



REGULAR MEETING
BOARD OF DIRECTORS
THURSDAY, APRIL 23, 2020 – 6:30PM

DUE TO COVID-19, THIS MEETING WILL BE CONDUCTED AS A TELECONFERENCE PURSUANT TO THE PROVISIONS OF THE GOVERNOR'S EXECUTIVE ORDERS N-25-20 AND N-29-20, WHICH SUSPENDS CERTAIN REQUIREMENTS OF THE RALPH M. BROWN ACT.

MEMBERS OF THE PUBLIC MAY NOT ATTEND THIS MEETING IN PERSON.

Board members, staff, and the public may participate remotely.

Dial by Telephone: 1-562-247-8422

Audio Access Code: 997-490-196

Public comment may be submitted via email to District Secretary, Candy Pina,
at candyp@midpeninsulawater.org.

Please indicate in your email the agenda item to which your comment applies. Comments submitted before the meeting will be provided to the committee Directors before or during the meeting. Comments submitted after the meeting is called to order will be included in correspondence that will be provided to the full Board.

AGENDA

1. OPENING

- A. Call to Order
- B. Establishment of Quorum
- C. Pledge of Allegiance

2. PUBLIC COMMENT

If you wish to address the Board, please follow the directions at the top of the agenda. If you have anything that you wish distributed to the Board and included for the official record, please include it in your email. Comments that require a response may be deferred for staff reply.

3. AGENDA REVIEW: ADDITIONS/DELETIONS AND PULLED CONSENT ITEMS

4. ACKNOWLEDGEMENTS/PRESENTATIONS

- A. Resolution 2020-03 Acknowledging Retirement of District Treasurer, Jeff Ira, CPA, and Appreciation for 21 Years of Service to the MPWD
- B. Tammy Rudock, General Manager – Achieved SHRM-SCP Certification (Society of Human Resource Management-Senior Certified Professional)



5. CONSENT AGENDA

All matters on the Consent Agenda are to be approved by one motion. If Directors wish to discuss a consent item other than simple clarifying questions, a request for removal may be made. Such items are pulled for separate discussion and action after the Consent Agenda as a whole is acted upon.

- A. Approve Minutes for the Regular Board Meeting on February 27, 2020
(Note: March 26, 2020 Regular Board Meeting was canceled.)
- B. Approve Expenditures from February 21, 2020 through March 19, 2020 and Expenditures from March 20, 2020 through April 14, 2020
- C. Approve Resolution 2020-04 Authorizing an Amendment to the Pipeline Easement Agreement between the MPWD and Sutter Bay Medical Foundation d/b/a Palo Alto Medical Foundation for Healthcare, Research and Education (San Carlos Center)
- D. Approve Resolution 2020-05 Authorizing a Professional Services Agreement for the Biennial System-Wide Leak Detection Survey, an Essential Service, to Subtronic Corporation of Martinez, CA, in the amount of \$49,970
- E. Approve Resolution 2020-06 Authorizing a Purchase Agreement with XiO, Inc., from San Rafael, CA, for Hardware and Equipment to Complete the SCADA Replacement Capital Project in the amount of \$249,511, plus a 10% Contingency for a total Project Budget in the Amount of \$275,000

6. HEARINGS AND APPEALS

None

7. REGULAR BUSINESS AGENDA

- A. Consider Resolution 2020-07 Authorizing the General Manager to Take Necessary Actions for Continued Operations of the MPWD Due to the Coronavirus-19 Pandemic in Recognition of the Federal, State, and Local Declared State of Emergency
- B. Consider Resolution 2020-08 Approving MPWD Comprehensive System Analysis and Capital Improvement Program FY 2019-2020 Update, and Authorizing the MPWD 5-Year Capital Improvement Program (CIP) for Fiscal Years 2019/2020 through 2023/2024

8. MANAGER'S AND BOARD REPORTS

- A. General Manager's Report supplemented by:
 - 1. Administrative Services Manager's Report
 - 2. Operations Manager's Report
 - 3. District Engineer's Report



- B. Financial Reports
 - 1. Month End February 29, 2020
 - 2. Month End March 31, 2020

C. Director Reports

9. COMMUNICATIONS

10. CLOSED SESSION

- A. Conference with Legal Counsel – Anticipated Litigation
Significant exposure to litigation pursuant to Government Code Section 54956.9(d)(2)
– One potential case
- B. Conference with Real Property Negotiators (Julie Sherman, District Counsel, and Tammy Rudock, General Manager) pursuant to Government Code Section 54956.8:
Property Location: APN 045-320-100, “F” Street Parcel in San Carlos, CA
Owner: Mid-Peninsula Water District
Under Negotiation: Price and Terms of Contract

11. RECONVENE TO OPEN SESSION

12. ADJOURNMENT

This agenda was posted at the Mid-Peninsula Water District's office, 3 Dairy Lane, in Belmont, California, and on its website at www.midpeninsulawater.org.

ACCESSIBLE PUBLIC MEETINGS

Upon request, the Mid-Peninsula Water District will provide written agenda materials in appropriate alternative formats, or disability-related modification or accommodation (including auxiliary aids or services), to enable individuals with disabilities to participate in public meetings and provide comments at/related to public meetings. Please submit a request, including your name, phone number and/or email address, and a description of the modification, accommodation, auxiliary aid, service or alternative format requested. Requests should be sent to the District Secretary, Candy Pina, at (650) 591-8941 or candyp@midpeninsulawater.org. Requests must be received at least two days before the meeting. Requests will be granted whenever possible and resolved in favor of accessibility.

Next Regular Board Meeting: Thursday, May 28, 2020 at 6:30PM

RESOLUTION NO. 2020-03

IN APPRECIATION FOR JEFF IRA AND CELEBRATING TWENTY-ONE YEARS OF SERVICE AS DISTRICT TREASURER

* * *

MID-PENINSULA WATER DISTRICT

WHEREAS, on November 18, 1999, Jeff Ira was appointed as a District Treasurer of the Mid-Peninsula Water District (District), the world population was 7.46 Billion and the Euro, as the main currency of the European Union (EU) was first introduced; and

WHEREAS, during his 21 years of Board tenure, District Treasurer Ira has been an active ambassador for the District and has brought his experience in municipal budgeting and fiscal responsibilities, his knowledge of community service which he frequently shared with the Board of Directors; and

WHEREAS, during his professional career, Jeff Ira, CPA, was a partner at C. G. Uhlenberg, LLP and provided certified public accounting services in the Bay Area for more than 40 years. Besides his private sector accounting practices, Mr. Ira has an extensive public service background having served on the Redwood City Council for twelve (12) years, including two (2) mayoral posts; and

WHEREAS, District Treasurer Ira has been instrumental in improving the District's internal controls, working with staff to create procedures that best fit the organization, and auditing the financial reporting each month; and

WHEREAS, under Director Treasurer Ira's steady and creative expertise, the Mid-Peninsula Water District has enhanced its financial reporting systems by working with staff to create transparent reporting; and

WHEREAS, as the District Treasurer Ira, he earned the trust of the board, staff members and auditors, and served the District with integrity, dignity, wisdom and fiscally responsible input, at all times making sure the District was reporting accurate financial information; and

WHEREAS, Mr. Ira will be retiring after the District's Regular Board Meeting on April 23, 2020, having served as the District Treasurer for 21 years, and the Board desires to confer upon him special recognition for his extraordinary dedication and contributions to the Mid-Peninsula Water District, and for his excellent quality of financial expertise and as an exemplary member of the finance community, and, above all, a gentleman; and

NOW, THEREFORE, BE IT RESOLVED that the Board of Directors, staff, and colleagues of the Mid-Peninsula Water District hereby expresses its sincere appreciation and gratitude to District Treasurer Jeff Ira for his 21 years of devoted service and valuable leadership as the District Treasurer for the District, and wishes him well in his retirement; and

BE IT FURTHER RESOLVED that this Resolution is included with the Minutes of this Board meeting to memorialize in the District's records the service and accomplishments that District Treasurer Ira has extended to this District and the community at large, and that a suitable copy be presented to District Treasurer Ira.

UNANIMOUSLY PASSED AND ADOPTED this 23rd day of April 2020.

President

ATTEST:

Board Secretary



SHRM SENIOR CERTIFIED PROFESSIONAL

The Society for Human Resource Management (SHRM)
Hereby Certifies That

Tammy A. Rudock

ACHIEVED THE SHRM SENIOR CERTIFIED PROFESSIONAL

SHRM-SCP®

By meeting the experience, education, and demonstrated HR Competency
and Knowledge requirements as established by SHRM.

Witness the signature of the duly authorized officer of SHRM:
Attest:

A handwritten signature in black ink, appearing to read "Johnny C. Taylor, Jr.", written over a horizontal line.

Johnny C. Taylor, Jr.
President and Chief Executive Officer

CERTIFIED SINCE: **01 February 2020**

This certificate alone does not guarantee current certification status.
Visit the SHRM Certified Directory at <http://bit.ly/2HPCgev> to verify certification status.



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REGULAR MEETING
OF THE BOARD OF DIRECTORS
OF THE MID-PENINSULA WATER DISTRICT

February 27, 2020
Belmont, California

1. **OPENING**

A. **Call to Order:**

The regular meeting of the Mid-Peninsula Water District Board of Directors was called to order by President Zucca at 6:32PM.

B. **Establishment of Quorum:**

PRESENT: Directors Zucca, Schmidt, Wheeler and Vella.

Director Warden was absent.

A quorum was present.

ALSO PRESENT: General Manager Tammy Rudock, Administrative Services Manager and Board Secretary Candy Pina, District Engineer Joubin Pakpour, District Counsel Julie Sherman and District Treasurer Jeff Ira.

Operations Manager Ramirez was absent.

C. Pledge of Allegiance – The Pledge of Allegiance was led by District Treasurer Jeff Ira.

2. **PUBLIC COMMENT**

None

3. **AGENDA REVIEW: ADDITION/DELETIONS AND PULLED CONSENT ITEMS**

None

4. **ACKNOWLEDGEMENTS/PRESENTATIONS**

A. **Overview of 2019 MPWD Calendar Contest Program and Distribute Calendar to the Board – Tammy Rudock and Jeanette Kalabolas**

General Manager Rudock welcomed students and parents and Jeanette Kalabolas explained the ceremony details and gave a brief summary of the program.

B. **Present 2019 MPWD Calendar Contest Awards – President Matthew Zucca and Jeanette Kalabolas**

President Zucca and Jeanette Kalabolas presented the awards for the 2020 annual MPWD water awareness calendar contest. Along with award certificates, the top three winners received gift certificates. The teachers with the most class participation were also acknowledged and all who participated received a 2020 MPWD calendar. Contest winners:

Grand Prize Winner: Andy K., 3rd Grade, Cipriani Elementary School

Runner-Up Winner: Jake A., 4th Grade, Nesbit Elementary School

Runner-Up Winner: Miles A., 4th Grade, Nesbit Elementary School

Award for the class with the most participation – Ms. Sabo, Ms. Carter and Ms. Cunei, all 3rd Grade teachers at Cipriani Elementary School who submitted a total of 24 of the 146 entries for a shared reward.

Nine other honorable mention entries chosen:

- 1) Edwin H., 3rd Grade, Cipriani Elementary School
- 2) Angelina R., 3rd Grade, Immaculate Heart of Mary School
- 3) Charlotte P., 4th Grade, Nesbit Elementary School
- 4) Cora K., 2nd Grade, San Carlos Charter Learning Center
- 5) Giuliana L., 3rd Grade, Immaculate Heart of Mary School
- 6) Skye H., 3rd Grade, Cipriani Elementary School
- 7) Paisley H., 3rd Grade, Cipriani Elementary School
- 8) Naomi N., 2nd Grade, San Carlos Charter Learning Center
- 9) Amelia L., 3rd Grade, Cipriani Elementary School

A refreshment break immediately followed the awards presentation to congratulate all of the MPWD calendar contest participants and their families.

President Zucca reconvened the meeting at 7:05PM.

5. CONSENT AGENDA

A. Approve Minutes for the Special Board Meeting on January 15, 2020 and the Regular Board Meeting of January 23, 2020

B. Approve Expenditures from January 17, 2020 through February 20, 2020

Director Vella moved to approve minutes for the Special Board Meeting on January 15, 2020 and the Regular Board Meeting of January 23, 2020 and Expenditures from January 17, 2020 through February 20, 2020. Vice President Schmidt seconded and it was unanimously approved.

6. HEARINGS AND APPEALS

None

7. REGULAR BUSINESS AGENDA

A. Receive Presentations on Qualifications to Provide Real Estate Marketing and Brokerage Services to Sell MPWD Surplus Real Property Located at 1513-1515 Folger Drive in Belmont, CA by:

General Manager Rudock reminded the Board why the two teams were invited to present and welcomed both parties.

1. Tom Hovorka of Keller Williams Peninsula Estates and Cheryl Villanueva of Compass
Tom Hovorka introduced himself and Cheryl Villanueva. He reported on their collective background and abilities, combined professional experience, education and subject property analysis and Cheryl Villanueva presented on the pair's marketing plan.
2. John M. Weatherby, Mark F. Lockenmeyer and Juan De Leon of Cornish & Carey Commercial d/b/a Newmark Knight Frank
John M. Weatherby introduced himself and Juan De Leon. He apologized for Mark F. Lockenmeyer's absence, and then shared his team's credentials, their local affiliation

and results of the research they did on the subject property and Juan De Leon reported on the services their brokerage firm has to offer.

An open Board discussion followed and President Zucca thanked staff for their due diligence in meeting the Board's request to review the top two proposals received and asked that the item be brought back next month for further consideration.

B. Consider Approving the Revised MPWD Strategic Plan for 2019-2020 and Revised Director Assignments for 2020

General Manager Rudock reported on changes made to Strategic Elements #1-5.

Director Vella inquired about the number of Harbor Industrial Association (HIA) attendance slots available to the District and General Manager Rudock confirmed that the MPWD's membership covers four (4) attendees.

Vice President Schmidt commented on Strategic Element #2 – Resource Management Priority No. 2-8/20, about investigating potential ground water supply options (e.g., shallow water aquifers and recycled water) and Priority No. 2-9/20, about considering solar at facilities and all electric vehicle fleet replacement where feasible and an open Board discussion followed. Staff replied that solar is incorporated at several MPWD sites for SCADA already and that vehicles would be considered as feasible when they come up for replacement.

Director Vella moved to approve the Revised MPWD Strategic Plan for 2019-2020 and Revised Director Assignments for 2020. Vice President Schmidt seconded and it was unanimously approved.

C. Receive Mid-Year Review of MPWD FY 2019/2020 Operating and Capital Budgets and Consider Resolution 2020-02 Approving the Amended Budgets

General Manager Rudock reported on total operating revenue, operating expenditures and net result of operations and capital program change projections. There are no significant changes to the budget.

Director Vella moved to approve the Mid-Year MPWD FY 2019/2020 Operating and Capital Budgets and Resolution 2020-02 Approving the Amended Budgets. Director Wheeler seconded and it was unanimously approved.

8. MANAGER AND BOARD REPORTS

A. General Manager's Report

General Manager Rudock reported on BAWSCA's request for agency input on supplemental water supply needs and an open Board discussion followed. She also shared highlights from last week's SFPUC Annual Wholesale Customers Meeting.

1. Supplemented by Administrative Services Manager's Report

Administrative Services Manager Pina reported on this week's balance transfer of \$400,000 to the LAIF account.

2. Supplemented by Operations Manager's Report

Vice President Schmidt commented on the error at the bottom of page 4 of Operation Manager Ramirez's Agenda report. He asked staff to confirm that January 2019

percent change on the chart provided should read -7.1% and not reflect as a positive 7.1%. Staff acknowledged that was an error and he is correct.

3. District Engineer's Report

District Engineer Pakpour provided an update on the Notre Dame, Cliffside Court, Tahoe Drive Area Water Main Projects, adding that the final Tahoe Drive pavement (slurry seal) restoration would be completed at a later date when there is better weather.

President Zucca requested that staff re-evaluate any CIP El Camino Real road closures through Spring of 2020 due to Caltrain's temporary closer of its Hillsdale Station in San Mateo for a six month period to complete its 25th and 31st Avenues Construction Project, as the Caltrain plan states it will divert commute traffic to the Belmont train station.

B. Financial Reports

1. Month Ended January 31, 2020

Administrative Services Manager Pina reported that operating/non-operating revenue and expenses totals are on target for mid-year. She also shared that the Budget Year 2019-2020 Summary Report now reflects a Service & Installation Charge line item under non-operating revenues per the Board's request.

C. Director Reports

Director Wheeler reported on the San Mateo County Sheriff's Office presentation given at the Harbor Industrial Association (HIA) meeting held earlier this month.

Vice President Schmidt reported on the District's Finance Committee Meeting held February 3, 2020.

9. COMMUNICATIONS

None

The Board convened to Closed Session at 8:45PM to discuss one item.

10. CLOSED SESSION

Conference with Legal Counsel – Anticipated Litigation
Significant exposure to litigation pursuant to Government Code Section 54956.9(d)(2)

RECONVENE TO OPEN SESSION

The meeting was reconvened at 9:30PM and District Counsel reported that no reportable action had been taken.

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11. ADJOURNMENT

The meeting was adjourned at 9:31PM.

DISTRICT SECRETARY

APPROVED:

BOARD PRESIDENT

Accounts Payable

Checks by Date - Summary by Check Date

User: candyp
Printed: 4/14/2020 3:18 PM



Check No	Vendor No	Vendor Name	Check Date	Check Amount
1128	HYDROENC	HYDROSCIENCE ENGINEERS INC.	02/24/2020	7,711.97
1129	PAKPOUR	PAKPOUR CONSULTING GROUP, INC	02/24/2020	21,850.51
1130	STOLOSKI	STOLOSKI & GONZALEZ, Inc.	02/24/2020	126,288.25
1131	WESTYOST	WEST YOST ASSOCIATES	02/24/2020	4,584.50
Total for 2/24/2020:				160,435.23
100754	WFBUSCAR	WELLS FARGO -GM	02/26/2020	9,439.00
Total for 2/26/2020:				9,439.00
35630	ATT60197	AT&T 60197	02/27/2020	1,281.05
35631	AWWA6666	AWWA	02/27/2020	286.00
35632	UB*00430	WILLIAM BACON	02/27/2020	2,854.68
35633	BELCHAME	BELMONT CHAMBER OF COMMERCE	02/27/2020	430.00
35634	CARQUEST	CARQUEST AUTO PARTS	02/27/2020	33.67
35635	CINTS	CINTAS CORPORATION	02/27/2020	556.14
35636	COMCAST	COMCAST	02/27/2020	330.36
35637	COMCASTB	COMCAST BUSINESS	02/27/2020	629.82
35638	COUNTYSM	COUNTY OF SAN MATEO	02/27/2020	8,711.00
35639	DFS	DOCUMENT FULFILLMENT SERVICES	02/27/2020	2,475.33
35640	EHWACHS	E.H. WACHS	02/27/2020	6,411.34
35641	EDDCOGRP	EDCCO GROUP, INC	02/27/2020	525.00
35642	GRAINGER	GRAINGER	02/27/2020	14.87
35643	GRANITE	GRANITE ROCK, INC.	02/27/2020	1,733.67
35644	HOMEDPC	HOME DEPOT	02/27/2020	351.36
35645	INTRBATT	INTERSTATE BATTERY SYSTEM, INC.	02/27/2020	901.19
35646	INTRTRAF	INTERSTATE TRAFFIC CONTROL INC	02/27/2020	168.25
35647	MATCOTLS	MATCO TOOLS	02/27/2020	1,793.21
35648	OFFICEDE	OFFICE DEPOT, INC.	02/27/2020	191.18
35649	PACOFFIC	PACIFIC OFFICE AUTOMATION	02/27/2020	205.26
35650	PARCELQS	PARCELQUEST	02/27/2020	2,399.00
35651	PG&E	PG&E CFM/PPC DEPT	02/27/2020	1,393.85
35652	RMORGAN	RAY MORGAN COMPANY	02/27/2020	2,246.47
35653	RANDB	ROBERTS & BRUNE CO. INC.	02/27/2020	3,213.28
35654	UB*00431	CARLMONT VILLAGE SHELL	02/27/2020	2,206.88
35655	STANDINS	STANDARD INSURANCE COMPANY	02/27/2020	1,208.78
35656	STEPFORD	STEPFORD BUSINESS, INC.	02/27/2020	2,360.00
35657	SWRCBACC	SWRCB ACCOUNTING OFFICE	02/27/2020	30,201.60
35658	THOMPRED	THOMPSON REUTERS - WEST PMT CE	02/27/2020	108.65
35659	VALLEYOL	VALLEY OIL COMPANY	02/27/2020	3,279.44
100736	SCOTSMAN	WILLIAMS SCOTSMAN	02/27/2020	583.16
100737	SFPUCWAT	SFPUC WATER QUALITY	02/27/2020	1,650.00
Total for 2/27/2020:				80,734.49
100724	CALPERS	CALPERS	02/28/2020	4,156.58

Check No	Vendor No	Vendor Name	Check Date	Check Amount
100726	icmacont	ICMA contributions	02/28/2020	2,584.62
100727	HEALTHEQ	Health Equity	02/28/2020	217.00
100728	ADPPAYRL	adp	02/28/2020	15,776.61
100729	ADPPAYRL	adp	02/28/2020	7,538.17
100753	TTECHACH	TTECH ACH BILLING	02/28/2020	48.41
Total for 2/28/2020:				30,321.39
100730	CALPERS	CALPERS	02/29/2020	7,672.47
100731	CALPERS	CALPERS	02/29/2020	662.54
100732	HEALTHEQ	Health Equity	02/29/2020	550.84
100733	ICMACONT	ICMA contributions	02/29/2020	899.64
100734	ADPPAYRL	adp	02/29/2020	34,416.75
100735	ADPPAYRL	adp	02/29/2020	14,407.37
Total for 2/29/2020:				58,609.61
100790	BANKMTO1	Bankcard Mtot Disc	03/02/2020	3,266.35
100791	BANKMTO1	Bankcard Mtot Disc	03/02/2020	430.59
100792	BANKMTO1	Bankcard Mtot Disc	03/02/2020	185.39
Total for 3/2/2020:				3,882.33
100793	AUTHNETG	AUTHNET GATEWAY	03/03/2020	30.00
Total for 3/3/2020:				30.00
100738	SFWATER	SAN FRANCISCO WATER DEPT	03/04/2020	350,322.10
Total for 3/4/2020:				350,322.10
35660	ACWA5661	ACWA JPIA	03/06/2020	42,031.91
35661	ATT60197	AT&T 60197	03/06/2020	42.08
35662	CGUHLENB	C G UHLENBERG LLP	03/06/2020	1,750.00
35663	CINTS	CINTAS CORPORATION	03/06/2020	548.76
35664	COMCAST	COMCAST	03/06/2020	295.30
35665	GRANITE	GRANITE ROCK, INC.	03/06/2020	1,102.84
35666	RGUINTO	RONNIE GUINTO	03/06/2020	400.00
35667	HOMEDPC	HOME DEPOT	03/06/2020	739.57
35668	OFFICEDE	OFFICE DEPOT, INC.	03/06/2020	52.65
35669	PACICRES	PACIFIC CREST ACTUARIES, LLC	03/06/2020	3,000.00
35670	RRINDUST	R&R INDUSTRIES, INC.	03/06/2020	897.75
35671	RAVELLA	LAURA RAVELLA	03/06/2020	33.19
35672	RANDB	ROBERTS & BRUNE CO. INC.	03/06/2020	2,027.40
35673	TMOBILE	T-MOBILE	03/06/2020	31.75
35674	VANGUARE	VANGUARD CLEANING SYSTEMS, INC	03/06/2020	385.00
35675	VERIZON	VERIZON WIRELESS	03/06/2020	843.43
35676	WATEREDU	WATER EDUCATION FOUNDATION	03/06/2020	600.00
100739	ASTA-USA	ASTA-USA TRANSIATION SERVICES, I	03/06/2020	751.70
100740	HANSONBR	HANSON, BRIDGETT	03/06/2020	9,329.50
100741	LIFTOFFD	LIFTOFF DIGITAL	03/06/2020	525.00
100742	PAKPOUR	PAKPOUR CONSULTING GROUP, INC	03/06/2020	500.00
100743	SFPUCWAT	SFPUC WATER QUALITY	03/06/2020	2,050.00
100744	WFBUSCAR	WELLS FARGO -GM	03/06/2020	7,446.73
100745	WFBUSRR	WELLS FARGO-OM	03/06/2020	167.23

Check No	Vendor No	Vendor Name	Check Date	Check Amount
			Total for 3/6/2020:	75,551.79
100794	CLIENTSV	Client Analysis Svs Charge	03/11/2020	3,366.27
			Total for 3/11/2020:	3,366.27
100795	ADPPRFEE	ADP Payroll Fees	03/13/2020	617.30
			Total for 3/13/2020:	617.30
100761	HEALTHEQ	Health Equity	03/14/2020	217.00
100762	ICMACONT	ICMA contributions	03/14/2020	2,584.62
100763	ADPPAYRL	adp	03/14/2020	15,776.56
100764	ADPPAYRL	adp	03/14/2020	7,538.22
			Total for 3/14/2020:	26,116.40
100765	CALPERS	CALPERS	03/15/2020	7,554.86
100766	CALPERS	CALPERS	03/15/2020	662.54
100767	HEALTHEQ	Health Equity	03/15/2020	650.84
100768	ICMACONT	ICMA contributions	03/15/2020	899.64
100769	ADPPAYRL	adp	03/15/2020	32,388.65
100770	ADPPAYRL	adp	03/15/2020	13,895.06
			Total for 3/15/2020:	56,051.59
35677	UB*00432	CRATUS, INC	03/19/2020	1,443.24
35678	UB*00437	GORMAN PIPELINE INC.	03/19/2020	2,298.68
35679	UB*00436	CHRISTOPHER JIMENEZ	03/19/2020	30.60
35680	UB*00435	HAMILTON MIXON	03/19/2020	16.40
35681	UB*00434	TIEGEL FAMILY TRUST	03/19/2020	28.00
35682	UB*00433	DONG WANG	03/19/2020	7.07
35683	AIRGAS	AIRGAS, LLC	03/19/2020	161.03
35684	ATT60197	AT&T 60197	03/19/2020	124.22
35685	BAWSCA	BAY AREA WATER SUPPLY & CONSER	03/19/2020	4,130.36
35686	BPLANDSC	BAY POINTE LANDSCAPE	03/19/2020	3,100.00
35687	CALSTEAM	CAL-STEAM	03/19/2020	48.59
35688	CARQUEST	CARQUEST AUTO PARTS	03/19/2020	34.01
35689	CINTS	CINTAS CORPORATION	03/19/2020	556.60
35690	DFS	DOCUMENT FULFILLMENT SERVICES	03/19/2020	2,745.33
35691	EUROFINS	EUROFINS EATON ANALYTICAL, LLC	03/19/2020	690.00
35692	GRANITE	GRANITE ROCK, INC.	03/19/2020	1,349.57
35693	HOMEDPC	HOME DEPOT	03/19/2020	252.51
35694	INDORAIR	INDOOR AIR DESIGN, INC.	03/19/2020	200.00
35695	KIMBALLM	KIMBALL MIDWEST, INC.	03/19/2020	370.92
35696	KOFFASSO	KOFF & ASSOCIATES INC	03/19/2020	402.00
35697	PACWEST	PACIFIC WEST SECURITY, INC.	03/19/2020	1,866.00
35698	PG&E	PG&E CFM/PPC DEPT	03/19/2020	13,395.93
35699	PINA	CANDY PINA	03/19/2020	100.00
35700	RRINDUST	R&R INDUSTRIES, INC.	03/19/2020	158.81
35701	RMORGAN	RAY MORGAN COMPANY	03/19/2020	4,780.05
35703	RANDB	ROBERTS & BRUNE CO. INC.	03/19/2020	4,965.80
35704	RUDOCK	TAMMY RUDOCK	03/19/2020	66.00
35705	SMELECTR	SAN MATEO ELECTRIC SUPPLY	03/19/2020	130.03
35706	VALLEYOL	VALLEY OIL COMPANY	03/19/2020	554.48

Check No	Vendor No	Vendor Name	Check Date	Check Amount
100755	DAVIDSON	JOHN T. DAVIDSON OR DBA JRocket77	03/19/2020	2,610.00
100756	PAKPOUR	PAKPOUR CONSULTING GROUP, INC	03/19/2020	6,307.88
100757	SCOTSMAN	WILLIAMS SCOTSMAN	03/19/2020	583.16
100758	SPRIBROK	SPRINGBROOK SOFTWARE LLC	03/19/2020	3,523.00
Total for 3/19/2020:				57,030.27
Report Total (123 checks):				912,507.77

Accounts Payable

Checks by Date - Summary by Check Date

User: candyp
Printed: 4/14/2020 3:18 PM



Check No	Vendor No	Vendor Name	Check Date	Check Amount
1132	HYDROENC	HYDROSCIENCE ENGINEERS INC.	03/23/2020	4,645.00
1133	PAKPOUR	PAKPOUR CONSULTING GROUP, INC	03/23/2020	7,498.31
1134	STOLOSKI	STOLOSKI & GONZALEZ, Inc.	03/23/2020	32,008.44
1135	VALICOOP	VALI COOPER & ASSOCIATES, INC.	03/23/2020	3,960.00
1136	WESTYOST	WEST YOST ASSOCIATES	03/23/2020	3,898.95
100759	CALPERS	CALPERS	03/23/2020	3,819.23
100760	CALPERS	CALPERS	03/23/2020	337.35
Total for 3/23/2020:				56,167.28
35707	ATT60197	AT&T 60197	03/26/2020	1,198.47
35708	BILBAOHE	HENRY BILBAO	03/26/2020	53.75
35709	COMCAST	COMCAST	03/26/2020	625.66
35710	COMCASTB	COMCAST BUSINESS	03/26/2020	627.15
35711	CONTROLF	CONTROL FIRE INC.	03/26/2020	53.75
35712	KANAKISD	KANAKIS DEMETRIOS	03/26/2020	386.35
35713	DFS	DOCUMENT FULFILLMENT SERVICES	03/26/2020	185.20
35714	DUKLETHK	KARI DUKLETH	03/26/2020	53.75
35715	EPSTEIND	DANIEL EPSTEIN	03/26/2020	1,853.83
35716	FUHAONIN	HAONING FU	03/26/2020	6,193.24
35717	GRANITE	GRANITE ROCK, INC.	03/26/2020	2,746.87
35718	INFINIUM	INFINIUM SOLAR, INC.	03/26/2020	2,795.00
35719	UB*00428	NELSON LEE	03/26/2020	1,199.66
35720	MAOBILL	BILL MAO	03/26/2020	53.75
35721	PG&E	PG&E CFM/PPC DEPT	03/26/2020	16,447.74
35722	PIT71896	PITNEY BOWES 371896	03/26/2020	327.86
35723	PRECISE	PRECISE, INC.	03/26/2020	3,500.10
35724	RMORGAN	RAY MORGAN COMPANY	03/26/2020	594.04
35725	RECOLOGY	RECOLOGY SAN MATEO	03/26/2020	718.88
35726	RANDB	ROBERTS & BRUNE CO. INC.	03/26/2020	3,648.59
35727	SANDIEAR	SANDIE ARNOTT	03/26/2020	3,690.41
35728	SEACONST	SEA CONSTRUCTION, INC.	03/26/2020	1,809.50
35729	STANDINS	STANDARD INSURANCE COMPANY	03/26/2020	1,210.24
35730	STEPFORD	STEPFORD BUSINESS, INC.	03/26/2020	280.00
35731	TAMMICHE	MICHELLE TAM	03/26/2020	6,919.16
35732	TOWNEFOR	TOWNE FORD SALES	03/26/2020	486.04
35733	VALLEYOL	VALLEY OIL COMPANY	03/26/2020	1,163.75
100778	EUROFINS	EUROFINS EATON ANALYTICAL, LLC	03/26/2020	400.00
100779	HANSONBR	HANSON, BRIDGETT	03/26/2020	5,978.00
100796	CALPERS	CALPERS	03/26/2020	191.43
Total for 3/26/2020:				65,392.17
100771	CALPERS	CALPERS	03/28/2020	3,819.23
100772	CALPERS	CALPERS	03/28/2020	337.35
100773	ICMACONT	ICMA contributions	03/28/2020	1,684.62
100774	HEALTHSEQ	Health Equity	03/28/2020	317.00

Check No	Vendor No	Vendor Name	Check Date	Check Amount
100775	HEALTHEQ	Health Equity	03/28/2020	59.00
100776	ADPPAYRL	adp	03/28/2020	16,516.74
100777	ADPPAYRL	adp	03/28/2020	8,089.83
Total for 3/28/2020:				30,823.77
100780	CALPERS	CALPERS	03/31/2020	7,554.86
100781	CALPERS	CALPERS	03/31/2020	662.54
100782	HEALTHEQ	Health Equity	03/31/2020	550.84
100783	ICMACONT	ICMA contributions	03/31/2020	624.64
100784	ADPPAYRL	adp	03/31/2020	34,650.02
100785	ADPPAYRL	adp	03/31/2020	15,229.20
Total for 3/31/2020:				59,272.10
100786	SFWATER	SAN FRANCISCO WATER DEPT	04/02/2020	448,890.20
Total for 4/2/2020:				448,890.20
35734	ACWA5661	ACWA JPIA	04/07/2020	42,015.45
35735	ATT60197	AT&T 60197	04/07/2020	83.61
35736	LEITHNER	RON LEITHNER	04/07/2020	155.00
35737	NORTHTSAF	NORTHERN SAFETY CO. INC.	04/07/2020	182.21
35738	SPCECRFT	SPACECRAFT	04/07/2020	2,000.00
35739	STEPFORD	STEPFORD BUSINESS, INC.	04/07/2020	3,000.00
35740	TMOBILE	T-MOBILE	04/07/2020	31.75
35741	POSTALUS	U.S. POSTAL SERVICE	04/07/2020	326.00
35742	VERIZON	VERIZON WIRELESS	04/07/2020	829.63
100787	BADGERMT	BADGER METER	04/07/2020	3,212.23
100788	DAVIDSON	JOHN T. DAVIDSON OR DBA JRocket77	04/07/2020	3,110.00
100789	LIFTOFFD	LIFTOFF DIGITAL	04/07/2020	450.00
Total for 4/7/2020:				55,395.88
Report Total (63 checks):				715,941.40



AGENDA ITEM NO. 5.C.

DATE: April 23, 2020
TO: Board of Directors
FROM: Tammy Rudock, General Manager

SUBJECT: APPROVE RESOLUTION 2020-04 AUTHORIZING AN AMENDMENT TO THE PIPELINE EASEMENT AGREEMENT BETWEEN THE MPWD AND SUTTER BAY MEDICAL FOUNDATION D/B/A PALO ALTO MEDICAL FOUNDATION FOR HEALTHCARE, RESEARCH AND EDUCATION (SAN CARLOS CENTER)

RECOMMENDATION

Approve Resolution 2020-04.

FISCAL IMPACT

There have been legal, engineering, and surveying costs involved in developing the amended agreement, legal description, and map, and assisting staff in negotiations with PAMF totaling approximately \$10,000.

BACKGROUND

The attached Pipeline Easement Agreement dated June 13, 2012 was entered into by and between the MPWD and Sutter Bay Medical Foundation d/b/a Palo Alto Medical Foundation (PAMF) for Healthcare, Research and Education (San Carlos Center), a California nonprofit, public benefit corporation. The Easement was recorded on July 12, 2012 in San Mateo County, California, as Instrument No. 2012-098336.

DISCUSSION

As previously reported to the Board, staff, along with the District Engineer and District Counsel, has been working with staff at PAMF to negotiate an amended pipeline easement for the MPWD's State Route 101 Crossing/Water Main Construction Project at PAMF for the past two (2) years. That because there were trees planted and growing within the MPWD's pipeline easement on the PAMF property in San Carlos when the MPWD engineering design team for the project started working a couple of years ago. The estimated cost to remove the trees within the easement would have added approximately \$250,000 to the MPWD's project cost. And, of course, PAMF did not desire to have the trees removed since they serve as a shield between its property and the neighboring PG&E property.

Both teams for the MPWD and PAMF negotiated to relocate the water pipeline easement out into PAMF's maintenance road. That required an Amended Pipeline Easement Agreement,

which is attached for reference. The amended agreement was developed by District Counsel and approved by PAMF's legal counsel. The legal description and map were prepared by a surveyor consulting with the MPWD's project design engineer (West Yost Associates) and verified by the District Engineer.

Attachments: Resolution 2020-04
Pipeline Easement Agreement between MPWD and PAMF dated June 13, 2012
Amended Pipeline Easement Agreement between MPWD and PAMF dated April 23, 2020

BOARD ACTION: APPROVED:____ DENIED:____ POSTPONED:____ STAFF DIRECTION:____
UNANIMOUS____ ZUCCA____ SCHMIDT____ WHEELER____ WARDEN____ VELLA____

RESOLUTION NO. 2020-04

**AUTHORIZING AN AMENDMENT TO THE PIPELINE EASEMENT AGREEMENT
BETWEEN THE MPWD AND SUTTER BAY MEDICAL FOUNDATION D/B/A
PALO ALTO MEDICAL FOUNDATION FOR HEALTHCARE, RESEARCH AND EDUCATION
(SAN CARLOS CENTER)**

*** * ***

MID-PENINSULA WATER DISTRICT

WHEREAS, a Pipeline Easement Agreement dated June 13, 2012 (Easement) was entered into by and between the Mid-Peninsula Water District (MPWD) and Sutter Bay Medical Foundation d/b/a Palo Alto Medical Foundation (PAMF) for Healthcare, Research and Education (San Carlos Center), a California nonprofit, public benefit corporation; and

WHEREAS, the Easement was recorded on July 12, 2012, in San Mateo County, California, as Instrument No. 2012-098336; and

WHEREAS, Section 9 of the Easement requires that any amendment to the agreement be in writing between the parties; and

WHEREAS, the Board of Directors (Board) adopted the MPWD Comprehensive System Analysis and Capital Improvement Program (CIP), FY 2016/2017 Update, and authorized the MPWD 5-Year CIP for Fiscal Years 2016/2017 through 2020/2021 at its May 26, 2016, regular meeting; and

WHEREAS, the authorized MPWD 5-year CIP for Fiscal Years 2016/2017 through 2020/2021 included a project entitled State Route 101 Crossing and Water Main Construction at PAMF in San Carlos (Project), which was to be constructed within the MPWD's pipeline easement on PAMF property; and

WHEREAS, during engineering design of the Project it was determined by the MPWD and PAMF that the easement needed to be relocated to avoid significant additional project costs and elimination of trees planted by PAMF and growing within the MPWD's pipeline easement; and

WHEREAS, the MPWD proposed an Amended Pipeline Easement Agreement for the relocated easement on the PAMF property in San Carlos, which was reviewed and approved by PAMF; and

WHEREAS, the General Manager recommended the Board authorize an Amended Pipeline Easement Agreement, which was presented to the Board of Directors at its regular meeting on April 23, 2020.

NOW, THEREFORE, BE IT RESOLVED that the Board of Directors of the Mid-Peninsula Water District hereby authorizes an Amendment to the Pipeline Easement Agreement between the MPWD and Sutter Bay Medical Foundation d/b/a PAMF in San Carlos.

REGULARLY PASSED AND ADOPTED this 23rd day of April 2020.

AYES:

NOES:

ABSTENTIONS:

ABSENCES:

PRESIDENT

ATTEST:

BOARD SECRETARY

RECORDING REQUESTED BY AND
WHEN RECORDED, MAIL TO:

Mid-Peninsula Water District
3 Dairy Lane
P.O. Box 129
Belmont, CA 94002
Attention: General Manager

2012-098336

2:03 pm 07/12/12 AG Fee: 48.00

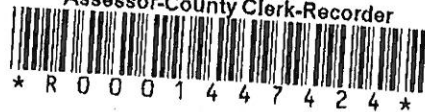
Count of Pages 12

Recorded in Official Records

County of San Mateo

Mark Church

Assessor-County Clerk-Recorder



* R 0 0 0 1 4 4 7 4 2 4 *

SPACE ABOVE THIS LINE FOR RECORDING USE

PIPELINE EASEMENT AGREEMENT

This PIPELINE EASEMENT AGREEMENT ("Agreement"), dated as of 6/13/12, 2012 is made by and between by and between PALO ALTO MEDICAL FOUNDATION FOR HEALTHCARE, RESEARCH AND EDUCATION (SAN CARLOS CENTER), a California nonprofit, public benefit corporation ("Grantor"), and MID-PENINSULA WATER DISTRICT, a public corporation organized under the provisions of Division 12 of the Water Code of the State of California, ("Grantee") (each a "Party" and collectively, the "Parties"). **No consideration for this transfer. Document transfer fee - \$0.00**

RECITALS

- A. The Parties are executing concurrently herewith a Water Service Agreement ("WSA") providing for the design, installation and maintenance of a water system that will connect Grantor's San Carlos Center Project ("Project") to Grantee's existing water system.
- B. The WSA provides that Grantor will confer upon Grantee a non-exclusive easement along the north side of the Project for the construction, installation and maintenance of an underground water pipeline.
- C. The Parties intend that the foregoing requirement of the WSA be satisfied in accordance with the provisions, terms and conditions of this Agreement.

AGREEMENT

NOW, THEREFORE, in consideration of the foregoing recitals, the mutual covenants contained herein, and other good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, the Parties agree as follows:

1. **Grant of Easement.** Grantor hereby grants to Grantee, and its successors and assigns, a perpetual, irrevocable, non-exclusive easement and right of way in gross (the "Easement") in, on, over, under, along and across that certain fifteen-foot (15') wide strip of land and that certain approximate forty-foot by forty-foot (40' x 40') area at the northeast corner of Grantor's property (collectively, the "Right of Way"), a legal description for which is set forth at **Exhibit A**, and a map of which is set forth at **Exhibit B**, attached hereto and incorporated herein,

for the purposes of laying, constructing, installing, and thereafter of operating, maintaining, inspecting, altering, improving, repairing, reconstructing, replacing, and removing an underground pipeline, meter boxes, valves, pumps, vents and related facilities (collectively, "Water Pipeline Facilities"), as needed, for the transportation of water across and through the Right of Way.

2. Ownership of Property. Grantor represents and warrants to Grantee that it owns the land within the Right of Way in fee simple, subject only to outstanding encumbrances, if any, which Grantor represents and warrants do not prevent the purposes of this Agreement, now of record in the county in which the Right of Way is located and that it acquired title to and is the current lawful owner of the land located within the Right of Way.

3. Terms and Conditions of Easement.

a. Installation During Construction of the Project. In addition to the purposes set forth above, Grantee may elect, at a time during construction of the Project that is mutually acceptable to the Parties to install a pipe, capped for future use under the terms of this Agreement if Grantee so chooses, within the Right of Way to allow Grantee to connect that pipe to Grantee's water supply system in the future without the need to excavate the entire Right of Way after completion of construction of the Project.

b. Grantee's Use. Grantee's Water Pipeline Facilities shall not interfere with Grantor's use of Grantor's property contiguous to and within the Right of Way, subject to the limits contained herein. Grantee must minimize impacts to Grantor's property whenever it engages in any activity permitted by this Agreement. In the event of any future construction, maintenance, repair, replacement or improvement to the Water Pipeline Facilities authorized by this Agreement, Grantee shall restore the surface of the property, including any landscape or paving, to the same condition it was in before such construction, maintenance, repair, replacement or improvement took place.

c. Non-Exclusive. The Easement shall be non-exclusive, except that Grantor shall not place or permit to be placed any building or other permanent structure within the Right of Way. Grantor's installation of landscape and paving within the Right of Way shall not be construed as impairing Grantee's rights hereunder. Grantor shall not conduct or permit any activity, nor grant any rights to any third party, on or in the Right of Way or the Grantor's property, that would unreasonably interfere with Grantee's use or enjoyment of the Easement and appurtenant rights granted to Grantee under this Agreement

d. Termination. If within twenty-five (25) years of the date of recordation of this Agreement, Grantee does not connect a pipeline, whether installed during construction of the Project or in the future, that makes use of the Right of Way, Grantor may request in writing to Grantee that the Easement be terminated. Upon receipt of such request, District will execute and deliver to Developer a recordable quitclaim of the Easement, and any District facilities then present within the Right of Way shall become Developer's property. Notwithstanding the foregoing, Grantee may exercise an option, in writing, under the terms of the WSA, to extend the Easement for an additional ten (10) years. If Grantee exercises that option, the Parties will execute and record a notice to that effect. If after exercising the option,

Grantee has not connected a pipeline within the additional ten (10) years, Grantor may request in writing to Grantee that the Easement be terminated. Upon receipt of such request, District will execute and deliver to Developer a recordable quitclaim of the Easement, and any District facilities then present within the Right of Way shall become Developer's property.

e. Incidental Easement Rights. The Easement includes all incidental and appurtenant surface and subsurface rights and easements of access, ingress and egress, construction, maintenance, inspection, installation, connection, repair, and replacement reasonably necessary and appropriate to the uses of the Easement, including but not limited to the rights of ingress and egress over and across adjacent portions of Grantor's property, at convenient points and in such a manner as not to impair Grantor's use of its adjacent property, for the enjoyment of the uses, rights and privileges granted under this Agreement.

4. Exercise of Rights. The rights granted hereunder to Grantee may be used and exercised by Grantee and its employees, licensees, agents, representatives, contractors, subcontractors, materialmen and consultants.

5. Grantee's Entry Upon Grantor's Property. Any entry by Grantee upon Grantor's property shall be performed with due care and in accordance with standard safety and security requirements applicable to such activities, including without limitation, complying with standard requirements to prevent injury or adverse impacts to or upon Grantor's property.

6. Indemnification and Hold Harmless. To the extent allowed by law, Grantee agrees to hold and save Grantor and its employees, agents, successors and assigns harmless from and indemnify Grantor and its employees, agents, successors and assigns against any claims, demands, damages, costs, injuries, or liabilities of any kind which may arise as the result of Grantee's exercise of its rights pursuant to this Agreement. Grantor's indemnity rights include, without limitation, its costs of defense against such claims, demands, or liability, and the right to be defended by counsel of its choice.

7. Insurance. Prior to performing any work covered by this insurance clause, Grantee or its contractors shall acquire and maintain insurance coverage during the time the work is performed with an insurer acceptable to Grantor, naming Grantor and Grantor's and its employees, agents, successors and assigns as additional insureds (excluding workers' compensation and professional liability insurance). The limits of insurance shall not limit the liability of Grantee hereunder.

a. Covered Work. The work covered by this insurance clause includes any construction, installation, operation, maintenance, inspection, alteration, improvement, repair, reconstruction, replacement or removal of Water Pipeline Facilities that involves surface disturbance exceeding an area of one cubic yard or the presence of heavy equipment at the Project site for a period of time exceeding eight (8) hours.

b. Term. Policies of insurance shall be for a period of time sufficient to encompass the work covered by this insurance clause. If Grantee fails to procure and maintain said insurance, Grantor may, but shall not be required to, procure and maintain the same, and the premiums of such insurance shall be paid by Grantee to Grantor upon demand.

c. Minimum Scope of Insurance. Grantee or its contractors shall procure the following insurance forms:

(1) Insurance Services Office (ISO) Commercial General Liability Occurrence form number CG 0001 or equivalent ISO form. A non-ISO form must be reviewed and approved by Grantor's Risk Manager prior to acceptance of the Agreement.

(2) ISO Business Auto Coverage form number CA 0001 0187 covering Automobile Liability, code 1 "any auto" and Endorsement CA 0029.

d. Minimum Limits of Insurance. Grantee or its contractors shall maintain limits no less than:

(1) Commercial General Liability: One Million Dollars (\$1,000,000) combined single limit per occurrence for bodily injury, personal injury and property damage. If Commercial General Liability Insurance of other form with general aggregate limit is used, either the general aggregate limit shall apply separately to this Agreement or the general aggregate limit shall be twice the required occurrence limit.

(2) Automobile Liability: \$1,000,000 combined single limit per accident for bodily injury or property damage.

e. Contractors. Coverages for contractors shall be subject to all of the requirements stated herein. If Grantee requires its contractors to provide insurance coverage, then Grantee shall be named as an additional insured under such policies (excluding worker's compensation and professional liability insurance).

f. Deductibles and Self-Insured Retentions. Except as otherwise provided in this Agreement, any deductibles or self-insured retentions in excess of Ten thousand dollars (\$10,000.00) must be declared to and approved by Grantor. At the option of Grantor, either the insurer shall reduce or eliminate such deductions or self-insured retentions as respects Grantor, its officials, employees and agents; or, Grantee shall procure a bond provision guaranteeing payment of losses and related investigations, claim administration and defense expenses.

g. Verification of Coverage. Grantee shall furnish Grantor with Certificates of Insurance and with original endorsements effecting coverage required by this clause. The certificate(s) and endorsement(s) for each insurance policy are to be signed by a person authorized by the insurer to bind coverage on its behalf, and shall be approved by Grantor before work commences.

8. Recording. Grantor shall record this Agreement in the Official Records of the County of San Mateo, California, and may re-record it at any time.

9. Amendments. This Agreement may only be amended in writing by an amendment hereto executed by Grantor or its successors or assigns and Grantee or its successors and assigns and recorded in the Official Records of the County of Santa Clara, California.

10. Successors and Assigns. This Agreement shall be binding upon and inure to the benefit of the respective heirs, administrators, executors, legal representatives, successors and assigns of the parties hereto.

11. Inurement, Benefit, Binding Effect. This Agreement shall inure to the benefit of and shall be binding upon the executors, administrators, heirs, successors and assigns of the parties and shall be and are covenants running with the land and equitable servitudes binding upon the Right of Way and every person having any fee, leasehold or other interest therein. The covenants and agreements of Grantor set forth in this Agreement are established for the mutual benefit of Grantee and Grantor, shall be covenants running with the land pursuant to applicable law, are intended to comply with the requirements of Section 1468 of the California Civil Code or any similar statute in effect from time to time, and will apply to and be binding on Grantor and any parties having or acquiring any right, title or interest in the Right of Way or any part thereof. This Agreement is not intended to grant rights to the public in general.

12. Governing Law. The rights and obligations of the parties and the interpretation and performance of this Agreement shall be governed by the law of the State of California, excluding its conflict of laws rules.

13. Entire Agreement. This Agreement and any agreement referenced herein constitute the entire agreement between the Parties, all oral agreements being merged herein, and supersedes all prior representations. There are no representations, agreements, arrangements, or understandings, oral or written, between or among the parties relating to the subject matter of this Agreement that are not fully expressed herein.

14. Attorneys' Fees. If the services of an attorney are required by any party to secure the performance of this Agreement or otherwise upon the breach or default of another party, or if any judicial remedy or arbitration is necessary to enforce or interpret any provision of this Agreement or the rights and duties of any person in relation thereto, the prevailing party shall be entitled to reasonable attorneys' fees, costs and other expenses, in addition to any other relief to which such party may be entitled.

15. No Waiver. Failure by either party to enforce any covenant, restriction or other provision of this Agreement or to seek redress for the breach of or default in performance under any such covenant, restriction or other provision of this Agreement shall in no way constitute a waiver of the right to enforce such covenant, restriction or provision of this Agreement or seek redress for the breach thereof. The waiver by either party hereto of a breach of any provision of this Agreement shall not be deemed a continuing waiver or a waiver of any subsequent breach of the same or any other provision hereof.

16. Severability. In the event any term or provision of this Agreement shall be held to be unenforceable for any reason whatsoever by any court of competent jurisdiction, such holding shall not invalidate or render unenforceable any other term or provision hereof.

17. Further Assurances. From and after the execution, delivery and recordation of this Agreement, each party shall cooperate with the other party in taking such actions, executing such instruments and granting such rights as may be reasonably necessary to effectuate the purposes of the parties in entering into this Agreement and to perfect the rights granted hereunder.

18. Construction/Exhibits. The captions in this Agreement are provided solely for convenience of reference and are not part of this Agreement and shall have no effect on its construction or interpretation. Unless otherwise indicated, all references to paragraphs, sections, subparagraphs and subsections are to this Agreement. All exhibits referred to in this Agreement are attached and incorporated herein by this reference.

19. Capacity. Each individual executing this Agreement in a capacity other than individually, acknowledges and warrants that he or she has full power and authority to enter into this Agreement in such other capacity and on behalf of the person or entity identified with their signature and that this Agreement shall be binding upon such person or entity.

20. Counterparts. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. This Agreement shall not be effective until the execution and delivery between each of the parties of at least one set of counterparts. The parties authorize each other to detach and combine original signature pages and consolidate them into a single identical original. Any one of such completely executed counterparts shall be sufficient proof of this Agreement.

The Parties have executed this Agreement as of the date set forth above.

GRANTOR:

PALO ALTO MEDICAL FOUNDATION

By: 

Name: Richard Slavov, MD

Title: CEO

GRANTEE:

MID-PENINSULA WATER DISTRICT

By: 

Name: Paul K. Ryan

Title: General Manager

APPROVED AS TO FORM:

MID-PENINSULA WATER DISTRICT

By: 

Attorney for District

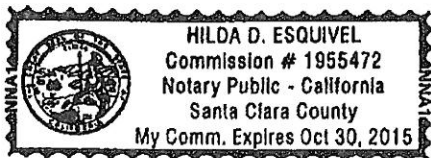
ACKNOWLEDGMENTS

STATE OF CALIFORNIA)
COUNTY OF SANTA CLARA) ss.

On JUNE 13, 2012, before me, HILDA D. ESQUIVEL, a Notary Public in and for the State of California, personally appeared RICHARD SLAVIN, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument, and acknowledged to me that he ~~or she~~ executed the same in his ~~or her~~ authorized capacity and that, by his ~~or her~~ signature on the instrument, the person or the entity upon behalf of which he ~~or she~~ acted, executed the instrument.

I certify UNDER PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.



Hilda D. Esquivel
Notary Public in and for said State

STATE OF CALIFORNIA)
COUNTY OF _____) ss.

On _____, 2012, before me, _____, a Notary Public in and for the State of California, personally appeared _____, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument, and acknowledged to me that he or she executed the same in his or her authorized capacity and that, by his or her signature on the instrument, the person or the entity upon behalf of which he or she acted, executed the instrument.

I certify UNDER PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Notary Public in and for said State

EXHIBIT A

LEGAL DESCRIPTION OF RIGHT OF WAY



ENGINEERS
SURVEYORS
PLANNERS

July 29, 2011

LEGAL DESCRIPTION

All that real property situate in the City of San Carlos, County of San Mateo, State of California, being a portion of Parcel 1, as said parcel is shown on that certain Parcel Map, filed for record on April 5, 1973, in Book 20 of Parcel Maps, at Page 23, in the Office of the Recorder for the County of San Mateo, State of California, being more particularly described as follows:

BEGINNING at the westerly corner of said Parcel 1 as shown on said map; thence northeasterly along the northwesterly line of said parcel, North $47^{\circ}51'36''$ East, 752.91 feet to the northerly corner of said parcel; thence southeasterly along the northeasterly line of said parcel, South $37^{\circ}56'04''$ East, 40.11 feet; thence leaving said northeasterly line, South $47^{\circ}51'36''$ West, 40.00 feet; thence North $42^{\circ}08'24''$ West, 25.00 feet; thence South $47^{\circ}51'36''$ West, 709.97 feet to a point on the southwesterly line of said parcel; thence northwesterly along said southwesterly line, North $42^{\circ}08'24''$ West, 15.00 feet to the POINT OF BEGINNING and containing an area of 12,308 square feet, more or less.

A plat showing the above-described lands is attached herein and made a part hereof.

This description was prepared by me or under my direction in conformance with the Professional Land Surveyors' Act.

Charles R. Ciardi
Charles R. Ciardi, PLS 7321

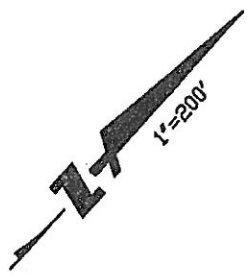


7/29/11
Dated

END OF DESCRIPTION

EXHIBIT B

MAP OF RIGHT OF WAY



TAYLOR BLVD.

INDUSTRIAL WAY

N42°08'24"W 1153.65'

POINT OF
BEGINNING

N47°51'36"E 752.91'

S37°56'04"E
40.11'

N42°08'24"W 15.00'
S47°51'36"W 709.97'

N42°08'24"W
25.00'

S47°51'36"W
40.00'

DESCRIBED
AREA

12,308 S.F.±

PARCEL 1

20 PM 23

BAYSHORE HIGHWAY

N37°56'04"W 739.82'

R=447.00'
Δ=33°54'48"
L=264.58'

R=553.00'
Δ=02°38'41"
L=25.53'

N46°51'36"E
476.39'

182.93'
N04°01'16"W



255 SHORELINE DR
SUITE 200
REDWOOD CITY, CA 94065
650-482-6300
650-482-6399 (FAX)

Subject _____

Job No. 20080142-10

By CRM Date 7/27/11 Chkd. CRC

SHEET 1 OF 1

2011-07-27 Plat.txt

Parcel name: Described Area

North: 5876.1761	East : 9308.4244
Line Course: N 47-51-36 E	Length: 752.91
North: 6381.3369	East : 9866.7129
Line Course: S 37-56-04 E	Length: 40.11
North: 6349.7015	East : 9891.3709
Line Course: S 47-51-36 W	Length: 40.00
North: 6322.8637	East : 9861.7106
Line Course: N 42-08-24 W	Length: 25.00
North: 6341.4014	East : 9844.9370
Line Course: S 47-51-36 W	Length: 709.97
North: 5865.0510	East : 9318.4888
Line Course: N 42-08-24 W	Length: 15.00
North: 5876.1736	East : 9308.4247

Perimeter: 1582.99 Area: 12,308 sq.ft. 0.28 acres

Mapcheck Closure - (Uses listed courses, radii, and deltas)

Error Closure: 0.0025 Course: S 05-56-23 E

Error North: -0.00246 East : 0.00026

Precision 1: 633,196.00



**RECORDING REQUESTED BY
AND WHEN RECORDED MAIL TO:**

Hanson Bridgett LLP
425 Market Street, 26th Floor
San Francisco, CA 94105
Attn: Julie A Sherman, Esq.

SPACE ABOVE THIS LINE RESERVED FOR RECORDER'S USE

**AMENDMENT
TO
PIPELINE EASEMENT AGREEMENT**

This Amendment to Pipeline Easement Agreement (this "**Amendment**") amends and modifies that certain Pipeline Easement Agreement dated June 13, 2012 (the "**Easement**") by and between Sutter Bay Medical Foundation dba Palo Alto Medical Foundation for Healthcare, Research and Education (San Carlos Center), a California nonprofit, public benefit corporation (the "**Grantor**") and Mid-Peninsula Water District, a public corporation organized under the provisions of Division 12 of the Water Code of the State of California ("**Grantee**"), and is entered into as of April 23, 2020 ("**Effective Date**"). The Easement was recorded on July 12, 2012 in San Mateo County, California, as Instrument No. 2012-098336. Except as otherwise expressly provided to the contrary herein, all defined terms shall have the meaning established in the Easement.

RECITALS

WHEREAS, pursuant to that certain Water Service Agreement ("WSA"), Grantor and Grantee entered into the Easement to grant Grantee a non-exclusive permanent access easement for ingress and egress over the Grantor Parcel to construct, install, and maintain the Water Pipeline Facilities, on the terms and conditions set forth in the Easement;

WHEREAS, pursuant to Section 9 of the Easement, the amendments contemplated by the parties must be contained in a written agreement signed by Grantor and Grantee and recorded in the appropriate recording office to be enforced; and

WHEREAS, Grantor and Grantee now desire to amend the Easement as set forth below.

AMENDMENT

NOW, THEREFORE, in consideration of the covenants and conditions set forth herein, the parties agree as follows:

1. The Right of Way described in Section 1 of the Easement shall be relocated as more particularly described in Exhibit A and Exhibit B to the Easement.

2. Exhibit A to the Easement is hereby amended and restated as attached hereto and incorporated herein.

3. Exhibit B to the Easement is hereby amended and restated as attached hereto and incorporated herein

4. Section 9 of the Easement is amended so that any amendment to the Easement will be recorded in the Official Records of the County of San Mateo, California.

