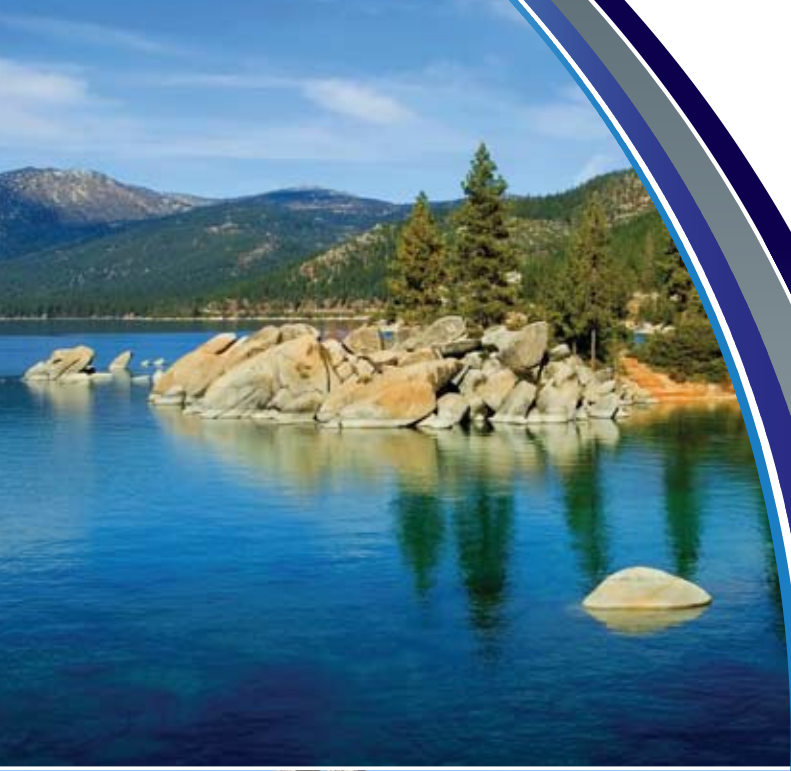




CAPITAL IMPROVEMENT PLAN

**EAST PALO ALTO
SANITARY DISTRICT**



Prepared for:

**East Palo Alto Sanitary District
901 Weeks Street
East Palo Alto, CA 94303**

December 2023



Submitted by:



**SIERRA WEST
CONSULTANTS, INC.**

Capital Improvement Plan
East Palo Alto Sanitary District
East Palo Alto, San Mateo County, California

Prepared for:
East Palo Alto Sanitary District
December 2023

Prepared by:
Sierra West Consultants, Inc.
Fair Oaks, California

Table of Contents

Capital Improvement Plan

East Palo Alto Sanitary District

1.0	Introduction.....	1
2.0	Background.....	2
3.0	CCTV Investigations, Capacity Evaluations, and Priority Assessment.....	3
3.1	Evaluation of CCTV Survey Results and Structural Scores.....	3
3.2	Capacity Evaluation	4
3.3	Priority Assessment.....	4
4.0	Proposed Projects and Opinion of Probable Costs.....	6
5.0	Financing Plan	7
6.0	Limitations.....	7

Tables

Table 1	Summary of Pipeline Evaluations
Table 2	High Priority Pipelines to be Replaced
Table 3	High Priority Pipelines, Sorted by Diameter
Table 4	Opinion of Probable Cost, Replacement of High Priority Pipelines
Table 5	Phased Approach Based on Priority Scoring
Table 6	Five-Year Projection for Capital Projects

Figures

Figure 1	CCTV Survey Areas
Figure 2	High Priority Pipelines for Replacement
Figure 3	High Priority Pipelines for Replacement – Phase 1

Appendices

Appendix A	Table 16 and Figure 10, <i>Addendum to the March 2015 Master Plan Update</i>
Appendix B	CCTV Survey Results
Appendix C	Financial Plan

1.0 Introduction

The East Palo Alto Sanitary District (EPASD) provides wastewater collection facilities and services to most of East Palo Alto and a portion of Menlo Park. The service area is primarily residential with a central commercial area, local restaurants, and a few light industrial parcels. The area covers over 1.9 square miles and includes more than 160,000 linear feet of gravity sewer pipelines, including a parallel siphon pipeline beneath San Francisquito Creek and a trunk line to the Palo Alto Regional Water Quality Control Plant (Figure 1). Approximately 70% of the pipelines are 6-inch diameter with collector pipelines between 8- and 24-inch diameter and the trunk sewer has 24- and 30-inch diameter pipelines. Many of the pipelines are aging beyond their useful life.

Capital improvement needs include expanding capacity to accommodate new developments and repairing deteriorating pipelines. This Capital Improvement Plan (CIP) evaluates capacity needs based on previous master plan studies and infrastructure repair requirements based on a recently completed closed-circuit television (CCTV) inspection of the collection system pipelines. From these evaluations, the CIP develops a priority list of pipelines to repair or replace in the near- and long-term planning horizons.

2.0 Background

The current and projected land use is in accordance with the City of East Palo Alto General Plan. Recent developments have increased land use residential densities from low to medium and high to accommodate new apartments, condominium, and mixed-use projects. These types of developments result in increased wastewater flow rates that have been evaluated in the *East Palo Alto Sanitary District Master Plan Update* (March 2015, Freyer & Laureta, Inc.) and the *Addendum to the March 2015 East Palo Alto Sanitary District Master Plan Update* (April 28, 2021, Freyer & Laureta, Inc.)

In addition to revised land uses, the master plans incorporated an inflow and infiltration (I&I) study provided by V&A Consulting Engineers in June 2012. I&I accounts for increased wastewater flow rates during storm events where rainwater enters the collection system through broken pipelines and manholes. High groundwater areas are also susceptible to I&I whenever the groundwater level is above the pipeline elevation. Improvements to the collection system since 2012 should reduce I&I, while continued deterioration of aging pipelines will increase I&I.

The master plans identified pipelines that were undersized for expected development plans. Final recommendations from the 2021 Addendum were summarized in Table 16 and Figure 10, included herein as Appendix A. These results were used to evaluate pipeline upgrade priorities.

3.0 CCTV Investigations, Capacity Evaluations, and Priority Assessment

CCTV investigations were conducted to clean, inspect and assess sewer pipelines throughout the service area. The service area was divided into four areas for organizational and contracting purposes (Figure 1). Over 700 pipelines were inspected by National Plant Services, Inc. (NPS), and a video recording with a summary report was made for each pipeline.

The CCTV results were used to develop a priority list of pipelines to be replaced. The evaluation considers the degree of structural deficiencies based on the CCTV results. Pipeline capacity upgrades are based on the master plan recommends (Appendix A). The priority assessment considers the most necessary improvements to be addressed under a limited budget.

3.1 Evaluation of CCTV Survey Results and Structural Scores

The following CCTV surveys were completed for the area shown on Figure 1:

Area	Pipeline Segments	Linear Feet Surveyed
1	182	39,337
2	112	31,085
3	158	36,832
4	220	44,594
Trunk Line	35	10,359
Total	707	162,207

Details of the surveys in each area are provided in Appendix B. NPS evaluated each pipeline with respect to its structural integrity and operations and maintenance (O&M) functionality. These evaluations were made in accordance with the National Association of Sewer Service Companies (NASSCO) and their Pipeline Assessment and Certification Program (PACP). NPS used PACP's Quick Rating approach by assigning a 4-digit code for a Structural grade and an O&M grade.

Each digit of the code represents the following:

- The first digit is recorded as 0 through 5 to represent the degree of severity of the encountered problem. 0 is no problem and 5 is the most severe.
- The second digit is how many times a problem of this severity was encountered in the pipeline segment. This ranges from 1 to 9, and then letters are used when there are more than nine problem locations. A represents 10 to 14 defects; B is 15 to 19; C is 20 to 24, etc.
- The third digit represents the second worst level of severity encountered.
- The fourth digit represents how many times the second severity of problem occurred.

Each of the four-digit codes is used to calculate a single score by multiplying the degree of severity by the number of occurrences, and then adding the two products. For instance, a Structural rating of 5432 would equal 26 ($5*4 + 3*2$).

The Structural rating addresses items that require pipeline repair to resolve, such as a cracked or broken pipe. The O&M rating addresses items that can be resolved by improved maintenance, such as a rootball or debris.

The Structural rating (or score) is augmented by including Notable Defects and Sagging scores. The CCTV generated scores were found to overestimate the actual damage based on reviewing a cross section of videos. It is too time consuming to watch every video for this planning-level evaluation. As such, the Structural

Score was augmented based on field notes taken while the CCTV surveys were in progress. Notable Defects, and Sagging scores were developed from the field notes.

In general, structural conditions are acceptable in the larger and newer pipelines constructed of polyvinyl chloride (PVC) materials on the eastern side of the system near the trunk line. Moving westward, such as subbasin B in Area 2, the older pipelines tend to be constructed of vitrified clay materials and have greater structural damage. The trunk link is in good structural condition and does not require any repairs.

3.2 Capacity Evaluation

Table 16 and Figure 10 from the 2021 Addendum (Appendix A) summarize the pipeline segments that are undersized and identified for upgrading. At the same time, these pipelines may, or may not, be identified in the CCTV surveys for structural repairs or replacement. The timing for capacity upgrades is largely based on growth and development schedules, and funding availability.

Primary collector pipelines in Beech Street and O'Connor Street were identified as uniquely significant because these pipelines receive wastewater from larger tributary areas. As such, their capacity affects land use in substantial portions of town. For instance, the Beech Street pipelines receive wastewater from subbasins (moving upstream) I, H, E, and D. Similarly, O'Connor Street pipelines receive wastewater from subbasins K, M, N, L, and O. As such, capacity expansion projects for these collector lines are underway.

A scoring system was developed to account for capacity upgrades. The size of the pipeline diameter in inches was multiplied by a normalization factor to provide a relevant weight of the capacity score with the structural scores. This allows comparison and summation of the capacity and structural scores.

The trunk pipeline is adequately sized for current conditions but will need to be expanded to accommodate future development, as shown on Figure 10 from the *Master Plan Update*. A parallel trunk sewer pipeline expansion project is under design that will double the capacity of the pipeline downstream from the siphon at manhole T32 to the wastewater treatment plant at T0. It may be necessary to upgrade other trunk pipelines in the future.

3.3 Priority Assessment

This evaluation considers the hydraulic capacity along with the structural integrity to develop a priority list for the entire wastewater collection system. The Light Tree and Beech Street pipeline replacement projects are incorporated into the spreadsheets as completed projects without any current repair or replacement needs.

The Light Tree project included approximately \$2M of pipeline upgrades during 2023 at the east end of O'Connor Street and upstream into Pulgas Avenue. Similarly, the Beech Street project included approximately \$5M of pipeline upgrades during 2023/2024 at the east end of Beech Street and upstream into Clarke Avenue and Green Street.

The scoring evaluation summarized in Table 1 for the entire system develops a priority of pipeline segments that need to be replaced. Recent activities with the Light Tree and Beech Street projects addressed a significant portion of under capacity pipelines. As such, structural scoring is more predominant in the current listing, although there are remaining capacity concerns.

The Structural, Notable Defects, Sagging, and the Capacity scores, are added to create the Total Score for each pipeline segment. The Total Scores are ranked from highest to lowest to generate a priority list of pipelines to replace. Pipelines with a Total Score greater than 105 were selected as pipelines for replacement in the near future (**Table 2**). This priority list is also anticipated to have a construction budget approximately \$10M. **Figure 2** shows the pipelines with priority for replacement (scores > 105) considering all Areas and the trunk line.

The priority list was sorted by pipeline diameter in **Table 3** to evaluate probable costs. The Engineer's Opinion of Probable Cost for this hypothetical project (**Table 4**) was prepared using bid results from recent EPASD projects as a basis for unit price estimates. Published industry cost data and engineering judgement were also used where recent bid prices were incomplete.

As shown, approximately 13,500 linear feet of pipeline throughout the collection system have a total score greater than 105. The opinion of probable construction cost is approximately \$11M, while the opinion of total project budget is \$12M.

Further evaluations were conducted to develop opinions of probable costs for future phases of work. Scoring delineation intervals were selected to generate annual phases of work of approximately \$10M over the next four years, followed by the remaining pipeline segments to a low score of 50, as shown in the summary table below.

Table 5 - Phased Approach Based on Priority Scoring

Phase	Pipeline Evaluation Score Range	Opinion of Construction Cost	Opinion of Total Project Cost
1	170 to 105	\$ 11.4 M	\$ 12.5 M
2	104 to 90	\$ 12.1 M	\$ 13.3 M
3	89 to 80	\$ 10.1 M	\$ 11.1 M
4	79 to 73	\$ 11.8 M	\$ 12.9 M
5	73 to 50	\$ 21.7 M	\$23.9 M
Total		\$ 67.1 M	\$73.7 M

1. Costs reported in 2023 dollars.

4.0 Proposed Projects and Opinion of Probable Costs

The highest priority pipelines for replacement, with scores greater than 105, are shown in Figure 2. The opinion of project cost for these pipelines is \$12.5M and includes two crossings of the Bayshore Freeway and three trunk line replacements. To manage the projects efficiently, approximately \$6M of pipeline replacements are highlighted in Figure 3 as the first phase. While this phase is under construction, a second phase can be designed and permitted with CalTrans to address the freeway crossings. It is also recommended to delay the upper trunk line segments because these are in good structural condition.

The lower trunk line expansion project is also under design. It is anticipated that the design will be completed during early 2024 and construction may begin later in the year.

It is also recommended to upgrade the Master Plan to include the results of recent improvements, an updated I&I evaluation, and updated hydraulic modeling. It is anticipated that the Master Plan update would occur following the second phase of high priority pipeline replacements.

The following sequencing of projects and opinion of costs (in millions) are anticipated:

Table 6 – Five-Year Projection for Capital Projects (in 2023 dollars)

Project	2024	2025	2026	2027	2028	2029+
Score 170 – 105: Phase I						
Environmental Permits	\$0.1					
Design	\$0.1					
Construction	\$6.0					
Score 170 – 105: Phase II						
Environmental Permits		\$0.2				
Design		\$0.2				
Construction		\$5.9				
Trunk Line						
Environmental Permits	\$0.1					
Design	\$0.1					
Construction	\$2.0	\$2.0				
Master Plan Update						
I&I Study			\$0.1			
Hydraulic Modeling			\$0.5			
Report			\$0.5			
Score 104 – 90						
Environmental Permits			\$0.1			
Design			\$0.2			
Construction			\$13.0			
Score 89 – 80						
Environmental Permits				\$0.1		
Design				\$0.2		
Construction				\$10.8		
Score 79 - 73						
Environmental Permits					\$0.1	
Design					\$0.2	
Construction					\$12.6	
Score 73 - 50						
Environmental Permits						\$0.2
Design						\$0.4
Construction						\$23.3
TOTALS	\$8.4	\$8.3	\$14.4	\$11.1	\$12.9	\$23.9

5.0 Financing Plan

The financing plan, as provided by Bartle Wells and EPASD, is included in Appendix C.

6.0 Limitations

The CIP evaluations and analyses are based on data collected by others, engineering judgements, and projections into the future. As such, the results and conclusions should be viewed with a regard to their uncertainty and use in a planning-level study. Sierra West Consultants does not guarantee or provide any warranty for the existing sanitary sewer pipeline conditions, their flow capacities, or the future flow rates that may pass through these pipelines.

It is recommended, and expected, that pipeline evaluations become more detailed as projects transition from planning-level priority recommendations to design-level construction details. As high priority projects are identified, the design-level evaluation is anticipated to include a thorough review of the CCTV videos, future flow rate projections, and a detailed assessment of specific repair or replacement requirements.

Tables

Table 1
Summary of Pipeline Evaluations
Capital Improvement Plan
East Palo Alto Sanitary District

Date Inspected	Area	Location/ Street Name	PSR	Actual Diameter (inch)	Master Plan Proposed Diameter (inch)	Recommended Design Diameter (inches)	Pipe Material	Pipe Length (ft)	Notes	Structural Total Score	Score for Master Plan Capacity (3 * Pipe Dia)	Score for Notable Defects	Sag >40%	Total Score
1/13/2023	D/E	Donohoe Street	D1 - E4	10	16	18	VCP	354	Multiple fractures and cracks. Sagging 50-75%	113	48	5	4	170
1/13/2023	E	Donohoe Street	E4 - E3	10	16	18	VCP	357	broken at 34, 37, 43, 49, 56, 96, and 355 ft	107	48	10	0	165
6/30/2022	O	Woodland Avenue	O21 - O19	6		8	VCP	394	MSA/Reverse Inspection performed.	84	0	60	0	144
8/2/2022	A	Bay Road	A5 - A8	12	18	21	PE	124	Sagging pipe 50%-100%	86	54	0	2	142
7/14/2022	B	Bay Road	B5 - B52	12	15	18	PVC	176	the pipe had numerous 90% sags. accumulated grease and	82	45	5	6	138
1/11/2023	D	Hwy 101	D10 - D3	10	10	12	Unknown	489	MSA/80% grease in line. No heavy cleaning performed	86	30	20	2	138
6/17/2022	C	Elliot Drive	C40 - C36	6		8	VCP	257	MSA/Root tap barrel. Could not pass rootball, reverse	82	0	50	0	132
1/17/2023	T	Bay Trail	T27 - T26	18	24	30	RCP	356	broken at 72.4 with a noticeable infiltration from the hole	29	72	30	0	131
12/14/2022	B	Palo Verde Avenue	B27 - B25	6		8	VCP	318	Broken at 36, 193 & 260 ft. Multiple fractures and cracks	120	0	10	0	130
1/11/2023	B	Bay Road	B6 - B5	12	15	18	PVC	158	the pipe had numerous 85% sags. accumulated grease and	79	45	0	5	129
12/14/2022	B	Bay Road	B12 - B11	12		12	PVC	277	Grease accumulated on the sides of pipe starting at 100	120	0	5	3	128
8/19/2022	C	Hwy 101	C21 - C19	6		8	VCP	284	MSA/Collapsed pipe. Reverse inspection performed.	67	0	60	0	127
1/10/2023	E	Capitol Avenue	E20 - E7	6		8	VCP	504	broken at 27, 110.3, 237.8, 282.5, 193, and 466 ft. Pipeline	113	0	10	4	127
8/2/2022	H	Clarke Avenue	H12 - H11	8	12	15	VCP	333	Broken at 111ft, 231ft, 331.9ft	87	36	0	3	126
8/3/2022	A	Bay Road	A10 - A15	15	18	21	ACP	299	Surface Damage Roughness Increased	65	54	0	4	123
N/A	A	Bay Road	A2 - A5	12	15	18	Unknown	244	Sagging pipe 75%	70	45	0	5	120
8/2/2022	D	West Bayshore Road	D21 - D19	8	10	12	HDPE	391	Heavy Cleaning/high flow. Night work. HDPE. This line	70	30	20		120
1/13/2023	E	Cooley Avenue	E3 - E2	12	16	18	PE	280	-	70	48	0	0	118
7/12/2022	A	Bay Road	A1 - A2	12	15	18	Unknown	80	MH A1 does not exist. Inspection started from B2-A2.	62	45	10	0	117
N/A	C	Menalto Avenue	C4 - C3	6	8	12	PE	436	This is the second inspection after heavy cleaning. The	80	24	10	3	117
8/2/2022	H	Clarke Avenue	H14 - H13	8	12	15	VCP	446	Broken at 425.5ft, 429ft with multiple cracks	76	36	0	5	117
12/16/2022	B	Gloria Way	B37 - B6	6		8	VCP	262	badly broken at 9.3, 103, 136.8, 171.1 and 209.5ft. 60%	102	0	10	3	115
12/22/2022	E	Capitol Avenue	E46 - E7	6		8	VCP	501	broken at 103.1, 200.5 and 348.8 ft	105	0	10	0	115
7/7/2022	C	Menalto Avenue	C2 - C1	8	10	12	Unknown	204	MSA/Grease. Heavy grease blockage at 136.9	53	30	30	1	114
8/11/2022	O	West Bayshore Road	O4 - O3	8		8	VCP	277	85% sag, 10% grease build up	109	0	0	5	114
6/16/2022	D	O'Connor Street	D25 - D24	6	8	8	VCP	301	large offset between joints and unable to video it at	49	24	40		113
12/19/2022	E	Glen Way	E36 - E15	6		8	VCP	420	badly broken at 97.2, 207.8, 353, and 248 ft	83	0	30	0	113
8/3/2022	A	Bay Road	A15 - A16	15	18	21	ACP	435	Surface damage roughness. Sagging 75%	53	54	0	5	112
7/27/2022	C	Elliot Drive	C41 - C40	6		8	VCP	191	substantial breakage throughout their entire length	70	0	40		110
8/1/2022	H	Clarke Avenue	H20 - H19	6		8	vcp	271	The camera can only travel 19 feet from H20; the survey	110	0	0	0	110
6/17/2022	K	Larkspur Drive	K19 - K18	6		8	CP	272	Pipe is broken and soil is visible at 144ft, and surface	58	0	50	2	110
N/A	L	Gardenia Way	L2 - L1	12	12	15	PVC	179	Joint Separated Large at 104.9ft, infiltration from the wall	34	36	40		110
12/8/2022	O	Woodland Avenue	O20 - O19	6		8	-	116	After removing roots and debris from the exit of the pipe	50	0	60	0	110
6/24/2022	B/A	Bay Road	B2 - A1	12	15	18	PE	181	A1 is buried, operator surveyed B2-A2 for total of 260.51 ft	62	45	0	2	109
1/13/2023	D	West Bayshore Road	D51 - D7	6		8	VCP	458	MSA/IOL. Camera cannot move any further. Reverse	68	0	40	1	109
8/2/2022	E	Cooley Avenue	E2 - E1	12	16	18	PE	283	60% sag for 34 ft	58	48	0	3	109
12/15/2022	B	Lilac Lane	B32 - B31	6		8	VCP	254	badly broken at 162 ft, and collapsed at 252 ft (by the	48	0	60	0	108
1/19/2023	T	Bay Trail	T17-T34	21	28	30	RCP	464	ver 70% sag that allows debris accumulation in the	15	84	5	4	108
12/20/2022	E	Dumbarton Avenue	E33 - E29	6		8	VCP	229	badly broken at 123.8 ft. In addition, pipeline is 50%	75	0	30	2	107
1/19/2023	T	Bay Trail	T19 - T18	21	28	30	RCP	500	ver 70% sag that allows debris accumulation in the	13	84	5	5	107
8/4/2022	F	Weeks Street	F12 - F11	6		8	VCP	355	Broken at 414ft, multiple fractures and cracks along the	105	0	0	1	106
7/11/2022	H	Runnymede Street	H35 - H34	6	10	12	VCP	322	Pipeline has a lot of sagging. The high water level in the	62	30	8	6	106
12/12/2022	B	Poplar Avenue	B17 - B13	6		8	VCP	501	Broken at 103, 212, 466, 416, and 502 feet	95	0	10	0	105
12/16/2022	A	Pulgas Avenue	A18 - A16	6		8	VCP	442	Broken pipe at 24ft.	90	0	10	4	104
7/11/2022	B	Gloria Way	B50 - B37	6		8	VCP	205	Pipeline is 80% sagging from 50 to 60 ft from B50. Pipeline	69	0	30	5	104
7/7/2022	C	O'Connor Street	C35 - C7	6		8	Unknown	403	Proteus. This is the second inspection. First inspection	83	0	20	1	104
6/23/2022	D	Euclid Avenue	D24 - D23	8	10	12	PE	350	Pipeline had heavy grease	66	30	8		104
1/19/2023	T	Bay Trail	T18 - T17	21	28	30	RCP	540	ver 70% sag that allows debris accumulation in the	16	84	0	4	104
7/8/2022	A	Illinois Street	A7 - A6	6		8	VCP	306	Broken pipe at 82 and 230 ft.	55	0	45	3	103
8/12/2022	O	Woodland Avenue	O23 - O22	6		8	VCP	470	MSA/TBI. Reverse Inspection complete. Pipe had multiple	83	0	20		103
6/17/2022	B	Dumbarton Avenue	B31 - B29	6		8	VCP	257	badly broken at 5, 15, 33, 76, 220, 222, and 234 ft	92	0	10	0	102
12/14/2022	C	Elliot Drive	C42 - C41	6		8	VCP	300	substantial breakage throughout their entire length	82	0	20		102
7/26/2022	A	Illinois Street	A6 - A5	6		8	VCP	287	Broken pipe at 15 and 75ft. Also, an offset joint at 162ft.	68	0	30	3	101
7/8/2022	C	Menalto Avenue	C43 - C8	6		8	VCP	101	Proteus. MSA/TBI. Heavy cleaning was performed. There	71	0	30		101
7/12/2022	K	Azalia Drive	K9 - K8	8		8	VCP	356	Pipe is broken at 158ft, 183ft, 296ft. At 104ft a defective	41	0	60		101
6/24/2022	C	Raimar Avenue	C15 - C14	6		8	VCP	565	MSA/IAM. Camera is unable to get past this point.	60	0	40		100
7/26/2022	E	Dumbarton Avenue	E30 - E29	6		8	VCP	502	broken at 41.4, 123, 141, 306.7, and 375.7 ft	90	0	10	0	100
7/27/2022	I	Pulgas Avenue	I15 - I14	12	15	18	PVC	386	Sagging pipe 85%	50	45	0	5	100
12/20/2022	K	Wisteria Drive	K11 - K5	6		8	VCP	370	MSA/Join offset. Reverse inspection performed	58	0	40	2	100
7/31/2022	K	Larkspur Drive	K18 - K17	6		8	CP	269	SMW spots on the line.	80	0	20		100
6/15/2022	A	Bay Road	A16 - A21	15	18	21	ACP	296	-	44	54	0	1	99
8/3/2022	C	Green Street	C23 - C3	6		8	VCP	400	Pipe has grease and is under water for about 360' till the	78	0	20	1	99
1/18/2023	K/L	Larkspur Drive	L21 - K28	10	14	15	PVC	68	Sagging pipe 75%	52	42	0	4	98
8/1/2022	T	Bay Trail	T20 - T19	18	28	30	RCP	332	Some surface damage. Sagging 75%	10	84	0	4	98
7/27/2022	B	Dumbarton Avenue	B33 - B31	6		8	VCP	280	badly broken at 54, 146, 161, 123, and 249 feet from B9.	67	0	30	0	97
12/14/2022	B	Menalto Avenue	B16A - B16	8	8	12	PVC	390	Pipeline in 65% sagging.	70	24	0	3	97
7/22/2022	E	Capitol Avenue	E21 - E20	6		8	VCP	386	broken at 262.3 and 187 ft	87	0	10	0	97
1/10/2023	E	Bell Street	E9 - E8	12		12	PVC	340	few fractures were noticed	92	0	5	0	97
12/22/2022	J	Pulgas Avenue	J7 - J6	6		8	VCP	441	Pipe is broken at 124ft and 197ft	82	0	10	5	97
12/9/2022	K	Daisy Lane	K21 - K3	6		8	CP	246	Pipe has few locations with chunks of pipe missing at	55	0	40	2	97
7/7/2022	A	Demeter Street	A13 - A12	6		8	Unknown	412	Broken pipe at 129 ft and 139 ft with sags.	73	0	20	3	96
8/5/2022	B	Palo Verde Avenue	B35 - B34	6		8	VCP	364	broken and soil is visible at 10.8 and 210.6 ft	66	0	30	0	96
12/15/2022	B	Addison Avenue	B21 - B11	6		8	VCP	400	broken at 176 and 214 feet from B21	86	0	10	0	96
12/13/2022	H	Runnymede Street	H34 - H17	6	10	12	VCP	269	Submerged pipe with a line down alignment. Reverse	34	30	30	2	96
7/14/2022	D	Donohoe Street	D3 - D3A	10	16	18	VCP	11	Surface Damage Roughness Increased	46	48	0	1	95
7/8/2022	A	Gonzaga Street	A3 - A2	6		8	VCP	287	Broken pipe at 53, 141, 157, and 159 ft. Also, an	50	0	40	4	94
12/12/2022	B	Raimar Avenue	B20 - B19	6		8	VCP	585	Broken at 297, 391, 394, 416, 493, and 556 feet. Also	64	0	30	0	94
12/12/2022	B	Raimar Avenue	B19 - B12	6		8	VCP	500	Broken at 13, 52, 60, 163, and 497 feet	84	0	10	0	94
12/9/2022	B	Menalto Avenue	B16 - B15	8	8	8	VCP	327	-	70	24	0	0	94
7/14/2022	D	Donohoe Street	D3A - D2	10	16	18	VCP	355	Broken at 4.2ft	46	48	0		94
12/20/2022	E	Bell Street	E29 - E12	6		8	VCP	247	broken at 9.6 and 106.8 ft. In addition, pipe was damaged	73	0	20	0	93
12/20/2022	A / T	Bay Trail	A29 - T29	18	24	30	ACP	345	-	20	72	0		92
8/2/2022	B	Ursula Way	B40 - B39	6		8	VCP	306	badly broken at 5.8, 180.2, and 253.7 ft	92	0	0	0	92
8/3/2022	E	Bell Street	E31 - E29	6		8	VCP	252	Pipeline is broken at 83, 125.4 ft	82	0	10	0	92
12/16/2022	H	Clarke Avenue	H13 - H12	8	12	15	VCP	108	Broken at 18ft with 55% sagging pipe	54	36	0	2	92
12/7/2022	E	Euclid Avenue	E42 - E10	6		8	VCP	551	Multiple fractures and cracks	86	0	5	0	91

Table 1
Summary of Pipeline Evaluations
Capital Improvement Plan
East Palo Alto Sanitary District

Date Inspected	Area	Location/ Street Name	PSR	Actual Diameter (inch)	Master Plan Proposed Diameter (inch)	Recommended Design Diameter (inches)	Pipe Material	Pipe Length (ft)	Notes	Structural Total Score	Score for Master Plan Capacity (3 * Pipe Dia)	Score for Notable Defects	Sag >40%	Total Score
12/21/2022	H	Bell Street	H26 - H25	6		8	VCP	413	Broken at 114 ft with multiple fractures along the pipeline	81	0	10	0	91
8/18/2022	B	Oakwood Drive	B26 - B25	6		8	VCP	402	badly broken at 285 and 190 feet from B26. This pipeline	80	0	10	0	90
12/13/2022	B	Palo Verde Avenue	B34 - B8	6		8	VCP	251	badly broken at 260, 244-246, and 141 ft	80	0	10	0	90
12/15/2022	C	Hwy 101	C19 - C2	6		8	VCP	264	MSA/OBM. Reverse inspection performed. Pipeline was	60	0	30		90
7/6/2022	A	Tara Street	A27 - A26	6		8	VCP	311	Broken pipe and soil is visible at 254.10 ft at 11 o'clock	35	0	50	4	89
7/20/2022	D	East Bayshore Road	D65 - D64	6		8	VCP	448	Pipe is damaged. MSA/Crawler cannot move any further.	49	0	40		89
7/19/2022	E	Coolley Avenue	E6 - E1	12		15	PVC	501	Accumulated grease. 75% in few segments	80	0	5	4	89
12/22/2022	H	Runnymede Street	H17 - H76	8	12	15	VCP	397	H17 - H16. Broken pipe at 43.2ft, 144.9ft, 150ft	22	36	30	1	89
7/12/2022	B	Palo Verde Avenue	B28 - B27	6		8	VCP	202	Broken at 163 ft. Multiple cracks along the pipeline	78	0	10	0	88
7/22/2022	C	Menalto Avenue	C6 - C5	6	8	8	PE	87	Pipeline has lots of debris	42	24	20	2	88
12/21/2022	D	Donohoe Street	D9 - D8	6		8	VCP	496	Broken at 21ft, multiple cracks	80	0	8		88
12/14/2022	D	Donohoe Street	D2 - D1	10	18	21	VCP	53		34	54	0		88
6/14/2022	E	Lincoln Street	E27 - E12	6		8	VCP	576	broken at 138, 271, and 437 ft. In addition, the pipeline is	58	0	30	0	88
7/14/2022	I	Beech Street	I20 - I9	6		8	VCP	278	Pipe has MSA at 267 due to hard deposit.MSA/Hard	44	0	40	4	88
1/18/2023	T	Bay Trail	T23 - T22	18	24	30	RCP	376		16	72	0	0	88
6/15/2022	D	Donohoe Street	D8 - D7	6		8	VCP	158	broken pipe at 100.08 ft from upstream	55	0	30	2	87
1/17/2023	T	Bay Trail	T28 - T27	18	24	30	RCP	162		15	72	0	0	87
7/25/2022	C	Menalto Avenue	C7 - C6	6	8	12	PE	448	Pipeline has lots of debris	45	24	12	5	86
N/A	D	Euclid Avenue	D22 - D21	8	10	12	HDPE	149	Grease/surcharged. Requires heavy cleaning. HDPE. This	30	30	26		86
7/6/2022	E	Coolley Avenue	E48 - E6	6		8	VCP	498	Broken at Pipeline is broken at 148, 290, 299.7, and 330 ft	76	0	10	0	86
1/10/2023	L	Gallardia Way	L11 - L10	6		8	VCP	360	Pipe is broken at 240ft and soil is visible	34	0	50	2	86
7/29/2022	M/I	Pulgas Avenue	I43 - I15	12	15	18	PVC	62	I15A - I15. Sagging pipe 90%. Unmapped MH between M2-	35	45	0	6	86
12/20/2022	A	Bay Road	A9 - A10	15	18	21	ACP	181	Broken at 172ft	28	54	0	3	85
8/3/2022	E	Oakwood Dive	E32 - E31	6		8	VCP	263	badly broken at 10, 48.7, 50.5, 128.9, and 207 ft	45	0	40	0	85
12/22/2022	E	Bell Street	E8 - E7	12	12	15	PVC	355		49	36	0	0	85
7/25/2022	I	Myrtle Street	I21 - I13	6	8	8	VCP	600	As I24 should be between them as shown in the map,	60	24	0	1	85
7/27/2022	B	Weeks Street	B30 - B29	6		8	VCP	243	badly broken at 8.7, 120.3, and 242.5 ft	74	0	10	0	84
12/19/2022	D	Euclid Avenue	D23 - D22	8	10	12	PE	73	Pipeline had heavy grease	44	30	8	2	84
12/15/2022	E	Glen Way	E40 - E38	6		8	VCP	390	badly broken at 85.1, 146.2, and 266.3 ft. The inspection	44	0	40	0	84
12/21/2022	E	Euclid Avenue	E26 - E25	6		8	VCP	488	broken at 17.1, 169.6, and 291.2 ft	74	0	10	0	84
8/17/2022	K	Larkspur Drive	K16 - K4	6		8	CP	274	SMW spots on the line	61	0	20	3	84
7/28/2022	K	Camellia Drive	K33 - K32	6		8	VCP	131	Sagging pipe 75%	80	0	0	4	84
7/18/2022	C	Addison Avenue	C18 - C17	6		8	VCP	370	MSA/Proteus could not crawl any farther due to offset	53	0	30		83
7/19/2022	D	French Court	D40 - D37	6		8	VCP	194	This is the second inspection after using a root cutter. The	43	0	40		83
6/21/2022	D	Oak Court	D36 - D35	6		8	VCP	251	MSA/Broken. Reverse inspection attempted. broken pipe	43	0	40		83
7/18/2022	D	Oak Court	D37 - D36	6		8	VCP	368	MSA/Reverse inspection complete	83	0	0		83
6/21/2022	O	West Bayshore Road	O9 - O8	8	8	8	VCP	140	15% grease buildup at 96ft	58	24	0	1	83
12/13/2022	B	Addison Avenue	B22 - B21	6		8	VCP	400	badly broken at 20.8, 82.6, 133.3, and 170.3 feet. An	72	0	10	0	82
7/12/2022	D	West Bayshore Road	D7 - D6	6		8	VCP	398	5% grease build up and 90% sag	79	0	0	3	82
8/12/2022	F	Weeks Street	F23 - F8	6		8	VCP	327	This pipeline was F9A-F8	78	0	0	4	82
1/10/2023	E	Coolley Avenue	E49 - E48	6		8	VCP	458	broken at 351.6, 225, and 343 ft. Pipeline is broken with	51	0	30	0	81
12/15/2022	B	Dumbarton Avenue	B29 - B9	6		8	VCP	211	badly broken at 17 ft	70	0	10	0	80
12/19/2022	C	Oak Court	C47 - C46	6		8	VCP	309	This is the second inspection after heavy cleaning and	80	0	0		80
12/20/2022	E	Garden Street	E15 - E14	8		8	VCP	246	broken at 88 and 236 ft	70	0	10	0	80
7/21/2022	E	Lincoln Street	E35 - E14	6		8	VCP	333	broken at 7.1 and 253 ft	70	0	10	0	80
7/13/2022	F	Clarke Avenue	F15 - F11	6		8	VCP	301	Multiple cracks along the pipe	80	0	0		80
7/8/2022	J	Garden Street	J8 - J6	6		8	VCP	442	Broken at 33ft, 81.4ft, 164ft, 223ft, 286ft, 318ft	79	0	0	1	80
7/21/2022	B	Oakwood Drive	B25 - B24	6		8	VCP	406	badly broken at 377 and 391 feet	49	0	30	0	79
7/26/2022	B	Fordham Street	B44 - B2	6		8	VCP	296	badly broken at 56.7, 27, 73, 144.1, 231, 261.8, and 289.9	49	0	30	0	79
12/20/2022	E	Garden Street	E14 - E13	8		8	VCP	186	Multiple fractures and cracks along the line	74	0	5	0	79
8/11/2022	J	Garden Street	J9 - J9A	6		8	VCP	365	Pipe is cracked at 8ft, 32ft, 81ft, 223ft & 318ft.	55	0	20	4	79
7/29/2022	K	Wisteria Drive	K13 - K12	6		8	VCP	362	Pipe is broken at 9ft and 91ft.	56	0	20	3	79
12/13/2022	M	O'Connor Street	M3 - M2	12	12	15	PVC	380	-	43	36	0		79
12/19/2022	O	West Bayshore Road	O5 - O4	8		8	Unknown	399	Notable sagging	76	0	0	3	79
7/7/2022	A	Tara Street	A24 - A23	6		8	VCP	240	Broken pipe at 228 ft.	58	0	20		78
7/7/2022	C	Menalto Avenue	C2A - C2	6	8	8	VCP	28	New line segment - Broken at 19.9 ft	34	24	20		78
7/21/2022	C	Oak Court	C46 - C45	6		8	VCP	256	Broken at 153ft with multiple cracks	78	0	0		78
12/21/2022	E	Lincoln Street	E13 - E12	8		8	VCP	450	broken lateral at 326.6 ft from E13	78	0	0	0	78
6/17/2022	J	Garden Street	J10 - J9	6		8	VCP	300		75	0	0	3	78
7/25/2022	L	Azalia Drive	L9 - L4	6	6	8	VCP	162	-	60	18	0		78
6/30/2022	C	Poplar Avenue	C13 - C12	6		8	Unknown	481	MSA/Lined pipe. Camera could not move any further.	37	0	40		77
7/5/2022	C	Woodland Avenue	C48 - C11	6	8	8	Unknown	179	MSA/ Reverse inspection complete	23	24	30		77
7/6/2022	D	East O'Keefe Street	D43 - D41	6		8	VCP	517	MSA/Broken. Reverse inspection complete. broken pipe at	69	0	8		77
8/17/2022	E	Euclid Avenue	E25 - E50	6		8	VCP	232	broken at 48.4 ft	67	0	10	0	77
12/21/2022	F	Weeks Street	F11 - F10	6		8	VCP	420	Broken at 176ft, 242ft	71	0	5	1	77
6/23/2022	O	Woodland Avenue	O22 - O21	6		8	VCP	348	broken at 81.02 ft, 311 ft, and 320 ft.	47	0	30		77
1/17/2023	O	Woodland Avenue	O29 - O30	6		8	VCP	220	Surcharged MH with substantial crud on water surface.	65	0	12		77
7/12/2022	T	Bay Trail	T29 - T28	18	24	30	RCP	234		5	72	0	0	77
7/20/2022	D	Manhattan Avenue	D19 - D10	10	10	12	PVC	48	Line is sagging. Camera was under water for most of the	42	30	0	4	76
6/23/2022	E	Bell Street	E7 - E6	12	12	15	PVC	311		40	36	0	0	76
7/31/2022	E	Garden Street	E33 - E13	6		8	VCP	253	Root ball was blocking the pipeline at 170 ft from E33,	56	0	20	0	76
12/22/2022	F	Weeks Street	F19 - F20	6		8	VCP	189	MH was F19 - F21	75	0	0	1	76
7/11/2022	H	Runnymede Street	H57 - H16	8	12	15	VCP	48	H16A - H16B. Broken at 20.9ft	20	36	20		76
7/29/2022	I	Pulgas Avenue	I13 - I12	12	15	18	PVC	320	-	30	45	0	1	76
12/20/2022	M	O'Connor Street	M31 - M3	12	12	15	PVC	357	-	40	36	0		76
6/21/2022	B	Bay Road	B4 - B3	12	15	18	Unknown	465	Accumulated grease	25	45	5	0	75
7/20/2022	B	Bay Road	B11 - B10	12		15	VCP	201	Pipeline is 80% sagging all line long till 20 feet from B10	70	0	0	5	75
12/19/2022	C	Oak Court	C44 - C10	6		8	VCP	155	MSA/L.R. Camera cannot move past bend.	45	0	30		75
12/20/2022	D	Donohoe Street	D4 - D3	8	10	12	VCP	296	Fracture Multiple at 131ft	40	30	5		75
1/12/2023	E	Runnymede Street	E39 - E38	6		8	VCP	301	badly broken at 94.7 ft. E39 is supposed to be an	35	0	40	0	75
12/14/2022	E	Dumbarton Avenue	E34 - E33	6		8	VCP	279	broken at 37 and 79.7 ft	65	0	10	0	75
7/14/2022	E	Glen Way	E38 - E36	6		8	VCP	234	badly broken at 153.1, 216.9, and 219.6 ft	55	0	20	0	75
12/19/2022	H	Runnymede Street	H76 - H57	8	12	15	VCP	73	H16 - H16A. Broken at 63.2ft	19	36	20		75
7/19/2022	L	Camellia Drive	L46 - L45	6		8	VCP	136	Broken pipe Soil Visible at 135.9ft	35	0	40		75
12/7/2022	B	Bay Road	B3 - B2	12	15	18	Unknown	239	sagging 50% to 65% along the pipe	26	45	0	3	74
8/18/2022	D	Woodland Avenue	D35 - D34	6	8	12	VCP	178	Fracture Multiple at 73ft	50	24	0		74

