. It is anticipated that 15 hardcopies of each Public Draft document will be required by the State Clearinghouse. Consultant is also responsible for providing public notice, including associated expenses, via notification in the Sunnyvale Sun and San Jose Mercury News and distribution of nine hardcopies to local libraries.

Consultant shall prepare responses to up to 5 comment letters received on the Public Draft Initial Study and Negative Declaration. Consultant shall prepare a memorandum providing Responses to Comments. Consultant shall also prepare the Statement of Findings. Consultant shall also prepare the Council Resolution. The City will prepare and present the Report to Council. For each of these deliverables, Consultant shall submit an Administrative Draft and respond to and incorporate City's comments on this draft, prior to producing and releasing the Final version.

Consultant shall prepare Administrative Draft Notice of Determination, respond to and incorporate City's comments on this draft, and prepare and submit required hardcopies of Final Notice of Determination to the State Clearinghouse and Santa Clara County Recorder.

#### **Deliverables:**

- Draft Project Description
- Response-to-comment table for Draft Project Description
- Final Project Description
- Administrative Draft Initial Study checklist, Notice of Intent, Negative Declaration, and Environmental Document Transmittal Form
- Response-to-comment table for Administrative Draft Initial Study checklist, Notice of Intent, Negative Declaration, and Environmental Document Transmittal Form
- Public Draft Initial Study checklist, Notice of Intent, Negative Declaration, and Environmental Document Transmittal Form
- Administrative Draft response to public comments, Statement of Findings, and Council Resolution
- Response-to-comment table for Administrative Draft response to public comments, Statement of Findings, and Council Resolution
- Final response to public comments, Statement of Findings, and Council Resolution
- Administrative Draft Notice of Determination
- Response-to-comments table for Administrative Draft Notice of Determination
- Final Notice of Determination

#### 5. Revisions to Hazardous Materials Business Plan (Optional)

The WPCP primary building and maintenance shop store petroleum and several materials classified as hazardous, for which the City currently holds a Fire Prevention & Hazardous Materials Consolidated Permit. A Hazardous Materials Business Plan (Business Plan) is required as a condition of this permit. The facility information, site map, and emergency response and contingency plan included in the current Business Plan will require updates after these facilities are relocated to the new Maintenance Building. If the City requests Consultant's assistance with updating the Business Plan, such assistance shall be included under this task, on a time and materials basis.

• As-needed support for updates to Hazardous Materials Business Plan

#### C. Documentation of Existing Conditions

As part of the Master Plan, desktop and field investigation of the WPCP site was performed. The desktop investigation included compilation of historical boring logs on the western half of the WPCP; geologic hazard evaluation of the WPCP site; and consolidation of subsurface utility information from record drawings, design drawings, and potholes into an AutoCAD basemap. The field investigation included several borings and cone penetrometer tests in the vicinity of the proposed aeration basins and aeration blower building; manhole measure-downs; installation of permanent monuments that create a horizontal grid and vertical control for the WPCP; shallow soil borings to test for soil and groundwater contamination across the WPCP site; and inspection and bulk sampling for asbestos, lead, and polychlorinated biphenyl on the primary controls building, primary sedimentation and grit basins, and the maintenance building.

It is anticipated that additional field investigation will be necessary to adequately characterize existing conditions for detailed civil and structural design and prepare a bid package that minimizes the risk of differing site conditions claims during construction. Consultant shall define the scope of necessary investigations and include such investigations in the price for this item. It is assumed that additional soil and groundwater testing will be required of the Contractor prior to waste disposal, but that the testing completed as part of the Master Plan will be adequate for bidding purposes.

#### 1. Supplemental Topographic and Planimetric Survey

Consultant shall identify and perform ground topographic and planimetric survey as needed to supplement LiDAR and land survey performed as part of the Master Plan, to the extent necessary to obtain detailed elevations and fill in surface improvement locations required for detailed design of the Project (see Item 2F of Available Documents, Section IV). PMC will use this information to update the WPCP basemap. It is assumed that quality control surveys of the previously developed aerial and topographic data will be performed along with an additional 5 days of supplemental field surveys.

## **Deliverables:**

- Survey data in AutoCAD format
- 2. Supplemental Subsurface Utility Mapping

Consultant shall perform potholing as needed to confirm vertical and horizontal location of critical utilities, e.g. connection points. PMC will update the WPCP existing utility plan with information obtained from potholes (see Item 2E of Available Documents, Section IV). It is assumed that approximately 7 days of subsurface investigations will be performed. At typical production rates, this would result in verifying utility/pipeline depths in up to 35 locations.

• Subsurface utility data in AutoCAD format

#### 3. Geotechnical Characterization

Consultant shall perform all geotechnical investigation and analysis necessary to make geotechnical recommendations for the design of this project, including but not limited to: the buildings, tanks, structures, process equipment, trenches, and other improvements included in the projects. The geotechnical recommendations shall include requirements for fill or excavation, corrosion protection, foundations, trenching, soil stabilization, and soil reuse potential. Proposals shall include the number of borings, soil samples, and an outline of the tests to be conducted. Consultant shall coordinate this effort with the efforts of the Geotechnical Study conducted as part of the Master Plan (see Item 2D of Available Documents, Section IV).

#### **Deliverables:**

- Draft Intrusive Fieldwork Plan (showing the location of all proposed subsurface investigation and the types of sampling and testing proposed)
- Response-to-comment table for Draft Intrusive Fieldwork Plan
- Final Intrusive Fieldwork Plan
- Draft Geotechnical Report
- Response-to-comment table for Draft Geotechnical Report
- Final Geotechnical Report

## 4. Hazardous Building Materials Assessment

Consultant shall perform inspections and bulk sampling for PCB-containing oils, asbestos-containing materials, and lead-containing coatings on all existing structures to be demolished or modified. These structures include the laboratory/control building, the compliance inspection trailer, and the administration building. Consultant shall submit a Hazardous Materials Work Plan in advance of conducting field investigation. Consultant shall document the results of the field investigation in a report sealed by a Certified Industrial Hygienist. Consultant shall coordinate this effort with the efforts of the Site Investigation Analysis conducted as part of the Master Plan (see Item 2G of Available Documents, Section IV).

#### **Deliverables:**

- Draft Hazardous Building Materials Assessment Work Plan
- Response-to-comment table for Draft Hazardous Building Materials
   Assessment Work Plan
- Final Hazardous Building Materials Assessment Work Plan
- Draft Hazardous Building Materials Assessment Report
- Response-to-comment table for Draft Hazardous Building Materials
   Assessment Report
- Final Hazardous Building Materials Assessment Report

# D. Conceptual Design

## 1. Base Scope Conceptual Design

During Conceptual Design Consultant will validate design assumptions and criteria developed in the Master Plan. This will involve updating the flows and load parameters, confirming the project regulatory targets, updating the process model, and confirming the required capacity and process decisions made in the Master Plan. Some deviations from the Master Plan are anticipated, and key decisions that need to be made include:

- Final configuration of the MLE process;
- Type of sidestream treatment process to be implemented;
- Whether supplemental carbon is needed; and
- Whether the overall site plan should be modified.

The Conceptual Design will allow the City to make informed decisions on project elements, and set a basis for Preliminary Design. Specific equipment selection for the validated Conceptual Design process configuration will be carried out as part of Preliminary Design.

Key activities for this task are described below.

- <u>Update the Influent Flow and Load Analysis</u> The analysis performed in the Master Plan included historical data from 2000 through 2012. This analysis will be updated to include 2013 through September 2017 data, and information from the sampling plan (see below) This includes assessing seasonal variations and diurnal patterns (see Item 2K of Available Documents, Section IV) as well as a more accurate accounting of raw influent and sidestream flows and loads.
- <u>Confirm Regulatory Targets</u> Confirm anticipated NPDES and other permit requirements, including the level of treatment required for biosolids, as well as effluent limits which in turn include seasonal nutrient limits. It is anticipated that the basis for nutrient limits is to meet Level 2 reductions for nitrogen and phosphorus. The level of treatment anticipated for biosolids is achieving Class B quality.
- <u>Present phosphorus removal strategy</u> Develop high-level strategy for meeting Level 2 phosphorus limits in the future. This will consist of a comparison of alternatives based on default assumptions, sizes, and costs.
- <u>Update the Calibrated Wastewater Process Model</u> The existing whole-plant process model will be revised based on the updated flow and loads analysis (described above) and data obtained from additional wastewater characterization sampling that will be completed by the City.
- <u>Sampling Plan Review</u> A targeted sampling plan will be developed by the PMC. Consultant shall provide input and comment to this sampling plan. It is assumed that City staff will perform all sampling and analysis. The sampling plan will define sampling over a 2-week period to provide influent wastewater characterization, including soluble and particulate COD and BOD fractions and nitrogen and phosphorus species.

- <u>Process Configuration Validation Evaluation</u> It is assumed that the Modified Ludzack-Ettinger (MLE) process will be the basis of secondary treatment, and that the system will be designed so that other technologies, such as membrane aerated biofilm reactor (MABR), or granulation-enhanced activated sludge could be retrofitted/implemented at a future time. Whole plant process modeling (using CH2M's Pro2D dynamic simulation platform) that considers diurnal flow and load variations will be performed to evaluate critical decisions and confirm the unit process sizing required to meet the anticipated regulatory targets at the design flows and loads conditions. These include:
  - o Biological Reactors (aerated and unaerated zones);
  - Mixed liquor recirculation pumping;
  - Unaerated zone mixing;
  - o Blower and aeration system;
  - Secondary clarifiers and RAS/WAS pumping. State point analysis will be used to size these facilities;
  - o Flow diversion and equalization requirements for ponds;
  - Validation of the sidestream treatment system, based on the evaluation of the CARRB (Centrate and RAS Re-Aeration) process (the basis for the master plan) and a deammonification based system;
  - Confirm need for carbon augmentation to meet anticipated initial and future discharge limits for nutrients. The analysis will consider the type of sidestream treatment being recommended. Consultant shall also evaluate if it would be beneficial to add a RAS fermentation basin to improve nutrient removal; and
  - Thickening and dewatering processes assuming rotary drum thickeners and screw press technologies respectively. Confirm thickening criteria with and without the ability to perform recuperative thickening in the digesters. Confirm dewatering criteria with and without the flexibility to dewater dredged sludge from the City's ponds.
- <u>Site Evaluation</u> This activity consists of evaluating the benefits, risks, and cost impacts of modifying the Master Plan Site Plan so that the new liquid stream facilities are entirely on the east side of the site.
- <u>Develop Conceptual Level Capital and Life-cycle costs</u> This activity consists of developing a parametric cost model for the recommended facilities using CH2M's proprietary costing tool, CPES. CPES links to CH2M's proprietary process simulator, Pro2D, to pull in design criteria into a costing model for construction costs, operating costs, and life-cycle analysis. This suite of tools will be used to develop conceptual level costs for 2025 and 2035.
- <u>Conversion of conceptual design model in Pro2D to BioWin -</u> Once the simulations and cost models have been finalized, the conceptual design to be advanced to preliminary design (most likely the simulation sets for 2025 and 2035, respectively) will be imported into BioWin files that will be deliverables (see below).

- Workshop No. 1 to present updated influent flows and loads, confirm regulatory targets, and validation of the updated process model.
- Workshop No. 2 to present results of the process configuration validation, site evaluation, and the construction and life cycle cost comparison.
- Draft and Final TM D1 Conceptual Design Validation, incorporating City comments and addressing questions City personnel may have.
- All BioWin files reflecting the design conditions under which the conceptual design was finalized.

# E. Preliminary Design

The purpose of the Preliminary Design task is to assess the technical issues associated with each element of the Project as defined in the Conceptual Design; identify and evaluate equipment selection, and other specific design criteria; and document the recommendations and decisions which the plans and specifications produced during Design Development will be based upon. This will be accomplished through a series of 16 Base Scope and two optional Design Information Memorandums (DIMs). Consultant shall provide six hardcopies of each Draft and Final DIM to the City, as well as electronic copies in PDF format. PDFs shall be fully text-searchable and formatted to be navigable with a "bookmark" for each heading and subheading.

Each DIM shall include a summary of the recommendations and assumptions in the Conceptual Design, a discussion of the issues and alternatives evaluated, and preliminary drawings and cost estimate for the selected alternatives. DIMs shall describe the work to a 15% design level of detail, including a description of how this work will integrate into the overall construction program and start-up/commissioning sequence. DIMs should generally reflect the scope, schedule, budget, and site layout developed in the Master Plan as well as any modifications developed in the Conceptual Design.

Draft DIM shall be submitted at least two weeks prior to the DIM Workshop. Each DIM Workshop shall include presentation of the Draft DIM content, discussion of review comments, and resolution of all decisions required prior to finalizing the DIM. Final DIM shall incorporate review comments and decisions made at the DIM Workshop; and include the Workshop minutes, PowerPoint presentation, comment log, and decision log as appendices. Each step shall be completed in accordance with the calendar included in the Project Management Plan submitted under Task A.

# E.1 - DIM #1: Biological Reactors

## <u>Overview</u>

To consistently meet current and expected future discharge limits, a new set of biological reactors will be constructed, as a key part of the Secondary Treatment Improvements Project. The dimensions and layout for the biological reactors need to be determined, in accordance with the secondary treatment process developed during conceptual design. This DIM deals with the design of the biological reactors, in particular how to accommodate these in the constrained site.

## **Requirements**

The process configuration for secondary treatment, including number of zones and their designation will be determined during conceptual design. The DIM will provide details of the following items, at a minimum:

- Dimensions and hydraulics for the basins:
  - Basin dimensions shall include zone layout and configurations (aerated, unaerated, or swing, as well as RAS fermentation, if included);
  - Special attention to hydraulics and geometry to avoid reverse flow at the surface outlet of unaerated zones and to minimize reverse flow through the floor opening of aerated zones feeding unaerated zones due to density differences between aerated and unaerated mixed liquor.
- Provisions to divert a portion of the PE to equalization tanks when constructed, as required, without diverting any RAS, while also providing the ability to return PE from the equalization tanks once the peak flow condition has subsided, per the flow schedule as determined during Conceptual Design;
- Location for the mixed liquor return pumps ensuring these pumps provide the full range of flow determined during Conceptual Design;
- Provisions to prevent surface scum accumulation;
- Evaluation of different mixing and diffuser types;
- Evaluation of the need for mixing and/or degassing (the need for degassing would depend on the side water depth of the aeration basins) in all mixed liquor channels;
- Configuration considerations that would allow the incorporation of process intensification technologies such as membrane aerated biofilm reactors (MABR) and induced-granulation at a future date;
- Develop preliminary electrical load lists for this facility; and
- Code requirements, including seismic requirements.

## Deliverables:

- Draft DIM #1: Biological Reactors
- Workshop No. 3 to present findings to City
- Responses to City comments
- Final DIM #1: Biological Reactors, incorporating City comments and addressing questions City personnel may have

# E.1b - DIM #1B: Sidestream Treatment

## <u>Overview</u>

Inclusion of a sidestream treatment process will be evaluated during Conceptual Design. The scope of this DIM is based on implementing the recommended process in Conceptual Design.

## **Requirements**

The process configuration for sidestream treatment, including the basin volume and proposed operating conditions will be determined during conceptual design. The DIM will provide details of the following items, at a minimum:

- Process design criteria (flow and mass balance);
- Code requirements, including seismic;
- If deammonification is recommended, consider up to two (2) different types and recommend one (1) to move forward with as part of Preliminary Design;
- Basin dimensions and system layout plan;
- Confirmation of oxygen transfer and chemical requirements determined during conceptual design; and
- Develop preliminary electrical load lists for this facility.

- Draft DIM #1B: Sidestream Treatment
- Workshop No. 3 to present findings to City
- Responses to City comments
- Final DIM #1B: Sidestream Treatment, incorporating City comments and addressing questions City personnel may have

# E.2 - DIM #2: Carbon Augmentation

#### <u>Overview</u>

The Consultant will confirm during Conceptual Design whether carbon augmentation is required for nutrient removal as was anticipated in the Master Plan. If found to be required, alternate external carbon sources (considering both external reagents and internal sources such as RAS fermentation as an internal source) will be evaluated and the system components for the selected option will be defined during Preliminary Design.

## **Requirements**

Evaluate different carbon substrates for augmentation that may be required to meet the expected future nutrient discharge. The analysis will include the following items, at a minimum:

- Comparison of up to three (3) different carbon substrates;
- Determination of the dose required for the substrate, both as an instantaneous maximum and as an estimated annual average;
- Determination of odor control requirements if RAS fermentation is selected;
- Specific storage requirements for each substrate for the historic extreme climatic conditions observed at site;
- Capital, O&M and life cycle cost for each substrate;
- Process design criteria (flow and mass balance);
- Requirements of NFPA 30 Flammable Liquids;
- Storage requirements;
- Preliminary safety Plan;
- System layout plan; and
- Develop preliminary electrical load lists for this facility.

## Deliverables:

• Draft DIM #2: Carbon Substrate

- Workshop No. 3 to present findings to City
- Responses to City comments
- Final DIM #2: Carbon Substrate, incorporating City comments and addressing questions City personnel may have

# E.3 - DIM #3: Secondary Clarifiers

## <u>Overview</u>

As part of the new secondary treatment facility, new circular secondary clarifiers will be constructed. The number of units for initial and eventual phase will be determined during Conceptual Design. The RAS pumping arrangement will be a part of the evaluation. Other design details, such as clarifier inlets, internal baffles, sludge withdrawal arrangements and effluent weir design will also be determined.

# **Requirements**

This DIM will determine the design of the secondary clarifiers, including the following items, at a minimum:

- RAS pumping arrangement required and ensure that the full range of RAS flows as determined during Conceptual Design is covered;
- Qualitative-based evaluation of different geometries considering energy dissipating inlets, internal peripheral effluent baffles, and effluent launder;
- Capital cost estimate for the proposed design;
- Dimensions and system layout plan; and
- Develop preliminary electrical load lists for this facility.

# Deliverables:

- Draft DIM #3: Secondary Clarifiers
- Workshop No. 5 to present findings to City
- Responses to City comments
- Final DIM #3: Secondary Clarifiers, incorporating City comments and addressing questions City personnel may have

# E.4 - DIM #4: Plant Hydraulics

## <u>Overview</u>

After sizing and determining the layout for the major secondary treatment process units, system-wide hydraulics will be determined. The hydraulics will be used to determine a variety of ratios for (1) primary effluent to the biological reactors, (2) mixed liquor to the secondary clarifiers and (3) RAS to the biological reactors, for both the current and the future project. The hydraulics would also assist the Consultant in sizing pumps (DIM #5 and #12).

# **Requirements**

This DIM will determine facility-wide hydraulics, including the following items, at a minimum:

• Water surface elevations in all the major process units, making use of the hydraulics developed in DIM #1: Biological Reactors, under the following conditions:

- o Minimum start up;
- Average start up;
- Average design; and
- Peak design flows.
- Analysis including the minimum (at minimum start up) or maximum recycle flows (remaining analyses), including equalization pond return flows, RAS flows as well as sludge thickener and dewatering returns:
  - Analyses will be conducted for the selected process configuration identified in DIM #1: Biological Reactors;
  - Analyses will include determining the requirements to ensure an equal flow distribution between all major process units in service, for both the current and the future projects; and
  - Requirements will include minimum head loss at flow splitting structures, as well as maximum flow velocities required to prevent an uneven flow division.
- Proper mixing of different flow streams and appropriate flow distribution between treatment trains; and
- Evaluation of the use of flow metering and control valves to ensure an even flow distribution if passive flow splitting will not work.

- Draft DIM #4: Plant Hydraulics
- Workshop No. 5 to present findings to City
- Responses to City comments
- Final DIM #4: Plant Hydraulics, incorporating City comments and addressing questions City personnel may have

# E.5 - DIM #5: RAS/WAS Pumping

# <u>Overview</u>

During Conceptual Design the range of RAS flows and WAS mass flows will be determined. This DIM will confirm the range of RAS total suspended solids (TSS) concentrations that will be associated with the range of RAS flows, and use that to determine the range of WAS flows that must be accommodated.

# **Requirements**

This DIM will determine the design of the RAS and WAS pumps, including the following items, at a minimum:

- Confirmation of the flow range for the RAS pumps, as determined during Conceptual Design;
- Determination of the range of RAS TSS concentrations that is possible given the flow range of the RAS pumps;
- Determination of the WAS pump flow requirements, for the WAS mass flows determined during Conceptual Design, DIM #1: Biological Reactors and DIM #3: Secondary Clarifiers using the range of RAS TSS concentrations;
- Determination of the type of pump to be used for both RAS and WAS and confirm that the full flow range for each application can be met;

- Recommendation of a layout for the RAS and WAS pumps; and
- Develop preliminary electrical load lists for this facility.

- Draft DIM #5: RAS/WAS pumping
- Workshop No. 5 to present findings to City
- Responses to City comments
- Final DIM #5: RAS/WAS pumping, incorporating City comments and addressing questions City personnel may have

## E.6 - DIM #6: Secondary Treatment Instrumentation and Control

## <u>Overview</u>

The proposed secondary treatment system will be based on the Modified Ludzack-Ettinger (MLE) processes as configured during Conceptual Design. The basin layout thesewill be described in DIM #1: Biological Reactors. DIM #6 deals with defining the instrumentation and control needs for this process, and will consider requirements associated with the incorporation of process intensification technologies such as membrane aerated biofilm reactors (MABR) and induced-granulation at a future date.

Process variables to be considered will include solids retention time (SRT), dissolved oxygen (DO) concentration, ammonia based aeration control (ABAC), RAS and mixed-Liquor Recycle (MLR) pump flows, oxidation reduction potential (ORP), as well as dosing of a carbon source.

## **Requirements**

This DIM will describe secondary treatment instrumentation and control, including:

- Process configurations that will be accommodated, with reference to DIM #1, as required;
- Conditions when process configurations will be changed, including seasonal changes from nitrifying to non-nitrifying operation (if applicable);
- Outlines for changing process configurations, including gates or valves that would need to be opened or closed and zones that need to be switched from aerated to unaerated operation, or vice versa:
  - Dissolved oxygen and ammonia based process control strategies and corresponding instrumentation needs;
  - Solids inventory control strategies and instrumentation needs for bioreactor and clarifiers operation, including RAS/WAS control;
- Evaluation of nitrate and ORP based control scenarios with corresponding instrumentation requirements for the MLE process;
- Basic descriptions of unit process control loops;
- Sampling locations;
- Control elements and their location, including all motorized valves and gates; and
- Preliminary implementation plan (schedule, sequence of work, contract packaging) for the selected alternative.

- Draft DIM #6: Secondary Treatment Operations and Control
- Workshop No. 7 to present findings to City
- Responses to City comments
- Final DIM #6: Secondary Treatment Operations and Control, incorporating City comments and addressing questions City personnel may have

# E.7 - DIM #7: Blower System and Building

#### <u>Overview</u>

The new biological reactors will require a new set of blowers to supply it with air to satisfy the oxygen demand that will be exerted by the biomass as it treats the effluent. Blowers typically consume around 50% of the electrical power used by a water resource recovery facility, so it is important to make sure the blowers are neither too big nor too small. The blower building will also be laid out on the site.

## **Requirements**

This DIM will determine the design of the blower system, including:

- Confirmation of the airflow range for the blowers, as determined during Conceptual Design and DIM #1: Biological Reactors;
- Determination of header pressures required for the selected diffuser alternatives, including allowance for inlet filter, piping, control valve and diffuser losses, as well as static pressure, while referring to DIM #1: Biological Reactors;
- Evaluate different blower technologies and develop up to three (3) alternatives covering the entire airflow and header pressure range developed above;
- Comparison of alternatives considering capital, O&M and life cycle costs;
- Comparison of pressure-based and flow-based blower control systems:
  - Determination of how to integrate blower system controls with aeration system controls as described in DIM #6: Secondary Treatment Operations and Controls;
- Recommendation of and design of a blower system;
- Determination of the standby generator capacity required;
- Layout of the blower building to include all functions identified in the Master Plan Basis of Design Report, and other features that utilize space effectively in this area, within the cost identified in the Master Plan;
- Plans for each room showing how the equipment fits into this building and provides sufficient clearance for maintenance;
- Solar orientation to maximize daylight into work spaces without glare or unwanted heat gain effects, for building energy-efficiency, and to support opportunities for photovoltaic array installation on the roof;
- Develop preliminary electrical load lists for this facility; and
- Preliminary implementation plan (schedule, sequence of work, contract packaging) for the selected alternative.

## **Deliverables:**

• Draft DIM #7: Blower System and Building

- Workshop No. 7 to present findings to City
- Responses to City comments
- Final DIM #7: Blower System and Building, incorporating City comments and addressing questions City personnel may have

# E.8 - DIM #8: Thickening – Technology/Equipment

## <u>Overview</u>

As identified in the Master Plan, the solids processing stream needs to be upgraded to include a new Thickening and Dewatering (T/D) building housing new WAS thickening and digested sludge dewatering equipment, polymer feed systems, and related building systems; new digested sludge storage tank; and sludge pumping systems.

This section addresses the sludge thickening project components, including: (See DIM #9, #10, and #11 of this scope of work regarding the other related components)

- Waste activated sludge (WAS) pumps;
- WAS thickening;
- Thickened waste activated sludge (TWAS) pumps; and
- Polymer storage system and feed system comprised.

The Master Plan has identified specific types of WAS thickening, sludge pumping, and polymer equipment to integrate into the new T/D Facility. Since the Master Plan, it has been confirmed that the City desires to move forward with the technologies listed below and alternate technologies will not be evaluated in this DIM.

- Rotary Drum Thickeners by Parkson, Vulcan, or equal;
- Robbins & Myers (Moyno), Netzsch, or equal for the thickened WAS progressing cavity pumps; and
- Emulsion polymer blending units by Velodyne, Fluid Dynamics, or equal.

## **Requirements**

The DIM shall include the following items, at a minimum:

- Confirm acceptable operating schedule (i.e. continuous or 8 hrs per day, days per week);
- Basis of process design (flow and mass balance) for equipment;
- Code requirements;
- Confirm or verify suitable equipment suppliers to be considered during design; and
- Develop preliminary electrical load lists for this facility.

## Deliverables:

- Draft DIM #8: Thickening Technology/Equipment
- Workshop No. 4 to present findings to City
- Responses to City Comments
- Final DIM #8: Thickening Technology/Equipment, incorporating City comments and addressing questions City personnel may have

# E.9 - DIM #9: Dewatering – Equipment, Digested Sludge Storage, Cake Handling Overview

This DIM addresses dewatering project components, including (See DIM #8, #10, and #11 of this scope of work regarding the other related components):

- Digested sludge storage;
- Digested sludge pumping;
- Digested sludge dewatering;
- Cake pumps;
- Cake storage and truck loadout;
- Dewatering filtrate management (may require storage or distributed pumping to secondary treatment, sidestream treatment, etc.); and
- Polymer storage system and feed system.

These facilities, except the new Digested Sludge Storage Tank, are planned to be housed in the new T/D Building. The new Digested Sludge Storage Tank will be located adjacent to the digester complex.

The Master Plan Building layout has been prepared to allow for either screw presses or centrifuges to be installed for dewatering. Since the Master Plan, it has been confirmed that screw press dewatering will be utilized, however, the building should still be able to accommodate centrifuges in the future, if this change is desired. Since screw presses are larger than centrifuges, there should be sufficient space. In addition, the planned electrical supply will be sized to provide sufficient power to meet the demand for centrifuges, and design flexibility will be incorporated in the building and foundation (considering weight and vibration) to accommodate centrifuges in the future.

There are sequencing issues associated with this facility. The WPCP will be utilizing contract dewatering (Synagro) until the permanent facilities included in this project are fully commissioned and accepted.

The Master Plan has identified the following types of sludge dewatering, cake pumping, cake storage and truck loading and polymer equipment to integrate into the new T/D Facility:

- Screw Presses with split basket screw design by Huber (larger FKC and Schwing Bioset screw presses required more floor space for equipment and screw removal and a larger T/D building and therefore will not be evaluated);
- Robbins & Myers (Moyno), Seepex, or equal for the progressing cavity cake pumps (screw conveyors, belt conveyors and piston cake pumps required more HP, maintenance and floor space and a larger T/D building and therefore will not be evaluated);
- Emulsion polymer blending units by Velodyne, Fluid Dynamics, or equal; and
- Cake hopper storage with live bottom and double-shafted truck loading screw conveyors with slide gates by Schwing Bioset or Custom Conveyor, or equal.

## **Requirements**

This DIM shall address the following items, at a minimum:

- Confirm design criteria for digested sludge storage tank and feed pumps;
- Confirm acceptable operating schedule for dewatering equipment (i.e. continuous or 8 hrs per day, days per week);
- Basis of process design (flow and mass balance) for equipment;
- Code requirements;
- Confirm or verify suitable equipment suppliers to be considered during design;
- Identify key issues that should be accounted during building design so that centrifuges can be accommodated in the future; and
- Develop preliminary electrical load lists for this facility.

- Draft DIM #9: Dewatering Technology/Equipment, Digested Sludge Storage, Cake Handling
- Workshop No. 4 to present findings to City
- Responses to City comments
- Final DIM #9: Dewatering Technology/Equipment, Digested Sludge Storage, Cake Handling, incorporating City comments and addressing questions City personnel may have

# E.10 - DIM #10: T/D Building Design

## <u>Overview</u>

This element is part of Project 4.2 in the Master Plan. The functions of this building include mechanical WAS thickening; thickened sludge pumping; digested sludge dewatering; dewatered biosolids conveyance storage and cake loadout; truck loading bay; polymer storage, mixing and feed; satellite operations and data/control center, personnel offices, uni-sex restroom, utility room, electrical room, telecommunications and data servers rooms, and other necessary spaces.

The T/D building design will be based on a two-story building as recommended in the Master Plan [building footprint of approximately 12,000 SF plus a cake-load out bay approximately 1,300 SF; preliminary layout as shown in the Master Plan Basis of Design (see Figures 5.1-5.3)]. (See DIM #8, and #9 of this scope of work regarding the other related components).

## **Requirements**

Information in this DIM shall be updated per the information previously developed by the Consultant in DIM #8 and #9 and additional architectural and engineering evaluation as noted below. This DIM shall provide design criteria for the Thickening/Dewatering Building, including the following:

- All relevant codes;
- Architectural congruence;
- Proper access and clearance;
- Capital and O&M cost based on CPES;
- General functionality and maintenance considerations;
- Recommended building layout with identification of room purpose, size, and orientation;

- Plans for each room showing how the equipment fits into this building and provides sufficient clearance for maintenance;
- Recommended foundation design, building structural systems, roof design criteria, building exterior cladding, glazing/windows, and architectural appearance, while coordinating this effort with the Building Programming TM efforts of the Master Plan (see Item 2H of Available Documents, Section IV);
- Evaluate feasibility and develop design criteria for incorporating photovoltaic system;
- Design criteria for building utilities, including, but not limited to: lighting, heating, ventilation, air conditioning, elevator, potable water, recycled water, seal water, storm drainage, housekeeping stations (hose bib, utility sink), sanitary drain, chemical drain, compressed air, process air, instrument air, natural gas, communications, data, telephone;
- Design criteria for chemical delivery station;
- Major process piping layouts;
- Building security system design criteria will be developed and will address the following, and be consistent with the Site Security TM from the Master Plan:
  - Locations for access points key pads, locations for Public Announcement receivers/buzzers;
  - o Addresses vehicular circulation relevant to this building;
  - Locations where closed-circuit television monitoring is recommended;
  - o Includes fire and hazardous material safety considerations;
  - Employee and visitor safety in/around this building as well as functionality for biosolids haul-off trucks and receipt of chemicals and other supplies to be housed in this building.
- Appropriate evacuation plan in the event of fire, earthquake, or other event;
- Conceptual landscape plan for the 10-feet surrounding the building:
  - All recommendations will consider the landscaping theme and plan mentioned in the Site Layout Considerations TM of the Master Plan and the Landscaping Design Standards (see Items 2J and 2Q of Available Documents, Section IV);
- Preliminary implementation plan (schedule, sequence of work, contract packaging) for the selected alternative.

- Draft DIM #10: T/D Building Design
- Workshop No. 6 to present findings to City
- Responses to City comments
- Final DIM #10: T/D Building Design, incorporating City comments and addressing questions City personnel may have

## E.11 - DIM #11: Odor Control

## <u>Overview</u>

The Thickening/Dewatering building will handle waste activated sludge and digested sludge. An odor control facility will be implemented to improve the working environment, minimize Hydrogen Sulfide ( $H_2S$ ) emissions from the Thickening/Dewatering building,

and capture and treat odorous compounds created during the solids handling process. This facility shall include a bioscrubber with an accompanying odor control fan to convey and treat the odorous air from the thickening and dewatering processes. No other odor control technologies will be evaluated.

## **Requirements**

This DIM will determine design criteria for odor control for the Thickening/Dewatering Building, addressing the following items, at a minimum:

- Provisions to convey odorous air from the new thickeners and dewatering systems to the odor control facility;
- Verification of the equipment supplier alternatives to be considered during preliminary design with the City prior to drafting DIM #10;
- Design criteria for the following:
  - Number of required air changes per hour and how it was determined;
  - o Conveyance of foul air to the odor control facility; and
  - Odor control equipment including a bioscrubber and an accompanying odor control fan.
- Control concepts for the odor control system;
- Preliminary system layout;
- Design criteria for ancillary facilities required for operation of the odor control facility equipment; and
- Develop preliminary electrical load lists for this facility.

## **Deliverables:**

- Draft DIM #11: Odor Control
- Workshop No. 6 to present findings to City
- Responses to City comments
- Final DIM #11: Odor Control, incorporating City comments and addressing questions City personnel may have

## E.12 - DIM #12: Maintenance Building

## <u>Overview</u>

This element is Project 8.4 in the Master Plan and includes the design and construction documentation for a new Maintenance Building that will include a maintenance shop, staff and support spaces, warehouse, and storage areas. Currently, there are separate facilities for the existing Maintenance Shop, Maintenance Storage Yard, Instrument Shop, and Primary Control Building that house all the individual components that will be in the new, centralized Maintenance Building. The new building will be located partly in the space currently occupied by the existing Administration Building which will be demolished as part of this project.

The major elements include:

- Demolition of the existing Administration Building and Primary Control Building;
- New approximately 8,000 square foot one-story building;
- Landscaping around the building; and
- Yard space for storage and vehicle access and parking.

## **Requirements**

This DIM will determine the design criteria for the Maintenance Building, including:

- Location of the Maintenance Building north of Carl Road, across from the proposed Administration Building, allowing for visual connection and staff movement between the two buildings;
- Location at the WPCP's southern perimeter and will be visible from Borregas Avenue and the WPCP entrance;
- Architectural design of prominent building elements, including the south façade and west entry area;
- Cohesiveness of building exterior with both the WPCP process buildings and the new Administration Building;
- Accessibility of all office workstations and shared support spaces and restrooms per current California Building Code (CBC), Americans with Disabilities Act (ADA), and local regulatory authority accessibility code:
  - Accessible path of travel from the Administration Building to the Maintenance Building for staff entry;
- Review of the Master Plan Building Programming TM and building layout in the Basis of Design TM;
- Evaluation of the planning phase program assumptions for room sizes and adjacencies, vehicle and pedestrian access, relationship to the WPCP maintenance operations;
- Recommend foundation design, building structural systems, roof design, building exterior cladding, glazing/windows, and architectural appearance;
- Evaluate feasibility and develop design criteria for incorporating photovoltaic system;
- Consideration of sustainable strategies for energy-efficient lighting, low-water plumbing fixtures, occupant comfort and productivity;
- Coordination of all efforts with efforts of the Building Programming aspect of the Master Plan (see Item 2H of Available Documents, Section IV);
- Conceptual landscape plan for the 10-feet surrounding the building;
- Plans for each room showing how the equipment fits into this building and provides sufficient clearance for maintenance;
- Preliminary implementation plan (schedule, sequence of work, contract packaging) for the selected alternative;
- Space allocation plan and room data sheets;
- Color architectural renderings and preliminary building elevations;
- Safety and security system concept; and
- Capital cost estimate.