5. Except as amended herein, all the terms and provisions of the Easement shall remain in full force and effect. The Easement, as modified by this Amendment, constitutes the entire agreement of the parties with respect to the subject matter thereof and supersedes all prior negotiations, commitments, representations and undertakings of the parties with respect to the subject matter hereof and thereof. In the event of any inconsistency between this Amendment and the Easement, the terms and conditions of this Amendment will control.

IN WITNESS WHEREOF, this Amendment has been executed by representatives legally authorized to execute contracts on behalf of the parties hereto as of the Effective Date.

GRANTOR:

Sutter Bay Medical Foundation dba Palo Alto Medical Foundation for Healthcare, Research and Education (San Carlos Center),
a California nonprofit, public benefit corporation

By: _____

Name: _____

Its: _____

GRANTEE:

Mid-Peninsula Water District,
a public corporation organized under the provisions of Division 12 of the Water Code of the State of California

By: _____

Name: _____

Its: _____

APPROVED AS TO FORM:

MID-PENINSULA WATER DISTRICT

By: _____

Counsel for MPWD

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)
County of)

On _____, before me, _____, a Notary Public, personally appeared _____, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)
County of)

On _____, before me, _____, a Notary Public, personally appeared _____, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____

EXHIBIT A

Legal Description of Right of Way

(Attached)

Exhibit "A"
LEGAL DESCRIPTION

All that real property situate in the City of San Carlos, County of San Mateo, State of California, being a portion of PARCEL 1 as shown on that certain PARCEL MAP filed April 5, 1973, in BOOK 20 OF PARCEL MAPS AT PAGE 23 of San Mateo County Records, more particularly described as follows:

Commencing at the south corner of said PARCEL 1 marked by 3/4" IRON PIPE as shown on said PARCEL MAP; thence along the southwesterly line of said PARCEL 1 North 40°57'57" West 1153.58 feet to the west corner of said PARCEL 1, also being the **Point of Beginning** which bears North 49°02'03" East 40.00 feet from a 3" brass disk marked LS 2756 as shown on said PARCEL MAP; thence leaving said southwesterly line, along the northwesterly line of said PARCEL 1 North 49°02'03" East 81.02 feet; thence leaving said northwesterly line South 86°07'17" East 42.09 feet; thence North 49°07'30" East 573.40 feet; thence North 25°00'26" East 28.10 feet; thence North 40°57'57" West 19.15 feet to a point on said northwesterly line; thence along said northwesterly line North 49°02'03" East 42.94 feet to the north corner of said PARCEL 1; thence along the northeasterly line of said PARCEL 1 also being the southwesterly right of way line of BAYSHORE HIGHWAY as shown on said PARCEL MAP South 36°45'37" East 40.11 feet; thence leaving said northeasterly line South 49°02'03" West 40.00 feet; thence North 40°57'57" West 4.43 feet; thence South 25°00'26" West 24.61 feet; thence South 49°07'30" West 582.78 feet; thence North 86°07'17" West 42.07 feet; thence South 49°02'03" West 74.83 feet to a point on said southwesterly line of PARCEL 1; thence along said southwesterly line North 40°57'57" West 15.00 feet to the **Point of Beginning**.

Containing 12,525 square feet or 0.29 acres, more or less.

Bearings and distances used in the above description are based upon the California Coordinate System of 1983 (2011), Epoch 2010.00 Zone 3. Divide distances shown by 0.99994 to obtain ground level distances.

This real property description has been prepared by me, or under my direction, in conformance with the Professional Land Surveyors Act.



Brandon Benton LS. 8679



March 30, 2018

Date

EXHIBIT B

Map of Right of Way

(Attached)

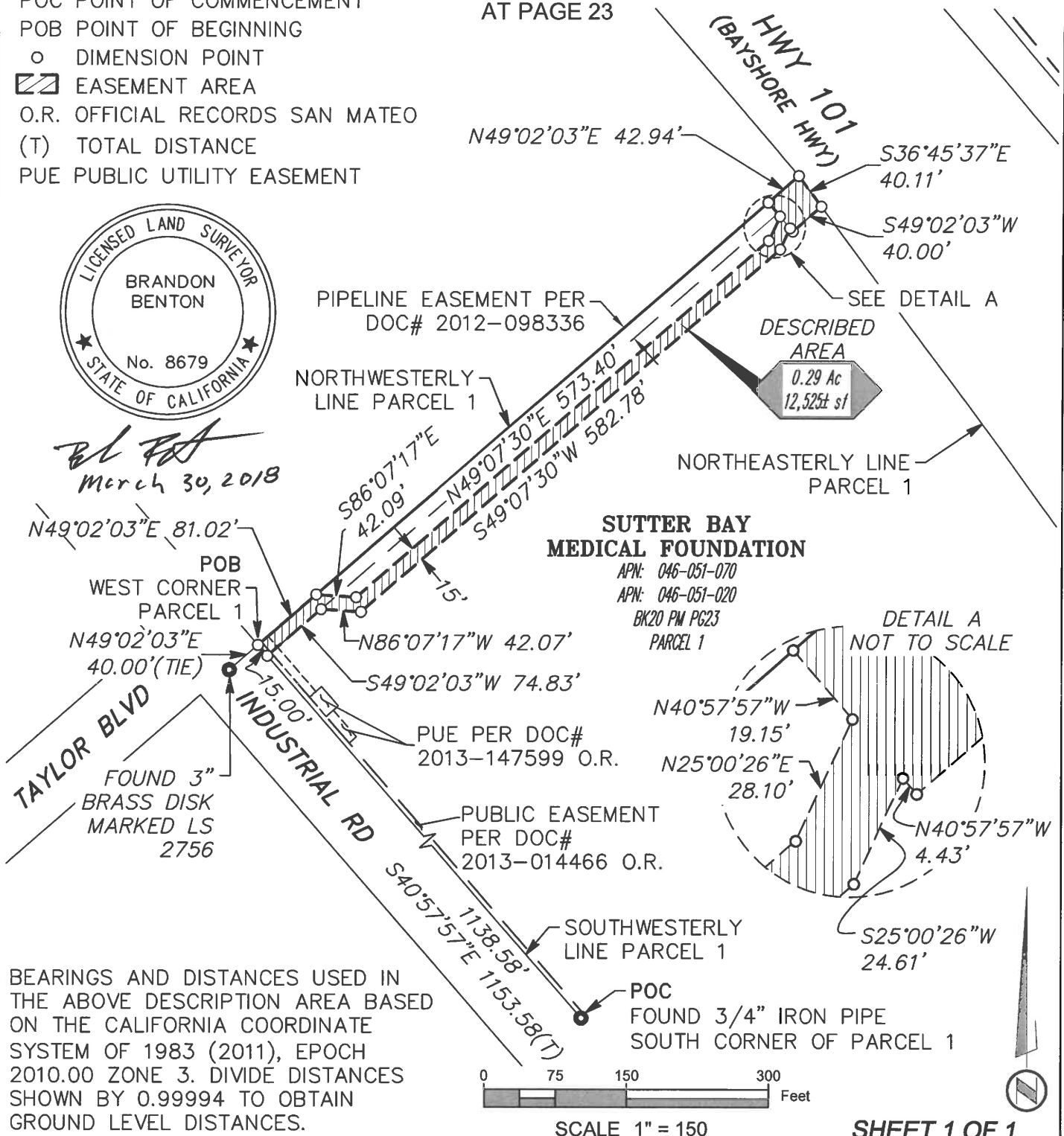
LEGEND

POC POINT OF COMMENCEMENT
 POB POINT OF BEGINNING
 o DIMENSION POINT
 [Hatched Box] EASEMENT AREA
 O.R. OFFICIAL RECORDS SAN MATEO
 (T) TOTAL DISTANCE
 PUE PUBLIC UTILITY EASEMENT



Bl
 March 30, 2018

PORTION OF PARCEL 1
 BOOK 20 OF PARCEL MAPS
 AT PAGE 23



SHEET 1 OF 1

Scale: 1" = 150'
 Date Mar. 2018
 Drawn By SMB
 Checked By SRM

Exhibit B
 APN'S 046-051-070, 046-051-020
 Plat to Accompany Legal Description
 In the City of San Carlos
 San Mateo County, California

MARK THOMAS



AGENDA ITEM NO. 5.D.

DATE: April 23, 2020
TO: Board of Directors
FROM: Rene A. Ramirez, Operations Manager

SUBJECT: APPROVE RESOLUTION NO. 2020-05 AUTHORIZING A PROFESSIONAL SERVICES AGREEMENT FOR THE BIENNIAL SYSTEM-WIDE LEAK DETECTION SURVEY, AN ESSENTIAL SERVICE, TO SUBTRONIC CORPORATION OF MARTINEZ, CA, IN THE AMOUNT OF \$49,970

RECOMMENDATION

Approve Resolution No. 2020-05.

FISCAL IMPACT

The cost for the leak survey is a budgeted item that appears every other year in the District's operations budget. For this fiscal year that cost was \$49,970.

DISCUSSION

Every other year the District conducts a leak survey of the entire system, about 93 miles of pipeline, and up to each customer's water meter. The purpose is to identify and then repair any leaks that may not surface to minimize the loss of water within the MPWD system. This survey is a prudent form of maintenance to check on the health of the distribution system. The consultant, Subtronic Corporation, is very familiar with the District's system, which provides staff with a strong level of confidence. This work is considered an essential service.

The professional services agreement is the standard form that has been approved as to form by District counsel, and will be executed by the General Manager after the Board's approval.

Attachments: Resolution No. 2020-05
Professional Services Agreement between the MPWD and Subtronic Corporation

BOARD ACTION: APPROVED:_____ DENIED:_____ POSTPONED:_____ STAFF DIRECTION:_____

UNANIMOUS_____ ZUCCA_____ SCHMIDT_____ WHEELER_____ WARDEN_____ VELLA_____

RESOLUTION NO. 2020-05

**AUTHORIZING PROFESSIONAL SERVICES AGREEMENT
FOR BIENNIAL SYSTEM-WIDE LEAK DETECTION SURVEY,
AN ESSENTIAL SERVICE, TO THE SUBTRONIC CORPORATION
OF MARTINEZ, CA, IN THE AMOUNT OF \$49,970**

* * *

MID-PENINSULA WATER DISTRICT

WHEREAS, the Mid-Peninsula Water District appropriates funding for and conducts biennial leak detection services in the operations budget as a matter of best management practices; and

WHEREAS, during the COVID-19 Shelter-In-Place Order, water system maintenance is considered an essential service; and

WHEREAS, the Subtronic Corporation is very familiar with the Mid-Peninsula Water District's water system providing a high level of confidence in their ability to complete the work effectively and efficiently.

NOW, THEREFORE, BE IT RESOLVED that the Board of Directors of the Mid-Peninsula Water District authorizes a professional services agreement to the Subtronic Corporation of Martinez, CA in the amount of \$49,970 to conduct a biennial leak detection survey.

REGULARLY PASSED AND ADOPTED this 23rd day of April 2020.

AYES:

NOES:

ABSTENTIONS:

ABSENCES:

PRESIDENT

ATTEST:

SECRETARY OF THE BOARD

PROFESSIONAL SERVICES AGREEMENT

THIS AGREEMENT is made as of this 12th day of March 2020, by and between MID-PENINSULA WATER DISTRICT, a public agency ("DISTRICT") and Subtronic Corporation, a California corporation ("CONSULTANT").

WHEREAS, the DISTRICT desires to obtain professional services in conjunction with the acoustic water leak survey Project; and

WHEREAS, the CONSULTANT is ready, willing and able to furnish such services and has submitted a Proposal dated March 6, 2020, which is attached hereto and incorporated herein as Exhibit A.

NOW, THEREFORE, THE PARTIES AGREE AS FOLLOWS:

1. PROVISION OF SERVICES

The CONSULTANT agrees to provide professional services to DISTRICT in accordance with the terms and conditions of this Agreement. In the performance of its Services, CONSULTANT represents that it has and will exercise that degree of professional care, skill, efficiency and judgment ordinarily employed by consultants providing similar services. CONSULTANT further represents and warrants that it holds currently in effect all licenses, registrations, and certifications in good standing that may be required under applicable law or regulations to perform these services and agrees to retain such licenses, registrations, and certifications in active status throughout the duration of this engagement.

2. SCOPE OF WORK

The scope of CONSULTANT's work shall be as set forth in Exhibit A. Otherwise, the terms of this Agreement shall control over any contrary provisions of Exhibit A.

3. TERM

This Agreement will commence upon its Effective Date and shall continue until the services set forth in Section 2 are successfully completed, as determined by the DISTRICT. It is understood that the term of this Agreement is subject to the DISTRICT's right to terminate the Agreement in accordance with Section 13 of this Agreement.

4. CONTRACT AMOUNT

The CONSULTANT shall perform all work set forth in Section 2 of this Agreement for a total sum not to exceed \$49,970.00 including all labor, materials, taxes, insurance, subcontractor / subconsultant costs, overhead, profit, and all other costs and expenses incurred by CONSULTANT.

5. MANNER OF PAYMENT

The CONSULTANT shall submit monthly invoices as CONSULTANT completes work,

and the invoices shall describe the work completed during the billing period, who performed the services, their applicable hourly rate, and all out-of-pocket costs and subcontractor / subconsultant payments, if any. The DISTRICT shall review and approve the invoices and shall pay approved invoices within thirty (30) days of DISTRICT's approval.

All invoices should be sent to: Mid-Peninsula Water District
3 Dairy Lane
P.O. Box 129
Belmont, CA 94002
ATTENTION: Tammy Rudock, General Manager

6. CONSULTANT'S KEY PERSONNEL

It is understood and agreed by the parties that at all times during the term of this Agreement that Stephanie Mauler shall serve as the primary staff person of CONSULTANT to undertake, render and oversee all of the services under this Agreement.

7. DISTRICT REPRESENTATIVE

Except when approval of other action is required to be given or taken by the Board of Directors of the DISTRICT, the General Manager of the DISTRICT, or such person or persons as the General Manager may designate in writing from time to time, shall represent and act for the DISTRICT.

8. CONSULTANT'S STATUS

Neither the CONSULTANT nor any party contracting with the CONSULTANT shall be deemed to be an agent or employee of the DISTRICT. The CONSULTANT is and shall be an independent contractor, and the legal relationship of any person performing services for the CONSULTANT shall be one solely between said parties.

9. OWNERSHIP OF WORK

A. All reports, designs, drawings, plans, specifications, schedules, and other materials prepared by CONSULTANT under this Agreement ("Work Product") shall be the property of DISTRICT.

B. CONSULTANT assigns to DISTRICT all right, title, and interest in and to the Work Product, including ownership of the entire copyright in the Work Product and any causes of action existing or arising in connection with the copyright to said Work Product. DISTRICT shall be entitled to access to and copies of these materials as they are being developed. Any such materials in the hands of CONSULTANT or in the hands of any subcontractor upon completion or termination of services hereunder shall be immediately delivered to DISTRICT. If any property of the DISTRICT is lost, damaged or destroyed before final delivery to the DISTRICT, the CONSULTANT shall replace it at its own expense and the CONSULTANT hereby assumes all risks of loss, damage or destruction of or to such materials. The CONSULTANT may retain a copy of all material produced under this agreement for its use in its general business activities.

10. CHANGES

The DISTRICT may, at any time, by written order, make changes within the scope of work and Services described in this Agreement. If such changes cause an increase in the budgeted cost of or the time required for performance of the agreed upon work, an equitable adjustment as mutually agreed shall be made in the limit on compensation as set forth in Section 4 or in the time of required performance as set forth in Section 3, or both. In the event that CONSULTANT encounters any unanticipated conditions or contingencies that may affect the scope of work or Services and result in an adjustment in the amount of compensation specified herein, CONSULTANT shall so advise the DISTRICT immediately upon notice of such condition or contingency. The written notice shall explain the circumstances giving rise to the unforeseen condition or contingency and shall set forth the proposed adjustment in compensation. Such notice shall be given the DISTRICT prior to the time that CONSULTANT performs work or services related to the proposed adjustment in compensation. Any and all pertinent changes shall be expressed in a written supplement to this Agreement prior to implementation of such changes.

11. RESPONSIBILITY; INDEMNIFICATION

CONSULTANT agrees to indemnify, defend and hold harmless the DISTRICT, and its directors, agents, and employees from and against all claims, losses, damages and liabilities (including reasonable attorneys fees) arising out of any injury to persons or property that may occur, or that may be alleged to have occurred, in the course of the performance of the Agreement to the extent caused by CONSULTANT's recklessness or willful misconduct; or by CONSULTANT's negligent provision or omission of services contemplated by this Agreement.

Irrespective of any language to the contrary in this Agreement or under applicable law, CONSULTANT shall have no duty to provide or fund up-front defense costs of DISTRICT against unproven claims or allegations, but shall reimburse those reasonable attorneys' fees, expert fees and all other costs and fees incurred in any judicial proceeding, litigation, arbitration, mediation or other negotiated settlement incurred by DISTRICT that are caused by the negligence, recklessness or willful misconduct of CONSULTANT, its employees, agents and subconsultants (collectively, "Defense Costs"). However, CONSULTANT shall provide its immediate cooperation, at no additional cost to the DISTRICT, to the DISTRICT in defending such claims. Moreover, CONSULTANT's responsibility for the DISTRICT's defense costs shall be limited to the proportion of CONSULTANT's responsibility for the underlying injury as determined in any judicial proceeding, litigation, arbitration, mediation, or other negotiated settlement which addressed the CONSULTANT's responsibility for the underlying injury. In the event that it is determined that the losses, injuries or damages claimed against the DISTRICT did not arise out of, pertain to, or relate to CONSULTANT's negligence, recklessness or willful misconduct, CONSULTANT shall not be responsible for any portion of the DISTRICT's defense costs. This indemnity shall survive the termination of this Agreement.

12. INSURANCE

A. Workers' Compensation: CONSULTANT shall procure and maintain at all times during the performance of such work Worker's Compensation Insurance in

conformance with the laws of the State of California and Federal laws where applicable. Employers' Liability Insurance shall not be less than One Million Dollars (\$1,000,000) per accident or disease. Prior to commencement of work hereunder, CONSULTANT shall deliver to DISTRICT a Certificate of Insurance which shall stipulate that 30 days advance written notice of cancellation, shall be given to DISTRICT.

B. Bodily Injury, Death and Property Damage Liability Insurance: CONSULTANT shall also procure and maintain at all times during the performance of this Agreement General Liability Insurance (including automobile operation) covering CONSULTANT and DISTRICT for liability arising out of the operations of CONSULTANT and any subcontractors. The policy(ies) shall include coverage for all vehicles, licensed or unlicensed, on or off DISTRICT's premises, used by or on behalf of CONSULTANT in the performance of work under this Agreement. The policy(ies) shall be subject to a limit for each occurrence of One Million Dollars (\$1,000,000) naming as an additional insured, in connection with CONSULTANT's activities, the DISTRICT, and its directors, officers, employees and agents. The Insurer(s) shall agree that its policy(ies) is Primary Insurance and that it shall be liable for the full amount of any loss up to and including the total limit of liability without right of contribution from any other insurance covering the DISTRICT.

Inclusion of the DISTRICT as additional insured shall not in any way affect its rights as respects to any claim, demand, suit or judgment made, brought or recovered against CONSULTANT. Said policy shall protect CONSULTANT and DISTRICT in the same manner as though a separate policy had been issued to each; but nothing in said policy shall operate to increase the Insurer's liability as set forth in the policy beyond the amount or amounts shown or to which the Insurer would have been liable if only one interest had been named as an insured.

Prior to commencement of work hereunder, CONSULTANT shall deliver to DISTRICT a Certificate of Insurance which shall indicate compliance with the insurance requirements of this paragraph and shall stipulate that 30 days advance written notice of cancellation, shall be given to DISTRICT.

C. Professional Liability Insurance: CONSULTANT shall also maintain Professional Liability Insurance covering CONSULTANT's performance under this Agreement with a limit of liability of One Million Dollars (\$1,000,000) per claim and in annual aggregate. Such Insurance shall be renewed annually. Prior to commencing work under this Agreement, CONSULTANT shall furnish to DISTRICT a Certificate of Insurance, or certified copy of the Insurance policy if requested, indicating compliance with requirements of this paragraph. Such certificate or policy shall further stipulate that 30 days advance written notice of cancellation, shall be given to DISTRICT.

13. TERMINATION

DISTRICT shall have the right to terminate this Agreement upon thirty (30) days written notice to the CONSULTANT. Upon receipt of such notice, the CONSULTANT shall not commit itself to any further expenditure of time or resources.

If the Agreement is terminated for any reason other than breach of a material term by

CONSULTANT, the DISTRICT shall pay to CONSULTANT all sums actually due and owing from DISTRICT for all services performed and all expenses incurred up to the day written notice of termination is given, plus any costs reasonably and necessarily incurred by CONSULTANT to effect such suspension or termination.

If CONSULTANT breaches a material term of this Agreement and fails to remedy the breach within ten (10) days after the DISTRICT notifies the CONSULTANT of the breach, the Agreement may be terminated immediately and the DISTRICT shall in such event not thereafter pay or allow to the CONSULTANT any compensation for any labor, supplies or materials furnished under this Agreement; and the DISTRICT may proceed to complete this Agreement by other means, and the CONSULTANT shall be liable to the DISTRICT for all loss or damage which it may suffer on account of the CONSULTANT's breach of this Agreement.

14. NOTICES

All communications relating to the day to day activities of the project shall be exchanged between the DISTRICT'S General Manager, or his designee, and the CONSULTANT's Project Manager.

All other notices and communications deemed by either party to be necessary or desirable to be given to the other party, except for confidential reports described in Section 6 of this Agreement, may be given by personal delivery to the representative of the parties or by mailing the same postage prepaid, addressed as follows:

If to the DISTRICT:	Mid-Peninsula Water District 3 Dairy Lane P.O. Box 129 Belmont, CA 94002 ATTENTION: Tammy Rudock, General Manager
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If to the CONSULTANT:	Subtronic Corporation 5031 Blum Rd, #2 Martinez, CA 94553 ATTENTION: Stephanie Mauler
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The address to which mailings may be made may be changed from time to time by notice mailed as described above. Any notice given by mail shall be deemed given on the day after that on which it is deposited in the United States Mail as provided above.

15. EQUAL EMPLOYMENT OPPORTUNITY

In connection with the performance of this Agreement the CONSULTANT shall not discriminate against any employee or applicant for employment because of race, religion, color, sex, gender identity, disability or national origin. The CONSULTANT shall take affirmative actions to insure that applicants are employed, and that employees are treated during their employment, without regard to their race, religion, color, sex, disability or national origin. Such actions shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms

of compensation; and selection for training, including apprenticeship. CONSULTANT further agrees to include a similar provision in all subcontracts, except subcontracts for standard commercial supplies or raw materials.

16. RECORDS

During the term of this Agreement, CONSULTANT shall permit representatives of the DISTRICT to have access to, examine and make copies, at the DISTRICT's expense, of its books, records and documents relating to this Agreement at all reasonable times.

17. DISTRICT WARRANTIES

The DISTRICT makes no warranties, representations or agreements, either express or implied, beyond such as are explicitly stated in this Agreement.

18. RELEASE OF INFORMATION

CONSULTANT shall not release any reports, information or promotional materials prepared in connection with this Agreement without the approval of the DISTRICT's General Manager.

19. USE OF SUBCONTRACTORS

CONSULTANT shall not subcontract any services to be performed by it under this Agreement without the prior written approval of the DISTRICT, except for service firms engaged in drawing, reproduction, typing and printing. CONSULTANT shall be solely responsible for reimbursing any subcontractors and the DISTRICT shall have no obligation to them.

20. ASSIGNMENT

CONSULTANT shall not assign any of the rights nor transfer any of its obligations under this Agreement without the prior written consent of the DISTRICT.

21. ATTORNEY'S COSTS

If any legal proceeding should be instituted by either of the parties hereto to enforce the terms of this Agreement or to determine the rights of the parties thereunder, the prevailing party in said proceeding shall recover, in addition to all court costs, reasonable attorney's fees.

22. APPLICABLE LAW

This Agreement, its interpretation and all work performed thereunder, shall be governed by the laws of the State of California.

23. BINDING ON SUCCESSORS

All of the terms, provisions and conditions of this Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective successors, assigns and legal

representatives. CONSULTANT shall not assign this Agreement without the prior express written approval of the DISTRICT.

24. WAIVER

Any waiver of any breach or covenant of this Agreement must be in a writing executed by a duly authorized representative of the party waiving the breach. A waiver by any of the parties of a breach or covenant of this Agreement shall not be construed to be a waiver of any succeeding breach or any other covenant unless specifically and explicitly stated in such waiver.

25. ENTIRE AGREEMENT; MODIFICATION. This Agreement, including any attachments, constitutes the entire Agreement between the parties with respect to the subject matter hereof, and supersedes any prior understanding or agreement, oral or written, with respect to such subject matter. It may not be amended or modified, except by a written amendment executed by authorized representatives by both parties. In no event will the Agreement be amended or modified by oral understandings reached by the parties or by the conduct of the parties.

26. COMPLIANCE WITH LAWS AND REGULATIONS

During the progress of the work, CONSULTANT shall fully adhere to all applicable State and Federal laws and county, municipal or DISTRICT ordinances and regulations which in any manner affect those engaged or employed in the work, or the materials and equipment used in the work, or which in any way affect the conduct of the work. CONSULTANT, and any subcontractors performing any work under this Agreement, shall hold such licenses as may be required by the State of California for the performance of the work specified in this Agreement.

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IN WITNESS WHEREOF, the parties hereto have executed this Agreement by their duly authorized officers as of the day and year first above written.

DISTRICT:

MID-PENINSULA WATER DISTRICT

By: _____

Name: _____

Title: _____

CONSULTANT:

SUBTRONIC CORPORATION

By: J. Q. Taylor

Name: Jonathan Taylor

Title: President

By: Laurie Leibert

Name: Laurie Leibert

Title: CFO

*NOTE: This Agreement must be executed by two corporate officers, consisting of: (1) the President, Vice President or Chair of the Board, and (2) the Secretary, Assistant Secretary, Chief Financial Officer, Assistant Chief Financial Officer, or by any person authorized by the corporation to execute written contracts.



AGENDA ITEM NO. 5.E.

DATE: April 23, 2020
TO: Board of Directors
FROM: Rene A. Ramirez, Operations Manager

SUBJECT: APPROVE RESOLUTION NO. 2020-06 AUTHORIZING A PURCHASE AGREEMENT WITH XiO, INC., FROM SAN RAFAEL, CA, FOR HARDWARE AND EQUIPMENT TO COMPLETE THE SCADA REPLACEMENT CAPITAL PROJECT IN THE AMOUNT OF \$249,511, PLUS A 10% CONTINGENCY FOR A TOTAL PROJECT BUDGET IN THE AMOUNT OF \$275,000

RECOMMENDATION

Approve Resolution No. 2020-06.

FISCAL IMPACT

The total project cost, including contingency is \$275,000. \$249,511 is for the SCADA hardware purchase, which completes replacement of the MPWD's system, while the remainder is for contingency, and will be funded from available MPWD excess cash reserves. The current balance of the MPWD's cash reserves is \$7.4 million. (The MPWD's Cash Reserve Policy requires a total of \$3.0 million.)

Excerpts from XiO's proposal and the purchase agreement are attached. Please note that for system security reasons the detailed telemetry hardware components, equipment, and installation details were omitted from the attachment. Staff itemized the descriptions of the hardware and equipment contained within the XiO proposal in the attached table.

This project is identified as a capital project within the MPWD's next 5-year Capital Improvement Program (CIP) for FYs 2019/2020 through FY 2023/2024, which was discussed with the Board's Finance Committee on February 3, 2020 and April 9, 2020. (The CIP is an item for discussion with the Board later on this agenda.)

Because of the COVID-19 pandemic shelter-in-place environment and in an attempt to work with its business partners to keep them beneficially working on behalf of the MPWD ratepayers, staff recently negotiated a \$20,000 discount with XiO for the remainder of the hardware and equipment to complete the MPWD's SCADA replacement project. There were also savings with shipping costs of about \$1,000. This was reviewed and discussed with the Board's Finance Committee on April 9, 2020, and it was recommended to present to the Board for approval.

This is considered an essential service and an excellent project for MPWD Operations personnel because of the remote sites involved and the two-member team required for installation, so that personnel can work safely. It will greatly benefit MPWD operations to have one automated telemetry system to manage rather than two as is the current situation until the project is completed for a final transition. Plus, staff is looking forward to the many benefits of the newer user-friendly and mobile features of the XiO SCADA system.

DISCUSSION

At a recent Board Finance Committee meeting discussing, among things, an update to the District's Capital Improvement Plan, the Committee supported the proposed updated capital program project list and funding sources, which included the completion of a needed SCADA hardware update. Staff shared with the Finance Committee a proposal from XiO, which included a \$20,000 price discount plus another \$1,000 savings in shipping costs.

Prior to 2015 the District had engaged a consultant to conduct a review that resulted in a master plan for replacement of the existing SCADA system, which is still in use. The consultant's report indicated upwards of \$1.5 million would be needed to modernize the District's hardware and software, plus ongoing costs for software and hardware updates and monthly fees for telephone and internet services.

Staff began looking into replacing the SCADA system when it attended a presentation by XiO at an ACWA conference in Monterey a few years ago. Their SCADA system is much simpler, works well in the type of water system operated by the District, is cloud-based, allows access on PCs, tablets, smartphones, and there is no need to upgrade hardware or software every 10 years or so, which can be costly. The District purchased XiO equipment for two sites – the Buckland Tank and Exbourne Tank sites to try them. Their system requires a small nominal monthly fee (cloud service fee) that covers regular system upgrades, technical support, alarms, report generation and another small monthly fee for cellular service. Their SCADA system at these two sites has run flawlessly for a few years now and staff is ready to replace the old SCADA system with the XiO components. Because the District has now completed the installation of all AMI, staff is now available for work on the SCADA system.

Should the Board authorize the purchase, it will have invested approximately \$330K on SCADA equipment from XiO, or a little more than one-fifth the cost of the estimated \$1.5M to replace the SCADA system from before 2015. While there will be costs for monthly XiO cloud fee and cellular service, which has been estimated \$20,000 approximately, the District will also be relieving itself of several thousand dollars of annual telephone and internet costs in support of the existing SCADA system.

The terms of the Purchase Agreement are under review by District Counsel, and will be subject to final review by District Counsel before the General Manager executes it.

Attachments: Resolution No. 2020-06
XiO Proposal (Excerpted) and Purchase Agreement
XiO's MPWD SCADA Equipment Itemized Proposal

BOARD ACTION: APPROVED:_____ DENIED:_____ POSTPONED:_____ STAFF DIRECTION:_____

UNANIMOUS_____ ZUCCA_____ SCHMIDT_____ WHEELER_____ WARDEN_____ VELLA_____

RESOLUTION NO. 2020-06

**AUTHORIZING A PURCHASE AGREEMENT WITH XiO, INC., FROM SAN RAFAEL, CA,
FOR HARDWARE AND EQUIPMENT TO COMPLETE THE SCADA REPLACEMENT
CAPITAL PROJECT IN THE AMOUNT OF \$249,511, PLUS 10% CONTINGENCY,
FOR A TOTAL PROJECT BUDGET IN THE AMOUNT OF \$275,000**

*** * ***

MID-PENINSULA WATER DISTRICT

WHEREAS, the Mid-Peninsula Water District uses SCADA (Supervisory Control and Data Acquisition) to operate and monitor the water system; and

WHEREAS, a more than five-year old study of the current SCADA system indicated the need to upgrade hardware and software at an estimated cost of \$1.5 million; and

WHEREAS, XiO, Inc. has developed a user-friendly cloud-based SCADA system for water supply and distribution systems, sewer pump stations, and agricultural pumping systems used world-wide; and

WHEREAS, the XiO hardware is designed so that Mid-Peninsula Water District staff are able to install the hardware; staff can count on start-up support from XiO; and will normally only require a licensed electrician to assist with electrical connections; and

WHEREAS, the Mid-Peninsula Water District installed components of an XiO SCADA system at the Buckland and Exbourne Tank sites to test their efficacy as a SCADA solution and found the products to be trustworthy and reliable, and that XiO has provided very good customer and technical support; and

WHEREAS, the cost of the XiO, Inc. SCADA solution for the Mid-Peninsula Water District, including SCADA components already in use, will cost a little more than one-fifth of a traditional SCADA hardware and software upgrade; and

WHEREAS, XiO, Inc. has agreed to provide all of the remaining necessary SCADA components for the entire remaining Mid-Peninsula Water District water system for \$249,511.08 which is approximately \$21,000 reduced from the normal retail and shipping prices; and

WHEREAS, the Board Finance Committee during their discussion and support of an updated capital improvement plan and source of funding plan also concurred with staff to move forward with the XiO SCADA proposal dated April 10, 2020 to recommend purchase of the XiO, Inc. SCADA hardware.

NOW, THEREFORE, BE IT RESOLVED that the Board of Directors of the Mid-Peninsula Water District authorizes the purchase of SCADA hardware and equipment from the XiO, Inc. of San Rafael, CA in the amount of \$249,511.

BE IF FURTHER RESOLVED that the Board of Directors of the Mid-Peninsula Water District authorizes a 10% contingency for a total project budget in the amount of \$275,000.

REGULARLY PASSED AND ADOPTED this 23rd day of April 2020.

AYES:

NOES:

ABSTENTIONS:

ABSENCES:

PRESIDENT

ATTEST:

BOARD SECRETARY



A Proposal for an XiO Cloud SCADA® Water Control System for Mid-Peninsula Water District Water System

Version 2.1
April 10, 2020

Proposal

XiO Proposed System

XiO, Inc. (XiO) is pleased to supply this proposal to provide a monitoring and control system for Mid-Peninsula Water District Water System.

The purpose of this proposed system is to:

- Provide a secure website where all water operations may be viewed and up-to-the-minute equipment status clearly displayed.
- Provide a secure method for authorized operators to put pumps online or offline and modify setpoints.
- Provide an advanced alarm system that will notify personnel via text or e-mail when user-defined events occur (e.g. low system pressure, pump fails to start, etc.).

Description of the System

The proposed system consists of a total of 17 sites. The pump stations provide water to a series of tanks and a variety of customers directly based on system pressure. The general flow of water within the system is pump stations deliver water from lower elevations to higher elevations based on a specified tank level. Water is then gravity fed from the tanks to users in the area. There are instances of pump stations delivering water directly to users based on system pressure.

Additionally, there are several regulator and valve sites that aid in distributing water from higher to lower elevations. The specific requirements for each of the sites and how they interact with other components within the system are listed above.

XiO will provide cellular modems or edge routers and Uninterruptible Power Supplies at each site to provide direct and reliable communication to the XiO Cloud Servers.

System Installation

XiO does not act as a contractor and does not install the equipment. XiO recommends that the Proposed Control System be installed by a licensed electrician and a water operator. The XiO hardware requires a single 120VAC circuit, fused at 15 amps or less. An individual Field Installable Unit (FIU) draws 3.7 watts, while the supplied cellular modem draws 6 watts. A solid earth ground must be provided, as required by code, but no special precautions need be taken. All connections are clearly marked with UL-recognized label materials. All enclosures are non-metallic rated NEMA4X, and XiO recommends employing water tight conduit especially in near-marine environments.

The customer is responsible for providing a suitable mounting location for the FIU(s) and other XiO-supplied hardware. There are several considerations when selecting a suitable mounting location for the FIU, Uninterruptible Power Supply (UPS) or other XiO supplied hardware:

Temperature- As with all electronics, extreme temperatures, especially heat, can affect the proper operation of the XiO Control System. It is important to consider sources of heat when selecting a suitable mounting location for the FIU.

- Keep the FIU out of direct sunlight
- Do not mount the FIU on a South-facing wall or panel
- Consider constructing a cover to provide shade for the FIU
- Avoid mounting the FIU on a surface that may become hot such as an outdoor metal panel.
- Be sure the Soft-I/O Module is properly seated in its bracket

Environment- Components of the XiO Cloud SCADA® Control System are housed in NEMA-4X enclosures that protect them from many environmental conditions such as rain, solid objects, dust, and some corrosive agents.

- Take additional steps to avoid harsh environmental conditions if possible
 - This includes potentially dangerous gasses produced by wastewater
- Be sure to provide a water-tight seal on any enclosure penetrations

Delivery

The preconfigured system will be shipped from XiO **4—6 weeks** after receipt of a purchase order.

Quoted Price

List Price	\$ 247,344.95
Discount	\$ (20,000.00)
Total (pre-tax)	\$ 227,344.95

The total cost of the system to Mid-Peninsula Water District will be **\$227,344.95** (not including tax or actual UPS ground shipping costs). This price includes all XiO-supplied hardware as listed above and all programming.

Recurring Monthly Service Fees

The cloud service fee is **\$39/month per Controller** (if applicable) and includes all programming, ongoing support, alarms, report generation, unlimited access to the secure website and an extended warranty on the FIU control module--Soft-I/O@--as long as the Cloud service fee is kept current. The warranty referenced in this paragraph is attached to this document. This paragraph specifically modifies the warranty in the favor of the customer. The cloud secure cellular access charge, including Internet, is **\$35/month per modem** (if applicable). The fee of **\$41/month per Field Monitoring Unit** (if applicable) includes secure cellular cloud access as well as all programming, ongoing support, alarms, report generation, and unlimited access to the secure website.

When the system has been installed, the customer will receive notice regarding payment for the recurring service fees. A check will be required for the first 90 days of service. Subsequent payments will be made through an automatic payment process.

Item	Monthly Fee/Unit	QTY	Subtotal
Controller (FIU)	\$39	27	\$ 1,053
Cellular Modem	\$35	14	\$ 490
Field Monitoring Unit (FMU)	\$41	1	\$ 41
Total Monthly Fees			\$ 1,584

Terms

This proposal is valid for 90 days from the date on this document. XiO will invoice upon shipment. Payment will be due 45 days after board approval or September 30, 2020, whichever is sooner.

Terms and Conditions of Sale

The following Terms & Conditions of Sale are included in this proposal.

Hardware Acceptance:

Print Name _____

Signature _____

Email _____

Hardware Bill To:

Hardware Ship To:

Cloud Fees Acceptance:

Print Name _____

Signature _____

Email _____

Cloud Fees Bill To:

Terms and Conditions

The following Terms and Conditions are incorporated in and are a part of the Purchase Agreement. Where the Product in question is a software product, it is understood that Customer receives only a license to use such product on the terms stated herein. XiO, Inc. ("XiO") retains title to said product.

1. Price; Payment Terms

- A. Prices for all products (hardware and software) will be the price agreed upon in XiO's acknowledgment of Customer's order or at the time of online order placement.
- B. XiO shall provide written acknowledgment of all non-online orders showing price, anticipated delivery date and payment terms. For online orders, Customer is provided with these Terms and Conditions, price, anticipated delivery date and payment terms. As a result, no written acknowledgment is provided for online orders.
- C. Prices are exclusive of all federal, state, municipal or other government, excise, sales, use, occupational, or like taxes or duties now in force or enacted in the future. Any such tax, fee, or charge of any nature whatsoever imposed by any governmental authority on, or measured by, the transaction (including the shipment of goods) between XiO and Customer shall be paid by Customer in addition to the prices quoted or invoiced. In the event XiO is required to pay any such tax, fee, or charge at the time of sale or thereafter, Customer shall reimburse XiO therefore.
- D. Payments shall be made by Customer in accordance with payment terms stated by XiO in written acknowledgment of order, or in an online description for online orders. Amounts not timely paid shall bear interest at the rate of 1-1/2% for each month or portion thereof that payment is late.

2. Delivery

- A. Delivery will be F.O.B. XiO's plant and shall occur on the date of turnover to a common carrier unless, at Customer's option, Product is picked up at the F.O.B. point by Customer.

- B. Title and risk of loss for Products shall pass to Customer on delivery F.O.B. XiO's plant. Customer shall then be responsible for and bear the entire risk of loss or damage to Products. Unless otherwise instructed, by Customer, XiO shall insure each product during shipment for Customer's account and will add the cost of such insurance to Customer's invoice.
- C. Shipment will be scheduled to be made on the date specified on Customer's written purchase order or on the date agreed upon by both parties and specified on the written acknowledgment of XiO, whichever is later, or--in the case of online orders-- based upon the online-stated scheduled date. This date is the scheduled shipment date. XiO reserves the right to extend this date by not more than sixty (60) days upon notification of Customer. If shipment is delayed by XiO more than sixty (60) days, Customer may terminate this Agreement and receive a refund of all money paid hereunder.

3. Change Orders

Any written request from Customer for a change in the order acknowledged by XiO may subject Customer to a price change reflecting XiO's increased or decreased direct costs or an extension of the scheduled shipment date, or both, depending on the change requested. Written acknowledgment by XiO of a change order will specify and confirm any price or delivery impact.

4. Shipment

In the absence of specific shipping instructions from Customer, XiO will ship by the method it deems most advantageous to both parties. Transportation charges may be prepaid and will be subsequently invoiced to Customer. Unless otherwise specified, products shall be shipped in XiO's standard commercial packaging. When special packaging is requested or, in the opinion of XiO, required under the circumstances, the cost of the same will be separately invoiced. If Customer specifies the shipment method on the purchase order, and XiO uses a different method, then XiO shall be liable for the difference, if any, between the cost of freight incurred and the cost of freight which would have been incurred had XiO complied with Customer's shipping instructions.

5. Cancellations

XiO shall have the right to cancel the order and recover possession of and title to a product (if such have passed to Customer) under any of the following circumstances: Customer fails to perform its obligations under any of the material Terms and Conditions hereunder; or Customer's delay directly causes material delay to XiO's performance; or any bankruptcy, arrangement or insolvency

proceedings are commenced by or against Customer; or in the event of the appointment of any assignee for the benefit of creditors or of a receiver of Customer or its properties. No such termination shall prejudice any of the rights of XiO arising prior to such termination or shall limit in any way other remedies available to XiO. Customer shall have no right to cancel the purchase of any product after shipment from XiO. Orders for standard products that are canceled within fifteen (15) days prior to the scheduled shipment date from XiO shall be subject to a cancellation charge equal to twenty percent (20%) of the total purchase price. Orders for custom products are not cancelable after order acknowledgment.

6. Warranty

Hardware products and software media are warranted against defects in materials and workmanship for a period of one year from the date of shipment. During the

warranty period, XiO will, at its option, either repair or replace (but not install) product or software media which proves to be defective. The Product or media must be returned to XiO for warranty service or repair. Customer shall prepay shipping charges to XiO and XiO shall ship to Customer in accordance with Section 4 of this Agreement, except that shipment by surface transportation to Customer, within the U.S. only, shall be at XiO's expense. XiO warrants that software products will conform to published specifications and will operate properly for one year from the date of shipment. XiO will correct material defects in software products during the warranty period by issuing converted versions of software products.

7. Limitations and Disclaimers of Warranties

Certain products are factory sealed and carry a label stating "warranty void if this seal is broken". In such a case, the foregoing warranty shall not apply if the product seal has been broken or the enclosure has been opened. The foregoing warranties shall not apply to defects resulting from improper connection, improper interfacing, misuse, or operation outside the specified environment.

THE FOREGOING WARRANTIES ARE IN LIEU OF ANY OTHER WARRANTY, EXPRESSED OR IMPLIED. XIO SPECIFICALLY DISCLAIMS THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION CONTAINED HEREIN.

8. Waiver of Certain Damages and Limit of Liability

XIO WILL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL, INDIRECT OR CONSEQUENTIAL DAMAGES, HOWEVER CAUSED, OR ON ANY THEORY OF LIABILITY, NOR WILL XIO BE LIABLE FOR LOSS, DAMAGE OR EXPENSE WHICH

DIRECTLY OR INDIRECTLY ARISES FROM CUSTOMER' USE OF OR INABILITY TO USE PRODUCT EITHER SEPARATELY OR IN COMBINATION WITH OTHER EQUIPMENT [EXCEPT FOR DAMAGE TO PERSON OR TANGIBLE PROPERTY], OR FOR COMMERCIAL LOSS OF ANY KIND, OR FOR PROCUREMENT OF SUBSTITUTE GOODS, WHETHER OR NOT XIO HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGE OR LOSS. IN NO EVENT SHALL XIO'S LIABILITY ARISING OUT OF THIS AGREEMENT EXCEED THE AMOUNT PAID TO XIO BY CUSTOMER FOR THE PURCHASE OF THE PRODUCT GIVING RISE TO SUCH LIABILITY. THIS LIMITATION IS INTENDED TO LIMIT THE LIABILITY OF XIO AND SHALL APPLY NOTWITHSTANDING ANY FAILURE OF ESSENTIAL PURPOSE OF ANY LIMITED REMEDY.

9. Security Interest

Customer hereby grants to XiO a security interest in each product, to secure payment of the purchase price. XiO shall have the rights of a secured party under the Uniform Commercial Code in effect in the state where the premises at which the product is installed are located, including the right to retake possession of, or inhibit the use of product on any default by Customer. XiO's security interest shall expire upon the payment to XiO of the full purchase price. Customer agrees to execute such other documents as XiO shall reasonably require to perfect XiO's security interest.

10. Patent and Copyright Indemnity

- A. XiO will defend at its expense any action brought against Customer to the extent based upon the claim that a product constitutes direct infringement of any duly issued United States patent or copyright and shall pay any settlements or judgments to the extent based thereon, provided XiO shall have sole control of any such action or settlement negotiations, provided further that Customer notifies XiO promptly in writing of such claim, suit or proceeding and, at XiO's expense (except the value of time of Customer' employees), gives XiO adequate information and uses its best efforts to settle and/or defend any such claim, suit or proceeding.
- B. If a product becomes, or in the opinion of XiO may become, subject to any claim of infringement for any United States patent or copyright, XiO may, at its option: (i) procure for Customer the right to use or sell the product; (ii) replace or modify the product, or part thereof; or (iii) remove the product, or part thereof, and refund the aggregate payments paid therefor to XiO less a reasonable sum for use and damage. XiO shall not be liable for any costs or expenses incurred without its prior written authorization.

- C. XiO assumes no liability for (i) infringement of patent or copyright claims resulting from completed products of Customer into which a product is incorporated; (ii) any assembly, circuit, combination, method or process of Customer in which any product may be used; (iii) any compliance with Customer' specifications; or (iv) the modification of a product, or any part thereof, unless such modification was made by XiO or with the written approval of XiO.
- D. THE FOREGOING STATES THE SOLE AND EXCLUSIVE LIABILITY OF XIO, AND THE EXCLUSIVE REMEDY OF CUSTOMER, FOR PATENT, COPYRIGHT AND OTHER INTELLECTUAL PROPERTY RIGHTS INFRINGEMENT OR CLAIMS OF INFRINGEMENT.

11. Substitutions and Modifications

XiO reserves the right to make substitutions and modifications in the specifications of products designed by XiO providing that such substitutions or modifications will not materially negatively affect performance in the intended application, and that upon written request, XiO will provide a brief explanation of the change.

12. Entire Agreement

The Purchase Agreement and Terms and Conditions as set forth herein shall govern and constitute the entire agreement between XiO and Customer. XiO shall not be bound by any terms of Customer' order which are inconsistent with or additional to the Terms and Conditions herein set forth.

13. Software Products Restriction

Products delivered to Customer pursuant to these Terms and Conditions may embody and include certain software programs in object code (machine-readable but not human-readable form). In some cases, the only product delivered will be a software product. The software may be contained on disk drives or CD's, erasable programmable read-only memories (EPROMS), non-volatile random access memories (NVRAM), electrically erasable programmable read-only memories (EEPROMS or flash memory), programmable array logic devices (PALS or FPGAS), disk cartridges, may be embodied in Application Specific Integrated Circuits (ASIC's) or in other electronic or mechanical forms. Such software constitutes either the copyrighted property of XiO or the proprietary trade secret information of XiO, or both, and shall be held in confidence by Customer. XiO retains title to the software (excluding media on which recorded) and all intellectual property rights, and no title to software or intellectual property rights is transferred to Customer. Unless Customer is granted greater rights by written amendment to these Terms and

Conditions executed by XiO, Customer is hereby granted a personal, non-transferable, non-exclusive perpetual license to use only the number of copies of the software which are provided by XiO, and to use such copies only on (i) the hardware on which it is originally mounted by XiO, or (ii) on a single hardware product identified by Customer in its purchase order and confirmed by XiO in its order acknowledgment. Without XiO's prior written consent, Customer may not copy the software for any purpose, nor may Customer remove the software or attempt to execute the software on any hardware other than the authorized hardware. Customer shall not, whether through use of disassemblers or any other means whatsoever (including but not limited to manual, mechanical or electrical means), reverse engineer, decompile, disassemble or derive source code from the software, or attempt to or permit any third party to do any of the foregoing, including causing the software to be destroyed or disabled. Any attempt to do any of these things shall be material breach of these Terms and Conditions which shall immediately entitle XiO to exercise any remedies set forth herein, as well as any remedy that may exist at law or in equity. The provisions of this Section 13 shall survive this Agreement in perpetuity.

14. Conditions of Operation

THE PRODUCTS PROVIDED BY XIO ARE INTENDED TO BE USED ONLY WHEN SUPPLEMENTAL PROTECTION IS PROVIDED TO PREVENT DAMAGE TO CUSTOMER' PROPERTY OR INJURY TO PERSONNEL. BECAUSE OF THE HIGH COMPLEXITY OF A COMPUTER-CONTROLLED MACHINE CONTROL OR INPUT/OUTPUT SYSTEM, UNINTENDED MOTION AND ACTIONS CAN OCCUR. CUSTOMER ACCEPTS ALL RESPONSIBILITY FOR INTEGRATING XIO PRODUCTS INTO MECHANISMS OR PROCESSES. LIMIT SWITCHES MUST BE A PART OF A MACHINE CONTROL OR INPUT/OUTPUT SYSTEM. OPERATOR GUARDS AND OTHER PROTECTION FOR OPERATORS MUST UNILATERALLY ACT TO PROTECT PERSONNEL AND PROPERTY. CUSTOMER ACCEPTS ALL RESPONSIBILITY FOR INSURING THAT MECHANISMS OR PROCESSES OF WHICH XIO PRODUCTS ARE A PART COMPLY WITH APPLICABLE SAFETY AND HEALTH STANDARDS, MUNICIPAL CODES, AND ANY SIMILAR REQUIREMENTS.

XiO, Inc.
 100 Smith Ranch Road, Suite 120
 San Rafael, CA 94903 US

April 6, 2020

MPWD SCADA EQUIPMENT PROPOSAL

SCADA EQUIPMENT	QUANTITY	UNIT PRICE	TOTAL
Analog Signal Isolation	4	\$ 707.85	\$ 2,831.40
Total Chlorine, pH, and Temperature Measurement System, Constant Head Flow Cell	2	4,488.00	8,976.00
Custom Controller	16	3,500.00	56,000.00
Digital Signal Isolation, 120VAC	5	850.85	4,254.25
Dry Contact Monitoring	10	851.50	8,515.00
VPN Router	2	979.55	1,959.10
Field Monitoring Unit with 30W Solar Panel & Power Package	1	7,246.20	7,246.20
Generator Monitoring	2	707.85	1,415.00
Generator Monitoring and Control	5	2,269.41	11,347.05
Cloud-Link Cellular Modem Package	14	979.55	13,713.70
Pump Controller	5	4,976.40	24,882.00
Pump Monitoring	5	707.85	3,539.25
Pump Monitoring and Control	2	1,341.60	2,683.20
System Pressure Monitoring	42	900.90	37,837.80
Tank Controller with External Water Level Sensor	4	5,272.80	21,091.20
Tank Controller with Submersible Water Level Sensor	1	5,850.00	5,850.00
Additional Current Sensor Cable (ft.)	30	4.65	139.50
Uninterruptible Power Supply	16	1,279.85	20,477.60
Valve Control	17	858.00	14,586.00
TOTAL			\$247,344.95

Payment due 45 days after board approval or 9/30/2020, whichever is sooner.

SUB-TOTAL	\$247,344.95
DISCOUNT	-20,000.00
TAX	22,166.13
BALANCE DUE	\$249,511.08



AGENDA ITEM NO. 7.A.

DATE: April 23, 2020
TO: Board of Directors
FROM: District Counsel, Julie Sherman
Tammy Rudock, General Manager

SUBJECT: APPROVE RESOLUTION 2020-07 AUTHORIZING THE GENERAL MANAGER TO TAKE NECESSARY ACTIONS FOR CONTINUED OPERATIONS OF THE MPWD DUE TO THE CORONAVIRUS-19 PANDEMIC IN RECOGNITION OF THE FEDERAL, STATE, AND LOCAL DECLARED STATE OF EMERGENCY

RECOMMENDATION

Approve Resolution 2020-07.

FISCAL IMPACT

Nominal costs for District Counsel's time in preparing the resolution—less than \$2,000.

DISCUSSION

Emergencies have been declared statewide, locally, and federally as a result of the recent COVID-19 pandemic:

- On March 4, 2020 by the Governor for California;
- On March 10, 2020 by the San Mateo County Health Officer; and
- On March 13, 2020 by the US President.

On March 16, 2020, the San Mateo County Health Officer issued an order for individuals to shelter-in-place at their residence unless receiving or providing essential services.

As a water supplier, the MPWD operates essential infrastructure and is an essential service provider and business. To date, the General Manager has provided weekly status reports to the Board of operational activities.

Actions have already and may need to be taken by the General Manager in order to efficiently maintain the operations of the MPWD during the order and declared emergencies.

The following are examples of actions taken by the General Manager thus far:

- On March 17, 2020, all MPWD employees were declared emergency service workers and employees were sent home until further notice. They were assigned to work from home on certification educational training units as required by their trades and/or specialties.

- On March 18, 2020:
 - Essential services were identified by the leadership team and essential personnel have been working staggered shifts between their homes and the MPWD in Belmont. The leadership team has held teleconferences twice per week since the imposition of the order for communication updates and status reports on operational and administrative activities.
 - Terminations of service for non-payment were suspended through the end of this fiscal year (June 30, 2020) or until further notice after discussion with the Board at a future meeting.
 - All fees related to late payments were suspended through the end of this fiscal year (June 30, 2020) or until further notice after discussion with the Board at a future meeting.

- On March 19, 2020, the Board President and General Manager issued the attached press release confirming the MPWD's Safety and Service Commitment.

- On March 20, 2020, an Employee Travel Clearance letter was created and distributed to all personnel, Board members, District Counsel, District Engineer, and District Treasurer.

- On April 2, 2020:
 - All personnel reported to the MPWD for a briefing and review of the DRAFT Employee Workplace Safety Procedures while working during COVID-19 Pandemic.
 - MPWD Social Distancing Protocol developed and posted as required by the San Mateo County Health Officer's extended shelter-in-place order.

- On April 9, 2020, the MPWD held a teleconference public meeting with the Board's Finance Committee, staff, District Counsel, and the District Engineer.

- On April 14, 2020:
 - Credit card and debit card fees were suspended (and refunded for payments made since March 17, 2020) through the end of this fiscal year (June 30, 2020) or until further notice after discussion with the Board at a future meeting.
 - Essential service work letters were provided to a contractor and consulting engineer that will be out in the field working to complete MPWD capital projects.

- On April 20, 2020, personnel will report for duty in staggered shifts at the MPWD in order to work safely in performing further essential services within the system.

Other actions may be required by the General Manager for which the attached Resolution No. 2020-07 provides.

Attachments: Resolution 2020-07
MPWD Safety and Service Commitment Press Release (March 19, 2020)

BOARD ACTION: APPROVED:_____ DENIED:_____ POSTPONED:_____ STAFF DIRECTION:_____

UNANIMOUS_____ ZUCCA_____ SCHMIDT_____ WHEELER_____ WARDEN_____ VELLA_____

RESOLUTION NO. 2020-07

**AUTHORIZING THE GENERAL MANAGER TO TAKE NECESSARY
ACTIONS DUE TO THE COVID-19 PANDEMIC IN RECOGNITION OF THE
FEDERAL, STATE, AND LOCAL DECLARED STATE OF EMERGENCY**

* * *

MID-PENINSULA WATER DISTRICT

WHEREAS, on March 4, 2020, the Governor of the State of California declared a State Emergency as a result of the COVID-19 virus pandemic; and

WHEREAS, on March 10, 2020, the County of San Mateo proclaimed the existence of a local emergency throughout the county as a result of COVID-19; and

WHEREAS, on March 13, 2020, the President of the United States declared a National Emergency and provided recommendations from the Centers for Disease Control; and

WHEREAS, on March 16, 2020, the San Mateo County Health Officer issued a Shelter in Place Order (Order) directing, among other things, all individuals living in the county to shelter at their place of residence except to provide or receive essential services or engage in certain essential activities and work for essential businesses and governmental services; and

WHEREAS, the Mid-Peninsula Water District (District), which provides water service to residences, businesses, government agencies, and other entities throughout the County, is an Essential Business and performs an Essential Governmental Function and operates Essential Infrastructure, and its employees, consultants and contractors perform Essential Activities, all as defined in the Order; and

WHEREAS, as a result of the federal, state, and local emergency declarations and the shelter in place order issued by the County, emergency measures were taken by the General Manager and further emergency measures may be required to be taken to ensure the District can

continue to provide a safe and reliable water supply and to protect the safety and health of its employees and the public; and

WHEREAS, because the duration of the declared state of emergencies is unknown and the impacts of COVID-19 are changing rapidly, the District must be prepared to act quickly, yet thoughtfully, to address these changing circumstances.

NOW, THEREFORE BE IT RESOLVED that the Board of Directors of the Mid-Peninsula Water District, in light of the recitals set forth above, recognizes that there is a state of emergency within the District's service area and jurisdiction resulting from the COVID-19 pandemic and ratifies the necessary immediate actions taken by the General Manager in response to the impacts of COVID-19 on District operations; and

BE IT FURTHER RESOLVED that the General Manager is authorized to suspend and/or modify administrative procedures, including fees related to customer billing and payments, personnel rules and policies, and procurement policies, to expand paid administrative and sick leave, and to take all other actions necessary to protect District employees and the public and to ensure safe and reliable water supply during the declared national, state, and local emergencies resulting from the COVID-19 pandemic; and

BE IT FURTHER RESOLVED that the General Manager, or designee, is authorized to prepare and submit applications on the District's behalf to federal, state, and local government entities for funding and/or reimbursement related to the fiscal impacts of the COVID-19 pandemic on the District's operations; and

BE IT FURTHER RESOLVED that the General Manager shall comply with all federal, state, and local laws when taking actions authorized by this Resolution, and the General Manager will report the actions and financial impacts of such actions to the Board.

REGULARLY PASSED AND ADOPTED this 23rd day of April 2020.

AYES:

NOES:

ABSTENTIONS:

ABSENCES:

PRESIDENT

ATTEST:

BOARD SECRETARY

FOR IMMEDIATE RELEASE



CONTACT: Tammy Rudock
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SERVICE & SAFETY COMMITMENT

BELMONT, CA (March, 2020) – On behalf of the Board of Directors and staff, we truly value our customer relationships and hope you and loved ones are faring well. Connection with our customers is a strategic priority here at the Mid-Peninsula Water District (MPWD), and these unprecedented times require constant communications and updates about safety and service levels regarding your water supply and distribution.

During the declared shelter-in-place order by the Health Officer for San Mateo County (through April 7, 2020), you should be confident that:

- The MPWD water supply and distribution system are safe and secure;
- Water quality will remain a priority;
- As first responders, MPWD operators are available 24 hours a day, EVERY DAY;
- All other essential services, including customer services, are being covered by MPWD staff either remotely or on rotating shifts; and
- We are committed to working with customers on extended payment plans, as a result of unexpected financial hardships—just contact us.

Please be assured that the MPWD's response plan was developed to appropriately serve you while also protecting its employees and their families. Visit the MPWD website for customer information and updates on the COVID-19 at www.MidPeninsulaWater.org/covid

Feel free to contact the MPWD at 650-591-8941 or mpwd@MidPeninsulaWater.org with any questions or comments.



Matthew P. Zucca
Board President
MZucca@MidPeninsulaWater.org



Tammy A. Rudock
General Manager
TammyR@MidPeninsulaWater.org



ABOUT THE MID-PENINSULA WATER DISTRICT: The MPWD has been functioning as a public utility since 1929, proudly providing service to the communities of Belmont and portions of San Carlos, Redwood City, and unincorporated San Mateo County. The District supplies water to 28,000 consumers within approximately five square miles. It is managed by a five-member elected Board of Directors and 17 full-time employees. For more details, go to the District's website at MidPeninsulaWater.org



AGENDA ITEM NO. 7.B.