Table 1
Summary of Pipeline Evaluations
Capital Improvement Plan
East Palo Alto Sanitary District

Date Inspected	Area	Location/ Street Name	PSR	Actual Diameter (inch)	Master Plan Proposed Diameter (inch)	Recommended Design Diameter (inches)	Pipe Material	Pipe Length (ft)	Notes	Structural Total Score	Score for Master Plan Capacity (3 * Pipe Dia)	Score for Notable Defects	Sag >40%	Total Score
1/12/2023	F	Pulgas Avenue	F14 - F8	6		8	PVC	463	Sagging pipe up to 75%	70	0	0	4	74
7/12/2022	G	Pulgas Avenue	G13 - G3	6		8	PVC	453	Proteous	74	0	0		74
6/21/2022	H	Bell Street	H50 - H26	6		8	VCP	154	couple fractures and roots at the joints	64	0	10	0	74
7/29/2022	H	Bell Street	H28 - H50	6		8	VCP	192	couple fractures and roots at the joints. Hole at 24ft.	59	0	15	0	74
12/7/2022	O	Woodland Avenue	O28 - O26	6		8	VCP	434	MSA/Reverse inspection complete. Proteous. pipeline has	64	0	10		74
7/27/2022	A	Pulgas Avenue	A20 - A19	6		8	VCP	340	Broken pipe at 225ft, and separated joints at 281ft.	23	0	50		73
7/7/2022	B	Ursula Way	B39 - B38	6		8	VCP	301	broken with visible soil at 11.9, 133.6-139, 238.2, 293.7,	63	0	10	0	73
7/1/2022	B	Grace Avenue	B43 - B37	6		8	VCP	363	badly broken at 171.6ft	63	0	10	0	73
7/1/2022	C	Palmar Avenue	C25 - C23	6		8	VCP	303	Medium Joint Offset	72	0	0	1	73
7/11/2022	D	Green Street	D68 - D67	6		8	VCP	139	Surface Damage at 94ft, pipeline has multiple cracks	61	0	12		73
6/22/2022	D	Oakwood Drive	D71 - D52	6		8	VCP	130	Proteous. This is the second inspection. First inspection	53	0	20		73
12/16/2022	D	Woodland Avenue	D56 - D35	6		8	VCP	286	Offset joint 4' from MH	53	0	20		73
12/16/2022	D	O'Connor Street	D41 - D24	6		8	VCP	191	Broken at 51 ft and 122 ft	73	0	0		73
1/18/2023	L	Wisteria Drive	L29 - L28	6		8	VCP	366	Pipe is broken at 348ft, and soil is visible	39	0	30	4	73
1/18/2023	O	Capitol Avenue	O16 - O15	6		8	VCP	235	Broken at 131.9 ft	53	0	20		73
1/17/2023	T	Bay Trail	T24 - T23	18	24	30	RCP	317		1	72	0	0	73
6/23/2022	T	Bay Trail	T25 - T24	18	24	30	RCP	282		1	72	0	0	73
6/15/2022	T	Bay Trail	T26 - T25	18	24	30	RCP	306		1	72	0	0	73
12/21/2022	E	Euclid Avenue	E50 - E10	6		8	VCP	218	Multiple fractures and cracks	62	0	10	0	72
12/22/2022	B	Bay Road	B13 - B12	12		15	PVC	263	Accumulated grease	66	0	5	0	71
12/14/2022	C	Oak Court	C45 - C44	6		8	VCP	166	Broken pipe at 6ft, 41ft, 24ft	51	0	20		71
7/28/2022	E	Capitol Avenue	E47 - E46	6		8	VCP	455	Pipeline is broken at 171.5, 174.8, 187.3, 235.4, 270.8,	61	0	10	0	71
6/21/2022	H	Donohoe Street	H21 - H56	6		8	VCP	151	H22 - H55. Broken at 14ft and 110ft	61	0	10		71
8/5/2022	K	Camellia Drive	K35 - K34	6		8	VCP	280	Broken pipe at 9ft.	47	0	20	4	71
6/23/2022	B	Bay Road	B7 - B6	12	15	18	PVC	380	the pipe had numerous 85% sags	20	45	0	5	70
6/14/2022	D	Addison Avenue	D55 - D54	6		8	VCP	252	MSA/Reverse inspection complete. broken at 146.7 ft	40	0	30		70
7/29/2022	D	East O'Keefe Street	D47 - D22	8		8	VCP	299	Grease build up at 269 ft	64	0	5	1	70
1/11/2023	L	Gardenia Way	L3 - L2	12	12	15	PVC	83	-	34	36	0		70
8/1/2022	L	Azalia Drive	L49 - L48	8	10	12	VCP	233	-	40	30	0		70
7/27/2022	L	Jasmine Way	L43 - L44	8		8	PVC	334	Joint Separated Large at 331.7ft	60	0	10		70
7/28/2022	M	O'Connor Street	M42 - M13	6	12	15	VCP	37	Surface Damage and cracks	34	36	0		70
7/29/2022	A	Demeter Street	A12 - A11	6		8	VCP	485	Sagging pipeline 55%	65	0	0	4	69
12/13/2022	B	Oakwood Drive	B24 - B10	6		8	VCP	493	Multiple fractures and cracks along the pipeline	64	0	5	0	69
7/7/2022	M	O'Connor Street	M13 - M12	8	12	15	VCP	276	Broken at 193	13	36	20		69
8/19/2022	B	Bay Road	B52 - B4	12	15	18	Unknown	360		23	45	0	0	68
1/12/2023	C	Hwy 101	C20 - C19	6		8	VCP	199	Broken at 5.1 ft, surface damage at 30 ft	48	0	20		68
7/18/2022	C/D	Donohoe Street	C26 - D9	6		8	VCP	436	This is the second inspection after heavy cleaning and	47	0	20		67
7/27/2022	K	Daisy Lane	K22 - K21	6		8	CP	256	Surface Damage Missing Wall along the pipeline	62	0	5		67
6/29/2022	B	Bay Road	B9 - B8	12		15	PVC	351	Pipeline is 60% sagging for the last 60 feet from B9	64	0	0	2	66
12/14/2022	D	O'Connor Street	D29 - D28	6		8	VCP	130	Clogged, extensive cleaning required	56	0	10		66
8/3/2022	K/L	Gardenia Way	K31 - L1	8		8	PVC	148	-	62	0	0	4	66
8/3/2022	K/L	Gardenia Way	K31 - L1	8		8	PVC	148	-	62	0	0	4	66
6/15/2022	O	Woodland Avenue	O33 - O32	6		8	VCP	263	Visible soil	34	0	30	2	66
7/25/2022	H	Schembri Lane	H46 - H52	6		8	VCP	361	Broken at 344.2ft	45	0	20		65
8/2/2022	I	Myrtle Street	I23 - I28	6		8	VCP	166	Broken at 59ft. This pipe line was I23 - I23A	35	0	30		65
7/27/2022	K	Larkspur Drive	K17 - K16	6		8	CP	267	Surface Damage Missing Wall along the pipeline	55	0	10		65
7/28/2022	C	Menalto Avenue	C8 - C7	6	8	8	PE	401	broken pipe located 100.08 ft from upstream	20	24	20		64
7/6/2022	G	Buchanan Court	G10 - G9	6		8	CP	271	Pipe is broken and soil is visible at 10 ft and 221 ft	24	0	40		64
7/25/2022	L	Wisteria Drive	L26 - L25	8		8	VCP	216	Pipe has a lot of sagging, and an offset joint between 80 to	36	0	24	4	64
7/20/2022	L	Verbina Drive	L13 - L9	6		8	VCP	311	Broken at 60.2ft	44	0	20		64
6/16/2022	C	Menalto Avenue	C5 - C4	6	8	8	Unknown	328	Pipeline has lots of debris	29	24	10		63
7/5/2022	D	O'Connor Street	D26 - D25	6		8	VCP	157	broken pipe due to tree roots between 23-26 ft.	43	0	20		63
7/1/2022	O	Woodland Avenue	O55 - O54	6		8	VCP	399	MSA/Reverse inspection Complete.	55	0	8		63
7/27/2022	C	Menalto Avenue	C10 - C8	6	8	8	PE	387	Modified line segment. Could not find C9	27	24	10	1	62
7/6/2022	C	West Bayshore Road	C22 - C21	6		8	VCP	92	Broken at 6 ft	57	0	5		62
8/18/2022	D	East O'Keefe Street	D50 - D49	6		8	VCP	422	Broken at 418.9 ft	42	0	20		62
8/3/2022	H	Sacramento Street	H41 - H40	6		8	VCP	150	Broken at 38ft, 42ft	42	0	20		62
7/7/2022	L	Daphine Way	L34 - L26	6		8	VCP	287	Hole at 263.3ft	31	0	30	1	62
7/28/2022	F	Weeks Street	F20 - F17	6		8	VCP	136	MH was F20 - F21	60	0	0		60
7/11/2022	K	Camellia Drive	K36 - K35	6		8	VCP	282	Broken pipe at 264ft.	38	0	20	2	60
12/19/2022	E	Garden Street	E41 - E15	6		8	VCP	98	badly broken with visible soil at 6 ft. In addition, it is	19	0	40	0	59
7/27/2022	F	Weeks Street	F8 - F8A	6		8	VCP	281	New Line segment	54	0	0	4	58
7/20/2022	G	Buchanan Court	G9 - G6	6		8	CP	291	Pipe is broken and soil is visible at 84 ft	17	0	40	1	58
7/18/2022	L	Azalia Drive	L47 - L4	8		8	VCP	88	Heavy grease was found on a sewer line cleaning material	38	0	20		58
6/29/2022	O	West Bayshore Road	O59 - O7	8		8	VCP	182	Soil is visible at 167ft, 50% sag	16	0	40	2	58
7/12/2022	O	Newell Road	O31 - O30	6		8	VCP	90	Visible soil	18	0	40		58
8/9/2022	B	Menalto Avenue	B15 - B49	8	8	8	VCP	331		33	24	0	0	57
7/19/2022	C	Woodland Avenue	C51 - C50	6		8	Unknown	556	Proteous. MSA/Reverse inspection complete. Pipe is	37	0	20		57
7/8/2022	H	Donohoe Street	H23 - H22	6		8	VCP	405	H23 - H56. Broken at 133.9ft, 316.9ft	57	0	0		57
8/1/2022	H/E	Euclid Avenue	H38 - E42	6		8	VCP	519	Broken pipe Soil Visible at 146ft, 197ft	17	0	40		57
12/9/2022	L	Larkspur Drive	L1 - L21	12	14	15	PVC	223	-	14	42	0	1	57
8/5/2022	O	Mission Drive	O41 - O40	6		8	Unknown	45	Proteous. seemed to be different material assuming to be	27	0	30		57
6/28/2022	O	Clarke Avenue	O26 - O25	6		8	VCP	333	Broken at 125ft	57	0	0		57
8/18/2022	A	Bay Road	A23 - A22	8	18	21	ACP	14	-	2	54	0		56
8/4/2022	F	Paul Robeson Court	F18 - F17	6		8	PVC	198	-	55	0	0	1	56
8/3/2022	H	Clarke Avenue	H24 - H20	6		8	VCP	333	MSA/Broken pipe. The USMH is a cleanout so no reverse	22	0	30	4	56
7/11/2022	H	University Avenue	H36 - H35	6	10	8	VCP	474	-	25	30	0	1	56
7/29/2022	M	O'Connor Street	M5 - M4	12	12	15	PVC	373	-	20	36	0		56
7/1/2022	D	Green Street	D69 - D67	6		8	VCP	259	MSA/TBI. No reverse inspection performed because the	47	0	8		55
7/27/2022	A	Bay Road	A21 - A23	15	18	21	ACP	168	New Line Segment. MH Name changed from A22 to A23	0	54	0		54
8/11/2022	A	Bay Road	A8 - A9	12	18	21	PVC	61	-	0	54	0		54
7/20/2022	B	Fordham Street	B44 - B2	6		8	VCP	7	Broken at 28, 73, 144, 231, and 261 ft. Broken with visible	4	0	50	0	54
8/17/2022	H	Runnymede Street	H15 - H62	8	12	15	Other	201	H15 - H58	18	36	0		54
8/3/2022	K	Azalia Drive	K26 - K6	6		8	VCP	294	Pipe is broken at 286ft	34	0	20		54
8/2/2022	O	Cooley Avenue	O51A - O13	6		8	VCP	236	5% grease build up, 60% sag	52	0	0	2	54
6/29/2022	O	Newell Road	O35 - O34	6		8	ACP	316		54	0	0		54

Table 1
Summary of Pipeline Evaluations
Capital Improvement Plan
East Palo Alto Sanitary District

Date Inspected	Area	Location/ Street Name	PSR	Actual Diameter (inch)	Master Plan Proposed Diameter (inch)	Recommended Design Diameter (inches)	Pipe Material	Pipe Length (ft)	Notes	Structural Total Score	Score for Master Plan Capacity (3 * Pipe Dia)	Score for Notable Defects	Sag >40%	Total Score
6/27/2022	O	Cooley Avenue	O57 - O51	6		8	VCP	365	Cracks and surface damage along the pipe	54	0	0		54
12/19/2022	O/N	Highway 101	O3 - N8	10		12	Unknown	205	O3 was surcharged.	44	0	8	2	54
7/20/2022	D	Euclid Avenue	D33 - D24	8	10	12	PE	450	-	23	30	0		53
6/21/2022	G	Runnymede Street	G7 - G6	6		8	PVC	295	-	48	0	0	5	53
8/1/2022	H	University Avenue	H37A - H36	6		8	VCP	149	New Line Segment. Broken 144.3ft, 145ft	43	0	10		53
8/17/2022	L	Wisteria Drive	L23 - L3	8	10	12	PVC	351	-	23	30	0		53
8/3/2022	O	Cooley Avenue	O51 - O51A	6		8	VCP	234	10% grease build up	52	0	0	1	53
6/27/2022	O	Circle Drive	O53 - O52	6		8	VCP	188	Broken at 204ft	43	0	10		53
7/21/2022	D	East O'Keefe Street	D49 - D48	6		8	VCP	400	Broken at 264 ft, 90% blockage by a root ball at 137 ft	22	0	30		52
6/27/2022	G	Runnymede Street	G4 - G3	6		8	PVC	213	-	50	0	0	2	52
6/14/2022	H	Donohoe Street	H21A - H55	6		8	VCP	157	H21A - H21. Broken at 61ft, 101ft	48	0	0	4	52
8/5/2022	H	Cooley Avenue	H32 - H17	6		8	VCP	550	Broken Soil Visible at 111ft. Broken at 213.8ft, 372ft, 420ft.	52	0	0		52
7/26/2022	H	Sacramento Street	H40 - H36	6		8	VCP	496	MSA/JOL. Reverse Inspection performed.	52	0	0		52
7/20/2022	J	Garden Street	J9A - J8	6		8	VCP	35	Pipe is broken at 115ft, 176ft, and 359ft.	22	0	30		52
7/25/2022	L	Camellia Drive	L53 - L52	6	6	8	VCP	218	MSA/Reverse Inspection Complete	34	18	0		52
7/27/2022	L	Verbina Drive	L17 - L16	6		8	VCP	236	-	52	0	0		52
7/20/2022	L	Daphine Way	L35 - L34	6		8	VCP	250	-	52	0	0		52
8/3/2022	O	Cooley Avenue	O58 - O57	6		8	VCP	403	MSA/Tap break in intruding. No reverse inspection	22	0	30		52
6/29/2022	B	Bay Road	B10 - B9	12		15	PVC	290	Pipeline was at full capacity	46	0	5	0	51
8/1/2022	C	Woodland Avenue	C50 - C49	6		8	Unknown	361	Proteous	39	0	12		51
7/25/2022	D	O'Connor Street	D27 - D26	6		8	VCP	392	Clogged, extensive cleaning required	43	0	8		51
7/8/2022	G	Runnymede Street	G6 - G4	6		8	PVC	388	-	50	0	0	1	51
6/16/2022	H	Donohoe Street	H56 - H21A	6		8	VCP	157	H55 - H21A. Broken at 1.5ft	51	0	0		51
12/14/2022	J	Garden Street	J5C - T21	8		8	PVC	62	New Line Segment. Sagging pipe 75%	47	0	0	4	51
7/22/2022	K	Larkspur Drive	K28 - K4	10	15	18	PVC	242	-	6	45	0		51
7/20/2022	L	Verbina Drive	L16 - L15	6		8	VCP	311	Broken at 169ft	31	0	20		51
8/5/2022	O	Woodland Avenue	O32 - O31	6		8	VCP	258	Broken at 3.2 ft and 226 ft	31	0	20		51
7/1/2022	A	Demeter Street	A14 - A13	6		8	Unknown	288	-	50	0	0		50
7/28/2022	B	Fordham Street	B45 - B44	6		8	VCP	301	badly broken at 65.6ft	40	0	10	0	50
12/19/2022	D	Glen Way	D67 - D63	6		8	VCP	294	Pipe broken at 231.1 ft	20	0	30		50
8/5/2022	E	Bell Street	E11-E10	12		12	PVC	195	-	50	0	0	0	50
7/28/2022	E	Bell Street	E12 - E11	12		12	PVC	494	-	50	0	0	0	50
7/7/2022	E	Oakdale Road	E37 - E36	6		8	VCP	353	A piece of PVC coming out a lateral into the main sewer	50	0	0	0	50
12/22/2022	H	Weeks Street	H43 - H42	6		8	VCP	346	Broken at 4.7ft, 303.7ft	50	0	0		50
12/22/2022	H	Donohoe Street	H55 - H54	6		8	PVC	144	H21 - H54. Broken at 51ft	40	0	10		50
12/19/2022	I	Pulgas Avenue	I14 - I13	12	15	21	PVC	444	-	5	45	0		50
6/27/2022	K	Azalia Drive	K7 - K6	8		8	VCP	362	-	46	0	0	4	50
7/31/2022	L	Jasmine Way	L40 - L42	8		8	VCP	346	Broken pipe soil visible at 184ft	10	0	40		50
7/26/2022	L	Wisteria Drive	L25 - L24	8	10	12	PVC	342	-	20	30	0		50
8/3/2022	L	Verbina Drive	L19 - L18	6		8	VCP	333	Broken at 330ft	40	0	10		50
7/18/2022	M	East Bayshore Road	M41 - M42	6	12	15	PVC	104	-	14	36	0		50
8/5/2022	O	Scofield Street	O52 - O51	6		8	VCP	213	-	50	0	0		50
7/25/2022	O	West Bayshore Road	O10 - O9	8		8	VCP	157	-	50	0	0		50
8/2/2022	G	Runnymede Street	G19 - T23	6		8	VCP	154	This pipeline was G2A-T23	49	0	0		49
7/21/2022	H	Runnymede Street	H62 - H14	8	12	15	Other	233	H58 - H14	13	36	0		49
7/25/2022	C	Addison Avenue	C17 - C16	6		8	VCP	333	There's a JAM 3' from the DSMH. Camera is unable to go	38	0	10		48
6/24/2022	D	West Bayshore Road	D53 - D52	6		8	VCP	248	Joint Separated Medium	47	0	0	1	48
8/3/2022	H	Weeks Street	H42 - H37	6		8	VCP	388	Broken at 304ft	48	0	0		48
6/24/2022	K	Sage Street	K20 - K19	6		8	CP	135	Surface Damage Missing Wall at 96.4ft	8	0	40		48
7/27/2022	L	Azalia Drive	L10 - L9	6		8	VCP	180	-	48	0	0		48
7/26/2022	L	Camellia Drive	L54 - L53	6		8	VCP	369	Pipe is broken and soil is visible at 3.02ft.	8	0	40		48
6/15/2022	D	O'Connor Street	D28 - D27	6		8	VCP	81	Clogged, extensive cleaning required	38	0	8	1	47
6/27/2022	H	Camphor Way	H45 - H9	6		8	PVC	222	Broken at 103ft, 106ft, 167ft	27	0	20		47
8/8/2022	O	West Bayshore Road	O11 - O10	8		8	VCP	259	-	47	0	0		47
6/14/2022	D	East O'Keefe Street	D48 - D47	6		8	VCP	401	5% Grease build up at 335ft	35	0	10	1	46
7/27/2022	F	Weeks Street	F10 - F9	6		8	VCP	463	Broken at 32.2ft & 247ft & 297ft & 314ft	45	0	0	1	46
7/12/2022	F	Weeks Street	F7 - T25	6		8	VCP	477	Multiple cracks along the pipe	44	0	0	2	46
7/20/2022	I	Terra Villa Avenue	I17 - I7	6		8	VCP	526	Broken at 520ft	34	0	10	2	46
7/1/2022	L	Azalia Drive	L50 - L49	8	10	12	VCP	224	-	16	30	0		46
7/27/2022	L	Azalia Drive	L48 - L47	8		8	VCP	229	-	46	0	0		46
7/25/2022	O	Woodland Avenue	O56 - O55	6		8	VCP	377	-	46	0	0		46
7/8/2022	A	Pulgas Avenue	A17 - A31	6		8	VCP		This pipe line was A17 - A17A	45	0	0		45
7/27/2022	B	Ursula Way	B42 - B38	6		8	PVC		MH B41 on Ursula way appearing to be nonexistent, it is	45	0	0	0	45
7/29/2022	C	Woodland Avenue	C49 - C48	6		8	Unknown	248	Proteous	35	0	10		45
12/16/2022	I	Pulgas Avenue	I12 - I6	12	15	21	PVC	339	-	0	45	0		45
8/1/2022	L	Aster Way	L31 - L30	6		8	VCP	179	Pipe is broken at 59ft, and soil is visible	15	0	30		45
7/11/2022	L	Camellia Drive	L20 - L16	6		8	VCP	101	Broken at 6.6ft	45	0	0		45
7/25/2022	L	Daphine Way	L37 - L36	6		8	VCP	312	Hole at 252ft, 93.5ft	45	0	0		45
7/20/2022	M	O'Connor Street	M12 - M15	8	12	15	VCP	337	This is M12-M40 in MP	9	36	0		45
6/28/2022	O	Mission Drive	O46 - O45	6		8	VCP	213	Broken at 3.7ft, Joint Separated Medium along the pipe	25	0	20		45
7/13/2022	C	East Bayshore	C14 - C12	6		8	PVC	282	-	44	0	0		44
7/21/2022	C	East Bayshore	C12 - C1	6	8	12	PVC	265	-	20	24	0		44
8/1/2022	D	Oak Court	D39 - D37	6		8	Unknown	84	New line segment. Proteus was used to inspect this line.	14	0	30		44
7/12/2022	D	East O'Keefe Street	D44 - D43	6		8	VCP	113	Broken at 72.2ft	44	0	0		44
7/1/2022	D	Hwy 101	D6 - D5	8		8	Unknown	246	Joint Offset Large at 112ft	34	0	10		44
6/29/2022	F	Weeks Street	F9 - F23	6		8	VCP	111	This pipeline was F9-F9A	43	0	0	1	44
6/23/2022	G	Mandela Court	G15 - G14	8		8	PVC	215	-	42	0	0	2	44
7/5/2022	K	Sage Street	K14 - K13	6		8	VCP	90	intruding lateral at 81ft and camera can not move	14	0	30		44
7/26/2022	K	Lotus Way / Camellia Drive	K37 - K32	6		8	VCP	350	Joint Offset Large at 342.9ft	34	0	10		44
8/12/2022	L	Wisteria Drive	L24 - L23	8	10	12	PVC	386	-	14	30	0		44
7/29/2022	O	Newell Road	O34 - O10	6		8	ACP	268	-	44	0	0		44
6/27/2022	B	Palo Verde Avenue	B35A - B35	6		8	VCP	207	Unmapped and paved over manhole found at 186 ft from	43	0	0	0	43
7/5/2022	C	East O'Keefe Street	C29 - C28	6		8	PVC	298	-	43	0	0		43
7/27/2022	D	East Bayshore Road	D64 - D63	6		8	VCP	471	MSA/Reverse inspection complete	22	0	20	1	43
7/21/2022	G	Veronica Court	G18 - G17	6		8	PVC	291	-	42	0	0	1	43
12/15/2022	L	Aster Way	L33 - L32	6		8	VCP	91	Hole at 10.2ft	13	0	30		43

Table 1
Summary of Pipeline Evaluations
Capital Improvement Plan
East Palo Alto Sanitary District

Date Inspected	Area	Location/ Street Name	PSR	Actual Diameter (inch)	Master Plan Proposed Diameter (inch)	Recommended Design Diameter (inches)	Pipe Material	Pipe Length (ft)	Notes	Structural Total Score	Score for Master Plan Capacity (3 * Pipe Dia)	Score for Notable Defects	Sag >40%	Total Score
7/7/2022	O	Scofield Street	O54 - O52	6		8	VCP	380	Pipe is broken at 26.08 feet.	23	0	20		43
8/18/2022	O	Woodland Avenue	O29 - O28	6		8	VCP	143	Surcharged MH with substantial crud on water surface.	23	0	20		43
7/21/2022	B	Addison Avenue	B22 - B21	6		8	VCP	33	Broken at 8, 20.8, 79, 82 133, and 170 ft	12	0	30	0	42
7/26/2022	G	Runnymede Street	G14 - G17	6		8	VCP	151	Pipe is broken at 17ft.	17	0	20	5	42
7/20/2022	G	Buchanan Court	G11 - G10	6		8	CP	266	Pipe is broken at 33 ft and 256 ft.	22	0	20		42
7/27/2022	K	Hibiscus Court	K24 - K21	6		8	CP	149	Surface Damage Missing Wall	42	0	0		42
12/13/2022	L	Abelia Way	L58 - L57	6		8	VCP	295	Broken at 13ft, 50ft, 87ft, 236ft	22	0	20		42
8/1/2022	C/D	O'Connor Street	O29 - C37	6		8	Unknown	130	Proteus	31	0	8	2	41
8/12/2022	L	Wisteria Drive	L22 - L3	6		8	VCP	366	Broken at 48.6ft	21	0	20		41
7/12/2022	L	Daphine Way	L37 - L38	6		8	VCP	212	Proteous. Hole at 140.7ft	31	0	10		41
6/21/2022	C	East Bayshore	C16 - C14	6		8	PVC	273		40	0	0		40
1/12/2023	D	Oak Court	D38 - D37	6		8	VCP	238	MSA/Broken. No reverse inspection can be performed	10	0	30		40
1/20/2023	E	University Avenue	E44 - E8A	6		8	VCP	318	Broken at 146 ft. Unmapped MH was found between	30	0	10	0	40
7/20/2022	H	Runnymede Street	H16 - H60	8	12	15	PVC	351	H16B - H16C	4	36	0		40
7/1/2022	K	Camellia Drive	K34 - K33	6		8	VCP	278	-	39	0	0	1	40
7/28/2022	L	Gardenia Way	L5 - L47	6		8	VCP	276	-	40	0	0		40
7/26/2022	O	West Bayshore Road	O60 - O61	14		8	PVC	199	-	40	0	0		40
7/14/2022	T	Bay Trail	K1-T16	15		15	PE	35	lots of grease	35	0	5	0	40
8/9/2022	A	Pulgas Avenue	A31 - A16	6		8	PVC		This pipe line was A17A - A16	38	0	0	1	39
7/11/2022	C	O'Connor Street	C39 - C37	6		8	VCP	164	Proteus. This is the second inspection. First inspection	9	0	30		39
8/4/2022	H	Schembri Lane	H29 - H12	6		8	VCP	551	Broken pipe at 257ft, 349ft	19	0	20		39
7/27/2022	H	Schembri Lane	H30 - H46	6		8	VCP	135	-	39	0	0		39
7/11/2022	L	Daphine Way	L36 - L35	6		8	VCP	278	Hole at 38.4ft	29	0	10		39
8/2/2022	N	Pulgas Avenue	N8 - N9	12		8	PE	119	Joint Separated Large at 9.5ft	9	0	30		39
7/11/2022	C	O'Connor Street	C36 - C35	6		8	Unknown	92	Proteus. This is the second inspection. First inspection	18	0	20		38
12/8/2022	D	East Bayshore Road	D5 - D4	8	10	12	Unknown	90	-	8	30	0		38
7/14/2022	H	Clarke Avenue	H19 - H18	6		8	PVC	387	Sag 60% for 25 ft at the D5	35	0	0	3	38
7/29/2022	H	Runnymede Street	H47 - H35	6		8	VCP	192	Fracture at 8.6 with cracks along the pipeline	37	0	0	1	38
8/4/2022	M	O'Connor Street	M43 - M42	6		8	VCP	104	Broken at 109ft	38	0	0		38
7/27/2022	H	Runnymede Street	H38 - H47	6		8	VCP	205	Broken at 80.3ft	37	0	0		37
7/27/2022	H	Clarke Avenue	H31 - H14	6		8	VCP	404	MSA/JOL. No reverse inspection performed because the	17	0	20		37
8/4/2022	K/L	Azalia Drive	L10 - K27	6		8	VCP	275	Broken connection of lateral at 28ft.	14	0	20	3	37
8/2/2022	K/L	Azalia Drive	L10 - K27	6		8	VCP	275	Broken connection of lateral at 28ft.	14	0	20	3	37
7/26/2022	G	Runnymede Street	G8 - G7	6		8	PVC	327	-	35	0	0	1	36
8/5/2022	G	Ruth Ct	G12 - G4	6		8	PVC		Broken at 47ft, 170ft	36	0	0		36
7/20/2022	G	Runnymede Street	G17 - G2	6		8	VCP	144	-	36	0	0		36
7/29/2022	H	Donohoe Street	H22 - H21	6		8	VCP	216	H56 - H22. Broken pipe at 3.9ft, 137.4ft	16	0	20		36
8/5/2022	H	Runnymede Street	H60 - H15	8	12	15	PVC	107	H16C - H15	0	36	0		36
8/5/2022	J	Garden Street	J6 - J5	6		8	VCP	558	Crack at 404ft	23	0	10	3	36
8/5/2022	L	Gardenia Court	L61 - L5	6		8	VCP	152	Broken at 98.8	26	0	10		36
7/29/2022	L	Daphine Court	L62 - L34	6		8	VCP	147	-	36	0	0		36
7/20/2022	L	Wisteria Drive	L28 - L27	6		8	VCP	363	Hole at 310.2ft	36	0	0		36
7/27/2022	M	O'Connor Street	M15 - M5	8	12	15	VCP	265	-	0	36	0		36
7/27/2022	M	East Bayshore Road	M38 - M39	6	12	15	PVC	158	-	0	36	0		36
7/29/2022	M	East Bayshore Road	M39 - M40	6	12	15	PVC	241	-	0	36	0		36
7/18/2022	M	East Bayshore Road	M40 - M41	6	12	15	PVC	263	This is M40-M5 in MP	0	36	0		36
7/21/2022	M/I	Pulgas Avenue	M2 - I43	12		12	PVC	20	M2 - I15A. Sagging pipeline 100%	31	0	0	5	36
7/22/2022	O	West Bayshore Road	O8 - O59	8		8	VCP	103	-	36	0	0		36
8/12/2022	C	East O'Keefe Street	C34 - C32	6		8	VCP	57	-	35	0	0		35
8/5/2022	H	Donohoe Street	H54 - H20	6		8	VCP	153	Fracture at 14.7ft	25	0	10		35
7/7/2022	L	Aster Way	L30 - L27	6		8	VCP	236	Proteous. Broken at 0.0 ft	15	0	20		35
7/25/2022	L	Verbina Drive	L14 - L13	6		8	VCP	302	-	35	0	0		35
8/3/2022	C	O'Connor Street	C37 - C36	6		8	Unknown	153	Proteus. This is the second inspection. First inspection	21	0	12	1	34
7/11/2022	D	O'Connor Street	D42 - D41	6		8	VCP	100	Crack Multiple at 7.6ft & 69.2ft	34	0	0		34
1/12/2023	D	West Bayshore Road	D54 - D53	6		8	VCP	75	-	34	0	0		34
7/26/2022	E	University Avenue	E23 - E22	6		8	VCP	439	broken at 158 ft	24	0	10	0	34
7/25/2022	H	University Avenue	H37 - H37A	6		8	VCP	221	New Line Segment. Broken at 162ft	14	0	20		34
6/23/2022	I	Brentwood Court	I18 - I8	6		8	PVC	237	-	32	0	0	2	34
6/23/2022	K	Azalia Drive	K8 - K7	8		8	VCP	356	-	34	0	0		34
7/25/2022	K	Daisy Lane	K23 - K22	6		8	Unknown	100	Material change at 23ft and needs a mini camera	24	0	10		34
7/28/2022	L	Camellia Drive	L52 - L50	6	8	8	VCP	224	-	10	24	0		34
7/26/2022	L	Gaillardia Way	L12 - L11	6		8	VCP	82	-	34	0	0		34
7/29/2022	L	Jasmine Way	L44 - L45	8		8	PVC	238	-	34	0	0		34
7/26/2022	A	Pulgas Avenue	A19 - A18	6		8	VCP	214	Fracture multiple along the pipeline	33	0	0		33
7/26/2022	B / C	Menalto Avenue	C1 - B16A	8	8	8	PVC	17	Unmapped MH was located 17 ft from C1 named B16A	9	24	0	0	33
7/7/2022	L	Abelia Way	L59 - L58	6		8	VCP	250	Broken at 220ft, 245ft	13	0	20		33
12/9/2022	L	Gardenia Way	L7 - L6	6	6	8	VCP	261	-	15	18	0		33
8/1/2022	L	Gardenia Way	L4 - L3	12		12	VCP	248	-	33	0	0		33
7/28/2022	C	East O'Keefe Street	C32 - C30	6		8	VCP	147	-	32	0	0		32
7/26/2022	D	Woodland Avenue	D58 - D57	6		8	VCP	158	-	32	0	0		32
7/11/2022	F	Weeks Street	F17 - F22	6		8	VCP	56	This pipe line was F17 - F17A	32	0	0		32
7/28/2022	G	Runnymede Street	G2 - G19	6		8	VCP	154	This pipeline was G2-G2A	32	0	0		32
7/21/2022	L	Daphine Way	L39 - L40	6		8	VCP	346	Broken at 296.7ft	12	0	20		32
6/22/2022	L	Camellia Court	L56 - L54	6		8	VCP	327	-	32	0	0		32
7/7/2022	L	Camellia Drive	L45 - L25	8		8	VCP	202	-	31	0	0	1	32
6/15/2022	C	Green Street	C24 - C23	6		8	VCP	151	MSA/JOM. No reverse inspection performed because the	11	0	20		31
8/9/2022	D	Manhattan Avenue	D76 - D19	10		12	PVC	99	-	31	0	0		31
12/8/2022	H	Schembri Lane	H52 - H29	6		8	VCP	94	Fracture at 43.7ft	11	0	20		31
6/23/2022	H	Clarke Avenue	H20 - H19	6		8	PVC	271	75% sag. Fractures and cracks	27	0	0	4	31
7/26/2022	K	Wisteria Drive	K12 - K11	6		8	VCP	354	-	31	0	0		31
8/18/2022	O	Clarke Avenue	O25 - O7	6		8	VCP	177	This is the second inspection. The first inspection on 6.29	21	0	10		31
7/25/2022	A	Bay Road	A22 - A29	15		15	ACP	369	-	30	0	0		30
8/3/2022	B	Menalto Avenue	B49 - B14	8	8	8	VCP	328	-	6	24	0	0	30
12/9/2022	C	Menalto Avenue	C3 - C2A	6	8	8	PVC	370	New line segment	6	24	0		30
7/12/2022	C	East O'Keefe Street	C30 - C27	6		8	VCP	163	-	30	0	0		30
6/29/2022	E	University Avenue	E22 - E8	6		8	VCP	450	-	30	0	0	0	30