# Deliverables:

- Draft DIM #12: Maintenance Building
- Workshop No. 10 to present findings to City
- Responses to City comments
- Final DIM #12: Maintenance Building

## E.13 - DIM #13: Digester Supernatant Pump Station and Piping

#### <u>Overview</u>

This element is Project 4.1 of the Master Plan. The existing WPCP includes four digesters, which have been rehabilitated over the past 10 years. Digesters No. 1 and 2 have been rehabilitated with structural, mixing, heating, gas, electrical, and instrumentation and control modifications during the Master Planning period, while Digester No. 3 and 4 were rehabilitated prior to the Master Planning period. During a digester feed cycle, supernatant overflows by gravity to the supernatant pump station and is pumped to the primary effluent stream or returned to another digester. Each digester also has a bottom draw line that runs to the digester drainage pump station. The digester drainage pump station can transfer sludge to a different digester or release it for dewatering. This equipment was not included in the recent rehabilitation project.

## **Requirements**

Consultant shall make recommendations as to the need for rehabilitation or replacement of key components of the digester supernatant pump station and drainage piping to maintain reliable operation and extend the expected life of the digester system another 20-30 years. Digester drainage pump station is not part of this rehabilitation/replacement review.

This DIM will determine Digester Supernatant Pump Station and Piping Rehab/Replacement including the following items, at a minimum:

- Flow and mass balance;
- Description of the construction work elements;
- Digester supernatant equalization volume;
- Repair of concrete within supernatant pump station;
- Replacement of digester supernatant pumps;
- Code-related and maintenance-related modifications to digester supernatant pump station;
- Repair of portions of drainage piping from digesters to supernatant pump station
- Replace piping underneath digesters;
- Changes to the automated control strategy for control of return flows;
- Other modifications as identified in the Condition Assessment Report (by Others);
- Electrical improvements necessary to support above components;
- Alternatives for pump and/or pipe type;
- Develop preliminary electrical load lists for this facility;
- Capital cost estimate; and
- Preliminary implementation plan (schedule, sequence of work, contract packaging) for the selected alternative.

#### **Deliverables:**

- Draft DIM #13: Digester Supernatant Pump Station and Piping
- Workshop No. 11 to present findings to City

- Responses to City comments
- Final DIM #13: Digester Supernatant Pump Station and Piping, incorporating City comments and addressing questions City personnel may have

#### E.14 - DIM #14: Sequencing and Site Layout

#### <u>Overview</u>

The layout of the facilities included in these projects is defined in the Master Plan Site Layout TM. This TM identifies the footprints and locations of the proposed process and support facilities, and uses this planning-level layout to develop the plant hydraulic profile and utility corridors. This TM also establishes parking, access, and circulation criteria and illustrates how the ultimate layout meets these criteria.

The improvements included in this set of projects will impact most of the WPCP site and occur concurrently with the Primary Effluent Pipeline Rehabilitation, the final stages of the Headworks and Primary Treatment construction, and the Existing WPCP Rehabilitation, which will also impact a large portion of the site over several years. The WPCP must remain operational and fully accessible during the construction period.

#### **Requirements**

This DIM will determine sequencing and site layout, and shall address the following items, at a minimum:

- Identify major below-grade facilities included in these projects, and refine the alignment of utilities and yard piping identified in the Master Plan:
  - Coordinate with the information collected under Task C.1–Supplemental Subsurface Utility Mapping and the recommendations made in DIM #15– Power, and include an inventory of existing utilities to be relocated or demolished;
- Identify options for staff, contractor, and visitor parking during construction and evaluate the likely impacts of each option on construction cost and plant operations;
- Recommend a new location for contract sludge dewatering, which is currently performed by a long-term vendor at the north end of the existing primary sedimentation tanks as this space is anticipated to no longer be available during demolition of these facilities and construction of the proposed secondary clarifiers:
  - Consider the logistics of relocating the long-term vendor and reconnecting utilities as the first element of construction;
- Prepare staged preliminary layout drawings that indicates a recommended sequence of construction and illustrates at each stage:
  - o Active construction, demolition, and completed work in this set of projects;
  - o Active construction and completed work in concurrent projects;
  - o Primary access points for contractors;
  - o Staging and parking areas for each contractor onsite;
  - Chemical delivery, plant maintenance, and emergency vehicle circulation routes; and
  - o Approximate grade, limits of paving, and direction of drainage;

- Identify recommended early milestones and sequencing constraints for concurrent construction projects, and describe the impact to this set of projects if each sequencing constraint is not enforced; and
- Identify possible tour route through the buildings in this scope of work which is safe, ADA accessible, and allows for observation of the unit processes and/or workers to allow the WPCP to conduct public tours to showcase biosolids processing.

Consultant shall work with the Administration and Laboratory Building designer to coordinate the utilidor and other interfaces. A representative from the Consultant's team shall attend the Sequencing and Site Layout DIM Workshop for the Administration and Laboratory Building Project.

#### Deliverables:

- Draft DIM #14: Sequencing and Site Layout
- Workshop No. 12 to present findings to City
- Responses to City comments
- Final DIM #14: Sequencing and Site Layout, incorporating City comments and addressing any questions City personnel may have

#### E.15 - DIM #15: Power

#### <u>Overview</u>

The configuration of the power distribution system was determined by the Electrical Combined Heat and Power (ECHP) TM included in the Master Plan (see Item 2I of Available Documents, Section IV), and modified by the design of the 12 kV Electrical Distribution System–Stage 1 improvements included in Headworks and Primary Treatment–Package 2 project. The power improvements currently under construction include new 12 kV main switchgear and building to serve current and future facilities; 12 kV primary power distribution to the eastern half of the WPCP; a new standby generator; area substations; a feed to a 2500 kVA 12 kV to 4160 V transformer to feed the existing WPCP 4160 V switchgear; and 480 V secondary power.

With 12 kV Electrical Distribution System–Stage 2, the primary power distribution systems must be extended to serve the western half of the WPCP. A second standby generator is also included in the scope of these improvements.

Loads in the ECHP TM accommodate full build-out of the proposed secondary treatment and solids handling facilities in the SCWP, but are not sized to handle loads from potential future tertiary treatment facilities such as microfiltration, reverse osmosis, or ultraviolet disinfection. The ECHP TM is based on a gradual transition to 12 kV primary power, whereby existing treatment processes remain on the 480 V system, which would be incrementally phased out and demolished as these processes are replaced. A condition assessment (to be conducted by others in mid-2017) will document the condition of existing electrical assets at the WPCP.

#### **Requirements**

This DIM shall evaluate the following items, at a minimum:

- Future expandability of the new power distribution system, considering that ultraviolet disinfection and other purification facilities may be constructed during the useful life of the system;
- Master Plan recommendation or migrate existing treatment processes to the new 12 kV primary distribution system given the results of the condition assessment, and the available space for dual 12 kV ductbanks in addition to the existing 480 V ductbanks and other site utilities;
- Conceptual design proposed under the Headworks and Primary Treatment– Package 2 project and prepare preliminary layout of area substation locations, duct banks, and feeders for the Stage 2 improvements;
- Sizing of the proposed standby generator;
- System components required to parallel (synchronize) this second standby generator with the first standby generator and switchgear currently under construction;
- Other key criteria for the design of the 12 kV Electrical Distribution System–Stage 2;
- Assessment of the need and recommendation to ensure a plan for Digester Main Control Center (MCC) and Co-Generation MCC migration to the new 12 kV Electrical Distribution system as the MCCs are 480 volts; and
- Recommended implementation plan (schedule, sequence of work, contract packaging) for the selected alternative.

## Deliverables:

- Draft DIM #15: Power
- Workshop No. 8 to present findings to City
- Responses to City comments
- Final DIM #15: Power, incorporating City comments and addressing any questions City personnel may have

## E.16 - DIM #16: Automation Control System

## <u>Overview</u>

The existing WPCP control system consists of a supervisory control and data acquisition (SCADA) System. The replacement system will be referred to as the Automated Control System (ACS). This DIM includes Project 7.0 ACS Improvements – Stage 2 in the Master Plan, which includes expansion of the fiber optic distribution duct bank to all remaining areas of the WPCP. It will also include the addition of new ACS hardware, software, instrumentation, and network communication equipment to provide monitoring and control of the Secondary and Dewatering project facilities. Stage 1 of the ACS improvements will be implemented as part of the Primary Treatment Facilities – Package 2 project and will establish the ACS servers, workstations, and initial fiber optics distribution for those facilities. The new ACS will gradually replace the existing SCADA system as major process improvements are implemented.

As part of the Master Plan and Primary Treatment Design, the City developed an ACS Plan TM, Instrumentation and Control (I&C) Design Standards and ACS Programming Standards documents which lay the foundation for a unified plant-wide ACS. Subsequent to the issuance of the ACS Plan TM and I&C Design Standards, the City selected Rockwell Automation PlantPAx and ControlLogix PLCs as the control system platform and will standardize on preconfigured PlantPAx library objects and Add-On Instructions (AOI). The ACS Programming Standards document outlines the specific implementation of the Rockwell Automation PlantPAx system. Instrumentation and design standards include symbols and abbreviations, Piping and Instrumentation Diagrams (P&IDs), wiring and loop drawings, control strategy narratives, fiber patching diagrams, network and communication diagrams, and control panel drawings. Consultant shall follow the City's Instrumentation and Design Standards.

#### **Requirements**

The Consultant shall provide the design criteria to expand the existing ACS to provide monitoring and control for the process upgrades included in this scope of work and expand the fiber optics distribution to all other existing and future facilities in the plant. Design criteria shall be based on the ACS Plan TM, Instrumentation and Control Design Standards and ACS Programming Standards. Prior to development of this DIM, the consultant shall facilitate an ACS Plan TM review workshop to demonstrate their understanding of the City's ACS, validate any assumptions from the ACS Plan TM, Instrumentation and Control Standards and ACS programming standards and ACS programming standards and identify any variances that shall be addressed in the design criteria. The workshop shall be attended by City and PMC.

The PMC will develop detailed flow chart style control algorithms based on the Consultant-developed control strategies and design. The control algorithms provide specific guidance to the system integrator on implementation of the Rockwell Automation PlantPAx and provides a valuable operational reference. The Consultant shall include the control algorithms as an appendix to the Contract Documents. DIM #16 shall address coordination requirements with the control algorithms.

The design criteria, completed to a 15% conceptual design level, shall include the following items, at a minimum:

- ACS fiber optic communications backbone including conceptual site plan of fiber optic cable routing, location of new or future communication cabinets and controllers, coordination with other projects including the new Administration Building and Utilidor construction;
- Conceptual ACS Block Diagram;
- Validation of Equipment Tagging;
- Design criteria for ACS expansion for process areas in this scope of work, including interface with vendor control panels, application of field networks, location of PLC and communication cabinets, and preliminary control descriptions;
- Review and evaluation of newer versions of Rockwell Automation PlantPAx software and hardware including advantages, disadvantages, and life cycle cost

impacts. This task will be reviewed and updated prior to completion of the 90% submittal;

- Coordination with Control Algorithms developed by PMC;
- Recommended implementation plan (schedule, sequence of work, contract packaging); and
- Capital Cost Estimate for all ACS elements.

#### **Deliverables:**

- ACS Plan TM Review Workshop
- Draft DIM #16: Automation Control Systems
- Workshop No. 9 to present findings to City
- Responses to City comments
- Final DIM #16: Automation Control Systems, incorporating City comments and addressing any questions City personnel may have

# E.17 - NOT USED

# E.18 - DIM #18: Perimeter Wall (Optional)

## **Overview**

To continually provide service for the next 75 years, the WPCP must secure a minimum level of flood protection against the 100-year flood. A flood wall will be constructed around the eastern portion of the WPCP as part of the Headworks and Primary Treatment–Package 2 project. A flood wall will be designed and constructed around the western portion of the WPCP as part of the Existing Plant Rehabilitation Project. It is undetermined at this time whether the western segment will connect to the eastern segment on both sides, or if instead there will be a third segment on the south side of the WPCP. If the wall is constructed in three segments, this DIM will include design criteria for the south segment.

The south segment of the perimeter wall would extend approximately 750 linear feet, from the driveway southwest of the new primary treatment facilities to the west gate driveway (adjacent to the existing diagonal parking on Carl Rd.). A retractable floodgate will be included on the Borregas driveway. The wall will cross several influent sewer pipelines. On the eastern end of the wall a fats, oils, and grease (FOG) and food waste handling facility is planned. The receiving station is intended to be located on the outer side of the wall, with the storage and feed facilities on the inner side of the wall. The wall must be designed to accommodate this configuration.

## **Requirements**

This DIM shall include the following items, at a minimum:

- Assess wall section alternatives, with consideration given to wall height, existing soil properties, and United States Army Corps of Engineers (USACE) 100-year flood criteria;
- Address settlement potential, corrosion protection, and Building Department preferences;

- Identify schematic layout for FOG and food waste handling facility and preliminary design of wall to accommodate the functions of this facility;
- Describe recommended construction method for accommodating large-diameter pipe penetrations without damage to the influent sewer line, the condition of which will be assessed in mid-2017, therefore the extent to which rehabilitation or replacement will be required is unknown at this time;
- Include a complete analysis of geotechnical and structural design criteria, under all applicable load cases, for both the wall and the flood gate base slab; and
- Utilize, to the extent possible, architectural themes of the east and west walls.

- Draft DIM #18: Perimeter Wall
- Workshop No. 11 to present findings to City
- Responses to City comments
- Final DIM #18: Perimeter Wall, incorporating all City comments and addressing any questions City personnel may have

## E.19 - Project Report

The Clean Water State Revolving Fund (SRF) provides low interest loans and grant funds to address high-priority water quality needs, including development of publicly-owned treatment plants and improvements or upgrades to utilities. The scope of the projects in this contract matches the eligibility criteria for the SRF program.

The PMC shall be responsible for applying for and obtaining SRF financing for the projects in this contract. The application consists of general, technical, environmental, and financial security packages. A Project Report is one of the required attachments to the technical package. Consultant shall prepare Draft and Final Project Report, to include the following items:

- Project area:
  - Vicinity and service area map;
  - o Current land use and land use trends;
  - o Current system users and any new users; and
  - Current population and population trends.
- Wastewater characteristics, existing facilities, and current water quality:
  - Description of existing facilities;
  - Description of all entities responsible or contributing to the existing facilities;
  - o Sources of wastewater to the facility;
  - Sources of industrial or other problem constituents and current control measures;
  - o Information about any discharge violations;
  - o Wastewater influent characteristics and variations;
  - o Wastewater effluent characteristics and variations;
  - o Past efforts to address the problem through operational improvements;
  - $\circ$   $\,$  Current asset, operation, and maintenance management systems; and
  - $\circ$   $\,$  An evaluation of excessive infiltration/inflow to the system.

- Treatment objectives for discharge or reuse:
  - o Reason for the project and its objectives/expected benefits;
  - Performance characteristics required for efficient treatment;
  - Health related water characteristics required for discharge, operational, and on-site requirements;
  - Wastewater discharge or reuse requirements and anticipated changes in requirements;
  - o Relevant operation and on-site requirements;
  - Projected future flow rates or other changes to the influent wastewater characteristics; and
  - Additional facilities or actions needed to comply with waste discharge requirements.
- Project Alternatives Analysis:
  - Planning and design parameters and assumptions; and
  - o Detailed alternatives analysis.
- Selected project:
  - A detailed description of the recommended project alternative and basis for selection;
  - o Design criteria and useful life of the project;
  - o Life cycle cost estimate based on time of construction;
  - Detailed schedule;
  - o Permits required for project implementation; and
  - Description of any key issues to be resolved.

The SRF application process involves multiple rounds of review and comment by the State Water Resources Control Board (SWRCB). The PMC is responsible for managing this process and providing responses in a timely manner. Consultant shall support the PMC by providing supplemental technical information related to the content of the Project Report and other aspects of the design, as requested by SWRCB.

#### Deliverables:

- Draft Project Report
- Workshop No. 13 to present findings to City
- Response-to-comment table for Draft Project Report
- Final Project Report
- Responses to ad hoc technical questions from SWRCB

## F. Design Development

#### Overview

Consultant shall perform all work including but not limited to: Civil Engineering, Environmental Engineering, Electrical Engineering, Mechanical Engineering, Structural Engineering, Land Surveying, Geotechnical, and related work necessary to prepare sets of plans and specifications suitable for Public Works bidding, and compliant with all applicable requirements. The Consultant shall also coordinate plans with the City's other consultants for compatibility and synergy. Plans and technical specifications must be stamped and signed by the Engineer-of-record. The plans and specifications shall be coordinated with the City's bid documents, standard provisions, and special provisions. All submittals shall be in both digital and hard copy format.

Plans and specifications shall not have any statements obligating the City to do anything other than what is stated in the City's standard construction contract. The plans and specifications shall provide sufficient detail to result in a high quality product while allowing competitive pricing where possible and appropriate. The bid documents shall also provide options to the contractor where appropriate to obtain the same high level of quality for the best bid price. Plans and specifications must be readily biddable and objective, avoiding use of subjective terms, such as, performing work to the satisfaction of the designer or the City. Proprietary products or services shall be avoided unless the Consultant has demonstrated there is no viable alternative.

Plans and details shall generally be to scale unless not-to-scale drawings provide better information. Match lines shall be provided as necessary. All plan sheets shall be organized and coordinated for clarity during construction. The horizontal and vertical control established in the Master Plan shall be used. Other components of the design include but are not necessarily limited to: Coordinate all relevant CEQA mitigation measures into the design, plans, and specifications.

In terms of sustainable design, the overall design shall consider minimizing energy consumption, water consumption, and scarce non-renewable resources. The capital cost shall be balanced with the future maintenance and operating costs with a bias toward reducing ongoing operation and maintenance costs. Consultant shall weigh both the fiscal and environmental costs of ongoing operation and maintenance in considering the best options. Consultant shall consider site constraints during all efforts of design.

Consultant shall comply with all applicable laws, regulations, and best practices. The design provided shall be robust, with enough redundancy to maintain reliable and effective process treatment while using passive control systems when able if active control systems fail. The entire project shall address comprehensive subsystems that provide: reliability and flexibility of operation; energy efficiency and green-house gas reduction; compliance with all relevant laws, rules, regulations, ordinances, codes, permits, and foreseeable future revisions to these conditions, including: safety, hazardous materials, air quality, and water quality.

Consultant shall address appropriate odor control throughout the entire facility. Odor control shall be suitable to support and not limit the City's economic development goals, and future use of the surrounding area. The entire facility shall also be designed to allow reasonable and safe access to the public for tours guided by plant staff. The plant must also be a "good neighbor" in the local and regional community, addressing elimination to the extent practical or reduction to the extent reasonably possible of odor, loud noise, and poor aesthetics.

All access shall be designed to meet the latest Americans with Disabilities Act (ADA) and accessibility requirements, and City standard details. Designs shall meet regulatory compliance including local, Federal, and State. The design shall incorporate elements of the concurrent plant-wide Master Plan and PEIR, including: overall systems planning

and layout, power system – generation and distribution, ACS and control center, and related systems in the Master Plan. Instrumentation and control design including symbols and abbreviations, P&IDs, wiring and loop drawings, control strategy narratives, fiber patching diagrams, network and communication diagrams, and control panel drawings shall follow the City's Instrumentation and Design Standards.

#### **Coordination with Control Algorithm Development**

The PMC will develop detailed flow chart style control algorithms based on the Consultant developed control strategies and design. The control algorithms provide specific guidance to the system integrator on implementation of the Rockwell Automation PlantPAx and provides a valuable operational reference. The Consultant will include the control algorithms as an appendix to the Contract Documents. The Consultant shall attend up to five review workshops to provide feedback and input on the design intent.

#### **Design Steps**

Design Development shall include, but are not necessarily limited to the following steps:

- 30% Design
- 60% Design
- 90% Design
- 100% Design

Bid documents will be produced under Task G, Bid Package.

Each design package shall be submitted in accordance with the calendar included in the Project Management Plan delivered under Task A. Four weeks are allotted for review of each design. PMC will return comments in a compiled log, and Consultant shall schedule a design review workshop to resolve comments and decisions. Following design review workshops, Consultant shall return comment log with responses reflecting discussion at the workshop. Consultant shall also submit updated decision log. Follow-up conference calls may be scheduled for comments that remain unresolved.

Note that the continual operation of the WPCP and permit compliance is of greatest importance. Any work done on site, including all planning and design must be done in a manner to not disrupt the operation of the WPCP.

## Format

The City's standard plan format shall be used (24" X 36" nominal). Consultant shall also submit 3D model at each stage of design. The specifications shall be in CSI standard format (8-1/2" X 11" nominal) bound. Plans shall be organized in logical layers, including but not necessarily limited to: existing underground, surface and overhead conditions; proposed underground by utility, proposed surfacing, proposed pavement markings, proposed overhead, etc.

Hard copy submittals shall consist of 2 sets of full sized plans, 12 sets of half sized plans, and 14 copies for reports, specifications and other material. An additional 2 sets of full sized plans and specifications shall be provided at the 90% and 100% design stages for Building Department review. Digital Submittals shall be submitted via Unifier

in: AutoCAD and Adobe pdf for plans and 3D model; MS Word and Adobe pdf for specifications or reports; MS Excel and Adobe pdf for Cost Estimates or spread-sheets, and MS Project and Adobe pdf for time schedules. Files over 100 MB shall be broken up into smaller files. Adobe pdf files shall include bookmarks to all section and subsection headers. A preliminary list of anticipated drawings is provided as Exhibit "E" to this scope of work.

## 1. Base Scope 30% Design

Given the critical nature of these facilities for compliance operations as well as the mechanical/control components involved with the project, the City will be requiring significant details development as part of the 30% design. The Consultant shall provide comprehensive P&ID's, completed to a 90% level, and a thorough review of the control strategies and operations implications through facilitation of a reliability, operability, and process hazard analysis of the facilities being implemented and their integration with existing infrastructure and controls. The 30% design package will be split up into three packages, one for liquids facilities, one for solids facilities, and one for site support facilities. Deliverables for this phase shall include but are not limited to:

- Three (3) Design element review meetings (DERMs), one for each of the three (3) 30% packages. Workshops No. 14 through 16;
- One (1) Operations Summit (Workshop No. 17) to focus on features of the facility design intended to improve operations. Review with O&M staff all the intended use of all systems in the new facility;
- Draft and Final Technical Memorandum No. D3 Bid Package Evaluation and Equipment Pre-purchase. Workshop No. 18 to present findings and review City comments;
- Preliminary plans and profiles, including cover sheet, and plan sheets with base mapping and all existing utilities;
  - o Plan cover sheet template to be provided by City;
- Contractor mobilization area(s) and construction traffic routing;
- Preliminary details;
- Preliminary reports and/or technical memoranda;
- General process schematics;
- Detailed description of special construction requirements and constraints required to minimize the impacts of construction on continuous and safe operation of existing facilities;
- Survey control plan with vertical and horizontal controls description, monuments, and benchmarks;
- Sizing and number of facility improvement components including piping, mechanical, electrical, instrumentation and support equipment;
- Cut sheets, model numbers and curves for equipment/appurtenances;
- Preliminary construction schedule;
- 30% cost estimate model;
- Provide a list of any facilities belonging to PG&E, AT&T, Comcast Cable, and others. Identify utility facilities that will need to be adjusted and/or relocated as a result of the proposed construction;

- Determine if the project construction activities are covered under the NPDES Construction General Permit. If covered under the NPDES Construction General Permit, determine the project type and risk level. Prepare a brief memo that summarizes the project classification; and
- Conduct an analysis to recommend a single or two bid packages for all the project elements described in this scope of work. Deliver a draft memorandum summarizing the analysis, results, and recommendations present analysis, results, and recommendations to the City in a workshop. Deliver Final memorandum summarizing the analysis, results, and recommendations after receiving City comments.

The plans shall clearly show the entire site, relevant surrounding areas, and the following at a minimum:

- Underground utilities:
  - o Sanitary lines, (laterals as necessary), manholes, or cleanouts;
  - Storm drainage lines, (laterals as necessary), manholes, catch basins, or inlets;
  - Water lines, laterals, valve boxes, hydrants, relief valves, irrigation lines, heads, valves, wiring, other components; and
  - Electrical, communications, gas and other power lines, other underground, utilities lines, boxes, vaults.
- Surface features:
  - Existing structures;
  - Concrete pavement, driveways, and emergency access routes;
  - o Survey monuments and boxes, benchmarks;
  - Sufficient elevation contours and/or spot elevations to determine earthwork quantities, drainage, and access;
  - o Buildings, appurtenances, utility poles, other features; and
  - Trees, shrubs, and other surface features.
- Overhead features in affected area:
  - o Signage, benches, amenities;
  - o Tree canopies, vegetation;
  - Overhead wires or obstructions; and
  - Other overhead features or obstructions.
- Contaminants either in buildings, improvements, pavement markings, or underground;
- Site access for construction;
- Process/Mechanical:
  - Standard mechanical details;
  - o 90% complete P&IDs;
  - o Preliminary equipment list;
  - o General equipment arrangement plans and major sections;
  - Major facility dimensions;
  - Preliminary drafts of major specifications;
  - Preliminary control strategy narratives; and
  - NFPA 820 Guidelines review for project specifics.
- Structural/Demolition:

- o Standard structural details;
- o Structural foundation plans and sections;
- o Final structural design criteria;
- o Structural general notes and standard details;
- o General demolition plans; and
- Specification index and boilerplate specification section drafts.
- Electric power:
  - Review of site power system and City Standards for electric power systems;
  - o Preliminary site power plans; and
  - Preliminary facility single line power diagrams.
- Instrumentation and Controls:
  - o Control system architecture and integration with existing system;
  - All instruments on 90% complete P&IDs; and
  - o Preliminary control strategies and loop descriptions.
- 2. Base Scope 60% Design

Consultant shall develop the approved 30% design submittals into 60% design plans, specifications, and cost estimates. Design development shall include incorporation of power systems elements, ACS elements, and site and architectural elements that coordinate future anticipated improvements, public access and education opportunities, and other features that make the site a comprehensive asset to the City and the community. The 60% design package will be split up into three packages, one for liquids facilities, one for solids facilities, and one for site support facilities. There will be three (3) Design element review meetings (DERMs), one for each of the three (3) 60% packages (Workshops No. 19 through 21). In addition, there will be one (1) Operations Summit (Workshop No. 22) to focus on what will be needed to keep the facility in compliant operations during construction, including tie-ins, startup, testing, and commissioning sequences. Development of the design shall also include consideration of sustainability and the following:

- Coordinate all conceptual and preliminary design ideas and features into the constraints of the site and opportunities of the site;
- Consider public safety, and provide good access and visibility for easy patrol and observation, both day and night;
- Develop good drainage, foundations, and infrastructure to support reasonable maintenance and operation of all features;
- Provide consideration of sufficient storage and access for equipment, and supplies to support operations and maintenance;
- Provide safety equipment in appropriate locations; and
- Incorporate any mitigation measures for compliance with CEQA or other legitimate concerns raised at public meetings.

All plan sheets shall be started and included as part of the submittal for this phase. Deliverables for this phase shall include but are not limited to the following:

## Plans:

- Cover Sheet title, sheet index, vicinity map, location maps, notes, brief description of contractor's scope of work, horizontal and vertical control, graphical scale, other information as necessary;
- Layout of new facilities;
- Details and sections;
- Yard piping and duct bank plans and profiles;
- Paving & grading;
- Process / Mechanical:
  - o Complete Piping and Instrumentation Diagrams;
  - Demolition drawings;
  - Equipment arrangement plans, sections and details; and
  - o Specifications for vendor review.
- Structural/Demolition:
  - Structural plans, sections and details;
  - Demolition plans, sections and details;
  - Preliminary rebar detailing; and
  - o Specifications.
- Electric Power:
  - WPCP power single line drawings;
  - Process area single line drawings;
  - Electrical room plans and equipment sections;
  - o Schematic site power plans; and
  - o Specifications.
- Instrumentation and Controls:
  - o ACS system architecture and integration with existing system;
  - ACS I/O on P&IDs;
  - Control schematics;
  - I/O and instrument index;
  - o Final control strategies and loop descriptions; and
  - Specifications.

#### Specifications:

- Technical specifications;
- Description of each item on bid schedule with requirements;
- Recommended revisions to Special Provisions;
- Bid schedule;
- Engineer's construction cost estimate; and
- Construction schedule.

#### Other:

• Responses to City's review comments, along with return of mark-ups.

## 3. Base Scope 90% Design

Consultant shall develop the approved 60% design submittal into 90% design plans, specifications, and cost estimates. All comments from the previous submittal shall be resolved and incorporated. Deliverables shall include but are not limited to:

#### <u>Plans:</u>

- Cover Sheet title, sheet index, vicinity map, location maps, notes, brief description of contractor's scope of work, horizontal and vertical control, graphical scale, other information;
- Layout of new facilities;
- Details and sections;
- Yard piping and duct bank plans and profiles;
- Paving & grading;
- Process / Mechanical:
  - Piping and Instrumentation Diagrams;
  - Demolition drawings;
  - Equipment and piping plans, sections and details; and
  - Specifications.
- Structural/Demolition:
  - Demolition drawings;
  - o Structural plans, sections, and details; and
  - o Specifications.
- Electric Power:
  - WPCP power single lines;
  - Process area single lines;
  - Site power and lighting plans;
  - Process area power, communication, and lighting plans;
  - Electrical, building, and equipment elevations; and
  - Specifications.
- Instrumentation and Controls:
  - ACS architecture;
  - o Comprehensive P&IDs;
  - o Control and fiber diagrams;
  - Control single line diagrams;
  - Final Control strategies;
  - o Control panel details;
  - o Instrumentation installation details; and
  - Specifications.

## Specifications:

- Technical Specifications;
- Description of each item on bid schedule with requirements;
- Recommended revisions to Special Provisions;
- Bid schedule;
- Engineer's construction cost estimate; and

• Construction schedule.

## Other:

- Responses to City's review comments, along with return of mark-ups;
- Workshop No. 23 to review City comments on 90% Package; and
- Workshop No. 24 to perform Preliminary Review with City Building Department.

## 4. Base Scope 100% Design

Consultant shall develop the approved 90% Design Development submittal into 100% design plans, specifications, and cost estimates. All comments from the previous submittal shall be resolved and incorporated. The Consultant shall design and prepare complete plans, technical specifications, cost estimates, and revisions to the City's special provisions, for the project. The 100% plans shall be suitable to submit for Building Department review in hard copy format, and to prepare draft Building Permits, ready for the winning bidder. Include all necessary attachments and schedules in hard copy, including but not necessarily limited to: structural calculations, energy efficiency worksheets, and related work.

Design new facilities and processes for meeting the goals of each phase of the project, including power distribution, piping and other ancillary facilities as appropriate based upon geotechnical reports, design reports, testing and field review. Coordinate all applicable City standards into plans and specifications.

Clearly provide all details necessary for contractor to construct the project. Review, evaluate, revise plans and specifications and provide responses to City's review comments. Verify that the design is in compliance with all applicable laws, regulations, City Standards, CEQA, and other applicable requirements. Recommend any other items of work necessary to provide good value to the City to complete the project. Deliverables shall include but are not limited to:

## Plans:

- Cover Sheet title, sheet index, vicinity map, location maps, notes, brief description of contractor's scope of work, horizontal and vertical control, graphical scale, other information;
- Civil Plans grading, drainage, utilities plans & profiles, lighting, equipment and convenience power, pavement, walks, stairs, rails, details;
- Coordinate power, ACS, architectural, landscape, and irrigation plans and details;
- Amenities plans and details; and
- Other specialties.

# Specifications

- Technical Specifications, description of each item on bid schedule with requirements for payment (e.g. complete, in place, and suitable for its intended use);
- Complete revised Special Provisions and reviewed Supplemental General Provisions, and bid instructions;
- Recommended revisions to special specifications;
- Bid schedule;
- Engineer's construction cost estimate in the form of the Bid Schedule, (along with supporting documents not part of the Bid Package);
- Final list of submittals;
- List of information available to bidders with disclaimer;
- Revised project cost estimate; and
- Revised project time schedule.

# Other:

- Responses to City's review comments, along with return of mark-ups;
- Based on City comments from the 90% design review, input received during any public meeting as interpreted by the City, and the Consultant's design judgment and peer review, Consultant shall prepare the 100% plans for submittal to the City;
- A peer review by another licensed professional in the consultant's firm other than the designer of record is required for overall constructability, coordination, and reasonable reduction in errors and omissions is to be accomplished as part of the 100% submittal;
- Hard copies of signed and sealed, by discipline, plans and specifications;
- In review with City, revise plans and specifications based upon Peer Review. The professional shall sign, date and seal the following Certification of Peer Review on a letterhead document with the transmittal of the final plans and specifications:

"The undersigned hereby certifies that a professional peer review of these plans and the required designs was conducted by me, a professional engineer with expertise and experience in the appropriate fields of engineering equal to or greater than the Engineer of Record, and that appropriate corrections have been made."

• The Assistant Director of Public Works/City Engineer statement on the plans shall be on the title sheet of the project plans:

"The City of Sunnyvale hereby accepts these plans for construction, as being in general compliance with plans preparation requirements of this agency. Responsibility for the completeness and accuracy of the plans and related designs resides with the Engineer and Engineering Firm of Record."

• Workshop No. 25 to present final bid documents to City Building Department for final review. 5. <u>Electrical Improvements to Migrate Existing Processes to New 12 kV Backbone</u> <u>Design Development (Optional)</u>

The ECHP Master Plan is based on installing a new 12 kV backbone concurrently with the new CAS facilities but leaving existing treatment processes on the existing 4160 V system and phasing this system out gradually as existing facilities are replaced with new facilities. Depending on the recommendations of DIM #15–Power, the City may decide to accelerate and migrate existing processes onto the new 12 kV system. In that case, Consultant would be asked to extend their electrical design to also include the additional area substations and 480 V secondary feeds necessary for an accelerated transition to the new 12 kV system.

Plans, specifications, construction cost estimates and schedule for the additional electrical improvements shall be performed concurrently and incorporated into the deliverables submitted under Tasks F1, F2, F3, and F4 of the Base Scope. At the request of the City, the Consultant shall prepare the following design deliverables for the Electrical Improvements to Migrate Existing Processes to New 12 kV Backbone Design. All deliverables required for this Optional Task are listed in the respective Base Scope Tasks of this scope of work.

The price for this Task F5 shall represent the additional cost to include design of the additional electrical improvements to be broken out to include the following deliverables:

a. 30% Design

All deliverables for this Task shall be included with deliverables in Task F1.

b. 60% Design

All deliverables for this Task shall be included with deliverables in Task F2.

c. 90% Design

All deliverables for this Task shall be included with deliverables in Task F3.

d. 100% Design

All deliverables for this Task shall be included with deliverables in Task F4.

# 6. Second Bid Package Design Development (Optional)

At the request of the City, if it is determined that a second bid package needs to be created, Consultant shall prepare separate design deliverables to include, but are not limited to, 30%, 60%, 90%, and 100% plans, specifications, construction schedules and cost estimates for each construction contract. The first bid package shall consist of the following elements: Secondary Treatment

Improvements – Split Flow CAS Stage 1, AFT Pump Station and Pipeline, Maintenance Building, 12 kV Electrical Distribution System – Stage 2, and ACS (SCADA System) Improvements – Stage 2. The second bid package will include the Digester Supernatant PS and Drainage Piping and Thickening and Dewatering Facility – Stage 1 elements of the project.

Plans, specifications, construction cost estimates and schedule for the second bid package shall be incorporated into the deliverables submitted under Tasks F1, F2, F3, and F4 of the Base Scope. All deliverables required for this Optional Task are listed in the respective Base Scope Tasks of this scope of work.

The price for this Task F6 shall represent the additional cost to include design of the second bid package to be broken out to include the following deliverables:

a. 30% Design

All deliverables required for this optional Task are listed in the Base Scope 30% Design Task, Task F1 of this scope of work.

b. 60% Design

All deliverables required for this optional Task are listed in the Base Scope 60% Design Task, Task F2 of this scope of work.

c. 90% Design

All deliverables required for this optional Task are listed in the Base Scope 90% Design Task, Task F3 of this scope of work.

d. 100% Design

All deliverables required for this optional Task are listed in the Base Scope 100% Design Task, Task F4 of this scope of work.

# 7. Perimeter Wall Design Development (Optional)

At the request of the City, if it is determined that the south segment of the perimeter wall is needed per DIM #18, the Consultant shall prepare the following design deliverables for the Perimeter Wall Design.