DATE: April 23, 2020

TO: Board of Directors

FROM: Tammy Rudock, General Manager
Rene A. Ramirez, Operations Manager
Joubin Pakpour, District Engineer

SUBJECT: CONSIDER RESOLUTION 2020-08 APPROVING THE MID-PENINSULA WATER DISTRICT COMPREHENSIVE SYSTEM ANALYSIS AND CAPITAL IMPROVEMENT PROGRAM FY2019-2020 UPDATE, AND AUTHORIZING THE MPWD 5-YEAR CAPITAL IMPROVEMENT PROGRAM FOR FISCAL YEARS 2019/2020 THROUGH 2023/2024

RECOMMENDATION

Approve Resolution 2020-08.

FISCAL IMPACT

No immediate fiscal impact by Board action. There were costs associated with the development of the update over the course of the last nine (9) months, including staff time and District Engineer services estimated at \$45,000.

The costs associated with the proposed MPWD 5-Year Capital Improvement Program (CIP) for FYs 2019/2020 through 2023/2024 are itemized in the attached table dated April 7, 2020. Projects are broken down by fiscal year and funding source—either COP dollars or cash (revenue funded—pay-go). The projects proposed to be funded with COP funds were previously approved by the Board in the existing 5-Year CIP.

The attached 5-Year CIP was reviewed and discussed with the Board Finance Committee during meetings on February 3, 2020, and April 9, 2020, and their feedback was incorporated, including the attached memo listing projected cash funding sources for the proposed revenue funded projects. The Finance Committee supported staff in moving the CIP forward to the Board for consideration.

BACKGROUND

At a Board meeting on December 16, 2015 the Board moved forward after several months of information sharing and discussion to establish a five-year capital program covering fiscal years 2016/2017 through 2021/2022. This capital program eventually created a list of 22 projects. The Board then issued certificates of participation (COP) in the amount of \$20,045,000 to fund

the capital program to be augmented by “pay-go” funding from each fiscal year’s operations budget. It should be noted that two more capital projects, not on the list of 22, were added and funded with pay-go in a joint project with City of Belmont who was making sewer improvements on the same streets, and then planned to re-pave the streets. The list of capital projects for the first five-years was now 24 projects; 22 to be funded from COP and two to be funded by pay-go.

In the four plus years of construction, 14 of the 24 projects have been bid and awarded. Nine (9) projects have been completed at a construction cost of \$4.73M (\$3.85M from COP and \$0.88M from Pay-Go). Five (5) projects are substantially complete at the time of this report. The construction bid for these five projects was awarded at \$1.95M. In addition, there have been four (4) other capital projects from the original list, but not on the list of 22 that were completed and they were – 15-23 the structural improvement evaluations of the Hallmark and Dekoven Tanks; 15-30 Alameda de las Pulgas Improvements; 15-31 Monserat Cross-Country Abandonment; and 15-74 Malcolm Avenue Improvements. There remain 10 capital projects from the first five-year capital program and four of them are large; 15-89 the Dekoven Tanks Replacement, 15-76 the El Camino Real Improvements, 15-72 State Route 101 Crossing at the Palo Alto Medical Foundation property, and 15-75 the Old County Road Improvements are all currently under design.

DISCUSSION

Before reaching the end of the first five-year period staff determined it was an appropriate time to review the capital program. During the review several things stood out: the cost of construction and the real estate market in the Bay Area region, and the MPWD coordination efforts with the City of Belmont and their street program.

Staff’s work determined the following:

- It is still a priority to complete the four large projects, though two have been split into two phases (explained below);
- Prior to the pandemic, construction costs had been escalating briskly due to the strong regional economy and it was important to update the entire capital program list to reflect 2020 costs (up to March 2020);
- Ten (10) new capital projects were identified (their project number indicated by 2020-01 through 2020-10);
- Six of these 10 new capital projects landed in the top 15 list of priorities;
- Over past four years, two sections of the water system have become problematic leading to a change priority for 15-88 Vine Street Improvements and having to create project 20-01 to address polybutylene services under Hastings Drive;
- Road improvements planned by the City moved project 15-29 up the priority list from 17 to 16;
- For the most part the remainder of the priority list did not change; and
- Remove the completed projects from the capital program.

Two of the large capital projects: 15-72 SR101 Crossing at the PAMF and 15-75 Old County Road Improvements were split into two phases for different reasons:

15-72 SR101 Crossing at PAMF was split into 15-72a and 15-72b due to concerns with an old large diameter sewer force main under Shoreway Road adjacent to the proposed alignment of the new MPWD pipeline and an agreement with the PAMF for a water pipeline easement. Capital project 15-72a would construct 700 feet of new pipe in a revised easement with PAMF and fulfill an easement agreement between the MPWD

and PAMF. Capital project 15-72b would come sometime after 2022 when the owner of the large force main, Silicon Valley Clean Water, removes an old force main from service and removes a risk from constructing the MPWDs new water main under Shoreway Road.

15-75 Old County Road Improvements planned on consolidating pipelines buried under Old County Road from the south MPWD boundary to Ralston Avenue and stop. The Board agreed with staff to design improvements for the entire distance of MPWD facilities on Old County Road to its northern boundary at Sterling View. The City has plans to pave Old County Road within the next five years. This project was split into 15-75a to construct the improvements as initially planned from the southern boundary to Ralston Avenue, and 15-75b would construct improvements from Ralston Avenue to Sterling View.

In 2015, the capital program identified 92 projects with an estimated cost of \$51,820,000. Four plus years later, 14 projects have been or are near completion. At this time in 2020 staff has identified 84 capital projects with an estimated cost of \$80,230,000.

Attachments: Resolution No. 2020-08
MPWD Comprehensive System Analysis and CIP Summary FY 2019-2020 Update
MPWD 5-Year CIP for FYs 2019/2020 through 2023/2024 (dated April 7, 2020)
Cash/Revenue Funding Sources Memo to Board Finance Committee dated April 7, 2020
Capital Improvement Program FY2019-2020 Update
Appendix A CIP Summary
Appendix B Program Projects
Appendix C Completed Projects
Appendix D Original Resolution

BOARD ACTION: APPROVED:____ DENIED:____ POSTPONED:____ STAFF DIRECTION:____

UNANIMOUS____ ZUCCA____ SCHMIDT____ WHEELER____ WARDEN____ VELLA____

RESOLUTION NO. 2020-08

**APPROVING MID-PENINSULA WATER DISTRICT COMPREHENSIVE
SYSTEM ANALYSIS AND CAPITAL IMPROVEMENT PROGRAM SUMMARY
FY 2019-2020 UPDATE, AND AUTHORIZING MPWD 5-YEAR CIP FOR
FISCAL YEARS 2019-2020 THROUGH 2023-2024**

* * *

MID-PENINSULA WATER DISTRICT

WHEREAS, the Mid-Peninsula Water District ("MPWD") completed a comprehensive water hydraulic model of the entire MPWD system over the time period July 1, 2014 and December 1, 2015 yielding almost 90 capital improvement projects; and

WHEREAS, on May 15, 2016 the Board took several actions to adopt a prioritized capital improvement program to be funded through no more than \$20,000,000 in Certificates of Participation and annual capital appropriations; and

WHEREAS, as of March 31, 2020 fourteen (14) of the 24 capital projects have been completed or substantially completed; and

WHEREAS, shortly after July 1, 2019, District staff initiated a review of the capital program to review priorities, determine if new projects had developed, and to update the estimated cost of construction in 2020 dollars; and

WHEREAS, an update to the capital improvement program has been completed, which has removed reference to the eleven (11) completed or substantially completed capital projects, added ten (10) new capital projects identified as 20-01 through 20-10, and updated the construction estimate to reflect 2020 dollars; and

WHEREAS, a new MPWD 5-Year CIP for Fiscal Years 2019-2020 through 2023-2024 was developed, and reviewed and discussed with the Board Finance Committee during meetings held on February 3, 2020 and April 9, 2020; and

WHEREAS, the Board Finance Committee requested and staff developed a source of funding plan for the pay-go capital projects, which plan was shared during the meeting held on April 9, 2020; and

WHEREAS, the Board Finance Committee supported the CIP and source of funding plan and concurred with staff to move forward with the capital program for the Board's consideration.

NOW, THEREFORE, BE IT RESOLVED that the Board of Directors of the Mid-Peninsula Water District hereby:

1. Approves the FY 2019-2020 Update of the MPWD Comprehensive System Analysis and CIP Summary, including 84 capital projects that total \$78,215,000; and
2. Authorizes the attached MPWD 5-Year CIP for Fiscal Years 2019-2020 through 2023-2024 totaling \$27,425,000.

REGULARLY PASSED AND ADOPTED this 23rd day of April 2020, by the following vote:

AYES:

NOES:

ABSTENTIONS:

ABSENCES:

President

ATTEST:

Board Secretary



Capital Improvement Program

FY 2019 – 2020 Update

Supersedes FY 2016-2017 Update

April 16, 2020

This assessment was prepared by or under the direction of the following design professional, licensed by the State of California, for the various disciplines involved:



Joubin Pakpour, P.E. – Civil Engineer

Registration No. 59155



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APPENDICES

Appendix A – CIP Summary
Appendix B – Programmed Projects
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1.0 CIP DEVELOPMENT HISTORY

In 2014 as part of its long-term strategic planning, the Mid-Peninsula Water District (District) undertook a comprehensive review and assessment of its water system infrastructure and facilities. This significant challenge involved a team of senior operations personnel with many years of District institutional knowledge, management with many years of public utility and water operations experience and master planning, and the District Engineer experienced with water system operations and infrastructure/facilities design and engineering. The goal was to develop a comprehensive, prioritized Capital Improvement Program (CIP) and a functional hydraulic model.

Following development and calibration of the hydraulic model in late 2015, the District generated a comprehensive list of 92 projects estimated at approximately \$52 Million (2015 dollars). In May 2016, the District adopted the Comprehensive System Analysis and Capital Improvement Program FY 2016-2017 Update in addition to authorizing a 5-year funding plan of \$25 Million. The majority of projects were based on distribution system / fire flow analyses in addition to those identified by District personnel from maintenance / operational perspectives. Exhibits illustrate each project's location, project background/existing conditions, proposed improvements, benefits, and budget.

The FY 2019-2020 Update identifies projects completed since the FY 2016-2017 Update, adds 10 additional projects identified by the District, and adjusts budgets from 2015 to 2020 dollars. Please refer to Appendix A for a CIP summary and Appendix B for project exhibits. This update supersedes previous updates.

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2.0 2020 CIP UPDATE

2.1 2020 BUDGET

The original FY 2016-2017 Update construction budgets were based on actual bid tabulations for contracts awarded in 2015. Since 2015 construction costs dramatically increased due to a highly saturated construction market with overly abundant work with the same pool of contractors. As a result, costs drastically outpaced generally accepted annual inflation rates of 3-4%. The average cost of 8" pipe installation increased from \$250/LF (2015) to \$450/LF (2020). This is further evident by the 2019 bid results for the District's Notre Dame Ave, Cliffside Ct, Tahoe Dr Area Water Main Project.

Construction budgets for water main projects are generally separated into three categories: 1) fire hydrants, 2) service connections, and 3) water main which includes a roll up of all other costs associated with the project such as blowoffs, air release valves, vaults, road restoration, etc. The 2020 CIP budgets were based on actual 2019 bid results for water main installation projects both within the District and nearby jurisdictions. The budgets were also expanded to include construction inspection, approximately 10% of the overall construction cost assuming projects are bundled.

2.2 2020 CIP ADDITIONS

Since the FY 2016-2017 Update, the District identified 10 new projects and added them to the overall CIP list. Projects include additional water main replacements due to observed maintenance issues, structural / seismic modifications to the operations center, SCADA improvements, among others.

Table 1 – 2020 CIP Additions

CIP No.	DSA No.	Description	Budget (2020)
20-01	n/a	Hastings Dr Service Connection Replacements	\$910,000
20-02	n/a	Hallmark Tanks Structural Retrofit / Recoat	\$3,440,000
20-03	n/a	Laxague Dr 18" CCP Abandonment	\$75,000
20-04	n/a	Laurel Ave Cross Country Abandonment	\$75,000
20-05	n/a	Transmission Water Main Assessments	\$220,000
20-06	n/a	Automated Chloramine Management Systems	\$520,000
20-07	n/a	Harbor Blvd Improvements	\$2,900,000
20-08	n/a	SCADA Improvements	\$420,000
20-09	n/a	Dairy Ln Operations Center Rehabilitation – Phase 1	\$150,000
20-10	n/a	Dairy Ln Operations Center Rehabilitation – Phase 2	\$1,850,000
Total:			\$10,560,000

Please refer to the CIP Zone breakdowns later in this report for brief descriptions of each project. Exhibits in Appendix B provide more detailed descriptions and backgrounds.

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3.0 CIP PROJECTS - COMPLETED

Since the FY 2016-2017 Update, the District completed the projects shown in Table 2. Exhibits for these projects are found in Appendix C.

Table 2 - CIP Projects - Completed

CIP No.	Description	Completion Date	Budget*	
			(2015)	Actual**
15-14	Mezes Ave Improvements	2018	\$122,500	\$247,222
15-22	Arthur Ave Improvements	2018	\$345,000	\$578,817
15-23	Dekoven/Hallmark Tanks Seismic Eval	2016	\$100,000	\$88,748
15-30	Alameda de las Pulgas Improvements	2016	\$591,000	\$655,765
15-31	Monserat Ave CC Abandonment	2017	\$20,000	\$10,000
15-43	North Rd CC / Davey Glen Improvements	2019	\$496,000	\$702,426
15-44	South Rd Abandonment	2018	\$302,000	\$357,402
15-51	Francis Ave / Ct Improvements	2019	\$306,500	\$347,483
15-53	Academy Ave / Belburn Dr Improvements	2019	\$190,000	\$222,300
15-65	Folger Dr Improvements	2018	\$306,000	\$460,761
15-73	Karen Rd Improvements	2018	\$307,000	\$478,386
15-74	Malcom Avenue Improvements	2019	\$183,500	\$225,000
15-87	Hillcrest Pressure Regulating Station	2019	\$250,000	\$630,520
Total:			\$3,519,500	\$5,004,830

*Construction budgets only. Since 2015 construction costs dramatically increased due to a highly saturated construction market with overly abundant work with the same pool of contractors. As a result, costs drastically outpaced generally accepted annual inflation rates of 3-4%.

**Unaudited totals. Subject to change.

15-14 – Mezes Avenue Improvements – Replaced 310 LF of 4” PVC with 8” DIP to replace aging / undersized infrastructure and improve fire flows.

15-22 – Arthur Avenue Improvements – A replacement / new installation combination of 880 LF of 8” DIP to replace aging / undersized infrastructure, eliminate two dead ends between Zone 2 and Zone 3, install a PRV connection between the Zones, and improve fire flows.

15-30 – Alameda de las Pulgas Improvements – Replaced 1,455 LF of 6” - 8” CIP with 8” DIP to eliminate bottlenecks, replace aging infrastructure prone to breaks, minor reconfigurations to simplify system.

15-31 – Monserat Avenue Cross Country Abandonment – Abandoned 355 LF of 6” CIP to eliminate an inaccessible cross-country water main.

15-43 - North Road Cross Country / Davey Glen Road Improvements – Abandoned 400 LF of cross country 6” CIP and replaced 1,400 LF of 6”-8” CIP with 8” DIP to eliminate the cross-country water main, reduce district maintenance, and replace aging infrastructure.

15-44 - South Road Abandonment – Abandoned 1,325 LF of 4" CIP paralleling an 8" PVC and reconnected side streets to the 8" PVC to reduce maintenance, eliminate aging infrastructure and improve fire flows.

15-51 – Francis Avenue / Court Improvements – Replaced 830 LF of 4" PVC with 8" DIP and added an additional fire hydrant to eliminate undersized infrastructure and improve fire flows.

15-53 – Academy Avenue / Belburn Drive Improvements – Abandoned 600 LF of 4" PVC paralleling a 6" CIP and replaced 300 LF of 4" PVC with 8" DIP to eliminate undersized infrastructure and improve fire flows.

15-65 – Folger Drive Improvements – Replaced 830 LF of 6" CIP with 8" / 10" DIP to replace aging infrastructure and improve fire flows.

15-73 – Karen Road Improvements – Replaced 800 LF of parallel 12" AC and 8" CIP with a single 8" PVC to replace aging infrastructure and minimize maintenance.

15-74 - Malcolm Avenue Improvements – Installed 550 LF of 8" DIP to allow a Zone 1 and Zone 2 boundary reconfiguration improving static pressures, eliminated 4 dead ends, and created looped systems in both Zones.

15-87 – Hillcrest Pressure Regulating Station – Installed a pressure regulating station off the District's Zone 1 connection to SFPUC to eliminate Zone 1 pressure fluctuations.

4.0 CIP PROJECTS - UNDER CONSTRUCTION

The following projects are currently under construction.

Table 3 – CIP Projects - Under Construction

CIP No.	Description	Completion Date	Budget* (2015)	As-Bid (2019)
15-06	Zone 5 Fire Hydrant Upgrades	2020	\$105,000	\$57,300
15-10	Notre Dame Ave Loop Closure	2020	\$689,500	\$1,088,860
15-28	Tahoe Dr Area Improvements	2020	\$369,000	\$487,054
15-38	Cliffside Ct Improvements	2020	\$154,500	\$228,753
15-49	Mid-Notre Dame Improvements	2020	\$110,000	\$87,418
Total:			\$1,428,000	\$1,949,385

*Construction budgets only.

15-06 – Zone 5 Fire Hydrant Upgrades – Adds 7 hydrants between Desvio Way, Solana Drive and Altura Way improving fire flow protection and flushing operations.

15-10 – Notre Dame Avenue Loop Closure – A replacement / new installation combination of 2,230 LF of 8” DIP to eliminate dead ends, replace aging / undersized infrastructure, and improve fire flows.

15-28 – Tahoe Drive Area Improvements – Replaces 900 LF of 4” CIP with 8” DIP to replace aging / undersized infrastructure and improve fire flows.

15-38 – Cliffside Court Improvements – Replaces 330 LF of 4” PVC with 8” DIP to replace aging / undersized infrastructure and improve fire flows.

15-49 – Mid-Notre Dame Avenue Improvements – Abandons 650 LF of 6” CIP paralleling an 8” CIP to remove aging infrastructure and reduce maintenance.

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5.0 CIP PROJECTS – REMAINING BY ZONE

The projects presented in this section include all unconstructed projects or those currently under design. Costs reflected in the following tables represent 2020 budgets inclusive of construction, planning, design, construction support, construction inspection, and contingency costs for each specific project.

Table 4 – CIP Projects – Remaining Costs by Zone

Zone	Number of Projects	Cost
1	19	\$22,700,000
2	22	\$17,075,000
3	14	\$19,415,000
4	1	\$1,390,000
5	6	\$2,685,000
6	1	\$385,000
7	4	\$5,345,000
8	10	\$6,885,000
9	0	\$0
DW	7	\$4,350,000
Total	92	\$ 80,230,000

Table 5 – CIP Projects - Under Design

CIP No.	DSA No.	Description	Budget (2020)
15-72A	077	SR 101 Crossing at PAMF – Phase 1	\$595,000
15-72B	077	SR 101 Crossing at PAMF – Phase 2	\$2,765,000
15-75A	080	Old County Road Improvements – Phase 1	\$4,030,000
15-75B	080	Old County Road Improvements – Phase 2	\$2,065,000
15-76	081	El Camino Real Improvements	\$3,520,000
15-79	084	F Street Improvements	\$315,000
15-82	n/a	Ralston Avenue Improvements	\$465,000
15-89	n/a	Dekoven Tanks Replacement	\$3,850,000
Total:			\$17,605,000

Table 6 - Zone 1 CIP Projects

CIP No.	DSA No.	Description	Budget (2020)
15-68	073	Wessex Way Dead End Improvements	\$330,000
15-69	074	Sussex Ct Improvements	\$155,000
15-70	075	Shoreway Rd Improvements	\$235,000
15-71	076	Wessex Way Loop Improvements	\$215,000
15-72A	077	SR 101 Crossing at PAMF – Phase 1*	\$595,000
15-72B	077	SR 101 Crossing at PAMF – Phase 2*	\$2,765,000
15-75A	080	Old County Road Improvements – Phase 1*	\$4,030,000
15-75B	080	Old County Road Improvements – Phase 2*	\$2,065,000
15-76	081	El Camino Real Improvements*	\$3,520,000
15-77	082	Sixth Ave (Zone 1) Improvements	\$250,000
15-78	083	Civic Ln Improvements	\$1,405,000
15-79	084	F St Improvements*	\$315,000
15-80	085	Bragato Rd Improvements	\$740,000
15-81	086	Sixth / O'Neill Ave Improvements	\$2,200,000
15-82	n/a	Ralston Ave Improvements*	\$465,000
15-84	n/a	Ralston Ave Regulator Relocation	\$385,000
15-85	n/a	O'Neill Slough Bridge Crossing Assessments	\$55,000
20-03	n/a	Laxague Dr 18" CCP Abandonment	\$75,000
20-07	n/a	Harbor Blvd Improvements	\$2,900,000
Zone 1 Total:			\$22,700,000

*Project currently under design.

Brief descriptions of the 19 Zone 1 projects follow. Please refer to the corresponding exhibits in Appendix B for more detailed descriptions and backgrounds.

15-68 - Wessex Way Dead End Improvements – Replaces 250 LF of a dead end 4" PVC with 8" PVC to replace aging / undersized infrastructure and improve fire flows.

15-69 - Sussex Court Improvements – Replaces 150 LF of a dead end 4" PVC with 8" PVC in addition to a new fire hydrant to replace aging / undersized infrastructure and improve fire flows.

15-70 - Shoreway Road Improvements – Abandons 850 LF of 8" AC paralleling a 12" PVC to eliminate aging infrastructure and reduce maintenance.

15-71 - Wessex Way Loop Improvements – Eliminates an 825 LF 6" PVC dead end by installing 250 LF of 8" PVC to loop the water main within the Sterling Place Development, provides system redundancy, improves fire flows, and improves water quality.

15-72A - SR 101 Crossing at PAMF Hospital – Phase 1 – Abandons 500 LF of 12" AC under SR 101 in favor of a new 12" PVC crossing near PAMF eliminating aging infrastructure, dead ends,

creates a looped system, and constructs a serviceable underground inter-tie utility vault. Phase 1 installs 700 LF of 12" PVC along the PAMF easement.

15-72B - SR 101 Crossing at PAMF Hospital – Phase 2 – Abandons 500 LF of 12" AC under SR 101 in favor of a new 12" PVC crossing near PAMF eliminating aging infrastructure, dead ends, creates a looped system, and constructs a serviceable underground inter-tie utility vault. Phase 2 installs 400 LF of 12" PVC under SR 101 and 1,200 LF of 8" PVC along Shoreway Road.

15-75A - Old County Road Improvements -Phase 1 – Abandons 6,475 LF of parallel water mains and installs 3,700 LF of 8" PVC to replace aging infrastructure, reduce maintenance, and improve fire flows. Phase 1 includes work between Ralston Avenue and Bragato Road and all planning, design.

15-75B - Old County Road Improvements -Phase 2 – Abandons 6,475 LF of parallel water mains and installs 3,700 LF of 8" PVC to replace aging infrastructure, reduce maintenance, and improve fire flows. Phase 1 includes work between Ralston Avenue and Marine View Avenue. Planning and design included under Phase 1.

15-76 - El Camino Real Improvements – Replaces 4,100 LF of 8" CIP with 8" DIP to replace aging infrastructure, reduce maintenance, and improve fire flows.

15-77 - Sixth Avenue (Zone 1) Improvements – Installs 200 LF of 8" DIP and a 6" PRV to eliminate 4 dead ends, provide Zone 1 redundancy with a Zone 2 connection, and to improve water movement.

15-78 – Civic Lane Improvements – Replaces 1,900 LF of various sized water main with new 8" DIP to replace aging infrastructure, shorten a dead end, loop the water main, and improve fire flows.

15-79 – F Street Improvements – Installs 400 LF of new 8" DIP to replace an out-of-service 10" CC with an unknown break location, relocates District facilities out of private property, increase system redundancy.

15-80 – Bragato Road Improvements – A replacement / new installation combination of 1,000 LF of 8" PVC to replace aging infrastructure, shorten a dead end, loop the water main, and improve fire flows.

15-81 - Sixth / O'Neill Avenue Improvements – Abandons 1,400 LF of 4"-8" CIP/PVC and replaces 1,500 LF of 18" CC with DIP to eliminate parallel water mains, reduce maintenance, and improve fire flows.

15-82 - Ralston Avenue Improvements – Replaces 500 LF of 6" CIP with 8" PVC to replace aging infrastructure.

15-84 – Ralston Avenue Regulator Relocation – Relocates the regulating station to a more accessible location.

15-85 – O’Neill Slough Bridge Crossing Assessments – Assesses existing water main conditions, their associated suspension systems, and seismic resistance.

20-03 – Laxague Drive 18” CCP Abandonment – Abandons 2,000 LF of 18” CCP to prevent the potential of dead-end water from feeding back into the system and to improve water quality.

20-07 – Harbor Boulevard Improvements – Replaces 2,100 LF of 12” AC water main with 12” PVC due to extensive leaks and repairs.

Table 7 - Zone 2 CIP Projects

CIP No.	DSA No.	Description	Budget (2020)
15-41	042	Mills Ave Improvements	\$335,000
15-42	043	North Rd Improvements	\$340,000
15-45	046-049	Hainline Dr and Vicinity Improvements	\$1,470,000
15-46	050	Miramar Terrace Improvements	\$1,055,000
15-47	051	Virginia Ave Improvements	\$825,000
15-48	052	Willow Ln Improvements	\$500,000
15-50	054	Fairway Dr Improvements	\$1,135,000
15-52	056	Chevy / Clee St Improvements	\$685,000
15-54	058	Villa Ave Improvements	\$1,315,000
15-55	059	Covington Rd Improvements	\$855,000
15-56	060	Carlmont Dr Improvements	\$235,000
15-57	061	Alomar Ave Improvements	\$615,000
15-58	062	Fernwood Way Improvements	\$720,000
15-59	063	Valdez Ave Improvements	\$845,000
15-60	065	Escondido Way Cross-Country Abandonment	\$65,000
15-61	066	Chula Vista Dr Improvements	\$665,000
15-62	067	Sixth Ave Improvements	\$1,855,000
15-63	069	Lower Notre Dame Ave Improvements	\$1,430,000
15-64	070	Tierra Linda Improvements	\$75,000
15-66	071	Vine St (Zone 2) Improvements	\$580,000
15-67	n/a	Village Dr Area Improvements	\$1,400,000
20-04	094	Laurel Ave Cross-Country Abandonment	\$75,000
Zone 2 Total:			\$17,075,000

Brief descriptions of the 22 Zone 2 projects follow. Please refer to the corresponding exhibits in Appendix B for more detailed descriptions and backgrounds.

15-41 - Mills Avenue Improvements – Replaces 280 LF of 4” CIP with 8” DIP and adds an additional fire hydrant to replace aging / undersized infrastructure and improve fire flows.

15-42 - North Road Improvements – Abandons 500 LF of 8” CIP paralleling an 8” PVC and relocates services to the 8” PVC to eliminate aging infrastructure and reduce maintenance.

15-45 – Hainline Drive and Vicinity Improvements – Abandons 400 LF of cross country 4" CIP, replaces 1,750 LF of 4" CIP with 8" DIP along with additional hydrants to eliminate a cross country water main and to improve fire flows.

15-46 – Miramar Terrace Improvements – Replaces 1,250 LF of 4" CIP with 8" DIP to replace aging / undersized infrastructure and improve fire flows.

15-47 – Virginia Avenue Improvements – Abandons 210 LF of cross country 6" CIP/PVC and replaces 970 LF of 6" CIP with 8" DIP to abandon an inaccessible cross-country water main, replace aging infrastructure, and improve fire flows.

15-48 – Willow Lane Improvements – Abandons 230 LF of cross country 4" CIP in favor of a new 600 LF 8" DIP located within the roadway and adds a fire hydrant to eliminate a cross country water main and improve fire flows.

15-50 – Fairway Drive Improvements – Replaces 1,450 LF of 4" PVC with 8" DIP and adds an additional fire hydrant to eliminate undersized infrastructure and improve fire flows.

15-52 – Chevy / Cleve Streets Improvements – Replaces 800 LF of 4" PVC with 8" DIP and adds an additional fire hydrant to eliminate undersized infrastructure and improve fire flows.

15-54 – Villa Avenue Improvements – Replaces 1,500 LF of 4" PVC / 6" CIP with 8" DIP to replace aging / undersized infrastructure and improve fire flows. This project also reconfigures water services connections so each resident has their own dedicated service line.

15-55 – Covington Road Improvements – Replaces 1,000 LF of 4" CIP / 6" DIP with 8" DIP and adds an additional fire hydrant to replace aging / undersized infrastructure and improve fire flows.

15-56 – Carlmont Drive Improvements – Abandons 800 LF of 8" CIP paralleling a 10" PVC to reduce maintenance.

15-57 – Alomar Way Improvements – Replaces 750 LF of 4" CIP with 8" DIP to replace aging / undersized infrastructure and improve fire flows.

15-58 – Fernwood Way Improvements – Replaces 820 LF of 4" CIP with 8" DIP to replace aging / undersized infrastructure and improve fire flows.

15-59 – Valdez Avenue Improvements – Replaces 1,000 LF of 4" CIP with 8" DIP to replace aging / undersized infrastructure and improve fire flows.

15-60 – Escondido Way Cross Country Abandonment – Abandons 300 LF of 4" CIP located between two homes to eliminate aging / undersized infrastructure.

15-61 – Chula Vista Drive Improvements – Replaces 750 LF of parallel 6" / 8" CIP with a single 10" DIP to complete a uniform 10" water main between Hannibal Pump Station and Exborne Tanks, eliminates aging infrastructure and reduces maintenance.

15-62 – Sixth Avenue Improvements – Abandons 700 LF of cross country 6” – 8” CIP that crosses over an existing creek at two locations and replaces it with a combination of 350 LF 8” and 1,400 LF 10” DIP to relocate the water mains to accessible locations.

15-63 – Lower Notre Dame Improvements – Replaces 3,400 LF of parallel 6” - 8” CIP with a single 10” DIP to replace aging infrastructure and reduce maintenance.

15-64 – Tierra Linda Improvements – Installs an in-line gate valve at Tierra Linda Middle School in order to monitor water quality under an experimental dead-end scenario.

15-66 – Vine Street (Zone 2) Improvements – Abandons 250 LF of 4” CIP and the Vine Street Regulator, replaces 700 LF of 4” CIP with 6” / 8” DIP to replace aging / undersized infrastructure and improve fire flows.

15-67 – Village Drive Area Improvements – Replaces 1,700 LF of 6” CIP with 8” DIP to replace aging infrastructure and eliminate two small dead-end stubs.

20-04 – Laurel Avenue Cross Country Abandonment – Abandons a 360 LF cross country 6” DIP in steep, inaccessible terrain.

Table 8 - Zone 3 CIP Projects

CIP No.	DSA No.	Description	Budget (2020)
15-09	012	Dekoven Tank Utilization Project	\$1,940,000
15-11	014	Carmelita Ave Improvements	\$1,105,000
15-12	015	Buena Vista Ave Improvements	\$1,075,000
15-13	016	Monroe, Belle Monti, Coronet Ave Improvements	\$2,685,000
15-15	018	Shirley Rd Improvements	\$595,000
15-16	019	Williams Ave, Ridge Rd, Hillman Ave Improvements	\$2,075,000
15-17	020	Monte Cresta Dr, Alhambra Dr Improvements	\$1,865,000
15-18	021	Pine Knoll Dr Improvements	\$440,000
15-19	022	Oak Knoll Dr Improvements	\$1,365,000
15-20	023	Thurm and Bettina Ave Improvements	\$960,000
15-21	024	Lincoln, Monserat Ave Improvements	\$210,000
15-24	026	San Juan Blvd Improvements	\$510,000
15-89	n/a	Dekoven Tanks Replacement*	\$3,850,000
15-90	096	Alameda De Las Pulgas Loop Improvements	\$740,000
Zone 3 Total:			\$19,415,000

*Project currently under design.

Brief descriptions of the 14 Zone 3 projects follow. Please refer to the corresponding exhibits in Appendix B for more detailed descriptions and backgrounds.

15-09 – Dekoven Tank Utilization Project – A replacement / new installation combination of 2,300 LF of 12” DIP allowing abandonment of two cross country water mains and zone wide fire flow improvement.

15-11 – Carmelita Avenue Improvements – Replaces 1,300 LF of 4”- 6” CIP/PVC with 8” DIP to replace aging / undersized infrastructure and improve fire flows.

15-12 – Buena Vista Avenue Improvements – Replaces 1,250 LF of 4”- 6” CIP/PVC with 8” DIP to replace aging / undersized infrastructure and improve fire flows.

15-13 – Monroe, Belle Monti, Coronet Avenues Improvements – Replaces 3,200 LF of 4” PVC with 8” DIP to replace aging / undersized infrastructure and improve fire flows.

15-15 – Shirley Road Improvements – A replacement / new installation combination of 720 LF of 8” DIP to eliminate dead ends, replace aging / undersized infrastructure, and improve fire flows.

15-16 – Williams Avenue, Ridge Road, Hillman Avenue Improvements – A replacement / new installation combination of 2,500 LF of 8” DIP to eliminate dead ends, replace aging / undersized infrastructure, minor zone reconfiguration, and improve fire flows.

15-17 – Monte Cresta Drive, Alhambra Drive Improvements – Replaces 2,250 LF of 6” CIP with 8” DIP to replace aging / undersized infrastructure and improve fire flows.

15-18 – Pine Knoll Drive Improvements – Replaces 430 LF of 4” CIP with 8” DIP to replace aging / undersized infrastructure and improve fire flows.

15-19 – Oak Knoll Drive Improvements –Replaces 920 LF of 4” PVC with 8” DIP, relines or installs 350 LF 8” HDD DIP to reduce a long dead end, replace aging / undersized infrastructure, and improve fire flows.

15-20 – Thrum and Bettina Avenues Improvements – Replaces 1,150 LF of 4” PVC with 8” DIP to replace aging / undersized infrastructure and improve fire flows.

15-21 – Lincoln, Monserat Avenues Improvements – Installs 250 LF of 8” DIP with 8” DIP to eliminate two dead ends, creates a loop, and improves fire flows.

15-24 – San Juan Boulevard Improvements – Abandons 200 LF of 4” CIP paralleling an 8” PVC, replaces 520 LF of 6” CIP with 8” DIP to replace aging / undersized infrastructure, reduce maintenance, and improve fire flows.

15-89 – Dekoven Tanks Replacement – Replaces the existing 1.0 MG and 0.7 MG originally constructed in 1952 with two 0.8 MG tanks to improve seismic reliability.

15-90 – Alameda De Las Pulgas Loop Improvements – Installs 1,100 LF of 8” DIP to eliminate two dead ends, creates a loop, and improves water quality.

Table 9 - Zone 4 CIP Projects

CIP No.	DSA No.	Description	Budget (2020)
15-08	011	Zone 4 Water Main Improvements	\$1,390,000
Zone 4 Total:			\$1,390,000

A brief description of the Zone 4 project follows. Please refer to the corresponding exhibits in Appendix B for more detailed descriptions and backgrounds.

15-08 – Zone 4 Water Main Improvements – Replaces 1,300 LF of 4” PVC and 350 LF of 4” CIP with 8” DIP to replace aging / undersized infrastructure and improve fire flows.

Table 10 - Zone 5 CIP Projects

CIP No.	DSA No.	Description	Budget (2020)
15-01	003	Buckland / Shelford Ave Improvements	\$175,000
15-02	004	Courtland Rd Improvements	\$640,000
15-03	005	Spring Ln Improvements	\$295,000
15-04	006	Rose Ln Improvements	\$200,000
15-05	n/a	Calwater Intertie	\$310,000
15-88	098	Vine St Improvements	\$1,065,000
Zone 5 Total:			\$2,685,000

Brief descriptions of the six Zone 5 projects follow. Please refer to the corresponding exhibits in Appendix B for more detailed descriptions and backgrounds.

15-01 – Buckland / Shelford Avenues Improvements – Abandons 270 LF of 6” CIP paralleling a 12” DIP. New connections will be made to the 12” DIP along with other pipe installation to improve fire flows.

15-02 – Courtland Road Improvements – Replaces 780 LF of 4” – 6” CIP with 8” DIP to replace aging / undersized infrastructure and improve fire flows.

15-03 – Spring Lane Improvements – Replaces 270 LF of 4” CIP with 8” DIP to replace aging / undersized infrastructure and improve fire flows.

15-04 – Rose Lane Improvements – Replaces 170 LF of 4” CIP with 8” DIP to replace aging / undersized infrastructure and improve fire flows.

15-05 – Calwater Intertie – Installs an intertie connection to permit the District the ability to provide water to Calwater in the event of an emergency.

15-88 – Vine Street Improvements – Replaces 1,400 LF of 6” CIP with 8” DIP to replace aging / undersized infrastructure and improve fire flows.

Table 11 - Zone 6 CIP Projects

CIP No.	DSA No.	Description	Budget (2020)
15-07	010	Dartmouth Ave Improvements	\$385,000
Zone 6 Total:			\$385,000

A brief description of the Zone 6 project follows. Please refer to the corresponding exhibits in Appendix B for more detailed descriptions and backgrounds.

15-07 – Dartmouth Avenue Improvements – Replaces 410 LF of 4” CIP with 8” DIP to replace aging / undersized infrastructure and improve fire flows.

Table 12 - Zone 7 CIP Projects

CIP No.	DSA No.	Description	Budget (2020)
15-25	027	Christian Ct Improvements	\$330,000
15-26	028	West Belmont Tank Water Main Improvements	\$2,740,000
15-27	029	Lassen Dr Improvements	\$1,540,000
15-29	031	Belmont Canyon Rd Improvements	\$735,000
Zone 7 Total:			\$5,345,000

Brief descriptions of the four Zone 7 projects follow. Please refer to the corresponding exhibits in Appendix B for more detailed descriptions and backgrounds.

15-25 – Christian Court Improvements – Replaces 300 LF of 4” CIP with 8” DIP and installs an additional fire hydrant to replace aging / undersized infrastructure, improve flushing capabilities, and improve fire flows.

15-26 – West Belmont Tank Water Main Improvements – A combination of abandonments / replacement / new installation of 1,400 LF of 8” DIP and 2,400 LF of 12” DIP to eliminate cross country and parallel water mains, improve zone wide fire flows, and replace aging infrastructure.

15-27 – Lassen Drive Improvements – Replaces 1,850 LF of 6” CIP with 8” DIP to replace aging / undersized infrastructure and improve fire flows.

15-29 – Belmont Canyon Road Improvements – Replaces 900 LF of 4” – 8” CIP with 8” DIP to eliminate a local bottle neck, replace aging infrastructure, and improve fire flows.

Table 13 - Zone 8 CIP Projects

CIP No.	DSA No.	Description	Budget (2020)
15-32	034	Soho Cir Improvements	\$160,000
15-33	035	Paddington Ct Improvements	\$205,000
15-34	036	Ridgewood Ct Improvements	\$220,000
15-35	037	Bridge Ct Improvements	\$290,000
15-36	038	Parkridge Ct Improvements	\$300,000
15-37	039	Waterloo Ct Improvements	\$160,000
15-39	n/a	Zone 8 - 14" Cross-Country Improvements	\$715,000
15-40	041	Hastings Dr Improvements	\$485,000
20-01	n/a	Hastings Dr Service Connection Replacements	\$910,000
20-02	n/a	Hallmark Tanks Structural Retrofit / Recoat	\$3,440,000
Zone 8 Total:			\$6,885,000

Brief descriptions of the 10 Zone 8 projects follow. Please refer to the corresponding exhibits in Appendix B for more detailed descriptions and backgrounds.

15-32 – Soho Circle Improvements – Replaces 150 LF of 4" PVC with 8" DIP to replace aging / undersized infrastructure and improve fire flows.

15-33 – Paddington Court Improvements – Replaces 170 LF of 4" PVC with 8" DIP to replace aging / undersized infrastructure and improve fire flows.

15-34 – Ridgewood Court Improvements – Replaces 200 LF of 4" PVC with 8" DIP to replace aging / undersized infrastructure and improve fire flows.

15-35 – Bridge Court Improvements – Replaces 280 LF of 4" PVC with 8" DIP to replace aging / undersized infrastructure and improve fire flows.

15-36 – Parkridge Court Improvements – Replaces 270 LF of 4" PVC with 8" DIP to replace aging / undersized infrastructure and improve fire flows.

15-37 – Waterloo Court Improvements – Replaces 150 LF of 4" PVC with 8" DIP to replace aging / undersized infrastructure and improve fire flows.

15-39 – Zone 8 – 14" Cross Country Improvements – Installs 8 trench dams, 2 remotely controlled gate valves, and a flow meter and/or pressure gauge vault to allow the District to quickly identify a leak along the water main, the ability to isolate a shorter section of repair length.

15-40 – Hastings Drive Improvements – Replaces 550 LF of 4" CIP/PVC with 8" DIP to replace aging / undersized infrastructure, improve fire flows, and also installs a Zone 8 to Zone 2 jumper to be used in emergency situations.

20-01 – Hastings Drive Service Connection Replacements – Replaces 119 polyethylene services with copper pipe per the District’s standard detail.

20-02 – Hallmark Tanks Structural Retrofit / Recoat – Structurally retrofits each tank to operate at a 16 ft water level and extends service life of the tank by recoating.

Table 14 - District Wide CIP Projects

CIP No.	DSA No.	Description	Budget (2020)
15-83	n/a	Emergency Intertie Rebuilds	\$860,000
15-86	n/a	Folger Pump Station Demolition	\$330,000
20-05	n/a	Transmission Water Main Assessments	\$220,000
20-06	n/a	Automated Chloramine Management Systems	\$520,000
20-08	n/a	SCADA Improvements	\$420,000
20-09	n/a	Dairy Lane Operations Center Rehab – Phase 1	\$150,000
20-10	n/a	Dairy Lane Operations Center Rehab – Phase 2	\$1,850,000
District Wide Total:			\$4,350,000

Brief descriptions of the seven District Wide projects follow. Please refer to the corresponding exhibits in Appendix B for more detailed descriptions and backgrounds.

15-83 – Emergency Intertie Rebuilds – Rebuilds / reconfigures the existing interties to obtain more accurate meter readings.

15-86 – Folger Pump Station Site Demolition – Demolishes the existing pump station building at the abandoned Folger Pump Station.

20-05 – Transmission Water Main Assessments – Assess the transmission mains supplying the District into Zone 1 and Zone 7 to determine condition and remaining life expectancy.

20-06 – Automated Chloramine Management Systems – Automatically detects tank disinfection residuals and adjusts levels accordingly to maintain an ideal state of chloramine disinfection.

20-08 – SCADA Improvements – Replaces the old SCADA system with a new modern cloud-based system.

20-09 – Dairy Lane Operations Center – Phase 1 – Repairs various building deficiencies in addition to improving its structural and seismic reliability. Phase 1 includes design and seismic study updates.

20-10 – Dairy Lane Operations Center – Phase 2 – Repairs various building deficiencies in addition to improving its structural and seismic reliability. Phase 2 includes seismic retrofit and construction.

Mid-Peninsula Water District
Capital Improvement Program Summary (FY 19-20 Update)

APPENDIX A

Priority	Project Number	DSA	Zone	Project Name	Quantity			Construction	Planning, Design & CM	Construction Inspection	Contingency	2020 Dollars	Running Total
					LF	SRV	HYD						
FUNDED AND RANKED													
1	15-76	081	1	El Camino Real Improvements	4100	27	8	\$ 2,522,500	\$ 430,000	\$ 250,000	\$ 317,500	\$ 3,520,000	\$ 3,520,000
2	15-89	n/a	3	Dekoven Tanks Replacement	0	0	0	\$ 2,800,000	\$ 420,000	\$ 280,000	\$ 350,000	\$ 3,850,000	\$ 7,370,000
3	15-72a	077	1	SR 101 Crossing at PAMF Hospital - Phase 1	700	0	1	\$ 400,000	\$ 100,000	\$ 40,000	\$ 55,000	\$ 595,000	\$ 7,965,000
4	20-08	n/a	DW	SCADA Improvements	0	0	0	\$ 300,000	\$ 75,000	\$ -	\$ 45,000	\$ 420,000	\$ 8,385,000
5	15-75a	080	1	Old County Road Improvements - Phase 1	3400	67	7	\$ 2,722,000	\$ 665,000	\$ 275,000	\$ 368,000	\$ 4,030,000	\$ 12,415,000
6	15-79	084	1	F Street Improvements	400	2	1	\$ 204,000	\$ 60,000	\$ 20,000	\$ 31,000	\$ 315,000	\$ 12,730,000
7	15-82	n/a	1	Ralston Avenue Improvements	500	5	1	\$ 312,500	\$ 80,000	\$ 30,000	\$ 42,500	\$ 465,000	\$ 13,195,000
8	15-86	n/a	DW	Folger Pump Station Demolition	0	0	0	\$ 250,000	\$ 50,000	\$ -	\$ 30,000	\$ 330,000	\$ 13,525,000
9	20-05	n/a	DW	Transmission Water Main Assessments	0	0	0	\$ 200,000	\$ -	\$ -	\$ 20,000	\$ 220,000	\$ 13,745,000
10	20-09	n/a	N/A	Diary Lane Operations Center Rehabilitation - Phase 1	0	0	0	\$ -	\$ 135,000	\$ -	\$ 15,000	\$ 150,000	\$ 13,895,000
11	20-10	n/a	N/A	Diary Lane Operations Center Rehabilitation - Phase 2	0	0	0	\$ 1,550,000	\$ -	\$ 150,000	\$ 150,000	\$ 1,850,000	\$ 15,745,000
12	20-01	n/a	8	Hastings Drive Service Connection Replacements	0	119	0	\$ 635,500	\$ 125,000	\$ 65,000	\$ 84,500	\$ 910,000	\$ 16,655,000
13	15-40	041	8	Hastings Drive Improvements	550	0	2	\$ 327,500	\$ 80,000	\$ 35,000	\$ 42,500	\$ 485,000	\$ 17,140,000
14	15-88	098	5	Vine Street (Zone 5) Improvements	1400	15	3	\$ 742,500	\$ 150,000	\$ 75,000	\$ 97,500	\$ 1,065,000	\$ 18,205,000
15	20-07	n/a	1	Harbor Boulevard Water Main Replacement	2100	45	7	\$ 2,115,000	\$ 315,000	\$ 210,000	\$ 260,000	\$ 2,900,000	\$ 21,105,000
16	15-29	031	7	Belmont Canyon Road Improvements	900	17	2	\$ 511,500	\$ 105,000	\$ 50,000	\$ 68,500	\$ 735,000	\$ 21,840,000
17	15-72b	077	1	SR 101 Crossing at PAMF Hospital - Phase 2	1600	0	1	\$ 2,015,000	\$ 300,000	\$ 200,000	\$ 250,000	\$ 2,765,000	\$ 24,605,000
18	15-75b	080	1	Old County Road Improvements - Phase 2	2400	54	4	\$ 1,704,000	\$ -	\$ 170,000	\$ 191,000	\$ 2,065,000	\$ 26,670,000
Material Totals					18050	351	37	Total Funded			\$ 26,670,000		

UNFUNDED													
	15-17	020	3	Monte Cresta Drive / Alhambra Drive Improvements	2250	48	7	\$ 1,356,000	\$ 205,000	\$ 135,000	\$ 169,000	\$ 1,865,000	\$ 28,535,000
	15-16	019	3	Williams Avenue, Ridge Road, Hillman Avenue Improvemen	2600	59	5	\$ 1,510,500	\$ 225,000	\$ 150,000	\$ 189,500	\$ 2,075,000	\$ 30,610,000
	15-02	004	5	Courtland Road Improvements	800	9	2	\$ 430,500	\$ 105,000	\$ 45,000	\$ 59,500	\$ 640,000	\$ 31,250,000
	15-24	026	3	San Juan Boulevard Improvements	500	16	3	\$ 342,000	\$ 85,000	\$ 35,000	\$ 48,000	\$ 510,000	\$ 31,760,000
	15-42	043	2	North Road Improvements	0	19	1	\$ 220,500	\$ 65,000	\$ 25,000	\$ 29,500	\$ 340,000	\$ 32,100,000
	15-09	012	3	Dekoven Tank Utilization Project	2400	14	2	\$ 1,413,000	\$ 210,000	\$ 140,000	\$ 177,000	\$ 1,940,000	\$ 34,040,000
	15-41	042	2	Mills Avenue Improvements	300	12	2	\$ 219,000	\$ 65,000	\$ 20,000	\$ 31,000	\$ 335,000	\$ 34,375,000
	15-61	066	2	Chula Vista Drive Improvements	750	10	2	\$ 450,000	\$ 110,000	\$ 45,000	\$ 60,000	\$ 665,000	\$ 35,040,000
	15-63	069	2	Lower Notre Dame Avenue Improvements	1700	25	5	\$ 1,037,500	\$ 155,000	\$ 105,000	\$ 132,500	\$ 1,430,000	\$ 36,470,000
	15-11	014	3	Camelita Avenue Improvements	1300	31	3	\$ 769,500	\$ 155,000	\$ 80,000	\$ 100,500	\$ 1,105,000	\$ 37,575,000

Mid-Peninsula Water District
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APPENDIX A

Priority	Project Number	DSA	Zone	Project Name	Quantity			Construction	Planning, Design & CM	Construction Inspection	Contingency	2020 Dollars	Running Total
					LF	SRV	HYD						
	15-46	050	2	Miramar Terrace Improvements	1300	21	4	\$ 739,500	\$ 145,000	\$ 75,000	\$ 95,500	\$ 1,055,000	\$ 38,630,000
	15-15	018	3	Shirley Road Improvements	750	11	1	\$ 402,000	\$ 100,000	\$ 40,000	\$ 53,000	\$ 595,000	\$ 39,225,000
	15-01	003	5	Buckland / Shelford Avenue Improvements	200	1	1	\$ 114,500	\$ 35,000	\$ 10,000	\$ 15,500	\$ 175,000	\$ 39,400,000
	15-03	005	5	Spring Lane Improvements	300	6	2	\$ 192,000	\$ 55,000	\$ 20,000	\$ 28,000	\$ 295,000	\$ 39,695,000
	15-26	028	7	West Belmont Tank Water Main Improvements	3800	2	2	\$ 1,989,000	\$ 300,000	\$ 200,000	\$ 251,000	\$ 2,740,000	\$ 42,435,000
	15-27	029	7	Lassen Drive Improvements	1900	46	4	\$ 1,122,000	\$ 170,000	\$ 110,000	\$ 138,000	\$ 1,540,000	\$ 43,975,000
	15-81	086	1	Sixth / O'Neill Avenue Improvements	1500	15	2	\$ 1,597,500	\$ 240,000	\$ 160,000	\$ 202,500	\$ 2,200,000	\$ 46,175,000
	15-19	022	3	Oak Knoll Drive Improvements	1300	31	2	\$ 956,000	\$ 190,000	\$ 95,000	\$ 124,000	\$ 1,365,000	\$ 47,540,000
	15-45	046-049	2	Hainline Drive and Vicinity Improvements	1800	42	5	\$ 1,074,000	\$ 160,000	\$ 105,000	\$ 131,000	\$ 1,470,000	\$ 49,010,000
	15-50	054	2	Fairway Drive Improvements	1450	24	2	\$ 790,500	\$ 160,000	\$ 80,000	\$ 104,500	\$ 1,135,000	\$ 50,145,000
	15-52	056	2	Chevy / Clee Streets Improvements	800	16	2	\$ 462,000	\$ 115,000	\$ 45,000	\$ 63,000	\$ 685,000	\$ 50,830,000
	15-13	016	3	Monroe, Belle Monti, Coronet Avenues Improvements	3200	94	6	\$ 1,953,000	\$ 295,000	\$ 195,000	\$ 242,000	\$ 2,685,000	\$ 53,515,000
	15-18	021	3	Pine Knoll Drive Improvements	450	14	2	\$ 295,500	\$ 75,000	\$ 30,000	\$ 39,500	\$ 440,000	\$ 53,955,000
	15-21	024	3	Lincoln / Monserat Avenue Improvements	250	2	1	\$ 136,500	\$ 40,000	\$ 15,000	\$ 18,500	\$ 210,000	\$ 54,165,000
	15-08	011	4	Zone 4 Water Main Improvement	1700	40	2	\$ 975,000	\$ 195,000	\$ 95,000	\$ 125,000	\$ 1,390,000	\$ 55,555,000
	15-25	027	7	Christian Court Improvements	300	11	2	\$ 214,500	\$ 65,000	\$ 20,000	\$ 30,500	\$ 330,000	\$ 55,885,000
	15-69	074	1	Sussex Court Improvements	150	4	1	\$ 100,500	\$ 30,000	\$ 10,000	\$ 14,500	\$ 155,000	\$ 56,040,000
	15-67	n/a	2	Village Drive Area Improvements	1700	34	4	\$ 978,000	\$ 195,000	\$ 100,000	\$ 127,000	\$ 1,400,000	\$ 57,440,000
	15-04	006	5	Rose Lane Improvements	200	5	1	\$ 127,500	\$ 40,000	\$ 15,000	\$ 17,500	\$ 200,000	\$ 57,640,000
	15-34	036	8	Ridgewood Court Improvements	200	8	1	\$ 141,000	\$ 45,000	\$ 15,000	\$ 19,000	\$ 220,000	\$ 57,860,000
	15-35	037	8	Bridge Court Improvements	300	9	1	\$ 190,500	\$ 55,000	\$ 20,000	\$ 24,500	\$ 290,000	\$ 58,150,000
	15-66	071	2	Vine Street (Zone 2) Improvements	700	16	2	\$ 386,000	\$ 100,000	\$ 40,000	\$ 54,000	\$ 580,000	\$ 58,730,000
	15-54	058	2	Villa Avenue Improvements	1500	44	3	\$ 918,000	\$ 185,000	\$ 90,000	\$ 122,000	\$ 1,315,000	\$ 60,045,000
	15-55	059	2	Covington Road Improvements	1000	23	3	\$ 598,500	\$ 120,000	\$ 60,000	\$ 76,500	\$ 855,000	\$ 60,900,000
	15-56	060	2	Carlmont Drive Improvements	0	5	1	\$ 152,500	\$ 45,000	\$ 15,000	\$ 22,500	\$ 235,000	\$ 61,135,000
	15-59	063	2	Valdez Avenue Improvements	1000	24	2	\$ 588,000	\$ 120,000	\$ 60,000	\$ 77,000	\$ 845,000	\$ 61,980,000
	15-62	067	2	Sixth Avenue Improvements	1750	2	5	\$ 1,351,500	\$ 200,000	\$ 135,000	\$ 168,500	\$ 1,855,000	\$ 63,835,000
	15-20	023	3	Thurm and Bettina Avenues Improvements	1200	26	1	\$ 672,000	\$ 135,000	\$ 65,000	\$ 88,000	\$ 960,000	\$ 64,795,000
	15-36	038	8	Parkridge Court Improvements	300	10	1	\$ 195,000	\$ 60,000	\$ 20,000	\$ 25,000	\$ 300,000	\$ 65,095,000
	15-39	n/a	8	Zone 8 - 14" Cross Country Improvements	0	0	0	\$ 480,000	\$ 120,000	\$ 50,000	\$ 65,000	\$ 715,000	\$ 65,810,000
	15-57	061	2	Alomar Avenue Improvements	750	14	1	\$ 415,500	\$ 105,000	\$ 40,000	\$ 54,500	\$ 615,000	\$ 66,425,000
	15-12	015	3	Buena Vista Avenue Improvements	1300	27	3	\$ 751,500	\$ 150,000	\$ 75,000	\$ 98,500	\$ 1,075,000	\$ 67,500,000

**Mid-Peninsula Water District
Capital Improvement Program Summary (FY 19-20 Update)**

APPENDIX A

Priority	Project Number	DSA	Zone	Project Name	Quantity			Construction	Planning, Design & CM	Construction Inspection	Contingency	2020 Dollars	Running Total
					LF	SRV	HYD						
	15-07	010	6	Dartmouth Avenue Improvements	450	7	1	\$ 249,000	\$ 75,000	\$ 25,000	\$ 36,000	\$ 385,000	\$ 67,885,000
	15-48	052	2	Willow Lane Improvements	600	8	2	\$ 336,000	\$ 85,000	\$ 35,000	\$ 44,000	\$ 500,000	\$ 68,385,000
	15-58	062	2	Fernwood Way Improvements	850	16	2	\$ 484,500	\$ 120,000	\$ 50,000	\$ 65,500	\$ 720,000	\$ 69,105,000
	15-60	065	2	Escondido Way Cross Country Abandonment	0	0	0	\$ 40,000	\$ 15,000	\$ 5,000	\$ 5,000	\$ 65,000	\$ 69,170,000
	15-32	034	8	Soho Circle Improvements	150	5	1	\$ 105,000	\$ 30,000	\$ 10,000	\$ 15,000	\$ 160,000	\$ 69,330,000
	15-33	035	8	Paddington Court Improvements	200	6	1	\$ 132,000	\$ 40,000	\$ 15,000	\$ 18,000	\$ 205,000	\$ 69,535,000
	15-37	039	8	Waterloo Court Improvements	150	5	1	\$ 105,000	\$ 30,000	\$ 10,000	\$ 15,000	\$ 160,000	\$ 69,695,000
	15-68	073	1	Wessex Way Dead End Improvements	250	20	1	\$ 217,500	\$ 65,000	\$ 20,000	\$ 27,500	\$ 330,000	\$ 70,025,000
	15-71	076	1	Wessex Way Loop Improvements	250	0	1	\$ 142,500	\$ 40,000	\$ 15,000	\$ 17,500	\$ 215,000	\$ 70,240,000
	15-47	051	2	Virginia Avenue Improvements	1000	17	3	\$ 577,000	\$ 115,000	\$ 60,000	\$ 73,000	\$ 825,000	\$ 71,065,000
	15-64	070	2	Tierra Linda Improvements	0	0	0	\$ 50,000	\$ 15,000	\$ 5,000	\$ 5,000	\$ 75,000	\$ 71,140,000
	15-05	n/a	5	Calwater Intertie	0	0	0	\$ 200,000	\$ 60,000	\$ 20,000	\$ 30,000	\$ 310,000	\$ 71,450,000
	15-70	075	1	Shoreway Road Improvements	0	5	2	\$ 152,500	\$ 45,000	\$ 15,000	\$ 22,500	\$ 235,000	\$ 71,685,000
	15-80	085	1	Bragato Road Improvements	1000	8	2	\$ 516,000	\$ 105,000	\$ 50,000	\$ 69,000	\$ 740,000	\$ 72,425,000
	15-77	082	1	Sixth Avenue (Zone 1) Improvements	200	5	0	\$ 162,500	\$ 50,000	\$ 15,000	\$ 22,500	\$ 250,000	\$ 72,675,000
	15-84	n/a	1	Ralston Avenue Regulator Relocation	0	0	0	\$ 250,000	\$ 75,000	\$ 25,000	\$ 35,000	\$ 385,000	\$ 73,060,000
	15-85	n/a	1	O'Neill Slough Bridge Crossing Assessments	0	0	0	\$ -	\$ 50,000	\$ -	\$ 5,000	\$ 55,000	\$ 73,115,000
	20-03	n/a	1	Laxague Drive 18" CCP Abandonment	0	0	0	\$ 50,000	\$ 15,000	\$ 5,000	\$ 5,000	\$ 75,000	\$ 73,190,000
	20-04	94	2	Laurel Avenue Cross Country Abandonment	0	0	0	\$ 50,000	\$ 15,000	\$ 5,000	\$ 5,000	\$ 75,000	\$ 73,265,000
	20-06	n/a	DW	Automated Chloramine Management Systems	0	0	0	\$ 350,000	\$ 85,000	\$ 35,000	\$ 50,000	\$ 520,000	\$ 73,785,000
	20-02	n/a	8	Hallmark Tanks Structural Retrofit / Recoat	0	0	0	\$ 2,500,000	\$ 375,000	\$ 250,000	\$ 315,000	\$ 3,440,000	\$ 77,225,000
	15-90	096	3	Alameda De Las Pulgas Loop Improvements	1100	0	0	\$ 495,000	\$ 125,000	\$ 50,000	\$ 70,000	\$ 740,000	\$ 77,965,000
	15-78	083	1	Civic Lane Improvements	1900	20	5	\$ 1,020,000	\$ 155,000	\$ 100,000	\$ 130,000	\$ 1,405,000	\$ 79,370,000
	15-83	n/a	DW	Emergency Intertie Rebuilds	0	0	0	\$ 600,000	\$ 120,000	\$ 60,000	\$ 80,000	\$ 860,000	\$ 80,230,000

Material Totals 53750 992 124

Total Unfunded \$ 53,560,000

Total Combined \$ 80,230,000

ASSUMPTIONS

Linear foot Cost for 8" DIP \$ 450
Linear foot Cost for 10" DIP \$ 500
Linear foot Cost for 12" DIP \$ 550
Cost per Service \$ 4,500
Cost per Hydrant 15,000

BUCKLAND / SHELFORD AVENUES IMPROVEMENTS

PROJECT BACKGROUND

Currently there are two parallel water mains beginning from the intersection of Buckland and Shelford Avenues to the driveway of Buckland Tanks. This project will abandon the older 6" cast iron pipe (CIP) water main and tie in the remaining water mains at the intersection of Buckland and Shelford Avenues to a newly constructed 12" ductile iron pipe (DIP) water main. Hydraulic analysis indicates a fire flow increase of 3% to 37% throughout Zone 5. In addition a precariously located fire hydrant will be relocated. Distribution System Analysis No. 003

PROPOSED IMPROVEMENTS

Install 50 LF of new 12" DIP
Replace 150 LF of 6" CIP with 8" DIP
Relocate 1 fire hydrant
Replace 1 service connection

PROJECT BENEFITS

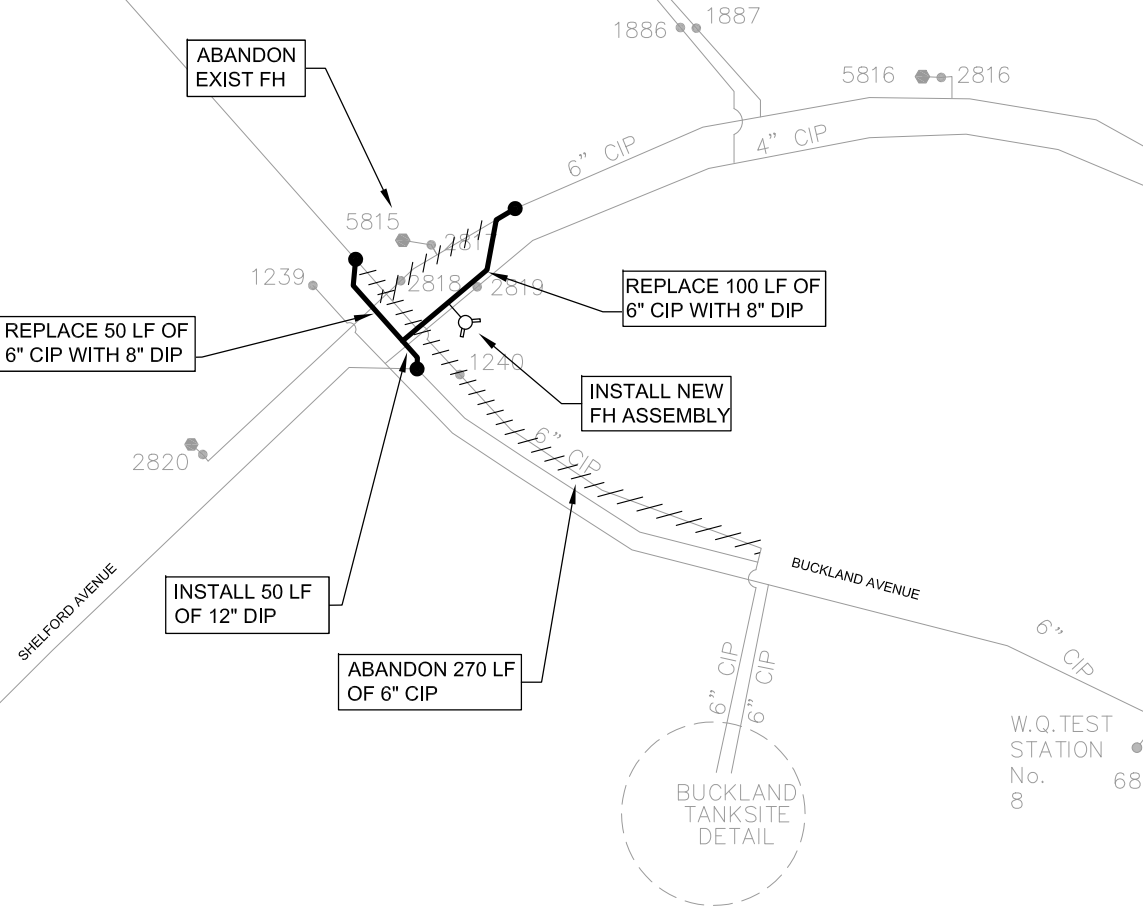
The Buckland / Shelford Avenue Improvements will increase fire flows by 3% to 37% throughout Zone 5.