Table 1
Summary of Pipeline Evaluations
Capital Improvement Plan
East Palo Alto Sanitary District

Date Inspected	Area	Location/ Street Name	PSR	Actual Diameter (inch)	Master Plan Proposed Diameter (inch)	Recommended Design Diameter (inches)	Pipe Material	Pipe Length (ft)	Notes	Structural Total Score	Score for Master Plan Capacity (3 * Pipe Dia)	Score for Notable Defects	Sag >40%	Total Score
1/12/2023	F	Weeks Street	F22 - F12	6		8	VCP	54	This pipe line was F17A - F12	30	0	0		30
7/11/2022	L	Verbina Drive	L18 - L17	6		8	VCP	331	Broken at 135ft	10	0	20		30
7/25/2022	D	East Bayshore Road	D63 - D5	8		8	VCP	297	-	29	0	0		29
7/5/2022	H	Sacramento Street	H40 - H36	6		8	VCP	496	MSA/Reverse Inspection Complete	29	0	0		29
6/27/2022	I	Myrtle Street	I28 - I21	6		8	VCP	315	This pipe line was I23A - I21	29	0	0		29
8/3/2022	O	West Bayshore Road	O12 - O11	8		8	VCP	394	-	29	0	0		29
6/30/2022	O	Woodland Avenue	O19 - O17	6		8	VCP	86	Broken at 83 ft	19	0	10		29
6/28/2022	A	Demeter Street	A11 - A11A	6		8	PVC	209	Uncharted MH was found between A11-A10 on Demeter	28	0	0		28
7/19/2022	A	Gonzaga Street	A4 - A3	6		8	VCP	312	Broken ar 205.9ft, multiple fractures	18	0	10		28
7/8/2022	B	Glen Way	B48 - B7	6		8	VCP	450	inspection was abandoned at 4.6 ft from B7 and the	8	0	20	0	28
8/11/2022	L	Gardenia Way	L6 - L5	6		8	VCP	215	-	28	0	0		28
7/26/2022	O	Mission Drive	O50 - O49	6		8	VCP	172	Joint Offset Large at 170 ft	28	0	0		28
12/16/2022	O	West Bayshore Road	O7 - O6	8	8	8	Unknown	427	-	4	24	0		28
7/8/2022	O	West Bayshore Road	O18 - O17	8		8	VCP	264	-	28	0	0		28
8/9/2022	D	Woodland Avenue	D61 - D60	6		8	VCP	101	Joint Offset Large at 91 ft	7	0	20		27
6/22/2022	M	Clarke Avenue	M14A - M5	6		8	VCP	75	New Line Segment. Broken at 70.2ft	7	0	20		27
8/8/2022	N	Pulgas Avenue	N5 - N4	12		12	PE	332	-	27	0	0		27
8/11/2022	O	West Bayshore Road	O17 - O3	8		8	VCP	161	-	27	0	0		27
6/28/2022	O	Mission Drive	O44 - O43	6		8	VCP	69	Joint Separated Large at 3.6ft	7	0	20		27
6/28/2022	A	Demeter Street	A11A - A10	6		8	PVC	206	Uncharted MH was found between A11-A10 on Demeter	26	0	0		26
7/25/2022	K	Azalia Drive	K27 - K26	6		8	VCP	200	-	26	0	0		26
7/8/2022	L	Verbina Drive	L15 - L14	6		8	VCP	310	-	26	0	0		26
7/27/2022	O	Mission Drive	O48 - O47	6		8	VCP	122	Surface Damage at 119ft	14	0	12		26
7/26/2022	K	Sage Street	K10 - K9	6		8	VCP	156	-	25	0	0		25
7/19/2022	M	Clarke Avenue	M21 - M20	12		12	VCP	78	M20 - M6	25	0	0		25
8/10/2022	O	West Bayshore Road	O6 - O5	8		8	Other	399	-	25	0	0		25
6/27/2022	O	West Bayshore Road	O13 - O12	8		8	Other	415	-	25	0	0		25
7/25/2022	D	Euclid Avenue	D34 - D33	8	8	8	PE	293	-	0	24	0		24
6/21/2022	D	Oakwood Dive	D66 - D65	8	8	8	Unknown	413	-	0	24	0		24
7/5/2022	E	Cooley Avenue	E38 - E3C	6		8	Unknown	44	-	24	0	0	0	24
1/13/2023	H	Bell Court	H27 - H26	6		8	VCP	115	One fracture at 105 ft	24	0	0	0	24
12/7/2022	I	Brentwood Court	I19 - I18	6		8	PVC	239	-	23	0	0	1	24
6/29/2022	L	Wisteria Drive	L27 - L26	8		8	VCP	260	-	24	0	0		24
7/28/2022	O	Newell Road	O30 - O35	6		8	ACP	176	-	24	0	0		24
1/12/2023	A	Tara Street	A25 - A24	6		8	VCP	253	-	23	0	0		23
7/6/2022	E	University Avenue	E8A - E8	6		8	VCP	316	Unmapped MH was found between E44-E8, named E8A	23	0	0	0	23
7/20/2022	G	Runnymede Street	G3 - G14	6		8	PVC	208	Multiple cracks along the pipe	22	0	0	1	23
6/29/2022	O	Newell Road	O36 - O30	6		8	ACP	164	-	23	0	0		23
7/26/2022	L	Abelia Way	L57 - L53	6		8	VCP	203	-	22	0	0		22
6/28/2022	O	Mission Drive	O37 - O25	6		8	VCP	81	50% sagging pipe	20	0	0	2	22
7/25/2022	D	West Bayshore Road	D52 - D51	6		8	VCP	267	Broken at 262 ft	11	0	10		21
7/28/2022	H	Cooley Avenue	H33 - H32	8		8	Other	515	-	21	0	0		21
7/20/2022	I	Pulgas Avenue	I16 - I6	8		8	PVC	493	-	20	0	0	1	21
6/28/2022	K	Camellia Drive	K30 - K31	8		8	PVC	108	-	20	0	0	1	21
6/24/2022	O	Clarke Avenue	O27 - O26	6		8	VCP	65	-	21	0	0		21
8/3/2022	A	Bay Road	A30 - A28	6		8	VCP	301	-	20	0	0		20
12/14/2022	B	Bay Road	B14 - B13	8		8	PVC	253	-	20	0	0	0	20
12/15/2022	B	Ursula Way	B51 - B50	6		8	PVC	282	-	20	0	0	0	20
12/22/2022	D	Emma Lane	D62 - D59	6		8	VCP	248	D62 is cleanout with "water" lid	10	0	10		20
1/12/2023	E	Bell Street	E10 - E9	12		8	PVC	192	-	20	0	0	0	20
12/7/2022	E	University Avenue	E45 - E44	6		8	VCP	319	-	20	0	0	0	20
7/22/2022	F	Clarke Avenue	F16 - F15	6		8	VCP	238	-	20	0	0		20
7/22/2022	H	Bell Street	H25 - H11	6		8	VCP	378	Fractures and cracks	20	0	0	0	20
7/22/2022	J	Cypress Street	J11 - J11A	8		8	PVC	200	New Line Segment	20	0	0		20
7/22/2022	J	Cypress Street	J11A - T20	8		8	PVC	81	New Line Segment	20	0	0		20
7/28/2022	J	Cypress Street	J12 - J11	8		8	PVC	299	-	20	0	0		20
7/28/2022	J	Cypress Street	J13 - J12	8		8	PVC	299	-	20	0	0		20
7/22/2022	K	Camellia Drive	K32 - K30	8		8	PVC	227	-	20	0	0		20
8/4/2022	L	Daphine Way	L38 - L39	6		8	VCP	215	-	20	0	0		20
8/4/2022	M	Tate Street	M29 - M31	8		8	PVC	329	-	20	0	0		20
7/8/2022	N	Pulgas Avenue	N6 - N5	12		8	PE	333	-	20	0	0		20
6/22/2022	N	Pulgas Avenue	N9 - N7	12		8	PE	284	-	20	0	0		20
7/27/2022	C	East O'Keefe Street	C31 - C30	6		8	VCP	67	-	18	0	0		18
7/7/2022	L	Aster Way	L32 - L31	6		8	VCP	293	Hole at 157ft	8	0	10		18
7/12/2022	F	Weeks Street	F8A - F7	6		8	VCP	75	New Line Segment	17	0	0	0	17
6/28/2022	O	Mission Drive	O45 - O8	6		8	VCP	66	Broken at 38.7ft	7	0	10		17
6/24/2022	C	East O'Keefe Street	C27 - C5	6		8	VCP	222	Broken at 1.7ft	16	0	0		16
7/7/2022	D	Dumbarton Avenue	D70 - D51	6		8	VCP	71	-	16	0	0		16
6/22/2022	D	Woodland Avenue	D60 - D59	6		8	VCP	113	-	16	0	0		16
12/16/2022	B	Gloria Way	B38 - B50	6		8	VCP	39	-	15	0	0	0	15
6/30/2022	O	Woodland Avenue	O24 - O23	6		8	VCP	97	-	15	0	0		15
8/3/2022	H	University Avenue	H44 - H37	6		8	VCP	269	-	14	0	0		14
7/29/2022	N	Wilkes Street	N13 - N14	8		8	PVC	167	-	14	0	0		14
6/22/2022	D	Woodland Avenue	D59 - D58	6		8	VCP	151	-	13	0	0		13
1/23/2023	E	Cooley Avenue	E3 - E3A	6		8	PVC	52	-	12	0	0	0	12
1/23/2023	h	Cooley Avenue	H50 - H51	6		8	CI	190	-	12	0	0	0	12
8/10/2022	K	Sage Street	K15 - K9	6		8	VCP	74	-	12	0	0		12
7/26/2022	L	Jasmine Way	L42 - L43	8		8	VCP	330	-	12	0	0		12
7/28/2022	M	Clarke Avenue	M16 - M8	12		8	VCP	67	M8 - M8A	12	0	0		12
7/6/2022	A	Tara Street	A26 - A25	6		8	VCP	234	-	11	0	0		11
12/15/2022	B	Palo Verde Avenue	B36 - B35A	6		8	UNK	49	badly broken at 13.7 ft	0	0	10	0	10
7/21/2022	H	Schembri Lane	H53 - H52	6		8	VCP	233	-	10	0	0		10
7/29/2022	K	Wisteria Drive	K5A - K5	6		8	Other	30	New MH - Proteous	9	0	0	1	10
8/9/2022	M	Clarke Avenue	M14 -	6		8	VCP	252	New Line Segment	10	0	0		10
8/9/2022	N	McNair Street	N22 - N15	8		8	PVC	212	Pipeline has reverse sag allowing an opposite flow	0	0	8	2	10
7/7/2022	C	East O'Keefe Street	C33 - C32	6		8	VCP	71	-	9	0	0		9

Table 1
Summary of Pipeline Evaluations
Capital Improvement Plan
East Palo Alto Sanitary District

Date Inspected	Area	Location/ Street Name	PSR	Actual Diameter (inch)	Master Plan Proposed Diameter (inch)	Recommended Design Diameter (inches)	Pipe Material	Pipe Length (ft)	Notes	Structural Total Score	Score for Master Plan Capacity (3 * Pipe Dia)	Score for Notable Defects	Sag >40%	Total Score
6/28/2022	D	Falk Court	D32 - D30	6		8	VCP	126		9	0	0		9
6/16/2022	O	Mission Drive	O38 - O37	6		8	VCP	117		9	0	0		9
N/A	C	Menalto Avenue	C11 - C10	6		8	PE	508		8	0	0		8
7/25/2022	D	Oak Court	D39 - D38			8	-	84	Cleanout D38 does not exist. Line ends at MH D37.	0	0	8		8
7/6/2022	I	Myrtle Street	C/O - I22	6		8	VCP	61	New Line Segment - uncharted clean out	8	0	0		8
7/22/2022	J	Garden Street	J5 - J5A			8	PVC	275	New Line Segment	8	0	0		8
7/26/2022	L	Gardenia Way	L8 - L7	6		8	VCP	73		8	0	0		8
8/4/2022	N	Pulgas Avenue	N7 - N6	12		8	PE	333		8	0	0		8
6/28/2022	N	Mouton Circle	N20 - N21	8		8	PVC	72		8	0	0		8
8/5/2022	O	Mission Drive	O39 - O37	6		8	VCP	41		8	0	0		8
12/21/2022	E	Lincoln Street	E28 - E27	6		8	VCP	62	One fracture	7	0	0	0	7
8/5/2022	H	Salas Court	H48 - H55	6		8	PVC	217	H48 - H21	7	0	0		7
7/25/2022	I	Myrtle Street	I22 - I23	6		8	VCP	44		7	0	0		7
7/1/2022	O	West Bayshore Road	O15 - O14	8		8	Unknown	308		7	0	0		7
8/10/2022	A	Bay Road	A28 - A29	6		8	ACP	15		6	0	0		6
6/28/2022	D	Woodland Avenue	D57 - D56	6		8	VCP	197		6	0	0		6
1/18/2023	M	Clarke Avenue	M18 - M5	12		8	VCP	154		6	0	0		6
8/3/2022	O	Mission Drive	O43 - O42	6		8	VCP	182		6	0	0		6
6/22/2022	T	Bay Trail	T22 - T21	18		8	RCP	197		6	0	0	0	6
12/9/2022	B	Bay Road	B8 - B7	12		8	PVC	371	the pipe had numerous 85% sags	0	0	0	5	5
1/11/2023	H	Clarke Avenue	H18 - H5	8		8	PE	8	pipeline has lots of debris	0	0	5	0	5
8/12/2022	H	Vines Court	H63 - H62	6		8	PVC	40	H57 - H58	5	0	0		5
12/12/2022	B	Poplar Avenue	B18 - B17	8		8	PVC	497	New pipeline	4	0	0	0	4
1/13/2023	D	Byers Drive	D30 - D26	6		8	VCP	436		4	0	0		4
12/8/2022	E	Cooley Avenue	E38 - E3A	6		8	Unknown	13		4	0	0	0	4
7/22/2022	H	Clarke Court	H68 - H66	6		8	PVC	70		4	0	0	0	4
8/10/2022	J	Garden Street	J5A - J5B	8		8	PVC	212	New Line Segment	4	0	0		4
7/21/2022	L	Abelia Way	L60 - L59	6		8	VCP	109		4	0	0		4
7/26/2022	M	Clarke Avenue	M22 - M21	12		8	VCP	116	M7 - M20	4	0	0		4
6/16/2022	M	Tate Street	M27 - M29	8		8	PVC	35		4	0	0		4
1/23/2023	B	Bay Road	B46 - B5	6		8	PVC	17		3	0	0	0	3
7/28/2022	L	Daphine Way	L41 - L40	6		8	VCP	71		3	0	0		3
7/26/2022	L	Camellia Drive	L55 - L54	6		8	VCP	149		3	0	0		3
7/22/2022	M/N	Gates Street	M30 - N29	8		8	PVC	255		3	0	0		3
7/22/2022	N	Mouton Circle	N15 - N16	8		8	PVC	252		3	0	0		3
6/28/2022	O	Mission Drive	O42 - O39	6		8	VCP	48		3	0	0		3
1/18/2023	T	Bay Trail	T20A - T20	18		8	PE	340	unmapped MH found 83 ft from T21, named T20A during	3	0	0	0	3
1/18/2023	T	Bay Trail	T21 - T20	18		8	PE	83	unmapped MH found 83 ft from T21, named T20A during	3	0	0	0	3
7/11/2022	F	Weeks Street	F13 - F19	6		8	VCP	24		2	0	0		2
7/21/2022	G	Mandela Court	G16 - G15	8		8	PVC	154		2	0	0		2
12/8/2022	H	Clarke Court	H69 - H68	6		8	PVC	45		2	0	0	0	2
8/10/2022	M	Clarke Avenue	M19 - M18	12		8	VCP	95		2	0	0		2
8/10/2022	M	Clarke Avenue	M7 - M6	12		8	VCP	297	M21 - M7	2	0	0		2
6/28/2022	O	Mission Drive	O49 - O47	6		8	VCP	73	Crack at 68.7 ft	2	0	0	0	2
7/14/2022	O	Highway 102	O59 - O60	10		8	VCP	40		2	0	0		2
N/A	A	Demeter Street	A11 - A10				Unknown	418	Line has an uncharted manhole. See A11-A11A-A10	0	0	0		0
1/27/2023	A	Bay Road	A17 - A16				Unknown	423	Line has an uncharted manhole. See A17-A31-A16	0	0	0		0
12/9/2022	A	Bay Road	A21 - A23				Unknown	155	A21 does not connect to A23 but it connects to A22.	0	0	0		0
12/9/2022	B	Addison Avenue	B23 - B22	8		8	PVC	380	New pipeline	0	0	0	0	0
1/27/2023	B	Ursula Way	B41 - B38	0			N.A.	170	MH B41 on Ursula way appearing to be nonexistent, it is	0	0	0	-	0
8/8/2022	B		B42 - B41	0			N.A.	166	MH B41 on Ursula way appearing to be nonexistent, it is	0	0	0	-	0
N/A	B	Bay Road	B47 - B46	6		8	PVC	158		0	0	0	0	0
N/A	C	Menalto Avenue	C10 - C9				-	301	Could not find MH C9. C10 connects to C8. 7.6.22	0	0	0		0
N/A	C	East O'Keefe Street	C28 - C27	6		8	PVC	43		0	0	0		0
12/13/2022	C	Menalto Avenue	C3 - C2				-	398	Line has an uncharted manhole, See C2A	0	0	0		0
12/16/2022	C	Menalto Avenue	C9 - C8				-	84	Line does not exist. C8 connects to C10. 7.6.22	0	0	0		0
12/16/2022	D	Donohoe Street	D3 - D2				-	363	Line has an uncharted manhole, See D3 - D3A	0	0	0		0
1/23/2023	D	Falk Court	D31 - D30	6		8	VCP	153		0	0	0		0
N/A	D	Manhattan Avenue	D73 - D76	10		8	PVC	277		0	0	0		0
7/7/2022	D	Manhattan Avenue	D74 - D73	8		8	Unknown	210		0	0	0		0
N/A	D	Manhattan Avenue	D75 - D74	8		8	Unknown	195		0	0	0		0
N/A	E	Cooley Avenue	E16 - E3				N.A.	390	Pipeline does not connect as shown on the map; instead,	#VALUE!	0	0	-	0
6/16/2022	E	Cooley Avenue	E17 - E16	0			N.A.	430	Pipeline does not connect as shown on the map; instead,	#VALUE!	0	0	-	0
6/23/2022	E	Capitol Avenue	E18 - E4				N.A.	500	EPASD Staff Darrin, mentioned that these manholes do	#VALUE!	0	0	-	0
6/23/2022	E	Capitol Avenue	E19 - E18				N.A.	190	EPASD Staff Darrin, mentioned that these manholes do	#VALUE!	0	0	-	0
6/23/2022	E	Capitol Avenue	E21 - E21A	6		8	PVC	67		0	0	0		0
8/8/2022	E	Euclid Place	E24 - E9	6		8	PVC	100	Pipeline was reported to be 340 f; however, the pipeline	0	0	0	-	0
1/13/2023	E	Cooley Avenue	E3 - E3A	6		8	Unknown			0	0	0	-	0
1/13/2023	E	Cooley Avenue	E3C - E3D	6		8	Unknown	125		0	0	0	0	0
1/13/2023	F	Carole Court	F21 - F20	6		8	PVC	281	MH was F20 - F21	0	0	0		0
1/13/2023	F	Weeks Street	F8 - F7				Unknown	357	Line has an uncharted manhole. See F8-F8A-F7	0	0	0		0
1/10/2023	H	Clarke Avenue	H5 - H4	15	18	18	VCP	259	Beech St. Project pipeline has lots of debris	72	54	5	0	0
12/22/2022	H	Clarke Avenue	H64-H71	8	12	12	VCP	166	Beech St. Project pipeline has a lot of accumulated	124	36	5	25	0
1/13/2023	H	Green Street	H7 - H75	12	18	18	PE	91	Beech St. Project H7B - H7C	20	54	0		0
1/13/2023	H	Clarke Avenue	H11 - H64	8	12	12	VCP	198	Beech St. Project H11 - H60. Broken at 73.2ft	34	36	0		0
7/11/2022	H	Runnymede Street	H16 - H15				Unknown	351	Line has uncharted manholes.	0	0	0		0
N/A	H	Clarke Avenue	H2 - I11	15	18	18	VCP	37		0	54	0	0	0
8/2/2022	H	Beech Street	H3 - H2	15	18	18	VCP	31	MH H3 is paved over	0	54	0	0	0
N/A	H	University Avenue	H37 - H36				Unknown	370	Line has an uncharted manhole	0	0	0		0
12/9/2022	H	Runnymede Street	H39 - H38				Unknown	132	MH39 and a pipeline to H38 do not exist. H38 appears to	0	0	0		0
12/9/2022	H	Clarke Avenue	H4 - H3	15	18	18	VCP	7	Beech St. Project MH H3 is paved over	0	54	0	0	0
N/A	H	Salas Court	H49 - H48	6		8	PVC	45		0	0	0		0
N/A	H	Donohoe Street	H55 - H21				Unknown	157	Line has an uncharted manhole	0	0	0		0
12/9/2022	H	Green Street	H6 - H5	12	18	18	PE	9	Beech St. Project	0	54	0	0	0
8/5/2022	H	Clarke Court	H65 - H64	6		8	PVC	168		0	0	0	0	0
N/A	H	Clarke Court	H66 - H65	6		8	PVC	55		0	0	0	0	0

Table 1
Summary of Pipeline Evaluations
Capital Improvement Plan
East Palo Alto Sanitary District

Date Inspected	Area	Location/ Street Name	PSR	Actual Diameter (inch)	Master Plan Proposed Diameter (inch)	Recommended Design Diameter (inches)	Pipe Material	Pipe Length (ft)	Notes	Structural Total Score	Score for Master Plan Capacity (3 * Pipe Dia)	Score for Notable Defects	Sag >40%	Total Score
12/9/2022	H	Clarke Court	H67 - H66	6	12		PVC	45	-	0	0	0	0	0
12/8/2022	H	Green Street	H7 - H6				Unknown	90	Beech St. Project Line has unchartered manholes.	0	0	0	0	0
12/8/2022	H	Clarke Court	H70 - H68	6			PVC	50	-	0	0	0	0	0
12/8/2022	H	Clarke Avenue	H71 - H3	8			VCP	35	Beech St. Project survey abandoned at 29 ft as camera	55	36	0	0	0
N/A	H	Tea Court	H72 - H71	6			PVC	180	H59 - H60. Paved over	0	0	0	0	0
12/8/2022	H	Green Street	H73 - H74	12			PE	104	Beech St. Project H8 - H7	20	54	0	0	0
12/9/2022	H	Green Street	H74 - H8	12			PE	112	Beech St. Project H7 - H7A	21	54	0	0	0
12/8/2022	H	Green Street	H75 - H6	12			PE	259	Beech St. Project H7C - H6	36	54	0	0	0
8/8/2022	H	Green Street	H8 - H7	12			PE	235	Beech St. Project H7A - H7B	20	54	0	0	0
8/8/2022	H	Green Street	H9 - H73	12			PE	246	Beech St. Project H9 - H8	20	48	0	0	0
8/8/2022	H/E	Green Street	E1 - H9	12	18		PE	270	Beech St Project	20	48	0	0	0
8/8/2022	I	Beech Street	I10 - I9	15			CP	221	Beech St. Project	10	54	0	0	0
8/8/2022	I	Beech Street	I11 - I10	15			CP	380	Beech St. Project	20	54	0	0	0
7/31/2022	I	Myrtle Street	I21 - I24				Unknown	364	MH I24 does not exist. Inspection ended at I13.	0	0	0	0	0
8/1/2022	I	Myrtle Street	I24 - I13				Unknown	237	MH I24 does not exist. Inspection started from I21, see I21	0	0	0	0	0
N/A	I	Myrtle Court	I25 - I24				Unknown	154	Line does not exist. 7.25	0	0	0	0	0
N/A	I	Sparrow Ct	I26 - I23	6			PVC	166	This pipe line was I23 - I23C. New Line Segment. Proteous	0	0	0	0	0
N/A	I	Myrtle Pl	I29 - I28	6			PVC	166	New Line Segment. This pipe line was I23B - I23A	0	0	0	0	0
7/29/2022	I	Beech Street	I3 - I19	18	24		PVC	188	Beech St. Project Upgrade to 24" per MP	30	72	0	5	0
7/28/2022	I	Beech Street	I31 - I4	18			PVC	320	Beech St. Project This pipe line was I5A-I4	19	72	0	0	0
8/1/2022	I	Beech Street	I4 - I3	18			PVC	243	Beech St. Project	4	72	0	0	0
8/2/2022	I	Beech Street	I5 - I31	18			PVC	154	Beech St. Project This pipe line was I5-I5A	0	72	0	0	0
8/2/2022	I	Beech Street	I5 - I4				Unknown	135	Beech St. Project Line has an unchartered manhole. See	0	0	0	0	0
8/2/2022	I	Beech Street	I6 - I5	18			PVC	411	Beech St. Project	0	72	0	0	0
N/A	I	Beech Street	I7 - I6	15			CP	259	Beech St. Project Surface damage roughness. Sagging	26	60	0	20	0
8/1/2022	I	Beech Street	I8 - I7	15			CP	238	Beech St. Project	0	60	0	0	0
8/1/2022	I	Beech Street	I9 - I8	15			CP	155	Beech St. Project Pipe is broken at 228ft and 293ft	20	60	0	0	0
8/1/2022	J	Cypress Street	I11 - I20		15		Unknown	282	Line has an unchartered manhole. See I11-I11A-I20	0	0	0	0	0
8/1/2022	J	Cypress Street	J14 - J13	8			PVC	190	-	0	0	0	0	0
N/A	J	Garden Street	J5 - T21				Unknown	585	Line has unchartered manholes. See JS-J5A-J5B-J5C-T21	0	0	0	0	0
7/22/2022	J	Garden Street	J5B - J5C	8			PVC	41	New Line Segment	0	0	0	0	0
N/A	J	Garden Street	J9 - J8				Unknown	401	Line has an unchartered manhole. See J9-J9A-J8	0	0	0	0	0
7/22/2022	K	O'Connor Street	K2 - K1				Unknown	451	Light Tree Project. Cleaned twice via EPASD, and Twice by	0	45	30	25	0
N/A	K	Wisteria Drive	K25 - K5A	6			PVC	376	New Line Segment	0	0	0	0	0
7/28/2022	K	O'Connor Street	K3 - K2	12			PE	190	Light Tree Project	60	45	0	10	0
7/28/2022	K	O'Connor Street	K4 - K3	12			PE	238	Light Tree Project Grease deposits 5%. Sagging pipe 55%	68	45	0	0	0
7/28/2022	K	O'Connor Street	K5 - K4	12			PE	248	Light Tree Project	68	0	0	15	0
7/28/2022	K	O'Connor Street	K6 - K5	12			PE	251	Light Tree Project	52	0	0	0	0
7/28/2022	L	Camella Drive	L51 - L50	6	12		VCP	80	-	6	0	0	0	0
7/26/2022	M	Clarke Avenue	M14 - M5				Unknown	328	Line has unchartered manholes. See M14-M14A-M5	0	0	0	0	0
N/A	M	Clarke Avenue	M20 - M19	12			VCP	80	M6 - M19	0	0	0	0	0
N/A	M	Tinsley Street	M23 - M24	8			PVC	195	-	0	0	0	0	0
N/A	M	Tinsley Street	M24 - M25	8			PVC	260	-	0	0	0	0	0
8/10/2022	M	Tate Street	M25 - M26	8			PVC	270	-	0	0	0	0	0
7/21/2022	M	Tate Street	M26 - M27	8			PVC	125	-	0	0	0	0	0
7/21/2022	M	Wilkes Street	M27 - M28				Unknown	35	This line has does not exist.	0	0	0	0	0
7/21/2022	M	Oakes Street	M32 - M33	8			PVC	195	-	0	0	0	0	0
7/21/2022	M	Oakes Street	M33 - M34	8			PVC	288	-	0	0	0	0	0
N/A	M	Tate Street	M35 - M34	8	10		PVC	124	-	0	0	0	0	0
7/22/2022	M	Baines Street	M36 - M37	8			PVC	257	-	0	0	0	0	0
7/21/2022	M	O'Connor Street	M4 - M31	12			PVC	143	-	14	36	0	0	0
7/21/2022	M	Clarke Avenue	M6 - M22	12			VCP	43	M22 - M21	0	0	0	0	0
7/21/2022	M	Clarke Avenue	M8 - M22				Unknown	192	Line has an unchartered manhole	0	0	0	0	0
7/21/2022	M	Clarke Avenue	M8 - M7	12			VCP	137	M8A - M22	0	0	0	0	0
7/21/2022	M/I	O'Connor Street	M2 - I15				Unknown	20	Repeat naming. Already inspected. See M2-I43-I15	0	0	0	0	0
7/21/2022	M/I	Pulgas Avenue	M2 - I15				Unknown	20	Line has unchartered manholes. See M2-I43-I15	0	0	0	0	0
7/29/2022	M/N	Wilkes Street	M28 - N11	8			PVC	236	-	0	0	0	0	0
8/10/2022	M/N	Oakes Street	M34 - N22	8			PVC	253	-	0	0	0	0	0
N/A	M/N	Baines Street	M37 - N24	8	10		PVC	259	-	0	0	0	0	0
8/10/2022	N	Gates Street	N10 - N13	8			PVC	176	-	0	0	0	0	0
8/10/2022	N	Wilkes Street	N11 - N12	8			PVC	227	-	2	0	0	0	0
7/22/2022	N	Wilkes Street	N12 - N13	8			PVC	158	-	0	0	0	0	0
7/22/2022	N	Pulgas Avenue	N14 - N2	10			PE	88	Light Tree Project	28	30	0	0	0
7/22/2022	N	McNair Street	N15 - N18	8			PVC	190	-	0	0	0	0	0
8/8/2022	N	Mouton Circle	N16 - N17	8			PVC	228	-	0	0	0	0	0
7/22/2022	N	Mouton Circle	N17 - N20	8			PVC	197	-	0	0	0	0	0
7/22/2022	N	Mouton Circle	N18 - N19	8			PVC	256	-	0	0	0	0	0
7/22/2022	N	Mouton Circle	N19 - N20	8			PVC	224	-	0	0	0	0	0
7/22/2022	N	Pulgas Avenue	N2 - N1	10	10		PE	296	Light Tree Project	40	30	0	0	0
7/22/2022	N	Pulgas Avenue	N21 - N14	12			PE	196	Light Tree Project	40	30	0	0	0
8/8/2022	N	Oakes Street	N22 - N23	8			PVC	212	-	0	0	0	0	0
8/8/2022	N	Oakes Street	N23 - N28	8			PVC	193	-	0	0	0	0	0
7/21/2022	N	Baines Street	N24 - N25	8			PVC	116	-	0	0	0	0	0
7/21/2022	N	Baines Street	N25 - N26	8			PVC	262	-	0	0	0	0	0
7/21/2022	N	Baines Street	N26 - N27	8			PVC	248	-	0	0	0	0	0
7/21/2022	N	Baines Street	N27 - N28	8			PVC	183	-	0	0	0	0	0
7/21/2022	N	Oakes Street	N28 - N4	8			PVC	150	Light Tree Project	20	0	0	0	0
7/21/2022	N	Gates Street	N29 - N10	8			PVC	326	-	0	0	0	0	0
8/5/2022	N	Pulgas Avenue	N3 - N21	12	10		PE	89	Light Tree Project	10	30	0	0	0
7/22/2022	N	McNair Street	N30 - N11	8			PVC	134	-	0	0	0	0	0
8/8/2022	N	Pulgas Avenue	N4 - N3	12			PE	335	Light Tree Project	26	0	0	0	0
7/22/2022	N/K	O'Connor Street	N1 - K6	12			PE	253	Light Tree Project	48	0	0	0	0
8/8/2022	O	West Bayshore Road	O14 - O13	8			VCP	130	-	0	0	0	0	0
6/27/2022	O	Mission Drive	O40 - O39	6			VCP	37	-	0	0	0	0	0
6/28/2022	O	Mission Drive	O47 - O45	6			VCP	72	-	0	0	0	0	0
6/28/2022	O	Cooley Avenue	O51 - O13				-	468	Line has an unchartered manhole, see MH O51A	0	0	0	0	0

Table 1
Summary of Pipeline Evaluations
Capital Improvement Plan
East Palo Alto Sanitary District

Date Inspected	Area	Location/ Street Name	PSR	Actual Diameter (inch)	Master Plan Proposed Diameter (inch)	Recommended Design Diameter (inches)	Pipe Material	Pipe Length (ft)	Notes	Structural Total Score	Score for Master Plan Capacity (3 * Pipe Dia)	Score for Notable Defects	Sag >40%	Total Score
N/A	O/M	East Bayshore Road	O61 - M8				-	12	O61 is buried. The crew attempted to inspect it from O60	0	0	0		0
N/A	T	Airport - Embarcadero Road	T3 - T2A	30	24		RCP	192	Trunk Expansion Project. unmapped MH was found	12	72	10	0	0
-	T	Airport - Embarcadero Road	T2 - T1	30	24		RCP	506	Trunk Expansion Project. Pipeline is 75% sagging with	16	72	5	20	0
1/26/2023	T	Airport - Embarcadero Road	T1 - T0	-	24		Unknown	329	Trunk Expansion Project. not surveyed because of access	#VALUE!	72	0	-	0
1/20/2023	T	Airport runway	T10 - T9	30	24		Unknown	447	Trunk Expansion Project.	14	72	0	0	0
1/20/2023	T	Airport runway	T11 - T10	30	24		Unknown	326	Trunk Expansion Project.	3	72	0	0	0
1/20/2023	T	San Fransquito Creek	T12 - T11	30	24		Unknown	482	Trunk Expansion Project.	0	72	0	0	0
1/27/2023	T	Bay Trail	T16-T33	22			PE	56	Trunk Expansion Project.	2	0	0	0	0
1/20/2023	T	Airport - Embarcadero Road	T2A-T2	30	24		RCP	311	Trunk Expansion Project. unmapped MH was found	7	72	0	0	0
1/20/2023	T	San Fransquito Creek	T30-T12	30	24		Unknown	215	Trunk Expansion Project.	6	72	0	0	0
1/20/2023	T	Bay Trail	T31-T30	30	24		Unknown	315	Trunk Expansion Project.	3	72	0	0	0
-	T	San Fransquito Creek	T32-T31	30	24		RCP	100	Trunk Expansion Project. MH T32 had an additional 30-	1	72	0	0	0
1/20/2023	T	Bay Trail	T33-T32	-			Unknown	435	SIPHON	#VALUE!	0	0	-	0
1/26/2023	T	Bay Trail	T34-T33	30			PE	140	Trunk Expansion Project.	6	0	0	0	0
1/26/2023	T	Airport - Embarcadero Road	T4 - T3	30	24		Unknown	475	Trunk Expansion Project. MH T4 on Airport runway is	12	72	0	0	0
1/26/2023	T	Airport runway	T5 - T4	30	24		Unknown	352	Trunk Expansion Project. MH T4 on Airport runway is	3	72	0	0	0
1/26/2023	T	Bay Trail	T5A - T5	30	24		Unknown	362	Trunk Expansion Project. unmapped manhole was found	0	72	0	0	0
1/26/2023	T	Airport runway	T6 - T5A	30	24		Unknown	20	Trunk Expansion Project. unmapped manhole was found	0	72	0	0	0
1/26/2023	T	Airport runway	T7 - T6	30	24		Unknown	481	Trunk Expansion Project. Pipeline is 60% sagging	8	72	0	10	0
1/26/2023	T	Airport runway	T8 - T7	30	24		Unknown	502	Trunk Expansion Project. Pipeline is 60% sagging	7	72	0	15	0
N/A	T	Airport runway	T9 - T8	30	24		Unknown	498	Trunk Expansion Project.	3	72	0	0	0

Table 2
High Priority Pipelines to be Replaced
Capital Improvement Plan
East Palo Alto Sanitary District