Plans, specifications, construction cost estimates and schedule for the additional perimeter wall design shall be performed concurrently and incorporated into the deliverables submitted under Tasks F1, F2, F3, and F4 of the Base Scope. All deliverables required for this Optional Task are listed in the respective Base Scope Tasks of this scope of work.

The price for this Task F7 shall represent the additional cost to include design of the perimeter wall to be broken out to include the following deliverables:

a. <u>30% Design</u>

All deliverables required for this optional Task are listed in the Base Scope 30% Design Task, Task F1 of this scope of work.

b. 60% Design

All deliverables required for this optional Task are listed in the Base Scope 60% Design Task, Task F2 of this scope of work.

c. 90% Design

All deliverables required for this optional Task are listed in the Base Scope 90% Design Task, Task F3 of this scope of work.

d. 100% Design

All deliverables required for this optional Task are listed in the Base Scope 100% Design Task, Task F4 of this scope of work.

# 8. CEPT Design Development (Optional)

If it is determined during Conceptual Design Task D3 that CEPT shall be included in this project, the Consultant shall validate the CEPT design prepared for the Headworks and Primary Treatment Facility – Package 2 Project, and incorporate that design into the plans and specifications for this project.

Plans, specifications, construction cost estimates, and schedule for the additional CEPT design shall be performed concurrently and incorporated into the deliverables submitted under Tasks F1, F2, F3, and F4 of the Base Scope. The price for this Task F8 shall represent the additional cost to include design of CEPT to be broken out to include the following deliverables:

a. 30% Design

All deliverables required for this optional Task are listed in the Base Scope 30% Design Task, Task F1 of this scope of work.

b. 60% Design

All deliverables required for this optional Task are listed in the Base Scope 60% Design Task, Task F2 of this scope of work.

c. 90% Design

All deliverables required for this optional Task are listed in the Base Scope 90% Design Task, Task F3 of this scope of work.

d. 100% Design

All deliverables required for this optional Task are listed in the Base Scope 100% Design Task, Task F4 of this scope of work.

# G. Bid Package

Consultant shall develop the approved 100% Design submittal into bid package plans, specifications, and cost estimates. All comments from the previous submittal shall be resolved and incorporated. Task G includes Base Scope bid package services and optional bid package services. Base Scope bid package services are described in Task

G1, while optional bid package services, which are to be completed at the City's instruction, are described in Tasks G2, G3, G4, and G5.

1. <u>Base Scope Bid Package Plans, Specifications, and Cost Estimates</u> Hard copy submittals shall consist of 2 sets of full sized plans, and 2 copies for

reports, specifications and other material. Deliverables shall include but are not limited to:

- Complete revised Special Conditions and reviewed Standard Conditions, and bid instructions:
  - Final Bid Schedule and/or schedule of values;
  - o Tabulation of quantities of all work;
  - Final engineer's construction cost estimate in the form of the Bid Schedule, (along with supporting documents not part of the Bid Package);
  - Final list of submittals, including identification of items governed by American Iron and Steel requirements;
  - $\circ$   $\;$  Recommendation for allowed construction time period; and
  - Final list of information available to bidders with disclaimer.
- Coordinate plans and technical specifications with the City's (front end) bid instructions, standard provisions, and revised special provisions ready for Public Works bidding;
- Complete sets of plans, stamped, and signed on each sheet by the Engineer of Record;
- Complete Technical Specifications stamped and signed on the table-ofcontents sheet by the Engineer of Record. If there are more than one Engineer of Record, stamp and sign the table of contents sheet for only that/those section(s) that applies to each engineering discipline:
  - The headers and footers of the Technical Specifications shall be formatted per the example provided by the Project Administration Section and include the Invitation for Bids number provided by Purchasing. The final version of the Technical Specifications shall be submitted as a PDF.
- Reviewed City's Standard Construction Contract with completion of blanks that are determined by the work (time of construction);
- Certification of Peer Review signed that the entire Bid Package was reviewed and is recommended for Public Works bidding (Not incorporated with Bid Package);
- Digital copy of all work products and supporting work; and
- Structural calculations, energy efficiency worksheets, and related work.
- 2. <u>Electrical Improvements to Migrate Existing Processes to New 12 kV Backbone</u> <u>Bid Package (Optional)</u>

At the request of the City, final plans, specifications, construction cost estimate, and schedule for the additional electrical improvements shall be incorporated into the deliverables submitted under Task G1 of the Base Scope. The price for this

Task G2 shall represent the additional cost to include design of the additional electrical improvements in these deliverables.

3. Second Bid Package (Optional)

At the request of the City, a separate package for the final plans, specifications, construction cost estimate, and schedule for the second bid package shall be separated and submitted as an additional deliverable under Task G1 of the Base Scope. The price for this Task G3 shall represent the additional cost to include design of the second bid package in these deliverables.

# 4. Perimeter Wall Bid Package (Optional)

At the request of the City, final plans, specifications, construction cost estimate, and schedule for the perimeter wall shall be incorporated into the deliverables submitted under Task G1 of the Base Scope. The price for this Task G4 shall represent the additional cost to include design of the perimeter wall in these deliverables.

# 5. CEPT Bid Package (Optional)

If it is determined that CEPT shall be included in this project, final plans, specifications, construction cost estimate, and schedule for CEPT shall be incorporated into the deliverables submitted under Task G1 of the Base Scope. The price for this Task G5 shall represent the additional cost to include design of CEPT in these deliverables.

# H. Bidding Services

Consultant shall provide bidding services for all aspects of this project. Task H includes Base Scope bidding services and optional bidding services. Base Scope bidding services are described in Task H1 of this scope of work, while optional bidding services, which are to be completed at the City's instruction, are described in Tasks H2, H3, H4, and H5.

# 1. Base Scope Bidding Services

# Overview

Respond to all Requests for Information in a timely manner, attend pre-bid meeting(s), and prepare addenda as necessary and provide information to Purchasing to inform plan-holders of significant responses to Requests for Information. All communications shall be directed through the City (Purchasing Officer).

Conformed Documents will be prepared by the Consultant, incorporating all addenda to the bid documents. Contractor must sign off on Conformed Documents as part of the Conformed Document process. City will provide reproduction services.

# **Submittals**

- Prompt response to all Requests for Information
- Minutes of pre-bid meeting

- Addenda as necessary
- Conformed documents (specifications and drawings) in PDF and Native Format
- 2. <u>Electrical Improvements to Migrate Existing Processes to New 12 kV Backbone</u> <u>Bidding Services (Optional)</u>

At the request of the City, responses to Requests for Information, minutes for pre-bid meeting(s), necessary addenda, and conformed documents for the design of electrical improvements to migrate existing processes to new 12 kV backbone shall be incorporated into the deliverables submitted under Task H1 of the Base Scope. The price for this Task H2 shall represent the additional cost to include design of electrical improvements to migrate existing processes to new 12 kV backbone in these deliverables.

3. Second Bid Package Bidding Services (Optional)

At the request of the City, Consultant shall provide additional resources necessary for responses to Requests for Information, minutes for pre-bid meeting(s), necessary addenda, and conformed documents for a completely separate, second bid package and shall be separated and submitted as an additional deliverable under Task H3 of the Base Scope. The price for this Task H4 shall represent the additional cost to include a second bid package.

4. Perimeter Wall Bidding Services (Optional)

At the request of the City, responses to Requests for Information, minutes for pre-bid meeting(s), necessary addenda, and conformed documents for the perimeter wall shall be incorporated into the deliverables submitted under Task H1 of the Base Scope. The price for this Task H4 shall represent the additional cost to respond to bidder's RFIs related to the perimeter wall.

5. <u>CEPT Bidding Services (Optional)</u>

If it is determined that CEPT shall be included in this project, responses to Requests for Information, minutes for pre-bid meeting(s), necessary addenda, and conformed documents for CEPT shall be incorporated into the deliverables submitted under Task H1 of the Base Scope. The price for this Task H5 shall represent the additional cost to include design of CEPT in these deliverables.

# I. Construction Support Services

Consultant shall provide construction support services for all aspects of this project. Task I includes Base Scope construction support services and optional construction support services. Base Scope construction support services are described in Task I1, while optional construction support services, which are to be completed at the City's instruction, are described in Tasks I2, I3, I4, and I5. For all of the base and optional tasks combined, it was assumed there would be

- 1,000 submittals (or resubmittals) at 8 hrs each;
- 500 RFI's at 6 hrs each;
- 50 construction change requests at 8 hrs each;

- 20 substitution requests at 16 hrs each;
- Attendance at up to 50 special meetings to discuss or review technical issues; and
- 40 days of field observation services.

# 1. Base Scope Construction Support Services

# Overview

The Construction Management Consultant (CMC) in conjunction with the City's Public Works staff will have primary responsibility for construction management and inspection. The Consultant's point of contact shall be the CMC, not the contractor. The Consultant shall provide the following services at a minimum:

- Respond to Requests for Information (RFIs), clarifying the plans and specifications where appropriate, or providing revisions or additional detail where necessary;
- Review and respond to all submittals;
- Attend pre-construction meeting, and periodic construction meetings and field inspection for final completion as determined by the City. All other required on-site meetings shall be considered necessary and based on the competency and adequacy of the contract documents and therefore the responsibility of the consultant. It was assumed Consultant would attend 2 construction meetings in person and 2 by telecon every month;
- Prepare As-Built Drawings based upon red-lines provided by contractor;
- Review proposed substitutions for conformance to drawings and technical specifications, if any;
- Review and make recommendations on proposed changes to the contract (Request for Quotation/Contract Change Order);
- Provide coordination and oversight related to equipment testing, integration, commissioning and startup (all documentation of these events shall be submitted to the City by the Consultant);
- Participate in testing, commissioning, integration and documentation process;
- Participate in the final inspection and development of the punch lists; and
- Participate in "Lessons Learned" meetings.

Operation and Maintenance Manual updates shall be included in Task K.

# Deliverables:

- Prompt responses to all requests for information (RFIs);
- Prompt responses to all submittals; and
- As-Built Drawings submitted as AutoCAD and PDF files.
- 2. <u>Electrical Improvements to Migrate Existing Processes to New 12 kV Backbone</u> <u>Construction Support Services (Optional)</u>

At the request of the City, the Consultant shall provide construction support services for the electrical improvements to migrate existing processes to new 12

kV backbone. All activities and submittals are described in the Base Scope Construction Support Services Task, Task I1 of this scope of work. The price for this Task I2 shall represent the additional cost for construction support services related to the additional electrical improvements.

# 3. Second Bid Package Construction Support Services (Optional)

At the request of the City, the Consultant shall provide additional resources necessary to provide construction support services (including attending necessary meetings) for a separate, second construction package. All activities and submittals are described in the Base Scope Construction Support Services Task, Task I1 of this scope of work. The price for this Task I3 shall represent the additional cost for construction support services related to the second bid package.

# 4. Perimeter Wall Construction Support Services (Optional)

At the request of the City, the Consultant shall provide construction support services for the perimeter wall. All activities and submittals are described in the Base Scope Construction Support Services Task, Task I1 of this scope of work. The price for this Task I4 shall represent the additional cost for construction support services related to the perimeter wall.

# 5. CEPT Construction Support Services (Optional)

If it is determined that CEPT shall be included in this project, the Consultant shall provide construction support services for CEPT. All activities and submittals are described in the Base Scope Construction Support Services Task, Task I1 of this scope of work. The price for this Task I5 shall represent the additional cost for construction support services related to CEPT.

# J. Commissioning Support Services

Leading up to and during commissioning, the contractor will be responsible for preparing and executing training and testing plans and schedules; and equipment, system, and facility start-up plans. The CMC will be responsible for observing and documenting the completion of the majority of these activities, with some training and test witnessing performed by the PMC. The Consultant's role is to review and accept submittals and tasks performed by the contractor. Base Scope commissioning support services are described in Task J1, J2, and J3, while optional commissioning support services, which are to be completed at the City's instruction, are described in Tasks J4, J5, J6, and J7. Level of effort for the base and optional tasks combined includes:

- Review 20 planning phase at 8 hours per submittal;
- 40 days of factory witness testing for commissioning phase for key equipment and systems;
- Review up to 36 commissioning phase submittals at 6 hours per submittal;
- 50 days of process observation and witness testing/support for process phase;

- Review up to 20 start-up phase submittals; and
- Review up to 24 observations reports and sampling plans.

# 1. Base Scope Planning Phase

Consultant shall review, critique, and accept owner training plans, manufacturers' certificate of installation and functionality compliance, and test water management plan for clean water facility testing.

# **Deliverables:**

• Review comments on all planning-phase submittals

# 2. Base Scope Commissioning Phase

Consultant shall witness factory testing for instrumentation and major mechanical and electrical equipment including but not limited to aeration blowers, diffusers, thickening and dewatering equipment, medium or high voltage switchgear, source testing for PLC code, and up to 3 other systems to be determined later. Consultant shall review commissioning phase submittals including but not limited to:

- Manufacturer and vendor training;
- o Electrical conductor testing;
- o Instrument field calibration;
- Network Installation Testing;
- Loop Testing;
- o Pressure Testing;
- o Leak Testing;
- o Holiday Testing;
- o HVAC Testing;
- Motor Electrical Testing;
- Network Operational Testing;
- Preliminary Run Testing Local/Manual Control;
- PCIS Functional Demonstration Testing;
- Subsystem Startup and Testing;
- o Equipment System Startup and Testing;
- o HVAC Startup and Testing;
- Wide Area Network Communications Testing;
- Manufacturer's Certificate of Installation and Functionality Compliance; and
- Clean Water Facility Testing.

# **Deliverables:**

• Review comments on all commissioning-phase submittals

# 3. Base Scope Process Start-Up Phase

Prior to start-up, Consultant shall review, critique, and provide comment on commissioning documentation and data and process start-up plans. Consultant shall review and provide comment on following start-up phase submittals:

- o Commissioning Documentation and Data Review;
- Building and Fire Inspection Compliance Check;
- o HVAC Functionality Check;
- Process Start-Up Plan;
- Control Loop Tuning and Optimization;
- Process Control Systems Testing;
- o Odor Control system Final Testing, Adjust, and Balancing;
- Ancillary System Start-Up and Testing;
- o Complete Equipment and System Tests;
- Operational Testing;
- Final Testing Reports;
- o Water Quality Testing and Documentation; and
- PCIS Performance Testing and Fine Tuning.

# **Deliverables:**

- Review comments on all process start-up phase submittals
- 4. <u>Electrical Improvements to Migrate Existing Processes to New 12 kV Backbone</u> <u>Commissioning Support Services (Optional)</u>

At the request of the City, Consultant shall provide commissioning support services for the additional electrical improvements. The price for this Task J4 shall represent the additional cost to review and accept submittals and tasks performed by the contractor for the commissioning effort, due to the inclusion of the additional electrical improvements in the project.

- a. <u>Optional Electrical Improvements Planning Phase</u> At the request of the City, Consultant shall conduct all activities and provide all deliverables required for the design of electrical improvements to migrate existing processes to new 12 kV backbone project element in the Base Scope Planning Phase Task, Task J1 of this scope of work.
- b. <u>Optional Electrical Improvements Commissioning Phase</u> At the request of the City, Consultant shall conduct all activities and provide all deliverables required for the design of electrical improvements to migrate existing processes to new 12 kV backbone\_project element\_in the Base Scope Commissioning Phase Task, Task J2 of this scope of work.
- c. Optional Electrical Improvements Process Start-Up Phase

At the request of the City, Consultant shall conduct all activities and provide all deliverables required for the design of electrical improvements to migrate existing processes to new 12 kV backbone project element in the Base Scope Process Start-Up Phase Task, Task J3 of this scope of work.

# 5. Second Bid Package Commissioning Support Services (Optional)

At the request of the City, Consultant shall perform the primary review role for both commissioning and process start-up periods for two separate bid packages. Consultant shall coordinate, witness, and accept both clean water tests and both process operational tests. Consultant shall perform water quality testing and onsite support for both commissioning and start-up periods. The price for this Task J5 shall represent the additional cost to review and accept submittals and tasks performed by the contractor for the commissioning effort, due to the inclusion of a second bid package.

- <u>Optional Second Bid Package Planning Phase</u> At the request of the City, Consultant shall conduct all activities and provide all deliverables required for the second bid package in the Base Scope Planning Phase Task, Task J1 of this scope of work.
- b. <u>Optional Second Bid Package Commissioning Phase</u> At the request of the City, Consultant shall conduct all activities and provide all deliverables required for the second bid package in the Base Scope Commissioning Phase Task, Task J2 of this scope of work.
- c. <u>Optional Second Bid Package Process Start-Up Phase</u> At the request of the City, Consultant shall conduct all activities and provide all deliverables required for the second bid package in the Base Scope Process Start-Up Phase Task, Task J3 of this scope of work.

# 6. Perimeter Wall Commissioning Support Services (Optional)

At the request of the City, Consultant shall provide commissioning support services for the perimeter wall. The price for this Task J6 shall represent the additional cost to review and accept submittals and tasks performed by the contractor for the commissioning effort, due to the inclusion of the perimeter wall in the project.

# a. Optional Perimeter Wall Planning Phase

At the request of the City, Consultant shall conduct all activities and provide all deliverables required for the flood wall in the Base Scope Planning Phase Task, Task J1 of this scope of work.

# b. Optional Perimeter Wall Commissioning Phase

At the request of the City, Consultant shall conduct all activities and provide all deliverables required for the flood wall in the Base Scope Commissioning Phase Task, Task J2 of this scope of work.

c. <u>Optional Perimeter Wall Process Start-Up Phase</u> At the request of the City, Consultant shall conduct all activities and provide all deliverables required for the flood wall in the Base Scope Process Start-Up Phase Task, Task J3 of this scope of work.

# 8. CEPT Commissioning Support Services (Optional)

If it is determined that CEPT shall be included in this project, the Consultant shall provide commissioning support services for CEPT. The price for this Task J7 shall represent the additional cost to review and accept submittals and tasks performed by the contractor for the commissioning effort, due to the inclusion of CEPT in the project.

# a. Optional CEPT Planning Phase

If it is determined that CEPT shall be included in this project, Consultant shall conduct all activities and provide all deliverables required for CEPT in the Base Scope Planning Phase Task, Task J1 of this scope of work.

# b. Optional CEPT Commissioning Phase

If it is determined that CEPT shall be included in this project, Consultant shall conduct all activities and provide all deliverables required for CEPT in the Base Scope Commissioning Phase Task, Task J2 of this scope of work.

# c. Optional CEPT Process Start-Up Phase

If it is determined that CEPT shall be included in this project, Consultant shall conduct all activities and provide all deliverables required for CEPT in the Base Scope Process Start-Up Phase Task, Task J3 of this scope of work.

# K. Operation and Maintenance Manual Updates

The WPCP has an existing electronic Operation and Maintenance Manual (O&M Manual), prepared and updated by others. Consultant shall prepare Area Procedure and Expectations (APE) documents for new unit processes, to supplement the existing O&M Manual and furnish information for staff to understand, operate, and optimize new unit processes in a format that can be used to train future workers. One APE would cover the secondary treatment equipment including the aeration basins, secondary clarifiers, aeration blowers, RAS/WAS pump stations, and secondary flow split. The second APE would cover the solids handling processes, including the thickening equipment, the dewatering equipment, and the odor control scrubber and fans.

APE sections shall include:

- Process overview and objectives;
- Design criteria;
- Process parameters and performance goals;

- Key performance indicators;
- Process control variables and parameters;
- Process control decisions;
- Process control response;
- Process control observations;
- Sampling and data recording;
- Situational response (links to Standard Operating Procedures by others); and
- Duties and/or expectations of the O&M staff working within each area.

# **Deliverables:**

- O&M Manuals, including any spreadsheets to assist with operation and control
- Secondary Treatment APE
  - o Draft
  - o Final
  - o Two presentations to staff
- Solids Handling APE
  - o Draft
  - o Final
  - o Two presentations to staff

# IV. Available Documents

Available Documents listed under items 4-10 are available on the Program website: http://www.sunnyvalecleanwater.com/-projects

- 1. City standard specifications and details are available on the City's website: <u>http://sunnyvale.ca.gov/Departments/PublicWorks/CityStandardDetailsandSpecificati</u> <u>ons.aspx</u>
- 2. Program design standards and master planning documents are available on the Program website: <u>http://www.sunnyvalecleanwater.com/WPCP-master-plan</u>
  - A. Basis of Design Report: <u>http://www.sunnyvalecleanwater.com/documents/master-plan/Basis-of-</u> <u>Design-Report\_Final-for-City-Web(Rev1).pdf</u>
  - B. Strategic Infrastructure Plan: <u>http://www.sunnyvalecleanwater.com/documents/master-plan/SIP-Validation-</u> TM\_Final-for-City-Web.pdf
  - C. ACS Plan TM: <u>http://www.sunnyvalecleanwater.com/documents/master-plan/ACS-Plan-TM\_Final-for-City-Web.pdf</u>
  - D. Geotechnical Study for the Master Plan: <u>http://www.sunnyvalecleanwater.com/documents/master-plan/Geotechnical-</u> <u>Study\_Final-for-City-Web.pdf</u>
  - E. Existing Utilities TM: <u>http://www.sunnyvalecleanwater.com/documents/master-plan/Existing-</u> <u>Utilities-Plan-TM\_Final-for-City-Web.pdf</u>

- F. Land Survey and Monumentation Documents: <u>http://www.sunnyvalecleanwater.com/documents/master-plan/Record-of-</u> <u>Survey\_Final-for-City-Web.pdf</u>
- G. Site Investigation Analysis (Hazardous Materials Analysis) TM: <u>http://www.sunnyvalecleanwater.com/documents/master-plan/Site-</u> <u>Investigation-Analysis(Hazardous-Materials-Analysis)\_Final-for-City-Web.pdf</u>
- H. Building Programming TM: <u>http://www.sunnyvalecleanwater.com/documents/master-plan/Building-</u> <u>Programming-TM\_Final-for-City-Web.pdf</u>
- I. ECHP Plan TM: <u>http://www.sunnyvalecleanwater.com/documents/master-plan/Final-ECHP-Plan-TM\_Final-for-City-Web.pdf</u>
- J. Site Layout Considerations TM: <u>http://www.sunnyvalecleanwater.com/documents/master-plan/Site-Layout-</u> <u>Considerations-TM\_Final-for-City-Web.pdf</u>
- K. Flows and Loads TM: <u>http://www.sunnyvalecleanwater.com/documents/master-plan/Flow-and-Loads-Evaluation-TM\_Final-for-City-Web.pdf</u>
- L. Architectural Design Standards: <u>http://www.sunnyvalecleanwater.com/documents/master-plan/Architectural-</u> <u>Design-Standards\_Final-for-City-Web.pdf</u>
- M. Civil Design Standards: <u>http://www.sunnyvalecleanwater.com/documents/master-plan/Civil-Design-Standards\_Final-for-City-Web.pdf</u>
- N. Corrosion Design Standards: <u>http://www.sunnyvalecleanwater.com/documents/master-plan/Corrosion-</u> <u>Design-Standards\_Final-for-City-Web.pdf</u>
- O. Electrical Design Standards: <u>http://www.sunnyvalecleanwater.com/documents/master-plan/Electrical-</u> <u>Design-Standards\_Final-for-City-Web.pdf</u>
- P. Instrumentation and Control Design Standards: <u>http://www.sunnyvalecleanwater.com/documents/master-</u> <u>plan/Instrumentation-and-Control-Design-Standards Final-for-City-Web.pdf</u>
- Q. Landscape Design Standards: <u>http://www.sunnyvalecleanwater.com/documents/master-plan/Landscape-Design-Standards\_Final-for-City-Web.pdf</u>
- R. Mechanical Design Standards: <u>http://www.sunnyvalecleanwater.com/documents/master-plan/Mechanical-</u> <u>Design-Standards Final-for-City-Web.pdf</u>
- S. Odor Control Design Standards: <u>http://www.sunnyvalecleanwater.com/documents/master-plan/Odor-Control-Design-Standards\_Final-for-City-Web.pdf</u>
- T. Structural and Seismic Design Standards: <u>http://www.sunnyvalecleanwater.com/documents/master-plan/Structural-and-</u> <u>Seismic-Design-Standards\_Final-for-City-Web.pdf</u>

- 3. The PEIR is available on the Program website: http://www.sunnyvalecleanwater.com/program-environmental-impact-report
- 4. Plant schematics
  - A. Electrical schematic
  - B. General process schematic
- 5. RFPs for concurrent professional services
  - A. Computerized Maintenance Management System (CMMS)
  - B. RFP F17-048: Professional Design Services Associated with the Sunnyvale Clean Water Program Facility Condition Assessment Project, Published November 2016
  - C. New administration building
- 6. Plans, specifications, and reports for current construction projects
  - A. Headworks and Primary Treatment Design Information Memoranda
    - B. Headworks and Primary Treatment Package 1 plans, specifications, and addenda
    - C. Headworks and Primary Treatment Package 2 plans and specifications
    - D. City of Sunnyvale Water Pollution Control Plant Air Flotation Tank Improvements, Dated 2010, Construction Drawings, Prepared by RMC Water & Environment
    - E. City of Sunnyvale Water Pollution Control Plant Rehabilitation of Anaerobic Digesters No. 1 and No. 2 and Improvements to No. 3 Dated 2013, Construction Drawings, Prepared by Kennedy/Jenks Consultants
    - F. City of Sunnyvale Water Pollution Control Plant Emergency Flow Management Improvements, Dated 2015, Construction Drawings, Prepared by CDM Smith
    - G. City of Sunnyvale Water Pollution Control Plant Hypochlorite Conversion and Continuous Recycled Water Production Facilities, Dated 2015, Construction Drawings, Prepared by HDR Engineering
- 7. Record drawings. The City does not guarantee the accuracy or completeness of record drawings. Consultant shall verify all information to their professional satisfaction.
  - A. PR-62-14: Sludge Circulating Piping Changes, October 1962.
  - B. PR-65-1: Sewage Treatment Works Oxidation Pond, August 1965.
  - C. PR-66-5: 1967 STP Modifications, February 1967.
  - D. PR-69-5: Sewage Treatment Works 1969 Enlargements and Modifications, June 1969.
  - E. PR-73-2: Water Pollution Control Plant Drawings for Tertiary Facilities, July 1975.
  - F. PR-79-3: Primary Effluent Pipeline, June 1979.
  - G. PR-80-16: Addition of Dual Media Filter No. 4, December 1980.
  - H. PR-82-4: Tertiary Facilities, April 1982.
  - I. PR-82-6: Primary Facilities, June 1982.
  - J. PR-82-8: Administration Building, April 1982.
  - K. PR-84-5: Sunnyvale WPCP Contract C-5 Landscaping Improvements, August 1984.

- L. PR-84-6: Sunnyvale WPCP Lab Building Addition, June 1985.
- M. PR-85-8: HVAC Modifications, February 1985.
- N. PR-89-10: Lab/Tertiary Control Building Modifications and Administration Building Expansion, Phase 1, Locker Room Addition, April 1989.
- O. PR-90-7: Process Gas Piping System, June 1990.
- P. PR-90-9: Barscreen Replacement Project, August 1990.
- Q. PR-91-12: Office Modular Unit, December 1991.
- R. PR-92-1: Renovation Plan Lakewood Park, January 1991.
- S. PR-93-10: Sludge Dewatering Improvements, July 1993.
- T. PR-93-11: Surface Aerator Installation, September 1993.
- U. PR-94-15: Toxic Gas Storage and Handling Facilities, November 1994.
- V. PR-95-2: Power Generation Facility, January 1996.
- W. PR-95-2(G): Power Generation Facility Improvements Digester Gas Flare, January 2001.
- X. PR-95-2(1): Power Generation Facility Waste Heat Exchanger No. 1 & 2 3" Drain Reroute, January 2002.
- Y. PR-95-7: Sunnyvale Landfill Monofill Area, June 1996.
- Z. PR-95-12: Landfill Erosion Repair, March 1996.
- AA. PR-98/10-99: Upgrade of Electrical System, May 1999.
- BB. PR-98/16-99: Administration Building Improvements, 1999.
- CC. PR-98/17-00: City of Sunnyvale Pollution Control Plant Re-Roofing, 2000.
- DD. SS-17: Temporary Sewer Bypass for Disposal Plant, July 1955.
- EE. STP-1955: City of Sunnyvale Sewage Treatment Works, March 1953.
- FF. STP-1961: City of Sunnyvale Sewage Treatment Plant Enlargement, July 1961.
- GG. PR-65: Oxidation Pond Additions, August 1965.
- HH. UW-93-01: Water Recycling Program Interim Pump Station, April 1993.
- II. UW-95-02: Polymer Feed System Improvements, June 1996.
- JJ. UW-96-01: Tertiary Plant Improvements, July 1997.
- KK. UW-98-02: Recycled Water Pump Station Capacity Expansion, March 2000.
- LL. UY-88-02: Fire Line, Project 79646, October 1988.
- MM. UY-95-01: Guadalupe Slough Levee Repair, September 1995.
- NN. UY-96-01: Oxidation Pond Levee Improvements, September 1996.
- OO. UY-00-05-01: Energy Recovery Facilities, January 2007.
- PP. UY-00-06-01: Air Flotation Tank Gate Actuators, October 2002.
- QQ. UY-00-02-01 and UY-02-02-03: Chemical System Improvements, April 2004.
- RR. UY-02-07-03: Oxidation Pond Levee Improvements Phase 4, April 2006.
- SS. UY-03-01-05: Digester Lid and Drain Line Rehabilitation Digester No. 3, November 2005.
- TT. UY-04-01-05: Laboratory Building, August 2005.
- UU. UY-05-04-06: Tertiary Plant Tank Drainage System Modifications, April 2010.
- VV. UY-08-01-09: Rehabilitation of WPCP Digester No. 4: March 2009.
- WW. UY-08-02-09: Air Flotation Tank Improvements, November 2010.

- XX. UY-09/01-10: Sodium Bisulfite System, November 2009.
- YY. UY-11-03-11: DSMBI Sunnyvale, June 2011.
- ZZ. Primary Control Building Remodeling, February 1993.
- 8. WPCP manuals and data
  - A. Sunnyvale WPCP O&M Manual
  - B. Influent hourly flow data
  - C. Process Control Reports
  - D. Sludge Workbooks
- 9. Other plans, studies, and reports
  - A. Digester Rehab TM
  - B. Asset Condition Assessment
  - C. Strategic Infrastructure Plan and Peer Review
  - D. Collection System Master Plan
- 10. Permits
  - A. NPDES
  - B. Title V
  - C. Fire Prevention and Environmental Programs Consolidated Permit

# The following information will be provided to the Consultant during design:

- 1. Master Planning documents:
  - A. Site Security TM
  - B. Detailed cost estimates
- 2. Environmental Services Department standards
  - A. Equipment numbering policy
  - B. Process piping and equipment paint colors policy
  - C. Shutdown request forms
- 3. Easement documents
- 4. Engineering data and analyses
  - A. Standby power analysis
  - B. Plant loads analysis
- 5. Contract with Synagro for Sludge Dewatering
- 6. Levee Assessment

# V. Glossary of Abbreviations

- 3D three-dimensional
- ACS Automated Control System
- ADA Americans with Disabilities Act
- AFT air flotation tank
- AOI add-on instructions
- APE Area Procedure and Expectations
- ATC Authority to Construct
- BAAQMD Bay Area Air Quality Management District
- BCDC Bay Conservation and Development Commission
- BIM Building Information Modeling
- BNR biological nutrient removal
- BOD biological oxygen demand

CAS CBC CBOD CEQA CFD CMC COD CSI CUPA DIM DO ECHP EIR FGR FGR FOG HMI HVAC I&C I/O KV	conventional activated sludge California Building Code chemical biological oxygen demand California Environmental Quality Act computational fluid dynamics construction management consultant chemical oxygen demand Construction Specifications Institute Certified Unified Program Agency design information memorandum dissolved oxygen Electrical Combined Heat and Power environmental impact report fixed growth reactor fats, oils, and grease human machine interface heating, ventilation, and air conditioning Instrumentation and Control input/output kilovolts
кv kVA	kilovolts kilovolt amps
LEA	local enforcement agency
LEED	Leadership in Energy & Environmental Design
MABR	membrane aerated biofilm reactor
MB	megabytes
MCC	motor control center
MGD	million gallons per day
MLE	Modified Ludzack-Ettinger
MLR	mixed liquor recycle
MLSS	mixed liquor suspended solids
MS	Microsoft
NFPA	National Fire Protection Agency
NOD	notice of determination
NPDES	National Pollution Discharge Elimination System
NTP	notice to proceed
OTR O&M	oxygen transfer rate
	operations and maintenance portable document format
PE	primary effluent
PEIR	Program Environmental Impact Report
PLC	programmable logic controller
PMC	program management consultant
Program	Sunnyvale Clean Water Program
PS	pump station; primary sludge
PG&E	Pacific Gas and Electric Co.