PROJECT BUDGET (2020)

12" DIP - 50 LF @ \$550/LF	\$ 27,500
8" DIP - 150 LF @ \$450/LF	\$ 67,500
Fire Hydrants - 1 @ \$15,000/EA	\$ 15,000
Service Connections -1 @ \$4,500/EA	\$ 4,500
Subtotal Construction	\$ 114,500
Planning, Design & Construction Support	\$ 35,000
Construction Inspection	\$ 10,000
Contingency (±10%)	\$ 15,500
Project Budget	\$ 175,000

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$



SCALE: 1" = 100'



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JOB No.	10012.07
DATE	10/8/19
SCALE	AS NOTED
DRAWN: BY	BL
CKD	JP



MID-PENINSULA WATER DISTRICT
SAN MATEO COUNTY, CALIFORNIA
3 DAIRY LANE
BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
BUCKLAND / SHELFORD AVENUE IMPROVEMENTS
PROJECT 15-01

Rev 1 - 02/20
Original 2015

COURTLAND ROAD IMPROVEMENTS

PROJECT BACKGROUND

Water is currently provided to the Courtland Road cul-de-sac through a single 580 LF 6" cast iron pipe (CIP) which transitions for the last 200 LF to a 4" CIP. Both water mains were installed in 1958. There is a fire hydrant located approximately 580 LF from the entrance of Courtland Road and no fire hydrant exists at the end of the cul-de-sac. There are 9 services located on Courtland Road. This project replaces the existing 6" and 4" CIP with a new 8" ductile iron pipe (DIP). Two new fire hydrants will be added on Courtland Road along with replacement of all 9 services. Hydraulic analysis indicates a 30% increase in available fire flows to Courtland Road upon completion of this project. Distribution System Analysis No. 004

PROPOSED IMPROVEMENTS

Replace 800 LF of 4" and 6" CIP with 8" DIP
Increase fire hydrants from 1 to 2 to improve spacing
Replace 9 service connections

PROJECT BENEFITS

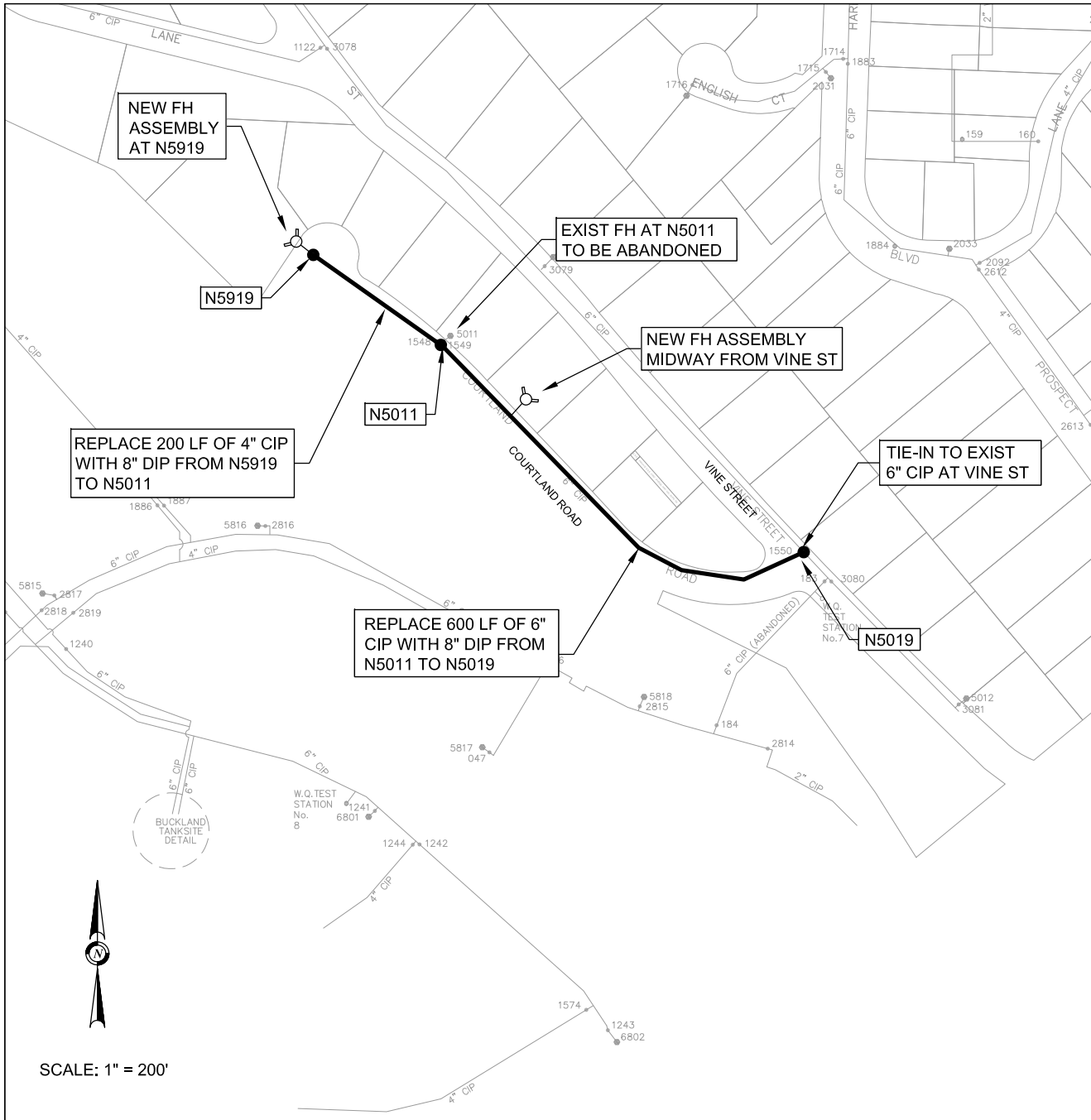
The Courtland Road Improvements replaces an aging, undersized 4" and 6" CIP with a new 8" DIP increasing fire flows by approximately 30% in the area, along with an addition of a fire hydrant at the end of Courtland Road.

PROJECT BUDGET (2020)

8" DIP - 800 LF @ \$450/LF	\$ 360,000
Fire Hydrants - 2 @ \$15,000/EA	\$ 30,000
Service Connections - 9 @ \$4,500/EA	\$ 40,500
Subtotal Construction	\$ 430,500
Planning, Design & Construction Support	\$ 105,000
Construction Inspection	\$ 45,000
Contingency (±10%)	\$ 59,500
Project Budget	\$ 640,000

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$



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MID-PENINSULA WATER DISTRICT
SAN MATEO COUNTY, CALIFORNIA
3 DAIRY LANE
BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
COURTLAND ROAD IMPROVEMENTS
PROJECT 15-02

Rev 1 - 02/20
Original 2015

DRAWING NAME: J:\CADD\10012.07\CIP 2020-20.04.16-Current.dwg
PLOT DATE: 04-16-20 PLOTTED BY: BLaurie

ROSE LANE IMPROVEMENTS

PROJECT BACKGROUND

Water is currently provided to the Rose Lane cul-de-sac through a single 200 LF 4" cast iron pipe (CIP) installed in 1961. There are 5 services located on Rose Lane. This project replaces the existing 4" CIP with a new 8" DIP. The existing fire hydrant will be replaced at the end of Rose Lane along with replacement of all 5 services. Hydraulic analysis indicates a 28% increase in available fire flows to Rose Lane upon completion of this project. Distribution System Analysis No .006

PROPOSED IMPROVEMENTS

Replace 200 LF of 4" CIP with 8" DIP
 Replace 1 fire hydrant
 Replace 5 service connections

PROJECT BENEFITS

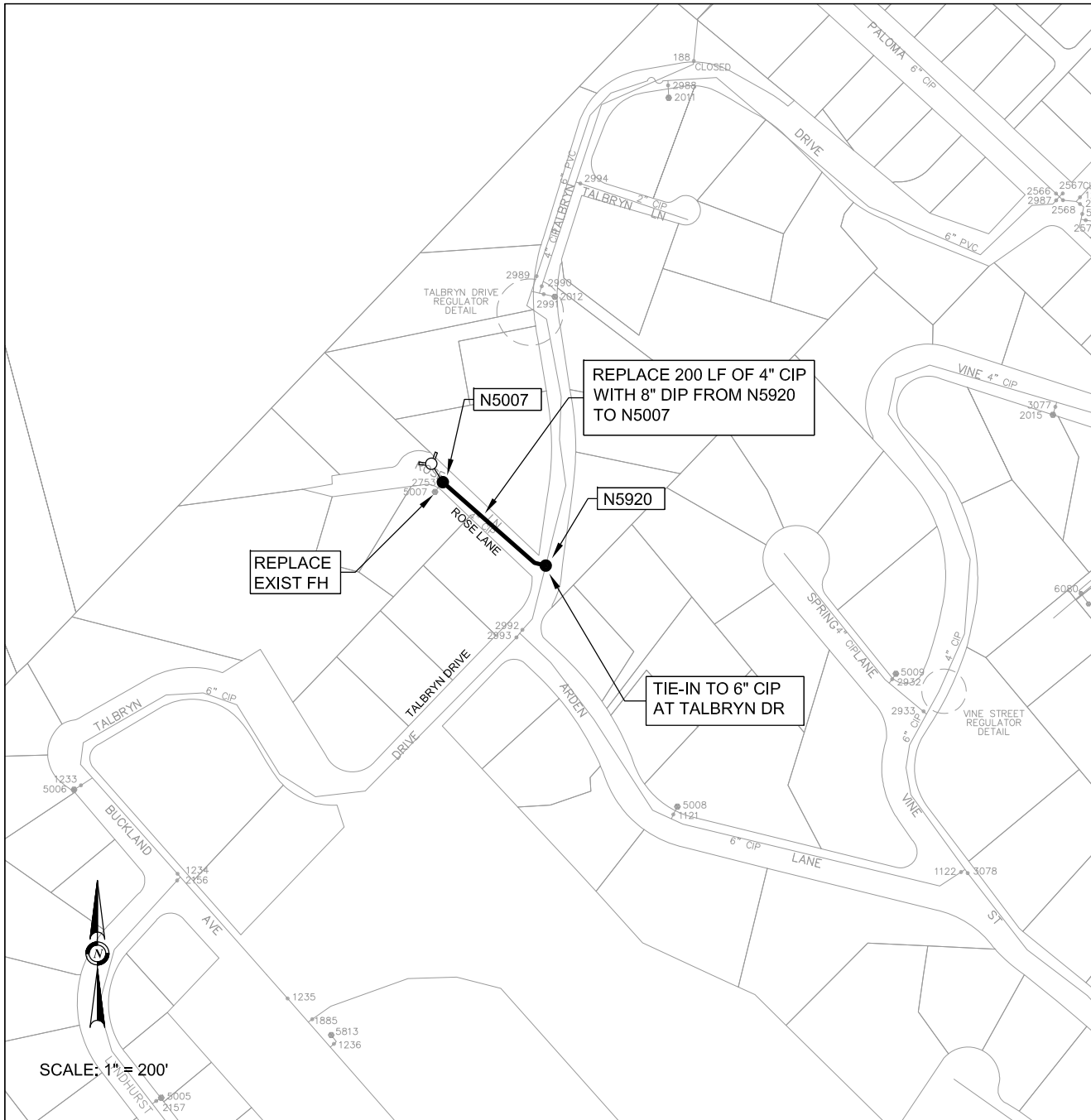
The Rose Lane Improvements replaces an aging, undersized 4" CIP water main with new 8" DIP increasing fire flows by approximately 28% in the area, along with replacing a fire hydrant at the end of Rose Lane.

PROJECT BUDGET (2020)

8" DIP - 200 LF @ \$450/LF	\$ 90,000
Fire Hydrants - 1 @ \$15,000/EA	\$ 15,000
Service Connections - 5 @ \$4,500/EA	\$ 22,500
Subtotal Construction	\$ 127,500
Planning, Design & Construction Support	\$ 40,000
Construction Inspection	\$ 15,000
Contingency (±10%)	\$ 17,500
Project Budget	\$ 200,000

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$



SCALE: 1" = 200'



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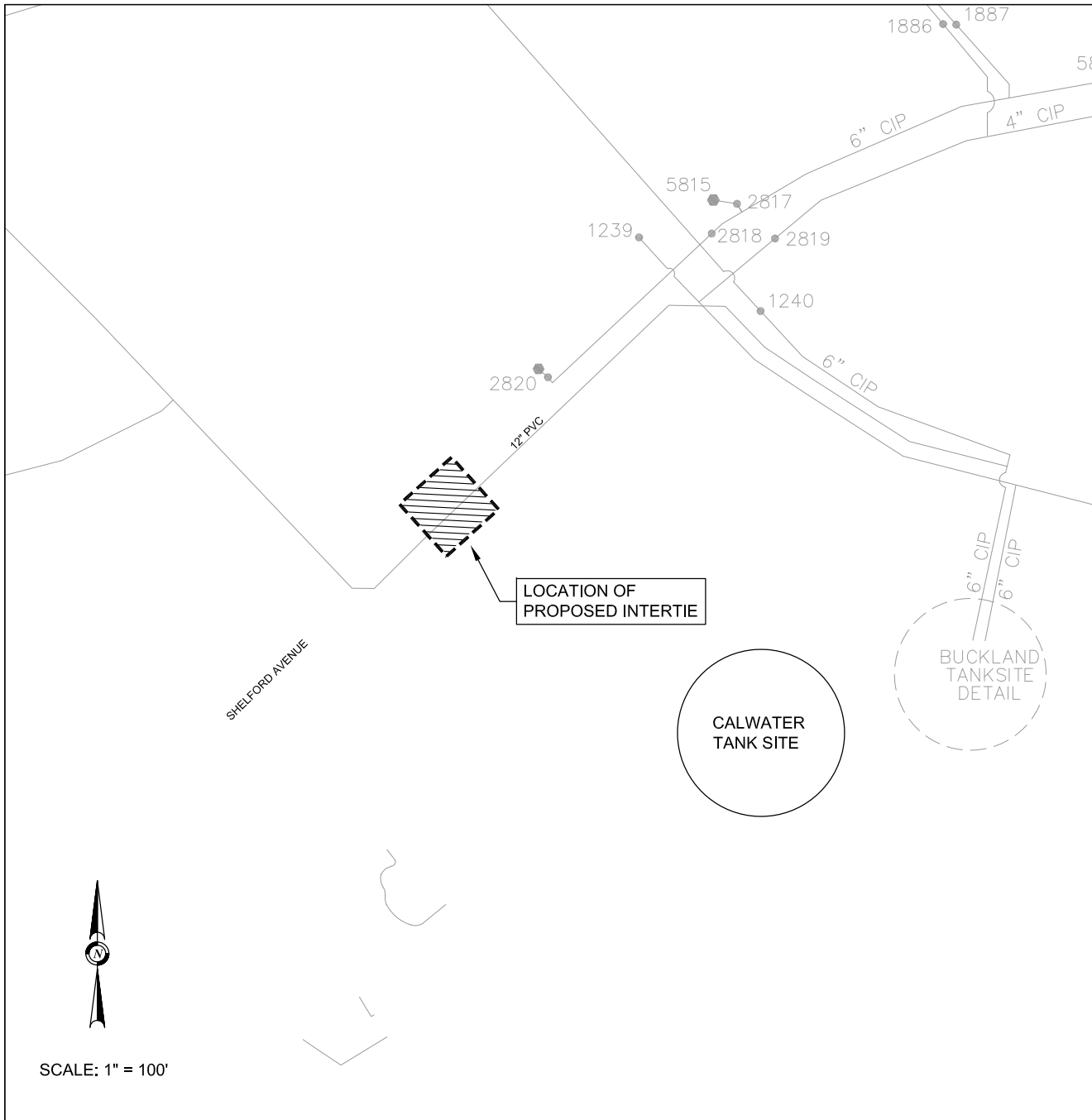
JOB No.	10012.07
DATE	10/8/19
SCALE	AS NOTED
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MID-PENINSULA WATER DISTRICT
 SAN MATEO COUNTY, CALIFORNIA
 3 DAIRY LANE
 BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
 ROSE LANE IMPROVEMENTS
 PROJECT 15-04

Rev 1 - 02/20
 Original 2015



CALWATER INTERTIE

PROJECT BACKGROUND

The California Water Service (Calwater) maintains a water tank below the District's Buckland Tanks Site located in Zone 5. Access to the Calwater tank site is off Shelford Avenue. The District installed a 12" polyvinyl chloride (PVC) water main in 2010 along Shelford Avenue which intersects the Calwater tank site driveway. This driveway is an ideal location for an intertie between the two agencies. Although the Calwater tanks are lower in elevation than the Buckland Tanks, in an emergency Calwater can still provide water to more than half of Zone 5. Through the intertie the District will be able to supply water to the entire Calwater zone.

PROPOSED IMPROVEMENTS

A metered emergency connection with Calwater

PROJECT BENEFITS

The Calwater Intertie will benefit District customers by allowing water to be available from Calwater during an emergency.

PROJECT BUDGET (2020)

Meter, Backflow and Vault	\$ 200,000
Subtotal Construction	\$ 200,000
Planning, Design & Construction Support	\$ 60,000
Construction Inspection	\$ 20,000
Contingency (±10%)	\$ 30,000
Project Budget	\$ 310,000

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$

SCALE: 1" = 100'



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MID-PENINSULA WATER DISTRICT
SAN MATEO COUNTY, CALIFORNIA
3 DAIRY LANE
BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
CALWATER INTERTIE
PROJECT 15-05

Rev 1 - 02/20
Original 2015

ZONE 5
FIRE HYDRANT UPGRADES

PROJECT BACKGROUND

Desvio Way, Solana Drive and Altura Way are each located in Zone 5 and each street has one hydrant located along their midpoints. Desvio Way and Solana Drive are dead end streets with no fire hydrants at their ends and hydrant spacing along all the streets is not optimal. This project improves the hydrant spacing and provides flushing capabilities at the dead ends by installing 4 new fire hydrants. The existing 3 fire hydrants would also be replaced as part of this project to bring them up to current standards. There will also be an added benefit in increasing fire flow protection to residents in Zone 5.

PROPOSED IMPROVEMENTS

- Install 4 new hydrants
- Replace 3 fire hydrants

PROJECT BENEFITS

The Zone 5 Fire Hydrant Upgrades improves hydrant spacing in the area, provides flushing capabilities for the dead ends, and provides increased fire protection to Zone 5 residences.

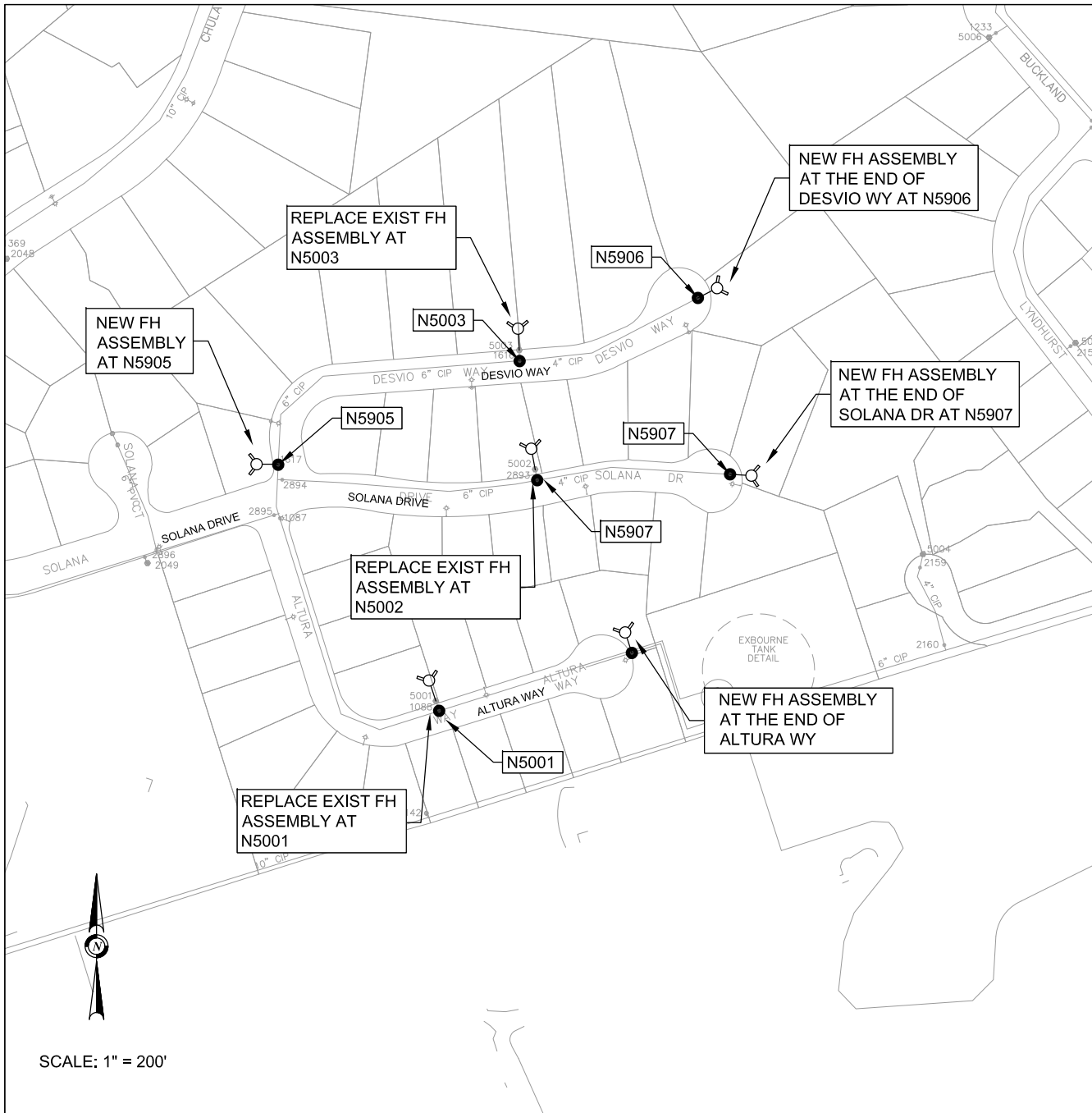
PROJECT BUDGET (2015)*

Fire Hydrants - 7 @ \$15,000/EA	\$ 105,000
Subtotal Construction	\$ 105,000
Planning, Design & Construction Support	\$ 30,000
Contingency (±10%)	\$ 15,000
Project Budget	\$ 150,000

* This project is currently under construction.

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$



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MID-PENINSULA WATER DISTRICT
SAN MATEO COUNTY, CALIFORNIA
3 DAIRY LANE
BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
ZONE 5 FIRE HYDRANT UPGRADES
PROJECT 15-06

Rev 1 - 02/20
Original 2015

DARTMOUTH AVENUE IMPROVEMENTS

PROJECT BACKGROUND

Water is currently provided to Dartmouth Avenue through a 450 LF 4" cast iron pipe (CIP) off Buckland Avenue installed in 1954. There is a fire hydrant located at the Buckland / Dartmouth intersection however there is no hydrant at the end of Dartmouth Avenue. This project replaces the existing 4" CIP with new 8" ductile iron pipe (DIP) and 7 service connections. Hydraulic analysis indicates a 135% increase in available fire flows to Dartmouth Avenue upon completion of this project. Distribution System Analysis No. 010

PROPOSED IMPROVEMENTS

Replace 450 LF of 4" CIP with 8" DIP
Install 1 new fire hydrant
Replace 7 service connections

PROJECT BENEFITS

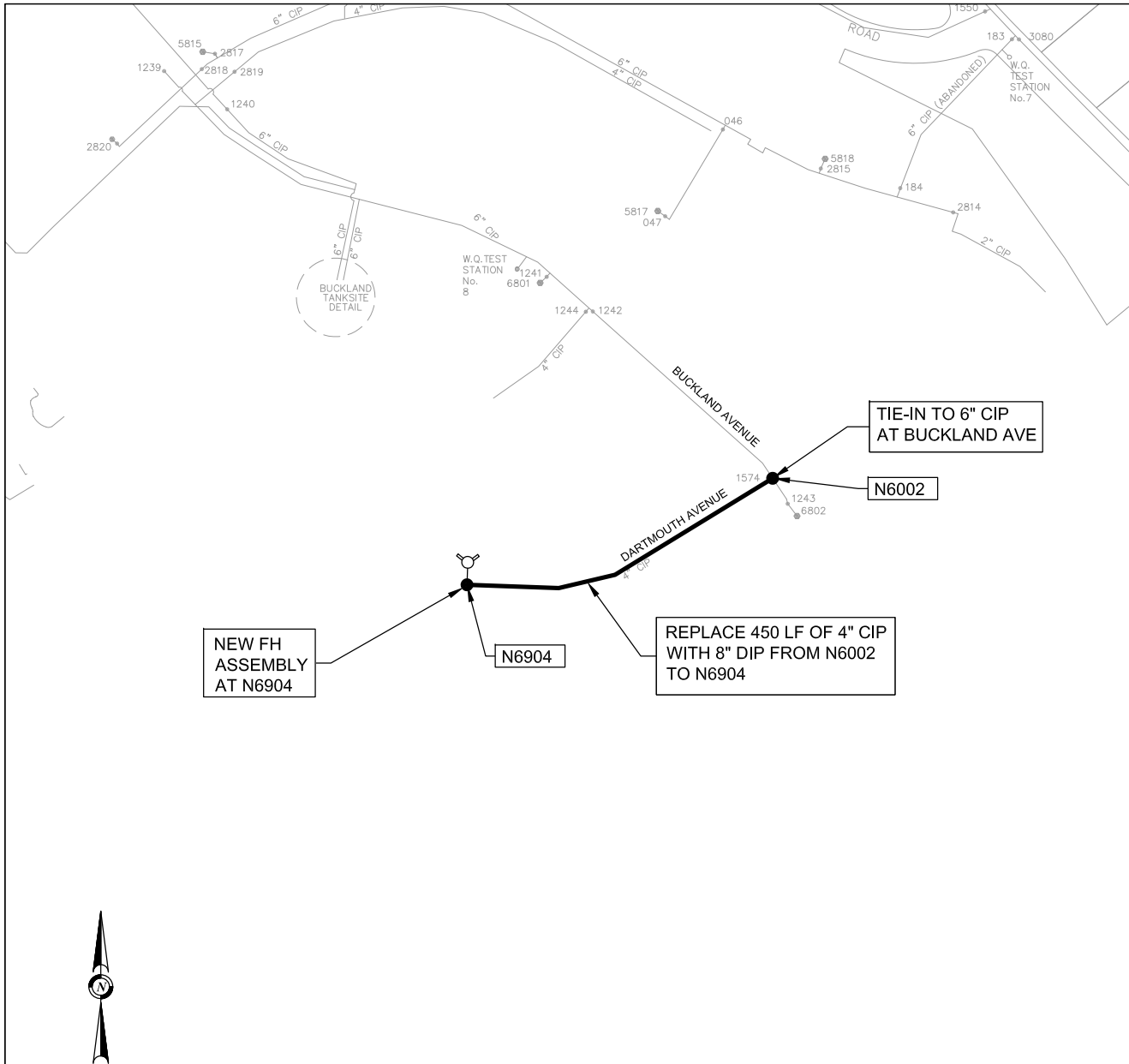
The Dartmouth Avenue Improvements replaces an aging and undersized 4" CIP with new 8" DIP increasing fire flows by approximately 135% in the area and also adds an additional fire hydrant in Zone 6.

PROJECT BUDGET (2020)

8" DIP - 450 LF @ \$450/LF	\$ 202,500
Fire Hydrant - 1 @ \$15,000/EA	\$ 15,000
Service Connections - 7 @ \$4,500/EA	\$ 31,500
Subtotal Construction	\$ 249,000
Planning, Design & Construction Support	\$ 75,000
Construction Inspection	\$ 25,000
Contingency (±10%)	\$ 36,000
Project Budget	\$ 385,000

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$



SCALE: 1" = 200'



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SCALE	AS NOTED
DRAWN:	BY <u>BL</u> CKD <u>JP</u>



MID-PENINSULA WATER DISTRICT
SAN MATEO COUNTY, CALIFORNIA
3 DAIRY LANE
BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
DARTMOUTH AVENUE IMPROVEMENTS
PROJECT 15-07

Rev 1 - 02/20
Original 2015

ZONE 4 WATER MAIN IMPROVEMENTS

PROJECT BACKGROUND

Water is currently provided to Lincoln Avenue, Newlands Avenue and Monserat Avenue through a 1,350 LF 4" polyvinyl chloride pipe (PVC) and a 350 LF 4" cast iron pipe (CIP) in Monserat Avenue. The water mains were installed in 1974. There is a fire hydrant located at the intersection of Lincoln Avenue (N4007) and Newlands Avenue and another fire hydrant on Monserat Avenue (N4008). There are 40 services located on these water mains. This project replaces the existing 4" PVC and 4" CIP with a new 8" ductile iron pipe (DIP). Upon completion of this project, hydraulic analysis indicates a 105% increase in available fire flows at N4007 and a 48% increase in available fire flows N4008. Distribution System Analysis No. 011

PROPOSED IMPROVEMENTS

Replace 1,700 LF of 4" PVC and 4" CIP with 8" DIP
Replace 2 fire hydrants
Replace 40 service connections

PROJECT BENEFITS

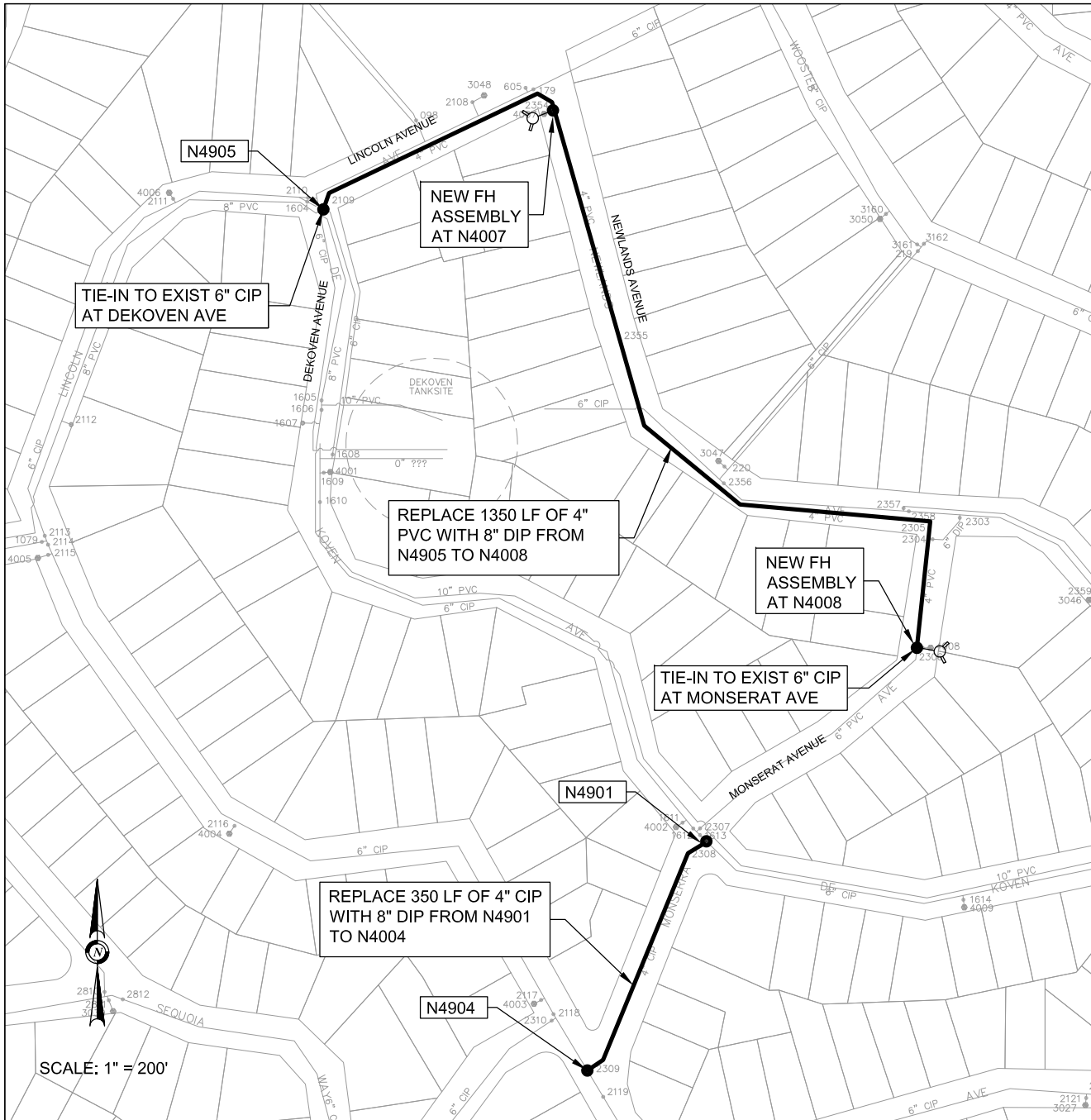
The Zone 4 Water Main Improvements replaces aging, undersized 4" PVC and CIP water mains with a new 8" DIP increasing fire flows by approximately 48% to 105% in the area.

PROJECT BUDGET (2020)

8" DIP - 1,700 LF @ \$450/LF	\$ 765,000
Fire Hydrants - 2 @ \$15,000/EA	\$ 30,000
Service Connections - 40 @ \$4,500/EA	\$ 180,000
Subtotal Construction	\$ 975,000
Planning, Design & Construction Support	\$ 195,000
Construction Inspection	\$ 95,000
Contingency (±10%)	\$ 125,000
Project Budget	\$ 1,390,000

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$



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MID-PENINSULA WATER DISTRICT
SAN MATEO COUNTY, CALIFORNIA
3 DAIRY LANE
BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
ZONE 4 WATER MAIN IMPROVEMENTS
PROJECT 15-08

Rev 1 - 02/20
Original 2015

DEKOVEN TANK UTILIZATION PROJECT

PROJECT BACKGROUND

The Dekoven Tank Site serves Zone 3 with total storage capacity of 1.7 million gallons. Water is primarily gravity fed from Zone 7 through an 8" regulator at the West Belmont Pump Station located on Ralston Avenue. Hersom Pump Station can also provide water to the tank however is infrequently used due to over pressurization of the undersized water mains in the area. Each tank has an 8" outlet connected to a 10" polyvinyl chloride pipe (PVC) transitioning to 6" and 8" cast iron pipe (CIP) shortly thereafter. In addition, a 6" CIP cross country main extends of the backside of the tank to Newlands Avenue. This project increases the tank outlets to 12" and continues a 12" ductile iron pipe (DIP) out to Lincoln Avenue and Newlands Avenue. The project also includes the abandonment of the 6" cross country main between Newlands Avenue and Wooster Avenue.

PROPOSED IMPROVEMENTS

Install new 600 LF of 12" DIP
 Replace 160 LF of 10" PVC and 1,640 LF of 6" CIP with 12" DIP
 Replace 2 fire hydrants
 Replace 14 service connections
 Abandon 2 - 6" cross country mains
 Abandon 325 LF 8" PVC dead end on Dekoven Avenue

PROJECT BENEFITS

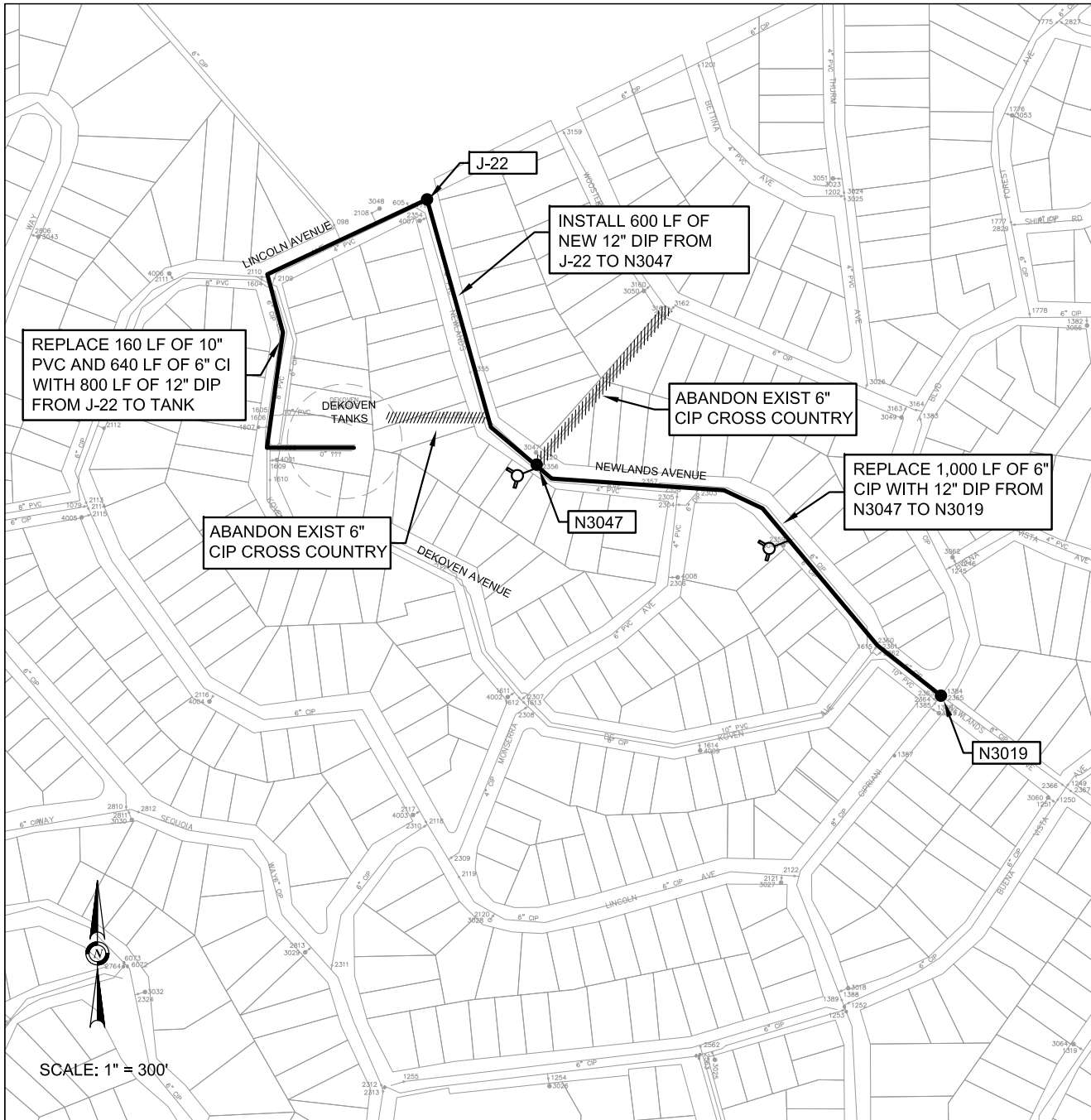
The Dekoven Tanks Utilization Project provides zone wide fire flow improvement, abandons two cross country water mains, and promotes improved water movement.

PROJECT BUDGET (2020)

12" DIP - 2,400 LF @ \$ 550/LF	\$ 1,320,000
Fire Hydrants - 2 @ \$15,000/EA	\$ 30,000
Service Connections - 14 @ \$4,500/EA	\$ 63,000
Subtotal Construction	\$ 1,413,000
Planning, Design & Construction Support	\$ 210,000
Construction Inspection	\$ 140,000
Contingency (±10%)	\$ 177,000
Project Budget	\$ 1,940,000

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$



SCALE: 1" = 300'



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MID-PENINSULA WATER DISTRICT
 SAN MATEO COUNTY, CALIFORNIA
 3 DAIRY LANE
 BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
 DEKOVEN TANK UTILIZATION PROJECT
 PROJECT 15-09

Rev 1 - 02/20
 Original 2015

NOTRE DAME AVENUE LOOP CLOSURE

PROJECT BACKGROUND

According to the District GIS map and discussions with District personnel, water mains along Arbor Avenue and a small portion on Notre Dame Avenue were abandoned. As a result, this created a long 2,100 LF dead end on Terrace Drive and the District has reported water quality issues near the end of the dead end main. In addition, several water mains along Notre Dame Avenue (between Valley View Avenue and Manzanita Avenue) and the Terrace Drive dead end are incapable of meeting the minimum recommended fire flow of 1,500 gpm at 20 psi. This improvement will reconnect Terrace Drive with Notre Dame Avenue at Manzanita Avenue with 1,030 LF of new 8" ductile iron pipe (DIP) thereby eliminating the dead end. In addition, 1,200 LF of new 8" DIP will replace aging, undersized 4" and 6" water mains along Notre Dame Avenue. Three fire hydrants and 29 service connections will also be replaced. Hydraulic analysis indicates a 12% to 106% increase in available fire flows along Terrace Avenue and Notre Dame Avenue upon completion of this project. Distribution System Analysis No. 013

PROPOSED IMPROVEMENTS

Install 1,030 LF of new 8" DIP
Replace 860 LF of 4" CIP, 30 LF of 4" PVC and 310 LF of 6" PVC with 1,200 LF of 8" DIP
Replace 3 fire hydrants
Replace 29 service connections

PROJECT BENEFITS

The Notre Dame Avenue Loop Closure eliminates the dead end on Terrace Avenue and replaces aging and undersized 4" and 6" CIP / PVC water mains with new 8-inch DIP. Fire flows increase by 12% to 106%.

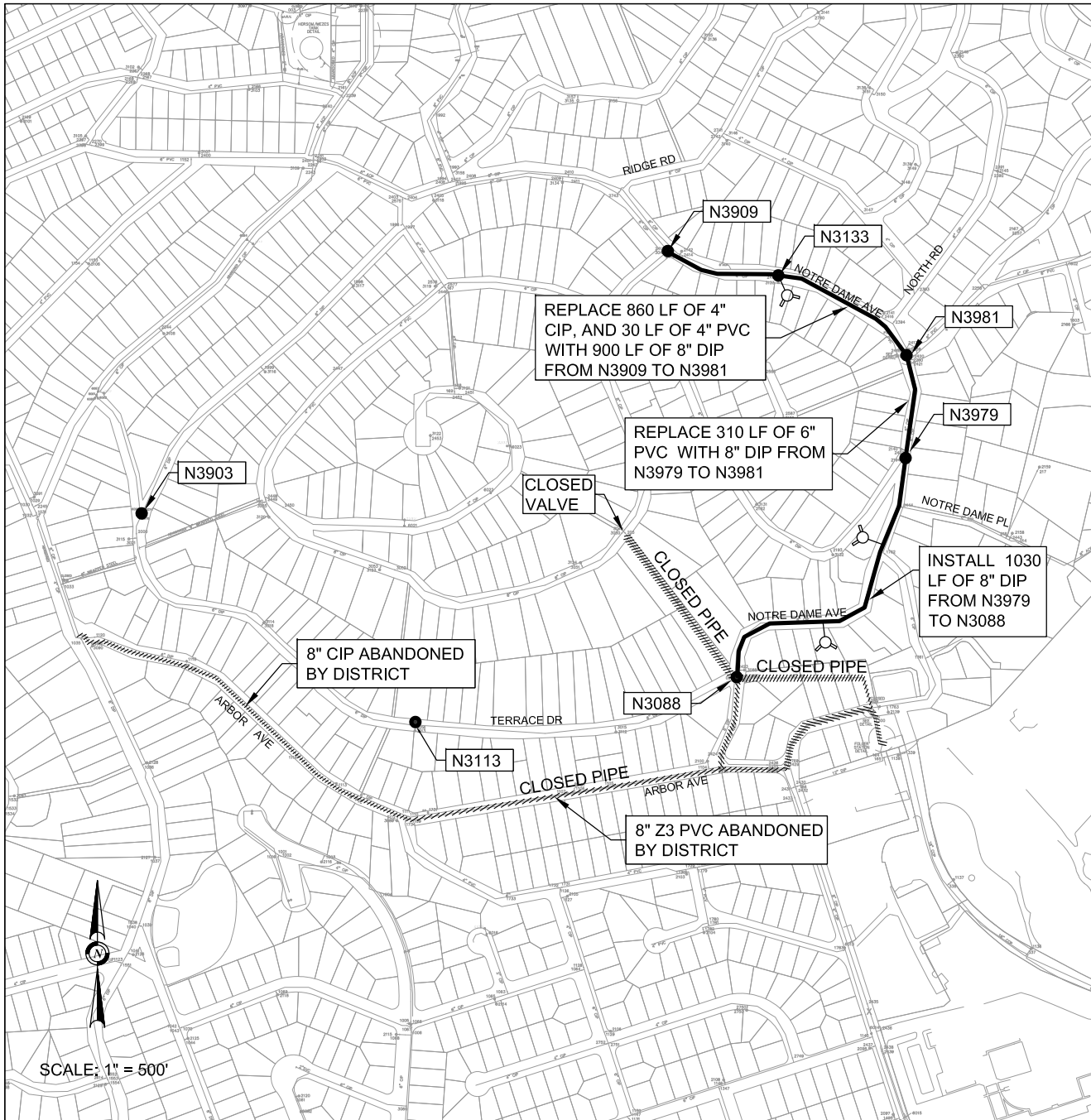
PROJECT BUDGET (2015)*

8" DIP - 2,230 LF @ \$250/LF	\$ 557,500
Fire Hydrants - 3 @ \$15,000/EA	\$ 45,000
Service Connections - 29 @ \$3,000/EA	\$ 87,000
Subtotal Construction	\$ 689,500
Planning, Design & Construction Support	\$ 138,000
Contingency (±10%)	\$ 82,500
Project Budget	\$ 910,000

* This project is currently under construction.

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$



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MID-PENINSULA WATER DISTRICT
SAN MATEO COUNTY, CALIFORNIA
3 DAIRY LANE
BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
NOTRE DAME AVENUE LOOP CLOSURE
PROJECT 15-10

Rev 1 - 02/20
Original 2015

CARMELITA AVENUE IMPROVEMENTS

PROJECT BACKGROUND

Carmelita Avenue has two portions of 4" water mains: 1) a 300 LF polyvinyl chloride pipe (PVC) bottle neck (installed in 1977) between the 8" cast iron pipe (CIP) on Cipriani Avenue and the 6" CIP on Casa Bona Avenue and 2) a 300 LF CIP segment before Read Avenue (installed in 1951). In addition, the 700 LF of CIP water main in between these two areas was also installed in 1951. Due to the undersized mains on Carmelita Avenue, the minimum recommended fire flow of 1,500 gpm at 20 psi cannot be achieved. This project replaces the undersized water mains on Carmelita Avenue to 8" ductile iron pipe (DIP) while at the same time replacing aging pipe. Two hydrants will be replaced along with 31 service connections and the installation of one new hydrant. Hydraulic analysis indicates an 86% increase in available fire flows along Carmelita Avenue upon completion of this project. Distribution System Analysis No. 014

PROPOSED IMPROVEMENTS

Replace 300 LF of 4" PVC w/ 8" DIP
 Replace 300 LF of 4" CIP w/ 8" DIP
 Replace 700 LF of 6" CIP w/ 8" DIP
 Increase fire hydrants from 2 to 3 to improve spacing
 Replace 31 service connections

PROJECT BENEFITS

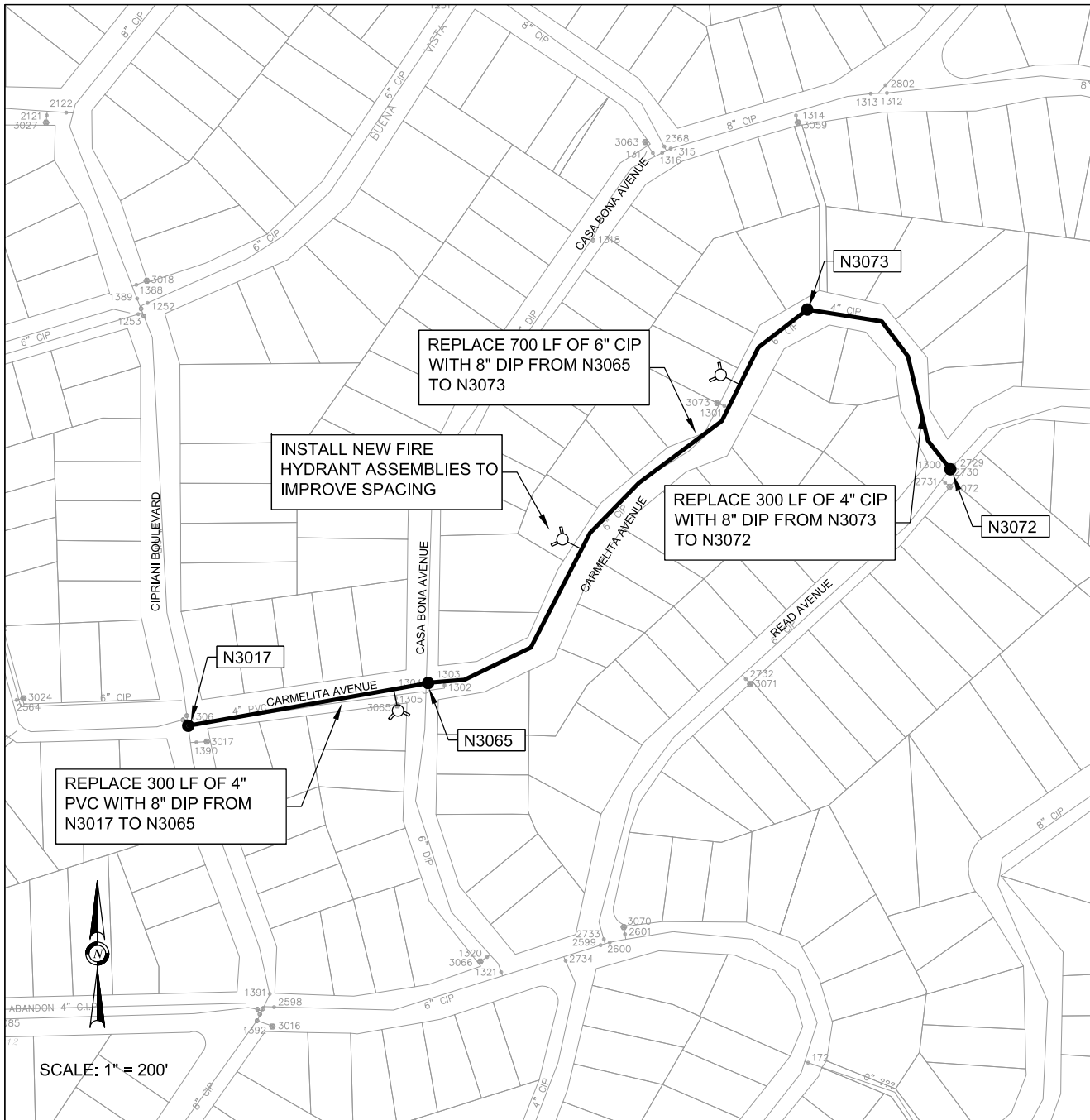
The Carmelita Avenue Improvements replaces aging and undersized 4" PVC, 4" CIP, and 6" CIP water mains with new 8" DIP. Fire flows on Carmelita are also increased by 86%.

PROJECT BUDGET (2020)

8" DIP - 1,300 LF @ \$ 450/LF	\$ 585,000
Fire Hydrants - 3 @ \$15,000/EA	\$ 45,000
Service Connections - 31 @ \$4,500/EA	\$ 139,500
Subtotal Construction	\$ 769,500
Planning, Design & Construction Support	\$ 155,000
Construction Inspection	\$ 80,000
Contingency (±10%)	\$ 100,500
Project Budget	\$ 1,105,000

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$



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MID-PENINSULA WATER DISTRICT
 SAN MATEO COUNTY, CALIFORNIA
 3 DAIRY LANE
 BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
 CARMELITA AVENUE IMPROVEMENTS
 PROJECT 15-11

Rev 1 - 02/20
 Original 2015

BUENA VISTA AVENUE IMPROVEMENTS

PROJECT BACKGROUND

The water mains along Buena Vista Avenue between Newlands Avenue and Cipriani Avenue are comprised of an undersized 1,100LF 4" polyvinyl chloride pipe (PVC) and a 200 LF 6" cast iron pipe (CIP) incapable of achieving the minimum fire flow recommendations of 1,500 gpm at 20 psi. This project replaces the undersized water mains with new 8" ductile iron pipe (DIP). Two fire hydrants along with 27 service connections will also be replaced. Hydraulic analysis indicates a 43% to 119% increase in available fire flows along Buena Vista Avenue upon completion of this project. Distribution System Analysis No. 015

PROPOSED IMPROVEMENTS

Replace 1,100 LF of 4" PVC with 8" DIP
 Replace 200 LF of 6" CIP with 8" DIP
 Increase fire hydrants from 2 to 3 to improve spacing
 Replace 27 service connections

PROJECT BENEFITS

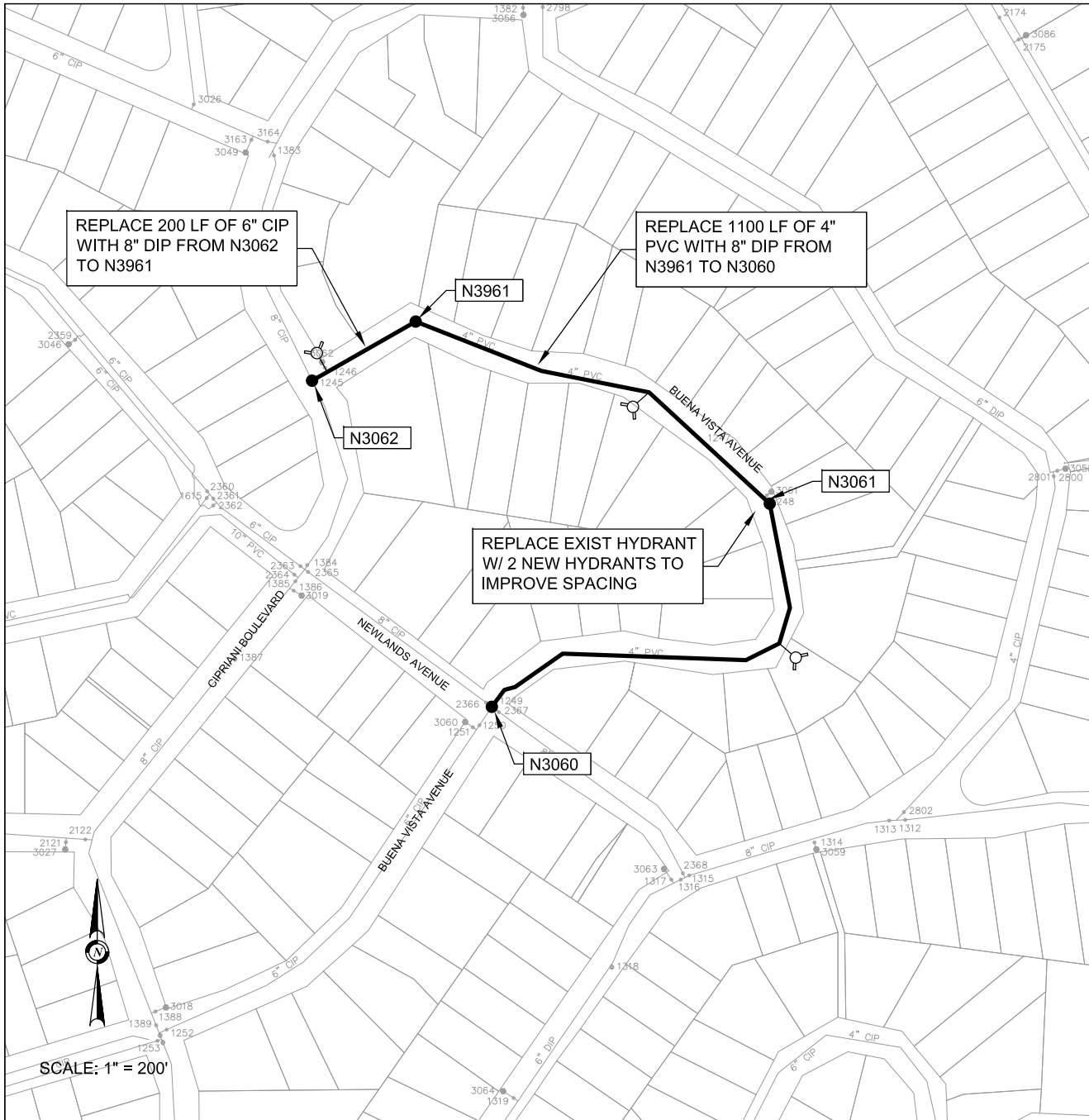
The Buena Vista Avenue Improvements replaces aging and undersized 4" PVC and 6" CIP water mains with new 8" DIP. Fire flows on Buena Vista Avenue increase by 43% to 119%.