Area	Location/ Street Name	PSR	US MH #	DS MH #	Reported Pipe Dia (in)	Diameter	Master Plan Proposed Diameter	Recommended Design Diameter	Pipe Material	Pipe Length (ft)	Structural Total Score	Score for Master Plan Capacity (* 3" Pipe Dia)	Score for Notable Defects	Sag >40%	Total Score
D/E	Donohoe Street	D1 - E4	D1	E4	10	10	16	18	VCP	354	113	48	5	4	170
E	Donohoe Street	E4 - E3	E4	E3	10	10	16	18	VCP	357	107	48	10	0	165
O	Woodland Avenue	O21 - O19	O21	O19	6	6		8	VCP	394	84	0	60		144
A	Bay Road	A5 - A8	A5	A8	15	12	18	21	PE	124	86	54	0	2	142
D	Hwy 101	D10 - D3	D10	D3	10	10	10	12	Unknown	489	86	30	20	2	138
B	Bay Road	B5 - B52	B5	B52	12	12	15	18	PVC	176	82	45	5	6	138
C	Elliot Drive	C40 - C36	C40	C36	6	6		8	VCP	257	82	0	50		132
T	Bay Trail	T27 - T26	T27	T26	18	18	24	30	RCP	356	29	72	30	0	131
B	Palo Verde Avenue	B27 - B25	B27	B25	6	6		8	VCP	318	120	0	10	0	130
B	Bay Road	B6 - B5	B6	B5	12	12	15	18	PVC	158	79	45	0	5	129
B	Bay Road	B12 - B11	B12	B11	12	12		12	PVC	277	120	0	5	3	128
C	Hwy 101	C21 - C19	C21	C19	6	6		8	VCP	284	67	0	60		127
E	Capitol Avenue	E20 - E7	E20	E7	6	6		8	VCP	504	113	0	10	4	127
H	Clarke Avenue	H12 - H11	H12	H11	8	8	12	15	VCP	333	87	36	0	3	126
A	Bay Road	A10 - A15	A10	A15	15	15	18	21	ACP	299	65	54	0	4	123
D	West Bayshore Road	D21 - D19	D21	D19	8	8	10	12	HDPE	391	70	30	20		120
A	Bay Road	A2 - A5	A2	A5	12	12	15	18	Unknown	244	70	45	0	5	120
E	Cooley Avenue	E3 - E2	E3	E2	12	12	16	18	PE	280	70	48	0	0	118
C	Menalto Avenue	C4 - C3	C4	C3	6	6	8	12	PE	436	80	24	10	3	117
A	Bay Road	A1 - A2	A1	A2	12	12	15	18	Unknown	80	62	45	10	0	117
H	Clarke Avenue	H14 - H13	H14	H13	8	8	12	15	VCP	446	76	36	0	5	117
B	Gloria Way	B37 - B6	B37	B6	6	6		8	VCP	262	102	0	10	3	115
E	Capitol Avenue	E46 - E7	E46	E7	6	6		8	VCP	501	105	0	10	0	115
C	Menalto Avenue	C2 - C1	C2	C1	8	8	10	12	Unknown	204	53	30	30	1	114
O	West Bayshore Road	O4 - O3	O4	O3	8	8		8	VCP	277	109	0	0	5	114
D	O'Connor Street	D25 - D24	D25	D24	6	6	8	8	VCP	301	49	24	40		113
E	Glen Way	E36 - E15	E36	E15	6	6		8	VCP	420	83	0	30	0	113
A	Bay Road	A15 - A16	A15	A16	6	15	18	21	ACP	435	53	54	0	5	112
K	Larkspur Drive	K19 - K18	K19	K18	6	6		8	CP	272	58	0	50	2	110
L	Gardenia Way	L2 - L1	L2	L1	10	12	12	15	PVC	179	34	36	40		110
C	Elliot Drive	C41 - C40	C41	C40	6	6		8	VCP	191	70	0	40		110
O	Woodland Avenue	O20 - O19	O20	O19	6	6		8	-	116	50	0	60		110
H	Clarke Avenue	H20 - H19	H20	H19	6	6		8	vcp	271	110	0	0	0	110
D	West Bayshore Road	D51 - D7	D51	D7	6	6		8	VCP	458	68	0	40	1	109
E	Cooley Avenue	E2 - E1	E2	E1	12	12	16	18	PE	283	58	48	0	3	109
B/A	Bay Road	B2 - A1	B2	A1	12	12	15	18	PE	181	62	45	0	2	109
B	Lilac Lane	B32 - B31	B32	B31	6	6		8	VCP	254	48	0	60	0	108
T	Bay Trail	T17-T34	T17	T34	21	21	28	30	RCP	464	15	84	5	4	108
E	Dumbarton Avenue	E33 - E29	E33	E29	6	6		8	VCP	229	75	0	30	2	107
T	Bay Trail	T19 - T18	T19	T18	21	21	28	30	RCP	500	13	84	5	5	107
H	Runnymede Street	H35 - H34	H35	H34	6	6	10	12	VCP	322	62	30	8	6	106
F	Weeks Street	F12 - F11	F12	F11	6	6		8	VCP	355	105	0	0	1	106
B	Poplar Avenue	B17 - B13	B17	B13	6	6		8	VCP	501	95	0	10	0	105

Table 3
High Priority Pipelines, Sorted by Diameter
Capital Improvement Plan
East Palo Alto Sanitary District

Area	Location/ Street Name	PSR	Reported Pipe Dia (in)	Diameter	Master Plan Proposed Diameter	Recommended Design Diameter	Pipe Material	Pipe Length (ft)	Structural Total Score	Score for Master Plan Capacity (+ 3*Pipe Dia)	Score for Notable Defects	Sag>40%	Total Score
T	Bay Trail	T27 - T26	18	18	24	30	RCP	356	29	72	30	0	131
T	Bay Trail	T17-T34	21	21	28	30	RCP	464	15	84	5	4	108
T	Bay Trail	T19 - T18	21	21	28	30	RCP	500	13	84	5	5	107
A	Bay Road	A5 - A8	15	12	18	21	PE	124	86	54	0	2	142
A	Bay Road	A10 - A15	15	15	18	21	ACP	299	65	54	0	4	123
A	Bay Road	A15 - A16	6	15	18	21	ACP	435	53	54	0	5	112
D/E	Donohoe Street	D1 - E4	10	10	16	18	VCP	354	113	48	5	4	170
E	Donohoe Street	E4 - E3	10	10	16	18	VCP	357	107	48	10	0	165
B	Bay Road	B5 - B52	12	12	15	18	PVC	176	82	45	5	6	138
B	Bay Road	B6 - B5	12	12	15	18	PVC	158	79	45	0	5	129
A	Bay Road	A2 - A5	12	12	15	18	Unknown	244	70	45	0	5	120
E	Cooley Avenue	E3 - E2	12	12	16	18	PE	280	70	48	0	0	118
A	Bay Road	A1 - A2	12	12	15	18	Unknown	80	62	45	10	0	117
E	Cooley Avenue	E2 - E1	12	12	16	18	PE	283	58	48	0	3	109
B/A	Bay Road	B2 - A1	12	12	15	18	PE	181	62	45	0	2	109
H	Clarke Avenue	H12 - H11	8	8	12	15	VCP	333	87	36	0	3	126
H	Clarke Avenue	H14 - H13	8	8	12	15	VCP	446	76	36	0	5	117
L	Gardenia Way	L2 - L1	10	12	12	15	PVC	179	34	36	40		110
D	Hwy 101	D10 - D3	10	10	10	12	Unknown	489	86	30	20	2	138
B	Bay Road	B12 - B11	12	12		12	PVC	277	120	0	5	3	128
D	West Bayshore Road	D21 - D19	8	8	10	12	HDPE	391	70	30	20		120
C	Menalto Avenue	C4 - C3	6	6	8	12	PE	436	80	24	10	3	117
C	Menalto Avenue	C2 - C1	8	8	10	12	Unknown	204	53	30	30	1	114
H	Runnymede Street	H35 - H34	6	6	10	12	VCP	322	62	30	8	6	106
O	Woodland Avenue	O21 - O19	6	6		8	VCP	394	84	0	60		144
C	Elliot Drive	C40 - C36	6	6		8	VCP	257	82	0	50		132
B	Palo Verde Avenue	B27 - B25	6	6		8	VCP	318	120	0	10	0	130
C	Hwy 101	C21 - C19	6	6		8	VCP	284	67	0	60		127
E	Capitol Avenue	E20 - E7	6	6		8	VCP	504	113	0	10	4	127
B	Gloria Way	B37 - B6	6	6		8	VCP	262	102	0	10	3	115
E	Capitol Avenue	E46 - E7	6	6		8	VCP	501	105	0	10	0	115
O	West Bayshore Road	O4 - O3	8	8		8	VCP	277	109	0	0	5	114
D	O'Connor Street	D25 - D24	6	6	8	8	VCP	301	49	24	40		113
E	Glen Way	E36 - E15	6	6		8	VCP	420	83	0	30	0	113
K	Larkspur Drive	K19 - K18	6	6		8	CP	272	58	0	50	2	110
C	Elliot Drive	C41 - C40	6	6		8	VCP	191	70	0	40		110
O	Woodland Avenue	O20 - O19	6	6		8	-	116	50	0	60		110
H	Clarke Avenue	H20 - H19	6	6		8	VCP	271	110	0	0	0	110
D	West Bayshore Road	D51 - D7	6	6		8	VCP	458	68	0	40	1	109
B	Lilac Lane	B32 - B31	6	6		8	VCP	254	48	0	60	0	108
E	Dumbarton Avenue	E33 - E29	6	6		8	VCP	229	75	0	30	2	107
F	Weeks Street	F12 - F11	6	6		8	VCP	355	105	0	0	1	106
B	Poplar Avenue	B17 - B13	6	6		8	VCP	501	95	0	10	0	105

Table 4
Opinion of Probable Cost - Replacement of High Priority Pipelines
Capital Improvement Plan
East Palo Alto Sanitary District

ITEM NO.	ITEM	EST. QUANTITY	UNIT OF MEASURE	UNIT PRICE	TOTAL
1	Mobilization	1	LS	\$451,000	\$451,000
2	Traffic Control	1	LS	\$217,000	\$217,000
3	Project Signage	1	LS	\$2,000	\$2,000
4	Gas Line Avoidance / Utility Plan	1	LS	\$3,000	\$3,000
5	Pothole Verification of Design Intent	10	ea	\$1,000	\$10,000
6	Maintain Access for Services and Residents	1	LS	\$30,000	\$30,000
7	Safety, Sheeting, Shoring, and Bracing	1	LS	\$20,000	\$20,000
8	Dust Control	1	LS	\$20,000	\$20,000
9	Bypassing	43	EA	\$11,000	\$473,000
10	8-inch PVC	6,165	LF	\$375	\$2,311,952
11	10-inch PVC	0	LF	\$410	\$0
12	12-inch PVC	2,119	LF	\$435	\$921,765
13	14/15-inch PVC	958	LF	\$500	\$479,000
14	16-inch PVC	0	LF	\$525	\$0
15	18-inch PVC	2,113	LF	\$575	\$1,214,961
16	20/21-inch PVC	859	LF	\$600	\$515,251
17	22/24-inch PVC	0	LF	\$720	\$0
18	27/30-inch PVC	1,320	LF	\$795	\$1,049,400
19	Point Repairs	5	ea	\$10,000	\$50,000
20	Drain Rock	500	TONS	\$100	\$50,000
21	Utility Crossings	270	EA	\$250	\$67,500
22	Reconnect Laterals	150	EA	\$2,500	\$375,000
23	New Sewer Manholes	5	EA	\$13,000	\$65,000
24	Dewatering	1	LS	\$8,500	\$8,500
25	CCTV Inspections	13,534	LF	\$2.00	\$27,068
26	Cold-Patch Asphalt for Temporary Surfacing	20	TON	\$500	\$10,000
27	Asphalt Repaving	54,136	SF	\$6	\$324,814
28	Grind and Repave	11,150	SF	\$6	\$66,900
29	Slurry Seal	449,004	SF	\$0.70	\$314,303
30	Striping and Pavement Markings	460,154	SF	\$0.85	\$391,131
Subtotal - Opinion of Probable Construction Costs					\$9,468,545
	Contingency	%	20%	\$9,468,545	\$1,893,709
Engineering and Administrative		Opinion of Construction Subtotal			\$11,362,254
	Design	%	2%		\$227,245
	Environmental/Permitting	%	2%		\$227,245
	Construction Management	%	4%		\$454,490
	Administration	%	2%		\$227,245
OPINION OF TOTAL PROBABLE PROJECT COST:					\$12,498,479

Figures

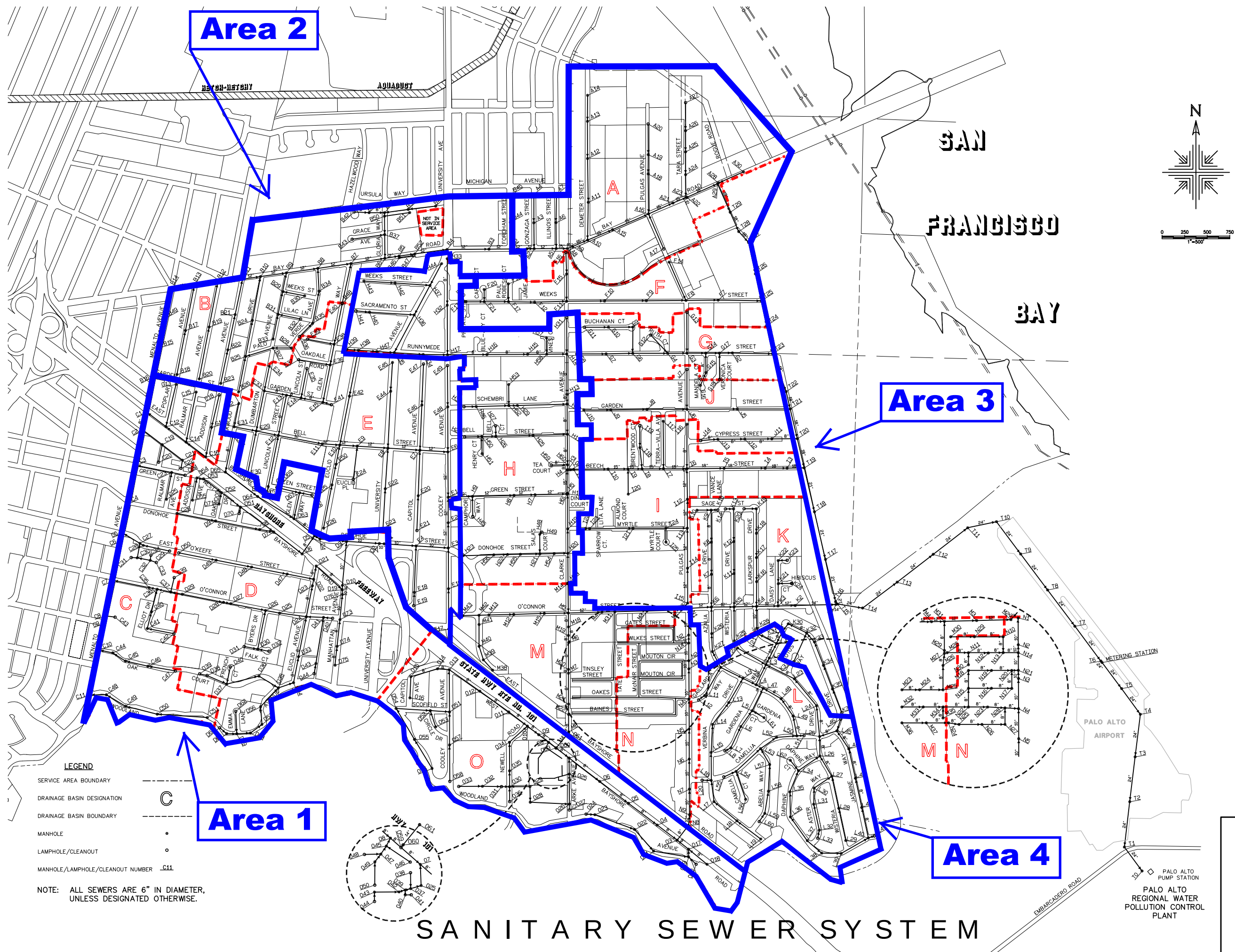


FIGURE 1

CCTV SURVEY AREAS

Source Map: Kennedy/Jenks Consultants
EAST PALO ALTO SANITARY DISTRICT
EAST PALO ALTO, CA
**COLLECTION SYSTEM
DRAINAGE BASINS**

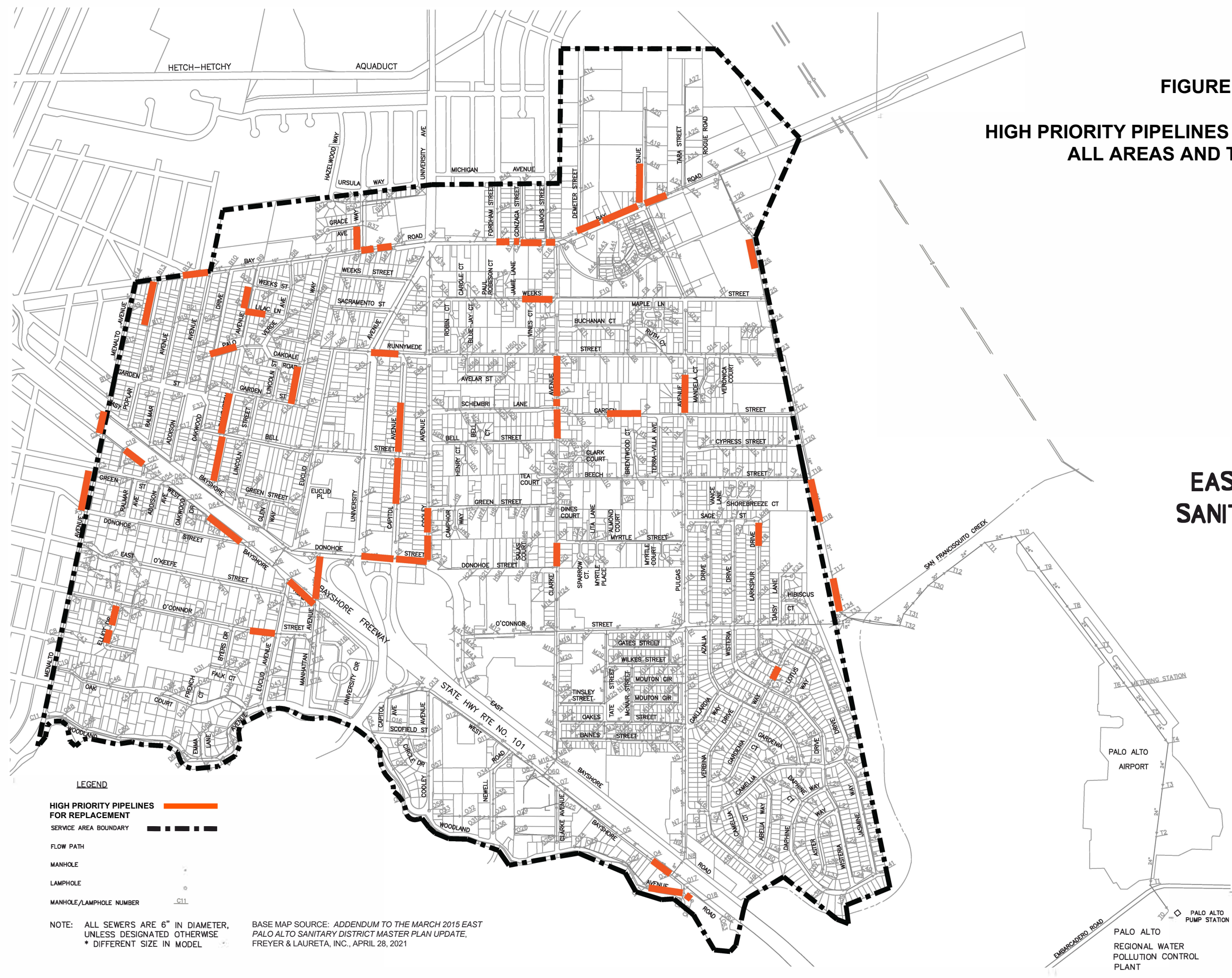
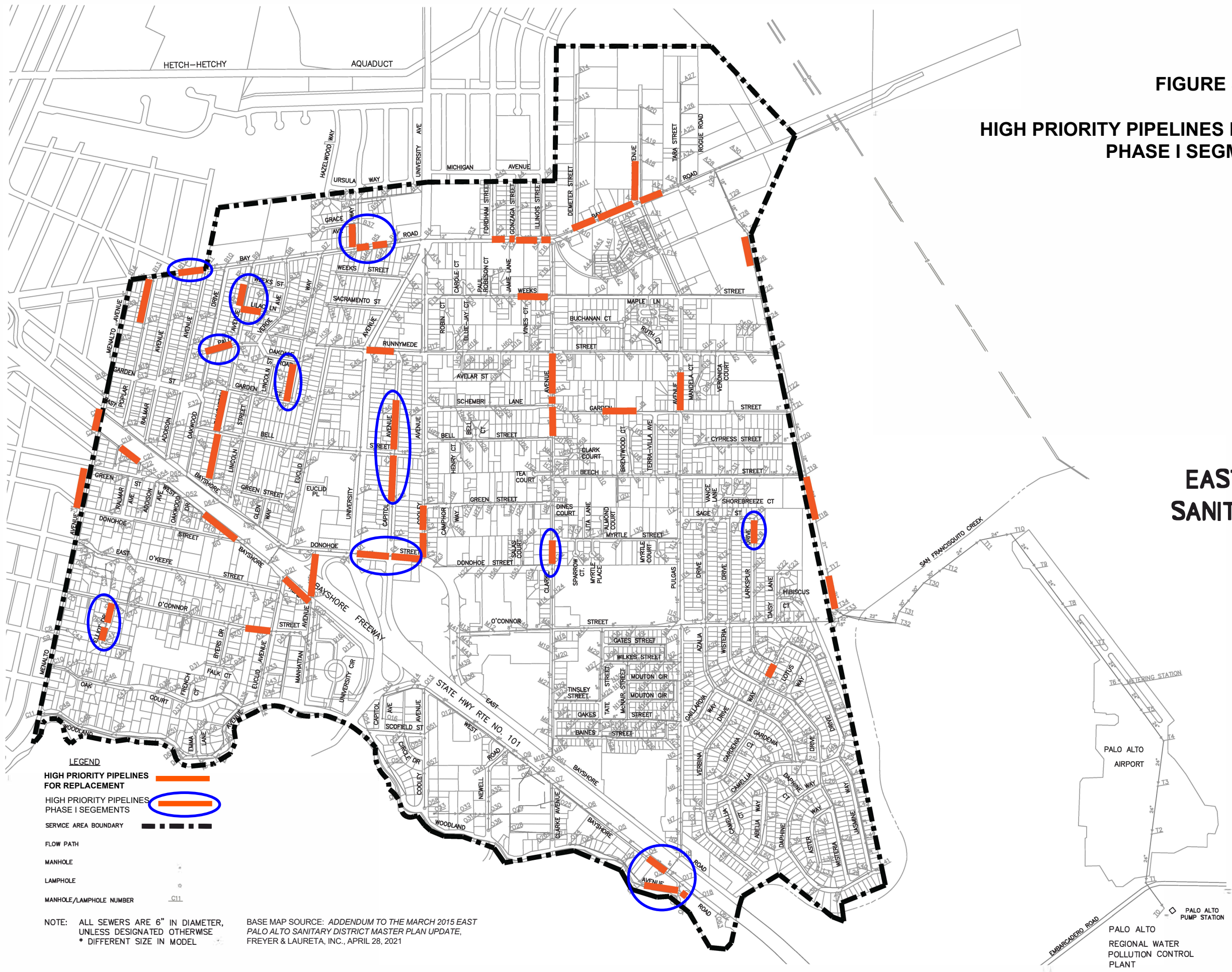


FIGURE 2

HIGH PRIORITY PIPELINES FOR REPLACEMENT
ALL AREAS AND TRUNK LINE

EAST PALO ALTO
SANITARY DISTRICT



Appendix A

Table 16 and Figure 10

Addendum to the March 2015

East Palo Alto Sanitary District Master Plan Update

(April 28, 2021, Freyer & Laureta, Inc.)

Table 16
Proposed Capital Improvement Program
EPASD Master Plan Update
East Palo Alto, California

Manhole (1)	Length (Feet) --	Existing Diameter (Inches) (2)	PDWF Predicted d/D (3)	PWWF Predicted d/D (3)	Proposed Diameter (Inches) (2)	PDWF Proposed d/D (4)	PWWF Proposed d/D (4)
I24-I13	237	6	0.48	1	6	0.44	0.72
L25-L24	342	8	0.69	1	10	0.43	0.53
L24-L23	386	8	0.54	0.72	10	0.36	0.43
L23-L3	351	8	0.69	1	10	0.43	0.53
L3-L2	83	10	1	1	12	0.58	0.54
L2-L1	179	10	0.77	0.72	12	0.48	0.46
L1-L21	223	10	1	1	14	0.55	0.5
L21-K28	68	10	1	1	14	0.6	0.55
K28-K4	242	10	1	1	15	0.64	0.58
K4-K3	238	12	1	1	15	0.51	0.45
K3-K2	190	12	1	1	15	0.58	0.5
K2-K1	451	14	0.74	0.74	15	0.54	0.48
N3-N21 (6)	89	10	0.7	0.58	10	0.6	0.38
N21-N14 (6)	196	10	0.74	0.6	10	0.624	0.38
N14-N2 (6)	88	10	0.77	0.6	10	0.624	0.4
N2-N1 (6)	296	10	0.72	0.58	10	0.6	0.38
O9-O8 (6)	140	6	0.72	0.68	6	0.6	0.56
O7-O6 (6)	427	8	0.81	0.66	8	0.66	0.57
L53-L52 (6)	218	6	0.8	0.52	6	0.64	0.48
L52-L50	224	6	1	0.76	8	0.57	0.42
L50-L49	224	8	0.57	76	10	0.36	0.26
L49-L48	233	8	1	0.6	10	0.5	0.38
L7-L6 (6)	261	6	0.72	0.4	6	0.6	0.32
L9-L4 (6)	162	6	0.72	0.8	6	0.6	0.64
M38-M39	158	8	0.84	1	12	0.36	0.36
M39-M43	241	8	0.84	1	12	0.36	0.36
M43-M42	104	8	1	1	12	0.44	0.46
M42-M41	37	8	1	0.6	12	0.28	0.28
M41-M13	111	8	0.84	1	12	0.36	0.36
M13-M12	276	8	0.84	1	12	0.36	0.36
M12-M40	337	8	0.84	1	12	0.36	0.36
M40-M5	263	8	0.84	1	12	0.36	0.36
M5-M4	373	8	1	1	12	0.52	0.54
M4-M31	143	8	1	1	12	0.48	0.48
M31-M3	357	10	1	1	12	0.54	0.56
M3-M2	380	10	1	1	12	0.58	0.58
I43-I15	62	12	0.44	0.44	15	0.29	0.29
I15-I14	386	12	1	1	15	0.62	0.64
I14-I13	444	12	1	1	15	0.48	0.48
I13-I12	320	12	1	1	15	0.48	0.51
I12-I6	339	12	1	1	15	0.46	0.51
I6-I5	411	18	1	1	24	0.52	0.69
I5-I31	135	18	1	1	24	0.53	0.69

Table 16
Proposed Capital Improvement Program
EPASD Master Plan Update
East Palo Alto, California

Manhole (1)	Length (Feet) --	Existing Diameter (Inches) (2)	PDWF Predicted d/D (3)	PWWF Predicted d/D (3)	Proposed Diameter (Inches) (2)	PDWF Proposed d/D (4)	PWWF Proposed d/D (4)
I31-I4	321	18	1	1	24	0.53	0.69
I4-I3	243	18	1	1	24	0.52	0.69
H36-H35	474	6	1	1	10	0.34	0.55
H35-H34	322	6	0.44	1	10	0.22	0.34
H34-H17	269	6	0.52	1	10	0.24	0.41
H17-H57	397	8	0.75	1	12	0.34	0.66
H57-H16	40	8	0.36	0.69	12	0.18	0.66
H16-H60	351	8	0.48	1	12	0.24	0.32
H60-H15	99	8	0.45	1	12	0.22	0.42
H15-H62	201	8	0.36	0.75	12	0.18	0.34
H62-H14	233	8	0.36	0.75	12	0.18	0.34
H14-H13	446	8	0.45	1	12	0.24	0.44
H13-H12	108	8	0.42	1	12	0.22	0.42
H12-H11	333	8	0.48	1	12	0.24	0.46
H11-H64	198	8	0.48	1	12	0.24	0.48
H64-H71	161	8	0.57	1	12	0.28	0.48
H71-H3	35	8	0.51	1	12	0.26	0.56
C12-C1	265	6	0.72	1	8	0.39	0.6
C48-C11	179	6	0.56	6	6	0.48	0.8
C9-C8	84	6	0.52	1	6	0.44	0.72
C8-C7	401	6	0.56	1	6	0.48	0.8
C7-C6	448	6	0.52	1	6	0.44	0.72
C6-C5	87	6	0.52	1	6	0.44	0.72
C5-C4	328	6	0.56	1	8	0.33	0.51
C4-C3	436	6	0.56	1	8	0.33	0.48
C3-C2	398	6	0.56	1	8	0.33	0.51
C2-C1	204	6	1	1	8	0.48	0.78
C1-B16 (5)	402	8	0.51	1	8	0.45	0.69
B16-B15 (5)	327	8	0.54	1	8	0.48	0.75
B15-B49 (5)	331	8	0.54	1	8	0.48	0.75
B49-B14 (5)	328	8	0.54	1	8	0.45	0.72
B7-B6	380	12	1	1	15	0.46	0.46
B6-B5	158	12	0.38	0.52	15	0.24	0.24
B5-B52	176	12	0.6	1	15	0.37	0.37
B52-B4	360	12	0.52	0.8	15	0.32	0.32
B4-B3	465	12	0.68	1	15	0.42	0.42
B3-B2	239	12	1	1	15	0.5	0.5
B2-A1	181	12	0.62	1	15	0.38	0.38
A1-A2	80	12	0.82	1	15	0.46	0.46
A2-A5	244	12	1	1	15	0.46	0.46
A5-A8	124	15	1	1	18	0.49	0.67
A8-A9	61	15	0.37	0.48	18	0.25	0.32
A9-A10	181	15	1	1	18	0.53	0.73

Table 16
Proposed Capital Improvement Program
EPASD Master Plan Update
East Palo Alto, California

Manhole (1)	Length (Feet) --	Existing Diameter (Inches) (2)	PDWF Predicted d/D (3)	PWWF Predicted d/D (3)	Proposed Diameter (Inches) (2)	PDWF Proposed d/D (4)	PWWF Proposed d/D (4)
A10-A15	299	15	0.51	0.7	18	0.35	0.44
A15-A16	435	15	1	1	18	0.52	0.7
A16-A21	296	15	0.67	1	18	0.43	0.56
A21-A23	155	15	0.5	0.67	18	0.33	0.43
A23-A22	14	15	0.32	0.42	18	0.23	0.28
D66-D65 (6)	413	6	0.72	0.68	6	0.6	0.6
D25-D24	301	6	0.36	1	8	0.21	0.45
D35-D34	178	6	1	1	8	0.54	0.78
D34-D33	293	6	0.56	0.76	8	0.3	0.42
D33-D24	450	6	0.72	1	10	0.39	0.51
D24-D23	350	8	0.57	1	10	0.38	0.55
D23-D22	73	8	0.66	1	10	0.38	0.58
D22-D21	149	8	0.78	1	10	0.48	0.67
D21-D19	391	8	0.72	1	10	0.46	0.62
D19-D10	48	8	0.45	0.6	10	0.31	0.38
D10-D3	489	8	1	1	10	0.5	0.67
D5-D4	70	8	0.84	1	10	0.46	0.58
D4-D3	296	8	0.84	1	10	0.46	0.58
D3-D2	363	12	1	1	15	0.51	0.69
D2-D1	53	12	1	1	16	0.6	1
D1-E4	354	12	0.82	1	16	0.42	0.54
E4-E3	357	12	0.7	1	16	0.38	0.48
E3-E2	280	12	1	1	16	0.45	0.59
E2-E1	283	12	0.82	1	16	0.42	0.54
E1-H9	270	12	1	1	16	0.56	0.8
H9-H73	246	12	1	1	16	0.51	0.7
H73-H74	101	12	1	1	18	0.48	0.64
H74-H8	113	12	1	1	18	0.43	0.57
H8-H7	233	12	1	1	18	0.51	0.69
H7-H75	90	12	1	1	18	0.44	0.59
H75-H6	260	12	1	1	18	0.44	0.59
H6-H5	9	12	1	1	18	0.36	0.47
H5-H4	260	15	1	1	18	0.57	0.79
H4-H3	7	15	0.82	1	18	0.51	0.67
H3-H2	31	15	0.77	1	18	0.49	0.71
H2-I11	37	15	0.43	0.61	18	0.31	0.41
I11-I10	380	15	0.78	1	18	0.51	0.72
I10-I9	221	15	0.69	1	18	0.45	0.64
I9-I8	155	15	1	1	20	0.53	0.77
I8-I7	238	15	1	1	20	0.36	0.48
I7-I6	259	15	0.67	1	20	0.38	0.52
E8-E7	355	8	1	1	12	0.38	0.52
E7-E6	311	8	1	1	12	0.36	0.48

Table 16
Proposed Capital Improvement Program
 EPASD Master Plan Update
 East Palo Alto, California

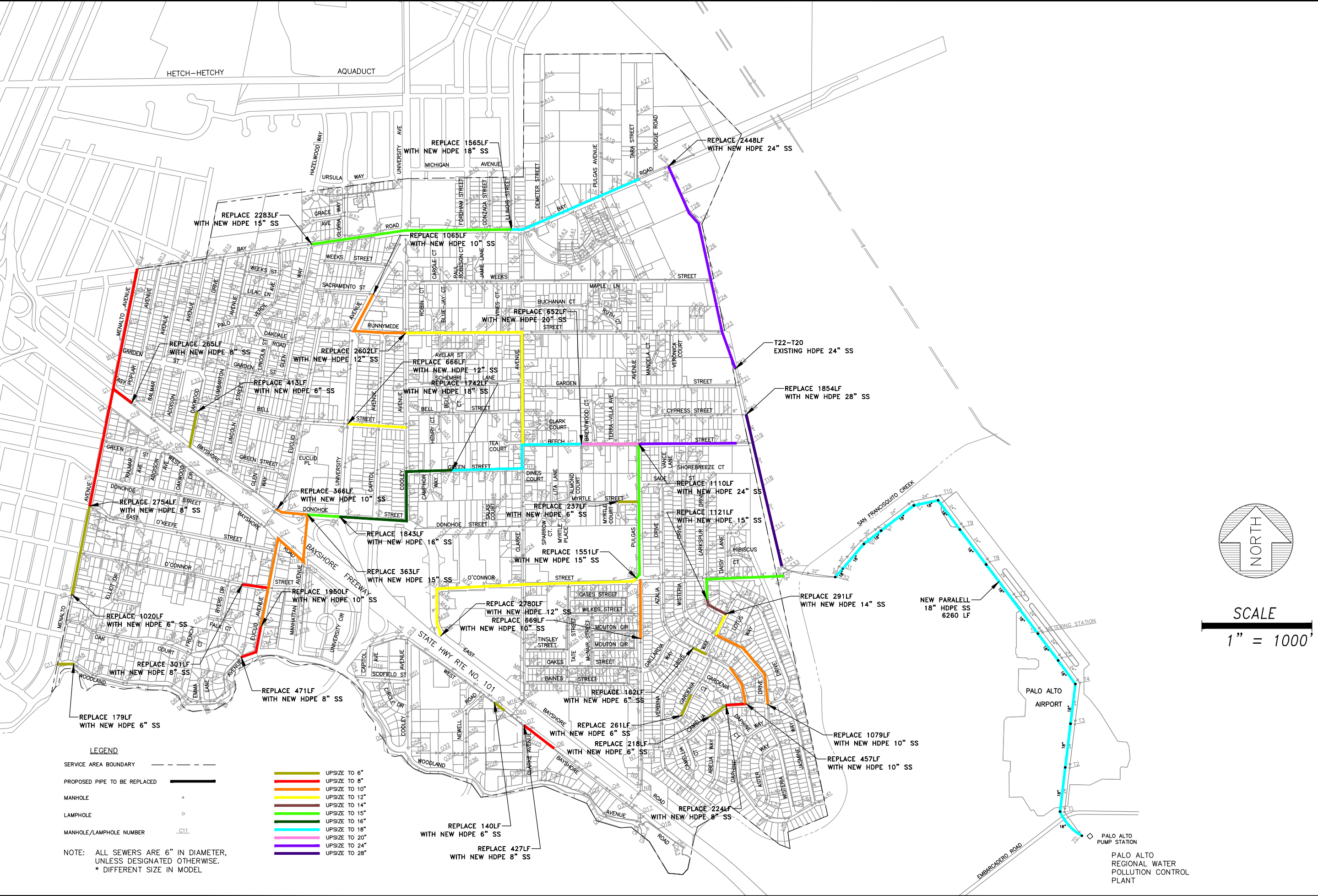
Manhole (1)	Length (Feet) --	Existing Diameter (Inches) (2)	PDWF Predicted d/D (3)	PWWF Predicted d/D (3)	Proposed Diameter (Inches) (2)	PDWF Proposed d/D (4)	PWWF Proposed d/D (4)
A29-T29	345	18	0.39	0.51	24	0.26	0.33
T29-T28	234	18	0.37	0.48	24	0.25	0.32
T28-T27	162	18	0.77	1	24	0.47	0.62
T27-T26	356	18	0.49	0.65	24	0.32	0.42
T26-T25	306	18	0.45	0.6	24	0.3	0.38
T25-T24	282	18	1	1	24	0.53	0.73
T24-T23	317	18	0.47	0.63	24	0.31	0.4
T23-T22	446	18	0.52	0.72	24	0.34	0.44
T20-T19	332	18	0.37	0.49	28	0.21	0.27
T19-T18	500	21	0.78	1	28	0.47	0.62
T18-T17	540	21	0.78	1	28	0.46	0.61
T17-T16	482	21	1	1	28	0.49	0.64
T12-T1	6260	(6)	(6)	(6)	18	1	1

Notes

- (1) Manhole used to find Q and Depth over Diameter value.
- (2) Pipe Diameter directly downstream of Manhole.
- (3) Calculated by dividing the depth of flow by pipe diameter.
 This value is evaluated directly downstream of specified manhole under the existing PWWF condition including proposed injections.
- (4) Calculated by dividing the depth of flow by pipe diameter.
 This value is evaluated directly downstream of specified manhole under the existing PWWF condition including proposed injections and pipe size upgrades.
- (5) d/D improves with same size HDPE upgrade.
- (6) The new 18-inch diameter pipeline is the wet weather parallel pipeline.

Abbreviations

d/D: Depth over Diameter



COMBINED IMPROVEMENTS NO SURCHARGE UNDER PROPOSED CONDITIONS

EPASD MASTER PLAN UPDATE
EAST PALO ALTO, CA

FREYER & LAURETA, INC.

CIVIL ENGINEERS • SURVEYORS • CONSTRUCTION MANAGERS
144 North San Mateo Drive • San Mateo, CA 94401
(650)344-9901 • www.freyerlaureta.com

DATE:	4/28/2021
SCALE:	1" = 1000'
DESIGNED:	RAM
DRAWN:	RAM
CHECKED:	JF
PROJ. ENGR:	JJT

FIGURE

10

JOB NO.