P&IDs	Piping and Instrumentation Diagrams
RAS	return activated sludge
RFI	Request for Information
RWQCB	Regional Water Quality Control Board
SCADA	supervisory control and data acquisition
SCVWD	Santa Clara Valley Water District
SCWP	Sunnyvale Clean Water Program
SF Bay	San Francisco Bay Region
SIP	Strategic Infrastructure Plan
SMaRT	Sunnyvale Materials Recovery and Transfer
SRF	Clean Water State Revolving Fund
SRT	solids retention time
SWRCB	State Water Resources Control Board
ТМ	technical memorandum
TSS	total suspended solids
TWAS	thickened waste activated sludge
T/D	thickening and dewatering
USACE	United States Army Corps of Engineers
USGBC	U.S. Green Building Council
V	volts
WAS	waste activated sludge
WPCP	City of Sunnyvale Water Pollution Control Plant

	Tasks						Subcon	sultants					ODCs	Total
		1	Key Partner	Permitting	Castash	Technical	Technical	<b>C</b>	Dethala	Hazardous	Cast	BCDC		
		Total Carollo	Key Partner	and CEQA	Geotech	Advisor	Advisor	Survey	Pothole	Waste	Cost	Permit		
Task	Task Description	Labor Costs				Ekster and	David				Ewing		Other Direct	Total Fee
#	rusk bescription		CH2M	ESA	Fugro	Assoc	Jenkins and	Towill	Exaro	Al Clancy	Construction	H.T. Harvey	or Costs	Total Lee
						115500	Assoc				Services			
			Fee	Fee	Fee	Fee	Fee	Fee	Fee	Fee	Fee	Fee		
A	Project Management	\$ 1,078,046			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 9,455	
B	Permitting	\$ 61,920 \$ 22,220	\$ 17,994	\$ 122,498	\$ - \$ 78 750	\$ -	<b>\$</b> -	\$ <u>-</u> \$ <u>37.359</u>	\$ -	\$ 1,050	<b>\$</b> -	\$ 16,832	\$ 260	\$ 220,554 \$ 171,551
D	Documentation of Existing Conditions Conceptual Design	\$ 22,239 \$ 132,832	\$ - \$ 411.061	5 - ¢	\$ 78,750 \$	\$ - \$ 24,360	\$ - \$ 6,930	\$ 37,359	\$ 25,728 \$	\$ 6,851	\$ - ¢	5 - ¢	\$ 624 \$ 2,054	\$ 171,551 \$ 577,237
E	Preliminary Design	\$ 132,832 \$ 745,960	\$ 621.952	\$ <u>-</u> \$ 26.266	ծ - «	\$ 24,300 \$ 63.840	\$ 6,930 \$ 6,930	\$ - ¢	- د د	s -	\$ 1.176	5 - ¢	\$ 2,034 \$ 27.733	\$ 1.493.857
F	Design Development	\$ 4.678.321	\$ 3.314.058	\$ 20,200	\$ 42.000	\$ 75.600	\$ 0,930 \$ 2,310	s -	s -	s -	\$ 29,988	թ - Տ -	\$ <u>27,733</u> \$ <u>58,275</u>	\$ 8.200.552
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1.1-1.4	AFT Pump Station and Pipeline Design Development (Optional)	\$ -,562,040	\$ 5,078,070	\$ - \$	\$ 42,000	\$ 75,000	\$ 2,510	\$ - \$ -	\$ - \$ -	\$ -	\$ 27,788	\$ - \$ -	\$ 55,410	\$ 7,000,050
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F.5	Design Development (Optional)	\$ 138,834	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,918	\$ 142,753
F.6	Second Bid Package Design Development (Optional)	\$ 114,999	\$ 93,500	\$ -	\$ -	\$ -	\$-	\$ -	\$-	\$ -	\$ -	\$ -	\$ 18,693	\$ 227,192
<i>F.7</i>	Perimeter Wall Design Development (Optional)	\$ 23,846	. ,		\$ -	\$ -	\$ -	\$-	\$ -	\$ -	\$ -	\$-	\$ 127	· · · · · · · · · · · · · · · · · · ·
F.8	CEPT Design Development (Optional)	\$ 17,997	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 127	
G	Final Design	\$ 351,113	\$ 242,607	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,880	\$ -	\$ 2,251	\$ 601,851
G.1	Base Scope Bid Package Plans, Specifications, and Cost Estimates	\$ 327,727	\$ 173,540	\$-	\$-	\$ -	\$-	\$ -	\$-	\$ -	\$ 5,880	\$-	\$ 2,128	\$ 509,275
	AFT Pump Station and Pipeline Bid Package (Optional)	\$ -	\$ -	\$-	\$ -	\$ -	\$ -	\$ -	\$-	\$ -	\$ -	\$ -	\$ -	\$ -
G.2	Electrical Improvements to Migrate Existing Processes to New 12 kV Backbone	\$ 11,004	\$ _	\$	\$ -	s -	\$	\$ _	s -	\$ -	¢ _	\$	\$ 24	\$ 11,027
0.2	Bid Package (Optional)			φ -	φ -	φ -	ф —	φ –	φ -	φ –	ъ т	φ –	*	
G.3	Second Bid Package (Optional)	\$ 8,572			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 48	<i>*</i>
G.4	Perimeter Wall Bid Package (Optional)	\$ 2,430		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 22	
G.5	CEPT Bid Package (Optional)	\$ 1,380		\$ -	\$ -	\$ -	\$ -	<u></u> -	\$ -	\$ -	\$ -	\$ -	\$ 30	. ,
Н	Bidding Services	\$ 133,234	\$ 103,872	\$ -	\$ -	<u>\$</u> -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 646	. ,
H.1	Base Scope Bidding Services	\$ 110,141	\$ 77,080	\$ -	\$ - \$	\$ -	\$ -	<u>\$</u> -	\$ -	\$ -	\$ -	\$ -	\$ 333	\$ 187,554
	AFT Pump Station and Pipeline Bidding Services (Optional)	5 -	\$ -	s -	s -	<b>\$</b> -	5 -	\$ -	\$ -	\$ -	\$ -	s -	<u> </u>	\$ -
Н.2	Electrical Improvements to Migrate Existing Processes to New 12 kV Backbone Bidding Services (Optional)	\$ 2,765	\$ -	\$-	\$ -	\$ -	\$ -	\$ -	\$-	\$ -	\$ -	\$ -	\$ 0	\$ 2,765
Н.3	Second Bid Package Bidding Services (Optional)	\$ 19,857	\$ 20,125	\$ -	s -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 312	\$ 40,294
H.4	Perimeter Wall Bidding Services (Optional)	\$ 17,837 \$ 272	. ,	\$ -	\$ - \$ -	\$ - \$	\$ - \$ -	\$ -	\$ - \$ -	\$ -	\$ -	\$ - \$ -	\$ 0	
H.5	CEPT Bidding Services (Optional)	\$ 200	. ,	\$ -	\$ -	\$ -	\$ -	\$-	\$ -	\$ -	\$ -	\$ -	\$ 0	
I	Construction Support Services	\$ 2,307,629		\$ -	\$ 63.000	\$-	\$-	\$-	\$-	\$-	\$ -	\$-	\$ 109.831	\$ 3,764,331
I.1	Base Scope Construction Support Services	. , ,	\$ 1,040,650	\$ -	\$ 63,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 65,489	\$ 3,063,976
	AFT Pump Station and Pipeline Construction Support Services (Optional)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
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I.2	Construction Support Services (Optional)	\$ 59,031	ъ -	5 -	\$ -	\$ -	s -	\$ -	\$ -	s -	\$ -	\$ -	\$ 24	\$ 59,055
I.3	Second Bid Package Construction Support Services (Optional)	\$ 332,677	\$ 170,220	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$ -	\$-	\$ 44,267	\$ 547,164
I.4	Perimeter Wall Construction Support Services (Optional)	\$ 8,648	\$ 73,001	\$-	\$-	\$ -	\$-	\$-	\$-	\$-	\$ -	\$-	\$ 22	\$ 81,671
I.5	<b>CEPT</b> Construction Support Services (Optional)	\$ 12,436		•	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 30	
J	Commissioning Support Services	\$ 165,575			\$ -	\$ -	\$ -	\$ -	\$-	\$ -	\$ -	\$ -	\$ 6,905	
J.1	Base Scope Planning Phase	\$ 21,591			\$ -	\$ -	\$ -	\$ -	\$-	\$ -	\$ -	\$-	\$ -	\$ 36,291
J.2	Base Scope Commissioning Phase	\$ 63,471			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 118,416
J.3	Base Scope Process Start-Up Phase	\$ 69,723	\$ 61,750	\$-	\$ -	\$ -	\$-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,494	\$ 137,967
	AFT Pump Station and Pipeline Commissioning Support Services (Optional)	\$-	\$ -	\$ -	\$ -	\$ -	\$ -	\$-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
J.4	Electrical Improvements to Migrate Existing Processes to New 12 kV Backbone Commissioning Support Services (Optional)	\$ 4,879	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 207	\$ 5,085
J.5	Second Bid Package Commissioning Support Services (Optional)	\$ 4,593	\$ 7,965	s -	<b>\$</b> -	\$-	s -	<b>\$</b> -	\$ -	<b>\$</b> -	\$ -	s -	\$ 203	\$ 12,761
J.6	Perimeter Wall Commissioning Support Services (Optional)	\$ <del>1,555</del> \$ 725		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ <u>205</u>	\$ 5,332
J.7	CEPT Commissioning Support Services (Optional)	\$ 593		ş -	\$-	\$-	\$ -	\$-	\$ -	\$ -	\$ -	\$ -	\$ 1	. ,
K	Operation and Maintenance Manual Updates	\$ 125,484		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,872	\$ 204,655
	Total Optional Services	\$ 926,824		\$ 56,884	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,050	\$ -	\$ -	\$ 69,005	\$ 1,647,865
	Total Including Optional Services		\$ 6,271,921		\$ 183,750	\$ 163,800	\$ 16,170	\$ 37,359	\$ 25,728	<i>(</i>		\$ 16,832		\$ 16,935,527

<b>Total Escalated</b>
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\$ 1,216,930
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"		Jim Hagstrom \$296	Scott Parker \$274	Andre Gharagozian \$274	Rashi Gupta \$274	a Steve Swanback \$274	Jamel Demir \$274		Anne Conklin \$217	Various \$274	Various \$217	Various \$180	TBD \$188	TBD \$138	TBD \$123		Costs	CH2M Fee	ESA Fee	Fugro Fee	Ekster and Assoc Fee	David Jenkins and Assoc Fee	Towill Fee	Exaro	Al Clancy Construct n Service Fee Fee	io H.T. Harvey s Fee	Costs				
А	Project Management	563	1,139	556		- 340	-	-	-	680	-	356	i -	-	840	.,	\$ 1,078,046	\$ 59,240 \$	5 - 3	\$ - 3	\$-	\$ -	\$ -	\$ -	\$ - \$ -	\$ -	\$ 9,455	\$ 1,146,741	2020	\$ 70,189.70	\$ 1,216,930
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A.1.a A.1.b	Project Management Plan Meeting Management	336	32 672	- 336			-	-	-	-	-	54	-	-		108		\$ 3,120 \$ \$		s -	s - s -	\$ - \$ -	Ŷ	\$ - \$ -	\$ - \$ - \$ - \$	\$ - \$ -	\$ 252 \$ 8,733	\$ 28,363 \$ 384,381			
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A.1.d	Quality Assurance/Quality Control	68	136	136		- 340	-	-	-	680	-	-	-	-	-	1,360		\$ 56,120 \$		\$ - :	\$ -	\$ -	\$ -	\$ -	\$ - \$ -	\$ -	\$ -	\$ 430,256			
A.1.e A.1.f	Document Management Pay Applications	-	- 168	-			-	-	-	-	-	-	-	-	336	336 672	+,	\$ - \$ \$ - \$		s - :	\$ - \$ -	\$ - \$ -	<u>s</u> -	\$ - \$ -	s - s -	\$ - \$ -	\$ - \$ -	\$ 41,328 \$ 108,024			
A.2	Support for Council Study Sessions (Optional)	50	- 108				-								- 504	50		\$ - \$		s - :	ş - \$ -	ş -	s -	\$ - \$ -	s - s -	\$ -	\$ 208			\$ 919	
A.3	Second Bid Package Project Management (Optional)	87	131	-			-	-	-	-	-	218	-	-	-	436		\$ - \$		\$ - 3	\$-	\$-	\$ -	\$ -	\$ - \$ -	\$ -	\$ 262			\$ 6,197	
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B.1 B.2	CEQA Bay Area Air Quality Management District	4	-	-	1		-	12 40	-	-	32	-	-	-	-	16 80			26,765	÷ .	» - \$ -	э - \$ -	-	\$ - \$ -	3 - <u>5</u> - S - S -	» - \$ -	\$ 156 \$ -	\$ 30,708 \$ 87,872			
B.2.a	Base Scope BAAQMD Permitting	4	-	-			-	20	-	-	16	-	-	-	-	40	\$ 8,996	\$ 17,994 \$	38,850	\$ -	\$ -	\$ -	\$ -	\$ -	\$ - \$ -	\$ -	\$ -	\$ 65,840			
B.2.b	Second Bid Package BAAQMD Permitting (Optional)	4	-	-			-	20	-	-	16	-	-	-	-	40	\$ 8,996		13,036	-	\$-	\$ -	- 6	\$ -	\$ - \$ -	\$ -	\$ -	\$ 22,032		\$ 890	
B.3 B.4	Preparation of BCDC Permit Amendment Preparation of Tiered Negative Declaration (Optional)	4	-	-			-	20	-	-	16		-	-	-	40	4 0,000		43 848	s -	s -	\$ - \$ -	Ŷ	\$ - \$ -	\$ - \$ - \$ - \$	\$ 16,832	\$ - \$ -	\$ 25,828 \$ 70,836		\$ 2.862	
B.5	Revisions to Hazardous Materials Business Plan (Optional)	-	4	- 8			-	-	-	-	48	-	-	-	-	120	+ =0,000		-	s - 1	ş - Ş -	ş - \$ -	Ŷ	\$ -	\$ 1,050 \$ -	\$ -	\$ 104			\$ 215	
С	Documentation of Existing Conditions	-	20	10			-	-	-	-	27	22	15	10	-	104	φ <u>22,25</u>	\$ - \$	6 - I	\$ 78,750	\$-	\$ -	\$ 37,359	\$ 25,728	\$ 6,851 \$ -	\$ -	\$ 624	\$ 171,551	2018	\$ 3,431	\$ 174,982
C.1 C.2	Supplemental Topographic and Planimetric Survey	-	10	-			-	-	-	-	-	10	10	10	-	40 20	\$ 1,000			s - :	\$ -	\$ -	\$ 37,359	\$ - \$ 25.728	\$ - \$ -	\$ -	\$ 260 \$ 260	\$ 45,419 \$ 30,468			
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C.4	Hazardous Building Materials Assessment	-	-	-			-	-	-	-	12	12	-	-	-	20			-	\$ - 3	\$-	\$ -	\$ -	\$-	\$ 6,851 \$ -	\$-	\$ 52				
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	Bench-Scale and In-Field Testing (Optional)	-	-	-			-	-	-	-	-	-	-	-	-	-	\$ -	\$ - \$	-	\$ - 3	\$-	\$ -	\$ -	\$ -	\$ - \$ -	\$ -	\$ -	\$ -		\$ -	-
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E.1 E.1b	DIM #1: Biological Reactors DIM #1b: Sidestream Treatment	14	28	56	5	-			56	-		50	6 28	28	8 14	280 40						\$ 1,155 \$ 578		ф -	<u>s</u> - <u>s</u> -	\$ - \$ -	\$ 3,314 \$ 378				
E.2	DIM #10: Sidesteam Treatment	10	20	40	)	-			40			40	20	20	10	200						\$ 578		Ψ	9	\$ -	\$ 378	\$ 00,050			
E.3	DIM #3: Secondary Clarifiers	9	18	36 36	ó	-	-		36	-	-	30	6 18	18	8 9	180		\$ 6,780 \$				\$ 1,155		\$ -	\$ - \$ -	\$ -	\$ 3,314				
E.4	DIM #4: Plant Hydraulics	10	20	40	)	-	-	- 40	-	-	-	40	0 20	20	10	200		\$ 8,765 \$ \$ 6,780 \$	-		\$ 3,360 \$ 3,360		s -	\$ -	\$ - \$ -	\$-	\$ 378 \$ 378				
E.5 E.6	DIM #5: RAS / WAS Pumping DIM #6: Secondary Treatment Operations and Control	16	32	20	1			- 20		- 64		64	4 32	32	2 16	320						\$ 1,155	s -	s -	s - s -	\$ - \$ -	\$ 3,314				
E.7	DIM #7: Blower System and Building	10	20	40	)	-		- 40	-	40			20	20	10	200						\$ 1,155		\$ -	\$ - \$ -	\$ -	\$ 378				
E.8	DIM #8: Thickening - Technology / Equipment	5.2	10.4	20.8	3 20.	.8		-	-	-	-	20.8	8 10.4	10.4	4 5.2	104	\$ 23,561	\$ 51,010 \$	- i	\$ - 3	\$ 5,040	\$ -	\$ -	\$ -	\$ - \$ -	\$-	\$ 1,846	\$ 81,457			
E.9	DIM #9: Dewatering - Technology / Equipment, Digested Sludge Storage, Cake Handling	1.2	2.4	4.8	3 4	.8			-	-	-	4.8	8 2.4	2.4	4 1.2	24	\$ 5,437	\$ 56,975 \$		s - :	\$ 5,040	\$ -	s -	\$ -	s - s -	\$ -	\$ 378	\$ 67,830			
E.10	DIM #10: T / D Building Design	5.2	10.4	20.8	3 20.	.8	·		-	-	-	20.8	8 10.4	10.4	5.2	104	\$ 23,561	\$ 102,865 \$		s - :	\$ 840	\$ -	s -	\$ -	s - s -	\$ -	\$ 1,846	\$ 129,112			
E.11	DIM #11: Odor Control	1.2	2.4	4.8	3 4.	.8	-		-	-	-	4.8	2.1	2.4	4 1.2	24	\$ 5,437	+		- ,	\$ 840		- V	\$ -	\$ - \$ -	\$ -	\$ 378	\$ 57,285			
E.12 E.13	DIM #12: Maintenance Building DIM #13: Digester Supernatant Pump Station and Pining	5.2	10.4	20.0	3	-				-	20.8	20.8	10.1			104				s - :	\$ - \$	\$ - \$	- 6	\$ - \$ -	\$ - \$ - \$ \$	\$ - \$	\$ 1,846 \$ 3,314				
E.13 E.14	DIM #15: Digester Supernatant Pump Station and Piping DIM #14: Sequencing and Site Layout	3.2	10.4	20.8	20.	-		-			48	20.8	4 32	30	2 16	320				<b>у</b> - ,	\$ - \$ 5,040	ş -	Ŷ	\$ - \$ -	\$ - \$ 1,17	6 \$ -	\$ 3,314 \$ 378				
E.15	DIM #15: Power	14	28	42	2	-	-		-	42	56	28	8 28	28	8 14	280	\$ 62,874	\$ - \$	- 3	\$ -	\$ -	\$-	ş -	\$ -	\$ - \$ -	\$ -	\$ 1,846	\$ 64,720			
E.16	DIM #16: Automation Control System	23	46	69	)	-	-		-	69	92	40	6 46	46	5 23	460	\$ 103,293	\$ 34,427 \$	6 - I	s - :	\$ 8,400	\$ -	s -	\$ -	<u>\$</u> - <u>\$</u> -	\$ -	\$ 1,846	\$ 147,966			
E.18	DIM #17: NOT USED DIM #18: Perimeter Wall (Optional)	12	24	4.8	-	-	-				- 4.8	4.5	0 0	24	0 0	24	\$ - \$ 5,164	\$ - \$ \$ 27,068 \$		s - :	s -	s -	s - s -	\$ - \$ -	s - s -	s - s -	\$ - \$ 378	\$ - \$ 32.610		\$ - \$ 652	
	Project Report		- 2.4	-		-		-	-	-	95			2.	95				26,266	\$ -	\$ -	\$ -	Ŷ	\$ -	\$ - \$ -	\$ -	\$ 1,846			- 002	
F	Design Development	470.7	1182.9	2347.5	5	-		- 1993.4			4876.8	3530.4	4 2523.2	6424.6		23957.1	\$ 4,678,321	, ,		\$ 42,000			\$ -	\$ -	\$ - \$ 29,98		\$ 58,275	\$ 8,200,552	2019	\$ 247,243	\$ 8,447,795
F.1	Base Scope 30% Design	102.9	257.3	514.5		-		- 154.4		-	1029.0			1337.7	1010	4,888	· · · · · .	4 001,010 4		\$ 15,750 \$ 15,750	\$ 75,600	\$ 2,310	s -	\$ -	\$ - \$ 3,52 \$ - \$ 5,88		\$ 9,954 \$ 9.954	\$ 1,748,599 \$ 2,032,356			
F.2 F.3	Base Scope 60% Design Base Scope 90% Design	121.2	0.021)	605.8		-	-	- 605.8 - 898.2			1211.7 1796.3	908.	00010	2335.2	1 121.2 2 179.6	6,058 8,982	\$ 1,188,992 \$ 1,762,709	\$ 811,780 \$ \$ 1,274,929 \$		\$ 15,750 \$ 10,500	» - \$ -	s -	s - S -	s -	\$ - \$ 5,88 \$ - \$ 8,82	• <del>•</del>	\$ 9,954 \$ 8,486				
F.4	Base Scope 100% Design	48.6	121.5	243.1		-		- 243.1	-	-	486.1	364.0		631.9	48.6	2,431		\$ 324,444 \$	i - i	\$ -	\$ -	\$ -	s -	\$ -	\$ - \$ 11,76		\$ 7,018	\$ 820,232			
F.5	Electrical Improvements to Migrate Existing Processes to New 12 kV Backbone	14.1	35.4	70.7	7	-		- 70.7	-	-	141.5	106.1		183.9	9 14.1	707		s - s		s - :	s -	s -	s -	\$ -	s - s -	s -	\$ 3,918	\$ 142,753		\$ 4,304	
F.5.a	Design Development (Optional) 30% Design (Optional)	31	7.4	15.3	2	-	-	- 15.3			30.6							¢		\$	¢	s -	\$	\$ -	s - s -	\$	\$ 1.295	\$ 31.283		\$ 943	
F.5.a F.5.b	30% Design (Optional) 60% Design (Optional)	3.1	7.6 9.5	5 15.3	)	-		- 15.3 - 19.0	-	-	30.6			39.7 49.3	5.1	153		s - s		s - :	s - \$ -	ş - \$ -	s -	s -	s - s -	\$ -	\$ 1,295 \$ 1,295	\$ 31,283 \$ 38,545		\$ 943 \$ 1,162	
F.5.c	90% Design (Optional)	5.7	14.3	28.6	5	-	-	- 28.6	-	-	57.2	42.9	28.6	74.4	4 5.7	286	\$ 56,130	\$ - \$		\$ - 3	\$ -	\$ -	\$ -	\$ -	\$ - \$ -	\$ -	\$ 1,295	\$ 57,425		\$ 1,731	
F.5.d		1.6	3.9	7.9	)	-	-	- 7.9		-	15.8			20		79			- ,	\$ - !	Э. –	\$ -	9	\$ -	\$ - \$ -	\$ -	\$ 35	\$ 15,500		\$ 467	
F.6	Second Bid Package Design Development (Optional) 30% Design (Optional)		-	-	-	-					169.6		- 169.6 - 38.6			010				s - :	Ψ	φ -	s -		<u>s</u> - <u>s</u> -	\$ - \$	\$ 18,693 \$ 4,777			\$ 6,850 \$ 1,718	
	30% Design (Optional) 60% Design (Optional)		-	-		-			-	-	38.6		- 38.6			1.71	\$ 26,162 \$ 30,806			÷	s -	ş - \$ -	-	\$ - \$ -	s - s -	\$ -	\$ 4,777	\$ 56,980 \$ 60,543		\$ 1,718 \$ 1,825	
	6 <i>s</i> p										15.1			511	7.1	102	2.0,000	= .,00 0								-	,, , . , . , . , . , . , . , .			.,	

										(	OVERAL	L FEE ES	STIMAT	E																		
	Tasks								Carol	llo Labor												Subconsu	ltants					ODCs	Total			
Task	Task Description	Project Manager	Project Engineer	Liquids Lead	d Solids Support	Quality Managemen	Master Plan Continuity	Permitting / CEQA Lead / Design Support	Liquids / Modeling	Other Key or Lead	Professional	Assistant Professional	Senior CAD Technician	CAD Technician	Document Processing	Total Hours	Total Labor	Key Partner	Permitting and CEQA	Geotech	Technical Advisor	Technical Advisor	Survey	Pothole	Hazard Wast	e Cost	BCDC Permit	Other Direct	Total Fee	Year (Midpoint)	Escalation	Total Escalated Cost
#		Jim Hagstrom \$296	Scott Parker \$274	Andre Gharagozian \$274		Swanback	Jamel Demir \$274	r Katy Rogers \$217	Anne Conklir \$217	Various \$274	Various \$217	Various \$180	TBD \$188	TBD \$138	TBD \$123		Costs	CH2M Fee	ESA Fee	Fugro Fee	Ekster and Assoc Fee	David Jenkins and Assoc Fee	Towill Fee	Exaro Fee		n Service	io H.T. Harve	Costs y				
F.6.c	90% Design (Optional)	\$290	32/4	\$274	\$274	\$274	3274	3217	\$217	\$274	\$217		- 67.4	121.3	3125	2.69	\$ 45.671			s .	s -	s -	S .	s -	s s	- \$ -	s -	\$ 4,569	\$ 77,890	_	\$ 2,348	<u> </u>
F.6.d	100% Design (Optional)				-	-	-				18.2		- 18.2	32.8	3 3.6	73	\$ 12,359	\$ 14,850	4	\$ -	\$ -	\$ -	\$ -	\$ -	\$	- \$ -	\$ -	\$ 4,569	\$ 31,778		\$ 958	
F.7	Perimeter Wall Design Development (Optional)	2.4	4 12.2	6.	1	-	-	- 12.2		-	24.3	10.2		31.6	5 2.4	122	3 23,640			\$ -	\$ -	\$-	\$ -	\$ -	\$	- \$ -	\$-	\$ 127	\$ 145,854		\$ 4,397	
F.7.a	30% Design (Optional)	0.5	5 2.7	1.	2	-	-	- 2.7		-	5.4	1.0		7.0	0.5	27	φ 5,200			φ	Ψ	\$ -	φ	Ψ	\$	- \$ -	\$ -	\$ 32	\$ 31,037		\$ 936	
F.7.b F.7.c	60% Design (Optional) 90% Design (Optional)	0.6	6 3.2 9 4.7	1.0	6	-	-	- 3.2		-	6.5	1.0	8 3.2 0 4.7	0.4	0.0	32	φ 0,557	\$ 33,350 \$ 38,450	÷	\$ - \$ -	\$ - \$	\$ - \$	\$ - \$	\$ - \$	\$	- \$ -	\$ - \$	\$ 32 \$ 32	\$ 39,721 \$ 47,627		\$ 1,198 \$ 1,436	
F.7.d	100% Design (Optional)	0.3	3 1.6	5 0.3	8	-	-	- 4.7			9.3	1.0	4 1.6			47				s -	\$ - \$ -	s -	s -	\$ - \$ -	\$	- 5 -	· \$ -	\$ 32	\$ 27,469		\$ 1,430	
F.8	CEPT Design Development (Optional)	1.8	8 4.6	5 9.1	2	-	-	- 9.2			18.3	13.8	8 9.2			92				s -	\$ -	\$ -	s -	\$ -	\$	- \$ -	\$ -	\$ 127	\$ 18,124		\$ 546	
F.8.a	30% Design (Optional)	0.5	5 1.1	2.1	3	-	-	- 2.3		-	4.6			5.7		23	. ,		÷	φ	Ŧ	\$-	ş -	\$-	\$	- \$ -	\$-	\$ 32	\$ 4,506		\$ 136	
F.8.b	60% Design (Optional)	0.5	5 1.2	2.4	4	-	-	- 2.4			4.8	3.6	6 2.4	0.5		24			s -	\$ -	\$ -	\$ -	s -	\$ -	\$	- \$ -	\$ -	\$ 32	\$ 4,762		\$ 144	
F.8.c F.8.d	90% Design (Optional) 100% Design (Optional)	0.7	/ 1.8	3.3.	0	-	-	- 3.5			7.0	5.3	3 3.5	9.1	0.7	35	\$ 6,869 \$ 1,923	\$ - \$	s -	s -	\$ - \$	\$ - \$	s - s	\$ - \$	\$	- \$ -	\$ - \$	\$ 32	\$ 6,901 \$ 1,955		\$ 208 \$ 59	
G. 1.0.4	Final Design	35	5 88	176	5			. 88			365	352	189	481	38	1.813	\$ 351,113	\$ 242,607	s -	s -	\$ -	\$ -	s -	\$ -	\$	- \$ 5.88	30 \$ -	\$ 2.251	\$ 601,851	2019	\$ 24,315	
G.1	Base Scope Bid Package Plans, Specifications, and Cost Estimates	34	4 84	169	9	-		84	-	-	337	337	168.6	438	34	1,686	\$ 327,727	\$ 173,540		\$ -	\$-	\$-	\$ -	\$ -	\$	- \$ 5,88	30 \$ -	\$ 2,128	\$ 509,275			1
G.2	Electrical Improvements to Migrate Existing Processes to New 12 kV Backbone	1	3	6	5			. 3		-	11	11	57	15	1	57	\$ 11,004	\$ -	s -	s -	\$ -	s -	s -	\$ -	\$	- 5 -	\$ -	\$ 24	\$ 11,027		\$ 446	
G.2 G.3	Bid Package (Optional)	· · ·	-			-	-			ļ	10		10.1		-			e 40.707	- -	s -	¢	е. С	·	\$ -	¢		÷ -			<u> </u>		
G.3 G.4	Second Bid Package (Optional) Perimeter Wall Bid Package (Optional)	-	-	-	1			-	-		13	- 2	12.6		3	51 13				Ψ	s - s -	\$ - \$ -	φ	s - s -	\$	- 5 -	\$ - \$	\$ 48 \$ 22	\$ 58,407 \$ 21,732	<u> </u>	\$ 2,360 \$ 878	
G.5	CEPT Bid Package (Optional)	0	0 0	)	1	0	0	0 0	-	0	1	1	1 0.7		2 0	13	\$ 1,380			s -	s -	ş - S -	-	s -	s	- 5 -	s -	\$ 30	\$ 1.410		\$ 57	
Н	Bidding Services	33	65.7	99	9	-		-	-	-	-	361.5	-	85.4	13	657	\$ 133,234	\$ 103,872	\$ -	\$ -	\$ -	\$ -	s -	\$ -	\$	- \$ -	\$ -	\$ 646	\$ 237,753	2020	\$ 14,552	\$ 252,305
H.1	Base Scope Bidding Services	27	7 54.3	8 82	2			-				298.9	-	70.6	11	543	\$ 110,141	\$ 77,080	ş -	ş -	\$ -	\$ -	s -	\$ -	\$	- \$ -	\$ -	\$ 333	\$ 187,554			
H.2	Electrical Improvements to Migrate Existing Processes to New 12 kV Backbone Bidding Services (Ontional)	1	1.4		2				-			7.5	-	1.8	0	14	\$ 2,765	\$ -	s -	s -	\$ -	\$ -	s -	\$ -	\$	- s -	\$ -	\$ 0	\$ 2,765		\$ 169	
H.3	Second Bid Package Bidding Services (Optional)	5	5 95	14	5					_	_	53.9		12.7	2	98	\$ 19.857	\$ 20.125	\$ -	s .	\$ - 2	\$	\$	\$ -	\$		\$ -	\$ 312	\$ 40,294		\$ 2.466	
H.4	Perimeter Wall Bidding Services (Optional)	0	) (	) (	0							0.7	-	0	0		\$ 272	\$ 6,667		s -	ş -	ş - \$ -	ş -	\$ -	\$	- \$ -	\$ -	\$ 0	\$ 6,939		\$ 425	
H.5	CEPT Bidding Services (Optional)	(	0 (	) (	0	0	0	0 0	0	0 0	0	0.5	5 0	0	0 0	1	\$ 200			s -	\$ -	\$ -	s -	\$ -	\$	- \$ -	\$ -	\$ 0	\$ 201		\$ 12	1
	Construction Support Services	119	9 594	1,188.8					-	-	2,378	5,231		2,259	119		\$ 2,307,629			\$ 63,000	+	\$ -	ş -	\$ -	\$	- \$ -	\$ -	\$ 109,831	\$ 3,764,331	2022	\$ 350,847	\$ 4,115,177
I.1	Base Scope Construction Support Services	98	3 488	976.2	2			-	-	-	1,952	4,295	-	1,855	98	9,762	\$ 1,894,837	\$ 1,040,650	\$ -	\$ 63,000	\$ -	\$ -	s -	\$ -	\$	- \$ -	\$ -	\$ 65,489	\$ 3,063,976			
I.2	Electrical Improvements to Migrate Existing Processes to New 12 kV Backbone Construction Support Services (Optional)	3	3 15	30.4	4				-	-	61	134	-	58	3	304	\$ 59,031	\$ -	\$ -	s -	\$ -	\$-	s -	\$ -	\$	- \$ -	\$ -	\$ 24	\$ 59,055		\$ 5,504	
1.3	Second Bid Package Construction Support Services (Optional)	17	7 86	171.4	4				-		343	754	-	326	17	1,714	\$ 332,677	\$ 170,220	s -	s -	\$-	s -	s -	\$-	\$	- \$ -	- \$-	\$ 44,267	\$ 547,164		\$ 50,997	
I.4	Perimeter Wall Construction Support Services (Optional)	0	) 2	4.5		-		-	-		9	20	-	8	0	44		\$ 73,001	\$ -	ş -	\$ -	\$ -	s -	\$ -	\$	- \$ -	\$ -	\$ 22	\$ 81,671		\$ 7,612	
I.5	CEPT Construction Support Services (Optional)	1	1 3	6.4		0	0 (	0 0	C	0 0	13	28	8 0	12	2 1	64		\$ -	\$ -	\$ -	\$ -	\$ -	s -	\$ -	\$	- \$ -	\$ -	\$ 30	\$ 12,466		\$ 1,162	
	Commissioning Support Services Base Scope Planning Phase	22.3	3 22.3 5 4.6	78.0	0	-		-	-	-	311.9			-	-	789	÷	\$ 143,967 \$ 14,700		\$ -	\$ -	\$ -	s -	\$ -	\$	- \$ -	\$ -	\$ 6,905	\$ 316,447 \$ 36,291	2023	\$ 39,923.67	\$ 356,370
J.1 1.2	Base Scope Planning Phase Base Scope Commissioning Phase	4.0	9 4.0	9.5							37.1			-		102.1 310.8				s -	s - s -	s - s -	s -	s - s -	\$	- 5 -	s -	s -	\$ 36,291 \$ 118,416			+
J.3	Base Scope Process Start-Up Phase	16.2	2 16.2	32.5					-		129.9			-	-	324.7		\$ 61,750		\$ -	\$-	\$-	s -	\$-	\$	- \$ -	\$ -	\$ 6,494	\$ 137,967			
J.4	Electrical Improvements to Migrate Existing Processes to New 12 kV Backbone Commissioning Support Services (Optional)	0.7	7 0.7	2.3					-		9.3	10.3		-	-	23.2	\$ 4,879	\$ -	\$ -	s -	s -	\$ - \$ -	s -	\$-	\$	- \$ -	· \$ -	\$ 207	\$ 5,085 \$ 635		\$ 642	
J.4.a	Optional Planning Phase Optional Commissioning Phase	0.1	0.1	0.3	5				-	-	1.2	1.2		-	-	3.0 9.9			- ų	φ -	\$ - \$ -	\$ - \$ -	9 -	\$ - \$ -	\$	- \$ -	\$ - \$ -	s -	\$ 635 \$ 2.022		\$ 80 \$ 255	
J.4.c	Optional Process Start-Up Phase	0.5	5 0.5	1.0	2	-				1	4.0	5.0				10.3	\$ 2,222		φ	\$ -	\$ -	\$ -	s -	\$ -	\$	- \$ -	\$ -	\$ 207	\$ 2,428		\$ 306	
J.5	Second Bid Package Commissioning Support Services (Optional)	0.6	5 0.6	2.2	2	-			-	-	8.7	9.7	-	-	-	21.9	φ (275	\$ 7,965		\$ -	\$ -	\$ -	s -	\$ -	\$	- \$ -	\$ -	\$ 203	\$ 12,761		\$ 1,610	
J.5.a	Optional Planning Phase	0.1	0.1	0.3				-	-	-	1.1		-	-	-	2.8				s -	\$ -	\$ -	s -	\$ -	\$	- \$ -	\$ -	\$ -	\$ 1,183		\$ 149	
J.5.b	Optional Commissioning Phase Optional Process Start-Up Phase	- 0.5	-	0.9	, ,			-			3.7			-	-	9.3				J -	φ -	\$ - \$ -	9 -	\$ - \$ -	\$	- \$ -	\$ - \$	\$ - \$ 203	\$ 5,324 \$ 6,254		\$ 672 \$ 789	
J.5.c J.6	Optional Process Start-Up Phase Perimeter Wall Commissioning Support Services (Optional)	0.5	0.0	1.0						-	3.9	0.17		-	1	9.7	. ,			Ŷ	Ψ	\$ - \$ -	φ	\$ - \$ -	- <u>\$</u>	- 5 -	\$ -	\$ <u>-</u>	\$ 6,254 \$ 5,332		\$ 673	
J.6.a	Optional Planning Phase	0.0	0.0	0.0	-			-	-	-	0.2			-	-	0.4	\$ 94	\$ 390	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$	- \$ -	\$ -	\$ -	\$ 484		\$ 61	
J.6.b	Optional Commissioning Phase	-	-	0.1	1	-		-	-	-	0.6	0.7	-	-	-	1.5	\$ 301			\$ -	\$ -	\$ -	\$ -	\$ -	\$	- \$ -	\$ -	\$ -	\$ 2,117		\$ 267	
J.6.c	Optional Process Start-Up Phase	0.1	0.1	0.2	2				-	-	0.6	0.0		-	-	1.5				φ -	φ -	\$ -	9 -	\$ -	\$	- \$ -	\$ -	\$ -	\$ 2,731		\$ 345	
J.7 J.7.a	CEPT Commissioning Support Services (Optional) Optional Planning Phase	0.1	0.1	0.3	2			-		<u> </u>	1.1				<u> </u>	2.8			Ŷ	\$ - \$ -	\$ - \$	\$ - \$ -	Ŷ	\$ - \$ -	\$	- \$ -	\$ - \$	\$ 1 \$	\$ 594 \$ 77		\$ 75 \$ 10	
J.7.a J.7.b	Optional Planning Phase Optional Commissioning Phase	0.0	, 0.0	0.0				-		1	0.1	0.12		-	1	0.4		φ -	ş - \$ -	s -	\$ -	\$ - \$ -	s -	\$ -	\$	- \$	\$ -	ş - \$ -	\$ 246		\$ 31	
J.7.c	Optional Process Start-Up Phase	0.1	0.1	0.1	-	-			-	-	0.5		i -	-	-	1.2		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$	- \$ -	\$ -	\$ 1	\$ 271		\$ 34	
	Operation and Maintenance Manual Updates	-	30	120	)	-			-	-	144	264	-	30	12	600		\$ 73,299	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$	- \$ -	\$ -	\$ 5,872	\$ 204,655	2022	\$ 21,301	
	Total Optional Services       203       312       341       -       -       176       -       900       1,397       284       1,008       81       4,704       \$ 596,884       \$ -       \$ -       \$ -       \$ 50,005       \$ 1,647,865       \$ 1,647,865       \$ 10,2919																															
		1,432	3,338	3,212	2 10	0 3+1	0 84	4 2,314	407	693	6,319	11,101	3,034		1,631	40,302	\$ 9,802,333	5 0,271,921	\$ 140,704	\$ 165,750	\$ 105,800	3 10,170	\$ 27,329	\$ 23,12	т	otal Including calated Total I Total	An Optional Servi <b>ncluding Opti</b> Optional Servi	ual Escalation ces Escalation onal Services ces Escalation Services Total	2.00% \$ 810,589 <b>\$ 17,746,116</b> \$ 102,919		3 610,369	3 17,740,110
																										Esca	scalated Total	"Base" Scope	\$ 15,995,332			