PROJECT BUDGET (2020)

8" DIP - 1,300 LF @ \$ 450/LF	\$ 585,000
Fire Hydrants - 3 @ \$15,000/EA	\$ 45,000
Service Connections - 27 @ \$4,500/EA	\$ 121,500
Subtotal Construction	\$ 751,500
Planning, Design & Construction Support	\$ 150,000
Construction Inspection	\$ 75,000
Contingency (±10%)	\$ 98,500
Project Budget	\$ 1,075,000

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$



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MID-PENINSULA WATER DISTRICT
 SAN MATEO COUNTY, CALIFORNIA
 3 DAIRY LANE
 BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
 BUENA VISTA AVENUE IMPROVEMENTS
 PROJECT 15-12

Rev 1 - 02/20
 Original 2015

MONROE, BELLE MONTI, CORONET AVENUES IMPROVEMENTS

PROJECT BACKGROUND

The water mains along Monroe Avenue, Belle Monti Avenue, and Coronet Avenue were installed in the 1970's with 4" polyvinyl chloride pipe (PVC). The undersized mains are incapable of meeting the minimum recommended fire flow of 1,500 gpm at 20 psi. The majority of the surrounding water mains in the area are comprised of 6" or 8" pipe. This project replaces the 4" PVC water mains along the aforementioned streets with 8" ductile iron pipe (DIP). Also included is installing a direct connection of the water mains at the Sharon Avenue / Alameda De Las Pulgas intersection to eliminate 210 LF of parallel water mains. Three fire hydrants along with 94 service connections will be replaced. A new hydrant will also be installed along Coronet Boulevard to improve hydrant spacing in the area. Hydraulic analysis indicates a 100% and 93% increase in available fire flows along Monroe Avenue and Belle Monti Avenue respectively upon completion of this project. Distribution System Analysis No. 016

PROPOSED IMPROVEMENTS

Install 50 LF 8" DIP
Replace 3,150 LF of 4" PVC with 8" DIP
Increase fire hydrants from 4 to 6 to improve spacing
Replace 94 service connections
Abandon 210 LF of 8" CIP

PROJECT BENEFITS

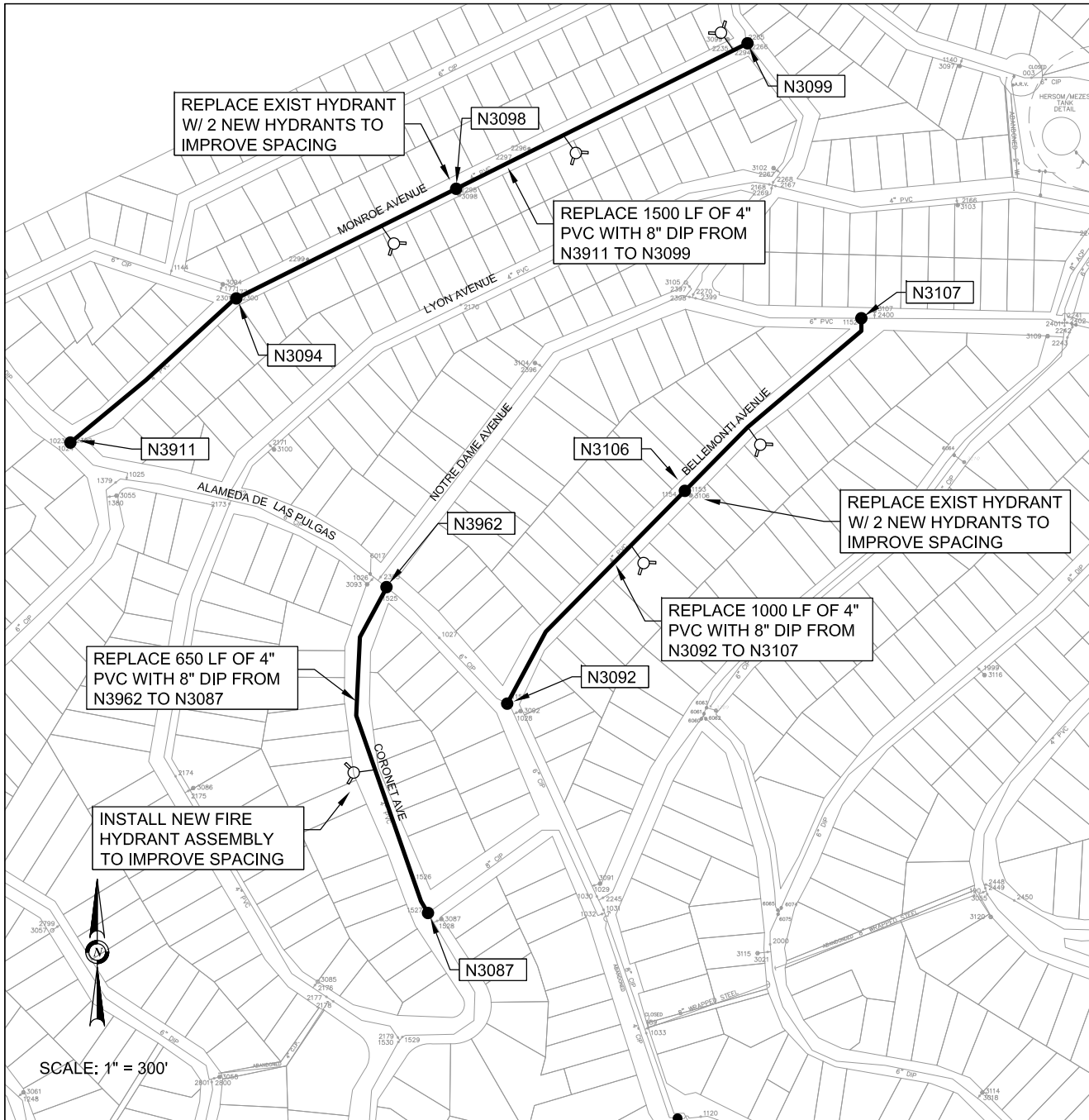
The Monroe, Belle Monti, Coronet Avenues Improvements replaces undersized 4" PVC water mains with new 8" DIP and eliminates the parallel mains on Alameda De Las Pulgas. Fire flows along the streets increase between 93% and 100%.

PROJECT BUDGET (2020)

8" DIP - 3,200 LF @ \$ 450/LF	\$1,440,000
Fire Hydrants - 6 @ \$15,000/EA	\$ 90,000
Service Connections - 94 @ \$4,500/EA	\$ 423,000
Subtotal Construction	\$1,953,000
Planning, Design & Construction Support	\$ 295,000
Construction Inspection	\$ 195,000
Contingency (±10%)	\$ 242,000
Project Budget	\$2,685,000

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$



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MID-PENINSULA WATER DISTRICT
SAN MATEO COUNTY, CALIFORNIA
3 DAIRY LANE
BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
MONROE, BELLE MONTI, CORONET AVENUES
IMPROVEMENTS - PROJECT 15-13

Rev 1 - 02/20
Original 2015

SHIRLEY ROAD IMPROVEMENTS

PROJECT BACKGROUND

Water is currently provided to Shirley Road through a single 140 LF 4" cast iron pipe (CIP) from the south and a single 450 LF 6" CIP from the north. Both water mains were installed in the 1950's. The existing mains do not connect therefore creating two dead ends on the same street and as a result fire flows are below the recommended 1,500 gpm at 20 psi. This project would connect the two dead ends creating a looped water main on the street as well as replacing the 4" and 6" water mains with new 8" ductile iron pipe (DIP). One hydrant and 11 service connections will be replaced. Hydraulic analysis indicates a 74% to 259% increase in available fire flows along Shirley Road upon completion of this project. Distribution System Analysis No. 018

PROPOSED IMPROVEMENTS

Install 160 LF of 8" DIP
 Replace 140 LF of 4" CIP and 450 LF of 6" CIP with 8" DIP
 Replace 1 fire hydrant
 Replace 11 service connections

PROJECT BENEFITS

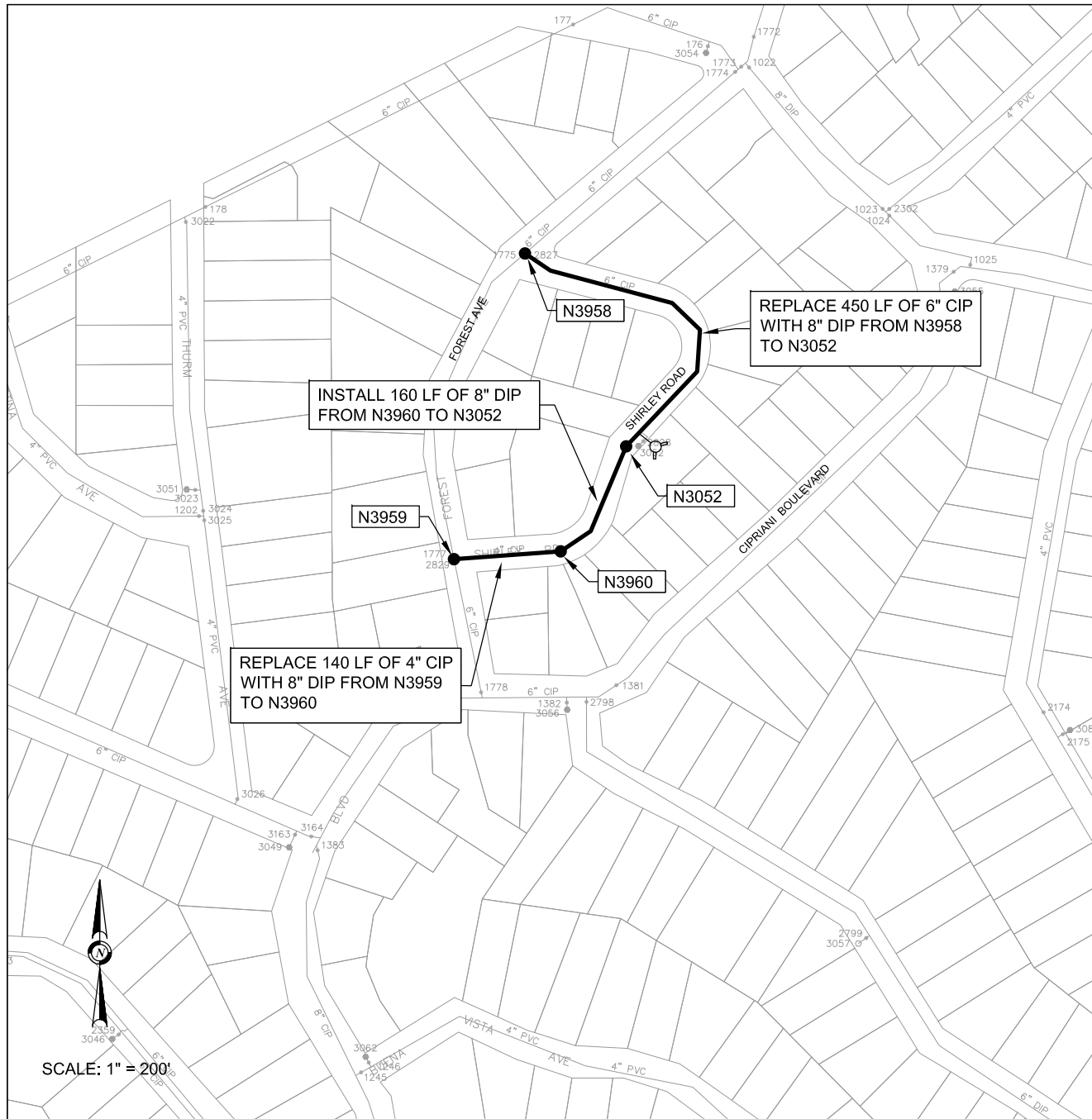
The Shirley Road Improvements eliminates two dead ends and replaces aging and undersized 4" and 6" CIP water mains with new 8" DIP. Fire flows on Shirley Road increase by 74% to 259%.

PROJECT BUDGET (2020)

8" DIP - 750 LF @ \$450/LF	\$ 337,500
Fire Hydrants - 1 @ \$15,000/EA	\$ 15,000
Service Connections - 11 @ \$4,500/EA	\$ 49,500
Subtotal Construction	\$ 402,000
Planning, Design & Construction Support	\$ 100,000
Construction Inspection	\$ 40,000
Contingency (±10%)	\$ 53,000
Project Budget	\$ 595,000

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$



SCALE: 1" = 200'



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MID-PENINSULA WATER DISTRICT
 SAN MATEO COUNTY, CALIFORNIA
 3 DAIRY LANE
 BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
 SHIRLEY ROAD IMPROVEMENTS
 PROJECT 15-15

Rev 1 - 02/20
 Original 2015

WILLIAMS AVENUE, RIDGE ROAD HILLMAN AVENUE IMPROVEMENTS

PROJECT BACKGROUND

The water mains on Williams Avenue, Ridge Road, and Hillman Avenue were installed in the mid 1950's. Three dead ends exist on these streets including a Zone 3 350 LF 4" cast iron pipe (CIP) and 50 LF 6" CIP on Hillman Avenue, a Zone 3 500 LF 4" CIP on Ridge Road and a Zone 2 260 LF 4" CIP on Williams Avenue. Due to the dead ends and the undersized water mains, these areas are incapable of meeting the recommended fire flow of 1,500 gpm at 20 psi. This project replaces the aging and undersized 4" and 6" water mains with new 8" ductile iron pipe (DIP). In addition, the project eliminates the Zone 2 dead end by installing a new 500 LF 8" DIP water main between Williams Avenue and Notre Dame Avenue on Zone 3. Five services originally located on Zone 2 will be transferred to Zone 3. Four fire hydrants and 59 service connections will be replaced. Hydraulic analysis indicates a 169% to 182% increase in available fire flows. Distribution System Analysis No. 019

PROPOSED IMPROVEMENTS

Install 500 LF of 8" DIP
Replace 1,650 LF of 4" CIP and 450 LF of 6" CIP with 8" DIP
Replace 4 fire hydrant
Install 1 fire hydrant to improve spacing
Replace 59 service connections

PROJECT BENEFITS

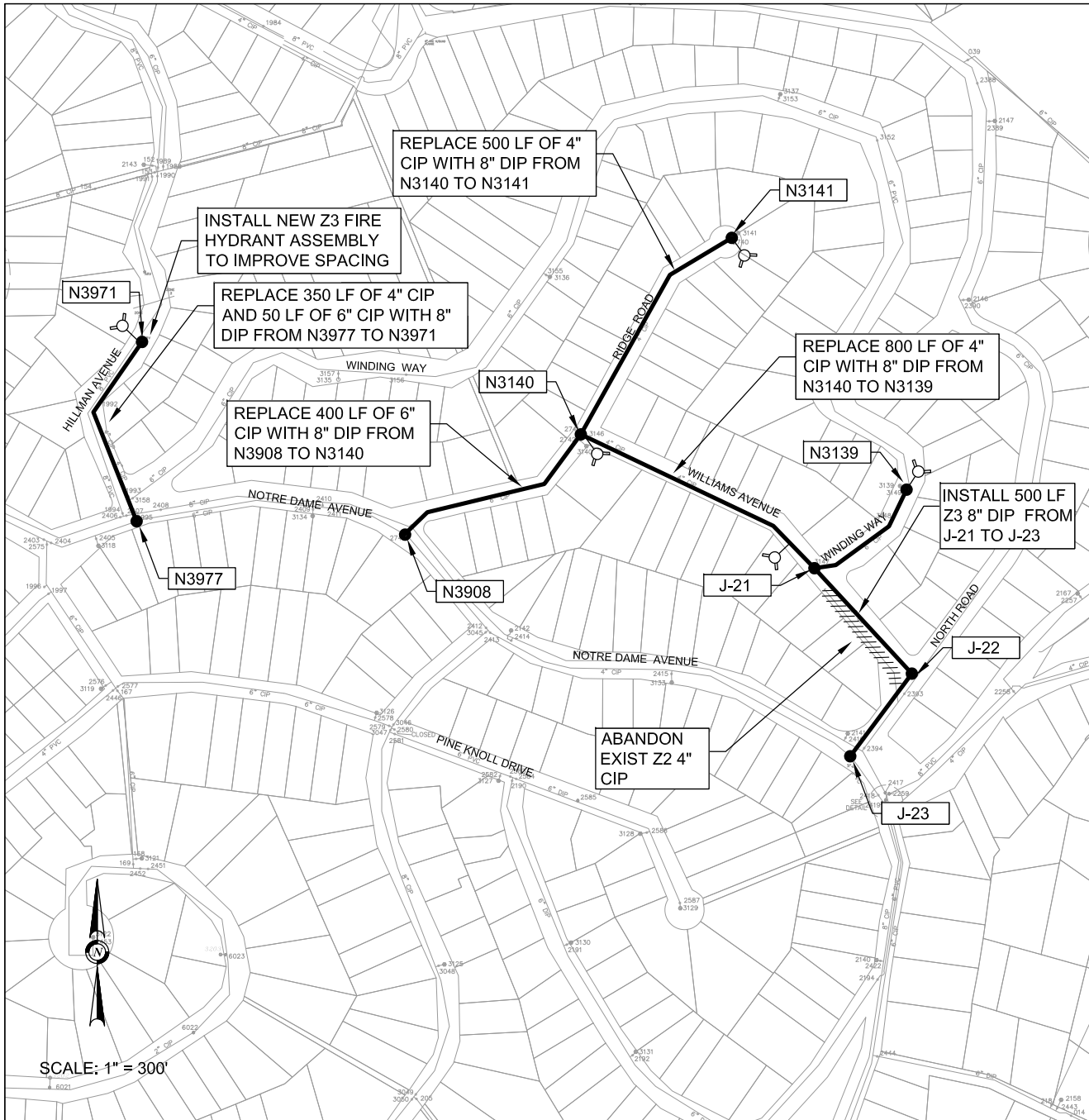
The Williams Avenue, Ridge Road, Hillman Avenue Improvements replaces aging and undersized 4" and 6" water mains with new 8" ductile iron pipe. The Zone 2 dead end on Williams is eliminated by installing a new looped Zone 3 water main. Fire flows on the streets are increased by as much as 182%.

PROJECT BUDGET (2020)

8" DIP - 2,600 LF @ \$ 450/LF	\$ 1,170,000
Fire Hydrants - 5 @ \$15,000/EA	\$ 75,000
Service Connections - 59 @ \$4,500/EA	\$ 265,500
Subtotal Construction	\$ 1,510,500
Planning, Design & Construction Support	\$ 225,000
Construction Inspection	\$ 150,000
Contingency (±10%)	\$ 189,500
Project Budget	\$ 2,075,000

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$



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MID-PENINSULA WATER DISTRICT
SAN MATEO COUNTY, CALIFORNIA
3 DAIRY LANE
BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM WILLIAMS AVENUE, RIDGE ROAD, HILLMAN AVENUE IMPROVEMENTS - PROJECT 15-16

Rev 1 - 02/20
Original 2015

MONTE CRESTA DRIVE, ALHAMBRA DRIVE IMPROVEMENTS

PROJECT BACKGROUND

Both Monte Cresta Drive and Alhambra Drive are long 850 LF 6" cast iron pipe (CIP) and 1,450 LF 6" CIP dead ends respectively. Localized fire flows on these streets are below the recommended 1,500 gpm at 20 psi. In addition, the water mains were installed in the 1950's and 1960's. This project replaces the aging and undersized water mains with new 8" ductile iron pipe (DIP). Five hydrants and 48 service connections will be replaced. Hydraulic analysis indicates increased fire flows on Monte Cresta as high as 60% and Alhambra Drive as high as 72% upon completion of this project. The water age effects of increasing the water mains from 6" to 8" were minimal. Distribution System Analysis No. 020

PROPOSED IMPROVEMENTS

Replace 850 LF of 6" CIP on Monte Cresta Drive with 8" DIP
 Replace 1,450 LF of 6" CIP on Alhambra Drive with 8" DIP
 Increase fire hydrants from 4 to 7 to improve spacing
 Replace 48 services

PROJECT BENEFITS

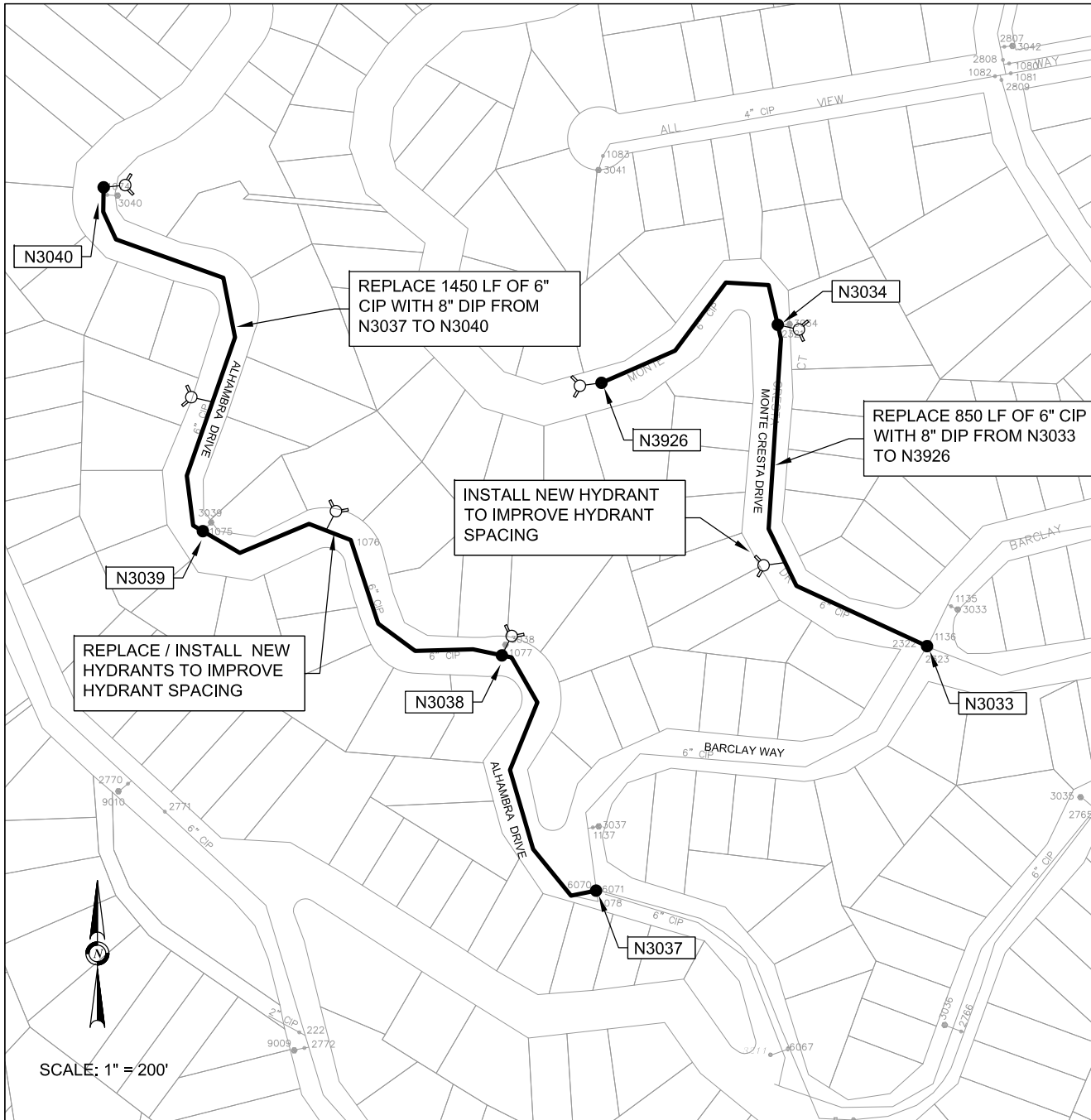
The Monte Cresta Drive and Alhambra Drive Water Main Improvement Project replaces aging and undersized 6" water mains with 8" DIP. Fire flows on these streets increase as much as 72%.

PROJECT BUDGET (2020)

8" DIP - 2,300 LF @ \$ 450/LF	\$ 1,035,000
Fire Hydrants - 7 @ \$15,000/EA	\$ 105,000
Service Connections - 48 @ \$4,500/EA	\$ 216,000
Subtotal Construction	\$ 1,356,000
Planning, Design & Construction Support	\$ 205,000
Construction Inspection	\$ 135,000
Contingency (±10%)	\$ 169,000
Project Budget	\$ 1,865,000

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$



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MID-PENINSULA WATER DISTRICT
 SAN MATEO COUNTY, CALIFORNIA
 3 DAIRY LANE
 BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
 MONTE CRESTA DRIVE, ALHAMBRA DRIVE IMPROVEMENTS
 PROJECT 15-17

Rev 1 - 02/20
 Original 2015

OAK KNOLL DRIVE IMPROVEMENTS

PROJECT BACKGROUND

Water is currently provided to a portion of Oak Knoll Drive through a 1,520 LF 6" polyvinyl chloride pipe (PVC). A 350 LF 6" cast iron pipe (CIP) cross country main between 1717 Pine Knoll Drive and 1801 Oak Knoll Drive also fed this area however was recently abandoned. In addition, 950 LF of 4" PVC creates a bottleneck on Oak Knoll Drive between Pine Knoll Drive and Valley View Avenue (there are also no hydrants in this section) and the cul-de-sac on Oak Knoll is 100 feet higher than the surrounding streets. All of these characteristics, especially the cross country abandonment, substantially decrease the amount of available fire flows along both Oak Knoll Drive and portions of Valley View Avenue. This project replaces the undersized 4" PVC on Oak Knoll with an 8" ductile iron pipe (DIP) and also reinstates the cross country water main by either relining the existing 6" CIP or installing a new 8" HDD DIP using horizontal directional drilling (HDD). Two new hydrants will also be added to Oak Knoll Drive. Hydraulic analysis indicates a 18% to 68% increase in available fire flows. Distribution System Analysis No. 022

PROPOSED IMPROVEMENTS

Replace 950 LF of 4" PVC with 8" DIP
 Reline 350 LF of 6" CIP or install new 8" HDD DIP
 Install 2 new fire hydrants
 Replace 33 service connections

PROJECT BENEFITS

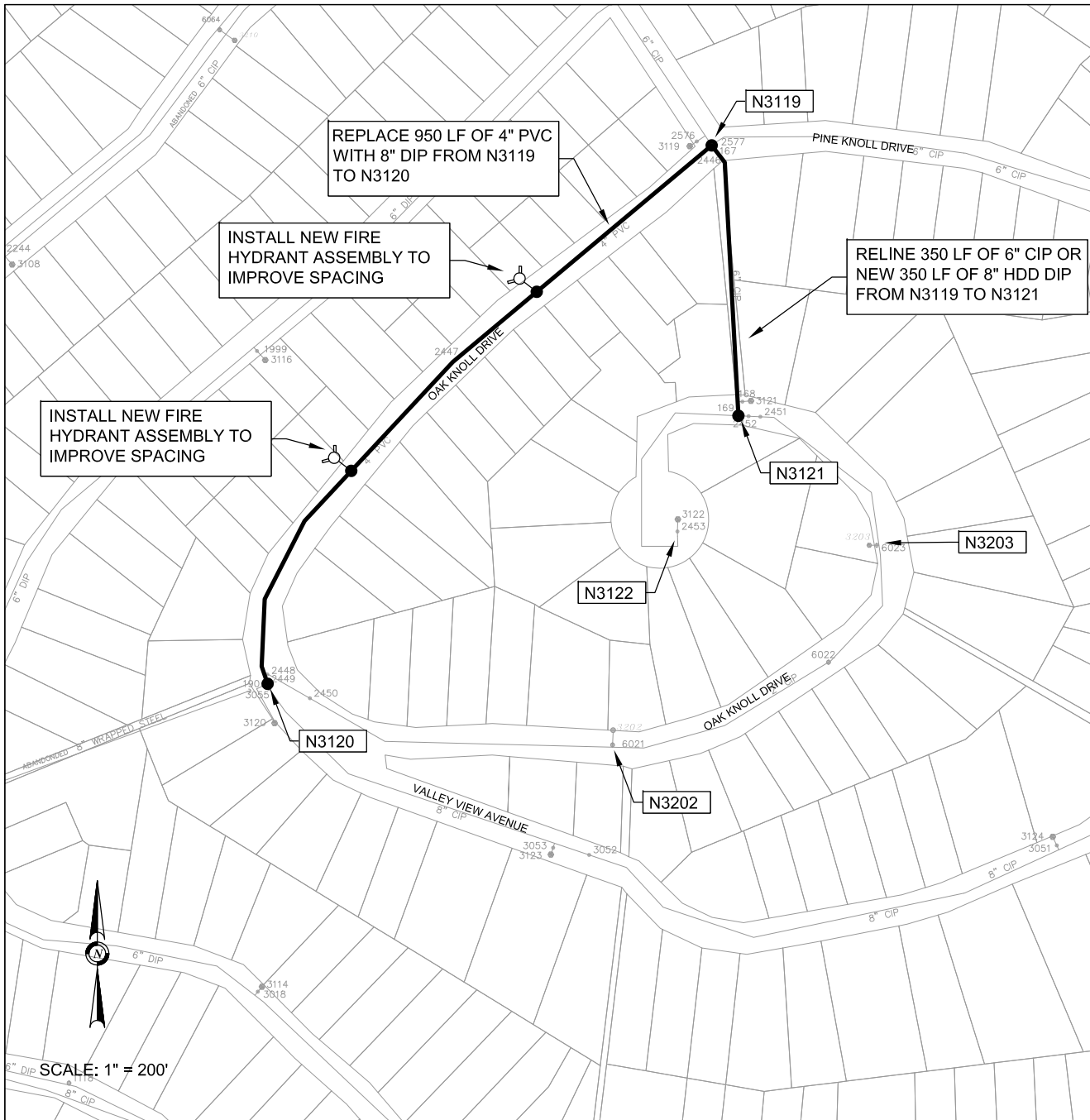
The Oak Knoll Drive Improvements replaces an undersized 4" water main with an 8" DIP and reinstates the previously existing cross country water main to provide additional fire flows in the area. Fire flows on Oak Knoll Drive and Valley View Avenue increase by 18% to 68%.

PROJECT BUDGET (2020)

8" DIP 950 LF @ \$450/LF	\$ 427,500
8" HDD - 350 LF @ \$1,000/LF	\$ 350,000
Fire Hydrants - 2 @ \$15,000/LF	\$ 30,000
Service Connections - 33 @ \$4,500/EA	\$ 148,500
Subtotal Construction	\$ 956,000
Planning, Design & Construction Support	\$ 190,000
Construction Inspection	\$ 95,000
Contingency (±10%)	\$ 124,000
Project Budget	\$ 1,365,000

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$



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MID-PENINSULA WATER DISTRICT
 SAN MATEO COUNTY, CALIFORNIA
 3 DAIRY LANE
 BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
 OAK KNOLL DRIVE IMPROVEMENTS
 PROJECT 15-19

Rev 1 - 02/20
 Original 2015

THURM AND BETTINA AVENUES IMPROVEMENTS

PROJECT BACKGROUND

Thurm Avenue and Bettina Avenue are the only streets in the immediate area with 4" water mains. Current industry standards are for water mains to be at least 6" however it is common practice for newly installed mains to be at least 8-inches contingent there are no water age concerns. This project would replace the existing 450 LF and 750 LF of 4" polyvinyl chloride pipe (PVC) on Bettina Avenue and Thurm Avenue respectively with 8" ductile iron pipe (DIP). One fire hydrant and 26 service connections will be replaced. Fire flows on these streets currently meet the minimum recommendation of 1,500 gpm at 20 psi however upon completion of this project, the intersection at Thurm Avenue and Bettina Avenue will see a 36% increase in fire flow. Distribution System Analysis No. 023

PROPOSED IMPROVEMENTS

Replace 1,200 LF of 4" PVC with 8" DIP
 Replace 1 fire hydrant
 Replace 26 service connections

PROJECT BENEFITS

The Thurm and Bettina Avenues Improvements will replace 4" PVC water mains with new 8" DIP per industry standards. Fire flows will increase by as much as 36%.

PROJECT BUDGET (2020)

8" DIP - 1,200 LF @ \$ 450/LF	\$ 540,000
Fire Hydrants - 1 @ \$15,000/EA	\$ 15,000
Service Connections - 26 @ \$4,500/EA	\$ 117,000
Subtotal Construction	\$ 672,000
Planning, Design & Construction Support	\$ 135,000
Construction Inspection	\$ 65,000
Contingency (±10%)	\$ 88,000
Project Budget	\$ 960,000

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$

REPLACE 450 LF OF 4" PVC WITH 8" DIP FROM N3943 TO N3051

REPLACE 750 LF OF 4" PVC WITH 8" DIP FROM N3944 TO N3951

SCALE: 1" = 200'



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MID-PENINSULA WATER DISTRICT
 SAN MATEO COUNTY, CALIFORNIA
 3 DAIRY LANE
 BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
 THURM AND BETTINA AVENUES IMPROVEMENTS
 PROJECT 15-20

Rev 1 - 02/20
 Original 2015

LINCOLN, MONSERAT AVENUES IMPROVEMENTS

PROJECT BACKGROUND

Both the Zone 3 6" cast iron pipe (CIP) water mains on Monserat Avenue and Lincoln Avenue currently connect with Zone 4 at the intersection. Zone 3 is separated from Zone 4 by closed valves on each water main. However, the two mains on this street are not connected directly with one another creating a dead end on each street. As a result of the dead ends, fire flows are below the minimum recommended 1,500 gpm at 20 psi. This project connects the two dead ends with a new 8" ductile iron pipe (DIP) as well as cleaning up the Zone 3 connection with Zone 4. The installation of the 8" DIP will set up future replacement of the mains on Monserat Avenue and Lincoln Avenue originally installed in the 1950's. One fire hydrant and 2 service connections will be replaced. Hydraulic analysis indicates a 105% to 147% increase in fire flow upon completion of this project. Distribution System Analysis No. 024

PROPOSED IMPROVEMENTS

Install 250 LF of 8" DIP
Replace 1 fire hydrant
Replace 2 service connections

PROJECT BENEFITS

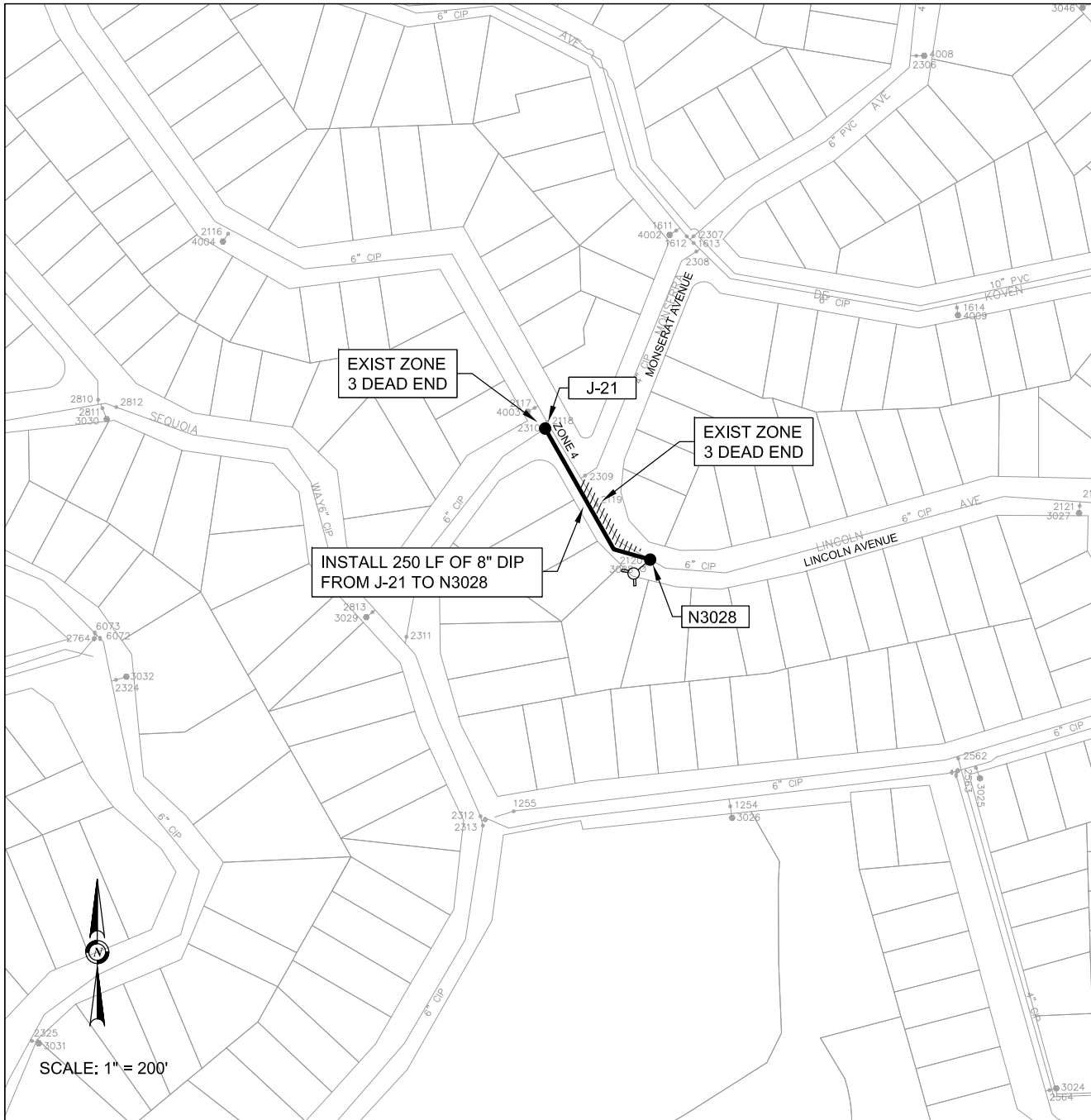
The Lincoln, Monserat Avenues Improvements eliminates two 6" CIP dead ends by connecting them with a new 8" DIP. Fire flows increase by as much as 147%.

PROJECT BUDGET (2020)

8" DIP - 250 LF @ \$ 450/LF	\$ 112,500
Fire Hydrants - 1 @ \$15,000/EA	\$ 15,000
Service Connections - 2 @ \$4,500/EA	\$ 9,000
Subtotal Construction	\$ 136,500
Planning, Design & Construction Support	\$ 40,000
Construction Inspection	\$ 15,000
Contingency (±10%)	\$ 18,500
Project Budget	\$ 210,000

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$



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MID-PENINSULA WATER DISTRICT
SAN MATEO COUNTY, CALIFORNIA
3 DAIRY LANE
BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM LINCOLN, MONSERAT AVENUES IMPROVEMENTS PROJECT 15-21

Rev 1 - 02/20
Original 2015

SAN JUAN BOULEVARD IMPROVEMENTS

PROJECT BACKGROUND

San Juan Boulevard between Monte Cresta Drive and Marburger Avenue is fed primarily by a 200 LF 8" polyvinyl chloride pipe (PVC), paralleled by a 4" cast iron pipe (CIP), that transitions to a single 500 LF 6" CIP. Fire flows near Marburger Avenue are below the recommended fire flow of 1,500 gpm at 20 psi due to the 8" to 6" reduction in pipe diameter. This project abandons the parallel 4" CIP along San Juan Boulevard in addition to increasing the 6" CIP along San Juan Blvd to 8" ductile iron pipe (DIP). Two hydrants and 16 service connections will also be replaced. In addition, one additional hydrant will be added to improve hydrant spacing. Hydraulic analysis indicates an 83% increase in available fire flow at the San Juan Boulevard / Marburger Avenue intersection and there is no significant reduction in available fire flows in the surrounding area with the abandonment of the aforementioned water main upon completion of this project. Distribution System Analysis No. 026

PROPOSED IMPROVEMENTS

Replace 500 LF of 6" CIP with 8" DIP
Abandon 200 LF of 4" CIP
Install 1 new fire hydrant
Replace 2 fire hydrants
Replace 16 service connections

PROJECT BENEFITS

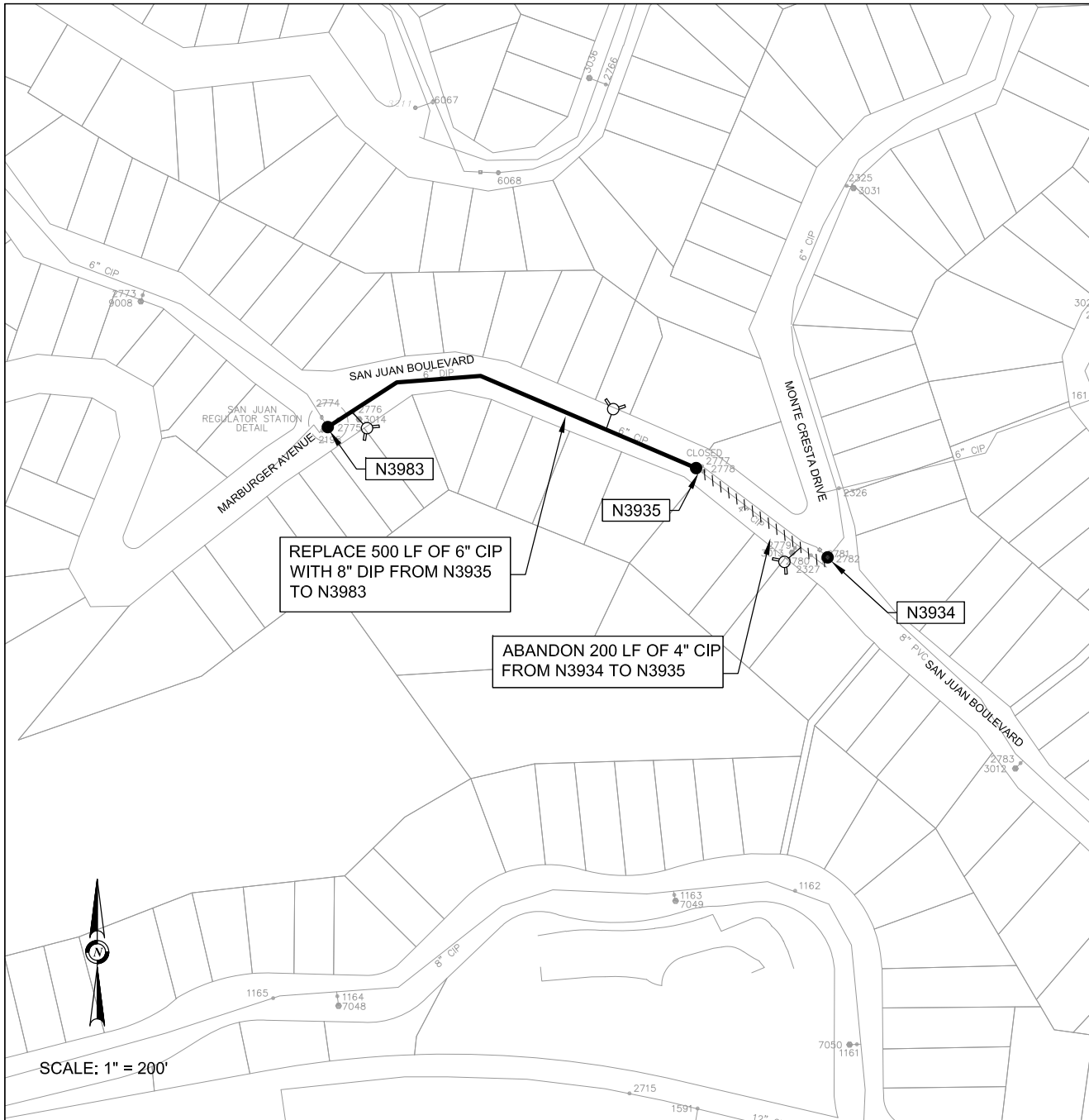
The San Juan Boulevard Improvements eliminates a redundant 4" CIP, and replaces an undersized 6" CIP water main with a new 8" DIP increasing fire flows by 83%.

PROJECT BUDGET (2020)

8" DIP - 500 LF @ \$ 450/LF	\$ 225,000
Fire Hydrants - 3 @ \$15,000/EA	\$ 45,000
Service Connections -16 @ \$4,500/EA	\$ 72,000
Subtotal Construction	\$ 342,000
Planning, Design & Construction Support	\$ 85,000
Construction Inspection	\$ 35,000
Contingency (±10%)	\$ 48,000
Project Budget	\$ 510,000

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$



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DATE	10/8/19
SCALE	AS NOTED
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CKD	JP



MID-PENINSULA WATER DISTRICT
SAN MATEO COUNTY, CALIFORNIA
3 DAIRY LANE
BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
SAN JUAN BOULEVARD IMPROVEMENTS
PROJECT 15-24

Rev 1 - 02/20
Original 2015

CHRISTIAN COURT IMPROVEMENTS

PROJECT BACKGROUND

Water is currently provided to 11 residences on Christian Court through a 300 LF 4" cast iron pipe (CIP) originally in 1962. There is a fire hydrant located at the entrance of Christian Court and no fire hydrant exists at the end of the cul-de-sac. This project replaces the existing 4" CIP with a new 8" ductile iron pipe (DIP), replaces the existing fire hydrant, adds an additional hydrant at the end of the cul-de-sac, and replaces all 11 services connections. Hydraulic analysis indicates a 300% increase in available fire flows to Christian Court upon completion of this project. An analysis on water age indicates minimal effects with the increase in pipe size. Distribution System Analysis No. 027

PROPOSED IMPROVEMENTS

Replace 300 LF of 4" CIP with 8" DIP
Install 1 new fire hydrant
Replace 1 fire hydrant
Replace 11 service connections

PROJECT BENEFITS

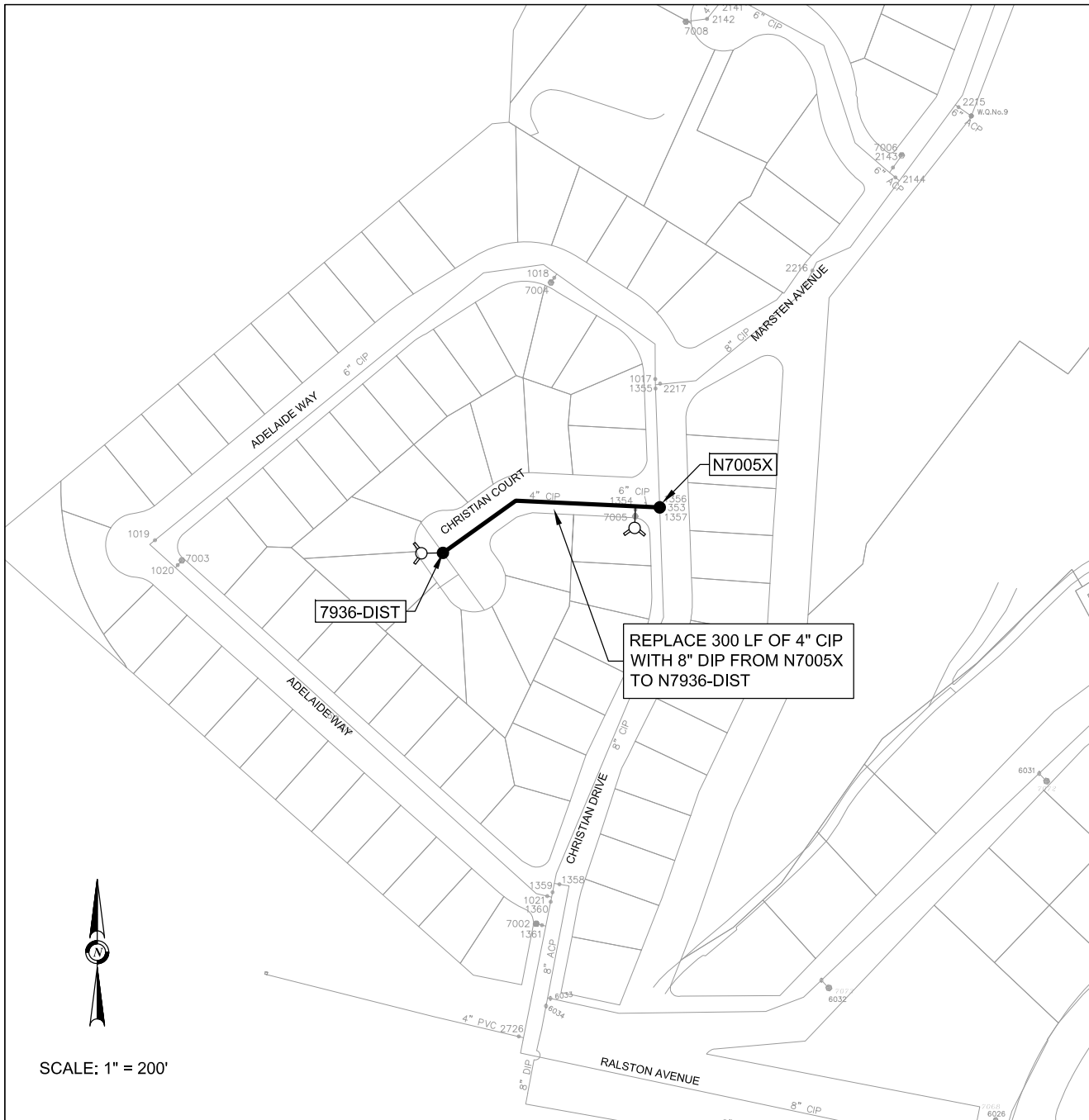
The Christian Court Improvements replaces an aging, undersized 4" CIP with a new 8" DIP increasing fire flows by approximately 300% in the area, along with an addition of a fire hydrant at the end of Christian Court.

PROJECT BUDGET (2020)

8" DIP - 300 LF @ \$ 450/LF	\$ 135,000
Fire Hydrants - 2 @ \$15,000/EA	\$ 30,000
Service Connections - 11 @ \$4,500/EA	\$ 49,500
Subtotal Construction	\$ 214,500
Planning, Design & Construction Support	\$ 65,000
Construction Inspection	\$ 20,000
Contingency (±10%)	\$ 30,500
Project Budget	\$ 330,000

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$



SCALE: 1" = 200'



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MID-PENINSULA WATER DISTRICT
SAN MATEO COUNTY, CALIFORNIA
3 DAIRY LANE
BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
CHRISTIAN COURT IMPROVEMENTS
PROJECT 15-25

Rev 1 - 02/20
Original 2015

WEST BELMONT TANK WATER MAIN IMPROVEMENTS

PROJECT BACKGROUND

The West Belmont Tank site located behind 2900 Belmont Canyon Road has two 645,000 gallon tanks fed by two cross country water mains, an 8" ductile iron pipe (DIP) to the west, and an 8" cast iron pipe (CIP) to the east. It is the sole source of storage for Zone 7. From the tank site the 8" pipe runs along Ralston Avenue both west towards Christian Drive and east to the lower portion of Zone 7. A hydraulic analysis indicates many of the Zone 7 nodes (78 of 135) were below the recommended 1,500 gpm fire flow at 20 psi. In addition, the majority of the water mains identified for potential improvement were installed in the late 1950's to early 1960's. This project abandons 1,130 LF of cross country water mains at the tank site, increases 2,400 LF of 8" DIP/CIP to 12" DIP in addition to replacing 1,400 LF of aging 8" DIP/CIP with new 8" DIP. Hydraulic analysis indicates only 25 nodes could not meet the minimum fire flow requirements with these improvements, a decrease of 53 nodes. Combining this analysis with other Zone 7 capital improvements decreases this number even further. Distribution System Analysis No. 028

PROPOSED IMPROVEMENTS

Replace 1,475 LF of 8" CIP, DIP, AC with 1,400 LF of 8" DIP
 Replace 2,400 LF of 8" CIP/DIP with 12" DIP
 Abandon 1,130 LF of 8" DIP cross country
 Replace 2 fire hydrants
 Replace 2 service connections

PROJECT BENEFITS

The West Belmont Tank Water Main Improvements abandons two cross country water mains, replaces old and aging infrastructure, and increases fire flows zone wide, decreases pipe maintenance.

PROJECT BUDGET (2020)

12" DIP - 2,400 LF @ \$550/LF	\$ 1,320,000
8" DIP - 1,400 LF @ \$450/LF	\$ 630,000
Fire Hydrants - 2 @ \$15,000/EA	\$ 30,000
Service Connections - 2 @ \$4,500/EA	\$ 9,000
Subtotal Construction	\$ 1,989,000
Planning, Design & Construction Support	\$ 300,000
Construction Inspection	\$ 200,000
Contingency (±10%)	\$ 251,000
Project Budget	\$ 2,740,000

PROJECT COMPLETED

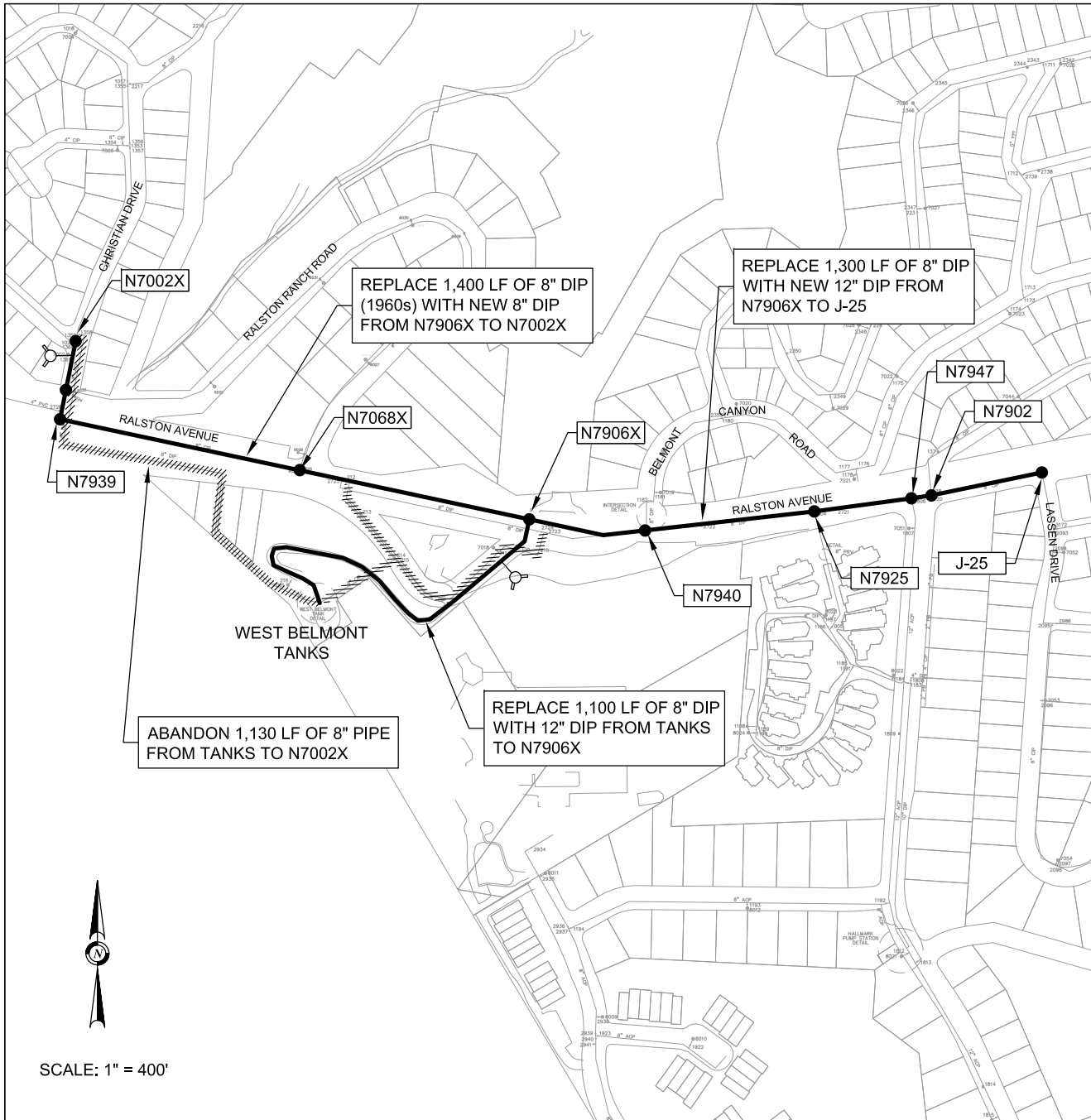
Completion Date:

Actual Expenditures

Planning, Design, & Construction Support: \$

Construction: \$

Total Expenditures: \$



SCALE: 1" = 400'



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MID-PENINSULA WATER DISTRICT
 SAN MATEO COUNTY, CALIFORNIA
 3 DAIRY LANE
 BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
 WEST BELMONT TANK WATER MAIN IMPROVEMENTS
 PROJECT 15-26

Rev 1 - 02/20
 Original 2015

LASSEN DRIVE IMPROVEMENTS

PROJECT BACKGROUND

Lassen Drive, located in the lower portion of Zone 7, has 6" cast iron pipe (CIP) water mains (constructed in the late 1950's) incapable of meeting the minimum 1,500 gpm fire flows at 20 psi. This is primarily due to flow restrictions of the 8" water main coming from the West Belmont Tanks. This project replaces the 6" CIP along Lassen Drive with 8" ductile iron pipe (DIP) along with four fire hydrants and 46 service connections. Although increasing the pipe size on this street has modest improvements as a stand alone project, combining it with the West Belmont Tank Water Main Improvements Project 15-26 (a 12" DIP to this area), increases fire flows in the area an average of 128% and as high as 175% to well above the 1,500 gpm @ 20 psi recommendation. Distribution System Analysis No. 029

PROPOSED IMPROVEMENTS

Replace 1,900 LF of 6" CIP with 8" DIP
 Replace 4 fire hydrants
 Replace 46 service connections

PROJECT BENEFITS

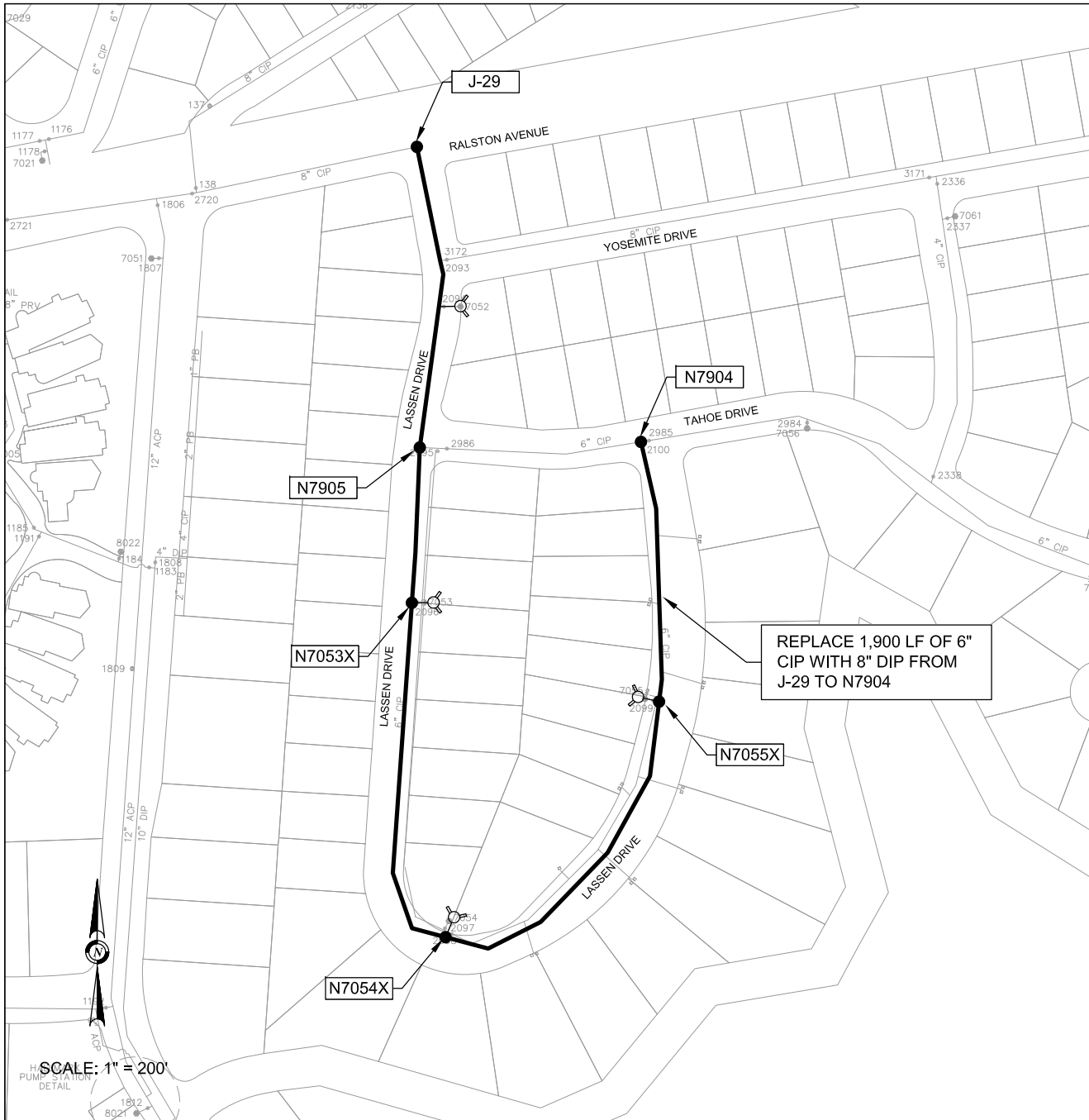
The Lassen Drive Improvements, when combined with the West Belmont Tank Water Main Improvements, increases fire flows along Lassen Drive an average of 128% and as high as 175%. Old and aging infrastructure is also replaced.