2052

Appendix B

CCTV Survey Results

East Palo Alto Sanitary District Area 1 CCTV Survey Results

Date Inspected	Area	Location/ Street Name	PSR	Reported Pipe Dia (inch)	Actual Diameter (inch)	Pipe Material	Pipe Length (ft)	Length Surveyed (ft)	Inspection Notes	Structural Grade	Structural Score	O&M Grade	O&M Score	Overall Pipe Index	Score for Notable Defects	Sag >40%
7/6/2022	C	Menalto Avenue	C10 - C8	6	6	PE	387	387.17	Modified line segment. Could not find C9	312C	23	4100	4	2	10	5
N/A	C	Menalto Avenue	C10 - C9	6		-	301		Could not find MH C9. C10 connects to C8. 7.6.22						0	
7/6/2022	C	Menalto Avenue	C11 - C10	6	6	PE	508	510.13		2400	8	0000	0	2	0	
7/5/2022	C	East Bayshore	C12 - C1	6	6	PVC	265	265.01		2D00	20	0000	0	2		
7/5/2022	C	Poplar Avenue	C13 - C12	6	6	Unknown	481	335.79	MSA/Lined pipe. Camera could not move any further. Reverse	3D22	34	3100	3	2	20	
7/1/2022	C	East Bayshore	C14 - C12	6	6	PVC	282	282.51		382A	44	0000	0	2	0	
6/24/2022	C	Ralmar Avenue	C15 - C14	6	6	VCP	565	565.12	MSA/JAM. Camera is unable to get past this point. Reverse	4530	50	3311	10	2	20	
7/1/2022	C	East Bayshore	C16 - C14	6	6	PVC	273	274.31		3A25	40	0000	0	2	0	
6/24/2022	C	Addison Avenue	C17 - C16	6	6	VCP	333	315.4	There's a JAM 3' from the DSMH. Camera is unable to go past	4230	38	0000	0	3	8	
7/19/2022	C	Addison Avenue	C18 - C17	6	6	VCP	370	236.1	MSA/Proteus could not crawl any farther due to offset joint. No	413M	34	4135	19	2	16	
8/18/2022	C	Hwy 101	C19 - C2	6	6	VCP	264	73.18	MSA/OBM. Reverse Inspection performed. Pipeline was CCTV for	5244	26	413A	34	2	20	
7/7/2022	C	Menalto Avenue	C2 - C1	8	8	Unknown	204	136.75	MSA/Grease. Heavy grease blockage at 136.9	3D24	38	5300	15	3	16	5
8/19/2022	C	Hwy 101	C20 - C19	6	6	VCP	199	198.63	Broken at 5.1 ft, surface damage at 30 ft	433C	42	3113	6	2	20	
8/19/2022	C	Hwy 101	C21 - C19	6	6	VCP	284	152.45	MSA/Collapsed pipe. Reverse inspection performed. Pipeline is	534A	55	211A	12	2	30	
8/18/2022	C	West Bayshore Road	C22 - C21	6	6	VCP	92	91.17	Broken at 6 ft	4131	7	3A2A	50	2	5	
6/15/2022	C	Green Street	C23 - C3	6	6	VCP	400	400.17	Pipe has grease and is under water for about 360' till the	413G	34	4834	44	2	20	5
6/15/2022	C	Green Street	C24 - C23	6	6	VCP	151	41.09	MSA/JOM. No reverse inspection performed because the	4132	10	1100	1	2	20	
6/15/2022	C	Palmar Avenue	C25 - C23	6	6	VCP	303	302.5	Medium Joint Offset	433I	42	4632	30	2	0	5
7/7/2022	C	East O'Keefe Street	C27 - C5	6	6	VCP	222	222.93	Broken at 1.7ft	4132	10	4121	6	1	0	
7/7/2022	C	East O'Keefe Street	C28 - C27	6	6	PVC	43	41.19	-	0000	0	0000	0	0	0	
7/7/2022	C	East O'Keefe Street	C29 - C28	6	6	PVC	298	295.9	-	3200	6	4733	37	1	0	
7/7/2022	C	Menalto Avenue	C2A - C2	8	6	VCP	28	27.59	New line segment - Broken at 19.9 ft	4436	34	0000	0	2	20	
N/A	C	Menalto Avenue	C3 - C2	6		-	398		Line has an unchartered manhole, See C2A						0	
7/12/2022	C	Menalto Avenue	C3 - C2A	8	6	PVC	370	370.18	New line segment	2300	6	0000	0	2	0	
6/29/2022	C	East O'Keefe Street	C30 - C27	6	6	VCP	163	161.85		3E00	30	0000	0	3	0	
7/7/2022	C	East O'Keefe Street	C31 - C30	6	6	VCP	67	63.18	-	3600	18	0000	0	3	0	
7/7/2022	C	East O'Keefe Street	C32 - C30	6	6	VCP	147	147.55		3C00	30	2100	2	3		
7/7/2022	C	East O'Keefe Street	C33 - C32	6	6	VCP	71	65.68		3300	9	0000	0	3	0	
7/7/2022	C	East O'Keefe Street	C34 - C32	6	6	VCP	57	81.57	-	3A00	30	3121	5	2	0	
7/11/2022	C	O'Connor Street	C35 - C7	6	6	Unknown	403	400.9	Proteus. This is the second inspection. First inspection	3B2A	50	4337	33	2	12	5
7/11/2022	C	O'Connor Street	C36 - C35	6	6	Unknown	92	91.6	Proteus. This is the second inspection. First inspection	3226	18	0000	0	2	12	
7/11/2022	C	O'Connor Street	C37 - C36	6	6	Unknown	153	153.3	Proteus. This is the second inspection. First inspection	3500	15	3200	6	3	12	5
7/11/2022	C	O'Connor Street	C39 - C37	6	6	VCP	164	166.4	Proteus. This is the second inspection. First inspection	3300	9	0000	0	3	16	
7/12/2022	C	Menalto Avenue	C4 - C3	6	6	PE	436	437.26	This is the second inspection after heavy cleaning. The first	493B	66	3421	14	2	10	15
6/17/2022	C	Elliot Drive	C40 - C36	6	6	VCP	257	257.61	MSA/Root tap barrel. Reverse inspection performed. substantial	4A39	67	362A	38	2	20	
6/17/2022	C	Elliot Drive	C41 - C40	6	6	VCP	191	191.74	substantial breakage throughout their entire length	4A3A	70	0000	0	3	20	
6/17/2022	C	Elliot Drive	C42 - C41	6	6	VCP	300	300.2	substantial breakage throughout their entire length	4C3B	70	3223	12	3	20	
7/12/2022	C	Menalto Avenue	C43 - C8	6	6	VCP	101	52.9	Proteus. MSA/TBI. Heavy cleaning was performed. There is roots	473A	58	5142	13	2	16	
6/21/2022	C	Oak Court	C44 - C10	6	6	VCP	155	153.05	MSA/LR. Camera cannot move past bend.	433H	42	2111	3	2	16	
6/21/2022	C	Oak Court	C45 - C44	6	6	VCP	166	165.95	Broken pipe at 6ft, 41ft, 24ft	4439	43	3221	8	2	10	
6/17/2022	C	Oak Court	C46 - C45	6	6	VCP	256	255.42	Broken at 153ft with multiple cracks	473E	58	4234	20	2	0	
7/13/2022	C	Oak Court	C47 - C46	6	6	VCP	309	305.8	This is the second inspection after heavy cleaning and removing	4C3C	70	4132	10	3	0	
7/6/2022	C	Woodland Avenue	C48 - C11	6	6	Unknown	179	178.14	MSA/ Reverse Inspection complete	312B	23	0000	0	2	16	
7/8/2022	C	Woodland Avenue	C49 - C48	6	6	Unknown	248	245	Proteus	332C	29	3200	6	2	12	
7/5/2022	C	Menalto Avenue	C5 - C4	6	6	Unknown	328	329.29	Pipeline has lots of debris	332C	29	0000	0	2	10	
7/8/2022	C	Woodland Avenue	C50 - C49	6	6	Unknown	361	358.3	Proteus	332A	29	3311	10	2	12	
7/8/2022	C	Woodland Avenue	C51 - C50	6	6	Unknown	556	558.7	Proteus. MSA/Reverse inspection complete. Pipe is deformed	3A21	32	4111	5	2	12	
7/12/2022	C	Menalto Avenue	C6 - C5	6	6	PE	87	86.97	Pipeline has lots of debris	4636	42	0000	0	3	20	10
7/6/2022	C	Menalto Avenue	C7 - C6	6	6	PE	448	449.15	Pipeline has lots of debris	2F00	20	4137	25	2	12	25
7/6/2022	C	Menalto Avenue	C8 - C7	6	6	PE	401	401.77	broken pipe located 100.08 ft from upstream	2C00	20	0000	0	2	16	
N/A	C	Menalto Avenue	C9 - C8	6		-	84		Line does not exist. C8 connects to C10. 7.6.22							
7/18/2022	C/D	Donohoe Street	C26 - D9	6	6	VCP	436	109.07	This is the second inspection after heavy cleaning and	5444	36	3124	11	2	20	
7/12/2022	C/D	O'Connor Street	D29 - C37	6	6	Unknown	130	130.2	Proteus	3900	27	3111	4	2	8	10
7/14/2022	D	Hwy 101	D10 - D3	10	10	Unknown	489	109.76	MSA/80% grease in line. No heavy cleaning performed because	463C	54	4800	32	3	20	10
6/23/2022	D	Manhattan Avenue	D19 - D10	10	10	PVC	48	49.38	Line is sagging. Camera was under water for most of the	3A00	30	4222	12	3	0	20
7/14/2022	D	Donohoe Street	D2 - D1	10	10	VCP	53	51.98		3A22	34	0000	0	2	0	
N/A	D	West Bayshore Road	D21 - D19	8	8	HDPE	391		Heavy Cleaning/high flow. Night work. HDPE. This line cannot be		40	3A	30		20	

East Palo Alto Sanitary District Area 1 CCTV Survey Results

Date Inspected	Area	Location/ Street Name	PSR	Reported Pipe Dia (inch)	Actual Diameter (inch)	Pipe Material	Pipe Length (ft)	Length Surveyed (ft)	Inspection Notes	Structural Grade	Structural Score	O&M Grade	O&M Score	Overall Pipe Index	Score for Notable Defects	Sag >40%
N/A	D	Euclid Avenue	D22 - D21	8	8	HDPE	149		Grease/surcharged. Requires heavy cleaning. HDPE. This line			3A	30		26	
8/17/2022	D	Euclid Avenue	D23 - D22	8	8	PE	73	72.58	Pipeline had heavy grease	3B00	30	412A	14	2	8	10
6/23/2022	D	Euclid Avenue	D24 - D23	8	8	PE	350	350.88	Pipeline had heavy grease	2A00	20	443C	46	2	8	
6/16/2022	D	O'Connor Street	D25 - D24	6	6	VCP	301	229.03	large offset between joints and unable to video it at length of	4338	36	311A	13	2	16	
6/16/2022	D	O'Connor Street	D26 - D25	6	6	VCP	157	157.25	broken pipe due to tree roots between 23-26 ft.	423D	38	1500	5	2	20	
6/16/2022	D	O'Connor Street	D27 - D26	6	6	VCP	392	392.97	Clogged, extensive cleaning required	413G	34	2117	9	2	8	
6/15/2022	D	O'Connor Street	D28 - D27	6	6	VCP	81	80.57	Clogged, extensive cleaning required	4138	28	1A00	10	1	8	5
6/15/2022	D	O'Connor Street	D29 - D28	6	6	VCP	130	464.75	Clogged, extensive cleaning required	443H	46	4132	10	2	8	
N/A	D	Donohoe Street	D3 - D2	10		-	363		Line has an uncharted manhole, See D3 - D3A						0	
7/14/2022	D	Donohoe Street	D3 - D3A	10	10	VCP	11	10.8	Surface Damage Roughness Increased	413J	34	211B	12	1	0	5
6/16/2022	D	Byers Drive	D30 - D26	6	6	VCP	436	437.56		0000	0	4100	4	4	0	
6/16/2022	D	Falk Court	D31 - D30	6	6	VCP	153	146.85		0000	0	0000	0	0	0	
6/16/2022	D	Falk Court	D32 - D30	6	6	VCP	126	121.76		0000	0	3300	9	3	0	
6/21/2022	D	Euclid Avenue	D33 - D24	8	8	PE	450	448.65	-	312E	23	0000	0	2	0	
6/21/2022	D	Euclid Avenue	D34 - D33	8	8	PE	293	294.9		0000	0	0000	0	0	0	
6/21/2022	D	Woodland Avenue	D35 - D34	6	6	VCP	178	173.94	Fracture Multiple at 73ft	423F	38	211A	12	2	0	
6/21/2022	D	Oak Court	D36 - D35	6	6	VCP	251	221.23	MSA/Broken. Reverse inspection attempted. broken pipe at	5146	29	411A	14	2	16	
6/21/2022	D	Oak Court	D37 - D36	6	6	VCP	368	370.18	MSA/Reverse inspection complete	4630	54	4533	29	2	0	
6/21/2022	D	Oak Court	D38 - D37	6	6	VCP	238	3.2	MSA/Broken. No reverse inspection can be performed because	5141	9	1100	1	3	30	
7/13/2022	D	Oak Court	D39 - D37	6	6	Unknown	84	342.1	New line segment. Proteus was used to inspect this line. Broken	5141	9	1500	5	2	30	
N/A	D	Oak Court	D39 - D38	6		-	84		Cleanout D38 does not exist. Line ends at MH D37. 7.13.22.						8	
7/14/2022	D	Donohoe Street	D3A - D2	10	10	VCP	355	354.98	Broken at 4.2ft	413J	34	211B	12	2	0	
7/14/2022	D	Donohoe Street	D4 - D3	8	8	VCP	296	255.52	Fracture Multiple at 131ft	413I	34	2300	6	2	0	
7/18/2022	D	French Court	D40 - D37	6	6	VCP	194	204.73	This is the second inspection after using a root cutter. The first	5145	25	4332	18	2	30	
6/23/2022	D	O'Connor Street	D41 - D24	6	6	VCP	191	183.04	Broken at 51 ft and 122 ft	453D	50	312D	23	2	0	
6/23/2022	D	O'Connor Street	D42 - D41	6	6	VCP	100	100.67	Crack Multiple at 7.6ft & 69.2ft	413A	34	0000	0	2	0	
6/23/2022	D	East O'Keefe Street	D43 - D41	6	6	VCP	517	543.42	MSA/Broken. Reverse inspection complete.broken pipe at 249ft	443L	46	312D	23	2	8	
6/23/2022	D	East O'Keefe Street	D44 - D43	6	6	VCP	113	74.78	Broken at 72.2ft	413A	34	2216	10	2	0	
6/14/2022	D	East O'Keefe Street	D47 - D22	6	8	VCP	299	299	Grease build up at 269 ft	372D	41	312B	23	2	5	5
6/14/2022	D	East O'Keefe Street	D48 - D47	6	6	VCP	401	401.37	5% Grease build up at 335ft	4138	28	2213	7	2	12	5
6/14/2022	D	East O'Keefe Street	D49 - D48	6	6	VCP	400	399.77	Broken at 264 ft, 90% blockage by a root ball at 137 ft	4231	11	4231	11	1	12	
7/14/2022	D	East Bayshore Road	D5 - D4	8	8	Unknown	70	93.97	-	2400	8	0000	0	2	0	
7/7/2022	D	East O'Keefe Street	D50 - D49	6	6	VCP	422	419.56	Broken at 418.9 ft	413C	34	3221	8	2	0	
6/24/2022	D	West Bayshore Road	D51 - D7	6	6	VCP	458	444.15	MSA/JOL. Camera cannot move any further. Reverse inspection	514A	45	4215	23	2	20	5
6/24/2022	D	West Bayshore Road	D52 - D51	6	6	VCP	267	267.21	Broken at 262 ft	4122	8	1300	3	1	8	
6/24/2022	D	West Bayshore Road	D53 - D52	6	6	VCP	248	247.62	Joint Separated Medium	423A	38	4211	9	2	0	5
6/23/2022	D	West Bayshore Road	D54 - D53	6	6	VCP	75	73.38	-	3A22	34	0000	0	2	0	
6/23/2022	D	Addison Avenue	D55 - D54	6	6	VCP	252	251.62	MSA/Reverse inspection complete. broken at 146.7 ft	413C	34	2300	6	2	16	
6/22/2022	D	Woodland Avenue	D56 - D35	6	6	VCP	286	287.51	Offset joint 4' from MH	433N	42	4231	11	2	12	
6/22/2022	D	Woodland Avenue	D57 - D56	6	6	VCP	197	196.64	-	0000	0	1600	6	1	0	
6/22/2022	D	Woodland Avenue	D58 - D57	6	6	VCP	158	156.95	-	0000	0	3C12	32	2	0	
6/22/2022	D	Woodland Avenue	D59 - D58	6	6	VCP	151	152.25	-	0000	0	4133	13	1	0	
8/12/2022	D	Hwy 101	D6 - D5	8	8	Unknown	246	263.21	Joint Offset Large at 112ft	413I	34	0000	0	2	0	
6/22/2022	D	Woodland Avenue	D60 - D59	6	6	VCP	113	111.66	-	0000	0	321A	16	1	0	
6/22/2022	D	Woodland Avenue	D61 - D60	6	6	VCP	101	95.07	Joint Offset Large at 91 ft	4100	4	3100	3	3	12	
6/22/2022	D	Emma Lane	D62 - D59	6	6	VCP	248	240.92	D62 is cleanout with "water" lid	3100	3	4131	7	1	8	
7/5/2022	D	East Bayshore Road	D63 - D5	8	8	VCP	297	307.1	-	2800	20	3123	9	2	0	
7/5/2022	D	East Bayshore Road	D64 - D63	6	6	VCP	471	472.65	MSA/Reverse inspection complete	4135	19	1300	3	2	20	5
7/19/2022	D	East Bayshore Road	D65 - D64	6	6	VCP	448	456.4	Pipe is damaged. MSA/Crawler cannot move any further.	3G24	38	4117	11	2	20	
7/5/2022	D	Oakwood Dive	D66 - D65	8	8	Unknown	413	410.36		0000	0	0000	0	0	0	
7/1/2022	D	Glen Way	D67 - D63	6	6	VCP	294	294.7	Pipe broken at 231.1 ft	5143	17	3100	3	2	30	
7/1/2022	D	Green Street	D68 - D67	6	6	VCP	139	141.75	Surface Damage at 94ft, pipeline has multiple cracks	3C2A	50	3215	11	2	12	
7/1/2022	D	Green Street	D69 - D67	6	6	VCP	259	109.76	MSA/TBI. No reverse inspection performed because the	523C	40	5121	7	3	8	
8/12/2022	D	West Bayshore Road	D7 - D6	6	6	VCP	398	399.27	5% grease build up and 90% sag	544F	60	3128	19	3	0	15
6/24/2022	D	Dumbarton Avenue	D70 - D51	6	6	VCP	71	66.68	-	3323	15	1100	1	2	0	
7/11/2022	D	Oakwood Dive	D71 - D52	6	6	VCP	130	128.8	Proteus. This is the second inspection. First inspection	443D	46	3114	7	2	12	
6/23/2022	D	Manhattan Avenue	D73 - D76	10	10	PVC		277.11	-	0000	0	0000	0	0	0	

East Palo Alto Sanitary District Area 1 CCTV Survey Results

Date Inspected	Area	Location/ Street Name	PSR	Reported Pipe Dia (inch)	Actual Diameter (inch)	Pipe Material	Pipe Length (ft)	Length Surveyed (ft)	Inspection Notes	Structural Grade	Structural Score	O&M Grade	O&M Score	Overall Pipe Index	Score for Notable Defects	Sag >40%
6/23/2022	D	Manhattan Avenue	D74 - D73	8	8	Unknown	210	300.9	-	0000	0	0000	0	0	0	
6/23/2022	D	Manhattan Avenue	D75 - D74	8	8	Unknown	195	187.44	-	0000	0	0000	0	0	0	
6/23/2022	D	Manhattan Avenue	D76 - D19	10	10	PVC	99	55.78	-	3900	27	4100	4	3	0	
6/15/2022	D	Donohoe Street	D8 - D7	6	6	VCP	158	153.95	broken pipe at 100.08 ft from upstream	5148	37	4332	18	2	30	10
6/14/2022	D	Donohoe Street	D9 - D8	6	6	VCP	496	498.04	Broken at 21ft, multiple cracks	483R	70	4132	10	2	8	
7/18/2022	O	West Bayshore Road	O10 - O9	8	8	VCP	157	156.65		332A	29	2811	21	2	0	
6/27/2022	O	West Bayshore Road	O11 - O10	8	8	VCP	259	260.21		312A	23	412A	24	2	0	
6/27/2022	O	West Bayshore Road	O12 - O11	8	8	VCP	394	395.57	-	2C00	20	3123	9	1	0	
6/27/2022	O	West Bayshore Road	O13 - O12	8	8	Other	415	417.56	-	2A00	20	4111	5	2	0	
6/27/2022	O	West Bayshore Road	O14 - O13	8	8	VCP	130	128.86	-	0000	0	0000	0	0	0	
7/1/2022	O	West Bayshore Road	O15 - O14	8	8	Unknown	308	308.6	-	2300	6	1100	1	1	0	
7/1/2022	O	Capitol Avenue	O16 - O15	6	6	VCP	235	233.82	Broken at 131.9 ft	433E	42	3118	11	2	15	
8/11/2022	O	West Bayshore Road	O17 - O3	8	8	VCP	161	159.15		2800	20	4131	7	1	0	
8/11/2022	O	West Bayshore Road	O18 - O17	8	8	VCP	264	162.35	-	3226	18	1A00	10	1	0	
6/30/2022	O	Woodland Avenue	O19 - O17	6	6	VCP	86	85.57	Broken at 83 ft	4127	16	1300	3	1	0	
N/A	O	Woodland Avenue	O20 - O19	6	6	-	116		After removing roots and debris from the exit of the pipe at	5A	50				20	
6/30/2022	O	Woodland Avenue	O21 - O19	6	6	VCP	394	394.97	MSA/Reverse Inspection performed.	443N	46	423A	38	2	20	
6/30/2022	O	Woodland Avenue	O22 - O21	6	6	VCP	348	347.89	broken at 81.02 ft, 311 ft, and 320 ft.	5147	33	4232	14	2	20	
8/12/2022	O	Woodland Avenue	O23 - O22	6	6	VCP	470	377.87	MSA/TBI. Reverse Inspection complete. Pipe had multiple	483H	62	4333	21	2	20	
6/30/2022	O	Woodland Avenue	O24 - O23	6	6	VCP	97	95.77	-	3200	6	5141	9	2	0	
8/18/2022	O	Clarke Avenue	O25 - O7	6	6	VCP	177	177.34	This is the second inspection. The first inspection on 6.29 can be	4231	11	4132	10	2	8	
6/28/2022	O	Clarke Avenue	O26 - O25	6	6	VCP	333	332.89	Broken at 125ft	453F	50	3122	7	2	0	
6/28/2022	O	Clarke Avenue	O27 - O26	6	6	VCP	65	65.98	-	3622	20	1100	1	2	0	
8/18/2022	O	Woodland Avenue	O28 - O26	6	6	VCP	434	443.76	MSA/Reverse inspection complete. Proteous. pipeline has a	5149	41	4235	23	2	10	
8/18/2022	O	Woodland Avenue	O29 - O28	6	6	VCP	143	160.5	Surcharged MH with substantial crud on water surface.	4127	16	4113	7	2	12	
8/17/2022	O	Woodland Avenue	O29 - O30	6	6	VCP	220	225.93	Surcharged MH with substantial crud on water surface.	433E	42	312B	23	2	12	
6/29/2022	O	Newell Road	O30 - O35	6	6	ACP	176	176.34	-	271F	24	0000	0	1	0	
6/29/2022	O	Newell Road	O31 - O30	6	6	VCP	90	44.79	Visible soil	5242	18	0000	0	2	30	
6/29/2022	O	Woodland Avenue	O32 - O31	6	6	VCP	258	258.41	Broken at 3.2 ft and 226 ft	5141	9	4432	22	2	30	
6/29/2022	O	Woodland Avenue	O33 - O32	6	6	VCP	263	227.22	Visible soil	4236	26	2312	8	2	12	10
6/29/2022	O	Newell Road	O34 - O10	6	6	ACP	268	267.41		3H1I	40	3111	4	2	0	
6/29/2022	O	Newell Road	O35 - O34	6	6	ACP	316	318.99		3A2D	50	2112	4	1	0	
6/29/2022	O	Newell Road	O36 - O30	6	6	ACP	164	159.85		0000	0	312D	23	2	0	
6/28/2022	O	Mission Drive	O37 - O25	6	6	VCP	81	70.48	50% sagging pipe	3400	12	4200	8	3	0	10
6/28/2022	O	Mission Drive	O38 - O37	6	6	VCP	117	115.36		3121	5	4100	4	3	0	
6/28/2022	O	Mission Drive	O39 - O37	6	6	VCP	41	41.29		2400	8	0000	0	2	0	
8/11/2022	O	West Bayshore Road	O4 - O3	8	8	VCP	277	276.11	85% sag, 10% grease build up	5A49	86	312B	23	2	0	25
6/28/2022	O	Mission Drive	O40 - O39	6	6	VCP	37	34.89	-	0000	0	0000	0	0	0	
7/19/2022	O	Mission Drive	O41 - O40	6	6	Unknown	45	45.4	Proteous. seemed to be different material assuming to be Cast	3900	27	0000	0	3	16	
6/28/2022	O	Mission Drive	O42 - O39	6	6	VCP	48	48.08	-	3100	3	0000	0	3	0	
6/28/2022	O	Mission Drive	O43 - O42	6	6	VCP	182	181.44	-	3200	6	0000	0	3	0	
6/28/2022	O	Mission Drive	O44 - O43	6	6	VCP	69	68.48	Joint Separated Large at 3.6ft	4131	7	0000	0	3	0	
6/28/2022	O	Mission Drive	O45 - O8	6	6	VCP	66	42.39	Broken at 38.7ft	4131	7	0000	0	2	0	
6/28/2022	O	Mission Drive	O46 - O45	6	6	VCP	213	174.04	Broken at 3.7ft, Joint Separated Medium along the pipe	4137	25	0000	0	2	0	
6/28/2022	O	Mission Drive	O47 - O45	6	6	VCP	72	71.38		0000	0	0000	0	0	0	
6/28/2022	O	Mission Drive	O48 - O47	6	6	VCP	122	120.36	Surface Damage at 119ft	3421	14	0000	0	2	12	
6/28/2022	O	Mission Drive	O49 - O47	6	6	VCP	73	72.28	Crack at 68.7 ft	1100	2	0000	0	1	0	0
8/11/2022	O	West Bayshore Road	O5 - O4	8	8	Unknown	399	398.77	Noteable sagging	462E	44	4435	32	2	0	15
6/28/2022	O	Mission Drive	O50 - O49	6	6	VCP	172	171.84	Joint Offset Large at 170 ft	4138	28	0000	0	3	0	
N/A	O	Cooley Avenue	O51 - O13	6		-	468		Line has an unchartered manhole, see MH O51A						0	
8/17/2022	O	Cooley Avenue	O51 - O51A	6	6	VCP	234	233.82	10% grease build up	2E00	20	432A	32	2	0	5
8/17/2022	O	Cooley Avenue	O51A - O13	6	6	VCP	236	236.12	5% grease build up, 60% sag	4836	50	2100	2	2	0	10
6/27/2022	O	Scofield Street	O52 - O51	6	6	VCP	213	210.83	-	3D2D	50	0000	0	2	0	
6/27/2022	O	Circle Drive	O53 - O52	6	6	VCP	188	222.13	Broken at 204ft	4231	38	3121	5	2	0	
6/27/2022	O	Scofield Street	O54 - O52	6	6	VCP	380	380.17	Pipe is broken at 26.08 feet.	5142	13	1A00	10	2	30	
7/1/2022	O	Woodland Avenue	O55 - O54	6	6	VCP	399	398.39	MSA/Reverse Inspection Complete.	433L	42	3125	13	2	8	
7/1/2022	O	Woodland Avenue	O56 - O55	6	6	VCP	377	378.18	-	3N24	38	3221	8	2	0	

East Palo Alto Sanitary District

Area 1 CCTV Survey Results

Date Inspected	Area	Location/ Street Name	PSR	Reported Pipe Dia (inch)	Actual Diameter (inch)	Pipe Material	Pipe Length (ft)	Length Surveyed (ft)	Inspection Notes	Structural Grade	Structural Score	O&M Grade	O&M Score	Overall Pipe Index	Score for Notable Defects	Sag >40%
6/27/2022	O	Cooley Avenue	O57 - O51	6	6	VCP	365	365.48	Cracks and surface damage along the pipe	443A	46	2116	8	2	0	
6/27/2022	O	Cooley Avenue	O58 - O57	6	6	VCP	403	184.54	MSA/Tap break in intruding. No reverse inspection performed	5143	17	5100	5	3	30	
7/14/2022	O	Highway 102	O59 - O60	14	10	VCP	40	8.7	-	0000	0	2100	2	2	0	
7/18/2022	O	West Bayshore Road	O59 - O7	8	8	VCP	182	182.34	Soil is visible at 167ft, 50% sag	5141	9	4131	7	2	30	10
7/19/2022	O	West Bayshore Road	O6 - O5	8	8	Other	399	400.67	-	3700	21	3111	4	2	0	
7/14/2022	O	West Bayshore Road	O60 - O61	14	14	PVC	199	203.63	-	2800	20	2F00	20	2	0	
7/19/2022	O	West Bayshore Road	O7 - O6	8	8	Unknown	427	428.46	-	2200	4	0000	0	2	0	
7/18/2022	O	West Bayshore Road	O8 - O59	8	8	VCP	103	102.77	-	3427	26	4123	10	1	0	
7/18/2022	O	West Bayshore Road	O9 - O8	6	8	VCP	140	141.35	15% grease buildup at 96ft	3A23	36	3622	22	2	0	5
N/A	O/M	East Bayshore Road	O61 - M8	14		-	12		O61 is buried. The crew attempted to inspect it from O60 but						0	
8/11/2022	O/N	Highway 101	O3 - N8	8	10	Unknown	205	208.33	O3 was surcharged.	3H27	44	0000	0	2	8	10

East Palo Alto Sanitary District Area 2 CCTV Survey Results

Date Inspected	Area	Location/Street Name	PSR	Reported Pipe Dia (inch)	Actual Diameter (inch)	Pipe Material	Pipeline Length (ft)	Length Surveyed (ft)	Inspection Notes	Structural Grade	Structural Total	O&M Grade	O&M Scores	Score for Notable Defects	Sag >40%
1/11/2023	B	Bay Road	B5 - B52	12	12	PVC	176	180.56	Numerous 90% sags. Accumulated grease and debris	5E00	50	342B	32	5	30
1/11/2023	B	Bay Road	B6 - B5	12	12	PVC	158	158.71	Numerous 85% sags. accumulated grease and debris	4C28	56	312D	23	0	25
12/14/2022	B	Bay Road	B12 - B11	12	12	PVC	277	280.75	Grease accumulated on the sides of pipe starting at 100 feet from B12, and pipe is over 70% sagging	5I00	50	403H	70	5	15
12/14/2022	B	Palo Verde Avenue	B27 - B25	6	6	VCP	318	320.83	Broken at 36, 193 & 260 ft. Multiple fractures and cracks	4B3C	70	3F28	50	10	0
12/16/2022	B	Gloria Way	B37 - B6	6	6	VCP	262	264.52	Broken at 9.3, 103, 136.8, 171.1 and 209.5ft. 60% sag for 25 ft	4D3A	70	3818	32	10	15
12/16/2022	B	Gloria Way	B50 - B37	6	6	VCP	205	206.31	Pipeline is 80% sagging from 50 to 60 ft from B50. Broken at 111.8 and 148.9 ft	544A	60	3116	9	15	25
12/12/2022	B	Poplar Avenue	B17 - B13	6	6	VCP	501	502.79	Broken at 103, 212, 246, 416, and 502 feet	4F3C	70	351A	25	10	0
12/14/2022	B	Dumbarton Avenue	B31 - B29	6	6	VCP	257	258.81	Broken at 5, 15, 33, 76, 220, 222, and 234 ft	4D3B	70	341B	22	10	0
12/13/2022	B	Addison Avenue	B21 - B11	6	6	VCP	400	401.19	Broken at 176 and 214 feet from B21	4B3B	70	3414	16	10	0
12/14/2022	B	Bay Road	B11 - B10	12	12	VCP	201	203.3	80% sagging all line long till 20 feet from B10	4F00	40	3E00.0	30	0	25
12/12/2022	B	Ralmar Avenue	B19 - B12	6	6	VCP	500	501.29	Broken at 13, 52, 60, 163, and 497 feet	4B3F	70	3412	14	10	0
12/9/2022	B	Menalto Avenue	B16 - B15	8	8	VCP	327	329.85	-	4A3E	70	0	0	0	0
12/16/2022	B	Ursula Way	B40 - B39	6	6	VCP	306	356.9	Broken at 5.8, 180.2, and 253.7 ft	4F3C	70	4432	22	0	0
12/13/2022	B	Oakwood Drive	B26 - B25	6	6	VCP	402	405.4	Broken at 285 and 190 feet from B26. This pipeline has multiple cracks and fractures along the line (every joint)	4D3C	70	3222	10	10	0
12/15/2022	B	Palo Verde Avenue	B34 - B8	6	6	VCP	251	252	Broken at 260, 244-246, and 141 ft	4B3A	70	3311	10	10	0
1/11/2023	B	Bay Road	B7 - B6	12	12	PVC	380	383.35	Numerous 85% sags	0000	0	2E00	20	0	25
12/14/2022	B	Palo Verde Avenue	B28 - B27	6	6	VCP	202	204.6	Broken at 163 ft. Multiple cracks along the pipeline	4A3A	70	3115	8	10	0
1/12/2023	B	Bay Road	B3 - B2	12	12	XXX	239	240.27	Sagging 50% to 65%	0000	0	322C	26	0	15
12/9/2022	B	Menalto Avenue	B16A - B16	8	8	PVC	390	389.57	Pipeline is 65% sagging.	4A3F	70	0	0	0	15
12/15/2022	B	Weeks Street	B30 - B29	6	6	VCP	243	250.09	Broken at 8.7, 120.3, and 242.5 ft	4B3A	70	3111	4	10	0
12/13/2022	B	Addison Avenue	B22 - B21	6	6	VCP	400	219.43	Broken at 20.8, 82.6, 133.3, and 170.3 feet. An intruding lateral at 219 feet from B22 prevented the inspection from being	4B39	67	5100	5	10	0
12/14/2022	B	Dumbarton Avenue	B33 - B31	6	6	VCP	280	281.55	Broken at 54, 146, 161, 123, and 249 feet from B9. Soil was visible at 276 ft	514B	45	341B	22	15	0
12/15/2022	B	Palo Verde Avenue	B35 - B34	6	6	VCP	364	365.32	Broken and soil is visible at 10.8 and 210.6 ft	524B	50	3511	16	15	0
12/15/2022	B	Dumbarton Avenue	B29 - B9	6	6	VCP	211	210.61	Broken at 17 ft	4A3A	70	0	0	10	0
12/12/2022	B	Ralmar Avenue	B20 - B19	6	6	VCP	585	591.06	Broken at 297, 391, 394, 416, 493, and 556 feet. Also broken at 414 and 343 where soil is visible	524F	50	4232	14	15	0
1/12/2023	B	Bay Road	B4 - B3	12	12	XXX	465	466.22	Accumulated grease	5100	5	2D00	20	5	0
12/14/2022	B	Bay Road	B9 - B8	12	12	PVC	351	354.4	Pipeline is 60% sagging for the last 60 feet from B9	4J38	64	0	0	0	10
12/16/2022	B	Grace Avenue	B43 - B37	6	6	VCP	363	362.01	Broken at 171.6ft	473A	58	1500	5	10	0
12/16/2022	B	Ursula Way	B39 - B38	6	6	VCP	301	315.02	Broken with visible soil at 11.9, 133.6-139, 238.2, 293.7, and 306 to 310 ft	514A	45	3513	18	10	0
12/14/2022	B	Bay Road	B13 - B12	12	12	PVC	263	264.32	Accumulated grease	4G32	46	2A00	20	5	0
12/13/2022	B	Oakwood Drive	B24 - B10	6	6	VCP	493	496.38	Multiple fractures and cracks along the pipeline	4C38	64	0	0	5	0
1/12/2023	B	Bay Road	B52 - B4	12	12	XXX	360	360.91		0000	0	312K	23	0	0
12/15/2022	B	Lilac Lane	B32 - B31	6	6	VCP	254	251.9	Broken at 162 ft, and collapsed at 252 ft (by the clean out)	5147	33	3413	15	15	0
12/19/2022	B	Fordham Street	B44 - B2	6	6	VCP	296	290.47	Broken at 56.7, 27, 73, 144.1, 231, 261.8, and 289.9 ft	5249	46	3100	3	10	0
12/13/2022	B	Oakwood Drive	B25 - B24	6	6	VCP	406	409.2	Broken at 377 and 391 feet	514D	45	1400	4	10	0
12/9/2022	B	Menalto Avenue	B15 - B49	8	8	VCP	331	333.86		3C00	30	3100	3	0	0
12/14/2022	B	Bay Road	B10 - B9	12	12	PVC	290	290.77	Pipeline was at full capacity	3F28	46	0	0	5	0
12/19/2022	B	Fordham Street	B45 - B44	6	6	VCP	301	299.49	Broken at 65.6ft	4633	33	3114	7	10	0
12/16/2022	B	Ursula Way	B42 - B38	6	6	PVC		341.9	MH B41 on Ursula Way not found/nonexistent. One pipeline from B42 to B38. Located in a residential area	514B	45	0	0	0	0
12/15/2022	B	Palo Verde Avenue	B35A - B35	6	6	VCP	207	186.27	Unmapped and paved over manhole found at 186 ft from B35, named B35A during the inspection	433A	42	1100	1	0	0