	Tasks									CH2M Lat	oor												ODCs	Total
		Sr.Professional 2	Sr. Professional 2	Sr. Professional 2	Principal Professional 2	Principal-in- Charge		Principal Professional 2		Principal Professional 1	Principal Professional 1	Principal Professional 1	Principal Professional 1	Project Professional 2	Sr. Professional 1	Project Professional 2	Principal Professional 2	Engineerign Technician	Technician	Office/Cleri cal				
Task #	Task Description	РМ	DM	Architect	QC	Conceptual Design Lead	Controls Lead	Preliminary Design Lead	Solids Technologist		Process/Modeling Lead	Odor Control	Corrosion	Project Engineer							Total Hours	Total Labor Costs	Other Direct Costs	Total Fee
		Rosinski	Reistad	Kirsten	Various	Sandino	Hoyle	Green	Oerke	Various and Cost Estimating	Lancaster	Cowden	Rod Jackson	Ransom	Various	Various	Cost Manager Broughton	Various	Various	Various				
		\$195	\$195	\$195	\$270	\$300	\$300	\$270	\$270	\$225	\$225	\$225	\$225	\$150	\$170	\$150	\$270	\$160	\$112	\$109				
А	Project Management	136	-		-	-	-	-	-	-				160	-	-	-	-	-	80	376	\$ 59,240	\$ -	\$ 59,240
A.1	Base Scope Project Management	136				-		-		-				160	-	-		-		80	376	,	\$-	\$ 59,240
A.1.a A.1.b	Project Management Plan Meeting Management	16																			16	\$ 3,120		\$ 3,120 \$
A.1.c	Project Schedules						-			1		1									-	ş -		s -
A.1.d	Quality Assurance/Quality Control	120								1				160						80	360	\$ 56,120		\$ 56,120
A.1.e	Document Management																				-	\$-		s -
A.1.f	Pay Applications																				-	\$ -	6	<u>s</u> -
A.2 A.3	Support for Council Study Sessions (Optional) Second Bid Package Project Management (Optional)	-	-																		-	s -	\$ -	5 -
В	Permitting	12	-		-	-	-	-	-	-		40		-	-	40	) -	-	-	6	98	\$ 17,994	\$ -	\$ 17,994
B.1	CEQA																				-	\$-	\$-	s -
B.2	Bay Area Air Quality Management District	12				-		-		-		40		-	-	40	) -	-	-	6	98		\$-	\$ 17,994
B.2.a B.2.b	Base Scope BAAQMD Permitting Second Bid Package BAAQMD Permitting (Optional)	12										40				40	)			6	98	\$ 17,994		\$ 17,994
B.2.b B.3	Second Bid Package BAAQMD Permitting (Optional) Preparation of BCDC Permit Amendment				-																-	s -	\$ -	s -
B.4	Preparation of Tiered Negative Declaration (Optional)	<b></b>	1	1				1		1		1		1	1		1				-	\$ -	\$ -	s -
B.5	Revisions to Hazardous Materials Business Plan (Optional)																				-	\$-	\$ -	s -
С	Documentation of Existing Conditions	-	-		-	-	-	-	-	-		-		-	-	-	-	-	-	-	-	\$ -	\$ -	s -
C.1 C.2	Supplemental Topographic and Planimetric Survey Supplemental Subsurface Utility Mapping																				-	\$ -	\$ -	<u>\$</u>
C.2	Geotechnical Characterization																				-	s -	s - \$ -	<u>s</u> -
C.4	Hazardous Building Materials Assessment																				-	\$ -	\$ -	
D	Conceptual Design	195	96		100	232	-	100	70	100	348	16	-	324	80	-	48	40	48	120	1,917	\$ 403,661	\$ 7,400	\$ 411,061
D.1	Base Scope Conceptual Design	195	96	j	100	232		100	70	100	348	16		324	80		48	40	48	120		\$ 403,661	\$ 7,400	\$ 411,061
	Second Bid Package Conceptual Design (Optional)																				-	\$ -	$ \longrightarrow $	<u>s</u> -
	Alternative Process Development (Optional) Bench-Scale and In-Field Testing (Optional)													_						-	-	3 -	$ \longrightarrow$	5 -
Е	Preliminary Design	446	200	152	68	128	60	176	24	76	128	40	-	280	435	212	2 128	244	-	272	3,069	590,268	31,684	621,952
E.1	DIM #1: Biological Reactors					24					12						4				40	, ,		\$ 10,980
E.1b E.2	DIM #1b: Sidestream Treatment DIM #2: Carbon Substrate	58	40		8	24				1	48			-	60		8	40		40	326 12	· · · · · · · · · · · · · · · · · · ·	\$ 3,065	\$ 65,455 \$ 3,300
E.3	DIM #3: Secondary Clarifiers					16				1	4						4				24			\$ 6,780
E.4	DIM #4: Plant Hydraulics					16					4										20		\$ 3,065	\$ 8,765
E.5	DIM #5: RAS / WAS Pumping					16			-		4						4				24	· · · · · · · · · · · · · · · · · · ·		\$ 6,780
E.6 E.7	DIM #6: Secondary Treatment Operations and Control DIM #7: Blower System and Building					24					24						4				48		\$ 3,065	\$ 15,665 \$ 1,980
E.8	DIM #8: Thickening - Technology / Equipment	58	40	)	8			16	12		8			60		40	) -	20		20	282			\$ 51,010
E.9	DIM #9: Dewatering - Technology / Equipment, Digested Sludge Storage,	58	40		8			16	12		8			60	28	20	) -	20		20	290	\$ 52,770	\$ 4,205	\$ 56,975
E.10	Cake Handling DIM #10: T / D Building Design	58	40	40	12			40			8			60	147	60	) 8	40		40	553	-	\$ 4,205	
E.11	DIM #11: Odor Control	58	-		8			16				40		60		20	) 4	40		40	286			\$ 50,630
E.12	DIM #12: Maintenance Building	58		100	12			24						10	120		) 4	40		40	428		\$ 4,205	
E.13 E.14	DIM #13: Digester Supernatant Pump Station and Piping DIM #14: Sequencing and Site Layout	58		<u>'</u>	8		ļ	16 24		12		1	<u> </u>	40	56	10	80	20		32	300 144	\$ 54,158 \$ 36,600		
E.15	DIM #15: Power																50				-		\$ -	s -
E.16	DIM #16: Automation Control System DIM #17: 45T Rump Station and Pineline (Optional)	8		I			60	8		40			I	I		<u> </u>	<u> </u>			8	124	\$ 31,592	\$ 2,835	\$ 34,427
E.18	DIM #17: AFT Pump Station and Pipeline (Optional) DIM #18: Perimeter Wall (Optional)	16		12	4			- 16		1				1	24	32	2	24		32	160	\$ 27,068	┟───┤	\$ 27,068
E.19	Project Report		-		-									-		-		-		-	-	\$ -		\$ -
F	Design Development	1,449				140	20	372	200		-	200		112		1,778		930	3,495	722		\$ 3,232,083	\$ 81,975	
F.1 F.2	Base Scope 30% Design Base Scope 60% Design	302 374				40 40	20	92 80	80 60			40 60		32	817 1,040			163 208	686 873	131 166	- )	\$ 667,276 \$ 798,210	\$ 20,247 \$ 13,570	
F.3	Base Scope 90% Design	613				40	-	160	40		L	80		†	1,040		-	341	1,431	273	,	\$ 1,265,819	\$ 13,370 \$ 9,110	
F.4	Base Scope 100% Design	148				20	-	40	20	230		20		<u> </u>	411			82	345	66		\$ 322,024	\$ 2,420	
	AFT Pump Station and Pipeline Design Development (Optional)	-	-		-	-		-		-				-	-	-	-	-	-	-	-	\$ -	\$ -	\$ -
	30% Design (Optional)																				-	s -	$\square$	\$ -
	60% Design (Optional) 90% Design (Optional)				-																-	s -		» - S
	90% Design (Optional) 100% Design (Optional)																				-	Ŷ		s -
F.5	Electrical Improvements to Migrate Existing Processes to New 12 kV												1				1 .	_	_	_	-	\$	s	\$
	Backbone Design Development (Optional)	-				-								· · ·	-				-	-		÷ -	-	e -
F.5.a F.5.b	30% Design (Optional) 60% Design (Optional)				-																-	s -		» - S -
F.5.c	90% Design (Optional) 90% Design (Optional)											1									-	s -		\$ -
F.5.d	100% Design (Optional)																				-	\$ -		\$ -
F.6	Second Bid Package Design Development (Optional)	-	96	•	32	-		-		-				-	-	90	_	96	-	40	374		\$ 27,520	
F.6.a	30% Design (Optional)		24		8											20	-	24		10		\$ 16,930 \$ 15,850	\$ 9,110 \$ 9,110	
F.6.b F.6.c	60% Design (Optional) 90% Design (Optional)		24		8											20	-	24		10	90 122	\$ 15,850 \$ 20,770	\$ 9,110 \$ 6,880	· · · · · · · · · · · · · · · · · · ·
F.6.d	100% Design (Optional)		24		8											40	) 4	12		10		\$ 12,430		
					-									-	-	-	-	-	-	-				

	Tasks				_		-			CH2M Lat	bor	-		-		-	-						ODCs	Total
		Sr.Professional 2	Sr. Professional 2	Sr. Professional 2	Principal Professional 2	Principal-in- Charge		Principal Professional 2		Principal Professional 1	l Principal Professional 1	Principal Professional 1	Principal Professional 1	Project Professional	Sr. 2 Professional 1	Project Professional 2	Principal Professional 2	Engineerign Technician	Technician	Office/Cleri cal				
Task #	Task Description	РМ	DM	Architect	QC	Conceptual Design Lead	Controls Lead	Preliminary Design Lead	Solids Technologist		Process/Modeling Lead	Odor Control	Corrosion	Project Engineer							Total Hours	Total Labor Costs	Other Direct Costs	Total Fee
		Rosinski \$195	Reistad \$195	Kirsten \$195	Various \$270	Sandino \$300	Hoyle \$300	Green \$270	Oerke \$270	Various and Cost Estimating \$225	Lancaster \$225	Cowden \$225	Rod Jackson \$225	Ransom \$150	Various \$170	Various \$150	Cost Manager Broughton \$270	Various \$160	Various \$112	Various \$109				
F.7	Perimeter Wall Design Development (Optional)	\$195		3195	3270		\$300		3270	3223	\$225	3223	\$223	3150	_			40	3112	3109	688	\$ 112,774	\$ 9,108 \$	\$ 121,882
F.7.a	30% Design (Optional)	3		20	8									16			_	4	16	8	131		\$ 2,277 \$	
F.7.b	60% Design (Optional)	3		16	6									24	4 24	30	20	12	48	8	191	. ,	\$ 2,277 \$	
F.7.c	90% Design (Optional)	3		16	6									32	2 32	40	10	16	64	20	239		\$ 2,277 \$	
F.7.d F.8	100% Design (Optional) CEPT Design Development (Optional)	3	-	20	8	_				-				5	5 8	10	20	8	32	10	127	\$ 22,059 \$	\$ 2,277 \$	\$ 24,336 \$
F.8.a	30% Design (Optional)	-	-		-	-		-		-				-	-	-	-	-	-	-	-	\$ -	\$ - 5	ŝ –
F.8.b	60% Design (Optional)	-	-		-	-		-		-				-	-	-	-	-	-	-	-	s -	s - s	ŝ –
F.8.c	90% Design (Optional)	-	-		-	-		-		-				-	-	-	-	-	-	-	-	s -	\$ - 5	ŝ –
F.8.d	100% Design (Optional)	-	-		-	-		-		-				-	-	-	-	-	-	-	-	s -	\$ - \$	β
G	Final Design	164		-	29	-	-	-	-	100	-	-	-	-	326	89	220	45	186	35	,	\$ 242,607	\$ - \$	\$ 242,607
G.1	Base Scope Bid Package Plans, Specifications, and Cost Estimates	64	64		21	-		-		100				-	178	71	200	36	149	28	911	\$ 173,540	\$ - \$	\$ 173,540
	AFT Pump Station and Pipeline Bid Package (Optional) Electrical Improvements to Migrate Existing Processes to New 12 kV							+							+						-	з -	» - S	<u> </u>
G.2	Backbone Bid Package (Optional)																				-	s -	s - s	· -
G.3	Second Bid Package (Optional)	60	16		8	-									108	-	20	9	37	7	283		\$ - \$	
G.4	Perimeter Wall Bid Package (Optional)	40	24							-					40						104	\$ 19,280	\$ - \$	\$ 19,280
G.5 H	CEPT Bid Package (Optional) Bidding Services	32	53	20	14	_	_			79	-		_		158	105	_	26	79	26	592	\$ 100,482	\$ 3,390 \$	\$ 103.872
H.1	Base Scope Bidding Services	24	55	20		_		_	_	60			_	_	120			20	60	20		,.	\$ <u>5,570</u>	
	AFT Pump Station and Pipeline Bidding Services (Optional)																				-	s -	\$ - 5	š –
H.2	Electrical Improvements to Migrate Existing Processes to New 12 kV																				-	s -	s - s	s –
H.3	Backbone Bidding Services (Optional) Second Bid Package Bidding Services (Optional)	6	10		3	_				15					30	20		5	15	5	109	\$ 18,430	\$ 1,695 \$	\$ 20,125
H.4	Perimeter Wall Bidding Services (Optional)	2	3		1	-				4					8	5	-	1	4	1	29		\$ 1,695	
H.5	CEPT Bidding Services (Optional)																						,	
Ι	Construction Support Services	-	580	-	-	80	-	80		2,855				-	1,340	-	100	-	1,026	356		\$ 1,209,591	\$ 74,280 \$	\$ 1,283,871
I.1	Base Scope Construction Support Services	-	500			40	-			2,200					1,220		100		970	310	5,340	\$ 981,330	\$ 59,320 \$	\$ 1,040,650
	AFT Pump Station and Pipeline Construction Support Services (Optional)																				-	s -	\$ - \$	÷ –
I.2	Electrical Improvements to Migrate Existing Processes to New 12 kV Backbone Construction Support Services (Optional)																				-	s -	\$ - 5	÷ -
I.3	Second Bid Package Construction Support Services (Optional)		80			-		80		440					120				30	20	770	\$ 162,140	\$ 8,080 \$	\$ 170,220
I.4	Perimeter Wall Construction Support Services (Optional)					40				215					_				26	26	307	\$ 66,121	\$ 6,880 \$	\$ 73,001
I.5 J	CEPT Construction Support Services (Optional) Commissioning Support Services		249	_		109	_		_	145				_	40	_	_	_			543	\$ 120,680	\$ 21,667 \$	\$ 143,967
J.1	Base Scope Planning Phase		30	-		7		-	_	30				_	40		_			_	67		\$ - \$	
J.2	Base Scope Commissioning Phase		75			52	-			75											202		\$ 7,845 \$	
J.3	Base Scope Process Start-Up Phase		106			50	-			40					40						236	\$ 51,470	\$ 10,280 \$	\$ 61,750
1	AFT Pump Station and Pipeline Commissioning Support Services (Optional)	-	-		-	-		-		-				-	-		-	-	-	-	-	s -	5	š -
	Planning Phase (Optional)																				-	s -	5	š –
	Commissioning Phase (Optional)																				-	\$ -	5	š –
	Process Start-Up Phase (Optional)																				-	s -	3	-
J.4	Electrical Improvements to Migrate Existing Processes to New 12 kV Backbone Commissioning Support Services (Optional)	-	-		-	-		-		-				-	-	-	-	-	-	-	-	s -	9	) –
J.4.a	Planning Phase (Optional)																				-	s -	5	-
J.4.b	Commissioning Phase (Optional) Process Start Up Phase (Optional)														-						-	Ŷ	5	
J.4.c	Process Start-Up Phase (Optional) Second Bid Package Commissioning Support Services (Optional)	_	10		_	_	_	_						_	_	_		_	_		- 19	•	\$ 2,640 \$	\$ - \$ 7,965
J.5.a	Planning Phase (Optional)	-			_			-		-								_		-	3	\$ 585	. 2,040 4	\$ 585
J.5.b	Commissioning Phase (Optional)		8						2	<u> </u>											10		\$ 1,320 \$	
J.5.c	Process Start-Up Phase (Optional)		8						4												12	. ,	\$ 1,320 \$	
J.6	Perimeter Wall Commissioning Support Services (Optional)	-	19		-	-		-		-				-	-	-	-	-	-	-	19		\$ 902 \$	
J.6.a J.6.b	Planning Phase (Optional) Commissioning Phase (Optional)		2							-											2	\$ 390 \$ 1.365	\$ 451 \$	\$ 390 \$ 1,816
J.6.b J.6.c	Commissioning Phase (Optional) Process Start-Up Phase (Optional)		10																		7	. ,	\$ 451 \$ \$ 451 \$	
J.7	CEPT Commissioning Support Services (Optional)	-	-	1	-	-		- 1		-	1			-	-	-	-	-	- 1	-	-	\$ -	\$ - 5	\$ -
J.7.a	Planning Phase (Optional)									-											-	\$ -	5	š -
J.7.b	Commissioning Phase (Optional)		-																		-	s -	9	-
J.7.c	Process Start-Up Phase (Optional)		-												_						-	S -	5 5 700	
K	Operation and Maintenance Manual Updates Total Optional Services	136	267	84	76	40		04		300 674				80	) 410	265	110	175	272	177		\$ 67,500 \$ 533,962	\$ 5,799 \$ \$ 58,520 \$	
	Total Including Optional Services	2,434			747		80	96	294			296	200	876				1,285	4,834	1,617		5 555,962 6,044,106	226,195	
<b></b>		2,434	2,007	-104	/ 4/	009	80	120	274	5,070	470	290	200	370	0,401	2,224	700	1,205	.,054	1,017	55,000	-,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		v,=/1,/21

	Tasks									]	ESA Labor	r									ODCs	Total
		Senior Director II	Director III	Project Director	Bio	Director II	BCDC	Traffic	Cultural	Analyst	GIS	Air Quality	CEQA PM	Assoc III	Assoc II	Word Processing	Bio	CEQA Analyst				
Task #	Task Description	AQ Permit Reviewer	Tim Rimpo	Jill Hamilton	C Rogers	Air Quality	J Sunahara	J Hutchison	H Koenig	J Iyer	W McCulloug h	D Sloat	Karen Lancelle	Name	Name	L Bautista	L Hill	A Maudru	Total Hours	Total Labor Costs	Other Direct Costs	Total Fee
		\$265	\$230	\$230	\$215	\$215	\$195	\$195	\$165	\$165	\$150	\$150	\$140	\$130	\$120	\$115	\$100	\$100			L'	
В	Permitting <sup>1</sup>	3	31	40	5	64	10	6	32	186	16	60	236	27	6	24	48	119	913	\$ 139,180	\$ 2,500	\$ 141,680
B.1	CEQA Memorandum/Addendum	-	-	12	2	-	4	2	4	32		-	68	-	-	8	8	32	172	\$ 24,740	\$ 750	\$ 25,490
B.2	Bay Area Air Quality Management District	3	31	2	-	64	-	-	-	94	-	60	8	3	6	2	-	3	276	\$ 49,415	\$-	\$ 49,415
B.2.a	Base Scope BAAQMD Permitting	2	24	2		48				72		40	8	2	4	2		2	206	\$ 37,000		\$ 37,000
B.2.b	Second Bid Package BAAQMD Permitting (Optional)	1	7			16				22		20		1	2			1	70	\$ 12,415		\$ 12,415
B.3	Preparation of BCDC Permit Amendment	-	-		-	-						-		-	-				-	\$ -	ı'	\$ -
B.4	Preparation of Tiered Negative Declaration (Optional)	-	-	24	2	-	4	4	8	30	8	-	120	-	-	12	16	60	288	\$ 40,760	\$ 1,000	\$ 41,760
E.19	Project Report		-	2	1	-	2		20	30	8	-	40	24	-	2	24	24	177	\$ 24,265	\$ 750	\$ 25,015
	Total Optional Services	1	7	24	2	16	4	4	8	52	8	20	120	1	2	12	16	61	358	\$ 53,175	\$ 1,750	\$ 54,925
	Total Including Optional Services	3	31	40	5	64	10	6	32	186	16	60	236	27	6	24	48	119	913	139,180	\$ 2,500	\$ 141,680
	Assumptions used in developing Cost Estimate																					
1	Permitting costs shown here do not include application fees.																					
	Assumes no new fieldwork or database search to support cultural resources mer																					
3	City will decide whether flood wall is included in the project before permitting/	CEQA tasks	start.																			
4	Does not include budget for monthly meetings.																					

	Tasks			To	will Labor	r			ODCs	Total
Task	Task Description	Project Mgr	Assoc Surveyor	Survey Technician	Survey Party Chief	Rod Person	Total Hours	Total Labor		Total Fee
#		John May	TBD	TBD	TBD	TBD		Costs	Direct Costs	
		\$195	\$146	\$120	\$132	\$115				
А	Project Management	-	-	-	-	-	-	\$ -	s -	\$ -
В	Permitting	-	-	-	-	-	-	\$ -	s -	\$ -
С	Documentation of Existing Conditions	20	20	75	80	80	275	\$ 35,580	\$ -	\$ 35,580
C.1	Supplemental Topographic and Planimetric Survey	20	20	75	80	80	275	\$ 35,580	s -	\$ 35,580
C.2	Supplemental Subsurface Utility Mapping	-	-	-	-	-		\$-	s -	\$ -
C.3	Geotechnical Characterization	-	-	-	-	-	-	\$ -	s -	\$ -
C.4	Hazardous Building Materials Assessment	-	-	-	-	-	-	\$ -	s -	\$ -
D	Conceptual Design	-	-	-	-	-	-	\$-	\$ -	\$ -
E	Preliminary Design	-	-	-	-	-	-	\$ -	s -	\$ -
F	Design Development	-	-	-	-	-	-	\$-	\$ -	\$ -
G	Final Design	-	-	-	-	-	-	\$ -	s -	\$ -
Н	Bidding Services	-	-	-	-	-	-	\$ -	s -	\$ -
I	Construction Support Services	-	-	-	-	-	-	\$ -	\$ -	\$ -
J	Commissioning Support Services	-	-	-	-	-	-	\$ -	\$ -	\$ -
K	Operation and Maintenance Manual Updates	-	-	-	-	-	-	\$ -	\$ -	\$ -
	Total Optional Services	-	-	-	-	-	-	\$-	\$ -	\$ -
	Total Including Optional Services	20	20	75	80	80	275	\$ 35,580	\$ -	\$ 35,580

	Tasks	Clar	cy Labor		ODCs	Total
Task #	Task Description	Lead Professional Clancy \$125	Total Hours	Total Labor Costs	Other Direct Costs	Total Fee
А	Project Management	\$125	-	s -	\$ -	\$ -
В	Permitting	8	8	\$ 1,000	\$-	\$ 1.000
B.1	CEQA	-	-	\$ -	\$ -	\$ -
B.2	Bay Area Air Quality Management District	-	-	\$ -	\$ -	\$ -
B.2.a	Base Scope BAAQMD Permitting		-	\$-		\$-
B.2.b	Second Bid Package BAAQMD Permitting (Optional)		-	\$-		\$-
B.3	Preparation of BCDC Permit Amendment	-	-	\$-	\$-	\$-
B.4	Preparation of Tiered Negative Declaration (Optional)	-	-	\$-	\$-	\$-
B.5	Revisions to Hazardous Materials Business Plan (Optional)	8	8	\$ 1,000	\$-	\$ 1,000
С	Documentation of Existing Conditions	20	20	\$ 2,500	\$ 4,025	\$ 6,525
C.1	Supplemental Topographic and Planimetric Survey	-	-	\$-	\$-	\$-
C.2	Supplemental Subsurface Utility Mapping	-	-	\$-	\$-	\$-
C.3	Geotechnical Characterization	-	-	\$-	\$-	\$-
C.4	Hazardous Building Materials Assessment	20	20	\$ 2,500	\$ 4,025	\$ 6,525
D	Conceptual Design	-	-	\$-	\$ -	\$ -
Е	Preliminary Design	-	-	\$-	\$ -	\$-
F	Design Development	-	-	\$-	\$-	\$-
G	Final Design	-	-	\$-	\$-	\$-
Н	Bidding Services	-	-	\$-	\$-	\$ -
Ι	Construction Support Services	-	-	\$-	\$-	\$ -
J	Commissioning Support Services	-	-	\$-	\$-	\$-
K	Operation and Maintenance Manual Updates	-	-	\$-	\$-	\$ -
	Total Optional Services	8	8	\$ 1,000	\$-	\$ 1,000
	Total Including Optional Services	28	28	\$ 3,500	\$ 4,025	\$ 7,525

	Tasks					Ekster	· Labor					ODCs	Total
		Ekster	Title	Title	Title	Title	Title	Title	Title	1	1		
Task #	Task Description	Alex Ekster	Name	Name	Name	Name	Name	Name	Name	Total Hours	Total Labor Costs	Other Direct Costs	Total Fee
		\$200	\$100	\$100	\$100	\$100	\$100	\$100	\$100		costs	0000	
Α	Project Management	-	-	-	-	-	-	-	-	-	\$-	\$-	\$ -
В	Permitting	-	-	-	-	-	-	-	-	-	\$-	\$ -	\$-
С	Documentation of Existing Conditions	-	-	-	-	-	-	-	-	-	\$-	\$ -	\$ -
D	Conceptual Design	116	-	-	-	-	-	-	-	116	\$ 23,200	\$ -	\$ 23,200
D.1	Base Scope Conceptual Design	116	-	-	-	-	-	-	-	116	\$ 23,200	\$ -	\$ 23,200
	Second Bid Package Conceptual Design (Optional)	-	-	-	-	-	-	-	-	-	s -	\$ -	\$ -
	Alternative Process Development (Optional)												
	Bench-Scale and In-Field Testing (Optional)		-	-	-	-	-	-	-	-	\$-	\$ -	\$ -
E	Preliminary Design	304	-	-	-	-	-	-	-	304	\$ 60,800	\$ -	\$ 60,800
E.1	DIM #1: Biological Reactors	24	-	-	-	-	-	-	-	24	\$ 4,800	\$ -	\$ 4,800
E.1b	DIM #1b: Sidestream Treatment	24	-	-	-	-	-	-	-	24		\$ -	\$ 4,800
E.2	DIM #2: Carbon Substrate	24	-	-	-	-	-	-	-	24		\$ -	\$ 4,800
E.3	DIM #3: Secondary Clarifiers	24	-	-	-	-	-	-	-	24	\$ 4,800	\$ -	\$ 4,800
E.4	DIM #4: Plant Hydraulics	16	-	-	-	-	-	-	-	16		\$ -	\$ 3,200
E.5	DIM #5: RAS / WAS Pumping	16	-	-	-	-	-	-	-	16	\$ 3,200	\$ -	\$ 3,200
E.6	DIM #6: Secondary Treatment Operations and Control	40	-	-	-	-	-	-	-	40	\$ 8,000	\$ -	\$ 8,000
E.7	DIM #7: Blower System and Building	16	-	-	-	-	-	-	-	16		\$ -	\$ 3,200
E.8	DIM #8: Thickening - Technology / Equipment	24	-	-	-	-	-	-	-	24	\$ 4,800	\$ -	\$ 4,800
E.9	DIM #9: Dewatering - Technology / Equipment, Digested Sludge Storage, Cake Handling	24	-	-	-	-	-	-	-	24	\$ 4,800	\$ -	\$ 4,800
E.10	DIM #10: T / D Building Design	4	-	-	-	-	-	-	-	4	\$ 800	\$-	\$ 800
E.11	DIM #11: Odor Control	4	-	-	-	-	-	-	-	4	\$ 800	\$ -	\$ 800
E.12	DIM #12: Maintenance Building	-	-	-	-	-	-	-	-	-	\$-	\$-	\$-
E.13	DIM #13: Digester Supernatant Pump Station and Piping		-	-	-	-	-	-	-	-	s -	\$ -	\$ -
E.14	DIM #14: Sequencing and Site Layout	24	-	-	-	-	-	-	-	24	\$ 4,800	\$-	\$ 4,800
E.15	DIM #15: Power	-	-	-	-	-	-	-	-	-	\$-	\$ -	\$-
E.16	DIM #16: Automation Control System	40	-	-	-	-	-	-	-	40	\$ 8,000	\$ -	\$ 8,000
	DIM #17: AFT Pump Station and Pipeline (Optional)	-	-	-	-	-	-	-	-	-	\$ -	\$ -	\$ -
E.18	DIM #18: Perimeter Wall (Optional)	-	-	-	-	-	-	-	-	-	\$ -	\$ -	\$ -
E.19	Project Report	-	-	-	-	-	-	-	-	-	\$ -	\$ -	\$ -
F	Design Development	360	-	-	-	-	-	-	-	360	\$ 72,000	-	\$ 72,000
F.1	Base Scope 30% Design	360	-	-	-	-	-	-	-	360	\$ 72,000	\$ -	\$ 72,000
F.2	Base Scope 60% Design		-	-	-	-	-	-	-	-	\$ -	\$ -	\$ -
F.3	Base Scope 90% Design	-	-	-	-	-	-	-	-	-	\$ -	\$ -	\$ -
F.4	Base Scope 100% Design	-	-	-	-	-	-	-	-	-	s -	\$ -	\$ -
	AFT Pump Station and Pipeline Design Development (Optional)	-	-	-	-	-	-	-	-	-	\$ -	\$ -	\$ -
F.5	Electrical Improvements to Migrate Existing Processes to New 12 kV Backbone Design	-	-	-	-	-	-	-	-	-	s -	s -	s -
	Development (Optional)										é	¢	é
F.6	Second Bid Package Design Development (Optional)	-	-	-	-	-	-	-	-	-	\$ -	ъ -	3 - ¢
F.7	Perimeter Wall Design Development (Optional)	-	-	-	-	-	-	-	-	-	\$ -	\$ -	5 - ¢
F.8	CEPT Design Development (Optional)	-	-	-	-	-	-	-	-	-	\$ - ©	\$-	5 - 0
G H	Final Design	-	-	-		-	-	-	-		s -	-	\$ - ¢
Н	Bidding Services	-	-	-	-	-	-	-	-	-	э - с	-	э - с
I	Construction Support Services	-	-	-	-	-		-	-	-	3 - e		5 - e
J.1	Commissioning Support Services	-	-	-		-	-	-	-	-	3 - e	- ¢	3 - e
J.1 J.2	Base Scope Planning Phase Base Scope Commissioning Phase		-	-	-	-	-	-	-	-	<u>s</u> -	\$ - \$ -	s - s -
J.2 J.3	Base Scope Process Start-Up Phase	-	-	-	-	-	-	-	-	-	s - s -	р – С	ۍ د د
J.3	AFT Pump Station and Pipeline Commissioning Support Services (Optional)		-	-	-	-	-		-	-	\$ - \$ -	<u>s</u> -	s -
			-	-	-	-		-	-	-	ۍ ه	ۍ ه	ۍ د د
J.4	Electrical Improvements to Migrate Existing Processes to New 12 kV Backbone Commissioning Support Services (Optional)	-	-	-	-	-	-	-	-	-	\$ -	\$-	\$ -
J.5	Second Bid Package Commissioning Support Services (Optional)	-	-	-	-	-	-	-	-	-	s -	s -	s -
J.5 J.6	Second Bia Package Commissioning Support Services (Optional) Perimeter Wall Commissioning Support Services (Optional)	-	-	-	-	-	-	-	-	-	s - s -	<u>s</u> -	s - s -
J.7	CEPT Commissioning Support Services (Optional)		-	-	-	-	-	-	-		ф -	ф –	с -
J.7 K	Operation and Maintenance Manual Updates	-	-	-	-	-	-	-	-	-	s -	\$ - \$ -	\$
ĸ	Total Optional Services	-	-	-	-	-	-	-	-	-	\$ .	э - \$ -	\$ -

	Tasks	Jenkins Labor			ODCs	Total
		Jenkins				
Task		David		Total Labor	Other Direct	
#	Task Description	Jenkins	Total Hours	Costs	Costs	Total Fee
		\$275	1			
А	Project Management	-	-	\$ -	\$-	\$-
В	Permitting	-	-	\$ -	\$-	\$-
С	Documentation of Existing Conditions	-	-	\$ -	\$-	\$-
D	Conceptual Design	24	24	\$ 6,600	\$-	\$ 6,600
D.1	Base Scope Conceptual Design	24	24	\$ 6,600	\$ -	\$ 6,600
	Second Bid Package Conceptual Design (Optional)	-	-	\$ -	\$ -	\$ -
	Alternative Process Development (Optional)					
	Bench-Scale and In-Field Testing (Optional)		-	\$ -	\$ -	\$ -
Е	Preliminary Design	24	24	\$ 6,600	\$ -	\$ 6,600
E.1	DIM #1: Biological Reactors	4	4	\$ 1,100	\$ -	\$ 1,100
E.1b	DIM #1b: Sidestream Treatment	2	2	\$ 550	\$ -	\$ 550
E.2	DIM #2: Carbon Substrate	2	2	\$ 550	\$ -	\$ 550
E.3	DIM #2: Secondary Clarifiers	4	4	\$ 1,100	\$-	\$ 1,100
E.4	DIM #4: Plant Hydraulics	2	2	\$ 550	\$ -	\$ 550
E.5	DIM #5: RAS / WAS Pumping	2	2	\$ 550	\$ -	\$ 550
E.6	DIM #6: Secondary Treatment Operations and Control	4	4	\$ 1,100	\$ -	\$ 1,100
E.7	DIM #7: Blower System and Building	4	4	\$ 1,100	\$-	\$ 1,100
E.8	DIM #8: Thickening - Technology / Equipment	-	-	\$ 1,100	\$-	\$ -
	DIM #9: Dewatering - Technology / Equipment, Digested Sludge Storage,	_				
E.9	Cake Handling	-	-	\$-	\$ -	\$-
E.10	DIM #10: T / D Building Design	-	-	\$-	s -	s -
E.11	DIM #11: Odor Control	-		\$-	\$-	\$ -
E.12	DIM #11: Odd Control DIM #12: Maintenance Building		-	\$ -	\$ -	ş - \$ -
E.13	DIM #12: Maintenance Burding DIM #13: Digester Supernatant Pump Station and Piping		-	\$ -	\$ - \$ -	ş - \$ -
E.14	DIM #15: Digester superlatant runp station and riping	-	-	ş - \$ -	ş - \$ -	ş - \$ -
E.14 E.15	DIM #14. Sequencing and Site Layout DIM #15: Power	-	_	ş -	ş - \$ -	ş - \$ -
E.16	DIM #15: Fower DIM #16: Automation Control System	-	-	ş - \$ -	ş - \$ -	ş - \$ -
L.10	DIM #10: Automation Control System DIM #17: AFT Pump Station and Pipeline (Optional)	-	-	ş - \$ -	ş - \$ -	ş - \$ -
E.18	DIM #17: AFT Fump Station and Fipeline (Optional) DIM #18: Perimeter Wall (Optional)	-	-	ş - \$ -	ş - \$ -	ş - \$ -
E.19		-		<b>.</b>	¢.	<b>.</b>
E.19 F	Project Report	- 8	- 8	\$ - \$ 2,200	ş -	\$ - \$ 2,200
F.1	Design Development Base Scope 30% Design	8	8	\$ 2,200	- \$ -	\$ 2,200
F.1 F.2	Base Scope 50% Design Base Scope 60% Design	-	-	\$ 2,200 \$ -	s - \$ -	\$ 2,200 \$ -
F.2 F.3	Base Scope 90% Design	-		¢.	¢.	<u> </u>
F.3 F.4	Base Scope 90% Design Base Scope 100% Design	-	-	<u></u>	<u></u> \$- \$-	<u> </u>
Г.4	i C	-	-	<u></u>	s - \$ -	s - \$ -
	AFT Pump Station and Pipeline Design Development (Optional)	-		•		
F.5	Electrical Improvements to Migrate Existing Processes to New 12 kV Backbone Design Development (Optional)	-	-	\$-	\$-	\$ -
F.6	Second Bid Package Design Development (Optional)	-		\$ -	\$ -	\$ -
F.0 F.7	Perimeter Wall Design Development (Optional)			s - \$ -	\$ - \$ -	<u> </u>
F.8	CEPT Design Development (Optional)	-	-	s - \$ -	\$ - \$ -	<u> </u>
G G	Final Design			¢		s -
	Bidding Services	-	-		-	
H		-	-	\$ - ¢	-	\$ - ¢
-	Construction Support Services	-	-	\$ -	-	\$ -
J	Commissioning Support Services	-	-	\$ -	- د	\$ -
K	Operation and Maintenance Manual Updates	-	-	\$ -	\$ -	\$ -
	Total Optional Services	-	-	\$ -	\$ -	\$ -
	Total Including Optional Services	56	56	\$ 15,400	\$-	\$ 15,400