PROJECT BUDGET (2020)

8" DIP - 1,900 LF @ \$ 450/LF	\$ 855,000
Fire Hydrants - 4 @ \$15,000/EA	\$ 60,000
Service Connections - 46 @ \$4,500/EA	\$ 207,000
Subtotal Construction	\$ 1,122,000
Planning, Design & Construction Support	\$ 170,000
Construction Inspection	\$ 110,000
Contingency (±10%)	\$ 138,000
Project Budget	\$ 1,540,000

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$



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MID-PENINSULA WATER DISTRICT
 SAN MATEO COUNTY, CALIFORNIA
 3 DAIRY LANE
 BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
 LASSEN DRIVE IMPROVEMENTS
 PROJECT 15-27

Rev 1 - 02/20
 Original 2015

TAHOE DRIVE AREA IMPROVEMENTS

PROJECT BACKGROUND

Water is currently provided to Tioga Way, Bryce Court and Muir Way through 300 LF, 400 LF and 200 LF 4" cast iron pipes (CIP) respectively, installed in the late 1950's. Fire flows along each of these streets are below the recommended minimum of 1,500 gpm at 20 psi. In addition, Tioga Way and Bryce Court have dead ends with blowoffs. This project replaces the aging and undersized water mains with new 8" ductile iron pipe (DIP). Two hydrants and 28 service connections will be replaced in conjunction with replacing the blowoffs with new hydrants. An analysis on water age indicates minimal effects with the increase in pipe size. Hydraulic analysis indicates as much as a 130% increase in available fire flows upon completion of this project. Combining this project with the West Belmont Tank Water Main Improvements Project (15-26) increases fire flows as much as 238%. Distribution System Analysis No. 030

PROPOSED IMPROVEMENTS

Replace 900 LF of 4" CIP with 8" DIP
 Replace 2 fire hydrant assemblies
 Replace 2 blowoffs with new fire hydrant assemblies
 Replace 28 Service Connections

PROJECT BENEFITS

The Tahoe Drive Area Improvements increases fire flows as much as 130%. When combined with the West Belmont Tank Water Main Improvements, fire flow increase is as much as 238%. Old and aging infrastructure is also replaced.

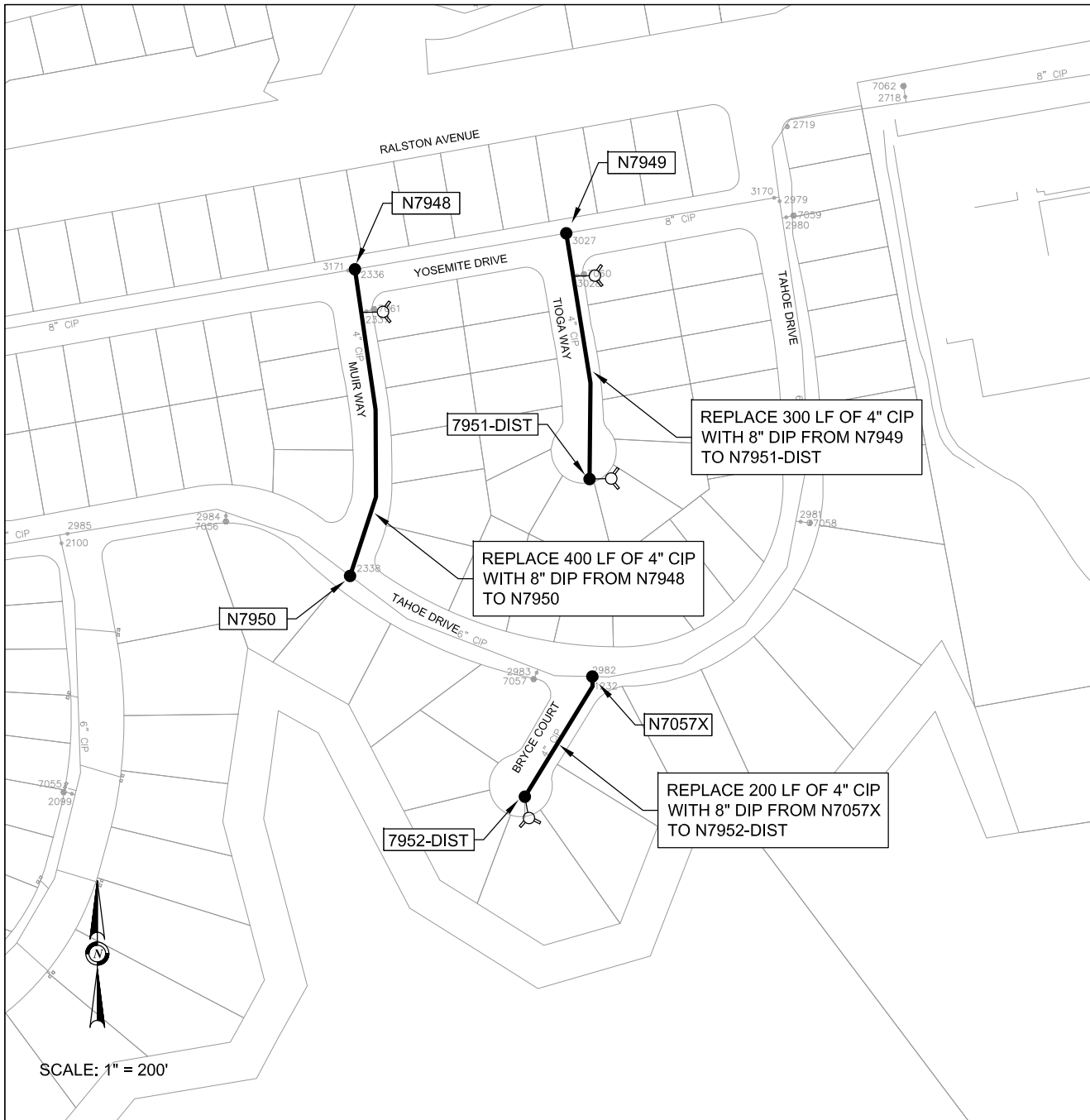
PROJECT BUDGET (2015*)

8" DIP - 900 LF @ \$ 250/LF	\$ 225,000
Fire Hydrants - 4 @ \$15,000/EA	\$ 60,000
Service Connections - 28 @ \$3,000/EA	\$ 84,000
Subtotal Construction	\$ 369,000
Planning, Design & Construction Support	\$ 94,000
Contingency (±10%)	\$ 47,000
Project Budget	\$ 510,000

* This project is currently under construction.

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$



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CKD	JP



MID-PENINSULA WATER DISTRICT
 SAN MATEO COUNTY, CALIFORNIA
 3 DAIRY LANE
 BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
 TAHOE DRIVE AREA IMPROVEMENTS
 PROJECT 15-28

Rev 1 - 02/20
 Original 2015

BELMONT CANYON ROAD IMPROVEMENTS

PROJECT BACKGROUND

The majority of the water mains along Belmont Canyon Road are 8" cast iron pipes (CIP) except a 400 LF 4" CIP section between Hillcrest Drive and 2662 Belmont Canyon Road. The 4" CIP, installed in 1956, creates a bottle neck along Belmont Canyon Road reducing flows as much as 24%. This project replaces the 4" CIP with a new 8" ductile iron pipe (DIP). Although the fire flows within the area are essentially near the minimum recommendation of 1,500 gpm at 20 psi with the current configuration, replacing this pipe eliminates the bottleneck, replaces an old and aging infrastructure, and increases flows as much as 24%. Combining this project with the West Belmont Tank Water Main Improvements Project further increases flows along Belmont Canyon Road as much as 70% to above 2,500 gpm. Also included as part of this project is the replacement of approximately 500 LF of various 6" and 8" CIP with 8" DIP along Hillcrest Drive and Upper Lock Avenue. District maintenance personnel identified this area as being prone to leaks and recommend replacement. In addition one hydrant will be added to improve hydrant spacing. Distribution System Analysis No. 031

PROPOSED IMPROVEMENTS

Replace 400 LF of 4" CIP, 350 LF of 6" CIP and 150 LF of 8" CIP with 900 LF 8" DIP
 Install 1 new fire hydrant
 Replace 1 fire hydrant
 Replace 17 service connections

PROJECT BENEFITS

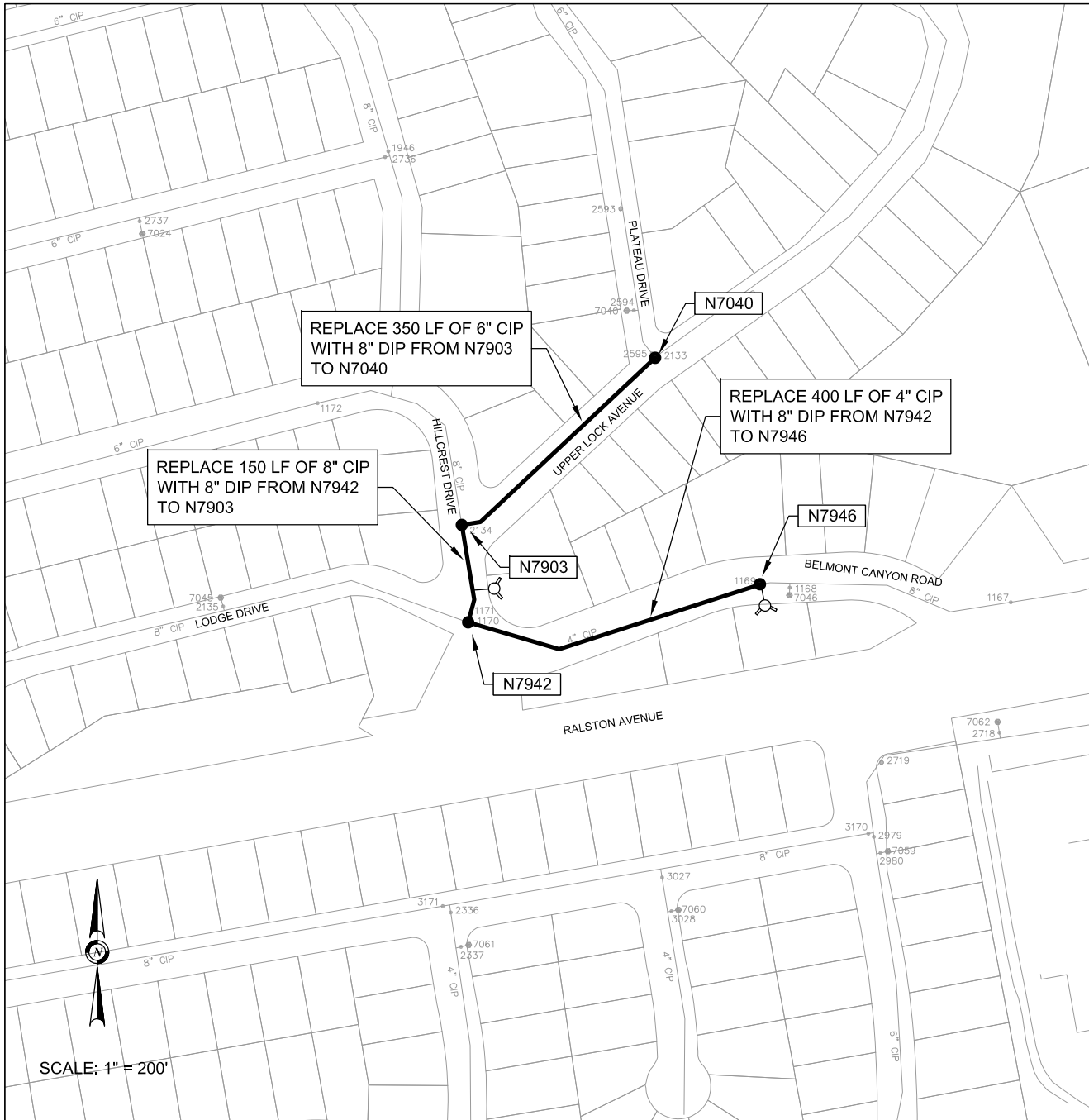
The Belmont Canyon Road Improvements eliminates a bottleneck, replaces old and aging infrastructure, and increases fire flows as much as 24%. When combined with the West Belmont Tank Water Main Improvements, fire flow increases as much as 70%.

PROJECT BUDGET (2020)

8" DIP - 900 LF @ \$ 450/LF	\$ 405,000
Fire Hydrants - 2 @ \$15,000/EA	\$ 30,000
Service Connections - 17 @ \$4,500/EA	\$ 76,500
Subtotal Construction	\$ 511,500
Planning, Design & Construction Support	\$ 105,000
Construction Inspection	\$ 50,000
Contingency (±10%)	\$ 68,500
Project Budget	\$ 735,000

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$



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MID-PENINSULA WATER DISTRICT
 SAN MATEO COUNTY, CALIFORNIA
 3 DAIRY LANE
 BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
 BELMONT CANYON ROAD IMPROVEMENTS
 PROJECT 15-29

Rev 1 - 02/20
 Original 2015

SOHO CIRCLE IMPROVEMENTS

PROJECT BACKGROUND

Water is currently provided to 5 residences on Soho Circle through a 150 LF 4" polyvinyl chloride pipe (PVC) originally installed in 1971. The existing available fire flow (588 gpm) on Soho Circle is significantly below the recommended 1,500 gpm at 20 psi residual. This project replaces the existing 4" PVC with a new 8" ductile iron pipe (DIP), replaces the existing fire hydrant, and replaces all 5 services. Hydraulic analysis indicates a 300% increase in available fire flow (2,350 gpm) to Soho Circle upon completion of this project. An analysis on water age indicates minimal effects with the increase in pipe size. Distribution System Analysis No. 034

PROPOSED IMPROVEMENTS

Replace 150 LF of 4" PVC with 8" DIP
 Replace 1 fire hydrant
 Replace 5 service connections

PROJECT BENEFITS

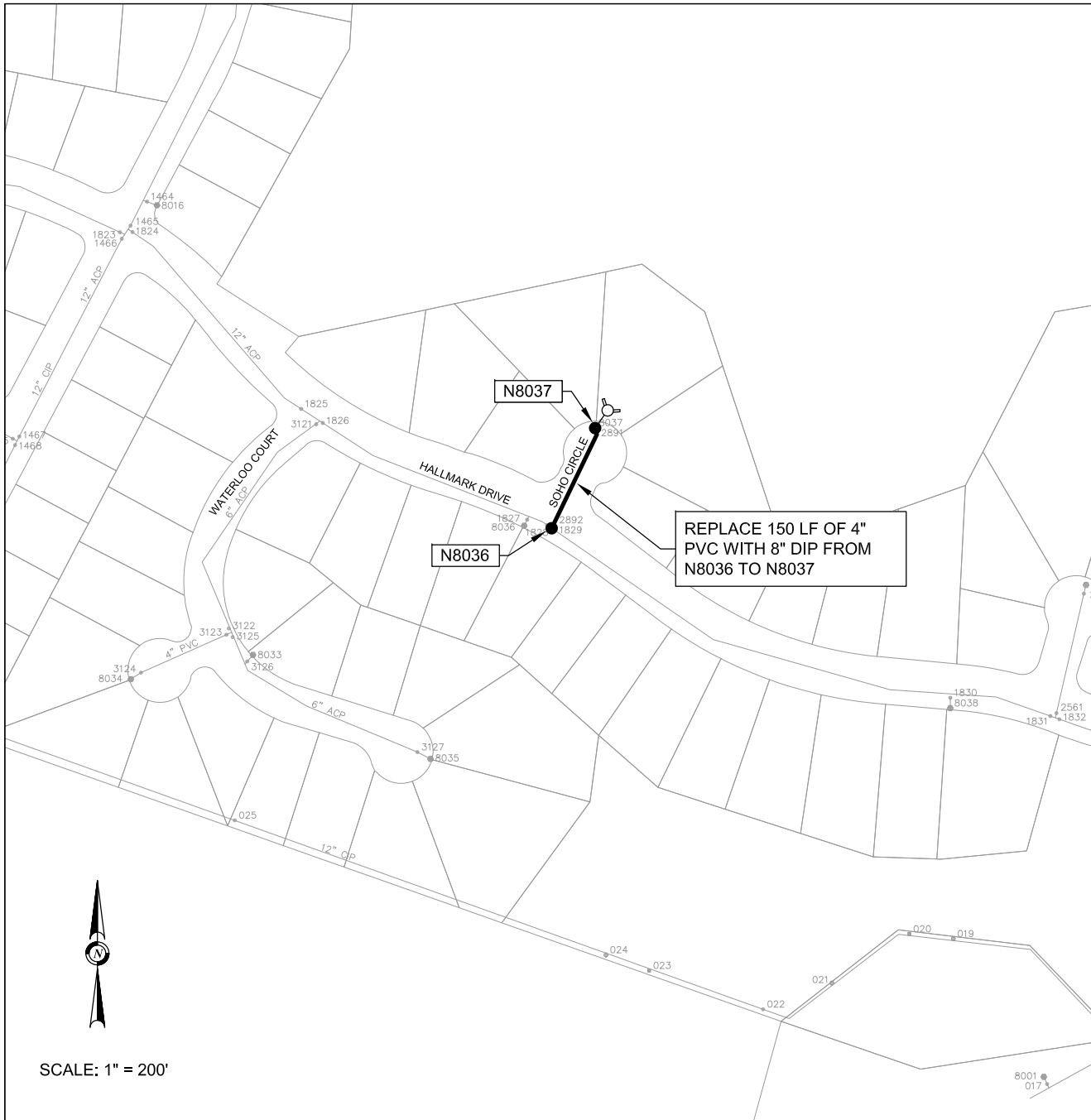
The Soho Circle Improvements replaces an undersized 4" PVC with a new 8" DIP increasing fire flow by approximately 300% in the area.

PROJECT BUDGET (2020)

8" DIP - 150 LF @ \$ 450/LF	\$ 67,500
Fire Hydrant - 1 @ \$15,000/EA	\$ 15,000
Service Connections - 5 @ \$4,500/EA	\$ 22,500
Subtotal Construction	\$ 105,000
Planning, Design & Construction Support	\$ 30,000
Construction Inspection	\$ 10,000
Contingency (±10%)	\$ 15,000
Project Budget	\$ 160,000

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$



SCALE: 1" = 200'



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MID-PENINSULA WATER DISTRICT
 SAN MATEO COUNTY, CALIFORNIA
 3 DAIRY LANE
 BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
 SOHO CIRCLE IMPROVEMENTS
 PROJECT 15-32

Rev 1 - 02/20
 Original 2015

PADDINGTON COURT IMPROVEMENTS

PROJECT BACKGROUND

Water is currently provided to 6 residences on Paddington Court through a 200 LF 4" polyvinyl chloride pipe (PVC) originally installed in 1971. The existing available fire flow (588 gpm) on Paddington Court is significantly below the recommended 1,500 gpm at 20 psi residual. This project replaces the existing 4" PVC with a new 8" ductile iron pipe (DIP), replaces the existing fire hydrant, and replaces all 6 services. Hydraulic analysis indicates a 300% increase in available fire flow (2,350 gpm) to Paddington Court upon completion of this project. An analysis on water age indicates minimal effects with the increase in pipe size. Distribution System Analysis No. 035

PROPOSED IMPROVEMENTS

Replace 200 LF of 4" PVC with 8" DIP
 Replace 1 fire hydrant
 Replace 6 service connections

PROJECT BENEFITS

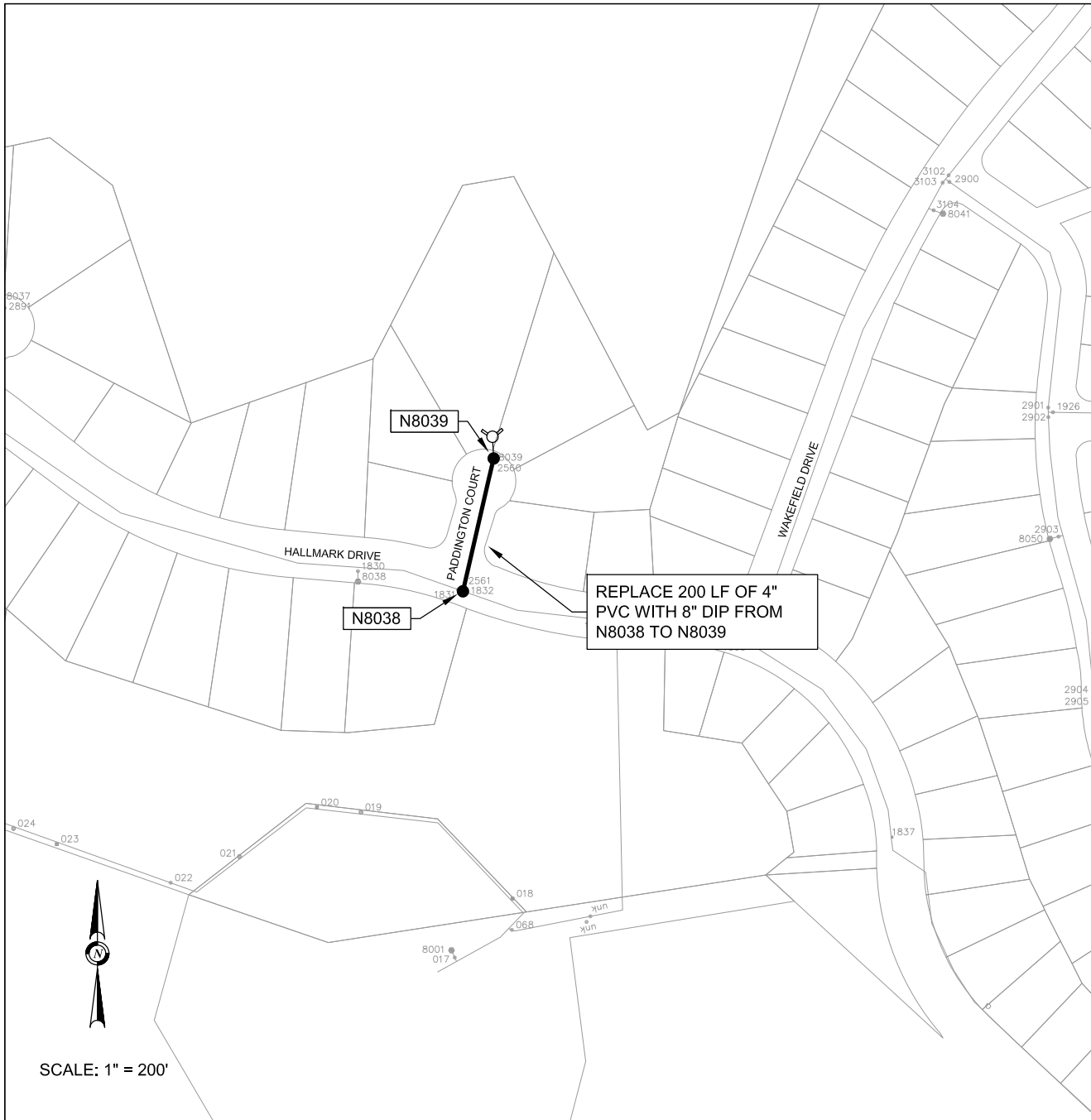
The Paddington Court Improvements replaces an undersized 4" PVC with a new 8" DIP increasing fire flow by approximately 300% in the area.

PROJECT BUDGET (2020)

8" DIP - 200 LF @ \$ 450/LF	\$ 90,000
Fire Hydrants - 1 @ \$15,000/EA	\$ 15,000
Service Connections - 6 @ \$4,500/EA	\$ 27,000
Subtotal Construction	\$ 132,000
Planning, Design & Construction Support	\$ 40,000
Construction Inspection	\$ 15,000
Contingency (±10%)	\$ 18,000
Project Budget	\$ 205,000

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$



SCALE: 1" = 200'



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MID-PENINSULA WATER DISTRICT
 SAN MATEO COUNTY, CALIFORNIA
 3 DAIRY LANE
 BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
 PADDINGTON COURT IMPROVEMENTS
 PROJECT 15-33

Rev 1 - 02/20
 Original 2015

RIDGEWOOD COURT IMPROVEMENTS

PROJECT BACKGROUND

Water is currently provided to 8 residences on Ridgewood Court through a 200 LF 4" polyvinyl chloride pipe (PVC) originally installed in 1976. The existing available fire flow (588 gpm) on Ridgewood Court is significantly below the recommended 1,500 gpm at 20 psi residual. This project replaces the existing 4" PVC with a new 8" ductile iron pipe (DIP), replaces the existing wharf hydrant, and replaces all 8 services. Hydraulic analysis indicates a 300% increase in available fire flow (2,350 gpm) to Ridgewood Court upon completion of this project. An analysis on water age indicates minimal effects with the increase in pipe size. Distribution System Analysis No. 036

PROPOSED IMPROVEMENTS

Replace 200 LF of 4" PVC with 8" DIP
 Replace 1 fire hydrant
 Replace 8 service connections

PROJECT BENEFITS

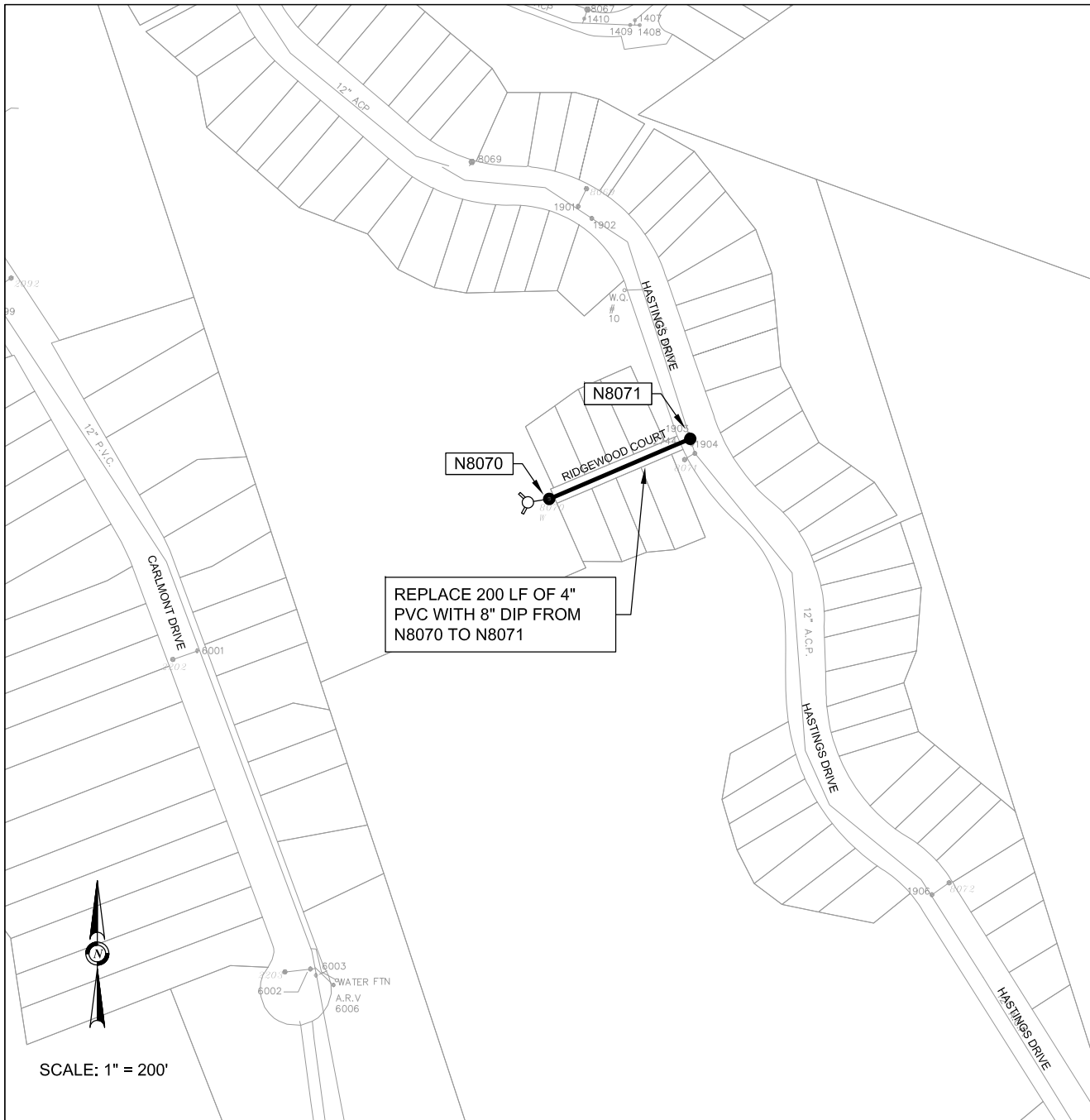
The Ridgewood Court Improvements replaces an undersized 4" PVC with a new 8" DIP increasing fire flow by approximately 300% in the area.

PROJECT BUDGET (2020)

8" DIP - 200 LF @ \$ 450/LF	\$ 90,000
Fire Hydrants - 1 @ \$15,000/EA	\$ 15,000
Service Connections - 8 @ \$4,500/EA	\$ 36,000
Subtotal Construction	\$ 141,000
Planning, Design & Construction Support	\$ 45,000
Construction Inspection	\$ 15,000
Contingency (±10%)	\$ 19,000
Project Budget	\$ 220,000

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$



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	CKD <u>JP</u>



MID-PENINSULA WATER DISTRICT
 SAN MATEO COUNTY, CALIFORNIA
 3 DAIRY LANE
 BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
 RIDGEWOOD COURT IMPROVEMENTS
 PROJECT 15-34

Rev 1 - 02/20
 Original 2015

BRIDGE COURT IMPROVEMENTS

PROJECT BACKGROUND

Water is currently provided to 9 residences on Bridge Court through a 300 LF 4" polyvinyl chloride pipe (PVC) originally installed in 1976. The existing available fire flow (588 gpm) on Bridge Court is significantly below the recommended 1,500 gpm at 20 psi residual. This project replaces the existing 4" PVC with a new 8" ductile iron pipe (DIP), replaces the existing wharf hydrant, and replaces all 9 services. Hydraulic analysis indicates a 300% increase in available fire flow (2,350 gpm) to Bridge Court upon completion of this project. An analysis on water age indicates minimal effects with the increase in pipe size. Distribution System Analysis No. 037

PROPOSED IMPROVEMENTS

Replace 300 LF of 4" PVC with 8" DIP
Replace 1 fire hydrant
Replace 9 service connections

PROJECT BENEFITS

The Bridge Court Improvements replaces an undersized 4" PVC with a new 8" DIP increasing fire flow by approximately 300% in the area.

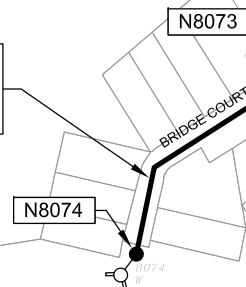
PROJECT BUDGET (2020)

8" DIP - 300 LF @ \$ 450/LF	\$ 135,000
Fire Hydrants - 1 @ \$15,000/EA	\$ 15,000
Service Connections - 9 @ \$4,500/EA	\$ 40,500
Subtotal Construction	\$ 190,500
Planning, Design & Construction Support	\$ 55,000
Construction Inspection	\$ 20,000
Contingency (±10%)	\$ 24,500
Project Budget	\$ 290,000

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$

REPLACE 300 LF OF 4"
PVC WITH 8" DIP FROM
N8073 TO N8074



SCALE: 1" = 200'



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MID-PENINSULA WATER DISTRICT
SAN MATEO COUNTY, CALIFORNIA
3 DAIRY LANE
BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
BRIDGE COURT IMPROVEMENTS
PROJECT 15-35

Rev 1 - 02/20
Original 2015

PARKRIDGE COURT IMPROVEMENTS

PROJECT BACKGROUND

Water is currently provided to 10 residences on Parkridge Court through a 300 LF 4" polyvinyl chloride pipe (PVC) originally installed in 1976. The existing available fire flow (588 gpm) on Parkridge Court is significantly below the recommended 1,500 gpm at 20 psi residual. This project replaces the existing 4" PVC with a new 8" ductile iron pipe (DIP), replaces the existing wharf hydrant, and replaces all 10 services. Hydraulic analysis indicates a 300% increase in available fire flow (2,350 gpm) to Parkridge Court upon completion of this project. An analysis on water age indicates minimal effects with the increase in pipe size. Distribution System Analysis No. 038

PROPOSED IMPROVEMENTS

Replace 300 LF of 4" PVC with 8" DIP
 Replace 1 fire hydrant
 Replace 10 service connections

PROJECT BENEFITS

The Parkridge Court Improvements replaces an undersized 4" PVC with a new 8" DIP increasing fire flow by approximately 300% in the area.

PROJECT BUDGET (2020)

8" DIP - 300 LF @ \$ 450/LF	\$ 135,000
Fire Hydrants -1 @ \$15,000/EA	\$ 15,000
Service Connections - 10 @ \$4,500/EA	\$ 45,000
Subtotal Construction	\$ 195,000
Planning, Design & Construction Support	\$ 60,000
Construction Inspection	\$ 20,000
Contingency (±10%)	\$ 25,000
Project Budget	\$ 300,000

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$

REPLACE 300 LF OF 4" PVC WITH 8" DIP FROM N8076 TO N8075

N8076

N8075

SCALE: 1" = 200'



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DATE	08/03/18
SCALE	AS NOTED
DRAWN:	BY FEL
CKD	GUJ



MID-PENINSULA WATER DISTRICT
 SAN MATEO COUNTY, CALIFORNIA
 3 DAIRY LANE
 BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
 PARKRIDGE COURT IMPROVEMENTS
 PROJECT 15-36

Rev 1 - 02/20
 Original 2015

WATERLOO COURT IMPROVEMENTS

PROJECT BACKGROUND

Water is currently provided to 5 residences on Waterloo Court through a 150 LF 4" polyvinyl chloride pipe (PVC) originally installed in 1969. The existing available fire flow (588 gpm) on Waterloo Court is significantly below the recommended 1,500 gpm at 20 psi residual. This project replaces the existing 4" PVC with a new 8" ductile iron pipe (DIP), replaces the existing fire hydrant, and replaces all 5 services. Hydraulic analysis indicates a 124% increase in available fire flow to 1,316 gpm to Waterloo Court upon completion of this project. Should the District increase the remaining water mains (625 LF) on Waterloo Court from 6-inch to 8-inch, fire flows along the entire court will be approximately 2,340 gpm. An analysis on water age indicates minimal effects with the increase in pipe size. Distribution System Analysis No. 039

PROPOSED IMPROVEMENTS

Replace 150 LF of 4" PVC with 8" DIP
 Replace 1 fire hydrant
 Replace 5 service connections

PROJECT BENEFITS

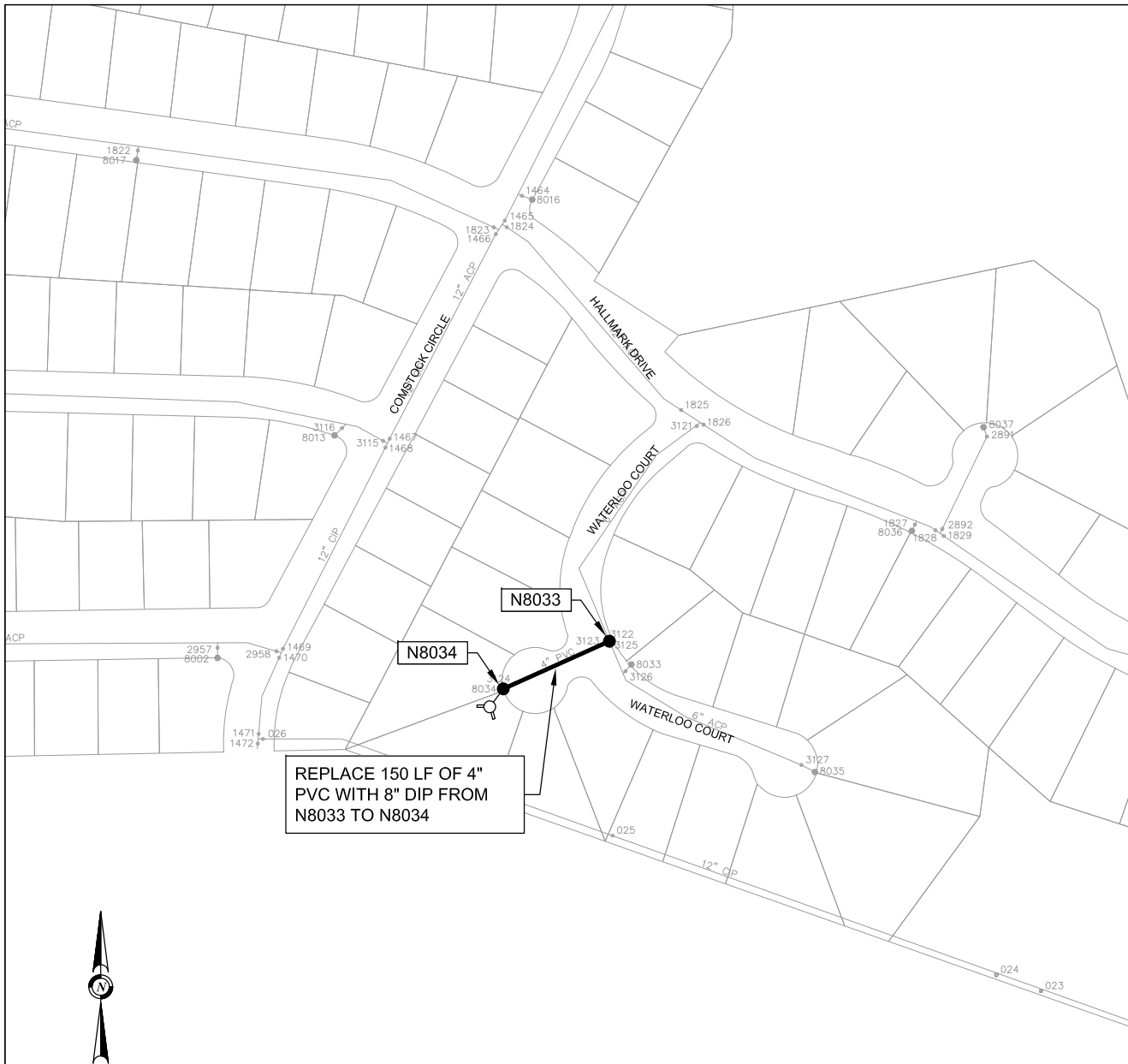
The Waterloo Court Improvements replaces an undersized 4" PVC with a new 8" DIP increasing fire flow by approximately 124% in the area. It also provides future benefit if the entire court is upsized to 8" DIP increasing fire flow by approximately 300%.

PROJECT BUDGET (2020)

8" DIP - 150 LF @ \$ 450/LF	\$ 67,500
Fire Hydrants - 1 @ \$15,000/EA	\$ 15,000
Service Connections - 5 @ \$4,500/EA	\$ 22,500
Subtotal Construction	\$ 105,000
Planning, Design & Construction Support	\$ 30,000
Construction Inspection	\$ 10,000
Contingency (±10%)	\$ 15,000
Project Budget	\$ 160,000

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$



REPLACE 150 LF OF 4"
PVC WITH 8" DIP FROM
N8033 TO N8034



SCALE: 1" = 200'



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MID-PENINSULA WATER DISTRICT
 SAN MATEO COUNTY, CALIFORNIA
 3 DAIRY LANE
 BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
 WATERLOO COURT IMPROVEMENTS
 PROJECT 15-37

Rev 1 - 02/20
 Original 2015

CLIFFSIDE COURT IMPROVEMENTS

PROJECT BACKGROUND

Water is currently provided to 14 residences on Cliffside Court through 330 LF 4" polyvinyl chloride pipe (PVC) originally installed in 1976. The existing available fire flows (588 gpm) on Cliffside Court are significantly below the recommended 1,500 gpm at 20 psi residual. This project replaces the existing 4" PVC with new 8" ductile iron pipe (DIP), replaces the existing fire hydrants, and replaces all 14 services. Hydraulic analysis indicates a 300% increase in available fire flow to 2,350 gpm to Cliffside Court upon completion of this project. An analysis on water age indicates minimal effects with the increase in pipe size. Distribution System Analysis No. 040

PROPOSED IMPROVEMENTS

Replace 330 LF of 4" PVC with 8" DIP
 Replace 2 fire hydrants
 Replace 14 service connections

PROJECT BENEFITS

The Cliffside Court Improvements replaces undersized 4" PVC water mains with new 8" DIP increasing fire flow by approximately 300% in the area.

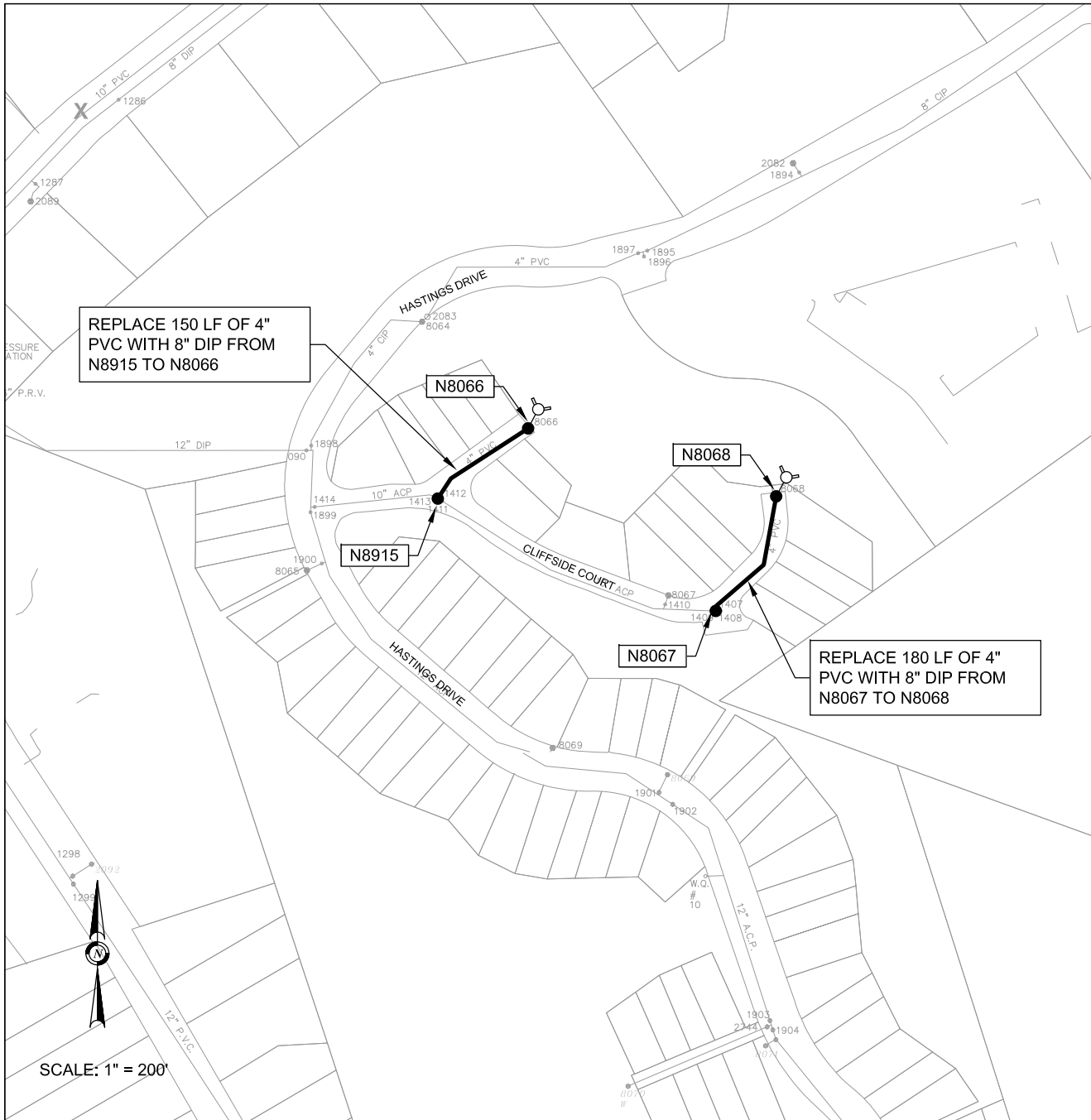
PROJECT BUDGET (2015*)

8" DIP - 330 LF @ \$250/LF	\$ 82,500
Fire Hydrants - 2 @ \$15,000/EA	\$ 30,000
Service Connections - 14 @ \$3,000/EA	\$ 42,000
Subtotal Construction	\$ 154,500
Planning, Design & Construction Support	\$ 46,500
Contingency (±10%)	\$ 19,000
Project Budget	\$ 220,000

* This project is currently under construction.

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$



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MID-PENINSULA WATER DISTRICT
 SAN MATEO COUNTY, CALIFORNIA
 3 DAIRY LANE
 BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
 CLIFFSIDE COURT IMPROVEMENTS
 PROJECT 15-38

Rev 1 - 02/20
 Original 2015

ZONE 8 - 14" CROSS COUNTRY IMPROVEMENTS

PROJECT BACKGROUND

Water is currently provided to residences on Carlmont Drive and Hastings Drive through a single 900 LF 14" cross country ductile iron water main located in the John Brooks Memorial Open Space Preserve. Installed in 1972, this water main used Tyton Joint pipe and according to the manufacture, highly likely with unrestrained joints. As constructed, should a leak occur on this alignment, the District is unable to quickly determine where the leak is located, nor isolate a short section of the water main due to the only valves being located at either end of the 900 LF. In addition, there is no functionality in place to alert the District if there's a leak besides residents calling the District. This project would clean out the easement area, install trench dams every 100 LF, remote control gate valves, access vaults to allow jumper installation during breaks, and a flow meter and/or pressure gauge vault with SCADA. During installation, the District will also be able to perform an inspection of the existing water main.

PROPOSED IMPROVEMENTS

Install 8 trench dams, 2 remotely controlled 14" gate valves with access vault for leak bypass, flow meter and/or pressure gauge vault

PROJECT BENEFITS

The Zone 8 - 14" Cross Country Improvements allow the District to quickly identify the location of a leak, isolate a shorter stretch of repair length, and receive immediate notification should a main break occur thereby increasing response times.

PROJECT BUDGET (2020)

Clearing and Grubbing	\$ 100,000
Trench Dams - 8 @ \$10,000/EA	\$ 80,000
14" Automatic Gate Valves - 2 @ \$75,000/EA	\$ 150,000
Flow Meter / Pressure Vault	\$ 150,000
Subtotal Construction	\$ 480,000
Planning, Design & Construction Support	\$ 120,000
Construction Inspection	\$ 50,000
Contingency (±10%)	\$ 65,000
Project Budget	\$ 715,000

PROJECT COMPLETED

Completion Date:

Actual Expenditures

Planning, Design, & Construction Support: \$

Construction: \$

Total Expenditures: \$

INSTALL TRENCH DAMS
EVERY 100 LF AND IN-LINE
GATE VALVES EVERY 300
FEET

N8921

INSTALL VAULT W/ FLOW METER
AND/OR PRESSURE GAUGE W/
SCADA CAPABILITY

N8044

WAKEFIELD DRIVE

CARLMONT DRIVE

SCALE: 1" = 400'



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MID-PENINSULA WATER DISTRICT
SAN MATEO COUNTY, CALIFORNIA
3 DAIRY LANE
BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
ZONE 8 - 14" CROSS COUNTRY IMPROVEMENTS
PROJECT 15-39

Rev 1 - 02/20
Original 2015

HASTINGS DRIVE IMPROVEMENTS

PROJECT BACKGROUND

Two dead end water mains currently exist on Hastings Drive approximately 320 LF uphill of the Carlmont Heights entrance with a Zone 8 230 LF 4" cast iron pipe (CIP) and a Zone 2 320 LF 4" polyvinyl chloride (PVC). The Zone 8 dead end has a fire hydrant at N8064 whereas the Zone 2 dead end is capped below ground and valved off at the Carlmont Heights valve cluster. This project eliminates the Zone 2 dead end by replacing the existing Zone 8 CIP with a new 8-inch ductile iron pipe (DIP) while extending it to the Carlmont Heights entrance. To facilitate an emergency connection between Zone 2 and Zone 8 with the District's portable booster pump, a jumper pad will be built with a 4" wharf on each Zone. This pad will also serve as a flushing location for each Zone. As an additional benefit with the larger 8" Zone 8 DIP, Zone 8 fire flows downhill of Cliffside Drive increase 300% from 588 gpm to 2,350 gpm. Distribution System Analysis No. 041

PROPOSED IMPROVEMENTS

Replace 230 LF of 4" CIP and 320 LF of 4" PVC with 8" DIP
 Install 1 new fire hydrant
 Replace 1 fire hydrant
 Install Z2 to Z8 jumper pad w/ 4" wharfs

PROJECT BENEFITS

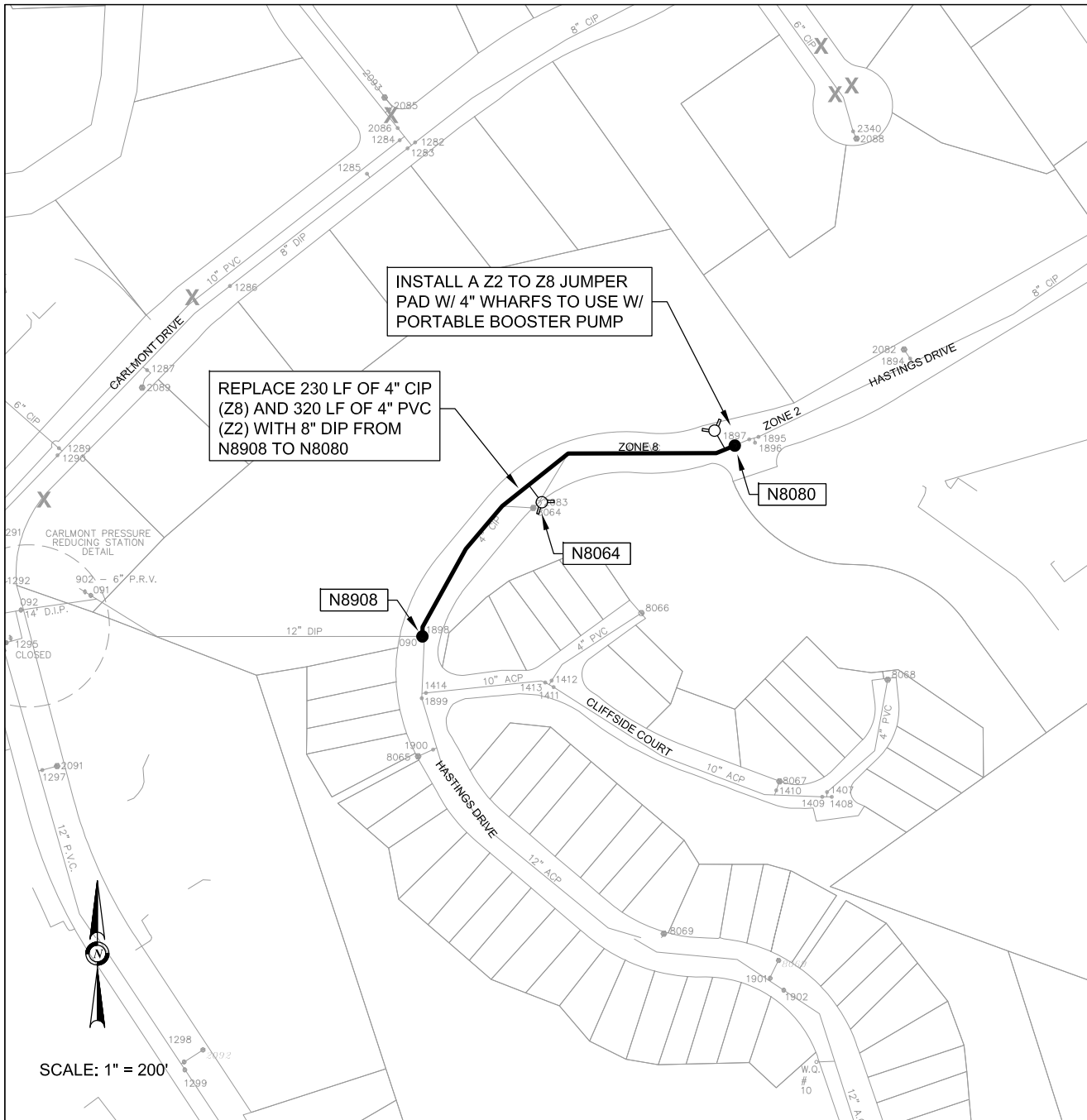
The Hastings Drive Improvements eliminates a dead end, replaces undersized 4" water mains with new 8" DIP, provides an emergency connection point between Zone 2 and Zone 8 and increases Zone 8 fire flow by approximately 300% in the area.

PROJECT BUDGET (2020)

8" DIP - 550 LF @ \$ 450/LF	\$ 247,500
Fire Hydrants - 2 @ \$15,000/EA	\$ 30,000
Z2 to Z8 Jumper Pad	\$ 50,000
Subtotal Construction	\$ 327,500
Planning, Design & Construction Support	\$ 80,000
Construction Inspection	\$ 35,000
Contingency (±10%)	\$ 42,500
Project Budget	\$ 485,000

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$



MILLS AVENUE IMPROVEMENTS

PROJECT BACKGROUND

Water is currently provided to Mills Avenue through a dead-end 300 LF 4" cast iron pipe (CIP) installed over 60 years ago in 1954. This water main serves twelve (12) residences and is equipped with an air release valve at the end where Mills Avenue transitions into Camden Avenue. There is one District hydrant on Mills Avenue at the intersection with Hillman Avenue with the next nearest hydrant along Camden Avenue, a Calwater hydrant, approximately 700 feet away. Fire flows along the 4" CIP are well below the recommended minimum of 1,500 gpm at 20 psi. This project replaces the aging and undersized water main with a new 8" ductile iron pipe (DIP), adds an additional fire hydrant at the end of Mills Avenue to shorten the distance between hydrants, and replaces 12 service connections. Hydraulic analysis indicates as much as a 300% increase in available fire flows upon completion of this project. An analysis on water age indicates minimal effects with the increase in pipe size. Distribution System Analysis No. 042

PROPOSED IMPROVEMENTS

Replace 300 LF of 4" CIP with 8" DIP
Install 1 new fire hydrant
Replace 1 fire hydrant
Replace 12 service connections

PROJECT BENEFITS

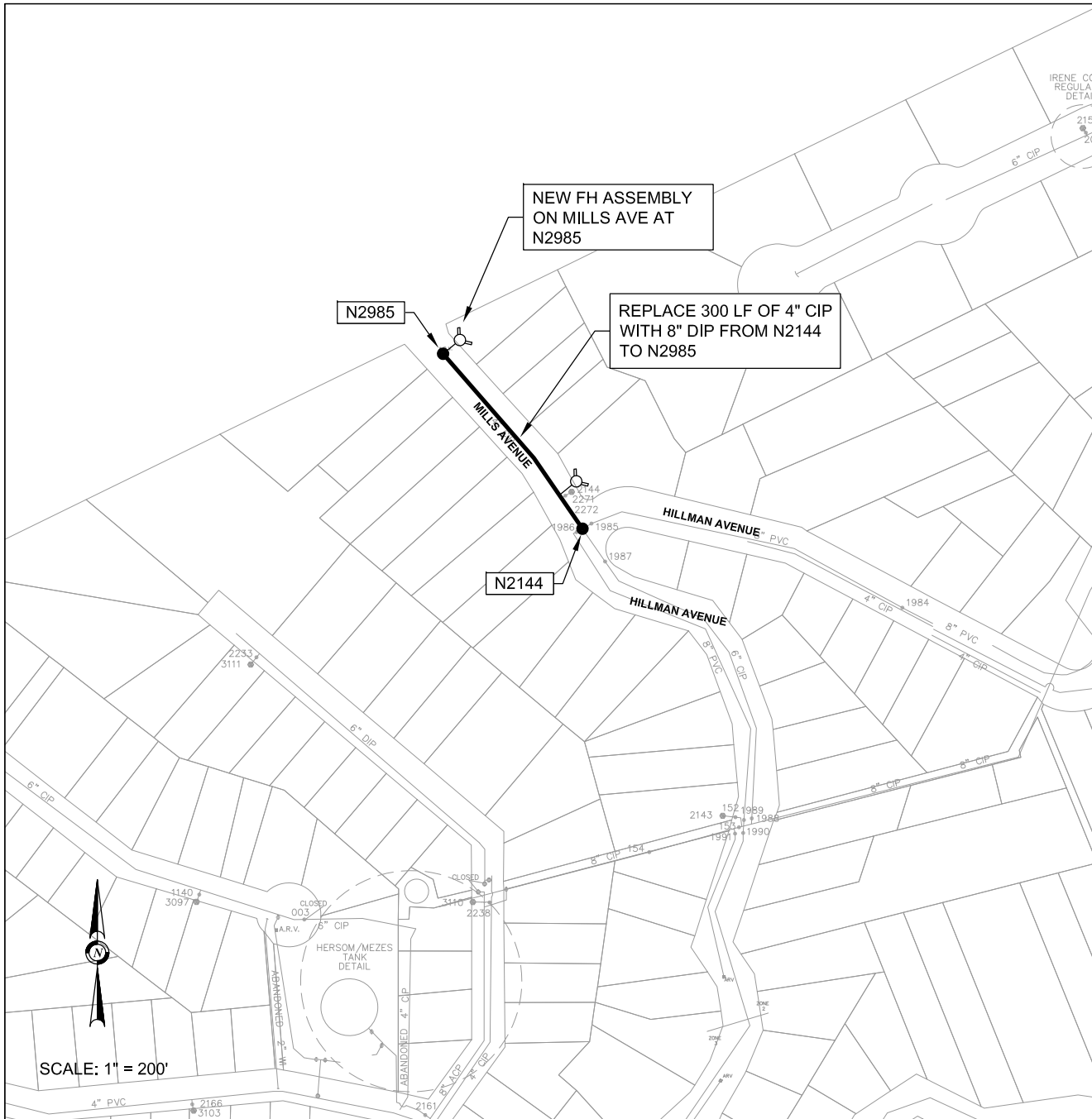
The Mills Avenue Improvements replaces an undersized 4" CIP water main with a new 8" DIP, provides additional fire protection with an added fire hydrant, and increases fire flows by as much as 300%.