East Palo Alto Sanitary District Area 2 CCTV Survey Results

Date Inspected	Area	Location/Street Name	PSR	Reported Pipe Dia (inch)	Actual Diameter (inch)	Pipe Material	Pipeline Length (ft)	Length Surveyed (ft)	Inspection Notes	Structural Grade	Structural Total	O&M Grade	O&M Scores	Score for Notable Defects	Sag >40%
12/9/2022	B	Menalto Avenue	B49 - B14	8	8	VCP	328	329.35		3200	6	0	0	0	0
1/11/2023	B	Bay Road	B8 - B7	12	12	PVC	371	375.14	Numerous 85% sags	0000	0	0000	0	0	25
12/13/2022	B	Addison Avenue	B22 - B21	6	6	VCP	33	33.47	Broken at 8, 20.8, 79, 82 133, and 170 ft	4131	7	5100	5	10	0
12/14/2022	B	Bay Road	B14 - B13	12		PVC	253	255.3		2A00	20	0	0	0	0
12/15/2022	B	Ursula Way	B51 - B50	6	6	PVC	282	282.76		2D00	20	0	0	0	0
12/19/2022	B	Fordham Street	B44 - B2	6	6	VCP	7	7	Broken at 28, 73, 144, 231, and 261 ft. Broken with visible soil at 289 ft	4100	4	0	0	15	0
12/16/2022	B	Glen Way	B48 - B7	6	6	VCP	450	6.41	Inspection was abandoned at 4.6 ft from B7 and the upstream is a cleanout.	4200	8	0	0	10	0
12/16/2022	B	Gloria Way	B38 - B50	6	6	VCP	39	39.78		3126	15	0	0	0	0
12/15/2022	B	Palo Verde Avenue	B36 - B35A	6	6	UNK	49	49	Broken at 13.7 ft	0	0	0	0	10	0
12/12/2022	B	Poplar Avenue	B18 - B17	6	8	PVC	497	502.39	New pipeline	2200	4	0	0	0	0
1/23/2023	B	Bay Road	B46 - B5	12	6	PVC	17	17		3100	3	0000	0	0	0
12/13/2022	B	Addison Avenue	B23 - B22	6	8	PVC	380	382.45	New pipeline	0	0	0	0	0	0
12/16/2022	B	Ursula Way	B41 - B38	8	0	N.A.	170	0	MH B41 on Ursula Way not found/nonexistent. One pipeline from B42 to B38. Located in a residential area	0	0	0	0	-	-
12/16/2022	B	.	B42 - B41	8	0	N.A.	166	0	MH B41 on Ursula Way not found/nonexistent. One pipeline from B42 to B38. Located in a residential area	0	0	0	0	-	-
1/23/2023	B	Bay Road	B47 - B46	12	6	PVC	158	161		0000	0	0000	0	0	0
12/9/2022	B / C	Menalto Avenue	C1 - B16A	8	8	PVC	17	17.1	Unmapped MH was located 17 ft from C1 named B16A during the inspection	3300	9	0	0	0	0
1/13/2023	D/E	Donohoe Street	D1 - E4	10	10	VCP	354	356.6	Multiple fractures and cracks. Sagging 50-75%	4L3F	70	4D31	43	5	20
1/13/2023	E	Donohoe Street	E4 - E3	10	10	VCP	357	359.01	Broken at 34, 37, 43, 49, 56, 96, and 355 ft	4K3K	70	4911	37	10	0
1/10/2023	E	Capitol Avenue	E20 - E7	6	6	VCP	504	507.8	Broken at 27, 110.3, 237.8, 282.5, 193, and 466 ft. 75% sagging between 360 and 460 ft	4I39	67	4A32	46	10	20
1/13/2023	E	Cooley Avenue	E2 - E1	12	12	PE	283	284.86	60% sag for 34 ft	473F	58	0000	0	0	15
1/13/2023	E	Cooley Avenue	E3 - E2	12	12	PE	280	283.16	-	4C3D	70	0000	0	0	0
12/22/2022	E	Capitol Avenue	E46 - E7	6	6	VCP	501	499.98	Broken at 103.1, 200.5 and 348.8 ft	5B4C	90	3500	15	10	0
12/22/2022	E	Cooley Avenue	E6 - E1	12	12	PVC	501	501.19	Accumulated grease. 75% in few segments	4C3E	70	4132	10	5	20
12/20/2022	E	Dumbarton Avenue	E30 - E29	6	6	VCP	502	509.7	Broken at 41.4, 123, 141, 306.7, and 375.7 ft	4D3D	70	2800	20	10	0
12/20/2022	E	Dumbarton Avenue	E33 - E29	6	6	VCP	229	459.4	Broken at 123.8 ft. In addition, pipeline is 50% sagging in the last 10ft from E33	4B3D	70	3121	5	15	10
12/19/2022	E	Glen Way	E36 - E15	6	6	VCP	420	423.83	Broken at 97.2, 207.8, 353, and 48 ft	574E	75	4114	8	15	0
12/22/2022	E	Bell Street	E9 - E8	12	12	PVC	340	344.18	A few fractures were noticed	4C2F	60	432A	32	5	0
1/10/2023	E	Capitol Avenue	E21 - E20	6	6	VCP	386	312.21	Broken at 262.3 and 187 ft	4D38	64	3721	23	10	0
12/20/2022	E	Bell Street	E31 - E29	6	6	VCP	252	246.18	Broken at 83, 125.4 ft	483A	54	2A18	28	10	0
12/21/2022	E	Euclid Avenue	E42 - E10	6	6	VCP	551	553.69	Multiple fractures and cracks	4D3C	70	4134	16	5	0
12/20/2022	E	Bell Street	E29 - E12	6	6	VCP	247	241.78	Broken at 9.6 and 106.8 ft. In addition, pipe was damaged with visible soil at 236 ft	514B	45	422D	28	15	0
1/10/2023	E	Cooley Avenue	E48 - E6	6	6	VCP	498	502.09	Broken at 148, 290, 299.7, and 330 ft	4G3B	70	3200	6	10	0
12/22/2022	E	Bell Street	E8 - E7	12	12	PVC	355	359.01		332G	29	2G00	20	0	0
12/21/2022	E	Euclid Avenue	E26 - E25	6	6	VCP	488	492.57	Broken at 17.1, 169.6, and 291.2 ft	4A3A	70	3111	4	10	0
12/19/2022	E	Garden Street	E15 - E14	8	8	VCP	246	250.09	Broken at 88 and 236 ft	4A3A	70	0	0	10	0
12/20/2022	E	Lincoln Street	E35 - E14	6	6	VCP	333	331.65	Broken at 7.1 and 253 ft	4A3A	70	0	0	10	0
12/20/2022	E	Garden Street	E14 - E13	8	8	VCP	186	166.63	Multiple fractures and cracks along the line	4A3A	70	3111	4	5	0
12/21/2022	E	Lincoln Street	E13 - E12	8	8	VCP	450	458.7	Broken lateral at 326.6 ft from E13	4A3E	70	3221	8	0	0
12/21/2022	E	Euclid Avenue	E25 - E50	6	6	VCP	232	233.16	Broken at 48.4 ft	473A	58	3116	9	10	0
12/22/2022	E	Bell Street	E7 - E6	12	12	PVC	311	311.41		2H00	20	2K00	20	0	0

East Palo Alto Sanitary District Area 2 CCTV Survey Results

Date Inspected	Area	Location/Street Name	PSR	Reported Pipe Dia (inch)	Actual Diameter (inch)	Pipe Material	Pipeline Length (ft)	Length Surveyed (ft)	Inspection Notes	Structural Grade	Structural Total	O&M Grade	O&M Scores	Score for Notable Defects	Sag >40%
12/20/2022	E	Dumbarton Avenue	E34 - E33	6	6	VCP	279	280.85	Broken at 37 and 79.7 ft	4A37	61	3111	4	10	0
12/21/2022	E	Lincoln Street	E27 - E12	6	6	VCP	576	580.94	Broken at 138, 271, and 437 ft. In addition, the pipeline is broken with visible soil at 513 ft and 530 ft	524B	50	3221	8	15	0
12/21/2022	E	Euclid Avenue	E50 - E10	6	6	VCP	218	219.93	Multiple fractures and cracks	463A	54	3212	8	10	0
12/22/2022	E	Capitol Avenue	E47 - E46	6	6	VCP	455	454.89	Broken at 171.5, 174.8, 187.3, 235.4, 270.8, 348.2, 368.2, 380.2, 427.8, 429.8, and 440 ft	534D	55	3200	6	10	0
1/10/2023	E	Cooley Avenue	E49 - E48	6	6	VCP	458	456.7	Broken at 351.6, 225, and 343 ft. Pipeline is broken with visible soil at 167 ft	514A	45	3200	6	15	0
12/19/2022	E	Glen Way	E38 - E36	6	6	VCP	234	235.96	Broken at 153.1, 216.9, and 219.6 ft	514B	45	1A00	10	10	0
12/20/2022	E	Oakwood Dive	E32 - E31	6	6	VCP	263	280.65	Broken at 10, 48.7, 50.5, 128.9, and 207 ft	5146	29	3317	16	15	0
12/19/2022	E	Glen Way	E40 - E38	6	6	VCP	390	272.84	Broken at 85.1, 146.2, and 266.3 ft. The inspection was abandoned at 272 ft due to an intruding lateral at 272 ft, and the upstream is a clean	5147	33	5132	11	15	0
12/20/2022	E	Garden Street	E33 - E13	8	6	VCP	455	252.8	Multiple Broken Pipe at 172, 175, 215,	4635	39	3521	17	0	0
12/22/2022	E	Bell Street	E11-E10	12	12	PVC	195	195.28		3C2A	50	0	0	0	0
12/22/2022	E	Bell Street	E12 - E11	12	12	PVC	494	500.48		3A2I	50	0	0	0	0
12/19/2022	E	Oakdale Road	E37 - E36	6	6	VCP	353	250.79	A piece of PVC coming out a lateral into the main sewer line at 250 ft prevents the camera from moving forward. The inspection was	4536	38	3223	12	0	0
12/19/2022	E	Runnymede Street	E39 - E38	6	6	VCP	301	278.45	Broken at 94.7 ft. E39 is supposed to be an upstream clean out, however, the pipeline has an open end pipe at E39 as it is not	5144	21	3117	14	15	0
1/12/2023	E	University Avenue	E44 - E8A	6	6	VCP	318	318.13	Broken at 146 ft. Unmapped MH was found between them, named E8A during the inspection	412B	24	3200	6	10	0
1/12/2023	E	University Avenue	E23 - E22	6	6	VCP	439	441.57	Broken at 158 ft	5131	8	3511	16	10	0
12/19/2022	E	Garden Street	E41 - E15	6	6	VCP	98	82.06	Broken with visible soil at 6 ft. In addition, it is broken at 81 ft	5143	17	1110	2	15	0
1/12/2023	E	University Avenue	E22 - E8	6	6	VCP	450	451.99		312D	23	3211	7	0	0
1/13/2023	E	Cooley Avenue	E3B - E3C		6	XXX	44	44.29		2100	20	4100	4	0	0
1/12/2023	E	University Avenue	E8A - E8		6	VCP	316	316.02	Unmapped MH was found between E44-E8, named E8A during the inspection	312F	23	0000	0	0	0
12/22/2022	E	Bell Street	E10 - E9	12	12	PVC	192	194.28		2D00	20	0	0	0	0
1/12/2023	E	University Avenue	E45 - E44	6	6	VCP	319	321.53		2C00	20	0000	0	0	0
1/23/2023	E	Cooley Avenue	E3 - E3A	-	6	PVC	52	52		2400	8	4100	4	0	0
12/21/2022	E	Lincoln Street	E28 - E27	6	6	VCP	62	51.3	One fracture	4121	6	1100	1	0	0
1/13/2023	E	Cooley Avenue	E3B - E3A		6	XXX	13	13.03		0000	0	4100	4	0	0
1/13/2023	E	Cooley Avenue	E16 - E3	6		N.A.	390	0	Pipeline does not connect as shown on the map; instead, it connects to four unmapped manholes located inside IKEA's parking lot, upstream	0	0	-	-	-	-
1/13/2023	E	Cooley Avenue	E17 - E16	6	0	N.A.	430	0	Pipeline does not connect as shown on the map; instead, it connects to four unmapped manholes located inside IKEA's parking lot, upstream	0	0	-	-	-	-
1/13/2023	E	Capitol Avenue	E18 - E4	6		N.A.	500	0	EPASD Staff Darrin, mentioned that these manholes do not exist on their map.	0	0	-	-	-	-
1/13/2023	E	Capitol Avenue	E19 - E18	6		N.A.	190	0	EPASD Staff Darrin, mentioned that these manholes do not exist on their map.	0	0	-	-	-	-
1/10/2023	E	Capitol Avenue	E21 - E21A		6	PVC	67	67.23		0000	0	0000	0	0	
12/22/2022	E	Euclid Place	E24 - E9	6	6	PVC	340	66.93	Pipeline was reported to be 340 f; however, the pipeline was found to be 67 ft. E24 is a IMH not a clean out.	0	0	0	0	0	-
1/13/2023	E	Cooley Avenue	E3 - E3A		6	XXX		50.6		0	0	0	0	0	-

East Palo Alto Sanitary District Area 3 CCTV Survey Results

Date Inspected	Area	Location/ Street Name	PSR	Reported Pipe Dia (inch)	Actual Diameter (inch)	Pipe Material	Pipe Length (ft)	Length Surveyed (ft)	Notes	Structural Grade	Structural Score	O&M Grade	O&M Score	Overall Pipe Index	Score for Notable Defects	Sag >40%
8/3/2022	A	Bay Road	A9 - A10	15	15	ACP	181	180.05	Broken at 172ft	4138	28	0000	0	1	0	15
8/2/2022	A	Bay Road	A8 - A9	15	12	PVC	61	60.82	-	0000	0	0000	0	0	0	
7/8/2022	A	Illinois Street	A7 - A6	6	6	VCP	306	287.97	Broken pipe at 82 and 230 ft.	4736	46	3300	9	2	30	15
7/8/2022	A	Illinois Street	A6 - A5	6	6	VCP	287	286.26	Broken pipe at 15 and 75ft. Also, an offset joint at 162ft.	4833	49	331D	19	2	30	15
8/2/2022	A	Bay Road	A5 - A8	15	12	PE	124	121.74	Sagging pipe 50%-100%	5A3A	80	2300	6	3	0	10
7/8/2022	A	Gonzaga Street	A4 - A3	6	6	VCP	312	286.76	Broken ar 205.9ft, multiple fractures	4332	18	0000	0	2	0	
7/11/2022	A	Pulgas Avenue	A31 - A16	6	6	PVC	177.15	177.15	This pipe line was A17A - A16	413A	34	4100	4	2	0	5
8/3/2022	A	Bay Road	A30 - A28	6	6	VCP	301	300.99	-	2A00	20	0000	0	2	0	
7/8/2022	A	Gonzaga Street	A3 - A2	6	6	VCP	287	281.55	Broken pipe at 53, 141, 157, and 159 ft. Also, an angular joint	4A32	46	3111	4	2	30	20
8/3/2022	A	Bay Road	A28 - A29	6	6	ACP	15	15.13	-	0000	0	4121	6	3	0	
7/6/2022	A	Tara Street	A27 - A26	6	6	VCP	311	306.60	Broken pipe and soil is visible at 254.10 ft at 11 o'clock	513C	35	0000	0	2	30	20
7/6/2022	A	Tara Street	A26 - A25	6	6	VCP	234	234.86	-	3124	11	0000	0	2	0	
7/6/2022	A	Tara Street	A25 - A24	6	6	VCP	253	252.30	-	2800	20	3100	3	2	0	
7/7/2022	A	Tara Street	A24 - A23	6	6	VCP	240	250.19	Broken pipe at 228 ft.	4132	10	4828	48	2	20	
8/3/2022	A	Bay Road	A23 - A22	15	8	ACP	14	12.02	-	1200	2	0000	0	1	0	
8/3/2022	A	Bay Road	A22 - A29	18	15	ACP	369	367.52	-	2G1M	30	0000	0	1	0	
8/3/2022	A	Bay Road	A21 - A23	15	15	ACP	155	168.33	New Line Segment. MH Name changed from A22 to A23 as in	0000	0	0000	0	0	0	
N/A	A	Bay Road	A21 - A23	15			155		A21 does not connect to A23 but it connects to A22.						0	
7/7/2022	A	Pulgas Avenue	A20 - A19	6	6	VCP	340	338.97	Broken pipe at 225ft, and separated joints at 281ft.	4234	20	3100	3	2	30	
8/2/2022	A	Bay Road	A2 - A5	12	12	Unknown	244	244.08	Sagging pipe 75%	483A	70	0000	0	3	0	25
7/7/2022	A	Pulgas Avenue	A19 - A18	6	6	VCP	214	206.51	Fracture multiple along the pipeline	4633	33	0000	0	2	0	
7/7/2022	A	Pulgas Avenue	A18 - A16	6	6	VCP	442	439.26	Broken pipe at 44ft.	4A3E	70	2A00	20	2	10	20
7/11/2022	A	Pulgas Avenue	A17 - A31	6	6	VCP		241.57	This pipe line was A17 - A17A	4439	43	2100	2	2	0	
N/A	A	Bay Road	A17 - A16	6			423		Line has an unchartered manhole						0	
8/3/2022	A	Bay Road	A16 - A21	15	15	ACP	296	296.78	-	3F27	44	0000	0	1	0	5
8/3/2022	A	Bay Road	A15 - A16	6	15	ACP	435	433.85	Surface damage roughness. Sagging 75%	453F	50	3100	3	1	0	25
7/7/2022	A	Demeter Street	A14 - A13	6	6	Unknown	288	287.86	-	3I2B	50	0000	0	2	0	
7/7/2022	A	Demeter Street	A13 - A12	6	6	Unknown	412	412.51	Broken pipe at 129 ft and 139 ft with sags.	4A3D	70	3100	3	2	20	15
7/7/2022	A	Demeter Street	A12 - A11	6	6	VCP	485	483.95	Sagging pipeline 55%	4D35	55	4132	10	2	0	20
7/8/2022	A	Demeter Street	A11A - A10	6	6	PVC	206	208.21	Uncharted MH was found between A11-A10 on Demeter	2A00	20	3200	6	2	0	
7/8/2022	A	Demeter Street	A11 - A11A	6	6	PVC	209	209.01	Uncharted MH was found between A11-A10 on Demeter	2D00	20	5131	8	2	0	
N/A	A	Demeter Street	A11 - A10	6			418		Line has an unchartered manhole.						0	
8/3/2022	A	Bay Road	A10 - A15	15	15	ACP	299	298.89	Surface Damage Roughness Increased	4C37	61	3111	4	3	0	20
N/A	A	Bay Road	A1 - A2	12	12	Unknown	80	80.00	MH A1 does not exist. Inspection started from B2-A2. 8.1.22	3E2A	50	4300	12	2	10	0
8/3/2022	A / T	Bay Trail	A29 - T29	18	18	ACP	345	342.97	-	251K	20	0000	0	1	0	
8/2/2022	B/A	Bay Road	B2 - A1	12	12	PE	181	180.50	A1 is buried, operator surveyed B2-A2 for total of 260.51 ft	3E2A	50	4300	12	2	0	10
7/12/2022	F	Weeks Street	F9 - F23	6	6	VCP	111	111.02	This pipeline was F9-F9A	4735	43	0000	0	2	0	5
7/12/2022	F	Weeks Street	F8A - F7	6	6	VCP	75	75.45	New Line Segment	2600	12	3121	5	2	0	0
7/12/2022	F	Weeks Street	F8 - F8A	6	6	VCP	281	281.15	New Line segment	443B	46	4122	8	2	0	20
N/A	F	Weeks Street	F8 - F7	6			357		Line has an unchartered manhole.						0	
7/20/2022	F	Weeks Street	F7 - T25	6	6	VCP	477	475.83	Multiple cracks along the pipe	4238	32	3223	12	2	0	10
7/12/2022	F	Weeks Street	F23 - F8	6	6	VCP	327	326.54	This pipeline was F9A-F8	4C3C	70	4200	8	3	0	20
7/11/2022	F	Weeks Street	F22 - F12	6	6	VCP	54	53.91	This pipe line was F17A - F12	4532	26	4100	4	2	0	
7/11/2022	F	Carole Court	F21 - F20	6	6	PVC	281	134.96	MH was F20 - F21	0000	0	0000	0	0	0	
7/11/2022	F	Weeks Street	F20 - F17	6	6	VCP	136	252.60	MH was F20 - F21	4A35	55	1500	5	2	0	
7/11/2022	F	Weeks Street	F19 - F20	6	6	VCP	189	216.63	MH was F19 - F21	4A3A	70	3121	5	2	0	5
7/11/2022	F	Paul Robeson Court	F18 - F17	6	6	PVC	198	195.68	-	312C	23	4800	32	2	0	5
7/11/2022	F	Weeks Street	F17 - F22	6	6	VCP	56	55.81	This pipe line was F17 - F17A	4632	30	1200	2	2	0	
7/8/2022	F	Clarke Avenue	F16 - F15	6	6	VCP	238	171.94	-	2800	16	4100	4	2	0	
7/8/2022	F	Clarke Avenue	F15 - F11	6	6	VCP	301	299.99	Multiple cracks along the pipe	453A	50	4329	30	2	0	
7/12/2022	F	Pulgas Avenue	F14 - F8	6	6	PVC	463	467.72	Sagging pipe up to 75%	453C	50	4500	20	2	0	20
7/11/2022	F	Weeks Street	F13 - F19	6	6	VCP	24	23.75	-	2100	2	0000	0	2	0	
7/11/2022	F	Weeks Street	F12 - F11	6	6	VCP	355	533.45	Broken at 414ft, multiple fractures and cracks along the	4C3D	70	352A	35	2	0	5
7/12/2022	F	Weeks Street	F11 - F10	6	6	VCP	420	420.53	Broken at 176ft, 242ft	4D3C	70	1100	1	2	0	5
7/12/2022	F	Weeks Street	F10 - F9	6	6	VCP	463	461.91	Broken at 32.2ft & 247ft & 297ft & 314ft	514D	45	0000	0	2	0	5
7/20/2022	G	Buchanan Court	G9 - G6	6	6	CP	291	292.67	Pipe is broken and soil is visible at 84 ft	5241	14	3100	3	2	30	5
7/20/2022	G	Runnymede Street	G8 - G7	6	6	PVC	327	326.04	-	352B	35	0000	0	2	0	5
7/20/2022	G	Runnymede Street	G7 - G6	6	6	PVC	295	297.68	-	382C	48	0000	0	2	0	25
7/20/2022	G	Runnymede Street	G6 - G4	6	6	PVC	388	384.15	-	3A2D	50	0000	0	2	0	5
7/20/2022	G	Runnymede Street	G4 - G3	6	6	PVC	213	213.02	-	382C	50	0000	0	2	0	10
7/20/2022	G	Runnymede Street	G3 - G14	6	6	PVC	208	208.01	Multiple cracks along the pipe	4232	14	4200	8	2	0	5
7/21/2022	G	Runnymede Street	G2 - G19	6	6	VCP	154	176.35	This pipeline was G2-G2A	5141	9	312A	23	2	0	
7/21/2022	G	Runnymede Street	G19 - T23	6	6	VCP	154	263.22	This pipeline was G2A-T23	442D	36	4133	13	2	0	

East Palo Alto Sanitary District Area 3 CCTV Survey Results

Date Inspected	Area	Location/ Street Name	PSR	Reported Pipe Dia (inch)	Actual Diameter (inch)	Pipe Material	Pipe Length (ft)	Length Surveyed (ft)	Notes	Structural Grade	Structural Score	O&M Grade	O&M Score	Overall Pipe Index	Score for Notable Defects	Sag >40%
7/21/2022	G	Veronica Court	G18 - G17	6	6	PVC	291	290.27	-	3926	39	3100	3	2	0	5
7/21/2022	G	Runnymede Street	G17 - G2	6	6	VCP	144	144.08	-	312B	23	3322	13	2	0	
7/21/2022	G	Mandela Court	G16 - G15	8	8	PVC	154	154.00	-	2100	2	0000	0	2	0	
7/21/2022	G	Mandela Court	G15 - G14	8	8	PVC	215	215.52	-	3C26	42	0000	0	2	0	10
7/21/2022	G	Runnymede Street	G14 - G17	6	6	VCP	151	150.80	Pipe is broken at 17ft.	5241	14	3100	3	2	20	25
7/29/2022	G	Pulgas Avenue	G13 - G3	6	6	PVC	453	441.50	Proteous	4636	46	4700	28	2	0	
7/29/2022	G	Ruth Ct	G12 - G4	6	6	PVC	273.00	273.00	Broken at 47ft, 170ft	4533	29	1700	7	2	0	
7/20/2022	G	Buchanan Court	G11 - G10	6	6	CP	266	260.91	Pipe is broken at 33 ft and 256 ft.	4431	19	3100	3	2	20	
7/20/2022	G	Buchanan Court	G10 - G9	6	6	CP	271	270.53	Pipe is broken and soil is visible at 10 ft and 221 ft	5441	24	0000	0	3	30	
8/1/2022	I	Beech Street	I9 - I8	15	15	CP	155	154.10	-	241E	18	2100	2	1	0	
8/1/2022	I	Beech Street	I8 - I7	15	15	CP	238	237.07	-	0000	0	0000	0	0	0	
8/1/2022	I	Beech Street	I7 - I6	15	15	CP	259	260.01	Surface damage roughness. Sagging 75%	441H	26	0000	0	1	0	20
8/1/2022	I	Beech Street	I6 - I5	18	18	PVC	411	409.00	-	0000	0	0000	0	0	0	
N/A	I	Beech Street	I5 - I4	18			135		Line has an uncharted manhole.						0	
8/2/2022	I	Beech Street	I5 - I31	18	18	PVC	135	154.30	This pipe line was I5-I5A	0000	0	0000	0	0	0	
8/2/2022	I	Beech Street	I4 - I3	18	18	PVC	243	240.17	-	0000	0	4100	4	4	0	
8/2/2022	I	Beech Street	I31 - I4	18	18	PVC	135	300.09	This pipe line was I5A-I4	0000	0	4431	19	3	0	
8/1/2022	I	Beech Street	I3 - T19	24	18	PVC	188	189.17	Upgrade to 24" per MP	3D00	30	0000	0	3	0	5
7/28/2022	I	Myrtle Pl	I29 - I28	6	6	PVC	166	174.24	New Line Segment. This pipe line was I23B - I23A	0000	0	0000	0	0	0	
7/25/2022	I	Myrtle Street	I28 - I21	6	6	VCP	315	315.02	This pipe line was I23A - I21	322F	26	1300	3	2	0	
7/29/2022	I	Sparrow Ct	I26 - I23	6	6	PVC	166	163.00	This pipe line was I23 - I23C. New Line Segment. Proteous	0000	0	0000	0	0	0	
N/A	I	Myrtle Court	I25 - I24	6			154	0.00	Line does not exist. 7.25						0	
N/A	I	Myrtle Street	I24 - I13	6			237	0.00	MH I24 does not exist. Inspection started from I21, see I21 -						0	
7/25/2022	I	Myrtle Street	I23 - I28	6	6	VCP	166	166.43	Broken at 59ft. This pipe line was I23 - I23A	432A	32	3100	3	2	30	
7/25/2022	I	Myrtle Street	I22 - I23	6	6	VCP	44	44.99	-	3122	7	0000	0	2	0	
N/A	I	Myrtle Street	I21 - I24	6			364	0.00	MH I24 does not exist. Inspection ended at I13.						0	
7/25/2022	I	Myrtle Street	I21 - I13	6	6	VCP	600	600.08	As I24 should be between them as shown in the map,	4539	47	311F	13	1	0	5
7/22/2022	I	Beech Street	I20 - I9	6	6	VCP	278	270.33	Pipe has MSA at 267 due to hard deposit.MSA/Hard deposits.	5800	40	4100	4	4	20	20
7/25/2022	I	Brentwood Court	I19 - I18	6	6	PVC	239	234.06	-	2D00	20	3100	3	2	0	5
7/25/2022	I	Brentwood Court	I18 - I8	6	6	PVC	237	238.37	-	342C	32	0000	0	2	0	10
7/25/2022	I	Terra Villa Avenue	I17 - I7	6	6	VCP	526	526.13	Broken at 520ft	4138	34	0000	0	2	0	10
7/25/2022	I	Pulgas Avenue	I16 - I6	8	8	PVC	493	492.07	-	2F00	20	0000	0	2	0	5
7/31/2022	I	Pulgas Avenue	I15 - I14	12	12	PVC	386	384.45	Sagging pipe 85%	5A00	50	0000	0	5	0	25
7/31/2022	I	Pulgas Avenue	I14 - I13	12	12	PVC	444	444.67	-	0000	0	3121	5	2	0	
7/31/2022	I	Pulgas Avenue	I13 - I12	12	12	PVC	320	319.73	-	3F00	30	0000	0	3	0	5
8/1/2022	I	Pulgas Avenue	I12 - I6	12	12	PVC	338	333.86	-	0000	0	0000	0	0	0	
8/1/2022	I	Beech Street	I11 - I10	15	15	CP	380	380.45	-	251M	20	0000	0	1	0	
7/31/2022	I	Beech Street	I10 - I9	15	15	CP	221	220.03	-	1G00	10	0000	0	1	0	
7/25/2022	I	Myrtle Street	C/O - I22	6	6	VCP	61	60.72	New Line Segment - uncharted clean out	3221	8	0000	0	2	0	
7/21/2022	J	Garden Street	J9A - J8	6	6	VCP	35	35.37	Pipe is broken at 115ft, 176ft, and 359ft.	4431	19	3100	3	3	30	
7/21/2022	J	Garden Street	J9 - J9A	6	6	VCP	365	365.02	Pipe is broken at 8ft, 32ft, 81ft, 223ft & 318ft.	4935	51	1400	4	2	30	20
N/A	J	Garden Street	J9 - J8	6			401	0.00	Line has an uncharted manhole						0	
7/21/2022	J	Garden Street	J8 - J6	6	6	VCP	442	441.97	Broken at 33ft, 81.4ft, 164ft, 223ft, 286ft, 318ft	4E3B	70	3300	9	2	0	5
7/22/2022	J	Pulgas Avenue	J7 - J6	6	6	VCP	441	435.35	Pipe is broken at 124ft and 197ft	5947	73	3300	9	3	10	25
7/22/2022	J	Garden Street	J6 - J5	6	6	VCP	558	558.40	Crack at 404ft	4231	11	3223	12	2	0	15
7/22/2022	J	Garden Street	J5C - T21	6	8	PVC	62	61.82	New Line Segment. Sagging pipe 75%	4A00	40	4131	7	3	0	20
7/22/2022	J	Garden Street	J5B - J5C	6	8	PVC	41	41.18	New Line Segment	0000	0	0000	0	0	0	
7/22/2022	J	Garden Street	J5A - J5B	6	8	PVC	212	212.42	New Line Segment	2200	4	0000	0	2	0	
N/A	J	Garden Street	J5 - T21	6			585	0.00	Line has uncharted manholes						0	
7/22/2022	J	Garden Street	J5 - J5A	6	8	PVC	275	274.64	New Line Segment	2400	8	0000	0	2	0	
7/22/2022	J	Cypress Street	J14 - J13	8	8	PVC	190	186.87	-	0000	0	0000	0	0	0	
7/22/2022	J	Cypress Street	J13 - J12	8	8	PVC	299	296.98	-	2A00	20	0000	0	2	0	
7/22/2022	J	Cypress Street	J12 - J11	8	8	PVC	299	299.09	-	2A00	20	0000	0	2	0	
7/22/2022	J	Cypress Street	J11A - T20	8	8	PVC	81	81.06	New Line Segment	2800	20	0000	0	2	0	
N/A	J	Cypress Street	J11 - T20	8			282	0.00	Line has an uncharted manhole.						0	
7/22/2022	J	Cypress Street	J11 - J11A	8	8	PVC	200	199.79	New Line Segment	2D00	20	0000	0	2	0	
7/21/2022	J	Garden Street	J10 - J9	6	6	VCP	300	298.99	Pipe is broken at 228ft and 293ft	4A3A	70	3112	5	2	10	15
7/26/2022	K	Azalia Drive	K9 - K8	6	8	VCP	356	353.39	Pipe is broken at 158ft, 183ft, 296ft. At 104ft a defective	5145	25	3422	16	2	40	
7/26/2022	K	Azalia Drive	K8 - K7	6	8	VCP	356	354.90	-	2G00	20	2612	14	2	0	
7/26/2022	K	Azalia Drive	K7 - K6	6	8	VCP	362	362.61	-	312I	23	2F13	23	2	0	20
7/28/2022	K	O'Connor Street	K6 - K5	12	12	PE	251	250.99	Light Tree Project	3B2C	50	2100	2	2	0	
7/29/2022	K	Wisteria Drive	K5A - K5	12	6	Other	30	30.00	New MH - Proteous	3300	9	0000	0	3	0	5
7/28/2022	K	O'Connor Street	K5 - K4	12	12	PE	248	248.99	Light Tree Project	3E29	48	2800	20	2	0	15

East Palo Alto Sanitary District Area 3 CCTV Survey Results

Date Inspected	Area	Location/ Street Name	PSR	Reported Pipe Dia (inch)	Actual Diameter (inch)	Pipe Material	Pipe Length (ft)	Length Surveyed (ft)	Notes	Structural Grade	Structural Score	O&M Grade	O&M Score	Overall Pipe Index	Score for Notable Defects	Sag >40%
7/28/2022	K	O'Connor Street	K4 - K3	12	12	PE	238	236.66	Light Tree Project Grease deposits 5%. Sagging pipe 55%	463E	54	2700	14	3	0	10
7/29/2022	K	Lotus Way / Camellia Drive	K37 - K32	6	6	VCP	350	345.00	Joint Offset Large at 342.9ft	412E	24	2500	10	2	0	
7/28/2022	K	Camellia Drive	K36 - K35	6	6	VCP	282	281.15	Broken pipe at 264ft.	423B	38	0000	0	2	20	10
7/28/2022	K	Camellia Drive	K35 - K34	6	6	VCP	280	280.05	Broken pipe at 9ft.	4932	42	3121	5	2	10	20
7/28/2022	K	Camellia Drive	K34 - K33	6	6	VCP	278	278.05	-	322F	32	3122	7	2	0	5
7/28/2022	K	Camellia Drive	K33 - K32	6	6	VCP	131	129.25	Sagging pipe 75%	4C00	40	4800	40	4	0	20
7/28/2022	K	Camellia Drive	K32 - K30	8	8	PVC	227	226.24	-	2A00	20	0000	0	2	0	
7/28/2022	K	Camellia Drive	K30 - K31	8	8	PVC	108	107.01	-	2B00	20	0000	0	2	0	5
7/28/2022	K	O'Connor Street	K3 - K2	12	12	PE	190	188.57	Light Tree Project	3D25	40	2800	20	2	0	10
8/1/2022	K	Larkspur Drive	K28 - K4	10	10	PVC	242	241.97	-	0000	0	4C2D	60	2	0	
7/27/2022	K	Azalia Drive	K27 - K26	6	6	VCP	200	198.59	-	2A00	20	2300	6	2	0	
7/27/2022	K	Azalia Drive	K26 - K6	6	6	VCP	294	294.08	Pipe is broken at 286ft	4231	11	312E	23	2	20	
7/28/2022	K	Wisteria Drive	K25 - K5A	6	6	PVC	376	350.39	New Line Segment	0000	0	0000	0	0	0	
7/27/2022	K	Hibiscus Court	K24 - K21	6	6	CP	149	144.78	Surface Damage Missing Wall	5626	42	0000	0	3	0	
7/29/2022	K	Daisy Lane	K23 - K22	6	6	Unknown	100	94.00	Material change at 23ft and needs a mini camera	5129	23	1100	1	2	8	
7/27/2022	K	Daisy Lane	K22 - K21	6	6	CP	256	257.00	Surface Damage Missing Wall along the pipeline	5B25	60	2100	2	4	0	
7/27/2022	K	Daisy Lane	K21 - K3	6	6	CP	246	244.88	Pipe has few locations with chunks of pipe missing at joints	5A31	53	2100	2	3	30	10
7/27/2022	K	Sage Street	K20 - K19	6	6	CP	135	132.86	Surface Damage Missing Wall at 96.4ft	5131	8	0000	0	2	30	
N/A	K	O'Connor Street	K2 - K1	14			451	0.00	Light Tree Project. Cleaned twice via EPASD, and Twice by						30	25
7/27/2022	K	Larkspur Drive	K19 - K18	6	6	CP	272	272.84	Pipe is broken and soil is visible at 144ft, and surface damage	5A42	58	0000	0	3	30	10
7/27/2022	K	Larkspur Drive	K18 - K17	6	6	CP	269	268.13	SMW spots on the line.	5A3A	80	0000	0	3	15	
7/27/2022	K	Larkspur Drive	K17 - K16	6	6	CP	267	267.12	Surface Damage Missing Wall along the pipeline	572D	55	0000	0	2	0	
7/27/2022	K	Larkspur Drive	K16 - K4	6	6	CP	274	273.04	SMW spots on the line	5C31	53	4122	8	3	15	15
7/26/2022	K	Sage Street	K15 - K9	6	6	VCP	74	73.84	-	2500	10	1200	2	1	0	
7/26/2022	K	Sage Street	K14 - K13	6	6	VCP	90	81.56	intruding lateral at 81ft and camera can not move forward, the	3100	3	5123	11	2	15	
7/26/2022	K	Wisteria Drive	K13 - K12	6	6	VCP	362	362.11	Pipe is broken at 9ft and 91ft.	492D	56	0000	0	2	20	15
7/26/2022	K	Wisteria Drive	K12 - K11	6	6	VCP	354	352.89	-	312H	23	2400	8	2	0	
7/26/2022	K	Wisteria Drive	K11 - K5	6	6	VCP	370	366.42	MSA/Joint offset. Reverse inspection performed	413B	34	412A	24	2	20	10
7/26/2022	K	Sage Street	K10 - K9	6	6	VCP	156	155.10	-	312A	23	2100	2	2	0	
8/1/2022	K/L	Larkspur Drive	L21 - K28	10	10	PVC	68	67.43	Sagging pipe 75%	4A00	40	4800	32	4	0	20
7/27/2022	K/L	Azalia Drive	L10 - K27	6	6	VCP	275	195.98	Broken connection of lateral at 28ft.	4231	11	3100	3	2	20	15
8/3/2022	K/L	Gardenia Way	K31 - L1	8	8	PVC	148	146.99	-	3D00	30	4800	32	3	0	20