	Tasks	F	wing Labo	or		ODCs	Total	
		Ewing			T			
Task	Task Description	Dave Ewing	Total Hours	Total Lal		Other	Total Fe	e.
#	Tusk Description		rour mours	Costs		Direct Costs	Total Te	·
		\$140						
А	Project Management	-	-	\$	-	\$-	\$ -	_
В	Permitting	-	-	\$	-	\$-	\$ -	-
С	Documentation of Existing Conditions	-	-	\$	-	\$-	\$-	-
D	Conceptual Design	40	40	\$ 5,60	)0	\$-	\$ 5,60	00
D.1	Base Scope Conceptual Design	-	-	\$	-	\$-	\$-	-
	Second Bid Package Conceptual Design (Optional)	40	40	\$ 5,60	)0	\$ -	\$ 5,60	00
	Alternative Process Development (Optional)	-						
	Bench-Scale and In-Field Testing (Optional)	-	-	\$	-	\$ -	\$ -	-
Е	Preliminary Design	8	8	\$ 1,12	20	\$ -	\$ 1,12	20
E.1	DIM #1: Biological Reactors	-	-		_	\$ -	\$ -	-
E.1b	DIM #1b: Sidestream Treatment	-	-		_	\$ -	\$ -	_
E.2	DIM #2: Carbon Substrate	-	_		_	\$ -	\$-	_
E.3	DIM #3: Secondary Clarifiers	-			_	\$ -	\$-	_
E.4	DIM #4: Plant Hydraulics	-	-		_	\$ -	\$ \$	
E.4 E.5	DIM #4. Frant Hydrautics DIM #5: RAS / WAS Pumping	-			_	<u> </u>	\$ \$	_
E.6	DIM #5: KAS7 wAS running DIM #6: Secondary Treatment Operations and Control	-	-		_	<u> </u>	\$ \$	_
			-	-	_		\$ \$	-
E.7 E.8	DIM #7: Blower System and Building DIM #8: Thickening - Technology / Equipment	-	-	\$ \$	_	<u>\$</u> - \$-		-
E.8		-	-	2	-	<b>)</b> -	\$ -	_
E.9	DIM #9: Dewatering - Technology / Equipment, Digested Sludge Storage, Cake	-	-	\$	-	\$ -	\$ -	-
F 10	Handling			¢		<i>ф</i>	<b>.</b>	
E.10	DIM #10: T / D Building Design	-	-		_	<u>\$</u> -	\$-	-
E.11	DIM #11: Odor Control	-	-		_	<u>\$</u> -	\$ -	-
E.12	DIM #12: Maintenance Building	-	-	Ŧ	_	\$ -	\$ -	-
E.13	DIM #13: Digester Supernatant Pump Station and Piping	-	-	*	_	\$ -	\$ -	-
E.14	DIM #14: Sequencing and Site Layout	8	8	\$ 1,12	_	\$ -	\$ 1,12	:0
E.15	DIM #15: Power	-	-	*	_	\$ -	\$ -	-
E.16	DIM #16: Automation Control System	-	-		_	\$-	\$ -	-
	DIM #17: AFT Pump Station and Pipeline (Optional)	-	-	\$	-	\$-	\$ -	-
E.18	DIM #18: Perimeter Wall (Optional)	-	-	\$	-	\$ -	\$ -	-
E.19	Project Report	-	-	\$	-	\$ -	\$ -	-
F	Design Development	204	204	\$ 28,56	50	-	\$ 28,56	0
F.1	Base Scope 30% Design	24	24	\$ 3,30	50	\$-	\$ 3,36	<i>i</i> 0
F.2	Base Scope 60% Design	40	40	\$ 5,60	)0	\$-	\$ 5,60	0
F.3	Base Scope 90% Design	60	60	\$ 8,40	00	\$ -	\$ 8,40	00
F.4	Base Scope 100% Design	80	80	\$ 11,20	)0	\$-	\$ 11,20	00
	AFT Pump Station and Pipeline Design Development (Optional)	-	-	\$	-	\$ -	\$ -	-
	Electrical Improvements to Migrate Existing Processes to New 12 kV Backbone					*		_
F.5	Design Development (Optional)	-	-	\$	-	\$ -	\$ -	-
F.6	Second Bid Package Design Development (Optional)	-	-	\$	-	\$ -	\$ -	_
F.7	Perimeter Wall Design Development (Optional)	-	-	\$		\$ -	\$.	_
F.8	CEPT Design Development (Optional)	i .	-	\$	_	\$ -	\$-	_
G	Final Design	40	40	\$ 5,60		-	\$ 5,60	)()
G.1	Base Scope Bid Package Plans, Specifications, and Cost Estimates	40	40	\$ 5,60	_	\$ -	\$ 5,60	
G.1 G.2	AFT Pump Station and Pipeline Bid Package (Optional)	- 40	- 40			<u> </u>	\$ 5,00	.0
0.2				φ	-	ψ -		-
G.2	Electrical Improvements to Migrate Existing Processes to New 12 kV Backbone Bid Package (Optional)	-	-	\$	-	\$-	\$ -	-
C 3				¢		¢	¢	_
G.3	Second Bid Package (Optional)	-	-		_	\$ -	\$ - \$	-
G.4	Perimeter Wall Bid Package (Optional)	-	-	\$	_	<u>\$</u> -	\$ - ¢	-
G.5	CEPT Bid Package (Optional)	-	-	•	-	\$ -	\$ -	-
Н	Bidding Services	-	-	\$	-	-	\$ -	-
I	Construction Support Services	-	-	\$	-	-	\$-	-
J	Commissioning Support Services	-	-		-	-	*	-
K	Operation and Maintenance Manual Updates	-	-	\$	-	\$ -	\$ -	-
	Total Optional Services	40	40	\$ 5,60		\$-	\$ 5,60	
	Total Including Optional Services	292	292	\$ 40,88	30	\$ -	\$ 40,88	30

	Tasks	H.T. Harvey Labor			ODCs	Total		
	Task Description	Project Director/Manager	BCDC				t Total Fee	
Task #		H.T. Harvey	H.T. Harvey	Total Hours	Total Labor Costs	Other Direct Costs		
		\$230	\$195					
В	Permitting <sup>1</sup>	4	76	82	\$ 15,970	\$ 60	\$ 16,030	
B.1	CEQA Memorandum/Addendum		-	-	\$-	\$-	\$-	
B.2	Bay Area Air Quality Management District		-	-	\$-	\$-	\$-	
B.2.a	Base Scope BAAQMD Permitting			-	\$-		\$-	
B.2.b	Second Bid Package BAAQMD Permitting (Optional)			-	s -		\$-	
B.3	Preparation of BCDC Permit Amendment	4	76	82	\$ 15,970	\$ 60	\$ 16,030	
B.4	Preparation of Tiered Negative Declaration (Optional)				\$-	\$-	\$-	
E.19	Project Report			-	\$-	\$-	\$-	
	Total Optional Services	-	-	-	\$-	\$-	\$-	
	Total Including Optional Services	4	76	82	\$ 15,970	\$ 60	\$ 16,030	
	Assumptions used in developing Cost Estimate		-	-	-			
1	Permitting costs shown here do not include application fees.							
2	Does not include budget for monthly meetings.							



# 2017 NORTHERN PACIFIC REGION FEE SCHEDULE

**Analysis, Consultation and Report Preparation.** Fees for Fugro professional services, including project administration, are based on the time of professional, technical, and other support personnel directly applied to the project. Rates for overtime (other than as described below), weekend work, and emergency response will be quoted upon request. Personnel participating in judicial proceedings, whether it be expert of witness testimony, delivery of depositions, consultation to legal counsel, or preparation for such, will be billed at \$400 per hour. Rates for overtime (other than as described below), weekend work, and emergency response will be quoted on request.

# **PROFESSIONAL STAFF**

# HOURLY RATE

HOURLY RATE

Staff Professional	\$130
Senior Staff Professional	\$145
Project Professional	
Senior Project Professional	\$175
Senior Professional	
Associate Professional	\$205
Principal Professional	\$230
Senior Principal Professional	\$280

# TECHNICAL AND OFFICE STAFF

# Office Assistant \$70 Technical Assistant / Records Coordinator \$90 Word Processor / Clerical \$100 Laboratory Technician \$105 CADD Operator \$110 Graphics Illustrator \$120 HSE Manager \$120 Engineering Field Technician I – Non-Prevailing Wage, Straight Time \$100 Engineering Field Technician II – Non-Prevailing Wage, Straight Time \$110 Engineering Field Technician II – Non-Prevailing Wage, Straight Time \$130 Engineering Field Technician II – Non-Prevailing Wage, Straight Time \$130 Engineering Field Technician III – Non-Prevailing Wage, Straight Time \$130 Engineering Field Technician III – Prevailing Wage, Straight Time \$130 Engineering Field Technician II – Prevailing Wage, Straight Time \$130 Engineering Field Technician II – Prevailing Wage, Straight Time \$130 Engineering Field Technician II – Prevailing Wage, Straight Time \$135 Engineering Field Technician III – Prevailing Wage, Straight Time \$140

# **Overtime Rates for Technical and Office Staff**

a.	Saturdays or over 8 hours/day during weekdays	1.3 x straight time
b.	Saturdays over 8 hours or Sunday/holidays	1.5 x straight time
c.	Swing or graveyard shift premium	1.3 x straight time



### FUGRO USA LAND, INC.

# **OTHER DIRECT CHARGES**

Outside Services	Cost Plus 15%
Automobiles	IRS Standard Mileage Rate
Trucks	\$75/day
IMASW Equipment	\$400/day
Topcon IS Imaging Station / DGPS	\$200/day
Rope Safety Equipment	\$165/day
Toughbook Computers	\$250/day
Workstation Applications	\$50/day
Generator	\$25/day
Trench Supplies	\$5/foot
Plotter Generated Maps	\$5/sheet
Copies (photocopy)	\$0.15/sheet

# HARDWARE/SOFTWARE INTERPRETIVE PROGRAMS

5/hr
5/hr
5/hr
5/hr

\*Outside services include subcontracted services, outside consultants, outside laboratory testing, equipment rentals, outside reproduction and photographic work, travel and subsistence, field supplies, and any other out of pocket expenses directly related to the project.

Effective 1/1/2017

# 2017 NORTHERN CALIFORNIA FEE SCHEDULE LABORATORY AND MATERIALS TESTING

### **CLASSIFICATION TESTS**

Moisture Content (ASTM D2216)\$	21
Moisture and Density (ASTM D2937)\$	32
Add for shelby tube with above tests\$	21
Reaction with HCI (ASTM D2488)\$	11
Irregular Shape Density (USACE)\$	58
Plastic and Liquid Limits, wet prep, 3 point LL	
(ASTM D4318)\$	160
Specific Gravity (ASTM D854)\$	84
Organic Content (ASTM D2974)\$	79
Sand Equivalent (ASTM D2419)\$	100
Sieve Analysis, up to 8 sieves (ASTM D422)\$	111
Add for each additional sieve in stack\$	11
Add for coarse fraction (>#4 sieve)\$	63
Percent Passing #200 Sieve (ASTM D1140)\$	74
Hydrometer and Sieve (ASTM D422)\$	170

VOLUME CHANGE TESTS Incremental Consolidation (ASTM D2435)	
Up to 8 load increments\$	289
Additional load increment\$	32
Constant Rate of Strain Consolidation	
To 16 ksf max (ASTM D4186)\$	447
With intermediate rebound and reload\$	525
Expansion Index (ASTM D4829/UBC 29-1)\$	247
Swell and Collapse Tests	
Wet after load, 4 point (ASTM D4546-A)\$	630
Wet after load, 1 point (ASTM D4546-B)\$	168
Load after wet, 1 point (ASTM D4546-C)\$	210

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# STATIC STRENGTH TESTS

Hand Penetrometer\$	16
Torvane\$	27
Miniature Vane (ASTM D4648)\$	53
Miniature Vane with Residual\$	58
Unconfined Compression	
Soil (ASTM D2166)\$	105
Rock, excludes strain (ASTM D7012-C)\$	137
Rock, with axial strain (ASTM D7012-D)\$	210
Add for radial strain\$	132
Triaxial Compression	
Unconsolidated Undrained (ASTM D2850)\$	147
Add for back pressure saturation\$	90
*Consolidated Undrained with pore pressure	
measurements, per point (ASTM D4767)\$	462
*Consolidated Drained, per point (USACE)\$	683
Direct Shear, 3 points, (ASTM D3080)\$	457
Add for residual strength, per point\$	53
Point Load Index (ASTM D5731)\$	63
*Multiply single point rate by 2 for up to 3 stages of conso drained or undrained staged triaxial tests	lidated,

### HYDRAULIC CONDUCTIVITY TESTS

Constant Head, 2-3" Dia. (ASTM D2434)\$	305
Constant Head, 6" Dia. Includes remolding	
(ASTM D2434)\$	394
Flexible Wall (ASTM D5084)\$	305
Add for additional effective stress\$	105

# **CLAY PROPERTIES & CHEMISTRY TESTS**

Double Hydrometer (ASTM D4221)\$	305
Pinhole Dispersion (ASTM D4647)\$	284
Crumb Test (ASTM 6572)\$	48
X-Ray Diffraction\$	315
Soil Chemistry for Corrosion	
(pH, chloride, sulfate, resistivity)\$	263
pH (soil or water)\$	32

# EARTHWORK TESTS

Standard Proctor, 4 points (ASTM D698)	
4-inch mold\$	210
6-inch mold\$	252
Modified Proctor, 4 points (ASTM D1557)	
4-inch mold\$	250
6-inch mold\$	290
California Impact Compaction (Cal 216)\$	275
Moisture - Density Check Point	
4-inch mold\$	80
6-inch mold\$	105
add for rock correction for above\$	95
Cement/ Lime Treatment	
Moisture/Density Relation (ASTM D558)\$	289
Wet & Dry Cycles, 2 spec., (ASTM D559)\$	525
Strength, w/ molding, (ASTM D1633)\$	95
Est. pH for Stabilization, (ASTM D6276)\$	158
Index Density and Unit Weight (ASTM D4253)	
Maximum\$	331
Minimum\$	142

R-Value (ASTM D2844/Cal 301)\$	326
Treated Soil\$	342
Aggregate Base\$	355
Base with Admixture\$	368
CBR, per point (ASTM D1883)\$	357
Proctor Compaction with above CBR\$	221
Surcharge for Admixture\$	53
Sample Preparation for Soil with PI>20\$	58

# AGGREGATE TESTS

Sieve Analysis (ASTM C136/Cal202)	
Coarse Aggregate	\$ 63
Add for samples > 5000g	\$ 32
Fine Aggregate	\$ 116
Sand Equivalent (ASTM D2419/Cal 217)	100
Cleanness Value (ASTM C142/Cal 227)	\$ 147
Durability Index (ASTM C3744/Cal 229)	
Coarse Fraction	\$ 147
Fine Fraction	\$ 147
Specific Gravity & Absorption	
Coarse Aggregate (ASTM C127/Cal206)	\$ 120
Fine Aggregate (ASTM C128/Cal 207)	\$ 132
Percent of Crushed Particles, per fraction	
(ASTM D5821/Cal 205)	\$ 105
Flat & Elongated Particles (ASTM D4791)	\$ 189
Uncompacted Void Content of Fine Aggregate	
(AASHTO T304)	\$ 210
Moisture Content (ASTM C566)	\$ 63
Sulfate Soundness, per fraction	
(ASTM C88/Cal 214)	\$ 132
L.A. Abrasion 500 rev. (ASTM C131/Cal 211)	\$ 226
Percent Passing #200 Sieve (ASTM C117)	\$ 90
Unit Weight and Voids (ASTM C29/Cal 212)	\$ 100
Organic Impurities (ASTM C40)	\$ 53

# ASPHALT CONCRETE TESTS

Stabilometer Value (ASTM D1560/Cal 366)\$	168
Lab Compacted Unit Weight	
Each briquette (Cal 304/Cal 308)\$	116
Surcharge for rubberized AC\$	21
Unit Weight of AC Cores (Cal 308)\$	69
Theoretical Max. S.G. (Cal 309)\$	158
Extraction and Sieve (ASTM D2172/D5444)\$	331
Asphalt Content by Ignition (Cal 382)\$	158
Calibration Curve for Ignition Test\$	315
Slurry Wet Track Abrasion (ASTM D3910)\$	74

# CONCRETE, MASONRY, AND STEEL TESTS

Concrete Compression	
Each 6x12 or 4x8 Cylinder (ASTM C39)\$	32
Add for Elastic Modulus (ASTM C469)\$	195
Hold or Additional Test\$	32
Light Weight Concrete (CTM 548)\$	42
Cylinder Molds with Lids\$	9
Compression of Core (ASTM C42)\$	95
Shrinkage of Mortar and Concrete 3 Bars	
(ASTM C157)\$	462

# FUGRO USA LAND, INC.

Unit Weight of Concrete Cylinders	
Air-Dried\$	32
Oven-Dried\$	42
Shotcrete Panel, Lab Coring & Compression	
3 cores (ASTM C42)\$	394
Grout and Mortar Compression (ASTM C39)	
Grout\$	48
Mortar\$	37
Composite Prism Compression (ASTM E447)	
8x8	Quote
8x12	Quote
8x16	Quote
CMU Block Compression (ASTM C140)	Quote
CMU Absorption & Moisture (ASTM C140)\$	100
Concrete Moisture Emission Test Kit, each\$	63
Rebar - Tensile and Bend (ASTM A-370)	Quote

# MISCELLANEOUS LABORATORY TESTS AND CHARGES

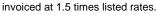
Sample Remold Surcharge\$	53
Special ProcessingHourly	Rates
Extrude Tube Sample and Visually Classify\$	74
Sample Tube Cutting, each cut\$	27
Sample Preparation - Non-Routine\$	105
Steel Drum - 55 Gallon with Lid\$	84
Gas Powered Generator\$	84
Shelby Tube with Caps\$	48
Addition of Soil Admixtures and Curing\$	100
Capping of Strength Test\$	42
Weight of Roofing Materials (ASTM D2829)\$	53
Density of Sprayed Fireproofing Materials\$	63
Static Friction Test	
Per Surface Location (ASTM C1028)\$	394
Coring Equip/Bit Charge, per half day\$	90
Bit Charge - Difficult Materials, per half day\$	105
Specimen End Prep	
Less than 4" Diameter, per cut\$	13
4" to 8" Diameter, per cut\$	19
Special Capping of Specimen\$	42
Patch or Grout Core Hole\$	37
Photograph of Sample\$	42
Additional Copies of PhotographsCost	+ 15%
Local Site Pick up of Bulk or AC Sample	
within 30-mile radius, per sample\$	63

### NOTES:

i. Fugro USA Land, Inc.'s laboratories are accredited or validated by AASHTO (R-18), Caltrans, USACE, DSA/(LEA).

ii. The following are included at NO CHARGE:

- a. Visual classification, natural water content and density with all triaxial, direct shear, volume change, and hydraulic conductivity tests.
- b. Sample photographs for triaxial, hydraulic conductivity, and PLI tests.
- iii. Rates for other tests and test variations, including mix designs, can be furnished on request.
- IV. Rush assignments are subject to a 25% surcharge. Weekend or Holiday test assignments are subject to a 50% surcharge.
- V. Testing for contaminated samples (EPA Level C & D) will be



- vi. Shipping or other outside costs at cost +15%.
- VII. Reusable thin-walled tube shipping boxes (ASTM D4220) can be provided at no cost (except for shipping charges) for samples shipped to Fugro's laboratory for testing.
- VIII. Please contact the laboratory prior to shipping international soils to make proper arrangements and obtain our foreign soil permit.
- iX. A surcharge of \$3 per linear foot of test boring depth will be added to cover the cost of standard engineering field supplies including sample tubes and caps, stakes, etc.

### FIELD INSTRUMENTATION/EQUIPMENT

FIELD INSTRUMENTATION/EQUI		
Mini RAE (PID/LEL/COs) Detector		160/day
Dynamic or Stainless Steel Penetrometer		55/day
Brass or Stainless Steel Sample Sleeves		10/each
Use of 10 Modified Cal. Sleeves	\$	35/box
Keyed-Alike Locks	\$	30/each
55-gallon Drum	\$	85/each
Field Filter	\$	30/unit
Stainless Steel Hand-Auger Sampler	\$	55/day
Teflon Tape - 4" roll	\$	80/roll
Liquinox	\$	25/bottle
Tyvek	\$	20/each
Nitrile Gloves	\$	25/box
Respirator Cartridges	\$	15/set
Inclinometer Probe and Readout Device	\$	195/day
Rotary Hammer	\$	45/day
CPN Corp. Hydroprobe	\$	80/day
Double-Ring Infiltrometer	\$	80/day
Downhole Soil Samplers	\$	80/day
(2½-inch California liner, SPT)		
Kernlevel	\$	25/day
24-Channel Seismograph		1600/wk
Instantel Mini Mate Pro4 Vibration Monitor		160/day
Instantel Mini Mate Pro 6 Vibration Monitor	\$	210/day
Larsen/Davis LXT Sound Monitor	\$	125/day
Nuclear Gauge		55/day
Manometer	\$	60/day
Asphalt/Concrete Patch		ost +15%
Baroid Drilling Fluid Test Kit		35/day
Conductivity Probe (in situ)		60/day
Fisher TW-6 Metal Detector		55/day
Gas Powered 120v Generator	\$	85/day
Peristaltic Pump		55/day
Positive Displacement Pump		30/day
Temperature-pH-Conductivity Meter		30/day
Pressure Transducer		80/day
Water Level Indicator		25/day
Water Sampling Pump		210/day
(Bladder Pump or Electric Submersible)	·	,
Well Bailer - Standard	\$	30/day
Well Bailer - Disposable		20/each
2-inch Diameter Water Meter		25/day
4-inch Diameter Water Meter		45/day
Well Cap 2"		24/each
Digital Camera		30/day
Field Computer		35/day
Subcontracted Specialty Equipment		



# Exhibit C

# Compensation for Reimbursable Expenditures/Subconsultant Markups

# **SCWP Secondary Treatment and Dewatering**

# Printing

Printing costs for all project documentation (i.e., meeting notes, technical memos, drawings, etc.) shall be expensed at accepted industry commercial rates.

# Postage/Overnight Delivery

Postage/overnight delivery costs for all project documentation shall be expensed at accepted industry commercial rates.

# <u>Travel</u>

Expenses for staff assigned to this project required to travel by air (i.e., air travel, lodging, car rental and meals) shall be subject to the following per diem rates and limits:

- Airfare and associated fees shall be reimbursed at the cost of Coach Class only. Business Class or First Class travel costs exceeding the Coach Class fare shall be at no additional cost to the CITY.
- Lodging shall be reimbursed at the per diem rate of one-hundred forty-five dollars (\$145) per night, inclusive of taxes.
- Rental car expenses, including applicable taxes, fees and fuel, shall be reimbursed at the per diem rate of eighty-five dollars (\$85) per day (assumes rental of mid-size car).
- Meals and incidental expenses, including applicable taxes and gratuities, shall be reimbursed at the per diem rate of (\$40) per day. Reimbursement for alcoholic beverages or entertainment shall not be permitted.

The maximum allowable rate for mileage expenses for Northern California staff shall be at the current IRS standard mileage rate.

Other travel costs including bridge fares, parking fees and cab fare shall be reimbursed at cost.

No other expenses are reimbursable, unless the CITY has pre-approved such expense in writing.

# Subconsultant Markups

No markups shall be allowed on reimbursable expenses and the maximum markup on subconsultants shall be 5%.

CITY can reject invoices and/or request additional backup as necessary for these expenses.

#### Exhibit "D"

#### INSURANCE REQUIREMENTS FOR CONSULTANTS

Consultant shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work by the Consultant, his agents, representatives, or employees.

Minimum Scope and Limits of Insurance: Consultant shall maintain limits no less than:

- 1. <u>Commercial General Liability</u>: \$1,000,000 per occurrence and \$2,000,000 aggregate for bodily injury, personal injury and property damage. ISO Occurrence Form CG 0001 is required.
- 2. <u>Automobile Liability</u>: \$1,000,000 per accident for bodily injury and property damage. ISO Form CA 0001 is required.
- 3. <u>Workers' Compensation</u> and <u>Employer's Liability</u>: \$1,000,000 per accident for bodily injury or disease.
- 4. <u>Errors and Omissions</u> Liability Insurance appropriate to the Consultants Profession: \$1,000,000 per occurrence and \$2,000,000 aggregate.

#### **Deductibles and Self-Insured Retentions**

Any deductibles or self-insured retentions must be declared and approved by the City of Sunnyvale. The consultant shall guarantee payment of any losses and related investigations, claim administration and defense expenses within the deductible or self-insured retention.

#### **Other Insurance Provisions**

The **<u>general liability</u>** and **<u>automobile liability</u>** policies are to contain, or be endorsed to contain, the following provisions:

- The City of Sunnyvale, its officials, employees, agents and volunteers are to be covered as additional insureds with respects to liability arising out of activities performed by or on behalf of the Consultant; products and completed operations of the Consultant; premises owned, occupied or used by the Consultant; or automobiles owned, leased, hired or borrowed by the Consultant. The coverage shall contain no special limitations on the scope of protection afforded to the City of Sunnyvale, its officers, employees, agents or volunteers.
- 2. For any claims related to this project, the Consultant's insurance shall be primary. Any insurance or selfinsurance maintained by the City of Sunnyvale, its officers, officials, employees, agents and volunteers shall be excess of the Consultant's insurance and shall not contribute with it.
- 3. Any failure to comply with reporting or other provisions of the policies including breaches of warranties shall not affect coverage provided to the City of Sunnyvale, its officers, officials, employees, agents or volunteers.
- 4. The Consultant's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.
- 5. Each insurance policy required by this clause shall be endorsed to state that coverage shall not be suspended, voided, cancelled by either party, reduced in coverage or in limits except after thirty (30) days' prior written notice by certified mail, return receipt requested, has been given to the City of Sunnyvale.

#### Claims Made Coverage

If the General Liability and/or Errors & Omissions coverages are written on a claims-made form:

1. The retroactive date must be shown, and must be before the date of the contract or the beginning of contract work.

2. Insurance must be maintained and evidence of insurance must be provided for at least five years after completion of the contract work.

- 3. If coverage is canceled or non-renewed, and not replaced with another claims-made policy form with a retroactive date prior to the contract effective date, the Consultant must purchase an extended period coverage for a minimum of five years after completion of contract work.
- 4. A copy of the claims reporting requirements must be submitted to the City of Sunnyvale for review.

#### Acceptability of Insurers

Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A:VII, unless otherwise acceptable to the City of Sunnyvale.

#### Verification of Coverage

Consultant shall furnish the City of Sunnyvale with original a Certificate of Insurance effecting the coverage required. The certificates are to be signed by a person authorized by that insurer to bind coverage on its behalf. All certificates are to be received and approved by the City of Sunnyvale prior to commencement of work.

# Exhibit "E"

<u>GENERAL</u>		PRELIMINARY LIST OF ANTICIPATED DRAWINGS
#	TYPE	TITLE
1	G	COVER SHEET
2	G	SHEET INDEX 1
3	G	SHEET INDEX 2
4	G	DESIGN CRITERIA AND EQUIPMENT SUMMARY
5	G	GENERAL ABBREVIATIONS
6	G	AREA INDEX, PIPE SERVICE ABBREVIATIONS, MECHANICAL AND HVAC NOTES
7	G	LEGEND AND LINEWORK
8	G	GENERAL SYMBOLS
9	G	OVERALL SITE PLAN
10	G	FIRE DEPARTMENT VEHICLE ACCESS FIGURE SUNNYVALE WPCP
11	G	TRUCK AND SITE ACCESS ROUTE MAPS
12	G	HYDRAULIC PROFILE
13	G	LIQUID FLOW SCHEMATIC
14	G	AERATION SCHEMATIC
15	G	SOLIDS SCHEMATIC
16	G	GENERAL STRUCTURAL NOTES 1
17	G	GENERAL STRUCTURAL NOTES 2
18	G	
19 20	G G	CODE COMPLIANCE INFORMATION AND DEFERRED SUBMITTALS OCCUPANCY PLANS AND EXITING DIAGRAMS - BLOWER BUILDING
20 21	G	OCCUPANCY PLANS AND EXITING DIAGRAMS - BLOWER BUILDING OCCUPANCY PLANS AND EXITING DIAGRAMS - THICKENING AND DEWATERING BUILDING - 1
21	G	OCCUPANCY PLANS AND EXITING DIAGRAMS - THICKENING AND DEWATERING BUILDING - 1 OCCUPANCY PLANS AND EXITING DIAGRAMS - THICKENING AND DEWATERING BUILDING - 2
23	G	OCCUPANCY PLANS AND EXITING DIAGRAMS - MINTENANCE BUILDING
20	G	SPECIAL INSPECTION TABLES
25	G	SHORING PLAN
	-	
26	С	GENERAL CIVIL NOTES
27	С	EXISTING SITE PLAN
28	С	CIVIL DRAWINGS KEY PLAN
29	C	PAVING AND GRADING PLAN - AREA 1
30	C C	PAVING AND GRADING PLAN - AREA 2 PAVING AND GRADING PLAN - AREA 3
31 32	C	PAVING AND GRADING PLAN - AREA 3 PAVING AND GRADING PLAN - AREA 4
32	c	PAVING AND GRADING PLAN - AREA 4 PAVING AND GRADING PLAN - AREA 5
34	c	PAVING AND GRADING PLAN - AREA 6
35	C	PAVING AND GRADING PLAN - AREA 7
36	C	PAVING AND GRADING PLAN - AREA 8
37	C	GRADING AND PAVING - ENLARGED PLANS 1
38	С	GRADING AND PAVING - ENLARGED PLANS 2
39	С	YARD PIPING PLAN - AREA 1
40	С	YARD PIPING PLAN - AREA 2
41	С	YARD PIPING PLAN - AREA 3
42	С	YARD PIPING PLAN - AREA 4
43	С	YARD PIPING PLAN - AREA 5
44	С	YARD PIPING PLAN - AREA 6
45	С	YARD PIPING - ENLARGED PLANS 1
46	С	YARD PIPING - ENLARGED PLANS 2
47	С	YARD PIPING - FIRE PROTECTION 1
48	C	YARD PIPING - FIRE PROTECTION 2
49	C	CULVERT PLAN AND PROFILE 1 STA 0+00 TO STA 4+60
50	C C	CULVERT PLAN AND PROFILE 2 STA 4+60 TO 9+55.5
51 52	C	PLAN AND PROFILE - PRIMARY EFFLUENT PIPELINE 1
52 53	C	PLAN AND PROFILE - PRIMARY EFFLUENT PIPELINE 2 PLAN AND PROFILE - MIXED LIQUOR PIPELINE 1
53 54	c	PLAN AND PROFILE - MIXED LIQUOR PIPELINE 1 PLAN AND PROFILE - MIXED LIQUOR PIPELINE 2
54 55	c	PLAN AND PROFILE - MIXED LIQUOR PIPELINE 2 PLAN AND PROFILE - MIXED LIQUOR PIPELINE 3
00	<b>.</b>	

#	TYPE	TITLE
56	С	PLAN AND PROFILE - MIXED LIQUOR PIPELINE 4
57	C	PLAN AND PROFILE - MIXED LIQUOR PIPELINE 5
58	C	PLAN AND PROFILE - MIXED LIQUOR PIPELINE 6
59	С	PLAN AND PROFILE - SECONDARY EFFLUENT PIPELINE 1
60	С	PLAN AND PROFILE - SECONDARY EFFLUENT PIPELINE 2
61	С	PLAN AND PROFILE - SECONDARY EFFLUENT PIPELINE 3
62	С	PLAN AND PROFILE - SECONDARY EFFLUENT PIPELINE 4
63	С	PLAN AND PROFILE - SECONDARY EFFLUENT PIPELINE 5
64	С	PLAN AND PROFILE - SECONDARY EFFLUENT PIPELINE 6
65	С	STORM DRAIN SYSTEM PLAN AND PROFILE 1
66	С	STORM DRAIN SYSTEM PLAN AND PROFILE 2
67 68	C C	STORM DRAIN SYSTEM PLAN AND PROFILE 3
68 69	C	STORM DRAIN SYSTEM PLAN AND PROFILE 4 STORM DRAIN SYSTEM PLAN AND PROFILE 5
70	C	STORM DRAIN STSTEM PLAN AND PROFILE 5
70	c	STORM DRAIN STSTEM PLAN AND PROFILE 7
72	C	PRIMARY EFFLUENT JUNCTION BOX AREA PLAN AND SECTIONS
73	Č	PRIMARY EFFLUENT JUNCTION BOX PLANS
74	C	PRIMARY EFFLUENT JUNCTION BOX SECTIONS AND DETAILS
75	С	PRIMARY EFFLUENT JUNCTION BOX SECTIONS AND DETAILS
76	С	PRIMARY EFFLUENT JUNCTION BOX SECTIONS AND DETAILS
77	С	ML DISTRIBUTION BOX PLAN AND SECTIONS
78	С	ML DISTRIBUTION BOX PLANS
79	С	ML DISTRIBUTION BOX SECTIONS AND DETAILS
80	С	ML DISTRIBUTION BOX SECTIONS AND DETAILS
81	С	ML DISTRIBUTION BOX SECTIONS AND DETAILS
82	C	RETAINING WALL LAYOUT PLANS 1
83	C	RETAINING WALL LAYOUT PLANS 2
84	C C	MISCELLANEOUS SECTIONS AND DETAILS 1
85 86	C	MISCELLANEOUS SECTIONS AND DETAILS 2 MISCELLANEOUS SECTIONS AND DETAILS 3
87	c	MISCELLANEOUS SECTIONS AND DETAILS 3
	-	
	CAPING	
88 89	L	GENERAL LANDSCAPING NOTES OVERALL LANDSCAPING PLAN
89 90	L	LANDSCAPING PLAN - 1
90 91	L	LANDSCAPING PLAN - 1 LANDSCAPING PLAN - 2
92	L	LANDSCAPING DETAILS - 1
93	L	LANDSCAPING DETAILS - 2
	TECTURAL	
94 95	A A	FINISH, WINDOW AND DOOR SCHEDULES - 1 FINISH, WINDOW AND DOOR SCHEDULES - 2
95 96	A	FINISH, WINDOW AND DOOR SCHEDULES - 2
97	A	ROOF DETAILS - 1
98	A	ROOF DETAILS - 2
99	A	EXTERIOR DETAILS - 1
100	А	EXTERIOR DETAILS - 2
101	А	RETAINING WALL FINISHES
102	А	AERATION BASIN ELEVATIONS - 1
103	А	AERATION BASIN ELEVATIONS - 2
104	А	BLOWER BUILDING FLOOR PLAN
105	А	BLOWER BUILDING ROOF PLAN
106	A	BLOWER BUILDING ELEVATIONS - 1
107	A	BLOWER BUILDING ELEVATIONS - 2
108	A	BLOWER BUILDING SECTIONS AND DETAILS
109	A	SECONDARY CLARIFIER ELEVATIONS