PROJECT BUDGET (2020)

8" DIP - 300 LF @ \$ 450/LF	\$ 135,000
Fire Hydrants - 2 @ \$15,000/EA	\$ 30,000
Service Connections - 12 @ \$4,500/EA	\$ 54,000
Subtotal Construction	\$ 219,000
Planning, Design & Construction Support	\$ 65,000
Construction Inspection	\$ 20,000
Contingency (±10%)	\$ 31,000
Project Budget	\$ 335,000

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$



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MID-PENINSULA WATER DISTRICT
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3 DAIRY LANE
BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
MILLS AVENUE IMPROVEMENTS
PROJECT 15-41

Rev 1 - 02/20
Original 2015

NORTH ROAD IMPROVEMENTS

PROJECT BACKGROUND

North Road between Hillman Avenue and Ruth Avenue, approximately 500 LF, has parallel 8" cast iron (CIP) and 8" polyvinyl chloride (PVC) water mains. The 8" CIP was installed in 1949 whereas the 8" PVC was installed more recently in 2005. Fire flows in the area under existing conditions are very strong with the majority of flows around 2,500 gpm. In an effort to reduce the amount of parallel water mains throughout the District, this project abandons the aging 8" CIP and transfers all service connections and fire hydrants to the existing 8" PVC. Hydraulic analysis indicates only an 8% decrease in available fire flows to just above 2,300 gpm with the abandonment, still well above the minimum recommendation of 1,500 gpm at 20 psi. Distribution System Analysis No. 043

PROPOSED IMPROVEMENTS

Abandon an existing parallel 500 LF of 8" CIP
Replace 1 fire hydrant
Replace 19 service connections

PROJECT BENEFITS

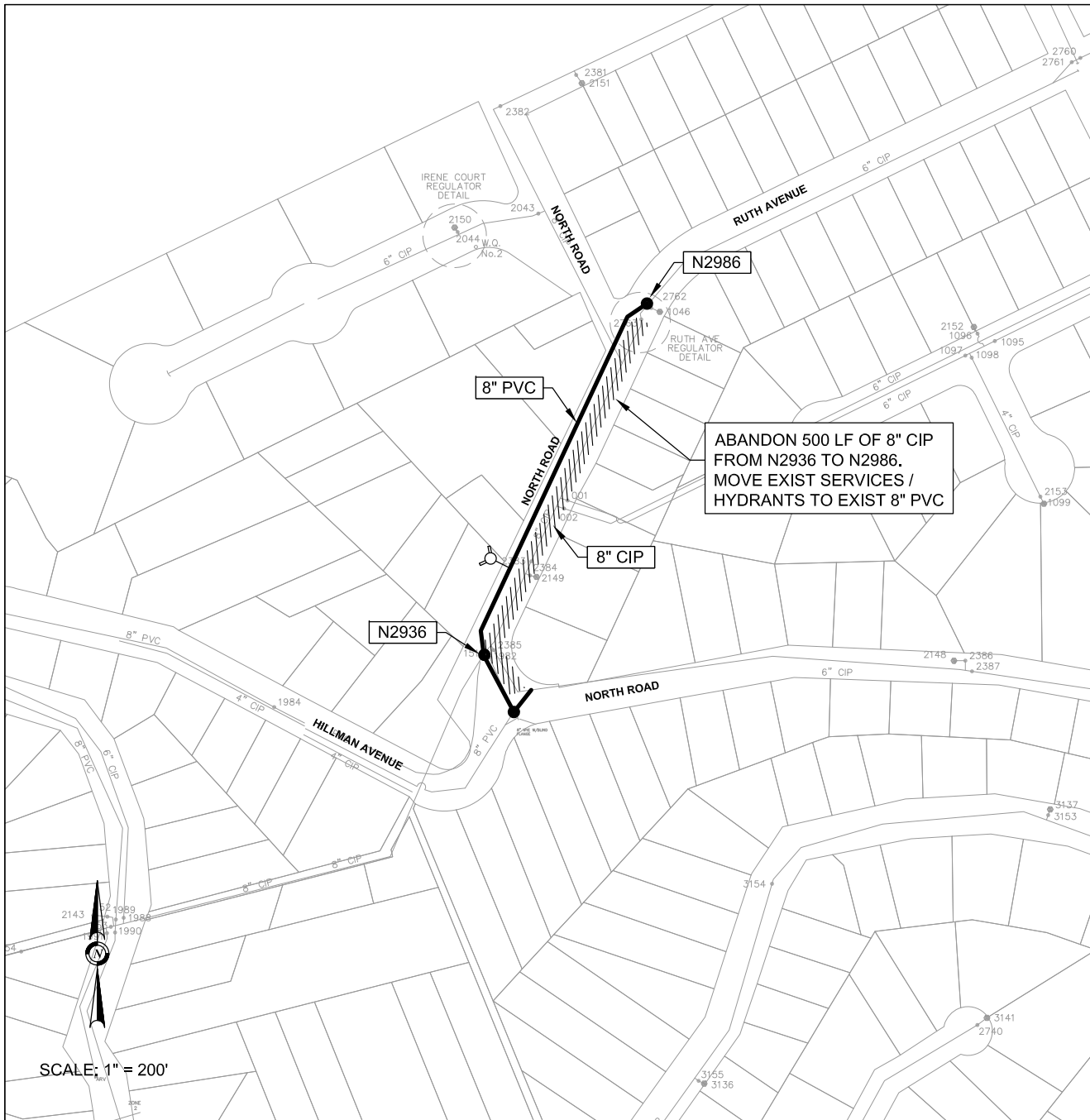
The North Road Improvements abandons an old and aging water main and reduces district maintenance.

PROJECT BUDGET (2020)

Pipe Reconnects - 2 @ \$50,000/EA	\$ 100,000
Pipe Abandonment	\$ 20,000
Fire Hydrants - 1 @ \$15,000/EA	\$ 15,000
Service Connections - 19 @ \$4,500/EA	\$ 85,500
Subtotal Construction	\$ 220,500
Planning, Design & Construction Support	\$ 65,000
Construction Inspection	\$ 25,000
Contingency (±10%)	\$ 29,500
Project Budget	\$ 340,000

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$



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MID-PENINSULA WATER DISTRICT
SAN MATEO COUNTY, CALIFORNIA
3 DAIRY LANE
BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
NORTH ROAD IMPROVEMENTS
PROJECT 15-42

Rev 1 - 02/20
Original 2015

HAINLINE DRIVE AND VICINITY IMPROVEMENTS

PROJECT BACKGROUND

Hainline Drive is located between Middle Road and South Road and has a 400 LF 4" cast iron (CIP) water main with a parallel 400 LF cross country (CC) 4" CIP located in a backyard easement directly behind the residents to the east. In addition, several other streets in the vicinity of Hainline Drive including Camino Vista Court (200 LF), Korbel Way (250 LF) and Vannier Drive (950 LF) also have 4" CIP water mains. Fire flows along all of these streets are well below the recommended 1,500 gpm at 20 psi. This project replaces 1,740 LF of 4" CIP with 8" ductile iron pipe (DIP) in addition to abandoning the 400 LF CC water main off Hainline Drive. Hydraulic analysis indicates no adverse affects of abandoning the CC water main and the 8-inch improvements significantly improve fire flows in the area. This project combined with the South Road Improvements (DSA 045) further improves fire flows with most locations well above 2,000 gpm. Water age analysis on Camino Vista Court and Korbel Way indicate minimal effects with the increase in pipe size. This project also includes the installation of two in-line valves along Middle Road. Distribution System Analysis Nos. 046, 047, 048, 049

PROPOSED IMPROVEMENTS

Abandon 400 LF of 4" CC CIP
Replace 1,800 LF of 4" CIP with 8" DIP
Install 2 new isolation valves on Middle Road
Install 5 new fire hydrants
Replace 42 service connections

PROJECT BENEFITS

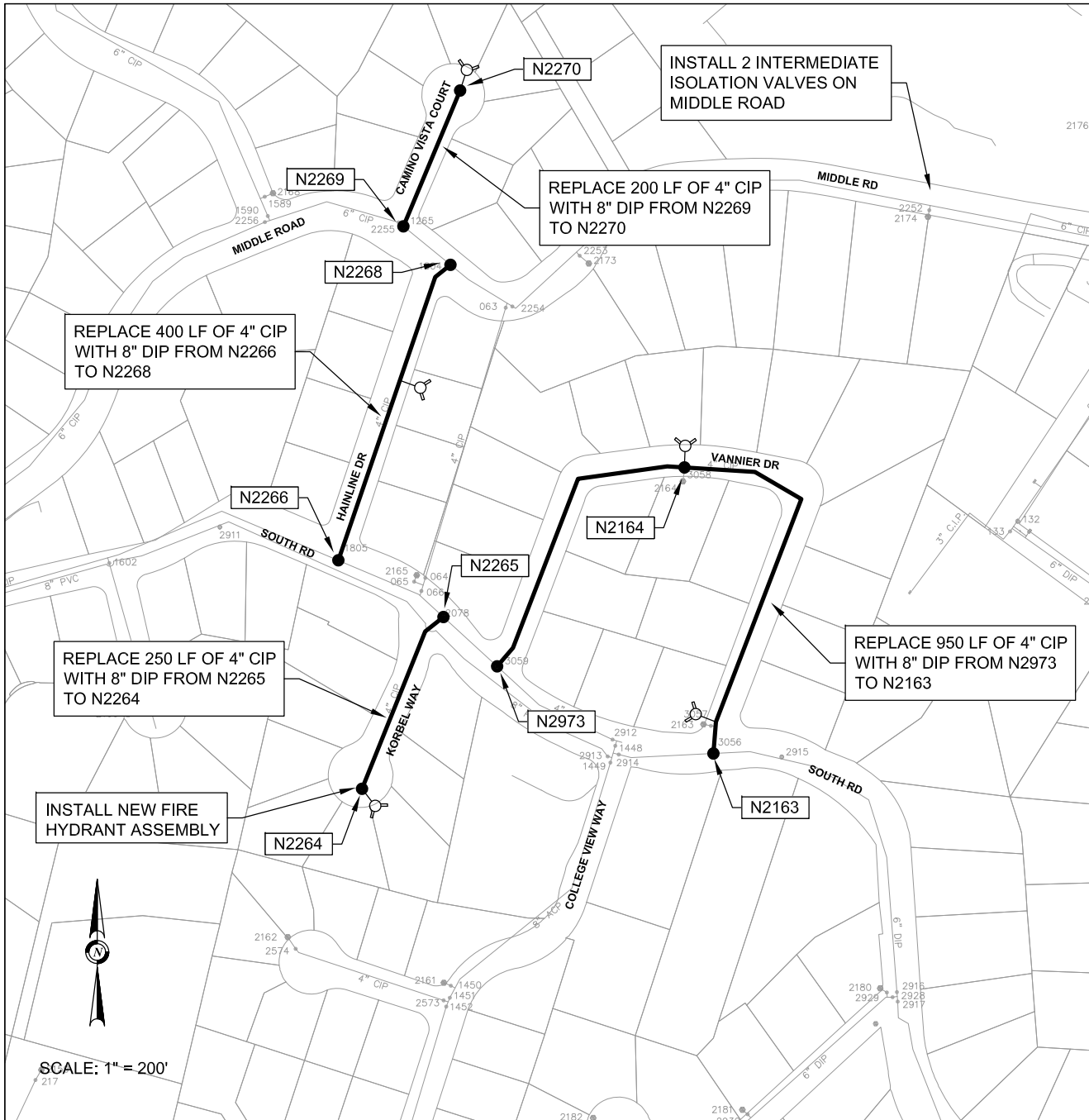
The Hainline Drive and Vicinity Improvements corrects fire flow deficiencies in the area and abandons a CC water main.

PROJECT BUDGET (2020)

8" DIP - 1,800 @ \$ 450/LF	\$ 810,000
Fire Hydrants - 5 @ \$15,000/EA	\$ 75,000
Service Connections - 42 @ \$4,500/EA	\$ 189,000
Subtotal Construction	\$ 1,074,000
Planning, Design & Construction Support	\$ 160,000
Construction Inspection	\$ 105,000
Contingency (±10%)	\$ 131,000
Project Budget	\$ 1,470,000

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$



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MID-PENINSULA WATER DISTRICT
SAN MATEO COUNTY, CALIFORNIA
3 DAIRY LANE
BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM HAINLINE DRIVE AND VICINITY IMPROVEMENTS PROJECT 15-45

Rev 1 - 02/20
Original 2015

MIRAMAR TERRACE IMPROVEMENTS

PROJECT BACKGROUND

Miramar Terrace is located between South Road and Holly Road and has approximately 1,300 LF of 4" cast iron (CIP) water main that was installed in the 1940's. The District has reported this water main has experienced several leaks over past years. In addition, it is unable to meet the minimum fire flow recommendation of 1,500 gpm at 20 psi. Current fire flows in the area are in the range of 800 gpm. There are 21 water service connections and three fire hydrants along the alignment. This project replaces the 4" CIP with new 8" ductile iron pipe (DIP) in addition to adding an additional fire hydrant to improve hydrant spacing. Hydraulic analysis indicates upon completion of this project, fire flows increase as much as 175% to 2,278 gpm with the minimum being 1,877 gpm. Distribution System Analysis No. 050

PROPOSED IMPROVEMENTS

Replace 1,300 LF of 4" CIP with 8" DIP
 Replace 4 fire hydrants
 Replace 21 Service Connections

PROJECT BENEFITS

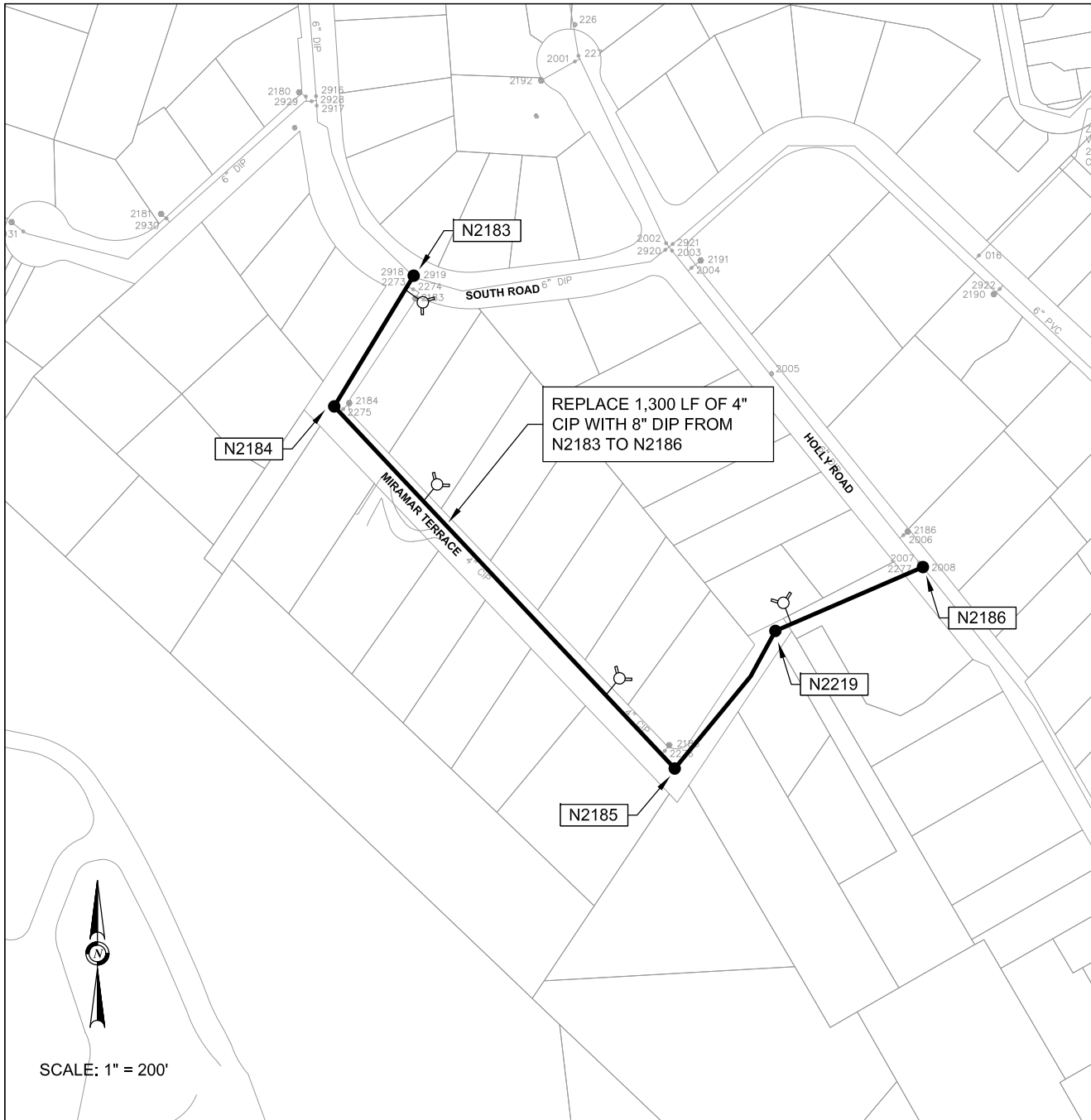
The Miramar Terrace Improvements replaces aging and undersized 4" DIP with 8" DIP, increases fire flows by as much as 175%, and improves fire hydrant spacing.

PROJECT BUDGET (2020)

8" DIP - 1,300 LF @ \$ 450/LF	\$ 585,000
Fire Hydrants - 4 @ \$15,000/EA	\$ 60,000
Service Connections - 21 @ \$4,500/EA	\$ 94,500
Subtotal Construction	\$ 739,500
Planning, Design & Construction Support	\$ 145,000
Construction Inspection	\$ 75,000
Contingency (±10%)	\$ 95,500
Project Budget	\$ 1,055,000

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$



SCALE: 1" = 200'



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MID-PENINSULA WATER DISTRICT
 SAN MATEO COUNTY, CALIFORNIA
 3 DAIRY LANE
 BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
 MIRAMAR TERRACE IMPROVEMENTS
 PROJECT 15-46

Rev 1 - 02/20
 Original 2015

VIRGINIA AVENUE IMPROVEMENTS

PROJECT BACKGROUND

Virginia Avenue and Holly Road are connected by a 210 LF cross country (CC) water main that is a combination of 6" cast iron (CIP) and 6" polyvinyl chloride (PVC) pipe. The CC water main is nearly inaccessible should a main break occur due to a 6-8 foot retaining wall, extensive landscaping and proximity to residences. Fire flows in the area under existing conditions are strong with flows well above 2,000 gpm. Abandonment of this water main creates two dead ends and reduces fire flows on both streets to around 1,300 gpm. To correct the fire flow reduction on Virginia Avenue, 650 LF of 6" CIP installed in the 1950's would be replaced with 8" DIP in addition to a 350 LF 6" CIP on Kingston Road, also installed in the 1950's. This project also relocates one cross country service connection to South Road. Hydraulic analysis indicates the abandonment combined with the 8" increase on Virginia Road increase fire flows to above 1,700 gpm and analysis on water age indicates minimal effects with the increase in pipe size. This project does not include upsizing the water main on Holly Road as this is a 6" PVC installed in the mid 1990's and with fire flows near 1,330 gpm we feel this is sufficient at this time. Distribution System Analysis No. 051

PROPOSED IMPROVEMENTS

Abandon 210 LF of 6" CC water main
 Replace 1,000 LF of 6" CIP with 8" DIP
 Replace 3 new fire hydrants
 Replace 16 service connections
 Relocate 1 service connection

PROJECT BENEFITS

The Virginia Avenue Improvements abandons an inaccessible CC water main, replaces old and aging water main.

PROJECT BUDGET (2020)

8" DIP - 1,000 LF @ \$ 450/LF	\$ 450,000
Fire Hydrants - 3 @ \$15,000/EA	\$ 45,000
Service Connections - 16 @ \$4,500/EA	\$ 72,000
Service Relocation - 1 @ \$10,000/EA	\$ 10,000
Subtotal Construction	\$ 577,000
Planning, Design & Construction Support	\$ 115,000
Construction Inspection	\$ 60,000
Contingency (±10%)	\$ 73,000
Project Budget	\$ 825,000

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$

REPLACE 350 LF OF 6" CIP WITH 8" DIP FROM N2178 TO N29937

REPLACE 650 LF OF 6" CIP WITH 8" DIP FROM N2971 TO N2899

ABANDON 210 LF OF 6" PVC AND DIP FROM N2899 TO N2192

SCALE: 1" = 200'



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MID-PENINSULA WATER DISTRICT
 SAN MATEO COUNTY, CALIFORNIA
 3 DAIRY LANE
 BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
 VIRGINIA AVENUE IMPROVEMENTS
 PROJECT 15-47

Rev 1 - 02/20
 Original 2015

WILLOW LANE IMPROVEMENTS

PROJECT BACKGROUND

Willow Lane is a private road providing access to 10 residences. Water is currently provided to 8 of the residents from a 4" cross country (CC) cast iron (CIP) water main (installed in 1946) located between 50 and 60 Notre Dame Place beginning at 16 Notre Dame Place and ending near 28 Willow Lane. All of the meter boxes are clustered together at the end of the water main causing some residents to maintain up to 300 LF of service line. In addition, the only hydrant serving these 10 homes is located on the end of the 4" CIP where fire flows are approximately 600 gpm, well below the minimum recommendation of 1,500 gpm at 20 psi. This project abandons the existing 4" CC CIP and installs a new 8" DIP along Willow Lane in addition to adding additional hydrants and improving service connection distance. Hydraulic analysis indicates an increase of 231% to 1,950 gpm at 20 psi. This project requires the District to obtain an easement to construct the water main. Distribution System Analysis No. 052

PROPOSED IMPROVEMENTS

Abandon 230 LF of 4" CC CIP

Install 600 LF of 8" DIP

Install 2 new fire hydrants

Replace 8 service connections

PROJECT BENEFITS

The Willow Lane Improvements abandons a cross country water main that is old, aging and undersized and replaces it with an accessible 8" DIP water main, adds additional hydrants for improved fire protection and shortens resident service connections.

PROJECT BUDGET (2020)

8" DIP - 600 LF @ \$ 450/LF	\$ 270,000
Fire Hydrants - 2 @ \$15,000/EA	\$ 30,000
Service Connections - 8 @ \$4,500/EA	\$ 36,000
Subtotal Construction	\$ 336,000
Planning, Design & Construction Support	\$ 85,000
Construction Inspection	\$ 35,000
Contingency (±10%)	\$ 44,000
Project Budget	\$ 500,000

PROJECT COMPLETED

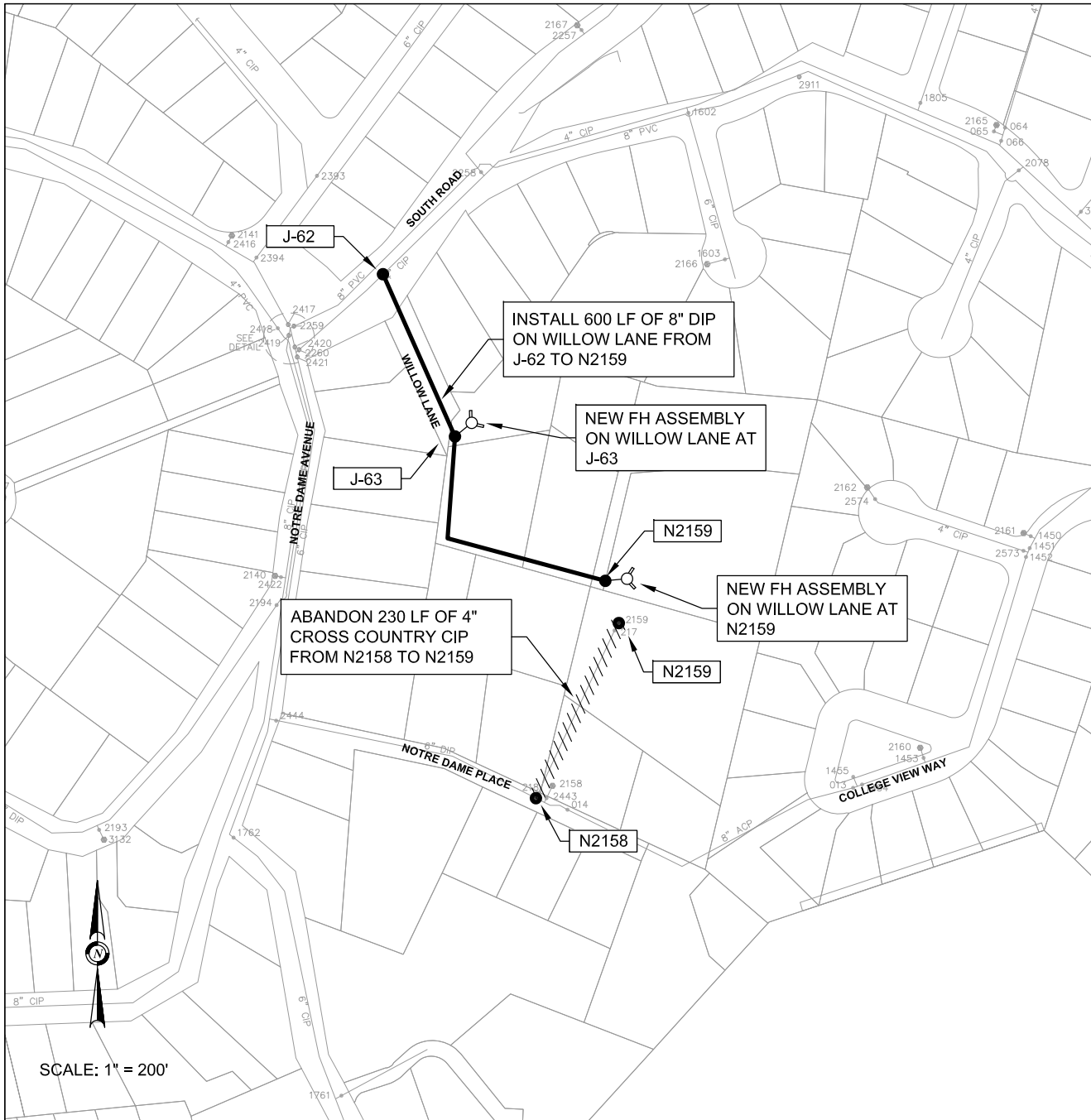
Completion Date:

Actual Expenditures

Planning, Design, & Construction Support: \$

Construction: \$

Total Expenditures: \$



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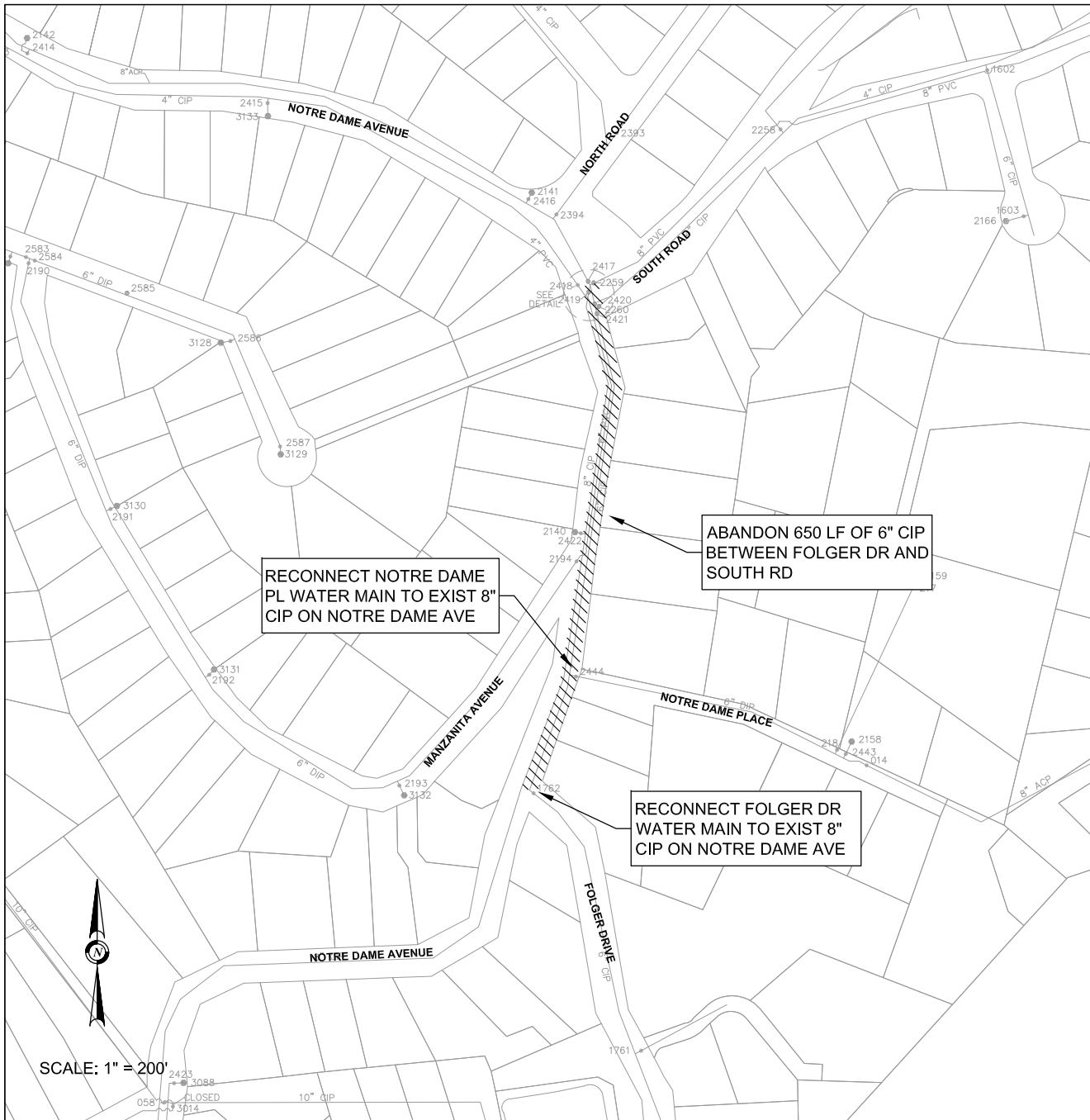
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MID-PENINSULA WATER DISTRICT
SAN MATEO COUNTY, CALIFORNIA
3 DAIRY LANE
BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
WILLOW LANE IMPROVEMENTS
PROJECT 15-48

Rev 1 - 02/20
Original 2015



MID-NOTRE DAME AVENUE ABANDONMENT

PROJECT BACKGROUND

Notre Dame Avenue between Folger Drive and South Road has two parallel Zone 2 water mains: an 8" cast iron pipe (CIP) installed in 1951 and a 6" CIP installed in 1935. Fire flows under existing conditions are very strong in the area with flows well above the minimum recommendation of 1,500 gpm at 20 psi. This project abandons the existing 6" CIP and reconnects all branch connections and service connections to the existing 8" CIP. Hydraulic analysis indicates there is no adverse affect in abandoning the 6" CIP and fire flows remain nearly identical. Although the existing 8" CIP is also an aging water main, potential replacement of this water main will be on another distribution analysis involving all of the 8" water main on Notre Dame Avenue from Folger Drive to Hersom Tank. Distribution System Analysis No. 053

PROPOSED IMPROVEMENTS

Abandon 650 LF of 6" CIP
Replace 10 service connections

PROJECT BENEFITS

The Mid-Notre Dame Avenue Abandonment abandons a redundant, aging water main between Folger Drive and South Road reducing District maintenance.

PROJECT BUDGET (2015*)

Pipe Abandonments - 2 @ \$10,000/End	\$ 20,000
Pipe Reconnects - 2 @ \$30,000/EA	\$ 60,000
Service Connections - 10 @ \$3,000/EA	\$ 30,000
Subtotal Construction	\$ 110,000
Planning, Design & Construction Support	\$ 33,000
Contingency (±10%)	\$ 17,000
Project Budget	\$ 160,000

* This project is currently under construction.

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$



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MID-PENINSULA WATER DISTRICT
SAN MATEO COUNTY, CALIFORNIA
3 DAIRY LANE
BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
MID-NOTRE DAME AVENUE ABANDONMENT
PROJECT 15-49

Rev 1 - 02/20
Original 2015

FAIRWAY DRIVE IMPROVEMENTS

PROJECT BACKGROUND

Fairway Drive is located between Arbor Drive and Notre Dame Avenue with a 1,450 LF 4" polyvinyl chloride (PVC) water main installed in 1975. Although the water main is PVC and not as old as other water mains in the District, it is incapable of delivering the minimum recommended fire flow of 1,500 gpm at 20 psi. Currently existing fire flows along Fairway Drive are in the 1,000 gpm range. One fire hydrant is directly located on the 4" PVC at its intersection with Francis Avenue with another located on the 8" PVC branch on Avon Street. The next nearest hydrant is nearly 600 LF away at the intersection with Arbor Avenue. This project replaces the 4" PVC with an 8" DIP, replaces the existing fire hydrants and adds an additional hydrant between Avon Street and Arbor Avenue. Hydraulic analysis indicates a maximum 149% increase in fire flow to 2,500 gpm. Distribution System Analysis No. 054

PROPOSED IMPROVEMENTS

Replace 1,450 LF of 4" PVC with 8" DIP
Install 1 new fire hydrant
Replace 1 fire hydrant
Replace 24 service connections

PROJECT BENEFITS

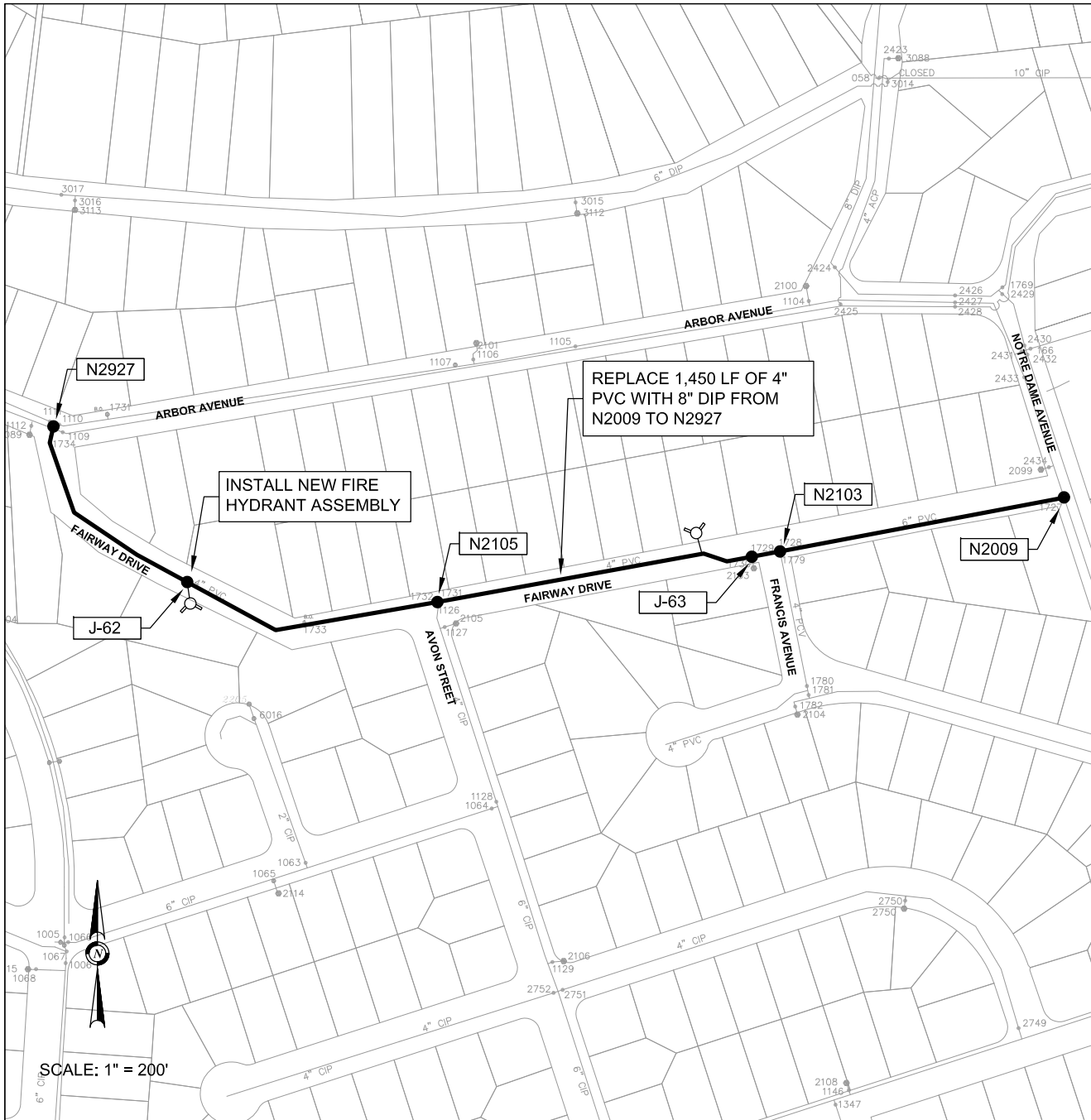
The Fairway Drive Improvements replaces an undersized 4" PVC water main with an 8" DIP improving fire flows to 2,500 gpm, provides additional fire protection with the addition of an extra fire hydrant, and matches size of the other water mains in the area.

PROJECT BUDGET (2020)

8" DIP - 1,450 @ \$450/LF	\$ 652,500
Fire Hydrants - 2 @ \$15,000/EA	\$ 30,000
Service Connections - 24 @ \$4,500/EA	\$ 108,000
Subtotal Construction	\$ 790,500
Planning, Design & Construction Support	\$ 160,000
Construction Inspection	\$ 80,000
Contingency (±10%)	\$ 104,500
Project Budget	\$ 1,135,000

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$



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JOB No.	10012.07
DATE	10/8/19
SCALE	AS NOTED
DRAWN:	BY <u>BL</u>
	CKD <u>JP</u>



MID-PENINSULA WATER DISTRICT
SAN MATEO COUNTY, CALIFORNIA
3 DAIRY LANE
BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
FAIRWAY DRIVE IMPROVEMENTS
PROJECT 15-50

Rev 1 - 02/20
Original 2015

CHEVY / CLEE STREETS IMPROVEMENTS

PROJECT BACKGROUND

Chevy Street is located between Ralston Avenue and Belburn Drive and has a 270 LF 4" polyvinyl chloride (PVC) water main between Belburn Drive and Clee Street installed in the 1970's. Clee Street, between Chevy Street and Notre Dame Avenue also has a 530 LF 4" PVC installed in the 1970's. Fire flows along these streets are well below the recommended 1,500 gpm at 20 psi with flows around 800 gpm. This project replaces a total 780 LF of 4" PVC with 8" ductile iron pipe (DIP) and adds an additional hydrant in the area. Hydraulic analysis indicates fire flow increases as much as 220% to over 2,500 gpm upon completion of this project. Distribution System Analysis No. 056

PROPOSED IMPROVEMENTS

Replace 800 LF of 4" PVC with 8" DIP
Install 1 new fire hydrant
Replace 1 fire hydrant
Replace 16 service connections

PROJECT BENEFITS

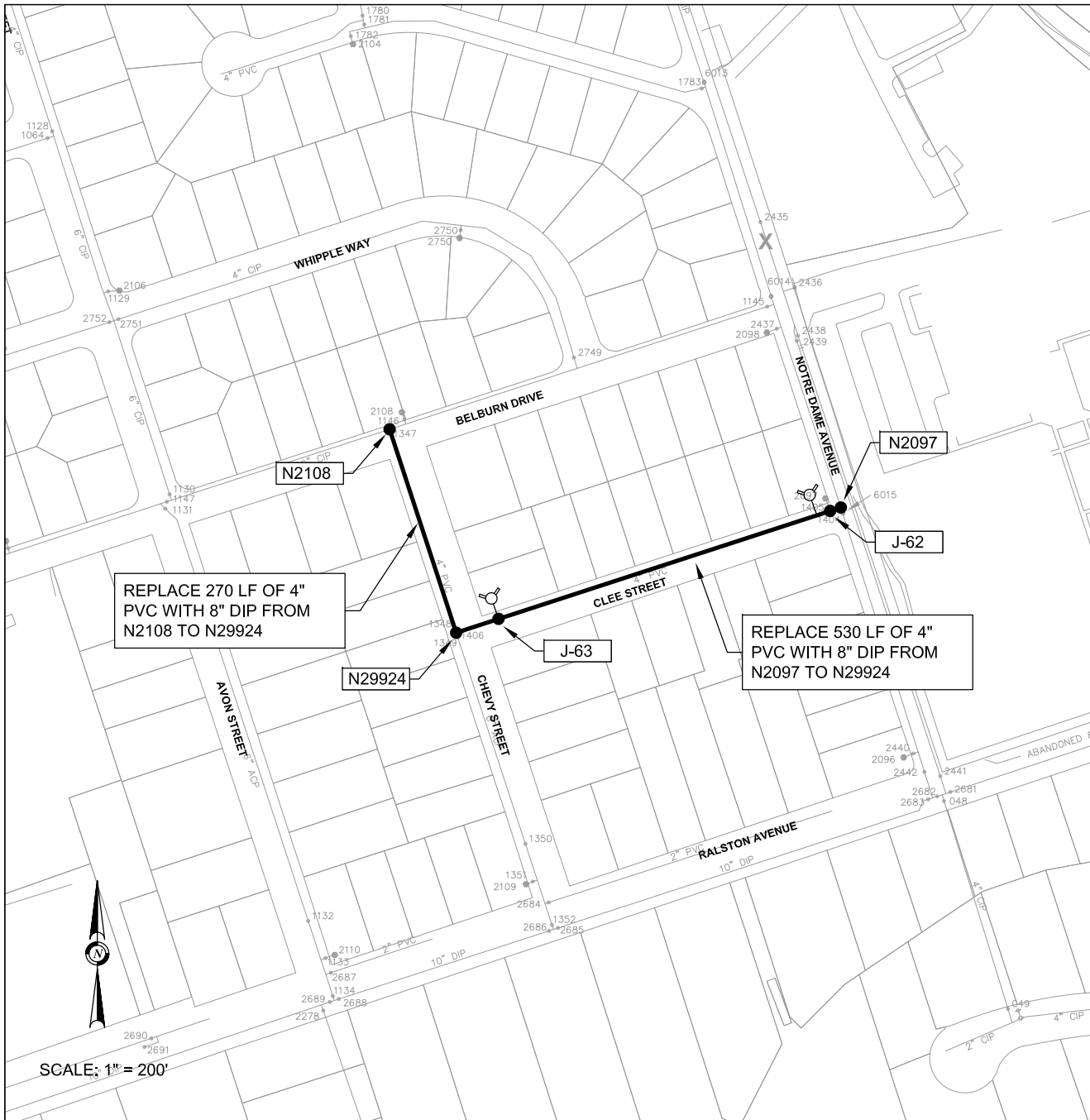
The Chevy / Clee Streets Improvements replaces undersized 4" PVC water main with 8" DIP, improves fire protection with the addition of a hydrant, and improves fire flows in the area as much as 220%.

PROJECT BUDGET (2020)

8" DIP - 800 LF @ \$450/LF	\$ 360,000
Fire Hydrants - 2 @ \$15,000/EA	\$ 30,000
Service Connections -16 @ \$4,500/EA	\$ 72,000
Subtotal Construction	\$ 462,000
Planning, Design & Construction Support	\$ 115,000
Construction Inspection	\$ 45,000
Contingency (±10%)	\$ 63,000
Project Budget	\$ 685,000

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$



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MID-PENINSULA WATER DISTRICT
SAN MATEO COUNTY, CALIFORNIA
3 DAIRY LANE
BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
CHEVY / CLEE STREETS IMPROVEMENTS
PROJECT 15-52

Rev 1 - 02/20
Original 2015

VILLA AVENUE IMPROVEMENTS

PROJECT BACKGROUND

Villa Avenue is located between Ralston Avenue and Academy Avenue and has a combination of 400 LF of 4" polyvinyl chloride (PVC) and 1,100 LF of 6" cast iron (CIP) water main. The 4" PVC was installed in 1970 whereas the 6" CIP was installed in 1946. The 4" PVC portion has fire flows (1,080 gpm) well below the minimum recommendation of 1,500 gpm at 20 psi. The 6" CIP portion is one of the oldest water mains in the District and is nearing its service life. In addition, along the entire 6" CIP alignment, many residents share a common service connection (2 to 4 services on one connection) to the main. This project replaces all of the water main on Villa Avenue with 1,550 LF of 8" ductile iron pipe (DIP), replaces 44 service connections allowing a dedicated service line to each resident, and replaces 3 fire hydrants. Hydraulic analysis indicates upon completion of this project fire flows along Villa Avenue increase to beyond 2,500 gpm. Distribution System Analysis No. 058

PROPOSED IMPROVEMENTS

Replace 1,500 LF of 4" PVC / 6" CIP with 8" DIP
Install 3 new fire hydrants
Replace 44 service connections

PROJECT BENEFITS

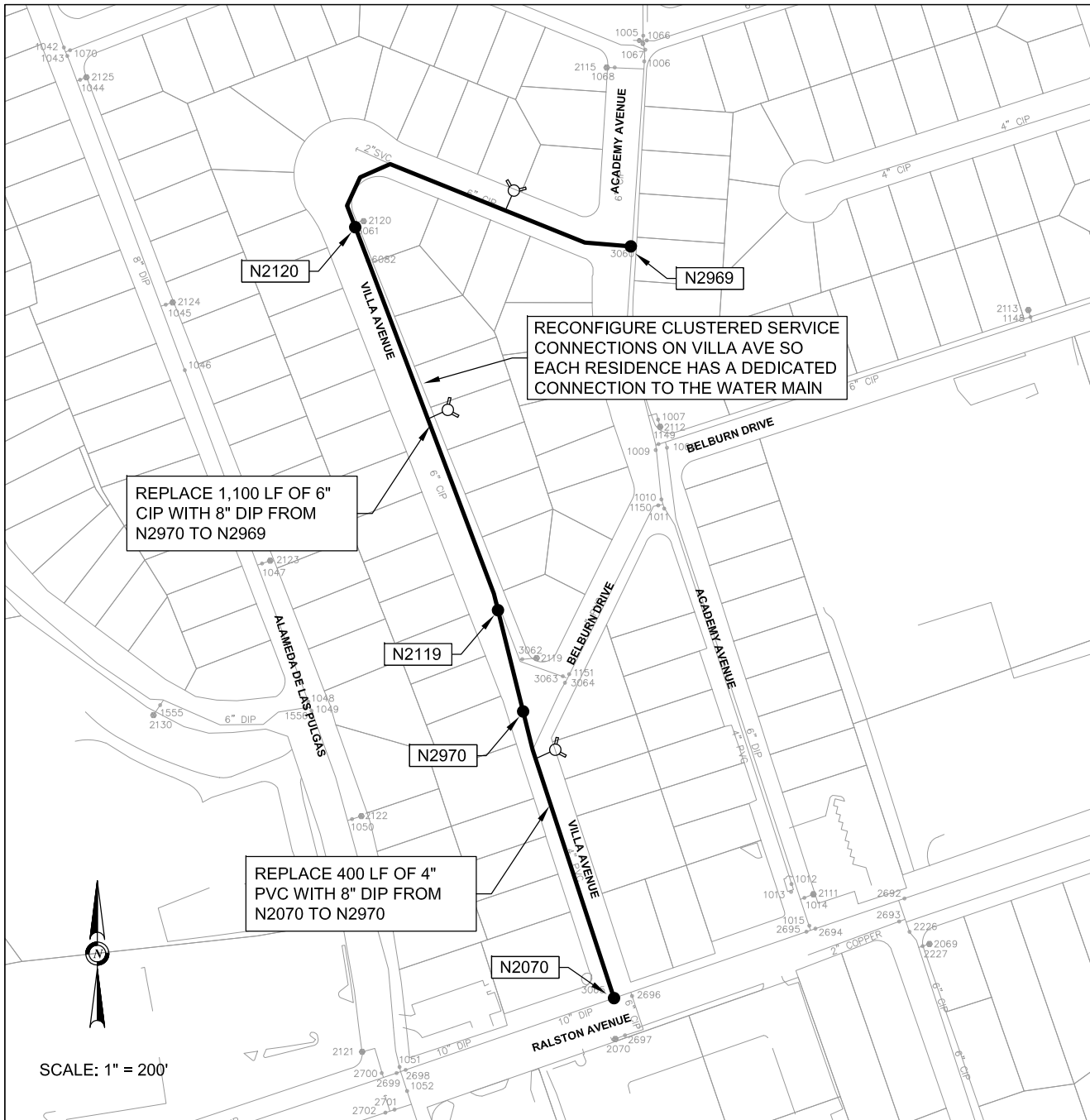
The Villa Avenue Improvements replaces undersized 4" PVC water main, reconfigures service connections so each resident has their own dedicated service line, replaces aging water main, and improves fire flows along Villa Avenue to beyond 2,500 gpm.

PROJECT BUDGET (2020)

8" DIP - 1,500 LF @ \$450/LF	\$ 675,000
Fire Hydrants - 3 @ \$15,000/EA	\$ 45,000
Service Connections - 44 @ \$4,500/EA	\$ 198,000
Subtotal Construction	\$ 918,000
Planning, Design & Construction Support	\$ 185,000
Construction	\$ 90,000
Contingency (±10%)	\$ 122,000
Project Budget	\$ 1,315,000

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$



SCALE: 1" = 200'



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MID-PENINSULA WATER DISTRICT
SAN MATEO COUNTY, CALIFORNIA
3 DAIRY LANE
BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
VILLA AVENUE IMPROVEMENTS
PROJECT 15-54

Rev 1 - 02/20
Original 2015

COVINGTON ROAD IMPROVEMENTS

PROJECT BACKGROUND

A portion of Covington Road, located between Alameda De Las Pulgas and Pullman Avenue has 800 LF of 4" cast iron (CIP) water main that is incapable of meeting the minimum recommended fire flow of 1,500 gpm at 20 psi with fire flows as low as 724 gpm. It also has a small portion of 200 LF of 6" DIP installed in 1977 just off Alameda De Las Pulgas. Hydrant spacing is also less than ideal with only two hydrants spaced well beyond 500 LF apart. This project replaces the entire water main between Alameda De Las Pulgas and Pullman Avenue with 8" ductile iron (DIP) water main along with replacement of 23 service connections. The 2 existing fire hydrants will be replaced in addition to adding a third to improve hydrant spacing. Hydraulic analysis indicates upon completion of this project fire flows along Covington Road increase to beyond 2,500 gpm. Distribution System Analysis No. 059

PROPOSED IMPROVEMENTS

Replace 1,000 LF of 4" CIP / 6" DIP with 8" DIP
Install 1 new fire hydrant
Replace 2 fire hydrants
Replace 23 service connections

PROJECT BENEFITS

The Covington Road Improvements replaces undersized 4" CIP water main, replaces aging water main, improves fire protection with the addition of a fire hydrant, and improves fire flows to beyond 2,500 gpm.

PROJECT BUDGET (2020)

8" DIP - 1,000 LF @ \$450/LF	\$ 450,000
Fire Hydrants - 3 @ \$15,000/EA	\$ 45,000
Service Connections - 23 @ \$4,500/EA	\$ 103,500
Subtotal Construction	\$ 598,500
Planning, Design & Construction Support	\$ 120,000
Construction Inspection	\$ 60,000
Contingency (±10%)	\$ 76,500
Project Budget	\$ 855,000

PROJECT COMPLETED

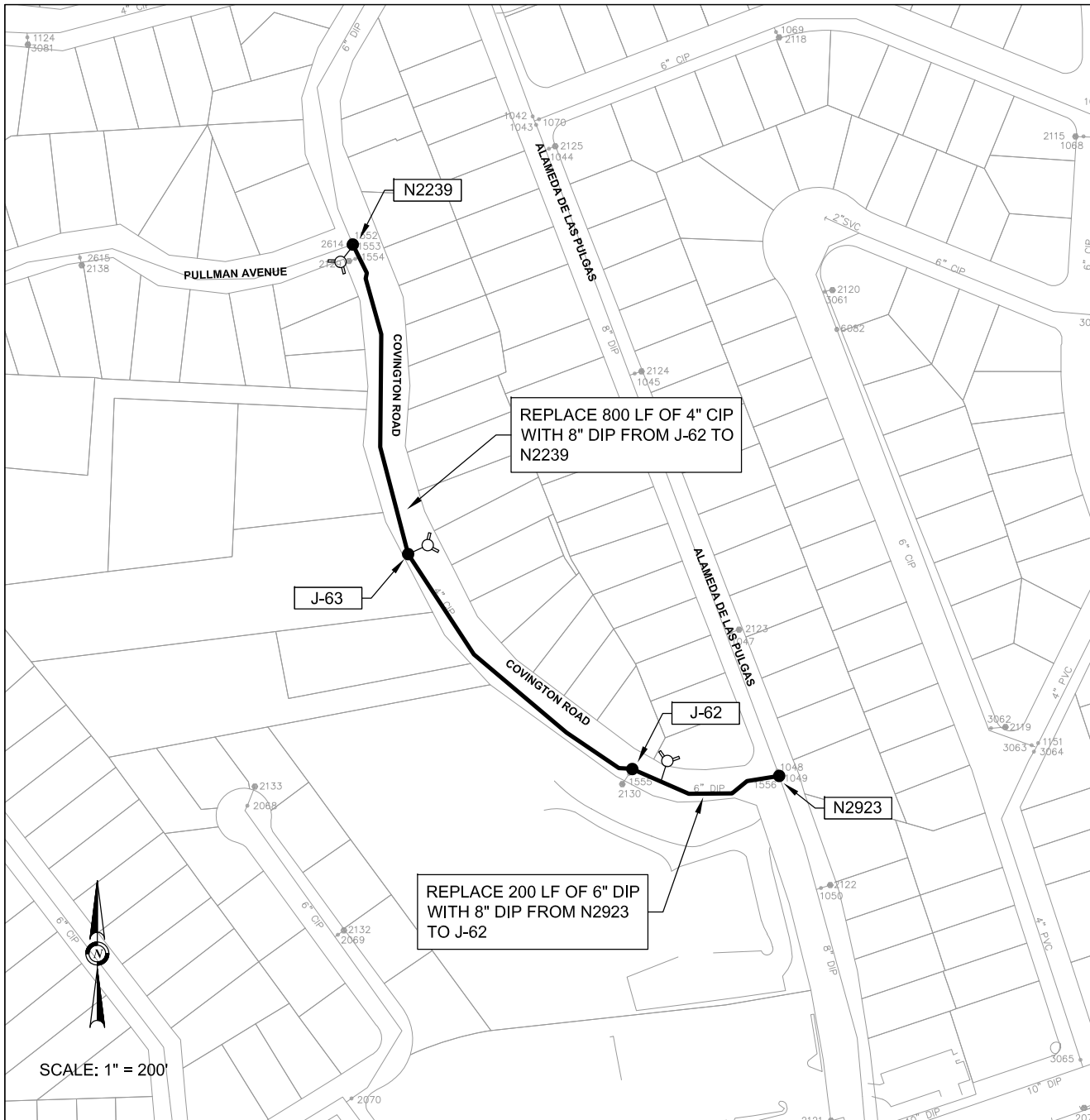
Completion Date:

Actual Expenditures

Planning, Design, & Construction Support: \$

Construction: \$

Total Expenditures: \$



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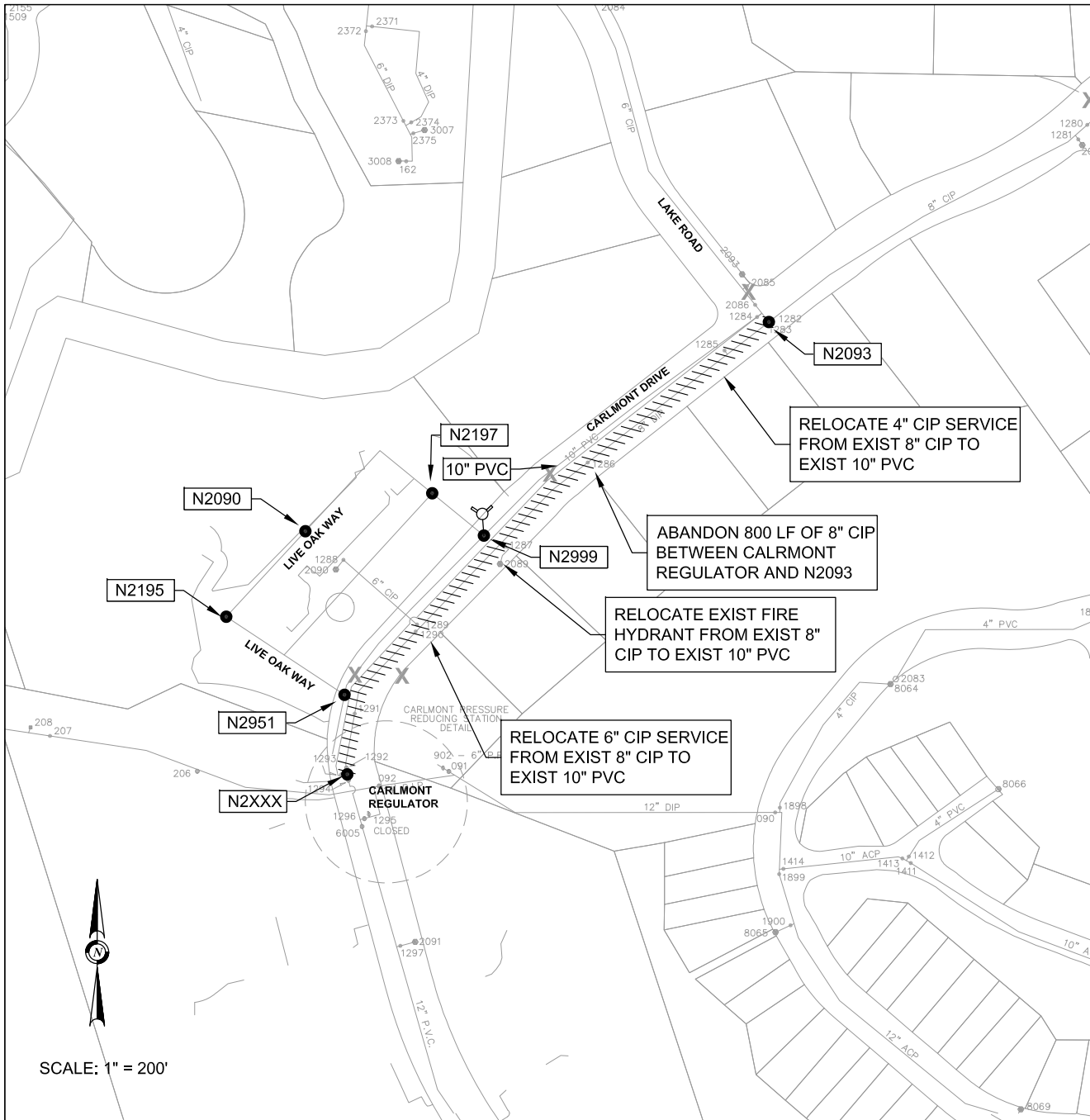
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MID-PENINSULA WATER DISTRICT
SAN MATEO COUNTY, CALIFORNIA
3 DAIRY LANE
BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
COVINGTON ROAD IMPROVEMENTS
PROJECT 15-55

Rev 1 - 02/20
Original 2015



CARLMONT DRIVE IMPROVEMENTS

PROJECT BACKGROUND

Carlmont Drive, between the Carlmont Regulator and Lake Road has two parallel water mains: an 800 LF 8" cast iron (CIP) and 10" polyvinyl chloride (PVC) water main. The 8" CIP was installed in 1959 whereas the 10" PVC was installed more recently in 1984. It is thought perhaps the 8" CIP remained in place, upon construction of the 10" PVC, to leave existing services and one hydrant on the water main to reduce costs at the time. Fire flows in the area are very strong given the area is in the lower part of Zone 2 with majority of flows at or above 2,500 gpm. This project abandons the aging 8" CIP and relocates the services and hydrant to the existing 10" PVC. Hydraulic analysis indicates the 8" CIP provides little hydraulic benefit to the area. Upon abandonment, the area experiences a 15% reduction in fire flow with most locations at 2,140 gpm, still well above the minimum recommendation of 1,500 gpm at 20 psi. Distribution System Analysis No. 060

PROPOSED IMPROVEMENTS

Abandon 800 LF of 8" CIP
Install 1 new fire hydrant
Replace 5 service connections
2 pipe reconnects

PROJECT BENEFITS

The Carlmont Drive Improvements abandons an aging parallel 8" CIP that provides little hydraulic benefit to the system and reduces District maintenance.