East Palo Alto Sanitary District Area 4 CCTV Survey Results

Date Inspected	Area	Location/ Street Name	PSR	Reported Diameter (inch)	Actual Diameter (inch)	Pipe Material	Pipe Length (ft)	Length Surveyed (ft)	Notes	Structural Grade	Structural Score	O&M Grade	O&M Score	Overall Pipe Index	Score for Notable Defects	Sag > 40%
8/2/2022	H	Clarke Avenue	H11 - H64	8	8	VCP	198	192.24	H11 - H60. Broken at 73.2ft	413C	34	0000	0	2	0	
8/2/2022	H	Clarke Avenue	H12 - H11	8	8	VCP	333	334.39	Broken at 111ft, 231ft, 331.9ft	483B	70	3127	17	2	0	15
8/2/2022	H	Clarke Avenue	H13 - H12	8	8	VCP	108	108.46	Broken at 18ft with 55% sagging pipe	463A	54	0000	0	3	0	10
8/2/2022	H	Clarke Avenue	H14 - H13	8	8	VCP	446	446.65	Broken at 425.5ft, 429ft with multiple cracks	5A44	66	4132	10	2	0	25
7/20/2022	H	Runnymede Street	H15 - H62	8	8	Other	201	206.03	H15 - H58	3226	18	0000	0	2	0	
N/A	H	Runnymede Street	H16 - H15	8			351		Line has uncharted manholes.						0	
7/20/2022	H	Runnymede Street	H16 - H60	8	8	PVC	346	345.69	H16B - H16C	2200	4	0000	0	2	0	
7/20/2022	H	Runnymede Street	H17 - H76	8	8	VCP	397	314.3	H17 - H16. Broken pipe at 43.2ft, 144.9ft, 150ft	5143	17	3121	5	2	20	5
12/9/2022	H	Clarke Avenue	H18 - H5	6	8	PE	8	9.12	pipeline has lots of debris	0	0	0	0	0	5	0
12/8/2022	H	Clarke Avenue	H19 - H18	6	6	PVC	387	389.97	Sag 60% for 25 ft at the DS	4631	27	4200	8	2	0	15
12/9/2022	H	Clarke Avenue	H2 - H11	8	15	VCP	37	36.97		0	0	0	0	0	0	0
12/8/2022	H	Clarke Avenue	H20 - H19	6	6	vcp	271	259.11	The camera can only travel 19 feet from H20; the survey was conducted from H19, but it still stops at the same location. The camera was submerged in water, making it difficult to identify the impediment to continuing the inspection	483E	70	4A00	40	3	0	0
12/8/2022	H	Clarke Avenue	H20 - H19	6	6	PVC	271	19.54	75% sag. Fractures and cracks	4431	19	4200	8	3	0	20
8/5/2022	H	Donohoe Street	H21 - H56	6	6	VCP	151	148.15	H22 - H55. Broken at 14ft and 110ft	463B	54	3114	7	2	0	
8/5/2022	H	Donohoe Street	H21A - H55	6	6	VCP	157	102.97	H21A - H21. Broken at 61ft, 101ft	4638	48	0000	0	2	0	20
8/5/2022	H	Donohoe Street	H22 - H21	6	6	VCP	216	158.25	H56 - H22. Broken pipe at 3.9ft, 137.4ft	5142	13	1300	3	2	20	
8/5/2022	H	Donohoe Street	H23 - H22	6	6	VCP	405	339.29	H23 - H56. Broken at 133.9ft, 316.9ft	453U	50	4131	7	2	0	
8/18/2022	H	Clarke Avenue	H24 - H20	6	6	VCP	333	25.69	MSA/Broken pipe. The USMH is a cleanout so no reverse inspection performed. Name changed from H24A-H20 to H24-H20	5133	14	2400	8	2	30	20
12/7/2022	H	Bell Street	H25 - H11	6	6	VCP	378	381.95	Fractures and cracks	4232	14	3113	6	2	0	0
12/7/2022	H	Bell Street	H26 - H25	6	6	VCP	413	416.62	Broken at 114 ft with multiple fractures along the pipeline	483A	70	3312	11	2	10	0
12/7/2022	H	Bell Court	H27 - H26	6	6	VCP	115	106.71	One fracture at 105 ft	412B	24	0	0	2	0	0
12/7/2022	H	Bell Street	H28 - H50	6	6	VCP	192	190.68	couple fractures and roots at the joints. Hole at 24ft. Broken at 125 and 189.9 ftft	5145	25	381A	34	2	10	0
8/9/2022	H	Schembri Lane	H29 - H12	6	6	VCP	551	551.52	Broken pipe at 257ft, 349ft	5143	16	2111	3	2	20	
12/9/2022	H	Beech Street	H3 - H2	15	15	VCP	31	30.96	MH H3 is paved over	0	0	0	0	0	0	0
8/2/2022	H	Schembri Lane	H30 - H46	6	6	VCP	135	134.66	-	3021	32	4131	7	2	0	
8/2/2022	H	Clarke Avenue	H31 - H14	6	6	VCP	404	24.19	MSA/JOL. No reverse inspection performed because the upstream is a cleanout. The proteous camera does not fit in to this pipe too.	4331	15	2100	2	3	16	
7/20/2022	H	Cooley Avenue	H32 - H17	6	6	VCP	550	547.52	Broken Soil Visible at 111ft. Broken at 213.8ft, 372ft, 420ft. Missing 3ft of survey	5544	41	4231	11	2	0	
7/20/2022	H	Cooley Avenue	H33 - H32	8	8	Other	515	486.24	-	3700	21	0000	0	3	0	
8/5/2022	H	Runnymede Street	H34 - H17	6	6	VCP	269	88.17	Submerged pipe with a line down alignment. Reverse inspection performed.	413B/5241	34	0000	0	2	16	10
8/4/2022	H	Runnymede Street	H35 - H34	6	6	VCP	322	325.19	Pipeline has a lot of sagging. The high water level in the sagging pipe is affecting the line H47-H35	483G	62	0000	0	2	8	30
8/4/2022	H	University Avenue	H36 - H35	6	6	VCP	474	473.24	-	312B	23	2100	2	2	0	5
N/A	H	University Avenue	H37 - H36	6			370		Line has an uncharted manhole						0	
8/3/2022	H	University Avenue	H37 - H37A	6	6	VCP	221	221.33	New Line Segment. Broken at 162ft	5141	9	3121	5	3	20	
8/3/2022	H	University Avenue	H37A - H36	6	6	VCP	149	148.95	New Line Segment. Broken 144.3ft, 145ft	423C	38	3121	5	2	0	
8/4/2022	H	Runnymede Street	H38 - H47	6	6	VCP	205	205.23	Broken at 80.3ft	413G	34	3100	3	2	0	
N/A	H	Runnymede Street	H39 - H38	6			132		MH39 and a pipeline to H38 do not exist. H38 appears to be						0	
12/9/2022	H	Clarke Avenue	H4 - H3	15	15	VCP	7	8.92	MH H3 is paved over	0	0	0	0	0	0	0
8/3/2022	H	Sacramento Street	H40 - H36	6	6	VCP	496	459.65	MSA/JOL. Reverse Inspection performed.	5146	29	3524	23	2	0	
8/3/2022	H	Sacramento Street	H40 - H36	6	6	VCP	496	39.39	MSA/Reverse Inspection Complete	3500	15	2600	14	2	0	
8/3/2022	H	Sacramento Street	H41 - H40	6	6	VCP	150	141.15	Broken at 38ft, 42ft	423B	38	2112	4	2	0	
8/3/2022	H	Weeks Street	H42 - H37	6	6	VCP	388	386.77	Broken at 304ft	4231	38	4133	10	2	0	
8/3/2022	H	Weeks Street	H43 - H42	6	6	VCP	346	347.09	Broken at 4.7ft, 303.7ft	5246	34	321A	16	2	0	
8/3/2022	H	University Avenue	H44 - H37	6	6	VCP	269	271.71	-	3300	9	3121	5	2	0	
8/8/2022	H	Camphor Way	H45 - H9	6	6	PVC	222	221.83	Broken at 103ft, 106ft, 167ft	4631	27	0000	0	3	0	
8/2/2022	H	Schembri Lane	H46 - H52	6	6	VCP	361	362.08	Broken at 344.2ft	4231	11	413A	34	2	15	
8/4/2022	H	Runnymede Street	H47 - H35	6	6	VCP	192	192.24	Fracture at 8.6 with cracks along the pipeline	4237	29	2400	8	2	0	5
8/5/2022	H	Salas Court	H48 - H55	6	6	PVC	217	216.53	H48 - H21	3122	7	0000	0	2	0	
8/5/2022	H	Salas Court	H49 - H48	6	6	PVC	45	30.09	-	0000	0	0000	0	0	0	
12/9/2022	H	Clarke Avenue	H5 - H4	15	15	VCP	259	263.42	pipeline has lots of debris	4C3C	70	2100	2	3	5	0

East Palo Alto Sanitary District Area 4 CCTV Survey Results

Date Inspected	Area	Location/ Street Name	PSR	Reported Diameter (inch)	Actual Diameter (inch)	Pipe Material	Pipe Length (ft)	Length Surveyed (ft)	Notes	Structural Grade	Structural Score	O&M Grade	O&M Score	Overall Pipe Index	Score for Notable Defects	Sag > 40%
12/7/2022	H	Bell Street	H50 - H26	6	6	VCP	154	154.50	couple fractures and roots at the joints	4A38	64	0	0	3	10	0
1/23/2023	h	Cooley Avenue	H50 - H51		6	CI	190	190.00	-	3400	12	0000	0	3	0	0
12/7/2022	H	Henry Court	H51 - H50	6	6	CP	189	1.80		0	0	0	0	0	0	0
8/9/2022	H	Schembri Lane	H52 - H29	6	6	VCP	94	94.17	Fracture at 43.7ft	4131	7	2112	4	2	15	
8/9/2022	H	Schembri Lane	H53 - H52	6	6	VCP	233	234.42	-	2500	10	0000	0	2	0	
8/5/2022	H	Donohoe Street	H54 - H20	6	6	VCP	153	144.95	Fracture at 14.7ft	4135	19	3121	6	2	10	
N/A	H	Donohoe Street	H55 - H21	6			157		Line has an unchartered manhole						0	
8/5/2022	H	Donohoe Street	H55 - H54	6	6	PVC	144	165.55	H21 - H54. Broken at 51ft	423C	38	2100	2	2	0	
8/5/2022	H	Donohoe Street	H56 - H21A	6	6	VCP	157	106.06	H55 - H21A. Broken at 1.5ft	433A	42	1900	9	2	0	
7/20/2022	H	Runnymede Street	H57 - H16	8	8	VCP	48	48.38	H16A - H16B. Broken at 20.9ft	4422	20	0000	0	3	15	
12/9/2022	H	Green Street	H6 - H5	12	12	PE	9	7.72	-	0	0	0	0	0	0	0
7/20/2022	H	Runnymede Street	H60 - H15	8	8	PVC	107	106.76	H16C - H15	0000	0	0000	0	0	0	
8/2/2022	H	Runnymede Street	H62 - H14	12	8	Other	185	230.12	H58 -H14	3123	9	2200	4	2	0	
8/12/2022	H	Vines Court	H63 - H62	12	6	PVC	40	172.34	H57 - H58	3100	3	2100	2	2	0	
12/9/2022	H	Clarke Avenue	H64-H71	8	8	VCP	300	166.43	pipeline has a lot of accumulated grease. 80% sagging.	4A38	70	5E 41	54	4	5	25
12/8/2022	H	Clarke Court	H65 - H64	8	6	PVC	168	159.81		0	0	0	0	0	0	0
12/8/2022	H	Clarke Court	H66 - H65	8	6	PVC	55	53.00	-	0	0	0	0	0	0	0
12/8/2022	H	Clarke Court	H67 - H66	8	6	PVC	45	45.89	-	0	0	0	0	0	0	0
12/8/2022	H	Clarke Court	H68 - H66	8	6	PVC	70	70.3	-	2200	4	0	0	2	0	0
12/8/2022	H	Clarke Court	H69 - H68	8	6	PVC	45	52	-	2100	2	0	0	2	0	0
N/A	H	Green Street	H7 - H6	12			90		Line has unchartered manholes.						0	
8/8/2022	H	Green Street	H7 - H75	12	12	PE	91	91.47	H7B - H7C	2800	20	0000	0	2	0	
12/8/2022	H	Clarke Court	H70 - H68	8	6	PVC	50	31.76	-	0	0	0	0	0	0	0
12/9/2022	H	Clarke Avenue	H71 - H3	8	8	VCP	35	28.46	survey abandoned at 29 ft as camera was under water. No	5500	25	4525	30	3	0	0
12/8/2022	H	Tea Court	H72 - H71	8	6	PVC	180	179.55	H59 - H60. Paved over	0	0	0	0	0	0	0
8/8/2022	H	Green Street	H73 - H74	12	12	PE	233	104.07	H8 - H7	2800	20	0000	0	2	0	
8/8/2022	H	Green Street	H74 - H8	12	12	PE	112	111.76	H7 - H7A	2800	20	1100	1	1	0	
8/8/2022	H	Green Street	H75 - H6	12	12	PE	259	258.51	H7C - H6	332F	29	4131	7	2	0	
7/20/2022	H	Runnymede Street	H76 - H57	12	8	VCP	73	73.38	H16 - H16A. Broken at 63.2ft	4135	19	0000	0	2	15	
8/8/2022	H	Green Street	H8 - H7	12	12	PE	235	235.02	H7A - H7B	2D00	20	0000	0	2	0	
8/8/2022	H	Green Street	H9 - H73	12	12	PE	246	247.72	H9 - H8	2D00	20	0000	0	2	0	
8/8/2022	H/E	Green Street	E1 - H9	12	12	PE	270	271.31	-	2D00	20	0000	0	2	0	
8/9/2022	H/E	Euclid Avenue	H38 - E42	6	6	VCP	519	520.63	Broken pipe Soil Visible at 146ft, 197ft	5143	17	0000	0	2	20	
8/3/2022	K/L	Gardenia Way	K31 - L1	8	8	PVC	148	146.99	-	3D00	30	4800	32	3	0	20
7/27/2022	K/L	Azalia Drive	L10 - K27	6	6	VCP	275	195.98	Broken connection of lateral at 28ft.	4231	11	3100	3	2	20	15
8/1/2022	K/L	Larkspur Drive	L21 - K28	10	10	PVC	68	67.43	Sagging pipe 75%	4A00	40	4800	32	4	0	20
8/1/2022	L	Larkspur Drive	L1 - L21	10	12	PVC	223	219.53	-	0000	0	2700	14	2	0	5
7/25/2022	L	Azalia Drive	L10 - L9	6	6	VCP	180	273.01	-	3627	44	2112	4	2	0	
7/25/2022	L	Gaillardia Way	L11 - L10	6	6	VCP	360	360.18	Pipe is broken at 240ft and soil is visible	5243	22	2316	12	2	30	10
7/25/2022	L	Gaillardia Way	L12 - L11	6	6	VCP	82	93.27	-	3800	30	3111	4	2	0	
7/25/2022	L	Verbina Drive	L13 - L9	6	6	VCP	311	311.4	Broken at 60.2ft	412C	24	2F00	20	2	15	
7/25/2022	L	Verbina Drive	L14 - L13	6	6	VCP	302	302.1	-	322E	26	3123	9	2	0	
7/25/2022	L	Verbina Drive	L15 - L14	6	6	VCP	310	311.2	-	322B	26	0000	0	2	0	
7/25/2022	L	Verbina Drive	L16 - L15	6	6	VCP	311	311.5	Broken at169ft	412A	24	4131	7	1	15	
7/25/2022	L	Verbina Drive	L17 - L16	6	6	VCP	236	236.52	-	3H2C	50	2100	2	2	0	
7/25/2022	L	Verbina Drive	L18 - L17	6	6	VCP	331	330.29	Broken at 135ft	4132	10	0000	0	2	15	
7/25/2022	L	Verbina Drive	L19 - L18	6	6	VCP	333	333.09	Broken at 330ft	4131	34	1600	6	2	0	
8/1/2022	L	Gardenia Way	L2 - L1	10	12	PVC	179	179.74	Joint Separated Large at 104.9ft, infiltration from the wall	412F	24	2500	10	2	15	
7/25/2022	L	Camellia Drive	L20 - L16	6	6	VCP	101	99.87	Broken at 6.6ft	423A	38	4131	7	2	0	
8/1/2022	L	Wisteria Drive	L22 - L3	6	6	VCP	366	361.58	Broken at 48.6ft	4232	14	4131	7	2	15	
8/1/2022	L	Wisteria Drive	L23 - L3	8	8	PVC	351	351.38	-	0000	0	312H	23	2	0	
8/1/2022	L	Wisteria Drive	L24 - L23	8	8	PVC	386	387.17	-	0000	0	2800	14	2	0	
7/28/2022	L	Wisteria Drive	L25 - L24	8	8	PVC	342	343.09	-	2100	20	0000	0	2	0	
7/28/2022	L	Wisteria Drive	L26 - L25	8	8	VCP	216	215.13	Pipe has a lot of sagging, and an offset joint between 80 to 87	4134	16	2A00	20	2	24	20
7/28/2022	L	Wisteria Drive	L27 - L26	8	8	VCP	260	259.41	-	2D00	20	2200	4	2	0	

East Palo Alto Sanitary District Area 4 CCTV Survey Results

Date Inspected	Area	Location/ Street Name	PSR	Reported Diameter (inch)	Actual Diameter (inch)	Pipe Material	Pipe Length (ft)	Length Surveyed (ft)	Notes	Structural Grade	Structural Score	O&M Grade	O&M Score	Overall Pipe Index	Score for Notable Defects	Sag > 40%
7/27/2022	L	Wisteria Drive	L28 - L27	6	6	VCP	363	363.08	Hole at 310.2ft	413M	34	2100	2	2	0	
7/27/2022	L	Wisteria Drive	L29 - L28	6	6	VCP	366	367.48	Pipe is broken at 348ft, and soil is visible	513M	35	4100	4	2	30	20
8/1/2022	L	Gardenia Way	L3 - L2	10	12	PVC	83	77.97	-	3800	30	2200	4	2	0	
8/12/2022	L	Aster Way	L30 - L27	6	6	VCP	236	231	Proteous. Broken at 0.0 ft	5141	9	2300	6	2	15	
7/27/2022	L	Aster Way	L31 - L30	10	6	VCP	179	178.74	Pipe is broken at 59ft, and soil is visible	5141	9	2300	6	2	30	
7/27/2022	L	Aster Way	L32 - L31	6	6	VCP	293	293.7	Hole at 157ft	4122	8	0000	0	2	10	
7/27/2022	L	Aster Way	L33 - L32	6	6	VCP	91	89.07	Hole at 10.2ft	4133	13	0000	0	3	15	
7/27/2022	L	Daphine Way	L34 - L26	6	6	VCP	287	287.11	Hole at 263.3ft	4131	7	412A	24	2	15	5
7/27/2022	L	Daphine Way	L35 - L34	6	6	VCP	250	253.92	-	362C	50	2100	2	2	0	
7/27/2022	L	Daphine Way	L36 - L35	6	6	VCP	278	278.01	Hole at 38.4ft	412A	24	1500	5	1	10	
7/27/2022	L	Daphine Way	L37 - L36	6	6	VCP	312	323.29	Hole at 252ft, 93.5ft	423K	38	4113	7	2	0	
8/12/2022	L	Daphine Way	L37 - L38	6	6	VCP	212	202.9	Proteous. Hole at 140.7ft	412A	24	4131	7	2	10	
7/28/2022	L	Daphine Way	L38 - L39	6	6	VCP	215	215.43	-	2800	20	0000	0	2	0	
7/28/2022	L	Daphine Way	L39 - L40	6	6	VCP	346	345.59	Broken at 296.7ft	4132	10	1200	2	2	15	
8/1/2022	L	Gardenia Way	L4 - L3	10	12	VCP	248	246.62	-	312A	23	4133	10	2	0	
7/28/2022	L	Jasmine Way	L40 - L42	8	8	VCP	346	346.49	Broken pipe soil visible at 184ft	5131	8	2100	2	2	20	
7/28/2022	L	Daphine Way	L41 - L40	6	6	VCP	71	68.28	-	3100	3	0000	0	3	0	
7/28/2022	L	Jasmine Way	L42 - L43	8	8	VCP	330	332.79	-	3123	9	3100	3	2	0	
7/28/2022	L	Jasmine Way	L43 - L44	8	8	PVC	334	334.09	Joint Separated Large at 331.7ft	4L2B	60	0000	0	3	0	
7/28/2022	L	Jasmine Way	L44 - L45	8	8	PVC	238	242.52	-	322F	26	2400	8	2	0	
7/28/2022	L	Camellia Drive	L45 - L25	8	8	VCP	202	201.33	-	312F	23	4122	8	2	0	5
7/28/2022	L	Camellia Drive	L46 - L45	6	6	VCP	136	135.86	Broken pipe Soil Visible at 135.9ft	513D	35	0000	0	2	0	
7/27/2022	L	Azalia Drive	L47 - L4	8	8	VCP	88	87.57	Heavy grease was found on a sewer line cleaning material	2A00	20	2900	18	2	30	
7/27/2022	L	Azalia Drive	L48 - L47	8	8	VCP	229	228.52	-	2C00	20	322D	26	2	0	
7/27/2022	L	Azalia Drive	L49 - L48	8	8	VCP	233	233.52	-	2800	20	2A00	20	2	0	
7/26/2022	L	Gardenia Way	L5 - L47	6	6	VCP	276	276.21	-	2A00	20	2G00	20	2	0	
7/27/2022	L	Azalia Drive	L50 - L49	8	8	VCP	224	223.43	-	2100	2	2700	14	2	0	
7/26/2022	L	Camellia Drive	L51 - L50	6	6	VCP	80	76.17	-	0000	0	2300	6	2	0	
7/26/2022	L	Camellia Drive	L52 - L50	6	6	VCP	224	223.63	-	3200	6	2200	4	2	0	
7/26/2022	L	Camellia Drive	L53 - L52	6	6	VCP	218	219.73	MSA/Reverse Inspection Complete	342A	32	2100	2	2	0	
7/26/2022	L	Camellia Drive	L54 - L53	6	6	VCP	369	369.78	Pipe is broken and soil is visible at 3.02ft.	5131	8	0000	0	2	30	
7/26/2022	L	Camellia Drive	L55 - L54	6	6	VCP	149	146.65	-	3100	3	0000	0	3	0	
7/26/2022	L	Camellia Court	L56 - L54	6	6	VCP	327	326.99	-	3C21	32	0000	0	3	0	
7/26/2022	L	Abelia Way	L57 - L53	6	6	VCP	203	202.23	-	3228	22	0000	0	2	0	
7/26/2022	L	Abelia Way	L58 - L57	6	6	VCP	295	295.4	Broken at 13ft, 50ft, 87ft, 236ft	5243	22	0000	0	3	20	
7/26/2022	L	Abelia Way	L59 - L58	6	6	VCP	250	250.12	Broken at 220ft, 245ft	5141	9	2112	4	2	20	
7/26/2022	L	Gardenia Way	L6 - L5	6	6	VCP	215	215.53	-	2400	8	2A00	20	2	0	
7/26/2022	L	Abelia Way	L60 - L59	6	6	VCP	109	106.36	-	3100	3	1100	1	2	0	
7/26/2022	L	Gardenia Court	L61 - L5	6	6	VCP	152	152.85	Broken at 98.8	4131	7	2911	19	2	20	
7/27/2022	L	Daphine Court	L62 - L34	6	6	VCP	147	146.75	-	3C23	36	0000	0	2	0	
7/26/2022	L	Gardenia Way	L7 - L6	6	6	VCP	261	261.11	-	3223	12	1300	3	1	0	
7/26/2022	L	Gardenia Way	L8 - L7	6	6	VCP	73	69.38	-	2400	8	0000	0	2	0	
7/25/2022	L	Azalia Drive	L9 - L4	6	6	VCP	162	161.75	-	2600	12	3C29	48	2	0	
7/29/2022	M	O'Connor Street	M12 - M15	6	8	VCP	337	339.49	-	3300	9	0000	0	3	0	
7/29/2022	M	O'Connor Street	M13 - M12	6	8	VCP	276	276.81	Broken at 193	4133	13	0000	0	3	15	
8/9/2022	M	Clarke Avenue	M14 - M14A	6	6	VCP	252	252.42	New Line Segment	3222	10	0000	0	2	0	
N/A	M	Clarke Avenue	M14 - M5	6			328		Line has uncharted manholes.						0	
8/9/2022	M	Clarke Avenue	M14A - M5	6	6	VCP	75	75.28	New Line Segment. Broken at 70.2ft	4131	7	0000	0	2	20	
7/29/2022	M	O'Connor Street	M15 - M5	6	8	VCP	250	264.21	-	0000	0	0000	0	0	0	
8/10/2022	M	Clarke Avenue	M16 - M8	6	12	VCP	67	66.58	M8 - M8A	3400	12	0000	0	3	0	
8/10/2022	M	Clarke Avenue	M18 - M5	8	12	VCP	154	154.25	-	2300	6	0000	0	2	0	
8/10/2022	M	Clarke Avenue	M19 - M18	8	12	VCP	95	92.57	-	2100	2	0000	0	2	0	
8/10/2022	M	Clarke Avenue	M20 - M19	8	12	VCP	341	80.47	M6 - M19	0000	0	0000	0	0	0	
8/10/2022	M	Clarke Avenue	M21 - M20	8	12	VCP	78	314.2	M20 - M6	2D00	20	3121	5	2	0	
8/10/2022	M	Clarke Avenue	M22 - M21	8	12	VCP	116	27.19	M7 - M20	2200	4	0000	0	2	0	

East Palo Alto Sanitary District Area 4 CCTV Survey Results

Date Inspected	Area	Location/ Street Name	PSR	Reported Diameter (inch)	Actual Diameter (inch)	Pipe Material	Pipe Length (ft)	Length Surveyed (ft)	Notes	Structural Grade	Structural Score	O&M Grade	O&M Score	Overall Pipe Index	Score for Notable Defects	Sag > 40%
7/21/2022	M	Tinsley Street	M23 - M24	8	8	PVC	195	191.54	-	0000	0	0000	0	0	0	
7/21/2022	M	Tinsley Street	M24 - M25	8	8	PVC	260	258.01	-	0000	0	0000	0	0	0	
7/21/2022	M	Tate Street	M25 - M26	8	8	PVC	270	267.41	-	0000	0	0000	0	0	0	
7/21/2022	M	Tate Street	M26 - M27	8	8	PVC	125	131.46	-	0000	0	0000	0	0	0	
N/A	M	Wilkes Street	M27 - M28	8			35		This line has does not exist.						0	
7/21/2022	M	Tate Street	M27 - M29	8	8	PVC	35	42.39	-	2200	4	0000	0	2	0	
7/22/2022	M	Tate Street	M29 - M31	8	8	PVC	329	322.99	-	2800	20	0000	0	2	0	
7/29/2022	M	O'Connor Street	M3 - M2	12	12	PVC	380	382.17	-	312A	23	2G00	20	2	0	
7/29/2022	M	O'Connor Street	M31 - M3	10	12	PVC	357	357.08	-	2C00	20	2E00	20	2	0	
7/21/2022	M	Oakes Street	M32 - M33	8	8	PVC	195	221.13	-	0000	0	0000	0	0	0	
7/21/2022	M	Oakes Street	M33 - M34	8	8	PVC	288	226.03	-	0000	0	0000	0	0	0	
7/21/2022	M	Tate Street	M35 - M34	8	8	PVC	124	119.16	-	0000	0	0000	0	0	0	
7/21/2022	M	Baines Street	M36 - M37	8	8	PVC	257	242.02	-	0000	0	0000	0	0	0	
8/5/2022	M	East Bayshore Road	M38 - M39	8	6	PVC	158	153.45	-	0000	0	0000	0	0	0	
8/5/2022	M	East Bayshore Road	M39 - M40	8	6	PVC	241	158.55	-	0000	0	0000	0	0	0	
7/29/2022	M	O'Connor Street	M4 - M31	12	12	PVC	143	144.05	-	0000	0	2700	14	2	0	
8/5/2022	M	East Bayshore Road	M40 - M41	6	6	PVC	263	242.32	-	0000	0	0000	0	0	0	
8/5/2022	M	East Bayshore Road	M41 - M42	6	6	PVC	17	104.37	-	2700	14	0000	0	2	0	
7/29/2022	M	O'Connor Street	M42 - M13	6	6	VCP	37	110.66	Surface Damage and cracks	413B	34	0000	0	2	0	
7/29/2022	M	O'Connor Street	M43 - M42	6	6	VCP	104	109.56	Broken at 109ft	423D	38	0000	0	3	0	
7/29/2022	M	O'Connor Street	M5 - M4	12	12	PVC	373	372.18	-	2800	20	0000	0	2	0	
8/10/2022	M	Clarke Avenue	M6 - M22	8	12	VCP	43	109.16	M22 - M21	0000	0	0000	0	0	0	
8/10/2022	M	Clarke Avenue	M7 - M6	8	12	VCP	297	336.99	M21 - M7	2100	2	0000	0	2	0	
N/A	M	Clarke Avenue	M8 - M22	8			192		Line has an unchartered manhole						0	
8/10/2022	M	Clarke Avenue	M8 - M7	8	12	VCP	137	137.35	M8A - M22	0000	0	0000	0	0	0	
7/29/2022	M/I	Pulgas Avenue	I43 - I15	12	12	PVC	20	60.08	I15A - I15. Sagging pipe 90%. Unmapped MH between M2-	513A	35	0000	0	3	0	30
N/A	M/I	O'Connor Street	M2 - I15	12			20		Repeat naming. Already inspected						0	
N/A	M/I	Pulgas Avenue	M2 - I15	12			20		Line has unchartered manholes.						0	
7/29/2022	M/I	Pulgas Avenue	M2 - I43	12	12	PVC	20	42.39	M2 - I15A. Sagging pipeline 100%	5500	25	2300	6	3	0	25
7/22/2022	M/N	Wilkes Street	M28 - N11	8	8	PVC	236	206.73	-	0000	0	0000	0	0	0	
7/22/2022	M/N	Gates Street	M30 - N29	8	8	PVC	255	259.91	-	3100	3	0000	0	3	0	
7/21/2022	M/N	Oakes Street	M34 - N22	8	8	PVC	253	267.01	-	0000	0	0000	0	0	0	
7/21/2022	M/N	Baines Street	M37 - N24	8	8	PVC	259	247.02	-	0000	0	0000	0	0	0	
7/22/2022	N	Gates Street	N10 - N13	8	8	PVC	176	174.94	-	0000	0	0000	0	0	0	
7/22/2022	N	Wilkes Street	N11 - N12	8	8	PVC	227	228.42	-	0000	0	2100	2	2	0	
7/22/2022	N	Wilkes Street	N12 - N13	8	8	PVC	158	160.25	-	0000	0	0000	0	0	0	
7/29/2022	N	Wilkes Street	N13 - N14	8	8	PVC	167	166.74	-	2400	8	2300	6	2	0	
8/8/2022	N	Pulgas Avenue	N14 - N2	10	10	PE	88	85.87	Light Tree Project	2A00	20	2400	8	2	0	
7/22/2022	N	Mouton Circle	N15 - N16	8	8	PVC	252	251.62	-	3100	3	0000	0	3	0	
7/22/2022	N	McNair Street	N15 - N18	8	8	PVC	190	195.14	-	0000	0	0000	0	0	0	
7/22/2022	N	Mouton Circle	N16 - N17	8	8	PVC	228	216.93	-	0000	0	0000	0	0	0	
7/22/2022	N	Mouton Circle	N17 - N20	8	8	PVC	197	195.44	-	0000	0	0000	0	0	0	
7/22/2022	N	Mouton Circle	N18 - N19	8	8	PVC	256	253.62	-	0000	0	0000	0	0	0	
7/22/2022	N	Mouton Circle	N19 - N20	8	8	PVC	224	222.53	-	0000	0	0000	0	0	0	
8/8/2022	N	Pulgas Avenue	N2 - N1	10	10	PE	296	297.5	Light Tree Project	2D00	20	2B00	20	2	0	
8/5/2022	N	Mouton Circle	N20 - N21	8	8	PVC	72	72.78	-	2300	6	2100	2	2	0	
8/8/2022	N	Pulgas Avenue	N21 - N14	10	12	PE	196	198.73	Light Tree Project	2A00	20	2A00	20	2	0	
7/21/2022	N	McNair Street	N22 - N15	8	8	PVC	212	199.73	Pipeline has reverse sag allowing an opposite flow direction,	0000	0	0000	0	0	8	10
7/21/2022	N	Oakes Street	N22 - N23	8	8	PVC	212	211.53	-	0000	0	0000	0	0	0	
7/21/2022	N	Oakes Street	N23 - N28	8	8	PVC	193	179.04	-	0000	0	0000	0	0	0	
7/21/2022	N	Baines Street	N24 - N25	8	8	PVC	116	117.96	-	0000	0	0000	0	0	0	
7/21/2022	N	Baines Street	N25 - N26	8	8	PVC	262	249.92	-	0000	0	0000	0	0	0	
7/21/2022	N	Baines Street	N26 - N27	8	8	PVC	248	251.42	-	0000	0	0000	0	0	0	
7/21/2022	N	Baines Street	N27 - N28	8	8	PVC	183	181.14	-	0000	0	0000	0	0	0	
8/5/2022	N	Oakes Street	N28 - N4	8	8	PVC	150	150.05	Light Tree Project	2B00	20	0000	0	2	0	

**East Palo Alto Sanitary District
Area 4 CCTV Survey Results**

Date Inspected	Area	Location/ Street Name	PSR	Reported Diameter (inch)	Actual Diameter (inch)	Pipe Material	Pipe Length (ft)	Length Surveyed (ft)	Notes	Structural Grade	Structural Score	O&M Grade	O&M Score	Overall Pipe Index	Score for Notable Defects	Sag > 40%
7/22/2022	N	Gates Street	N29 - N10	8	8	PVC	326	314.2	-	0000	0	0000	0	0	0	
8/8/2022	N	Pulgas Avenue	N3 - N21	10	12	PE	89	88.17	Light Tree Project	2200	4	2300	6	2	0	
7/22/2022	N	McNair Street	N30 - N11	8	8	PVC	134	130.86	-	0000	0	0000	0	0	0	
8/8/2022	N	Pulgas Avenue	N4 - N3	10	12	PE	335	336.39	Light Tree Project	2500	10	2800	16	2	0	
8/8/2022	N	Pulgas Avenue	N5 - N4	10	12	PE	332	332.69	-	2800	20	4131	7	2	0	
8/4/2022	N	Pulgas Avenue	N6 - N5	10	12	PE	333	334.49	-	2800	20	0000	0	2	0	
8/4/2022	N	Pulgas Avenue	N7 - N6	10	12	PE	333	334.39	-	2400	8	0000	0	2	0	
8/4/2022	N	Pulgas Avenue	N8 - N9	10	12	PE	119	119.66	Joint Separated Large at 9.5ft	4131	7	2100	2	2	15	
8/4/2022	N	Pulgas Avenue	N9 - N7	10	12	PE	284	285.31	-	2A00	20	0000	0	2	0	
8/10/2022	N/K	O'Connor Street	N1 - K6	12	12	PE	253	254.52	Light Tree Project	362D	38	4132	10	2	0	

East Palo Alto Sanitary District Trunk Line CCTV Survey Results

Date Inspected	Area	Location/Street Name	PSR	Reported Pipe Dia (inch)	Actual Diameter (inch)	Material	Reported Pipeline Length (ft)	Length Surveyed (ft)	Inspection Notes	Structural Grade	Structural Total	O&M Grade	O&M scores	Score for Notable Defects	Sag >40%
1/20/2023	T	Bay Trail	K1-T16	18	15	PE	35	31.362	Lots of grease	4100	4	3100	3	5	0
-	T	Airport - Embarcadero Road	T1 - T0	24	-	N.A.	329	0	Not surveyed because of access difficulties. Very high flow. Two	0	0	-	-	-	-
1/26/2023	T	Airport runway	T10 - T9	24	30	XXX	447	448.681		3421	14	0000	0	0	0
1/20/2023	T	Airport runway	T11 - T10	24	30	XXX	326	329.848		3100	3	0000	0	0	0
1/20/2023	T	San Fransiquito Creek	T12 - T11	24	30	XXX	482	485.754		0000	0	0000	0	0	0
1/20/2023	T	Bay Trail	T16-T33	22	22	HDPE	56	10.02		0000	0	2100	2	0	0
1/19/2023	T	Bay Trail	T17-T34	21	21	RCP	325	463.511	Over 70% sag that allows debris accumulation in the pipeline	2511	11	2200	4	5	20
1/19/2023	T	Bay Trail	T18 - T17	21	24	RCP	540	543.468	Over 70% sag that allows debris accumulation in the pipeline	4132	10	2300	6	0	20
1/19/2023	T	Bay Trail	T19 - T18	21	24	RCP	500	502.988	Excessive cleaning required. Sagging allows debris accumulation in the	5141	9	4100	4	5	25
1/27/2023	T	Airport - Embarcadero Road	T2 - T1	24	30	RCP	506	509.902	75% sagging with some accumulated grease	4123	10	2300	6	5	20
1/18/2023	T	Bay Trail	T20 - T19	18	24	RCP	332	333.455	Some surface damage. Sagging 75%	4123	10	0000	0	0	20
1/18/2023	T	Bay Trail	T20A - T20		24	PE	340	339.968	Unmapped MH found 83 ft from T21, named T20A during the	3100	3	0000	0	0	0
1/18/2023	T	Bay Trail	T21 - T20	18	24	PE	338	82.963	Unmapped MH found 83 ft from T21, named T20A during the	3100	3	0000	0	0	0
1/18/2023	T	Bay Trail	T22 - T21	18	24	RCP	197	194.582		3200	6	0000	0	0	0
1/18/2023	T	Bay Trail	T23 - T22	18	18	RCP	446	376.941	Spalling of concrete lining	3225	16	0000	0	0	0
1/18/2023	T	Bay Trail	T24 - T23	18	18	RCP	317	319.628		1100	1	0000	0	0	0
1/18/2023	T	Bay Trail	T25 - T24	18	18	RCP	282	279.75		1100	1	0000	0	0	0
1/17/2023	T	Bay Trail	T26 - T25	18	18	RCP	306	308.706		1100	1	0000	0	0	0
1/17/2023	T	Bay Trail	T27 - T26	18	18	RCP	356	358.504	Broken at 72.4 with a noticeable infiltration from the hole	412A	24	3121	5	15	0
1/17/2023	T	Bay Trail	T28 - T27	18	18	RCP	162	163.621		2711	15	0000	0	0	0
1/17/2023	T	Bay Trail	T29 - T28	18	18	RCP	234	235.463		2211	5	0000	0	0	0
1/27/2023	T	Airport - Embarcadero Road	T2A-T2	24	30	RCP	311	310.71	Unmapped MH was found between them, named T2A during the	2211	5	2100	2	0	0
1/27/2023	T	Airport - Embarcadero Road	T3 - T2A	24	30	RCP	192	192.077	Unmapped MH was found between them, named T2A during the	4123	10	2100	2	10	0
1/20/2023	T	San Fransiquito Creek	T30-T12	30	30	XXX	215	364.115		3200	6	0000	0	0	0
1/20/2023	T	Bay Trail	T31-T30	30	30	XXX	315	304.598		3100	3	0000	0	0	0
1/20/2023	T	San Fransiquito Creek	T32-T31	30	30	RCP	100	147.79	MH T32 had an additional 30-inch pipeline connected to it, that was not shown on EPASD map. It seemed to be a sewer line from another	1100	1	0000	0	0	0
-	T	Bay Trail	T33-T32	22	-	N.A.	435	0	SIPHON	0	0	-	-	-	-
1/20/2023	T	Bay Trail	T34-T33	30	30	PE	140	16.332		0000	0	2300	6	0	0
1/26/2023	T	Airport - Embarcadero Road	T4 - T3	24	30	XXX	475	477.638	MH T4 on Airport runway is covered with asphalt	4200	8	2200	4	0	0
1/26/2023	T	Airport runway	T5 - T4	24	30	XXX	352	355.398	MH T4 on Airport runway is covered with asphalt	3100	3	0000	0	0	0
1/26/2023	T	Bay Trail	T5A - T5	24	30	XXX	362	362.011	Unmapped manhole was found between them, named T5A during the inspection.	0000	0	0000	0	0	0
1/26/2023	T	Airport runway	T6 - T5A	24	30	XXX	20	20.34	Unmapped manhole was found between them, named T5A during the inspection. MH T5 has a narrower	0000	0	0000	0	0	0
1/26/2023	T	Airport runway	T7 - T6	24	30	XXX	481	479.843	60% sagging	4200	8	0000	0	0	10
1/26/2023	T	Airport runway	T8 - T7	24	30	XXX	502	506.796	Pipeline is 60% sagging	4131	7	0000	0	0	15
1/26/2023	T	Airport runway	T9 - T8	24	30	XXX	498	501.986		3100	3	0000	0	0	0