#	TYPE	TITLE
110	А	RAS PUMP STATION ELEVATIONS
111	A	RAS PUMP STATION SECTIONS AND DETAILS
112	А	THICKENING/DEWATERING BUILDING FLOOR PLAN - A
113	А	THICKENING/DEWATERING BUILDING FLOOR PLAN - B
114	А	THICKENING/DEWATERING BUILDING FLOOR PLAN - C
115	А	THICKENING/DEWATERING BUILDING FLOOR PLAN - D
116	A	THICKENING/DEWATERING BUILDING INTERMEDIATE PLAN - A
117	A	THICKENING/DEWATERING BUILDING INTERMEDIATE PLAN - B
118	A	
119 120	A	THICKENING/DEWATERING BUILDING INTERMEDIATE PLAN - D THICKENING/DEWATERING BUILDING ROOF PLAN
120	A A	THICKENING/DEWATERING BUILDING ELEVATIONS - 1
121	A	THICKENING/DEWATERING BUILDING ELEVATIONS - 2
123	A	THICKENING/DEWATERING BUILDING SECTIONS AND DETAILS
124	А	THICKENING/DEWATERING BUILDING SECTIONS AND DETAILS
125	А	THICKENING/DEWATERING BUILDING SECTIONS AND DETAILS
126	А	THICKENING/DEWATERING BUILDING SECTIONS AND DETAILS
127	А	CAKE STORAGE AND LOADING AREA EXTERIOR ELEVATIONS -1
128	А	CAKE STORAGE AND LOADING AREA SECTIONS AND DETAILS
129	A	THICKENING/DEWATERING BUILDING DETAILS
130	А	THICKENING/DEWATERING BUILDING DETAILS
131	A	THICKENING/DEWATERING BUILDING DETAILS
132	A	MAINTENANCE BUILDING FLOOR PLAN
133 134	A A	MAINTENANCE BUILDING ROOF PLAN MAINTENANCE BUILDING INTERIOR PLANS - 1
134	A	MAINTENANCE BUILDING INTERIOR FLANS - 1
136	A	MAINTENANCE BUILDING EXTERIOR ELEVATIONS - 2
137	A	MAINTENANCE BUILDING INTERIOR ELEVATIONS - 1
138	А	REFLECTED CEILING PLANS
140	А	MAINTENANCE BUILDING SECTIONS AND DETAILS - 1
141	А	MAINTENANCE BUILDING SECTIONS AND DETAILS - 2
STRUC	TURAL	
142	S	RETAINING WALL AND HEADWALL LAYOUT KEY PLAN
143	S	RETAINING WALL PARTIAL PLANS
144	S	RETAINING / HEADWALL PARTIAL PLANS
145	S	TYPICAL RETAINING WALL SECTIONS AND DETAILS
146	S	HEADWALL PLAN
147	S	HEADWALL ELEVATION AND SECTION
148 149	S S	RETAINING WALL SECTIONS AND DETAILS FLOOD GATE PLAN, SECTIONS AND ELEVATION
149	S	RETAINING WALL SECTIONS AND DETAILS
151	S	CEPT FACILITY PLAN
152	S	CEPT FACILITY SECTIONS
153	S	CEPT FACILITY PLAN AND SECTIONS
154	S	AERATION BASIN 1&2 BOTTOM PLAN A
155	S	AERATION BASIN 1&2 BOTTOM PLAN B
156	S	AERATION BASIN 1&2 MIDDLE PLAN A
157	S	AERATION BASIN 1&2 MIDDLE PLAN B
158	S	AERATION BASIN 1&2 TOP PLAN A
159	S	AERATION BASIN 1&2 TOP PLAN B
160	S	AERATION BASIN 1&2 SECTIONS AND ELEVATIONS - 1
161 162	S S	AERATION BASIN 1&2 SECTIONS AND ELEVATIONS - 2
162 163	S	AERATION BASIN 1&2 SECTIONS AND ELEVATIONS - 3 AERATION BASIN 1&2 SECTIONS AND ELEVATIONS - 4
163	S	AERATION BASIN 1&2 SECTIONS AND ELEVATIONS - 4 AERATION BASIN 1&2 SECTIONS AND ELEVATIONS - 5
165	S	AERATION BASIN 182 - SECTIONS AND DETAILS - 1
166	S	AERATION BASIN 1&2 - SECTIONS AND DETAILS - 2

#	TYPE	TITLE
167	S	AERATION BASIN 1&2 - SECTIONS AND DETAILS - 3
168	S	AERATION BASIN 1&2 - SECTIONS AND DETAILS - 4
169	S	AERATION BASIN 1&2 - SECTIONS AND DETAILS - 5
170	S	AERATION BASIN 1&2 - SECTIONS AND DETAILS - 6
171	S	AERATION BASIN 1&2 - SECTIONS AND DETAILS - 7
172	S	AERATION BASIN 1&2 - SECTIONS AND DETAILS - 8
173	S	AERATION BASIN 1&2 - SECTIONS AND DETAILS - 9
174	S	BLOWER BUILDING FLOOR PLAN
175	S	BLOWER BUILDING ROOF PLAN
176	S	BLOWER BUILDING SECTIONS - 1
177	S	BLOWER BUILDING SECTIONS - 2
178	S	BLOWER BUILDING SECTIONS AND DETAILS - 1
179	S	BLOWER BUILDING SECTIONS AND DETAILS - 2
180	S	SECONDARY CLARIFIER KEY PLAN
181	S	SECONDARY CLARIFIER BOTTOM PLAN
182	S	SECONDARY CLARIFIER TOP PLAN AND SECTIONS
183	S	SECONDARY CLARIFIER SECTIONS AND DETAILS - 1
184	S	SECONDARY CLARIFIER SECTIONS AND DETAILS - 2
185	S	SECONDARY CLARIFIER SECTIONS AND DETAILS - 3
186	S	SECONDARY CLARIFIER SECTIONS AND DETAILS - 4
187	S	RAS/WAS PUMP STATION NO. 1 TOP PLAN
188	S	RAS/WAS PUMP STATION NO. 1 BOTTOM PLAN
189	S	RAS/WAS PUMP STATION NO. 1 SECTIONS AND DETAILS - 1
190	S	RAS/WAS PUMP STATION NO. 1 SECTIONS AND DETAILS - 2
191	S	RAS/WAS PUMP STATION NO. 1 SECTIONS AND DETAILS - 3
192	S	RAS/WAS PUMP STATION NO. 2 TOP PLAN
193	S	RAS/WAS PUMP STATION NO. 2 BOTTOM PLAN
194	S	RAS/WAS PUMP STATION NO. 2 SECTIONS AND DETAILS - 1
195	S	RAS/WAS PUMP STATION NO. 2 SECTIONS AND DETAILS - 2
196	S	RAS/WAS PUMP STATION NO. 2 SECTIONS AND DETAILS - 3
197	S	THICKENING/DEWATERING BUILDING OVERALL FLOOR PLAN THICKENING/DEWATERING BUILDING GROUND LEVEL PLAN A
198	S	THICKENING/DEWATERING BUILDING GROUND LEVEL PLAN A
199	S S	THICKENING/DEWATERING BUILDING GROUND LEVEL PLAN D
200 201	S	THICKENING/DEWATERING BUILDING GROUND LEVEL PLAN D
201	S	THICKENING/DEWATERING BUILDING INTERMEDIATE PLAN A
202	S	THICKENING/DEWATERING BUILDING INTERMEDIATE PLAN B
203	S	THICKENING/DEWATERING BUILDING INTERMEDIATE PLAN C
204	S	THICKENING/DEWATERING BUILDING INTERMEDIATE PLAN D
206	S	THICKENING/DEWATERING BUILDING ROOF PLAN
200	S	THICKENING/DEWATERING BUILDING CEILING PLAN & PARTIAL ROOF PLAN
208	S	THICKENING/DEWATERING BUILDING SECTIONS - 1
209	S	THICKENING/DEWATERING BUILDING SECTIONS - 2
210	S	THICKENING/DEWATERING BUILDING SECTIONS - 3
211	S	THICKENING/DEWATERING BUILDING SECTIONS - 4
212	S	THICKENING/DEWATERING BUILDING PARTIAL MEZZANINE FRAMING PLAN - 1
213	S	THICKENING/DEWATERING BUILDING PARTIAL MEZZANINE FRAMING PLAN - 2
214	S	THICKENING/DEWATERING BUILDING SECTIONS AND DETAILS - 1
215	S	THICKENING/DEWATERING BUILDING SECTIONS AND DETAILS - 2
216	S	THICKENING/DEWATERING BUILDING SECTIONS AND DETAILS - 3
217	S	THICKENING/DEWATERING BUILDING SECTIONS AND DETAILS - 4
218	S	THICKENING/DEWATERING BUILDING SECTIONS AND DETAILS - 5
219	S	THICKENING/DEWATERING BUILDING DETAILS - 1
220	S	THICKENING/DEWATERING BUILDING DETAILS - 2
221	S	THICKENING/DEWATERING BUILDING DETAILS - 3
222	S	CAKE STORAGE AND LOADING AREA PLAN
223	S	CAKE STORAGE AND LOADING AREA SECTIONS - 1
224	S	CAKE STORAGE AND LOADING AREA SECTIONS - 2

#	TYPE	TITLE
225	S	CAKE STORAGE AND LOADING AREA SECTIONS AND DETAILS - 1
226	S	CAKE STORAGE AND LOADING AREA SECTIONS AND DETAILS - 2
227	S	ODOR CONTROL FOUNDATION PLAN
228	S	ODOR CONTROL SECTIONS AND DETAILS - 1
229	S	ODOR CONTROL SECTIONS AND DETAILS - 2
230	S	SIDESTREAM TREATMENT BOTTOM PLAN
231	S	SIDESTREAM TREATMENT MIDDLE PLAN
232	S	SIDESTREAM TREATMENT TOP PLAN
233	S S	SIDESTREAM TREATMENT SECTIONS AND ELEVATIONS - 1 SIDESTREAM TREATMENT SECTIONS AND ELEVATIONS - 2
234 235	S	SIDESTREAM TREATMENT SECTIONS AND ELEVATIONS - 2 SIDESTREAM TREATMENT SECTIONS AND ELEVATIONS - 3
236	S	SIDESTREAM TREATMENT SECTIONS AND ELEVATIONS - 4
237	S	SIDESTREAM TREATMENT - SECTIONS AND DETAILS - 1
238	S	SIDESTREAM TREATMENT - SECTIONS AND DETAILS - 2
239	S	SIDESTREAM TREATMENT - SECTIONS AND DETAILS - 3
240	S	SIDESTREAM TREATMENT - SECTIONS AND DETAILS - 4
241	S	SIDESTREAM TREATMENT - SECTIONS AND DETAILS - 5
242	S	SIDESTREAM TREATMENT - SECTIONS AND DETAILS - 6
243	S	SIDESTREAM TREATMENT - SECTIONS AND DETAILS - 7
244	S	DIGESTER SUPERNATANT AREA PLAN - 1
245	S	DIGESTER SUPERNATANT AREA PLAN - 2
246	S	DIGESTER SUPERNATANT SECTIONS AND DETAILS
247 248	S S	DIGESTER SUPERNATANT SECTIONS AND DETAILS STANDBY GENERATOR FOUNDATION PLAN
248 249	S	STANDBY GENERATOR SECTIONS AND DETAILS - 1
249 250	S	STANDBY GENERATOR FUEL TANK PLAN
251	S	STANDBY GENERATOR FUEL TANK SECTIONS AND DETAILS - 1
252	S	MAINTENANCE BUILDING FOUNDATION PLAN
253	S	MAINTENANCE BUILDING ROOF PLAN
254	S	MAINTENANCE BUILDING SECTIONS AND DETAILS - 1
255	S	MAINTENANCE BUILDING SECTIONS AND DETAILS - 2
256	S	MAINTENANCE BUILDING SECTIONS AND DETAILS - 3
257	S	MAINTENANCE BUILDING SECTIONS AND DETAILS - 4
258	S	MAINTENANCE BUILDING FRAMING DETAILS - 1
259	S	MAINTENANCE BUILDING FRAMING DETAILS - 2 MAINTENANCE BUILDING FOUNDATION DETAILS -1
260 261	S S	MAINTENANCE BUILDING FOUNDATION DETAILS - 1 MAINTENANCE BUILDING FOUNDATION DETAILS - 2
262	S	SECONDARY TRANSFORMER PLAN
263	S	SECONDARY TRANSFORMER SECTIONS AND DETAILS - 1
264	S	SECONDARY TRANSFORMER DETAILS
265	S	THICKENING/DEWATERING TRANSFORMER PLAN
266	S	THICKENING/DEWATERING TRANSFORMER SECTIONS AND DETAILS - 1
267	S	THICKENING/DEWATERING TRANSFORMER DETAILS
268	S	TUNNEL/UTILIDOR TYPICAL BOTTOM PLAN
269	S	TUNNEL/UTILIDOR TYPICAL TOP PLAN
270	S	TUNNEL/UTILIDOR SECTIONS AND DETAILS - 1
271	S	TUNNEL/UTILIDOR SECTIONS AND DETAILS - 2
272	S S	TUNNEL/UTILIDOR SECTIONS AND DETAILS - 3
273 274	S	MISCELLANEOUS DETAILS - 1 MISCELLANEOUS DETAILS - 2
274	S	MISCELLANEOUS DETAILS - 2 MISCELLANEOUS DETAILS - 3
276	S	MISCELLANEOUS DETAILS - 4
277		VENTILATION TO ODOR CONTROL SCHEMATIC
277 278	M M	VENTILATION TO ODOR CONTROL SCHEMATIC VENTILATION TO ATMOSPHERE SCHEMATIC
278	M	CEPT FACILITY PLAN
280	M	CEPT FACILITY SECTIONS
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#	TYPE	TITLE
281	М	CEPT FACILITY SECTIONS 2
282	М	CEPT FACILITY SECTIONS 3
283	М	AERATION BASIN NO. 1&2 BOTTOM PLAN A
284	М	AERATION BASIN NO. 1&2 BOTTOM PLAN B
285	М	AERATION BASIN NO. 1&2 TOP PLAN A
286	М	AERATION BASIN NO. 1&2 TOP PLAN B
287	М	AERATION BASIN NO. 1&2 PARTIAL PLANS A
288	М	AERATION BASIN NO. 1&2 PARTIAL PLANS B
289	м	AERATION BASIN NO. 1&2 SECTIONS AND DETAILS - 1
290 291	M	AERATION BASIN NO. 1&2 SECTIONS AND DETAILS - 2 AERATION BASIN NO. 1&2 SECTIONS AND DETAILS - 3
291	M M	AERATION BASIN NO. 1&2 SECTIONS AND DETAILS - 3 AERATION BASIN NO. 1&2 SECTIONS AND DETAILS - 4
292	M	AERATION BASIN NO. 1&2 SECTIONS AND DETAILS - 4
294	M	AERATION BASIN NO. 1&2 SPRAY WATER ISOMETRIC AND DETAILS
295	M	AERATION BASIN NO. 1&2 DETAILS - 1
296	М	AERATION BASIN NO. 1&2 DETAILS - 2
298	М	AERATION BASIN DIFFUSER DETAILS
299	М	BLOWER BUILDING FLOOR PLAN
300	Μ	BLOWER BUILDING TOP PLAN
301	М	BLOWER BUILDING SECTIONS - 1
302	М	BLOWER BUILDING SECTIONS - 2
303	Μ	BLOWER BUILDING SECTIONS AND DETAILS - 1
304	Μ	BLOWER BUILDING SECTIONS AND DETAILS - 2
305	M	SECONDARY CLARIFIER KEY PLAN
306	м	SECONDARY CLARIFIER PLAN
307	м	SECONDARY CLARIFIER PARTIAL PLAN AND DETAILS
308 309	M	SECONDARY CLARIFIER SECTIONS SECONDARY CLARIFIER SECTIONS AND DETAILS
309 310	M M	RAS/WAS PUMP STATION NO. 1 PLAN
310	M	RAS/WAS FOMF STATION NO. 1 FEAN RAS/WAS PUMP STATION NO. 1 SECTIONS - 1
312	M	RAS/WAS PUMP STATION NO. 1 SECTIONS - 2
313	M	RAS/WAS PUMP STATION NO. 1 SECTIONS AND DETAILS - 1
314	M	RAS/WAS PUMP STATION NO. 1 SECTIONS AND DETAILS - 2
315	М	RAS/WAS PUMP STATION NO. 2 PLAN
316	М	RAS/WAS PUMP STATION NO. 2 SECTIONS - 1
317	М	RAS/WAS PUMP STATION NO. 2 SECTIONS - 2
318	Μ	RAS/WAS PUMP STATION NO. 2 SECTIONS AND DETAILS - 1
319	М	<b>RAS/WAS PUMP STATION NO. 2 SECTIONS AND DETAILS - 2</b>
320	Μ	THICKENING/DEWATERING BUILDING OVERALL KEY PLAN
321	М	THICKENING/DEWATERING BUILDING OVERALL ROOF DRAINAGE PLAN
322	M	THICKENING/DEWATERING BUILDING GROUND LEVEL PLAN - AREA A THICKENING/DEWATERING BUILDING GROUND LEVEL PLAN - AREA B
323	м	THICKENING/DEWATERING BUILDING GROUND LEVEL PLAN - AREA B
324	M	THICKENING/DEWATERING BUILDING GROUND LEVEL PLAN - AREA C
325 326	M M	THICKENING/DEWATERING BUILDING INTERMEDIATE PLAN - AREA A
327	M	THICKENING/DEWATERING BUILDING INTERMEDIATE PLAN - AREA B
328	M	THICKENING/DEWATERING BUILDING INTERMEDIATE PLAN - AREA C
329	M	THICKENING/DEWATERING BUILDING INTERMEDIATE PLAN - AREA D
330	M	THICKENING/DEWATERING BUILDING - SECTIONS AND DETAILS
331	M	THICKENING/DEWATERING BUILDING - SECTIONS AND DETAILS
332	М	THICKENING/DEWATERING BUILDING - SECTIONS AND DETAILS
333	М	THICKENING/DEWATERING BUILDING - SECTIONS AND DETAILS
334	М	THICKENING/DEWATERING BUILDING - SECTIONS AND DETAILS
335	М	THICKENING/DEWATERING BUILDING - SECTIONS AND DETAILS
336	М	THICKENING/DEWATERING BUILDING - DETAILS
337	М	
338	Μ	
339	М	THICKENING/DEWATERING BUILDING - DETAILS

#	TYPE	TITLE
340	М	THICKENING/DEWATERING BUILDING HVAC SCHEMATIC
341	M	HVAC THICKENING/DEWATERING BUILDING GROUND LEVEL PLAN - AREA A
342	M	HVAC THICKENING/DEWATERING BUILDING GROUND LEVEL PLAN - AREA B
343	M	HVAC THICKENING/DEWATERING BUILDING GROUND LEVEL PLAN - AREA C
344	M	HVAC THICKENING/DEWATERING BUILDING GROUND LEVEL PLAN - AREA D
345	M	HVAC THICKENING/DEWATERING BUILDING INTERMEDIATE LEVEL PLAN - AREA A
346	М	HVAC THICKENING/DEWATERING BUILDING INTERMEDIATE LEVEL PLAN - AREA B
347	М	HVAC THICKENING/DEWATERING BUILDING INTERMEDIATE LEVEL PLAN - AREA C
348	М	HVAC THICKENING/DEWATERING BUILDING INTERMEDIATE LEVEL PLAN - AREA D
349	М	HVAC THICKENING/DEWATERING BUILDING - AIR FLOW SCHEMATIC
350	Μ	HVAC THICKENING/DEWATERING BUILDING AREA A - SECTIONS AND DETAILS
351	Μ	HVAC THICKENING/DEWATERING BUILDING AREA A - SECTIONS AND DETAILS
352	Μ	PL THICKENING/DEWATERING BUILDING GROUND LEVEL PLAN - AREA A
353	Μ	PL THICKENING/DEWATERING BUILDING GROUND LEVEL PLAN - AREA B
354	Μ	PL THICKENING/DEWATERING BUILDING GROUND LEVEL PLAN - AREA D
355	Μ	PL THICKENING/DEWATERING INTERMEDIATE LEVEL PLAN - AREA A
356	Μ	PL THICKENING/DEWATERING BUILDING INTERMEDIATE LEVEL PLAN - AREA B
357	Μ	PL THICKENING/DEWATERING BUILDING INTERMEDIATE LEVEL PLAN - AREA C
358	Μ	PL THICKENING/DEWATERING BUILDING INTERMEDIATE LEVEL PLAN - AREA D
359	М	PL THICKENING/DEWATERING BUILDING - SECTIONS AND DETAILS
360	Μ	PL THICKENING/DEWATERING BUILDING - SECTIONS AND DETAILS
361	M	PL THICKENING/DEWATERING BUILDING - SECTIONS AND DETAILS
362	M	PL THICKENING/DEWATERING BUILDING - SECTIONS AND DETAILS
363	M	FP - THICKENING/DEWATERING BUILDING PLAN THICKENING/DEWATERING BUILDING - ISOMETRIC I
364	М	THICKENING/DEWATERING BUILDING - ISOMETRIC II AND AGING TANK DETAILS
365	M	CAKE STORAGE AND LOADING AREA TOP PLAN
366	M	CAKE STORAGE AND LOADING AREA FOR PLAN
367	M	CAKE STORAGE AND LOADING AREA SECTIONS - 1
368 369	M	CAKE STORAGE AND LOADING AREA DETAILS - 1
369	M M	SIDESTREAM TREATMENT BOTTOM PLAN
370	M	SIDESTREAM TREATMENT DO PLAN
372	M	SIDESTREAM TREATMENT FOR FEAR
373	M	SIDESTREAM TREATMENT FACTIONS AND DETAILS - 1
374	M	SIDESTREAM TREATMENT SECTIONS AND DETAILS - 2
375	M	SIDESTREAM TREATMENT SECTIONS AND DETAILS - 3
376	М	SIDESTREAM TREATMENT DETAILS - 1
377	М	SIDESTREAM TREATMENT DETAILS - 2
378	М	ODOR CONTROL FACILITY PLAN
379	М	ODOR CONTROL FACILITY SECTIONS AND DETAILS
380	М	ODOR CONTROL FACILITY SECTION
381	М	ODOR CONTROL FACILITY TYPICAL SCHEMATIC
382	Μ	ODOR CONTROL FACILITY PARTIAL PLAN AND SECTION FOR STROBIC FANS
383	Μ	DIGESTER SUPERNATANT AREA PIPING PLAN
384	Μ	DIGESTER SUPERNATANT SECTIONS AND DETAILS - 1
385	Μ	DIGESTER SUPERNATANT SECTIONS AND DETAILS - 2
386	Μ	DIGESTER SUPERNATANT DETAILS
387	Μ	SECONDARY TRANSFORMER PLAN, SECTIONS AND DETAILS
388	М	THICKENING/DEWATERING TRANSFORMER PLAN, SECTIONS AND DETAILS
389	М	STANDBY GENERATOR PLAN
390	M	STANDBY GENERATOR SECTIONS AND DETAILS
391	M	STANDBY GENERATOR FUEL TANK - PLAN
392	M	STANDBY GENERATOR FUEL TANK - SECTION
393	M	STANDBY GENERATOR FUEL TANK - SCHEMATIC
394	M	FUEL OIL SYSTEM - DAY TANK PLAN, ELEVATIONS, AND DETAIL
395	M	MAINTENANCE BUILDING BOTTOM PLAN
396 207	M	MAINTENANCE BUILDING VENTILATION PLAN
397	М	MAINTENANCE BUILDING SECTIONS - 1

#	TYPE	TITLE
398	м	MAINTENANCE BUILDING SECTIONS - 2
399	М	MAINTENANCE BUILDING SECTIONS AND DETAILS
400	М	FP - MAINTENANCE BUILDING PLAN
401	Μ	UTILIDOR MECHANICAL KEY PLAN
402	М	TUNNEL/UTILIDOR PLAN AND PROFILES - 1
403	М	TUNNEL/UTILIDOR PLAN AND PROFILES - 2
404	Μ	TUNNEL/UTILIDOR PLAN AND PROFILES - 3
405	М	TUNNEL/UTILIDOR PLAN AND PROFILES - 4
406	М	TUNNEL/UTILIDOR PLAN AND PROFILES - 5
407	M	TUNNEL/UTILIDOR VENTILATION PLANS
408	M	
409	M	TUNNEL/UTILIDOR DRAIN AND DEWATERING PLAN
410	М	TUNNEL/UTILIDOR DRAIN AND DEWATERING SECTIONS AND DETAILS
ELECT	RICAL	
411	E	ELECTRICAL LEGEND
412	E	ELECTRICAL ABBREVIATIONS
413	E	ELECTRICAL GENERAL NOTES
414	E	
415	E	
416	E	ELECTRICAL MANHOLE/HANDHOLE SCHEDULE
417	E	
418 419	E	AREA 1 ELECTRICAL PLAN AREA 2 ELECTRICAL PLAN
419	E	AREA 3 ELECTRICAL PLAN
420	E	AREA 3 ELECTRICAL PLAN
422	E	AREA 5 ELECTRICAL PLAN
423	Ē	AREA 6 ELECTRICAL PLAN
424	Ē	DUCT BANK SECTIONS - I
425	Е	DUCT BANK SECTIONS - II
426	E	DUCT BANK SECTIONS - III
427	E	DUCT BANK SECTIONS - IV
428	E	DUCT BANK SECTIONS - V
429	E	DUCT BANK SECTIONS - VI
430	E	DUCT BANK SECTIONS - VII
431	E	DUCT BANK SECTIONS - VIII
432	E	DUCT BANK SECTIONS - IX
433	E	DUCT BANK SECTIONS - X
434	E	DUCT BANK SECTIONS - XI
435	E	DUCT BANK SECTIONS - XII
436	E	DUCT BANK SECTIONS - XIIII
437	E	
438 439	E	SWGR-363 - 12KV ELEVATION
439 440	E	SWGR-363 - 12KV ONE-LINE DIAGRAM - I SWGR-363 - 12KV_ONE-LINE DIAGRAM - II
440	E	AERATION SWITCHGEAR ELEVATION
442	E	AERATION SWITCHGEAR ONE-LINE DIAGRAM I
443	Ē	AERATION SWITCHGEAR ONE-LINE DIAGRAM I
444	E	SSG - 2500KVA XMFR EXISTING WPCP ELEVATION
445	E	SSG - 2500KVA XMFR EXISTING WPCP ONE-LINE DIAGRAM I
446	E	SSG - 2500KVA XMFR EXISTING WPCP ONE-LINE DIAGRAM II
447	Е	SSG - 2500KVA XMFR EXISTING WPCP ONE-LINE DIAGRAM III
448	Е	SSG - 2500KVA XMFR EXISTING WPCP ONE-LINE DIAGRAM IV
449	E	SSG - 2500KVA XMFR EXISTING WPCP ONE-LINE DIAGRAM V
450	E	SSG - 2500KVA XMFR EXISTING WPCP ONE-LINE DIAGRAM VI
451	E	SSG - 2500KVA XMFR EXISTING WPCP ONE-LINE DIAGRAM VII
452	E	THICKENING/DEWATERING SWITCHGEAR ELEVATION
453	E	THICKENING/DEWATERING SWITCHGEAR ONE-LINE DIAGRAM I

#	TYPE	TITLE
454	Е	THICKENING/DEWATERING SWITCHGEAR ONE-LINE DIAGRAM I
455	E	MAINTENANCE/ADMIN SWITCHGEAR ELEVATION
456	E	MAINTENANCE/ADMIN SWITCHGEAR ONE-LINE DIAGRAM - I
457	E	MAINTENANCE/ADMIN SWITCHGEAR ONE-LINE DIAGRAM - II
458	Е	SECONDARY SWITCHGEAR ELEVATION
459	Е	SECONDARY SWITCHGEAR ONE-LINE DIAGRAM - I
460	Е	SECONDARY SWITCHGEAR ONE-LINE DIAGRAM - II
461	Е	MCC-1 ELEVATION
462	E	MCC-1 ONE-LINE DIAGRAM - I
463	E	MCC-1 ONE-LINE DIAGRAM - II
464	E	MCC-1 ONE-LINE DIAGRAM - III
465	E	MCC-1 ONE-LINE DIAGRAM - IV
466	E	MCC-1 PANEL SCHEDULES
467	E	MCC-2 ELEVATION
468	E	MCC-2 ONE-LINE DIAGRAM - I
469	E	MCC-2 ONE-LINE DIAGRAM - II
470	E	MCC-2 ONE-LINE DIAGRAM - III
471	E	MCC-2 ONE-LINE DIAGRAM - IV
472	E	MCC-2 PANEL SCHEDULES
473	E	MCC-3 ELEVATION
474	E	MCC-3 ONE-LINE DIAGRAM - I
475	E	MCC-3 ONE-LINE DIAGRAM - II
476	E	MCC-3 ONE-LINE DIAGRAM - III
477	E	MCC-3 ONE-LINE DIAGRAM - IV
478	E	MCC-3 PANEL SCHEDULES
479	E	MCC- 4 ELEVATION
480	E	MCC-4 ONE-LINE DIAGRAM - I
481	E	MCC-4 ONE-LINE DIAGRAM - II
482	E	MCC-4 ONE-LINE DIAGRAM - III
483	E	MCC-4 ONE-LINE DIAGRAM - IV
484	E	MCC-4 PANEL SCHEDULES
485	E	MCC-5 ELEVATION
486	E	MCC-5 ONE-LINE DIAGRAM - I
487	E	MCC-5 ONE-LINE DIAGRAM - II
488	E	MCC-5 ONE-LINE DIAGRAM - III
489	E	MCC-5 ONE-LINE DIAGRAM - IV
490	E	MCC-5 PANEL SCHEDULES
491	E	MCC-6 ELEVATION
492	E	MCC-6 ONE-LINE DIAGRAM - I
493	E	
494	E	
495	E	MCC-6 ONE-LINE DIAGRAM - IV MCC-6 PANEL SCHEDULES
496 497	E	CEPT FACILITY POWER PLAN
	E	CEPT FACILITY LIGHTING AND GROUNDING PLAN
498 499	E	AERATION BASIN NO. 1 POWER PLAN
499 500	E	AERATION BASIN NO. 1 LIGHTING AND GROUNDING PLAN
500 501	E	AERATION BASIN NO. 2 POWER PLAN
502	E	AERATION BASIN NO. 2 LIGHTING AND GROUNDING PLAN
502	E	BLOWER BUILDING UNDERGROUND POWER PLAN
503 504	E	BLOWER BUILDING POWER PLAN 1
504 505	E	BLOWER BUILDING POWER PLAN 1
505 506	E	BLOWER BUILDING LIGHTING AND GROUNDING PLAN
500 507	E	BLOWER BUILDING CONDUIT SCHEDULE I
507	E	BLOWER BUILDING CONDUIT SCHEDULE I
508 509	E	BLOWER BUILDING CONDUIT SCHEDULE III
509 510	E	BLOWER BUILDING CONDUIT SCHEDULE IN
510	E	BLOWER BUILDING CONDUIT SCHEDULE V
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#	TYPE	TITLE
512	Е	BLOWER BUILDING CONDUIT SCHEDULE VI
513	E	BLOWER BUILDING CONDUIT SCHEDULE VI
514	Ē	BLOWER BUILDING CONDUIT SCHEDULE VIII
515	Ē	SECONDARY CLARIFIER NO. 1 POWER PLAN
516	Е	SECONDARY CLARIFIERS NO. 1 LIGHTING AND GROUNDING PLAN
517	Е	SECONDARY CLARIFIER NO. 2 POWER PLAN
518	Е	SECONDARY CLARIFIERS NO. 2 LIGHTING AND GROUNDING PLAN
519	Е	SECONDARY CLARIFIER NO. 3 POWER PLAN
520	E	SECONDARY CLARIFIERS NO. 3 LIGHTING AND GROUNDING PLAN
521	Е	RAS/WAS PUMP STATION NO. 1 POWER PLAN
522	E	RAS/WAS PUMP STATION NO. 1 LIGHTING AND GROUNDING PLAN
523	E	RAS/WAS PUMP STATION NO. 2 POWER PLAN
524	E	RAS/WAS PUMP STATION NO. 2 LIGHTING AND GROUNDING PLAN
525	E	SCUM PUMP STATION NO. 1 AND 2 POWER PLAN
526	E	SCUM PUMP STATION NO. 1 AND 2 LIGHTING AND GROUNDING PLAN
527	E	SECONDARY CONDUIT SCHEDULE I
528	E	SECONDARY CONDUIT SCHEDULE II
529	E	SECONDARY CONDUIT SCHEDULE III
530	E	SECONDARY CONDUIT SCHEDULE IV
531	E	SECONDARY CONDUIT SCHEDULE V
532	E	SECONDARY CONDUIT SCHEDULE VI
533	E	SECONDARY CONDUIT SCHEDULE VII
534	E	SECONDARY CONDUIT SCHEDULE VIII
535	E	THICKENING/DEWATERING BUILDING POWER PLAN 1
536	E	THICKENING/DEWATERING BUILDING POWER PLAN 2
537	E	THICKENING/DEWATERING BUILDING POWER PLAN 3
538	E	THICKENING/DEWATERING LIGHTING AND GROUNDING PLAN 1
539	E	THICKENING/DEWATERING LIGHTING AND GROUNDING PLAN 2
540	E	THICKENING/DEWATERING LIGHTING AND GROUNDING PLAN 3
541	E	SIDESTREAM TREATMENT POWER PLAN
542	E	SIDESTREAM TREATMENT LIGHTING AND GROUNDING PLAN
543	E	ODOR CONTROL POWER PLAN
544	E	ODOR CONTROL LIGHTING AND GROUNDING PLAN
545	E	SUPERNATANT PUMP STATION POWER PLAN 1
546	E	SUPERNATANT PUMP STATION POWER PLAN 2
547	E	SUPERNATANT PUMP STATION LIGHTING AND GROUNDING PLAN 1
548	E	SUPERNATANT PUMP STATION LIGHTING AND GROUNDING PLAN 2
549	E	SWITCHGEAR BUILDING POWER PLAN
550	E	THICKENING/DEWATERING CONDUIT SCHEDULE I
551	E	THICKENING/DEWATERING CONDUIT SCHEDULE II
552	E	
553	E	THICKENING/DEWATERING CONDUIT SCHEDULE IV
554 555	E	THICKENING/DEWATERING CONDUIT SCHEDULE V
555	E	THICKENING/DEWATERING CONDUIT SCHEDULE VI
556	E	GENERATOR AREA POWER PLAN MAINTENANCE BUILDING POWER PLAN
557	E	MAINTENANCE BUILDING POWER PLAN MAINTENANCE BUILDING LIGHTING AND GROUNDING PLAN
558	E	
559 560	E	PRIMARY EFFLUENT JUNCTION BOX POWER PLAN PRIMARY EFFLUENT JUNCTION BOX LIGHTING AND GROUNDING PLAN
561 562	E	WAS FEED POWER AND CONTROL PLAN WAS FEED LIGHTING AND GROUNDING PLAN
562 563	Ē	WAS FEED LIGHTING AND GROUNDING PLAN WAS FEED UNDERGROUND PLAN
563 564	E	
564 565	E	WAS FEED ROOF PLAN TUNNEL/UTILIDOR POWER PLAN
565 566	Ē	
566 567	Ē	TUNNEL/UTILIDOR LIGHTING AND GROUNDING PLAN MISC CONDUIT SCHEDULE - I
567 568	E	MISC CONDUIT SCHEDULE - II MISC CONDUIT SCHEDULE - II
568 569	E	MISC CONDUIT SCHEDULE - II MISC CONDUIT SCHEDULE - III
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#	TYPE	TITLE
570	E	MISC CONDUIT SCHEDULE - IV
571	E	MISC CONDUIT SCHEDULE - V
INSTRU	JMENTATION	
572	N	SYMBOLS AND ABBREVIATIONS - I
573	Ν	SYMBOLS AND ABBREVIATIONS - II
574	Ν	SYMBOLS AND ABBREVIATIONS - III
575	Ν	SYMBOLS AND ABBREVIATIONS - IV
576	Ν	SYMBOLS AND ABBREVIATIONS -V
577	Ν	SCHEMATIC SYMBOLS
578	Ν	ACS PROCESS AREA NUMBERING SYSTEM
579	Ν	SAMPLE LOOP DIAGRAM
580	Ν	ACS SITE PLAN
581	Ν	ACS BLOCK DIAGRAM
582	Ν	ACS INTEGRATION - 1
583	Ν	ACS INTEGRATION - 2
584	N	CONTROL SCHEMATICS - I
585	N	CONTROL SCHEMATICS - II
586	N	CONTROL SCHEMATICS - III
587	N	CONTROL SCHEMATICS - IV
588	N	CONTROL SCHEMATICS - V
589	N	CONTROL SCHEMATICS - VI
590	N	CONTROL SCHEMATICS - VII
591	N	CONTROL SCHEMATICS - VIII
592	N	CONTROL SCHEMATICS - IX
593	N	CONTROL SCHEMATICS - X
594	N	CONTROL SCHEMATICS - XI
595	N	CONTROL SCHEMATICS - XII
596	N	CONTROL SCHEMATICS - XIII
597	N	CONTROL SCHEMATICS - XIV
598	N	CONTROL SCHEMATICS - XV
599	N	CONTROL PANELS - COMMUNICATIONS CABINET ENCLOSURE DETAIL CLOSED CABINET
600	N N	CONTROL PANELS - FIBER OPTIC PATCH PANEL DETAIL 1
601	N	CONTROL PANELS - FIBER OPTIC PATCH PANEL DETAIL 2 CONTROL PANELS - TYPICAL PCM TYPE-1 PANEL ELEVATION
602 603	N	CONTROL PANELS - TYPICAL PCM TYPE-TPANEL ELEVATION CONTROL PANELS - TYPICAL PCM TYPE-2 PANEL ELEVATION
604	N	LOCAL CONTROL PANEL ELEVATIONS - I
605	N	LOCAL CONTROL PANEL ELEVATIONS - I
606	N	LOCAL CONTROL PANEL ELEVATIONS - III
607	N	LOCAL CONTROL PANEL ELEVATIONS - IV
608	N	CONTROL PANELS - WIRELESS ACCESS POINTS COVERAGE TUNING - I
609	N	CONTROL PANELS - WIRELESS ACCESS POINTS COVERAGE TUNING - II
610	N	CONTROL PANELS - WIRELESS ACCESS POINTS COVERAGE TUNING - III
611	N	CONTROL PANELS - ACS I/O TABLES - I
612	N	CONTROL PANELS - ACS I/O TABLES - II
613	N	CONTROL PANELS - ACS I/O TABLES - III
614	Ν	CONTROL PANELS - TYPICAL PCM AND COMMUNICATIONS CABINETS
615	Ν	CONTROL PANELS - MISC
616	Ν	CONTROL PANELS - MISC
617	Ν	CONTROL PANELS - MISC
618	Ν	SCADA BLOCK DIAGRAM
619	Ν	PLC-1 FIELD NETWORK - 1
620	Ν	PLC-1 FIELD NETWORK - 2
621	Ν	PLC-1 FIELD NETWORK - 3
622	Ν	PLC-1 FIELD NETWORK - 4
623	Ν	PLC-1 FIELD NETWORK - 5
624	Ν	PLC-1 FIELD NETWORK - 6
625	Ν	PLC-1 FIELD NETWORK - 7

#	TYPE	TITLE
626	Ν	PLC-1 FIELD NETWORK - 8
627	N	PLC-1 FIELD NETWORK - 9
628	Ν	CEPT FACILITY - POLYMER 1 P&ID
629	Ν	CEPT FACILITY - POLYMER 2 P&ID
630	Ν	CEPT FACILITY - POLYMER 3 P&ID
631	N	CEPT FACILITY - FERRIC CHLORIDE 1 P&ID
632	N	CEPT FACILITY - FERRIC CHLORIDE 2 P&ID
633	N	CEPT FACILITY EYEWASH STATIONS P&ID
634	N	AERATION BASIN NO. 1 - P&ID
635	N	AERATION BASIN NO. 1 - P&ID
636	N	AERATION BASIN NO. 1 - P&ID
637	N N	AERATION BASIN NO. 2 - P&ID
638 630	N	AERATION BASIN NO. 2 - P&ID
639 640	N	AERATION BASIN NO. 2 - P&ID BLOWER NO. 1 - P&ID
640 641	N	BLOWER NO. 2 - P&ID
642	N	BLOWER NO. 3 - P&ID
643	N	BLOWER BUILDING HVAC - P&ID
644	N	BLOWER BUILDING HVAC - P&ID
645	Ν	SECONDARY CLARIFIER NO. 1 - P&ID
646	Ν	SECONDARY CLARIFIER NO. 2 - P&ID
647	Ν	SECONDARY CLARIFIER NO. 3 - P&ID
648	N	RAS PUMP STATION NO. 1 - P&ID
649	Ν	RAS PUMP STATION NO. 1 - P&ID
650	Ν	RAS PUMP STATION NO. 1 - P&ID
651	N	WAS PUMP NO. 1 - P&ID
652	N	WAS PUMP NO. 2 - P&ID
653	N	RAS PUMP STATION NO. 2 - P&ID
654	N	RAS PUMP STATION NO. 2 - P&ID
655	N	RAS PUMP STATION NO. 2 - P&ID
656	N	WAS PUMP NO. 3 - P&ID
657	N	WAS PUMP NO. 4 - P&ID
658 650	N N	SCUM PUMP STATION NO. 1 - P&ID SCUM PUMP STATION NO. 2 - P&ID
659 660	N	SAMPLE STATION - P&ID
661	N	THICKENING 1 - P&ID
662	N	THICKENING 2 - P&ID
663	N	THICKENING 3 - P&ID
664	N	TWAS PUMPING 1 - P&ID
665	Ν	TWAS PUMPING 2 - P&ID
666	Ν	TWAS PUMPING 3 - P&ID
667	Ν	FILTRATE PUMPING 1 - P&ID
668	Ν	FILTRATE PUMPING 2 - P&ID
669	N	DIGESTER SUPERNATANT
670	N	DIGESTER SUPERNATANT
671	N	DIGESTED SLUDGE STORAGE TANK
672	N	DIGESTED SLUDGE GAS SYSTEM
673	N	DEWATERING FEED PUMP 1 - P&ID
674	N	DEWATERING FEED PUMP 2 - P&ID
675	N	DEWATERING 1 - P&ID
676 677	N N	DEWATERING 2 - P&ID
677 678	N N	DEWATERING 3 - P&ID CAKE PUMP 1 - P&ID
678 679	N	CAKE PUMP 1 - P&ID CAKE PUMP 2 - P&ID
680	N	THICKENING POLYMER 1 - P&ID
681	N	THICKENING POLYMER 2 - P&ID
682	N	DEWATERING POLYMER 1 - P&ID
683	N	DEWATERING POLYMER 2 - P&ID

#	TYPE	TITLE
684	Ν	THICKENING/DEWATERING BUILDING HVAC - P&ID
685	Ν	THICKENING DEWATERING BUILDING HVAC - P&ID
686	Ν	CAKE LOADING 1 - P&ID
687	N	CAKE LOADING 2 - P&ID
688	N	SIDESTREAM TREATMENT 1 - P&ID
689	N	SIDESTREAM TREATMENT 2 - P&ID
690	N	SIDESTREAM TREATMENT 3 - P&ID
691 002	N	SIDESTREAM TREATMENT 4 - P&ID
692 693	N N	SIDESTREAM TREATMENT 5 - P&ID SIDESTREAM TREATMENT 6 - P&ID
693 694	N	SIDESTREAM TREATMENT 6 - PAID SIDESTREAM TREATMENT 7 - P&ID
695	N	ODOR CONTROL 1 - P&ID
696	N	ODOR CONTROL 2 - P&ID
697	N	PRIMARY EFFLUENT DISTRIBUTION STRUCTURE - P&ID
698	N	DIGESTER PUMP STATION - P&ID
699	Ν	DIGESTER PUMP STATION - P&ID
700	Ν	SWITCHGEAR P&ID - I
701	Ν	SWITCHGEAR P&ID - II
702	Ν	SWITCHGEAR P&ID - III
703	Ν	GENERATOR NO. 1 - I P&ID
704	N	GENERATOR NO. 1 - II P&ID
705	N	MAINTENANCE BUILDING HVAC - P&ID
706	Ν	TUNNEL/UTILIDOR HVAC - P&ID
DEMOL		
707	D	OVERALL SITE PLAN
708	D	EXISTING SITE YARD PIPING PLAN
709	D	AUXILIARY PUMP STATION AREA PLAN
710 711	D D	AUXILIARY PUMP STATION PLAN, SECTIONS, AND DETAILS AUXILIARY PUMP STATION SECTIONS AND DETAILS
712	D	AUXILIARY PUMP STATION SECTIONS AND DETAILS
713	D	AUXILIARY PUMP STATION TEMPORARY POWER PLAN
714	D	AUXILIARY PUMP STATION APS MCC
715	D	AUXILIARY PUMP STATION STRUCTURAL PLANS AND SECTION
716	D	PRIMARY SEDIMENTATION TANKS NO. 1 - 3 MECHANICAL PLAN
717	D	PRIMARY SEDIMENTATION TANKS NO. 1 - 3 MECHANICAL SECTIONS
718	D	PRIMARY SEDIMENTATION TANKS NO. 1 - 3 MECHANICAL PLAN, SECTIONS AND DETAIL
719	D	PRIMARY SEDIMENTATION TANKS NO. 1 - 3 MECHANICAL PLANS
720	D	PRIMARY SEDIMENTATION TANKS NO. 1 - 3 MECHANICAL SECTIONS AND DETAIL
721	D	PRIMARY SEDIMENTATION TANKS NO. 4 - 6 MECHANICAL PLAN
722	D	PRIMARY SEDIMENTATION TANKS NO. 4 - 6 MECHANICAL SECTIONS AND DETAILS
723	D	PRIMARY SEDIMENTATION TANKS NO. 4 - 6 MECHANICAL PLAN AND SECTIONS
724	D	PRIMARY SEDIMENTATION TANKS NO. 4 - 6 MECHANICAL PLANS
725	D	PRIMARY SEDIMENTATION TANKS NO. 7 - 9 MECHANICAL PLAN AND PHOTO
726 727	D D	PRIMARY SEDIMENTATION TANKS NO. 7 - 9 MECHANICAL PLAN PRIMARY SEDIMENTATION TANKS NO. 7 - 9 MECHANICAL SECTIONS AND PHOTOS
728	D	PRIMARY SEDIMENTATION TANKS NO. 7 - 9 MECHANICAL SECTIONS AND FITOTOS
729	D	PRIMARY SEDIMENTATION TANKS NO. 7 - 10 MECHANICAL PLAN
730	D	PRIMARY SEDIMENTATION TANKS NO. 7 - 10 MECHANICAL PLANS
731	D	PRIMARY SEDIMENTATION TANKS NO. 7 - 10 MECHANICAL SECTIONS
732	D	PRIMARY SEDIMENTATION TANK NO. 10 MECHANICALS PLAN, SECTIONS, AND DETAILS
733	D	PRIMARY SEDIMENTATION TASK NO. 10 MECHANICAL SECTIONS AND DETAILS
734	D	GRIT SCREENING DEWATERING FACILITY MECHANICAL PLANS AND SECTIONS
735	D	PRIMARY SEDIMENTATION TANKS PHOTOS
736	D	PRIMARY SEDIMENTATION TANKS PHOTOS
737	D	PRIMARY SEDIMENTATION TANKS MOTOR CONTROL CENTER AND AUXILIARY PANELS
738	D	PRIMARY SEDIMENTATION TANKS ELECTRICAL PLAN
739	D	PRIMARY CONTROL BUILDING PUMP LEVEL PLAN AND SECTIONS

#	TYPE	TITLE			
740	D	PRIMARY CONTROL BUILDING ENGINE LEVEL PLAN AND SECTION			
741	D	PRIMARY CONTROL BUILDING SECTIONS			
742	D	PRIMARY CONTROL BUIDLING SECTION			
743	D	PRIMARY CONTROL BUILDING SECTION AND DETAIL			
744	D	PRIMARY CONTROL BUILDING SECTION			
745	D	PRIMARY CONTROL BUILDING SECTION			
746	D	PRIMARY CONTROL BUILDING PHOTOS AND DETAIL			
747	D	PRIMARY CONTROL BUILDING PHOTOS			
748	D	PRIMARY CONTROL BUILDING PLANS AND SECTION			
749 750	D D	PRIMARY CONTROL BUILDING ATRIUM PLAN, SECTION AND PHOTOS DECHLORINATION BUILDING STRUCTURAL PLANS AND SECTIONS			
750 751	D	DECHLORINATION BUILDING STRUCTURAL PLANS AND SECTIONS DECHLORINATION BUILDING PHOTOS			
752	D	DRAINAGE PUMP STATION PLANS AND SECTION			
753	D	DRAINAGE PUMP STATION PHOTOS			
TYPIC/	AL DETAILS				
754	Т	TYPICAL DETAILS ARCHITECTURAL - I			
755	Т	TYPICAL DETAILS ARCHITECTURAL - II			
756	Т	TYPICAL DETAILS ARCHITECTURAL - III			
757	T	TYPICAL DETAILS ARCHITECTURAL - IV			
758	T	TYPICAL DETAILS ARCHITECTURAL - V			
759	T T	TYPICAL DETAILS ARCHITECTURAL - VI			
760 761	T	TYPICAL DETAILS ARCHITECTURAL - VII TYPICAL DETAILS ARCHITECTURAL - VIII			
761	T	TYPICAL DETAILS ARCHITECTORAL - VIII			
763	Ť	TYPICAL DETAILS CIVIL - II			
764	Ť	TYPICAL DETAILS CIVIL - III			
765	T	TYPICAL DETAILS CIVIL - IV			
766	Т	TYPICAL DETAILS ELECTRICAL - I			
767	Т	TYPICAL DETAILS ELECTRICAL - II			
768	Т	TYPICAL DETAILS ELECTRICAL			
769	T	TYPICAL DETAILS ELECTRICAL - IV			
770	Т	TYPICAL DETAILS ELECTRICAL - V			
771	T T	TYPICAL DETAILS ELECTRICAL - VI			
772 773	T	TYPICAL DETAILS ELECTRICAL - VII TYPICAL DETAILS ELECTRICAL - VIII			
774	Ť	TYPICAL DETAILS ELECTRICAL - IX			
775	Ť	TYPICAL DETAILS ELECTRICAL - X			
776	T	TYPICAL DETAILS ELECTRICAL - XI			
777	Т	TYPICAL DETAILS ELECTRICAL - XII			
778	Т	TYPICAL DETAILS ELECTRICAL - XIIII			
779	Т	TYPICAL DETAILS ELECTRICAL - XIV			
780	Т	TYPICAL DETAILS ELECTRICAL - XV			
781	T	TYPICAL DETAILS ELECTRICAL - XVI			
782	T	TYPICAL DETAILS ELECTRICAL - XVII			
783	T T	TYPICAL DETAILS ELECTRICAL - XVIII			
784 785	T T	TYPICAL DETAILS ELECTRICAL - XIX TYPICAL DETAILS ELECTRICAL - XX			
786	Ť	TYPICAL DETAILS ELECTRICAL - XXI			
787	Ť	TYPICAL DETAILS ELECTRICAL - XXII			
788	Ť	TYPICAL DETAILS HVAC - I			
789	Т	TYPICAL DETAILS HVAC - II			
790	Т	TYPICAL DETAILS HVAC - III			
791	Т	TYPICAL DETAILS HVAC - IV			
792	Т	TYPICAL DETAILS HVAC - V			
793	T	TYPICAL DETAILS MECHANICAL - I			
794	Т				
795	Т	TYPICAL DETAILS MECHANICAL - III			
		F-14			

#	TYPE	TITLE		
700	-			
796	T T	TYPICAL DETAILS INSTRUMENTATION - I		
797	-	TYPICAL DETAILS INSTRUMENTATION - II		
798	T T	TYPICAL DETAILS INSTRUMENTATION - III		
799	-	TYPICAL DETAILS INSTRUMENTATION - IV		
800	T	TYPICAL DETAILS INSTRUMENTATION - V		
801	T	TYPICAL DETAILS INSTRUMENTATION - VI		
802	T	TYPICAL DETAILS INSTRUMENTATION - VII		
803	T	TYPICAL DETAILS INSTRUMENTATION - VIII		
804	T	TYPICAL DETAILS PIPING - I		
805	Т	TYPICAL DETAILS PIPING - II		
806	Т	TYPICAL DETAILS PIPING - III		
807	Т	TYPICAL DETAILS PIPING - IV		
808	T	TYPICAL DETAILS PIPING - V		
809	Т	TYPICAL DETAILS PIPING - VI		
810	Т	TYPICAL DETAILS PIPING - VII		
811	Т	TYPICAL DETAILS PIPING - VIII		
812	Т	TYPICAL DETAILS PIPING - IX		
813	Т	TYPICAL DETAILS PIPING - X		
814	Т	TYPICAL DETAILS PIPING - XI		
815	Т	TYPICAL DETAILS PIPING - XII		
816	Т	TYPICAL DETAILS PIPING - XIII		
817	Т	TYPICAL DETAILS PIPING - XIV		
818	Т	TYPICAL DETAILS PIPING - XV		
819	Т	TYPICAL DETAILS PIPING - XVI		
820	Т	TYPICAL DETAILS STRUCTURAL - I		
821	Т	TYPICAL DETAILS STRUCTURAL - II		
822	Т	TYPICAL DETAILS STRUCTURAL - III		
823	Т	TYPICAL DETAILS STRUCTURAL - IV		
824	Т	TYPICAL DETAILS STRUCTURAL - V		
825	Т	TYPICAL DETAILS STRUCTURAL - VI		
826	Т	TYPICAL DETAILS STRUCTURAL - VII		
827	Т	TYPICAL DETAILS STRUCTURAL - VIII		



Agenda Item

# 17-0733

Agenda Date: 8/22/2017

# **REPORT TO COUNCIL**

# <u>SUBJECT</u>

Consider Expanding the Purpose of the Standing Subcommittee to Discuss Issues of Mutual Interest with Local School Districts

# BACKGROUND

In February 2014 (RTC No. 14-0230), Council created four two-member subcommittees (Standing Subcommittees to Discuss Issues of Mutual Interest with Local School Districts) to meet with board members of each of the four local school districts. The meetings between elected officials are designed to form a beneficial partnership to facilitate the City and the districts' common goal of student achievement, success, and safety. Council appointments to the four subcommittees are made annually in January and are for a one year term.

Per Council Policy 7.4.13, any action to create or modify the committee must be placed as an item on the Council agenda.

## EXISTING POLICY

**Council Policy 7.4.13**, *Council Subcommittees and Council or Mayor-Created Advisory Task Forces* **Council Adopted code of Ethics and Conduct for Elected and Appointed Officials** 

# ENVIRONMENTAL REVIEW

The action being considered does not constitute a "project" with the meaning of the California Environmental Quality Act ("CEQA") pursuant to CEQA Guidelines section 15378 (b) (5) in that it is a governmental organizational or administrative activity that will not result in direct or indirect changes in the environment.

## DISCUSSION

On July 12, 2017, the Standing Subcommittee met with the Cupertino Union School District (CUSD) to establish items of mutual interest and determine meeting frequency. A member of the Los Altos City Council was in attendance and requested the group include participation by the City of Los Altos to work with Sunnyvale, with the support of the school district, towards a common goal of student safety.

The general purpose of the Standing Subcommittee remains to discuss mutual interests between Sunnyvale and CUSD; however, the City of Los Altos requested to collaborate on issues specific to the southwest part of Sunnyvale. This change requires Council approval of the expanded purpose of the Standing Subcommittee as it relates to their meetings with CUSD and delegation of authority to Vice Mayor Larsson and Councilmember Melton to determine the purpose of the expanded subcommittee. After the next scheduled September 14, 2017 Subcommittee meeting either Councilmember would report on the outcome of the purpose discussion for approval at the next

# 17-0733

Council meeting.

The City of Los Altos is scheduled to consider expanding the purpose of the subcommittee to include issues of mutual interested between CUSD and the two cities at its August 22<sup>nd</sup> Council Meeting.

The Standing Subcommittee has established a quarterly meeting schedule, with the next meeting scheduled for September 14, 2017.

## FISCAL IMPACT

There is no fiscal impact associated with taking this action.

# PUBLIC CONTACT

Public contact was made by posting the Council agenda on the City's official-notice bulletin board outside City Hall, at the Sunnyvale Senior Center, Community Center and Department of Public Safety; and by making the agenda and report available at the Sunnyvale Public Library, the Office of the City Clerk and on the City's website.

# **ALTERNATIVES**

- Authorize Vice Mayor Larsson and Councilmember Melton to determine the expanded purpose of the Standing Subcommittee regarding Issues of Mutual Interests with Local School Districts as it relates to their meetings with the Cupertino Union School District and the City of Los Altos.
- 2. Other direction as provided by Council.

## STAFF RECOMMENDATION

Alternative 1: Authorize Vice Mayor Larsson and Councilmember Melton to determine the expanded purpose of the Standing Subcommittee regarding Issues of Mutual Interests with Local School Districts as it relates to their meetings with the Cupertino Union School District and the City of Los Altos.

Prepared by: Jennifer Nuñez, Executive Assistant to Mayor and City Council Reviewed by: Walter C. Rossmann, Assistant City Manager Approved by: Deanna J. Santana, City Manager



Agenda Item

# 17-0752

Agenda Date: 8/22/2017

# REPORT TO COUNCIL

# <u>SUBJECT</u>

Appoint a Councilmember as the City's Representative to the Expressway Plan 2040 Policy Advisory Board (Formerly the Comprehensive County Expressway Planning Study Advisory Board)

# BACKGROUND

The purpose of this Report is for Council to appoint a Councilmember to the Expressway Plan 2040 Policy Advisory Board (PAB). Appointees represent the City's interests and influence policies and regulations of other agencies.

The Expressway Plan 2040 PAB monitors progress and guides direction for the Expressway Plan 2040 process, including identifying new challenges, making policy change recommendations, and revising funding requirements and implementation strategies. The PAB requires participation by one Councilmember per participating city.

Typically, Council appointments are made annually in January; however, at the January 10, 2017 Council meeting, Council did not appoint a member to the board due to the infrequency of the meetings (RTC No. 17-0012).

# EXISTING POLICY

**Council Policy 7.4.12**, *Council Appointments to Intergovernmental Agencies* **Council Adopted Code of Ethics and Conduct for Elected and Appointed Officials** 

# ENVIRONMENTAL REVIEW

The action being considered does not constitute a "project" with the meaning of the California Environmental Quality Act ("CEQA") pursuant to CEQA Guidelines section 15378 (b) (5) in that it is a governmental organizational or administrative activity that will not result in direct or indirect changes in the environment.

## DISCUSSION

In June 2017, the County of Santa Clara Roads and Airport Department requested confirmation of Sunnyvale's appointment of a representative to the Expressway Plan 2040 PAB. This appointment is a one-year term, with appointment typically made in January. Since the PAB is resuming meetings half-way through the year, the appointment will be until January 2018. When making IGR appointments, Council considers the City's overall intergovernmental priorities as well as the particular interests and backgrounds of individual councilmembers.

This PAB meets on an as-needed basis throughout the year at the County Government Center, Board of Supervisors' Chambers. The first meeting of 2017 is scheduled for Monday, September 18 at 3:30pm. As noted in Council Policy 7.4.12, *Council Appointments to Intergovernmental Agencies,* staff support will be provided to Councilmembers serving on IGR bodies as directed by the City Manager. Typically, staff support consists of reviewing and advising on upcoming committee agendas for issues pertaining to Sunnyvale and, as needed, assist Council in presenting those issues.

# FISCAL IMPACT

There is no fiscal impact associated with taking this action.

# PUBLIC CONTACT

Public contact was made by posting the Council agenda on the City's official-notice bulletin board outside City Hall, at the Sunnyvale Senior Center, Community Center and Department of Public Safety; and by making the agenda and report available at the Sunnyvale Public Library, the Office of the City Clerk and on the City's website.

# **ALTERNATIVES**

- 1. Appoint a Councilmember to serve as the City's representative on the Expressway Plan 2040 PAB until January 2018.
- 2. Other direction as provided by Council.

# STAFF RECOMMENDATION

Alternative 1: Appoint a Councilmember to serve as the City's representative on the Expressway Plan 2040 Policy Advisory Board.

Prepared by: Jennifer Nuñez, Executive Assistant Reviewed by: Walter C. Rossmann, Assistant City Manager Approved by: Deanna J. Santana, City Manager



# City of Sunnyvale

# Agenda Item

# 17-0643

Agenda Date: 8/22/2017

Tentative Council Meeting Agenda Calendar



# City of Sunnyvale Tentative Council Meeting Agenda Calendar

## Tuesday, September 12, 2017 - City Council

Closed Session	
17-0469	5 P.M. SPECIAL COUNCIL MEETING (Closed Session) Closed Session held pursuant to California Government Code Section 54957.6: CONFERENCE WITH LABOR NEGOTIATORS Agency designated representatives: Teri Silva, Director of Human Resources; Deanna J. Santana, City Manager Employee organization: Communication Officers Association (COA)
Study Session	
17-0094	5:30 P.M. SPECIAL COUNCIL MEETING (Study Session) Review and Provide Feedback on Preliminary Civic Center Master Plan Concepts
Special Order of the	e Day
17-0483	SPECIAL ORDER OF THE DAY - Ceremonial Oath of Office for Board and Commission Members
Presentation	
17-0701	PRESENTATION - California Stormwater Quality Association (CASQA) Award Presentation for Schools Goin' Green Program
Public Hearings/Ge	neral Business
17-0821	Split Zoning: Introduce an Ordinance to Create Section 19.16.025 (Split-Zoned Parcels) of Chapter 19.16 (Precise Zoning Plans - Zoning Districts-Zoning Maps) of the Sunnyvale Municipal Code, and Find that the Action is Exempt from CEQA Pursuant to CEQA Guidelines Section 15061(b)(3).
17-0625	Single Story Combining District Buffer Study: Rezone a portion of each property at 595 Sheraton Drive, 1158 Hollenbeck Avenue, and 1160 Hollenbeck Avenue to Single-Story (/S) Combining District, and Find that the Action is Exempt from CEQA Pursuant to CEQA Guidelines Section 15061(b)(3)
17-0493	Resolution to Adopt Updated Emergency Operations Plan
17-0729	Award of Bid No. PW17-31 for the Golf Buildings Renovations Project, Finding of California Environmental Quality Act (CEQA) Categorical

Exemption, and Approve Budget Modification No. 6 in the Amount of \$113,121

**17-0796** Endorse the Slate of Candidates for the League of California Cities Peninsula Division 2017-2018 Election of Officers

#### Tuesday, September 26, 2017 - City Council

#### **Public Hearings/General Business**

17-0668	Evaluate Various Charter Amendments Including Proposing a Charter Amendment to Revise Section 604 regarding Filling Vacant Council Seats by Special Election (Study Issue)
17-0757	Introduce an Ordinance to Repeal Chapter 9.86 the Sunnyvale Municipal Code and Amend Various Sections of Title 19 to Consolidate and Update the Existing Prohibition Against Commercial Marijuana Activity in the City to Expressly Include Non-Medical Marijuana, to Reasonably Regulate Indoor Personal Cultivation of Marijuana Consistent with State Law, and to Prohibit Outdoor Personal Cultivation of Marijuana (Exempt from CEQA pursuant to CEQA Guidelines section15061(b)(3))
17-0819	Appeal of decision of Planning Commission on a SPECIAL DEVELOPMENT PERMIT to redevelop a vacated 0.55-acre site with an existing 2,675-square foot commercial building to a five-story hotel with 85 guest rooms with underground parking. File #: 2014-7659 Location: 590 W. El Camino Real (APNs: 201-22-006) Zoning: C-2 (Highway Business Commercial/Precise Plan for El Camino Real) Applicant / Owner: Degan Development
	Environmental Review: Mitigated Negative Declaration

#### Tuesday, October 3, 2017 - City Council

#### Study Session

17-07866 P.M. SPECIAL COUNCIL MEETING (Study Session)Evaluation of Work Plan for New Revenue Strategies to Fund New and<br/>Increasing Service Demands and/or Unfunded Capital Investments

#### Special Order of the Day

17-0352 SPECIAL ORDER OF THE DAY - Arts and Humanities Month

#### Public Hearings/General Business

**17-0095**Agenda items pending- to be scheduled

#### Tuesday, October 17, 2017 - City Council

#### Study Session

 17-0578
 5:30 P.M. SPECIAL COUNCIL MEETING (Joint Study Session with Bicycle and Pedestrian Advisory Commission) Caltrain Grade Separation Feasibility Study Location: Council Chambers

#### Special Order of the Day

**17-0815** SPECIAL ORDER OF THE DAY - Freedom from Workplace Bullying Week

#### Public Hearings/General Business

17-0695 Accessory Dwelling Unit (ADU) Study

#### **17-0750** File #: 2017-7556

Location: 801-819 Allison Way (APNs: 323-03-023 through 323-03-026 and APNs: 323-04-034 through 323-04-036), 1315-1381 Lennox Way (APNs: 323-03-027 through 323-03-038), 804-816 Lennox Court (APNs:323-03-039 through 323-03-042), 801-814 Blanchard Way (APNs:323-03-043 through 323-03-045 and APNs: 323-04-025 through 323-04-027), and 801-814 Beaverton Court (APNs:323-04-028 through 323-04-033).

Zoning: R-1

Proposed Project: Introduce an Ordinance to REZONE 35 contiguous single family home lots from R-1 (Low Density Residential) to R-1/S (Low Density Residential/Single-Story)

Applicant / Owner: Tom Verbure (plus multiple owners) Environmental Review: The Ordinance being considered is categorically exempt from review pursuant to CEQA Guidelines Section 15305 (minor alteration in land use) and Section 15061(b)(3) (a general rule that CEQA only applies to projects that have the potential for causing a significant effect on the environment. Where it can be seen with certainty that there is no possibility that the action may have a significant effect on the environment, the activity is not subject to CEQA).

**17-0762** File #: 2017-7565

Location: 1104-1121 Lorne Way (APNs: 313-41-013 through 313-41-026), 1666-1698 Swallow Drive (APNs: 313-41-010 through 313-41-012 and 313-41-027 and 313-41-028). 1103-1111, 18771 E Homestead Road (313041-005 through 313-41-009 and 313-41-070 and 313-41-071). Zoning: R-0 Proposed Project: Introduction of Ordinance to REZONE 26 contiguous single family home lots from R-0 (Low Density Residential) to R-0/S (Low

single family home lots from R-0 (Low Density Residential) to R-0/S (Low Density Residential/Single-Story)

Applicant / Owner: Craig Milito (plus 15 property owners) Environmental Review: The Ordinance being considered is categorically exempt from review pursuant to CEQA Guidelines Section 15305 (minor alteration in land use) and Section 15061(b)(3) (a general rule that CEQA only applies to projects that have the potential for causing a significant effect on the environment. Where it can be seen with certainty that there is no possibility that the action may have a significant effect on the environment, the activity is not subject to CEQA).

**17-0778** Hold a Public Hearing and Adopt a Resolution Ordering the Vacation of a Portion of Carl Road Westerly of Borregas Avenue, a Portion of Borregas Avenue Northerly of Carl Road and a Portion of Crossman Avenue Northerly of Caribbean Drive

#### Tuesday, November 7, 2017 - City Council

#### Study Session

17-02396 P.M. SPECIAL COUNCIL MEETING (Study Session)Board and Commission Interviews (As needed)

#### Public Hearings/General Business

**17-0122** 2017 3rd Quarterly Consideration of General Plan Amendment Initiation Requests

#### Tuesday, November 28, 2017 - City Council

#### Study Session

 17-0784
 6 P.M. SPECIAL COUNCIL MEETING (Study Session)

 Presentation on the Status and Next Steps on the High-Speed Rail Project

#### Public Hearings/General Business

- 17-0240 Appoint Applicants to Boards and Commissions
- **17-0471** Eco-district Feasibility and Incentives (Study Issue)

#### Tuesday, December 12, 2017 - City Council

#### **Closed Session**

17-0780 5 P.M. SPECIAL COUNCIL MEETING (Closed Session) Closed Session held pursuant to California Government Code Section 54957: PUBLIC EMPLOYEE PERFORMANCE EVALUATION Title: City Attorney

#### Study Session

 17-0108
 6:45 P.M. SPECIAL COUNCIL MEETING (Study Session)

 Discussion of Upcoming Selection of Vice Mayor for 2018

#### Special Order of the Day

# **17-0484** SPECIAL ORDER OF THE DAY - Ceremonial Oath of Office for Board and Commission Members

#### Public Hearings/General Business

17-0089 Agenda items pending- to be scheduled

#### Tuesday, December 19, 2017 - City Council

#### **Closed Session**

- 17-0237
   5 P.M. SPECIAL COUNCIL MEETING (Closed Session)

   Closed Session held pursuant to California Government Code Section

   54957: PUBLIC EMPLOYEE PERFORMANCE EVALUATION

   Title: City Manager
- 17-0238 6 P.M. SPECIAL COUNCIL MEETING (Closed Session) Closed Session held pursuant to California Government Code Section 54957: PUBLIC EMPLOYEE PERFORMANCE EVALUATION Title: City Attorney

#### Public Hearings/General Business

**17-0159** Receive and File the FY 2016/17 Budgetary Year-End Financial Report, Comprehensive Annual Financial Report (CAFR) and Approve Budget Modification No. XX and Sunnyvale Financing Authority Financial Report

#### Tuesday, January 9, 2018 - City Council

#### Public Hearings/General Business

**17-0091**Agenda items pending- to be scheduled

#### Tuesday, January 23, 2018 - City Council

#### Public Hearings/General Business

**17-0092**Agenda items pending- to be scheduled

#### Friday, January 26, 2018 - City Council

#### Study Session

 17-0099
 8:30 A.M. SPECIAL COUNCIL MEETING

 Strategic Session-Prioritization & Policy Priorities Update

#### Tuesday, February 6, 2018 - City Council

#### Public Hearings/General Business

# **17-0123** 2017 4th Quarterly Consideration of General Plan Amendment Initiation Requests

# Friday, February 16, 2018 - City Council

#### Public Hearings/General Business

17-0101 8:30 A.M. SPECIAL COUNCIL MEETING Study/Budget Issues Workshop

Tuesday, February 27, 2018 - City Council

## **Public Hearings/General Business**

17-0102 Agenda items pending- to be scheduled



# City of Sunnyvale

Agenda Item

Agenda Date: 8/22/2017

Information/Action Items

# 2017 INFORMATION/ACTION ITEMS COUNCIL DIRECTIONS TO STAFF

No.	Date Assigned	Directive/Action Required	Dept	Due Date	Date Completed
1.	12/13/16	Provide information about how workers compensation insurance costs have changed over the last several years	HR/FIN	9/12/17	
2.	4/11/17	Prepare an Information Only Report to Council informing Council of potential ways the City could work to reduce the jobs/housing ratio in the future	CDD	Sep 2017	
3.	6/6/17	Review the current Council policy on Council meetings and develop ways the Council could introduce non-public hearing items after 11:30 without a separate vote on each item.	OCA		8/17/17
4.	6/6/17	Provide an Information Only Report to Council prior to any TIF funds potentially being credited to Irvine Company for the Mary Avenue Overpass parcel	CDD		
5.	6/20/17	Work with the Community Event and Neighborhood Grant Distribution Council Subcommittee to consider amending the guidelines for grant distribution	LCS	Oct 2017	
6.	6/20/17	How much would the City have to deposit on day one into the forthcoming Irrevocable Pension Trust that would cause a one-decade acceleration in the Bartel model on each of the two plans where assets equal liabilities	FIN	12/17/17	
7.	7/11/17	Provide an Information Only Report to Council when design of the Washington Swim Center is complete	DPW	9/26/17	
8.	7/11/17	Agendize Minimum Wage Update for Council discussion	OCM	Feb 2018	
9.	8/15/17	Send FAQs for the FoodCycle Program to Michael Flores	ESD		8/16/17
10.	8/15/17	Repost the Council-adopted Statement of Values on the City website	OCM		

# NEW STUDY/BUDGET ISSUES SPONSORED BY COUNCIL IN 2017

No.	Date Requested	Study Issue Title	Requested By	Dept	Issue Paper Approved by City Manager
1.	6/20/17	Evaluate the possibility of subsidizing water rates for low- income seniors from the General Fund	Smith/ Goldman	FIN	
2.	6/20/17	Explore policies to preserve light industrial land uses	Griffith/ Hendricks	CDD	