Appendix C

Financial Plan



East Palo Alto Sanitary District



2022 Sewer Rate Analysis

Working Draft Tables



BARTLE WELLS ASSOCIATES
INDEPENDENT PUBLIC FINANCE ADVISORS

Table 1
East Palo Alto Sanitary District
Historical & Adopted Rates

	July 1 2010	July 1 2013	July 1 2014	July 1 2015	July 1 2019	July 1 2020	July 1 2021	July 1 2022	July 1 2023
					Currently In Effect	Adopted But Not Implemented / Deferred			
RESIDENTIAL									
Fixed annual charge per residential dwelling unit									
Charge per Dwelling Unit ¹	\$485	\$520	\$550	\$575	\$600	\$630	\$660	\$690	\$720
Monthly Equivalent	40.42	43.33	45.83	47.92	50.00	52.50	55.00	57.50	60.00
COMMERCIAL/INDUSTRIAL									
Rate per hundred cubic feet of annual metered water use, subject to a minimum annual charge (\$/hcf)									
Low Strength									
Offices & Churches	\$3.6555	\$3.9193	\$4.1454	\$4.3338	\$4.6191	\$4.8501	\$5.0811	\$5.3121	\$5.5431
Educational Facilities	3.8920	4.1729	4.4136	4.6142	4.6191	4.8501	5.0811	5.3121	5.5431
Standard Strength									
General Commercial	4.0395	4.3310	4.5809	4.7891	4.9022	5.1473	5.3924	5.6375	5.8826
Recreational	4.0385	4.3299	4.5797	4.7879	4.9022	5.1473	5.3924	5.6375	5.8826
Moderate Strength									
Motels/Hotels	4.0385	4.3299	4.5797	4.7879	5.2940	5.5587	5.8234	6.0881	6.3528
Medical	4.5039	4.8289	5.1075	5.3397	5.2940	5.5587	5.8234	6.0881	6.3528
Industrial	4.3305	4.6430	4.9109	5.1341	5.2940	5.5587	5.8234	6.0881	6.3528
High Strength									
Restaurants	7.0341	7.5417	7.9768	8.3394	8.5034	8.9286	9.3538	9.7790	10.2042
Minimum Annual Charge	\$485	\$520	\$550	\$575	\$600	\$630	\$660	\$690	\$720

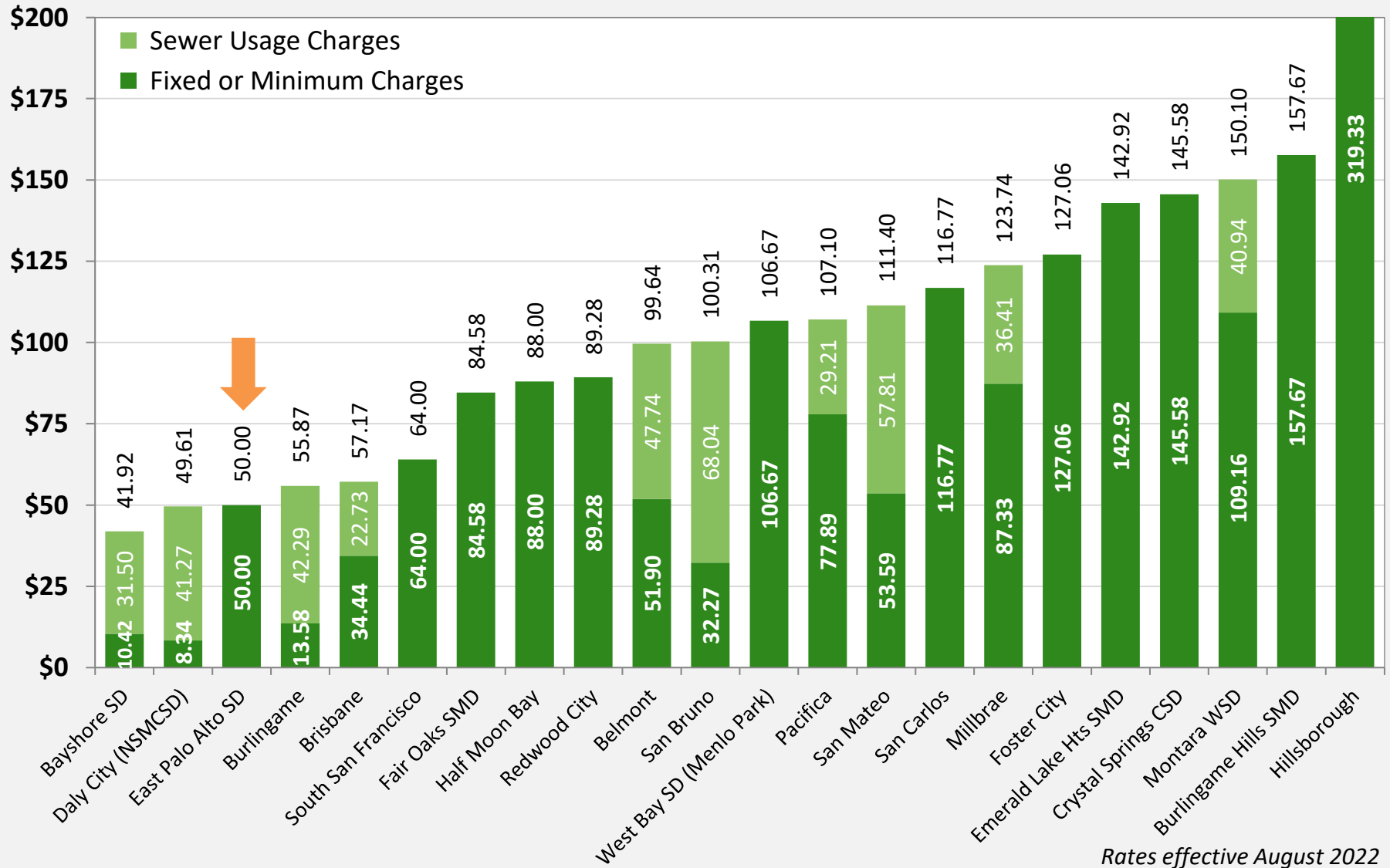
1 Applies to each dwelling unit per single family residence, duplex, triplex, apartment, multi-family, auto court, rooming house, trailer park, mobile home, cottage, flat.

Note: One hundred cubic feet (hcf) equals approximately 748 gallons.

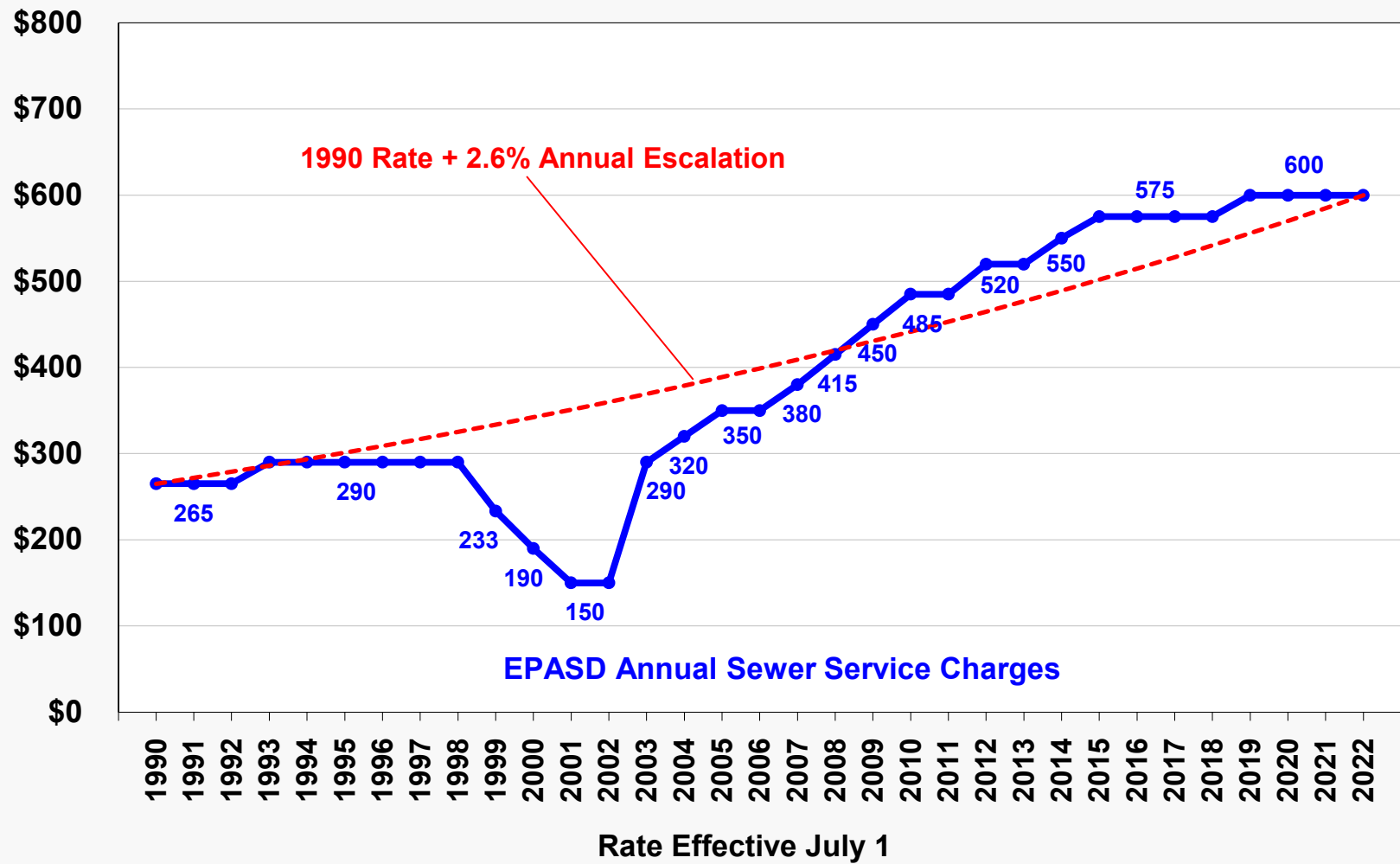
Note: The District's service charges are collected on the San Mateo County property tax rolls.

Survey of Single Family Residential Monthly Sewer Rates

Based on flat rate or 5.5 hcf of monthly winter water use



East Palo Alto Sanitary District Annual Sewer Charge Per Residential Dwelling Unit



East Palo Alto Sanitary District

Monthly Sewer Charge Per Residential Dwelling Unit (Rounded)

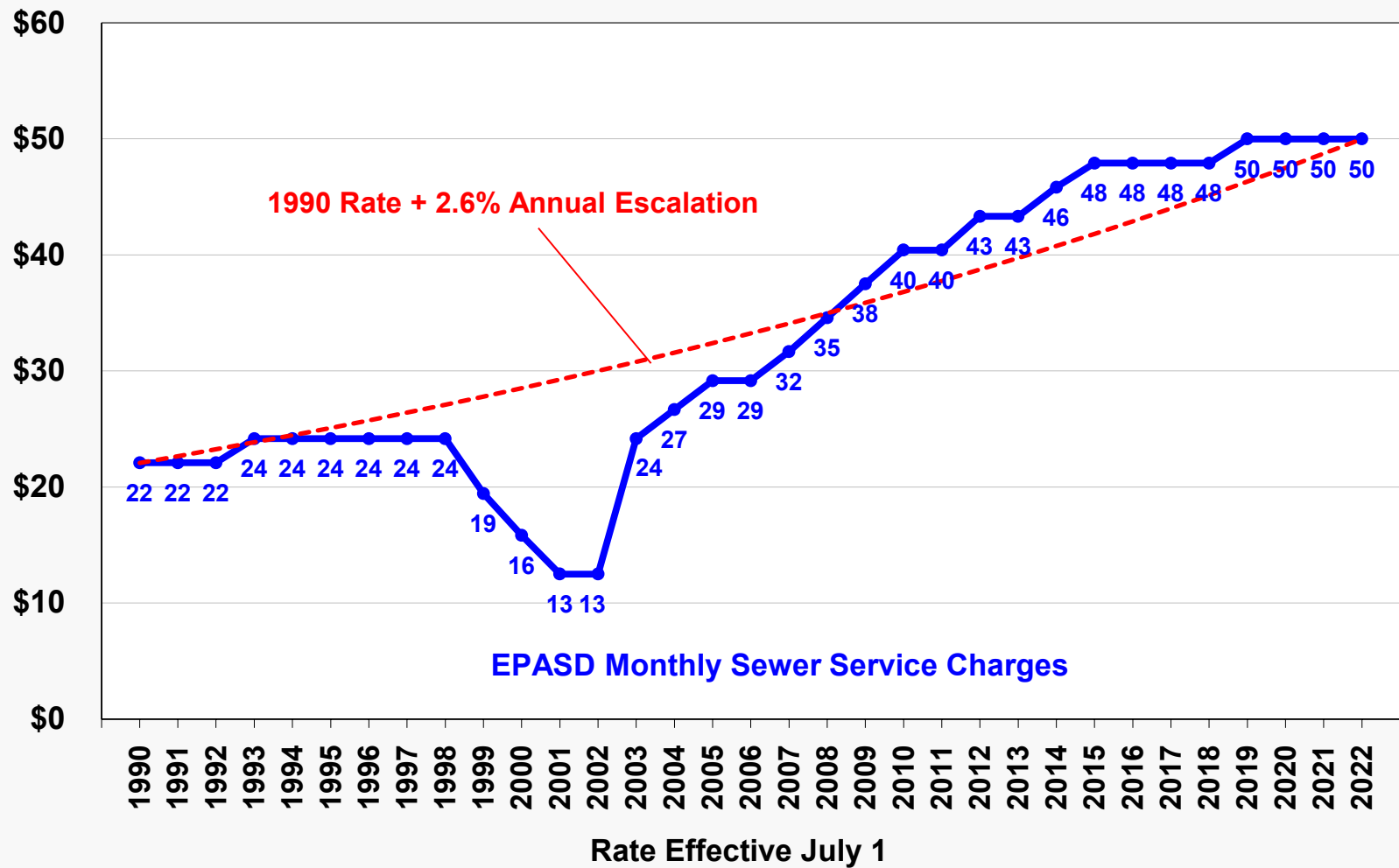


Table 2
East Palo Alto Sanitary District
Sewer Customers

	Accounts	% of Total	Dwelling Units
RESIDENTIAL			
Single Family Residential	3,360	81.5%	3,360
Multi-Family Residential	388	9.4%	3,567
Mobile Home	116	2.8%	116
Retirement	4	0.1%	7
Subtotal	3,868	93.8%	7,050
COMMERCIAL/INDUSTRIAL			
Offices & Churches	42	1.0%	
Schools/Educational Facilities	13	0.3%	
Motels/Hotels	2	0.0%	
Recreational	4	0.1%	
General Commercial	122	3.0%	
Industrial	20	0.5%	
Medical	2	0.0%	
Restaurants	12	0.3%	
Manual Billed	37	0.9%	
Subtotal	254	6.2%	
TOTAL	4,122		

Source: Sewer Service Charge billing summary for fiscal year 2022/23.

Table 3
East Palo Alto Sanitary District
Billed Sewer Service Charges

	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
RESIDENTIAL							
Single Family Residential	\$1,940,050	\$1,938,900	\$1,938,900	\$2,023,200	\$2,022,600	\$2,013,000	\$2,015,400
Multi-Family Residential	2,041,250	2,043,550	2,043,550	2,132,400	2,130,600	2,210,000	2,140,200
Mobile Home	-	-	-	-	-	-	69,600
Retirement	4,025	4,025	4,025	4,200	4,200	4,200	4,200
Subtotal	3,985,325	3,986,475	3,986,475	4,159,800	4,157,400	4,227,200	4,229,400
COMMERCIAL/INDUSTRIAL							
Offices & Churches	62,002	58,432	65,858	70,766	58,142	51,938	54,697
Schools/Educational Facilities	106,907	93,394	110,752	86,338	99,715	110,030	108,722
Motels/Hotels	73,217	94,559	102,945	97,600	82,301	18,259	35,613
Recreational	5,568	5,703	3,472	5,227	6,119	20,540	21,030
General Commercial	186,529	171,066	182,322	166,436	166,264	150,873	173,813
Industrial	23,519	24,828	24,710	22,210	22,996	23,857	23,758
Medical	9,889	6,774	8,497	9,326	7,461	7,826	7,053
Restaurants	55,089	54,272	66,014	76,523	56,256	61,519	68,390
Manual Billed	12,024	12,024	Est12,000	58,147	-	79,438	-
Subtotal	534,745	521,053	576,570	592,573	499,254	524,280	493,076
TOTAL	4,520,070	4,507,528	4,563,045	4,752,373	4,656,654	4,751,480	4,722,476

Source: Annual Sewer Service Charge billing summaries.

Table 4
East Palo Alto Sanitary District
RWQCP Invoices

	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Operating Payments*								<u>Projected</u>
1st Quarter	331,934	380,417	415,426	453,398	482,954	459,180	437,236	450,966
2nd Quarter	338,105	380,417	415,425	453,399	482,953	459,180	437,236	450,966
3rd Quarter	338,104	380,417	415,426	453,398	482,953	459,180	375,736	450,966
4th Quarter	338,105	380,417	415,425	453,399	482,953	459,180	437,236	450,966
Prior Year Adjustment	<u>42,501</u>		<u>(105,876)</u>	<u>64,736</u>	<u>(143,602)</u>	<u>(326,941)</u>	<u>(211,264)</u>	<u>tbd</u>
Subtotal	1,388,749	1,521,668	1,555,826	1,878,330	1,788,211	1,509,779	1,476,180	1,803,864
Debt Payments	117,523	117,468	117,700	117,791	117,292	200,853	200,850	201,070
Total	1,506,272	1,639,136	1,673,526	1,996,121	1,905,503	1,710,632	1,677,030	2,004,934

Source: Quarterly Invoices for Palo Alto Regional Water Quality Control Plant.

* Includes Pretreatment Program and Minor Capital.

Table 5

East Palo Alto Sanitary District
RWQCP Projected Funding Requirements

Note: Compared to prior projections, substantial new debt service has been deferred until 2027/28

	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
RWQCP PLANT TOTAL										
Treatment O&M	27,139,000	28,415,000	28,773,000	29,317,000	29,818,000	30,474,000	31,138,000	31,862,000	32,512,000	33,408,000
Minor CIP Fund	3,471,000	3,572,000	3,676,000	3,783,000	3,893,000	4,006,000	4,122,000	4,242,000	4,365,000	4,491,000
Existing Debt Service	2,873,000	2,872,000	2,048,000	2,048,000	2,048,000	2,048,000	2,048,000	1,648,000	1,648,000	1,092,000
Planned Debt Service	0	1,175,000	1,916,000	1,916,000	1,916,000	9,962,000	12,016,000	12,016,000	12,016,000	12,016,000
Total	33,483,000	36,034,000	36,413,000	37,064,000	37,675,000	46,490,000	49,324,000	49,768,000	50,541,000	51,007,000
Annual Increase %		7.6%	1.1%	1.8%	1.6%	23.4%	6.1%	0.9%	1.6%	0.9%
EPASD COST SHARE										
Treatment O&M	\$1,669,000	\$1,748,000	\$1,770,000	\$1,803,000	\$1,834,000	\$1,874,000	\$1,915,000	\$1,959,000	\$1,999,000	\$2,055,000
Minor CIP Fund	213,000	220,000	226,000	233,000	239,000	246,000	254,000	261,000	268,000	276,000
Subtotal O&M	1,882,000	1,968,000	1,996,000	2,036,000	2,073,000	2,120,000	2,169,000	2,220,000	2,267,000	2,331,000
Existing Debt Service	201,000	201,000	126,000	126,000	126,000	126,000	126,000	126,000	126,000	83,000
Planned Debt Service	0	31,000	88,000	88,000	88,000	703,000	860,000	860,000	860,000	860,000
Subtotal Debt	201,000	232,000	214,000	214,000	214,000	829,000	986,000	986,000	986,000	943,000
Total	2,083,000	2,200,000	2,210,000	2,250,000	2,287,000	2,949,000	3,155,000	3,206,000	3,253,000	3,274,000
Annual Increase %		5.6%	0.5%	1.8%	1.6%	28.9%	7.0%	1.6%	1.5%	0.6%
EPASD % SHARE OF TOTAL										
Treatment O&M	6.15%	6.15%	6.15%	6.15%	6.15%	6.15%	6.15%	6.15%	6.15%	6.15%
Minor CIP Fund	6.14%	6.16%	6.15%	6.16%	6.14%	6.14%	6.16%	6.15%	6.14%	6.15%
Existing Debt Service	7.00%	7.00%	6.15%	6.15%	6.15%	6.15%	6.15%	7.65%	7.65%	7.60%
Planned Debt Service	-	2.64%	4.59%	4.59%	4.59%	7.06%	7.16%	7.16%	7.16%	7.16%
Total	6.22%	6.11%	6.07%	6.07%	6.07%	6.34%	6.40%	6.44%	6.44%	6.42%

Source: FY2023 - FY2032 RWQCP Wastewater Treatment Forecast, dated 5/11/2022, Revision 1.

Table 6
East Palo Alto Sanitary District
Outstanding Debt Service

	EPASD Debt	EPASD Share of RWQCP Debt					Total
Fiscal Year Ending June 30	2011 SRF Loan	1999 Bonds (1990 Refi) 11.90%	1999 Bonds (New \$) 7.64%	2009 SRF Loan 7.64%	2018 SRF Loan 7.64%	Subtotal	
2016	\$78,942	\$33,398	\$40,513	\$42,457	-	\$116,368	\$195,310
2017	78,942	33,127	40,730	42,457	-	116,314	195,256
2018	78,942	33,222	40,868	42,457	-	116,547	195,489
2019	78,942	33,254	40,927	42,457	-	116,638	195,580
2020	78,942	33,193	40,489	42,457	70,907	187,046	265,988
2021	78,942	33,067	40,455	42,457	81,505	197,484	276,426
2022	78,942	33,285	40,538	42,457	85,484	201,764	280,706
2023	78,942	33,418	40,623	42,457	85,484	201,982	280,924
2024	78,942	33,465	40,608	42,457	85,484	202,014	280,956
2025	78,942	-	-	42,457	85,484	127,941	206,883
2026	78,942	-	-	42,457	85,484	127,941	206,883
2027	78,942	-	-	42,457	85,484	127,941	206,883
2028	78,942	-	-	42,457	85,484	127,941	206,883
2029	78,942	-	-	42,457	85,484	127,941	206,883
2030	78,942	-	-	42,457	85,484	127,941	206,883
2031	78,942	-	-	42,457	85,484	127,941	206,883
2032	78,942	-	-	-	85,484	85,484	164,426
2033	78,942	-	-	-	85,484	85,484	164,426
2034	-	-	-	-	85,484	85,484	85,484
2035	-	-	-	-	85,484	85,484	85,484
2036	-	-	-	-	85,484	85,484	85,484
2037	-	-	-	-	85,484	85,484	85,484
2038	-	-	-	-	85,484	85,484	85,484
2039	-	-	-	-	85,484	85,484	85,484
2040	-	-	-	-	85,484	85,484	85,484
2041	-	-	-	-	85,484	85,484	85,484
2042	-	-	-	-	85,484	85,484	85,484
2043	-	-	-	-	85,484	85,484	85,484
2044	-	-	-	-	85,484	85,484	85,484
2045	-	-	-	-	85,484	85,484	85,484
2046	-	-	-	-	85,484	85,484	85,484
2047	-	-	-	-	85,484	85,484	85,484
2048	-	-	-	-	85,484	85,484	85,484
2049	-	-	-	-	85,484	85,484	85,484

Table 7
East Palo Alto Sanitary District
Capital Improvements

Program Alternative	Linear Feet	Opinion of Estimated Cost (\$ Millions)
Structural Upgrades ¹	77,000	\$53.2
Includes Capacity Upgrades ²	14,000	\$9.7
Structural + Capacity Upgrades	92,000	\$65.5
Includes Capacity Upgrades	26,000	\$22.0
Includes Capacity Only Upgrades ³	12,000	\$12.3
High Priority Program ⁴	26,000	\$21.5
Includes Capacity Upgrades	17,000	\$14.1
Includes Capacity Only Upgrades	5,800	\$5.8

1. Structural Upgrades = Replacement of Pipelines with Substantial Structural Defects (may include Capacity Upgrades)

2. Capacity Upgrades = Replacement of Pipelines with Larger Capacity Pipelines per the Master Plan (independent of Structural condition)

3. Capacity Only Upgrades = Replacement of Pipelines that are Structurally Sound with Larger Capacity Pipelines per the Master Plan

4. High Priority Program = \$20M project to address High Priority pipelines considering both Structural and Capacity Upgrades

Table 7B
East Palo Alto Sanitary District
Capital Improvements

PRIOR VERSION
For Discussion Only

CAPITAL IMPROVEMENT PROJECTS	
EPASD Near-Term Critical Capital Needs	
Area 1 Pipeline Replacements ¹	\$13,567,000
Area 2 Pipeline Replacements ²	<u>7,000,000</u>
Subtotal	20,567,000
EPASD Longer-Term Capital Needs	
Area 3 Pipeline Replacements	EPASD anticipates funding these projects over time on a pay-as-you-go basis. Annual funding is projected at \$1 to \$2 million per
Area 4 Pipeline Replacements	
Pipeline Capacity Upsizings to Accommodate New Development	
Master Plan Pipeline Upsizing ³	\$26,556,000
Trunkline Improvements (New 18" Wet Weather Parallel Sewer Main) ³	<u>8,600,000</u>
Subtotal (2021 \$)	35,156,000
With 10% Construction Cost Escalation	38,672,000
Less Overlap with Area Pipeline Replacements listed above ⁴	(7,500,000)
Wastewater Treatment Plant 1 mgd Capacity Purchase ⁵	<u>5,000,000</u>
Subtotal	36,172,000

1 Source: Area 1 CCTV Survey Evaluation and Pipeline Replacement Priorities; Sierra West Consultants, Inc., August 31, 2022.

2 Preliminary placeholder estimate; cost estimates will be refined based on conditions assessment and analysis of Area 2 pipelines which is currently underway.

3 Source: Addendum to March 2015 Master Plan Update, Table 17; Freyer & Laureta, Inc., April 28, 2021.

4 Preliminary placeholder estimate _____.

5 Source: Estimate provided by East Palo Alto Sanitary District.

Table

TABLE NOT NEEDED

East Palo Alto Sanitary District
Debt Service Estimates

Estimated Debt Service per \$10M
Assumes Level Annual Debt Service

		30-Year Bonds/COPs
Project Funding		\$10,000,000
<u>Costs of Issuance/Other</u>		
Underwriter's Discount	0.70%	70,000
Issuance Costs		170,000
Bond Insurance (tbd)	0.30%	60,000
Reserve Surety	tbd	tbd
Capitalized Interest	tbd	-
Other Costs/Contingency		20,000
Subtotal		320,000
Total Issue Size		10,320,000
<u>Level Annual Debt Service</u>		
Repayment Term (Years)		30
Avg Interest Rate	planning est	5.00%
Annual Debt Service per \$10 Million		671,000

Estimates shown for financial planning purposes, actual costs and rates may vary.

Debt projections assume level annual deb service payments.

Table 8
East Palo Alto Sanitary District
Historical Revenues & Expenses

	Actual 2015/16	Actual 2016/17	Actual 2017/18	Actual 2018/19	Actual 2019/20	Actual 2020/21	Actual 2021/22	Estimated 2022/23
REVENUES								Estimated
Service Charges	4,532,749	4,512,412	4,498,735	4,584,087	4,774,075	4,821,925	4,837,146	4,700,000
Property Taxes	382,922	410,167	491,665	522,015	588,095	581,013	605,915	600,000
ERAF Rebate/Former RDA	401,802	452,314	506,252	699,964	632,104	690,096	736,934	500,000
Capacity/Connection Fees	290,000	7,475	10,875	49,200	35,145	606,469	47,653	100,000
Interest Earnings	94,020	156,236	159,974	470,526	374,024	219,625	212,337	250,000
Rental Income/Other	48,179	53,720	127,421	123,311	233,091	174,968	79,441	100,000
Total Revenues	5,749,672	5,592,324	5,794,922	6,449,102	6,636,534	7,094,096	6,519,425	6,250,000
EXPENSES								Estimated
Operating								Estimated
EPASD Salaries & Benefits	1,538,600	925,384	833,570	733,457	826,552	711,877	765,880	858,000
Pension GASB 68 & OPEB Exps	215,440	12,253	0	161,350	71,507	43,559	1,400,000	100,000
EPASD Other Operating	653,709	756,411	1,181,312	1,413,404	1,256,629	1,065,610	1,476,004	1,425,000
RWQCP Wastewater Treatment	1,431,206	1,647,300	1,602,883	1,879,480	1,874,326	1,660,746	1,476,180	1,800,000
Subtotal	3,838,955	3,341,349	3,617,765	4,187,691	4,029,013	3,481,792	5,118,064	4,183,000
Debt Service								
2011 SRF Loan	78,942	78,942	78,942	78,942	78,942	78,942	78,942	79,000
EPASD Share of RWQCP Debt	116,368	116,314	116,547	117,791	117,292	200,853	200,850	202,000
Subtotal	195,310	195,256	195,489	196,733	196,234	279,795	279,792	281,000
Capital Improvements/Other								
Capital Projects/Equipment	123,503	456,622	1,487,526	88,527	180,000	591,622	53,224	???
Subtotal	123,503	456,622	1,487,526	88,527	180,000	591,622	53,224	0
Total Expenses	4,157,768	3,993,227	5,300,780	4,472,951	4,405,247	4,353,209	5,451,080	4,464,000

Source: EPASD Profit & Loss Statements, debt service based on repayment schedules for each debt issue.

Table 9 East Palo Alto Sanitary District - Cash Flow Projections												Working Draft
		1 2022/23	2 2023/24	3 2024/25	4 2025/26	5 2026/27	6 2027/28	7 2028/29	8 2029/30	9 2030/31	10 2031/32	
Rate per EDU		\$600	\$640	\$680	\$720	\$760	\$800	\$840	\$880	\$905	\$930	
Annual Rate Adjustment \$		\$0	\$40	\$40	\$40	\$40	\$40	\$40	\$40	\$25	\$25	
Rate Adjustment %		0.0%	6.7%	6.3%	5.9%	5.6%	5.3%	5.0%	4.8%	2.8%	2.8%	
Growth (New EDUs)		10	10	10	10	10	10	10	10	10	10	
Growth %		0.13%	0.13%	0.13%	0.13%	0.13%	0.13%	0.13%	0.13%	0.13%	0.13%	
Interest Earnings Rate		0.75%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	
Beginning Cash Reserves (All Funds)		\$26,169,000	\$26,861,000	\$19,664,000	\$12,576,000	\$5,565,000	\$6,131,000	\$6,219,000	\$6,277,000	\$6,454,000	\$6,632,000	
REVENUES												
Service Charges	2.5%	4,700,000	5,020,000	5,340,000	5,661,000	5,983,000	6,306,000	6,630,000	6,954,000	7,161,000	7,368,000	
Property Taxes		600,000	615,000	633,000	652,000	672,000	692,000	713,000	734,000	756,000	779,000	
ERAF Rebate/Former RDAF		500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	
Connection/Capacity Charges		159,000	159,000	159,000	159,000	159,000	159,000	159,000	159,000	159,000	159,000	
Interest Earnings		196,000	269,000	197,000	126,000	56,000	61,000	62,000	63,000	65,000	66,000	
Rental Income/Other		100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	
Total Revenues		6,255,000	6,663,000	6,929,000	7,198,000	7,470,000	7,818,000	8,164,000	8,510,000	8,741,000	8,972,000	
EXPENSES												
Operating												
EPASD Salaries & Benefits	4.0%	858,000	892,000	928,000	965,000	1,004,000	1,044,000	1,086,000	1,129,000	1,174,000	1,221,000	
Other Pension & OPEB Payments	4.0%	100,000	104,000	108,000	112,000	116,000	121,000	126,000	131,000	136,000	141,000	
EPASD Other Operating Expenses	4.0%	1,425,000	1,482,000	1,541,000	1,603,000	1,667,000	1,734,000	1,803,000	1,875,000	1,950,000	2,028,000	
RWQCP Wastewater Treatment	RWQCP Proj	1,800,000	1,968,000	1,996,000	2,036,000	2,073,000	2,120,000	2,169,000	2,220,000	2,267,000	2,331,000	
Subtotal		4,183,000	4,446,000	4,573,000	4,716,000	4,860,000	5,019,000	5,184,000	5,355,000	5,527,000	5,721,000	
Debt Service												
EPASD 2011 SRF Loan		79,000	79,000	79,000	79,000	79,000	79,000	79,000	79,000	79,000	79,000	
Share of Existing RWQCP Debt		201,000	201,000	126,000	126,000	126,000	126,000	126,000	126,000	126,000	83,000	
Share of Projected RWQCP Debt		0	31,000	88,000	88,000	88,000	703,000	860,000	860,000	860,000	860,000	
Subtotal		280,000	311,000	293,000	293,000	293,000	908,000	1,065,000	1,065,000	1,065,000	1,022,000	
Capital/Other												
High Priority Capital Projects		0	7,500,000	7,500,000	7,500,000	0	0	0	0	0	0	
Annual Capital Project Funding	3.0%	1,000,000	1,500,000	1,545,000	1,591,000	1,639,000	1,688,000	1,739,000	1,791,000	1,845,000	1,900,000	
Vehicles/Equipment	3.0%	100,000	103,000	106,000	109,000	112,000	115,000	118,000	122,000	126,000	130,000	
Subtotal		1,100,000	9,103,000	9,151,000	9,200,000	1,751,000	1,803,000	1,857,000	1,913,000	1,971,000	2,030,000	
Total Expenses		5,563,000	13,860,000	14,017,000	14,209,000	6,904,000	7,730,000	8,106,000	8,333,000	8,563,000	8,773,000	
Revenues Less Expenses		692,000	(7,197,000)	(7,088,000)	(7,011,000)	566,000	88,000	58,000	177,000	178,000	199,000	
Ending Cash Reserves (All Funds)		26,861,000	19,664,000	12,576,000	5,565,000	6,131,000	6,219,000	6,277,000	6,454,000	6,632,000	6,831,000	
Debt Service Coverage (All Debt)		7.40	7.13	8.04	8.47	8.91	3.08	2.80	2.96	3.02	3.18	

Table 10
East Palo Alto Sanitary District
Projected Rates

	Currently in Effect	Projected Rates Effective On or After				
		July 1 2023	July 1 2024	July 1 2025	July 1 2026	July 1 2027
RESIDENTIAL						
<i>Fixed annual charge per residential dwelling unit</i>						
Charge per Dwelling Unit¹	\$600	\$640	\$680	\$720	\$760	\$800
<i>Monthly Equivalent</i>	50.00	53.33	56.67	60.00	63.33	66.67
<i>% Increase</i>		6.7%	6.3%	5.9%	5.6%	5.3%
COMMERCIAL/INDUSTRIAL						
<i>Rate per hundred cubic feet of annual metered water use, subject to a minimum annual charge (\$/hcf)</i>						
<u>Low Strength</u>						
Offices & Churches	\$4.6191	\$4.9270	\$5.2350	\$5.5429	\$5.8509	\$6.1588
Educational Facilities	4.6191	4.9270	5.2350	5.5429	5.8509	6.1588
<u>Standard Strength</u>						
General Commercial	4.9022	5.2290	5.5558	5.8826	6.2095	6.5363
Recreational	4.9022	5.2290	5.5558	5.8826	6.2095	6.5363
<u>Moderate Strength</u>						
Motels/Hotels	5.2940	5.6469	5.9999	6.3528	6.7057	7.0587
Medical	5.2940	5.6469	5.9999	6.3528	6.7057	7.0587
Industrial	5.2940	5.6469	5.9999	6.3528	6.7057	7.0587
<u>High Strength</u>						
Restaurants	8.5034	9.0703	9.6372	10.2041	10.7710	11.3379
<i>Minimum Annual Charge</i>	<i>\$600</i>	<i>\$640</i>	<i>\$680</i>	<i>\$720</i>	<i>\$760</i>	<i>\$800</i>

1 Applies to each dwelling unit per single family residence, duplex, triplex, apartment, multi-family, auto court, rooming house, trailer park, mobile home, cottage, flat.

Note: One hundred cubic feet (hcf) equals approximately 748 gallons.

Note: The District's service charges are collected on the San Mateo County property tax rolls.

East Palo Alto Sanitary District Annual Sewer Charge Per Residential Dwelling Unit