PROJECT BUDGET (2020)

Pipe Reconnects - 2 @ \$50,000/EA	\$ 100,000
Fire Hydrants - 1 @ \$15,000/EA	\$ 15,000
Service Connections - 5 @ \$7,500/EA	\$ 37,500
Subtotal Construction	\$ 152,500
Planning, Design & Construction Support	\$ 45,000
Construction Inspection	\$ 15,000
Contingency (±10%)	\$ 22,500
Project Budget	\$ 235,000

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$

SCALE: 1" = 200'



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MID-PENINSULA WATER DISTRICT
SAN MATEO COUNTY, CALIFORNIA
3 DAIRY LANE
BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
CARLMONT DRIVE IMPROVEMENTS
PROJECT 15-56

Rev 1 - 02/20
Original 2015

ALOMAR WAY IMPROVEMENTS

PROJECT BACKGROUND

Alomar Way, located between Ladera Way and El Verano Way, has a 750 LF of 4" cast iron (CIP) water main constructed in 1954 incapable of meeting the minimum recommended fire flow of 1,500 gpm at 20 psi. Existing fire flows along this water main are just over 1,100 gpm. This project replaces the 4" CIP with 8" ductile iron pipe (DIP), 14 service connections and one fire hydrant. Hydraulic analysis indicates upon completion of this project fire flows along the street in addition to the immediate area increase to above 2,500 gpm. Distribution System Analysis No. 061

PROPOSED IMPROVEMENTS

Replace 750 LF of 4" CIP with 8" DIP
Replace 1 fire hydrant
Replace 14 service connections

PROJECT BENEFITS

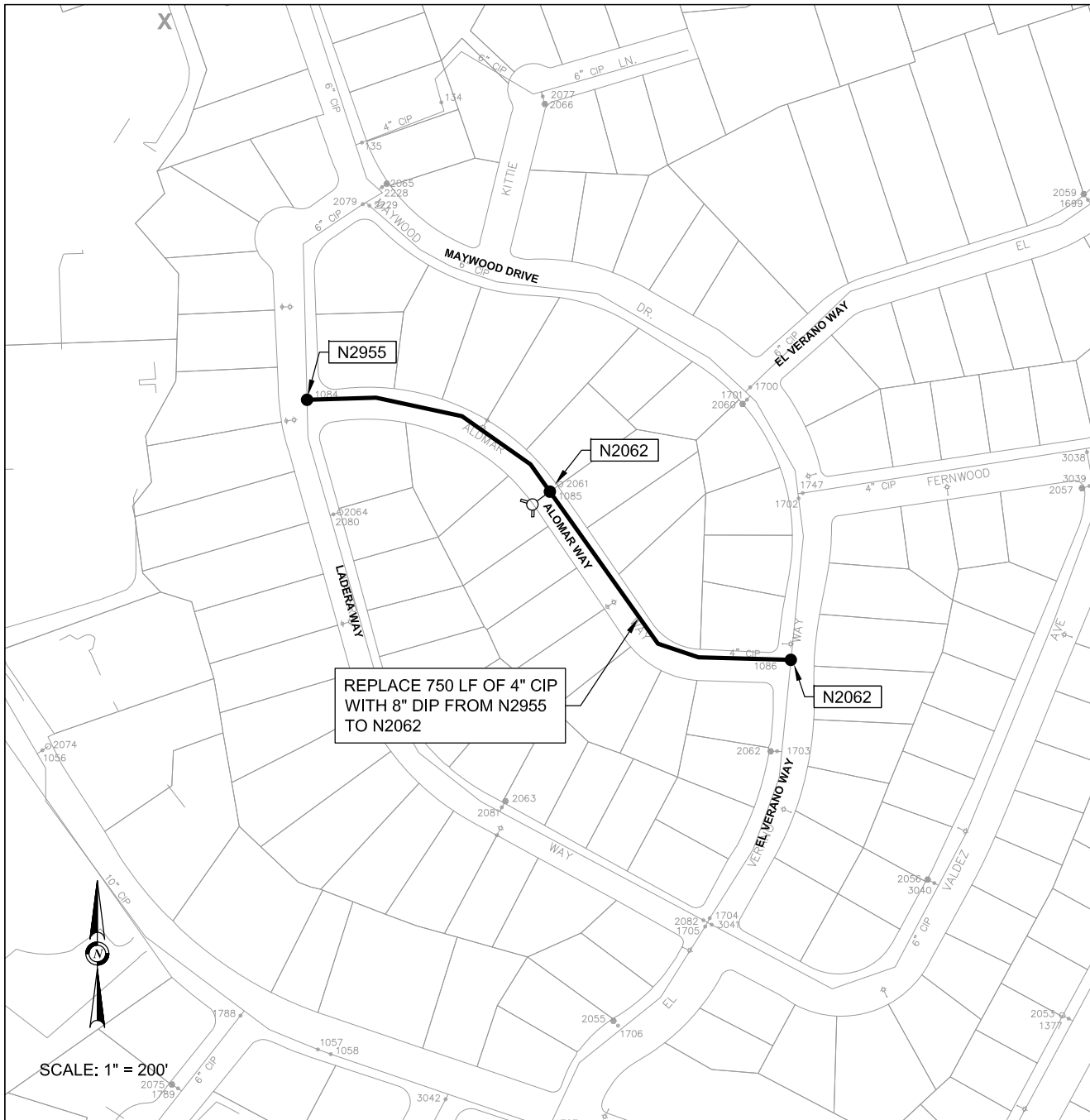
The Alomar Way Improvements replaces an undersized and aging water main and increases fire flows to above 2,500 gpm.

PROJECT BUDGET (2020)

8" DIP - 750 LF @ \$450/LF	\$ 337,500
Fire Hydrants - 1 @ \$15,000/EA	\$ 15,000
Service Connections - 14 @ \$4,500/EA	\$ 63,000
Subtotal Construction	\$ 415,500
Planning, Design & Construction Support	\$ 105,000
Construction Inspection	\$ 40,000
Contingency (±10%)	\$ 54,500
Project Budget	\$ 615,000

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$



REPLACE 750 LF OF 4" CIP
WITH 8" DIP FROM N2955
TO N2062

SCALE: 1" = 200'



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MID-PENINSULA WATER DISTRICT
SAN MATEO COUNTY, CALIFORNIA
3 DAIRY LANE
BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
ALOMAR WAY IMPROVEMENTS
PROJECT 15-57

Rev 1 - 02/20
Original 2015

FERNWOOD WAY IMPROVEMENTS

PROJECT BACKGROUND

Fernwood Way, located between Chula Vista Drive and El Verano Way, has 850 LF of 4" cast iron (CIP) water main constructed in 1954 incapable of meeting the minimum recommended fire flow of 1,500 gpm at 20 psi. Existing fire flows along this water main range between 900 gpm and 1,300 gpm. This project replaces the 4" CIP with 8" ductile iron pipe (DIP), 16 service connections and two fire hydrants. In addition, fire hydrant spacing will be improved to keep spacing to within 500 LF. Hydraulic analysis indicates upon completion of this project fire flows along the street increase to above 2,500 gpm. Distribution System Analysis No. 062

PROPOSED IMPROVEMENTS

Replace 850 LF of 4" CIP with 8" DIP
Install 1 new fire hydrant
Replace 1 fire hydrant
Replace 16 service connections

PROJECT BENEFITS

The Fernwood Way Improvements replaces an undersized and aging water main, improves fire hydrant spacing, and increases fire flows to above 2,500 gpm.

PROJECT BUDGET (2020)

8" DIP - 850 LF @ \$450/LF	\$ 382,500
Fire Hydrants - 2 @ \$15,000/EA	\$ 30,000
Service Connections - 16 @ \$4,500/EA	\$ 72,000
Subtotal Construction	\$ 484,500
Planning, Design & Construction Support	\$ 120,000
Construction Inspection	\$ 50,000
Contingency (±10%)	\$ 65,500
Project Budget	\$ 720,000

PROJECT COMPLETED

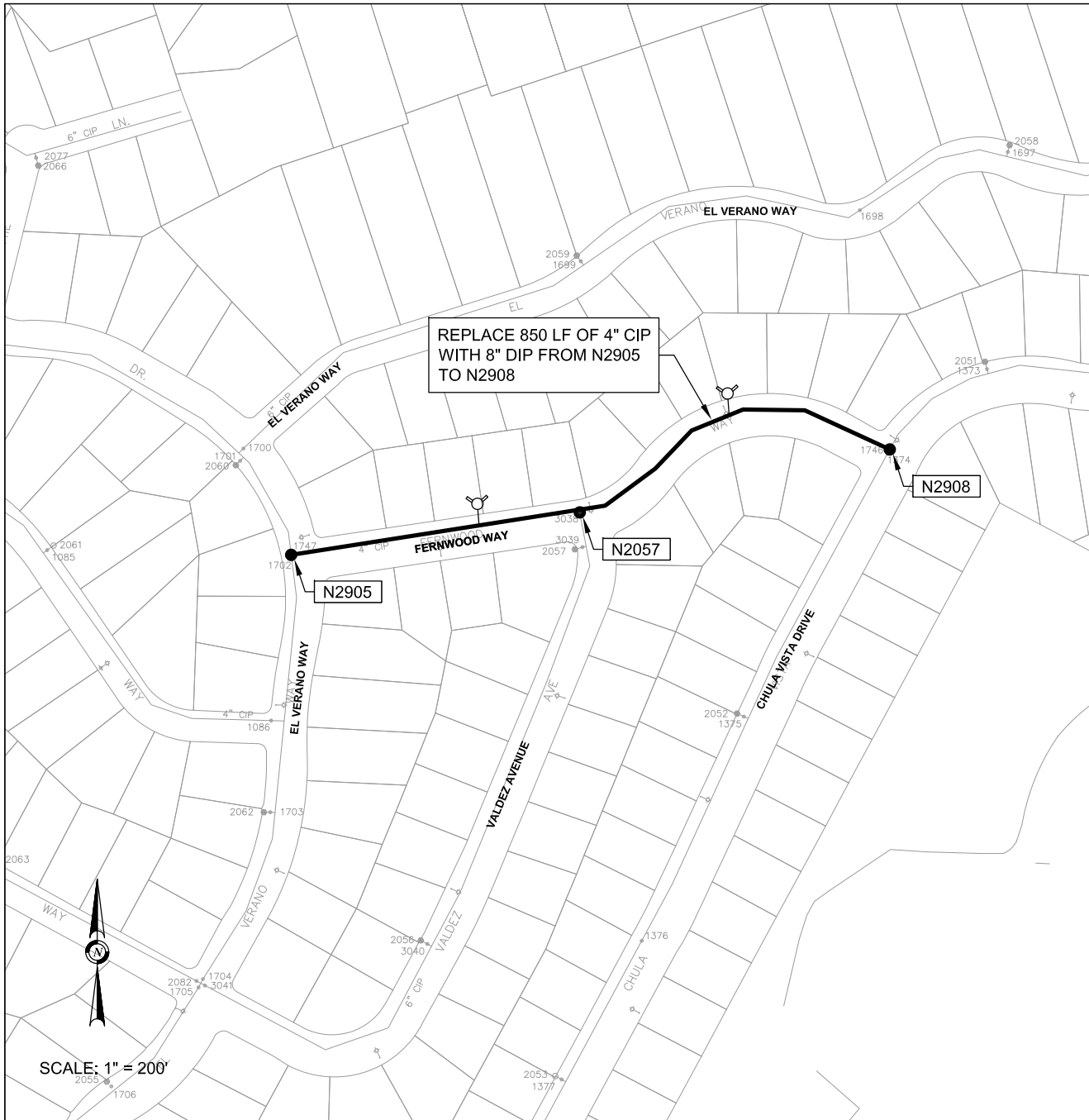
Completion Date:

Actual Expenditures

Planning, Design, & Construction Support: \$

Construction: \$

Total Expenditures: \$



SCALE: 1" = 200'



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MID-PENINSULA WATER DISTRICT
SAN MATEO COUNTY, CALIFORNIA
3 DAIRY LANE
BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
FERNWOOD WAY IMPROVEMENTS
PROJECT 15-58

Rev 1 - 02/20
Original 2015

VALDEZ AVENUE IMPROVEMENTS

PROJECT BACKGROUND

Valdez Avenue, located between Fernwood Way and El Verano Way, has 600 LF of 4" and 400 LF of 6" cast iron (CIP) water main constructed in 1954 incapable of meeting the minimum recommended fire flow of 1,500 gpm at 20 psi. Existing fire flows along this water main are as low as 1,050 gpm. This project replaces the entire water main along Valdez Avenue with 8" ductile iron pipe (DIP), 24 service connections and two fire hydrants. In addition, fire hydrant spacing will be improved to keep spacing to within 500 LF. Hydraulic analysis indicates upon completion of this project fire flows along the street increase to above 2,500 gpm. Distribution System Analysis No. 063

PROPOSED IMPROVEMENTS

Replace 1,000 LF of 4" / 6" CIP with 8" DIP
 Replace 2 fire hydrants
 Replace 24 service connections

PROJECT BENEFITS

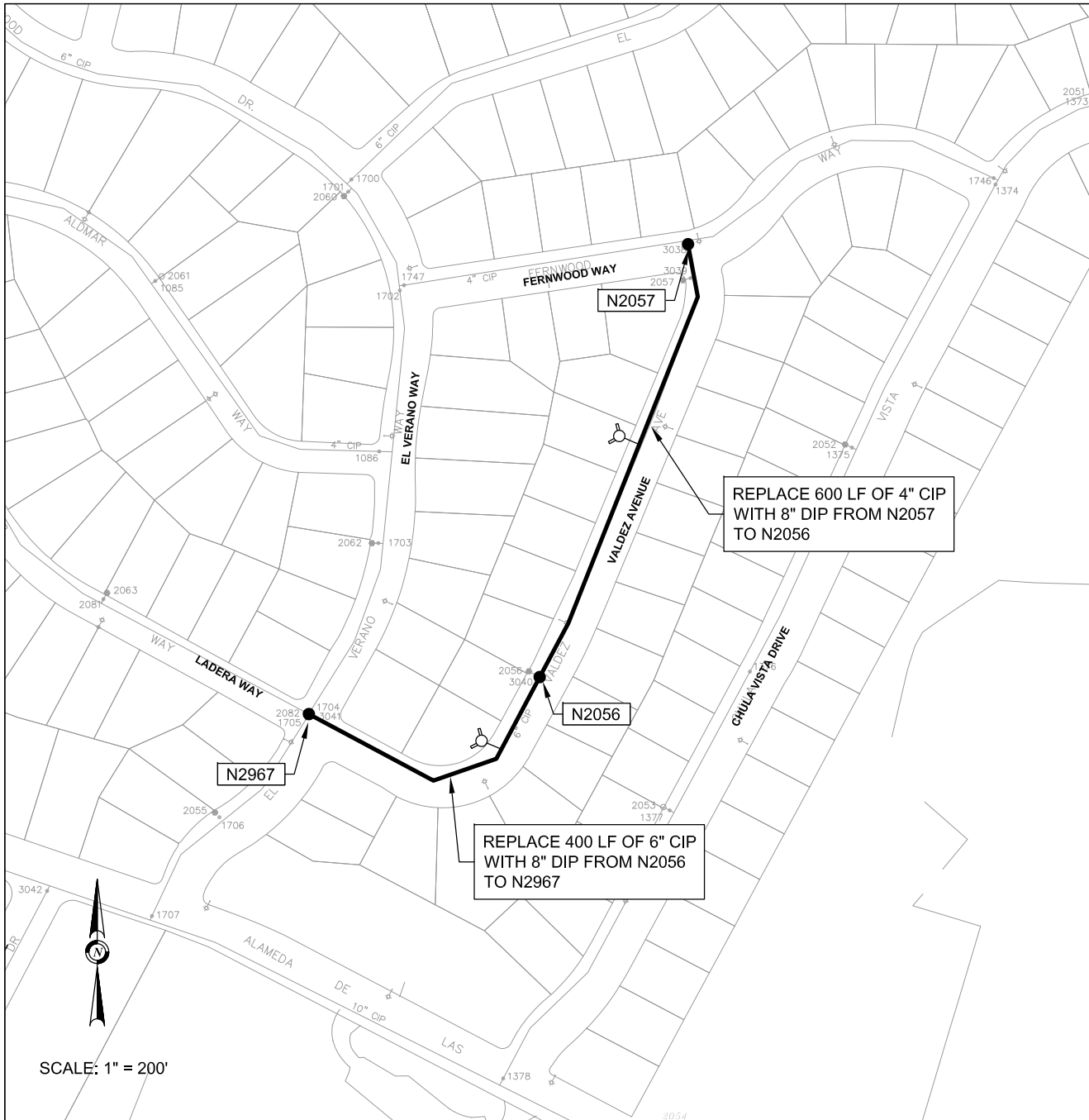
The Valdez Avenue Improvements replaces an undersized and aging water main, improves fire hydrant spacing, and increases fire flows to above 2,500 gpm.

PROJECT BUDGET (2020)

8" DIP - 1,000 LF @ \$450/LF	\$ 450,000
Fire Hydrants - 2 @ \$15,000/EA	\$ 30,000
Service Connections - 24 @ \$4,500/EA	\$ 108,000
Subtotal Construction	\$ 588,000
Planning, Design & Construction Support	\$ 120,000
Construction Inspection	\$ 60,000
Contingency (±10%)	\$ 77,000
Project Budget	\$ 845,000

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$



SCALE: 1" = 200'



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MID-PENINSULA WATER DISTRICT
 SAN MATEO COUNTY, CALIFORNIA
 3 DAIRY LANE
 BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
 VALDEZ AVENUE IMPROVEMENTS
 PROJECT 15-59

Rev 1 - 02/20
 Original 2015

ESCONDIDO WAY CROSS COUNTRY ABANDONMENT

PROJECT BACKGROUND

Escondido Way runs parallel with Ralston Avenue off Chula Vista Drive. It has a 1,600 LF 8" polyvinyl chloride (PVC) water main that transitions to a 300 LF 4" cast iron (CIP) water main which runs cross country (CC) and connects to the water main on Ralston Avenue. The 8" PVC was constructed in 2001 whereas the 4" CIP was constructed in 1941, one of the oldest water mains in the District. The 4" CC CIP runs between 1529 and 1631 Ralston Avenue to the north and 1584 and 1578 Escondido Way to the south through a dedicated easement which crosses a creek. Both the District GIS and aerial imagery indicate the water main may also physically be under or very close to the home at 1584 Escondido Way. The 4" CC CIP water main is essentially unserviceable given these parameters and could cause significant damage to homes in the event of a main break. This project abandons the 4" CC CIP while at the same time creating a long dead end on Escondido Way. A water age analysis indicates water turn over is sufficient with the 28 residences who reside on Escondido Way. Hydraulic analysis also indicates there is a 7% decrease in fire flows however flows still remain above 2,300 gpm along Escondido Way. Distribution System Analysis No. 065

PROPOSED IMPROVEMENTS

Abandon 300 LF of 4" CIP

PROJECT BENEFITS

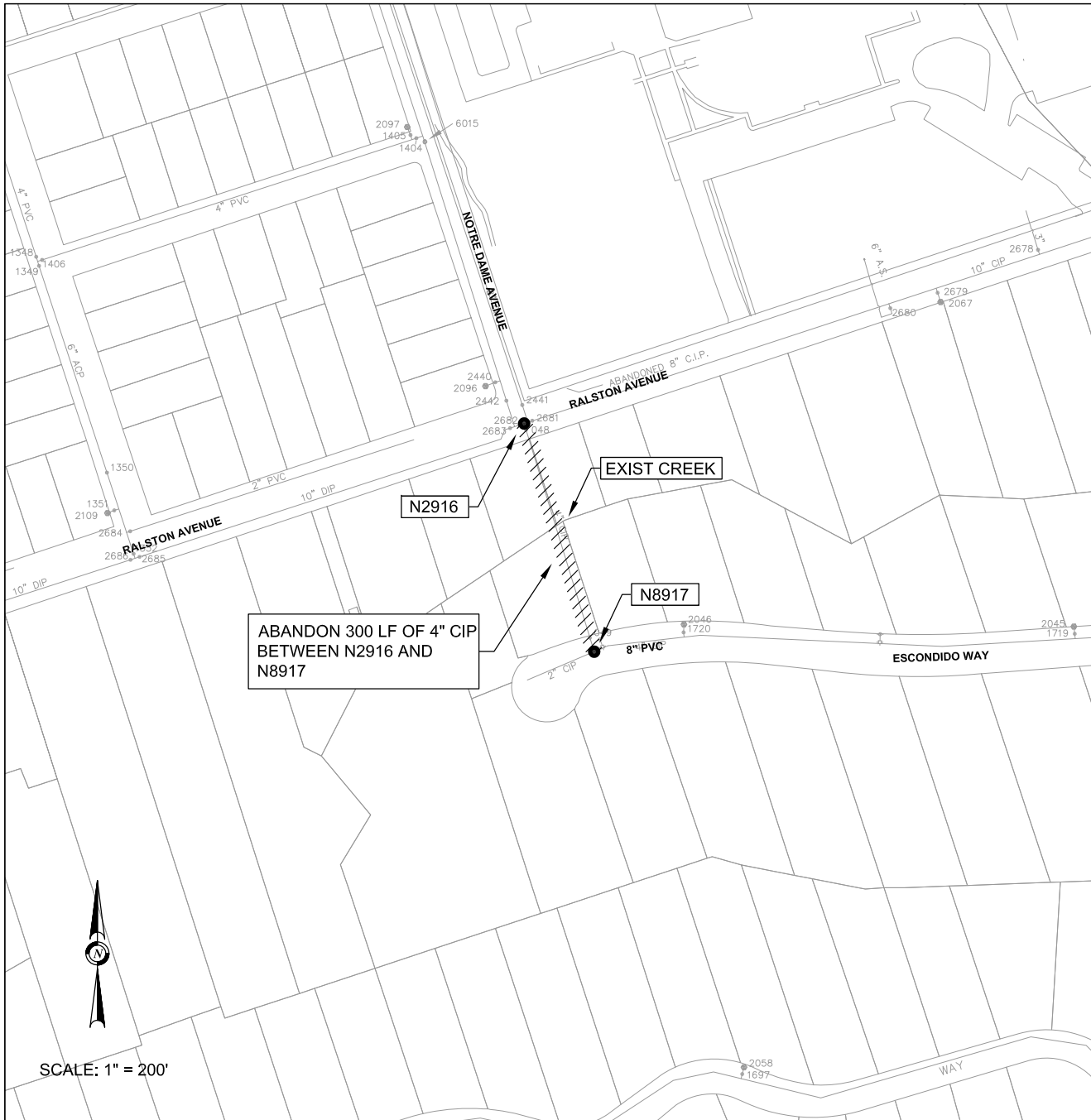
The Escondido Way Cross Country Abandonment abandons an aging and undersized water main that could cause significant damage upon main breaks.

PROJECT BUDGET (2020)

Abandonment at Each End @ \$20,000/EA	\$ 40,000
Subtotal Construction	\$ 40,000
Planning, Design & Construction Support	\$ 15,000
Construction Inspection	\$ 5,000
Contingency (±10%)	\$ 5,000
Project Budget	\$ 65,000

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$



SCALE: 1" = 200'



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MID-PENINSULA WATER DISTRICT
SAN MATEO COUNTY, CALIFORNIA
3 DAIRY LANE
BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
ESCONDIDO WAY CROSS COUNTRY ABANDONMENT
IMPROVEMENT PROJECT 15-60

Rev 1 - 02/20
Original 2015

CHULA VISTA DRIVE IMPROVEMENTS

PROJECT BACKGROUND

The primary water main alignment between the Hannibal Pump Station and Exborne Tanks is mostly comprised of single 10" cast iron (CIP) and polyvinyl chloride (PVC) water mains with the exception of an 750 LF section on Chula Vista Drive. This section beginning at Ralston Avenue has 6" and 8" CIP parallel water mains, constructed in 1941 and 1951 respectively, bounded by the 10" water mains. These water mains are near their service life and the District has experienced several leaks in this area in recent years. This project replaces the parallel 6" and 8" CIP with a 10" DIP, 10 service connections and 2 fire hydrants. Hydraulic analysis indicates no fire flow change as the capacity of the 10" water main is the same as the 6" and 8" combined. Fire flows in the area are above 2,500 gpm. Distribution System Analysis No. 066

PROPOSED IMPROVEMENTS

Replace 750 LF of 6" / 8" CIP with 10" DIP
 Replace 2 fire hydrants
 Replace 10 service connections

PROJECT BENEFITS

The Chula Vista Drive Improvements replaces a parallel 6" and 8" water main with a 10" water main completing a single 10" water main between Hannibal Pump Station and Exborne Tanks, abandons an aging water mains, and reduces District maintenance.

PROJECT BUDGET (2020)

10" DIP - 750 LF @ \$500/LF	\$ 375,000
Fire Hydrants - 2 @ \$15,000/EA	\$ 30,000
Service Connections - 10 @ \$4,500/EA	\$ 45,000
Subtotal Construction	\$ 450,000
Planning, Design & Construction Support	\$ 110,000
Construction Inspection	\$ 45,000
Contingency (±10%)	\$ 60,000
Project Budget	\$ 665,000

PROJECT COMPLETED

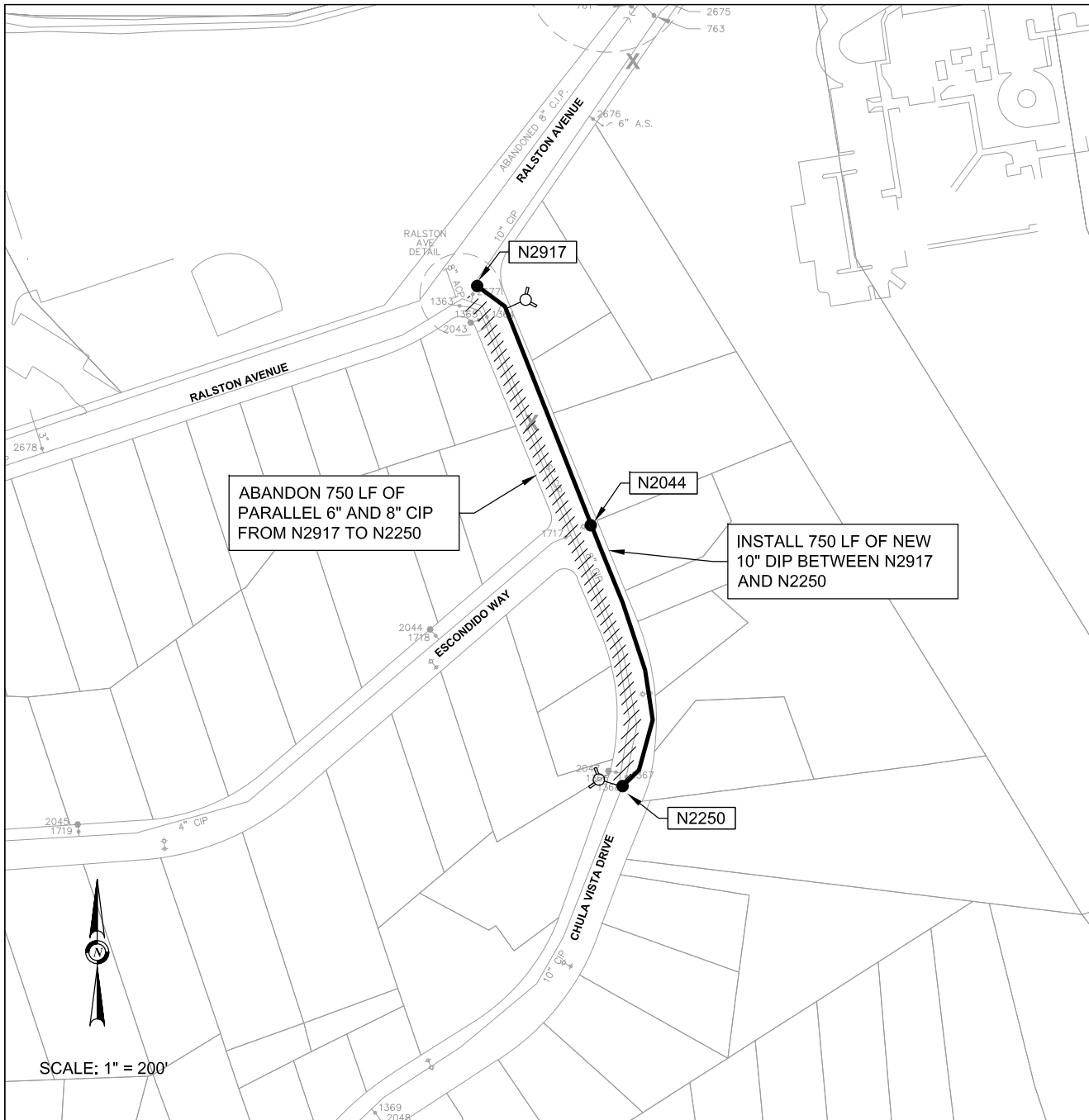
Completion Date:

Actual Expenditures

Planning, Design, & Construction Support: \$

Construction: \$

Total Expenditures: \$



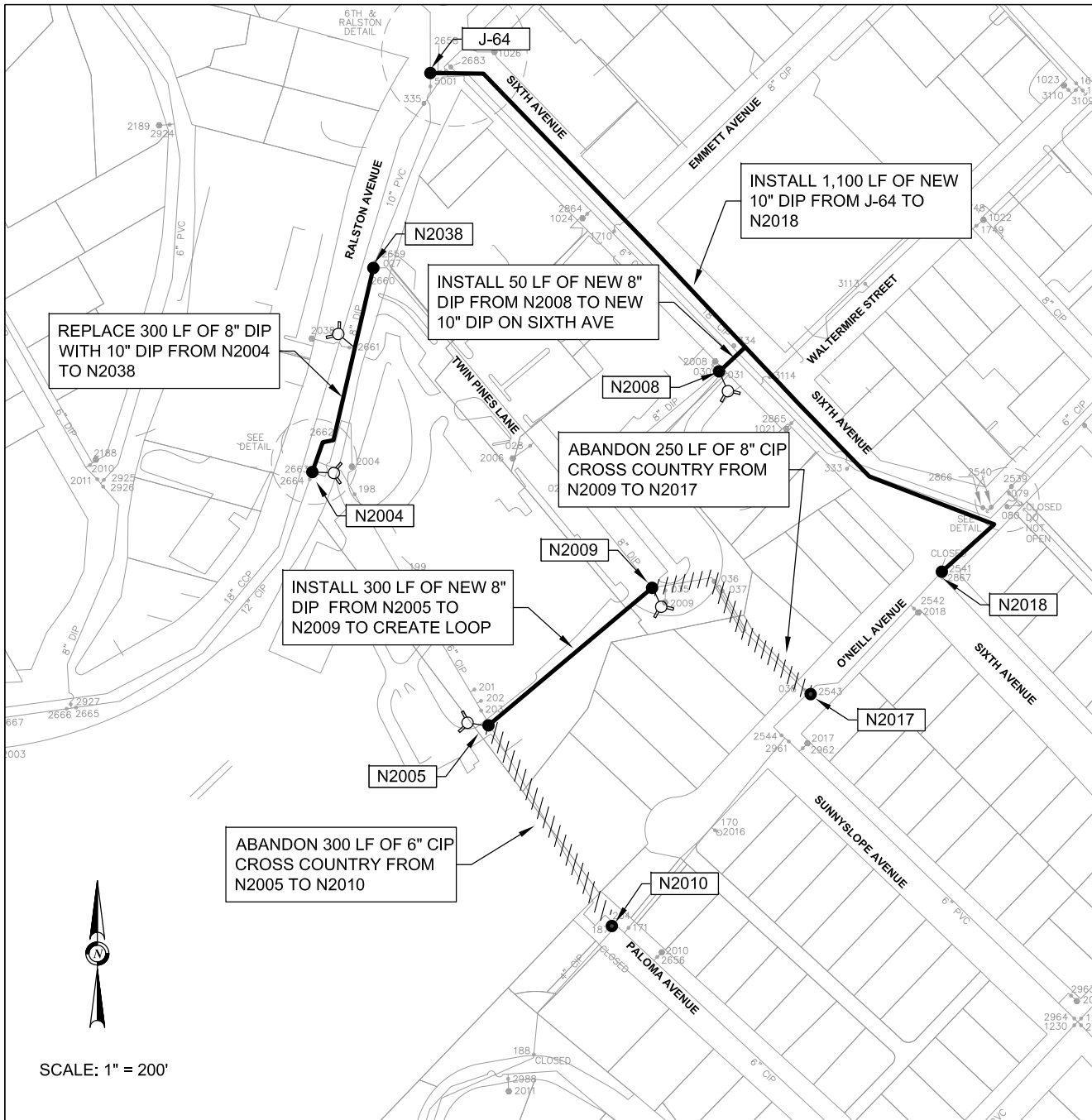
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MID-PENINSULA WATER DISTRICT
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CAPITAL IMPROVEMENT PROGRAM
CHULA VISTA DRIVE IMPROVEMENTS
PROJECT 15-61

Rev 1 - 02/20
 Original 2015



SIXTH AVENUE IMPROVEMENTS

PROJECT BACKGROUND

The southern portion of Zone 2 bounded between Sixth Avenue, O'Neill Avenue and Zone 5 is primarily fed from 6" and 8" cast iron (CIP) water mains. Water can also be provided to Zone 2 via an emergency connection from Zone 5 located along Talbyrn Drive. Both CIP water mains begin at Ralston Avenue and run cross country from commercial lots to the north to residential lots to the south via suspended crossings over an existing creek. The 6" and 8" were installed in 1946 and 1984 respectively and are located within dedicated easements. This project abandons the 2 cross country creek crossings in favor of a new 1,100 LF 10" ductile iron (DIP) water main installed along Sixth Avenue between Ralston Avenue and O'Neill Avenue. An 8" bottleneck along Ralston would also be increased to 10" DIP. In addition, a total 350 LF 8" DIP in the Twin Pines Lane area would be installed to create a loop north of the creek. Fire flows would be reduced in the area by an average 5% however the majority of the locations are still above the minimum recommendation of 1,500 gpm at 20 psi with flows in the range of 1,900 gpm. Distribution System Analysis No. 067

PROPOSED IMPROVEMENTS

Abandon 700 LF of cross country 6" and 8" CIP
Install 1,400 LF of 10" DIP
Install 350 LF of 8" DIP
Replace 5 fire hydrants
Replace 2 service connections

PROJECT BENEFITS

The Sixth Avenue Improvements replaces two cross country water mains suspended over a creek with a new accessible 10-inch DIP.

PROJECT BUDGET (2020)

Pipe Abandonments - 2 @ \$30,000/EA	\$ 60,000
10" DIP - 1,400 LF @ \$750/LF	\$ 1,050,000
8" DIP - 350 LF @ \$450/LF	\$ 157,500
Fire Hydrants - 5 @ \$15,000/EA	\$ 75,000
Service Connections - 2 @ \$4,500/EA	\$ 9,000
Subtotal Construction	\$ 1,351,500
Planning, Design & Construction Support	\$ 200,000
Construction Inspection	\$ 135,000
Contingency (±10%)	\$ 168,500
Project Budget	\$ 1,855,000

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$



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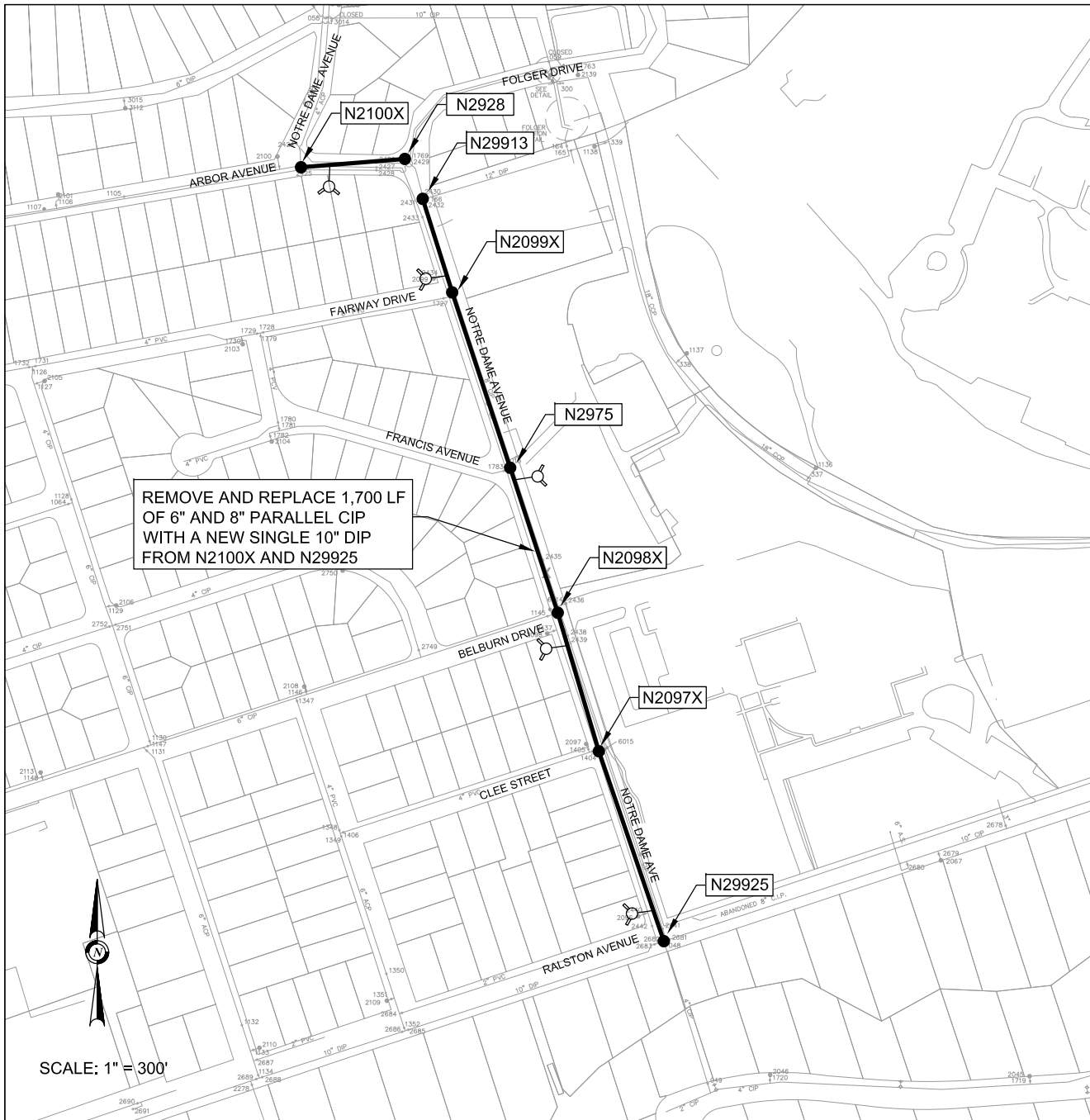
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DATE 10/8/19
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MID-PENINSULA WATER DISTRICT
SAN MATEO COUNTY, CALIFORNIA
3 DAIRY LANE
BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
SIXTH AVENUE IMPROVEMENTS
PROJECT 15-62

Rev 1 - 02/20
Original 2015



LOWER NOTRE DAME AVENUE IMPROVEMENTS

PROJECT BACKGROUND

Notre Dame Avenue has two parallel 1,700 LF water mains between Ralston Avenue and Arbor Avenue: a 6" cast iron pipe (CIP) and an 8" CIP. The water mains along Notre Dame Avenue serve as the primary transmission line between the Hannibal Pump Station and Hersom Tank. These particular water mains were installed as early as the 1940's and over the past few years the District has experienced several leaks along these alignments. This project replaces the 1,700 LF of parallel water main (3,400 LF total) with a single 1,700 LF 10" ductile iron pipe (DIP). No significant effects were observed in replacing the parallel water mains with a larger 10" water main. Fire flows remained unchanged. Distribution System Analysis No. 069

PROPOSED IMPROVEMENTS

Replace 3,400 LF of 6" and 8" CIP with 1,700 LF of 10" DIP
 Replace 5 fire hydrants
 Replace 25 service connections

PROJECT BENEFITS

The Lower Notre Dame Avenue Improvements eliminates a 1,700 LF stretch of parallel water main resulting in less maintenance for the District and replaces old and aging water main.

PROJECT BUDGET (2020)

10" DIP - 1,700 LF @ \$ 500/LF	\$ 850,000
Fire Hydrants - 5 @ \$15,000/EA	\$ 75,000
Service Connections - 25 @ \$4,500/EA	\$ 112,500
Subtotal Construction	\$ 1,037,500
Planning, Design & Construction Support	\$ 155,000
Construction Inspection	\$ 105,000
Contingency (±10%)	\$ 132,500
Project Budget	\$ 1,430,000

PROJECT COMPLETED

Completion Date:

Actual Expenditures

Planning, Design, & Construction Support: \$

Construction: \$

Total Expenditures: \$



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MID-PENINSULA WATER DISTRICT
 SAN MATEO COUNTY, CALIFORNIA
 3 DAIRY LANE
 BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
 LOWER NOTRE DAME AVENUE IMPROVEMENTS
 PROJECT 15-63

Rev 1 - 02/20
 Original 2015

TIERRA LINDA IMPROVEMENTS

PROJECT BACKGROUND

There is an existing 1,300 LF cross country (CC) 10" cast iron pipe (CIP) located between Solana Drive and Alameda De Las Pulgas, installed in the 1950's, originally serving as the primary transmission main bringing water from Zone 8, via the Carlmont Regulator (CR), into Zone 2. After construction of the Hannibal Pump Station which became Zone 2's primary source of water, the CR remained in place as Zone 2 redundancy in the event Hannibal ever came offline. In 2010, as part of the Exborne Tank Replacement, a portion of the 10" CC CIP was abandoned in favor of a new 10" PVC water main installed on Solana Drive. The remainder of the CC water main (1,300 LF) remained in place to serve the Tierra Linda Middle School (TLMS) and Carlmont High School (CHS). This project explores the feasibility of abandoning a portion of the 10" CC CIP between the TLMS service connection and Solana Drive by installing an in-line gate valve at TLMS's service connection. This valve would be closed to allow the District to monitor water quality impacts on the perceived dead end created by the abandonment. Should it be determined water quality is of concern, the District can then explore different alternatives in eliminating the cross country water main. Options may include 1) reducing the size of the water main feeding the schools, 2) relocating TLMS's service connection to a location further upstream (allows abandonment of entire CC), transferring both TLMS and CHS to the California Water Service Company. Distribution System Analysis 070

PROPOSED IMPROVEMENTS

Install a 10" in-line gate valve and monitor water quality.

PROJECT BENEFITS

The Tierra Linda Improvements project installs an in-line gate valve at TLMS in order to monitor water quality under an experimental dead end scenario.

PROJECT BUDGET (2020)

10" In-Line Gate Valve @ \$50,000	\$ 50,000
Subtotal Construction	\$ 50,000
Planning, Design & Construction Support	\$ 15,000
Construction Inspection	\$ 5,000
Contingency (±10%)	\$ 5,000
Project Budget	\$ 75,000

PROJECT COMPLETED

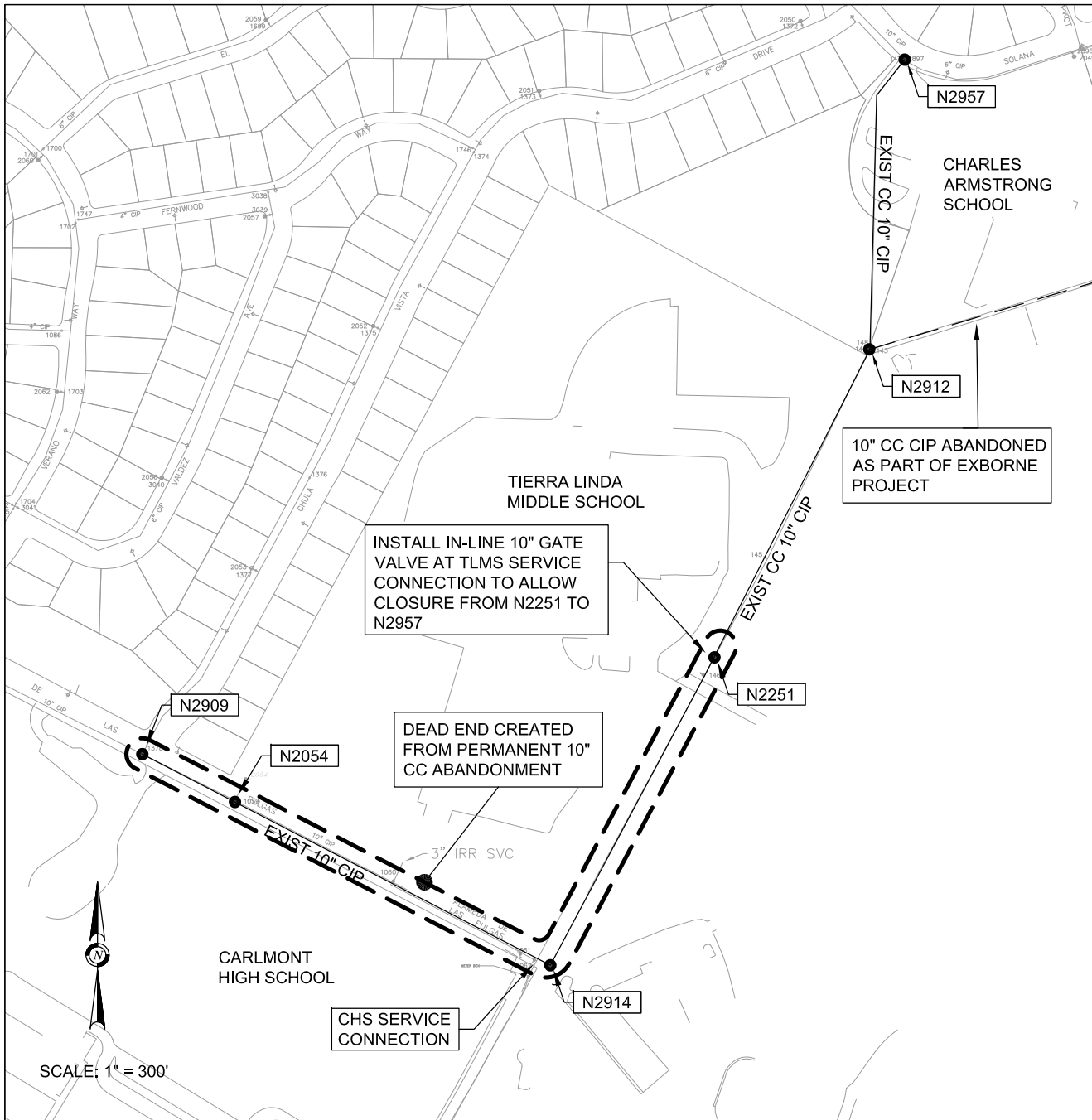
Completion Date:

Actual Expenditures

Planning, Design, & Construction Support: \$

Construction: \$

Total Expenditures: \$



INSTALL IN-LINE 10" GATE
VALVE AT TLMS SERVICE
CONNECTION TO ALLOW
CLOSURE FROM N2251 TO
N2957

DEAD END CREATED
FROM PERMANENT 10"
CC ABANDONMENT

CHS SERVICE
CONNECTION

TIERRA LINDA
MIDDLE SCHOOL

CHARLES
ARMSTRONG
SCHOOL

CARMONT
HIGH SCHOOL

SCALE: 1" = 300'



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MID-PENINSULA WATER DISTRICT
SAN MATEO COUNTY, CALIFORNIA
3 DAIRY LANE
BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
TIERRA LINDA IMPROVEMENTS
PROJECT 15-64

Rev 1 - 02/20
Original 2015

VINE STREET (ZONE 2) IMPROVEMENTS

PROJECT BACKGROUND

Vine Street has a 950 LF 4" cast iron (CIP) water main between Harbor Avenue and the Vine Street Regulator located at Spring Lane. The 950 LF is essentially a long dead end in which there are no Zone 2 customers for the last 250 LF. This water main also has fire flows below the minimum recommended 1,500 gpm at 20 psi with flows as low as 480 gpm. The Vine Street Regulator provides an emergency connection between Zone 5 and Zone 2 and is currently not in use per District personnel. There is another regulator located along Talbryn Drive able to provide Zone 2 water from Zone 5 in the event of an emergency. This project replaces the 4" CIP with 80 LF of 8" ductile iron (DIP) and 620 LF of 6" DIP and abandons the last 250 LF. The Vine Street Regulator will also be abandoned and a 90 degree bend installed at Vine Street and Spring Lane to reconfigure Zone 5. Fire flows will improve to a minimum 1,300 gpm without creating water quality concerns in the larger sized dead end. Distribution System Analysis No. 071

PROPOSED IMPROVEMENTS

Replace 700 LF of 4" CIP with 80 LF 8" and 620 LF 6" DIP
Abandon 250 LF of 4" CIP and the Vine Street Regulator
Replace 2 fire hydrants
Replace 7 service connections

PROJECT BENEFITS

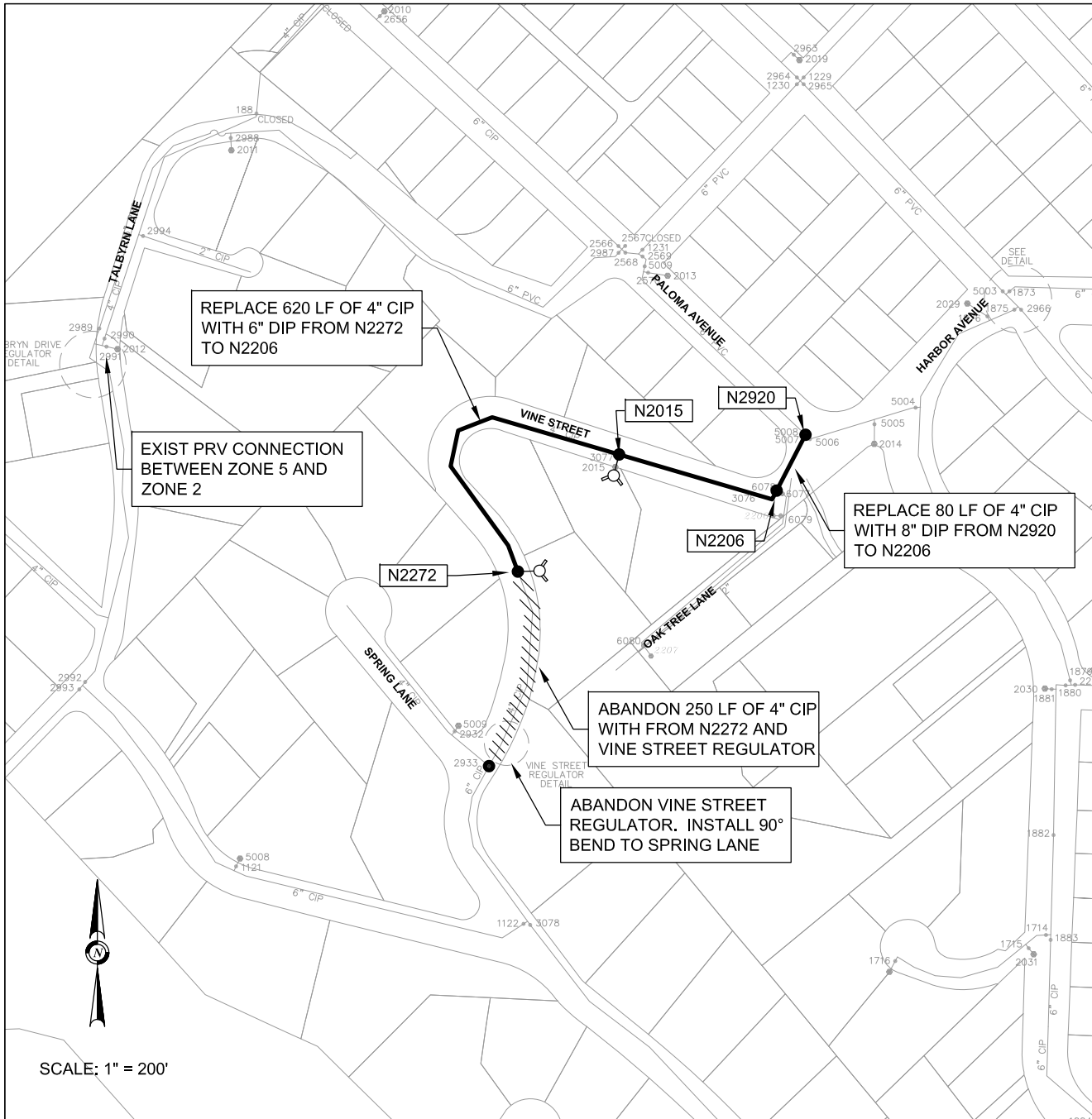
The Vine Street (Zone 2) Improvements replaces an undersized 4" CIP with new 6" and 8" DIP, shortens a dead end, abandons an unused regulating station, and increases fire flows as much as 171%.

PROJECT BUDGET (2020)

6" DIP - 620 LF @ \$400/LF	\$ 248,000
8" DIP - 80 LF @ \$450/LF	\$ 36,000
Fire Hydrants - 2 @ \$15,000/EA	\$ 30,000
Service Connections - 16 @ \$4,500/EA	\$ 72,000
Subtotal Construction	\$ 386,000
Planning, Design & Construction Support	\$ 100,000
Construction Inspection	\$ 40,000
Contingency (±10%)	\$ 54,000
Project Budget	\$ 580,000

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$



SCALE: 1" = 200'



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MID-PENINSULA WATER DISTRICT
SAN MATEO COUNTY, CALIFORNIA
3 DAIRY LANE
BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
VINE STREET (ZONE 2) IMPROVEMENTS
PROJECT 15-66

Rev 1 - 02/20
Original 2015

VILLAGE DRIVE AREA IMPROVEMENTS

PROJECT BACKGROUND

Village Drive, Village Court, and Geraldine Way have 6" cast iron (CIP) water mains built in 1959. The District has made several repairs to the water mains in this area. There are also two small dead ends off Geraldine Way originally intended for future development to the south which are currently isolated with closed valves. This project replaces 1,700 LF of 6" CIP with 8" ductile iron pipe (DIP) in addition to abandoning the small dead ends. The District does not anticipate further development so to prevent the accidental opening of the valves and allowing dead end water into the system, the dead ends will be abandoned and the valves removed and the remaining pipe straight-lined past the connection.

PROPOSED IMPROVEMENTS

Replace 1,700 LF of 6" CIP with 8" DIP
 Abandon 2 small dead ends
 Replace 4 fire hydrants
 Replace 34 service connections

PROJECT BENEFITS

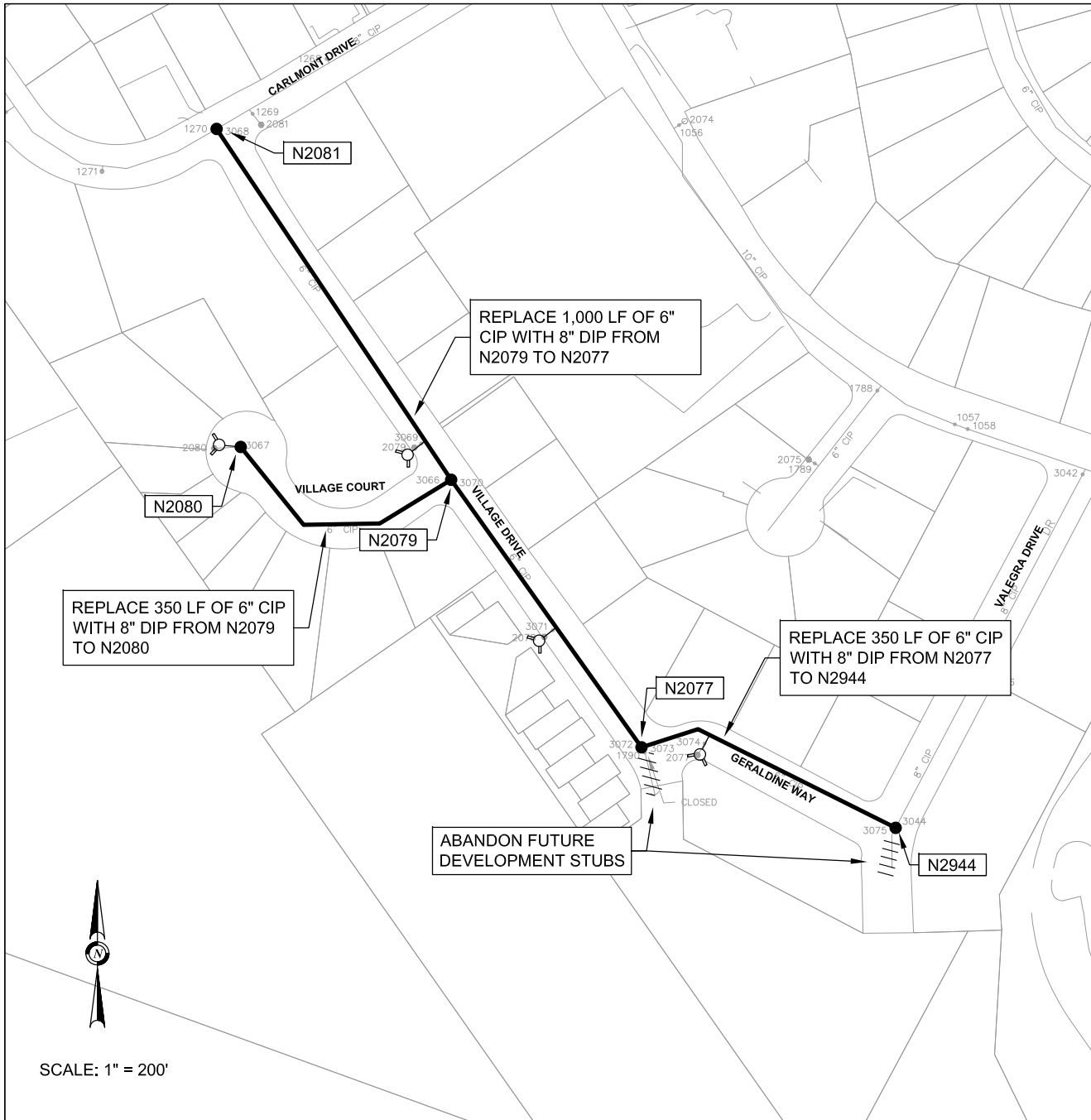
The Village Drive Area Improvements replaces an aging 6" CIP water main with a new 8" DIP, and officially abandons two stubs currently valved off.

PROJECT BUDGET (2020)

8" DIP -1,700 LF @ \$450/LF	\$ 765,000
Fire Hydrants - 4 @ \$15,000/EA	\$ 60,000
Service Connections - 34 @ \$4,500/EA	\$ 153,000
Subtotal Construction	\$ 978,000
Planning, Design & Construction Support	\$ 195,000
Construction Inspection	\$ 100,000
Contingency (±10%)	\$ 127,000
Project Budget	\$ 1,400,000

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$



SCALE: 1" = 200'



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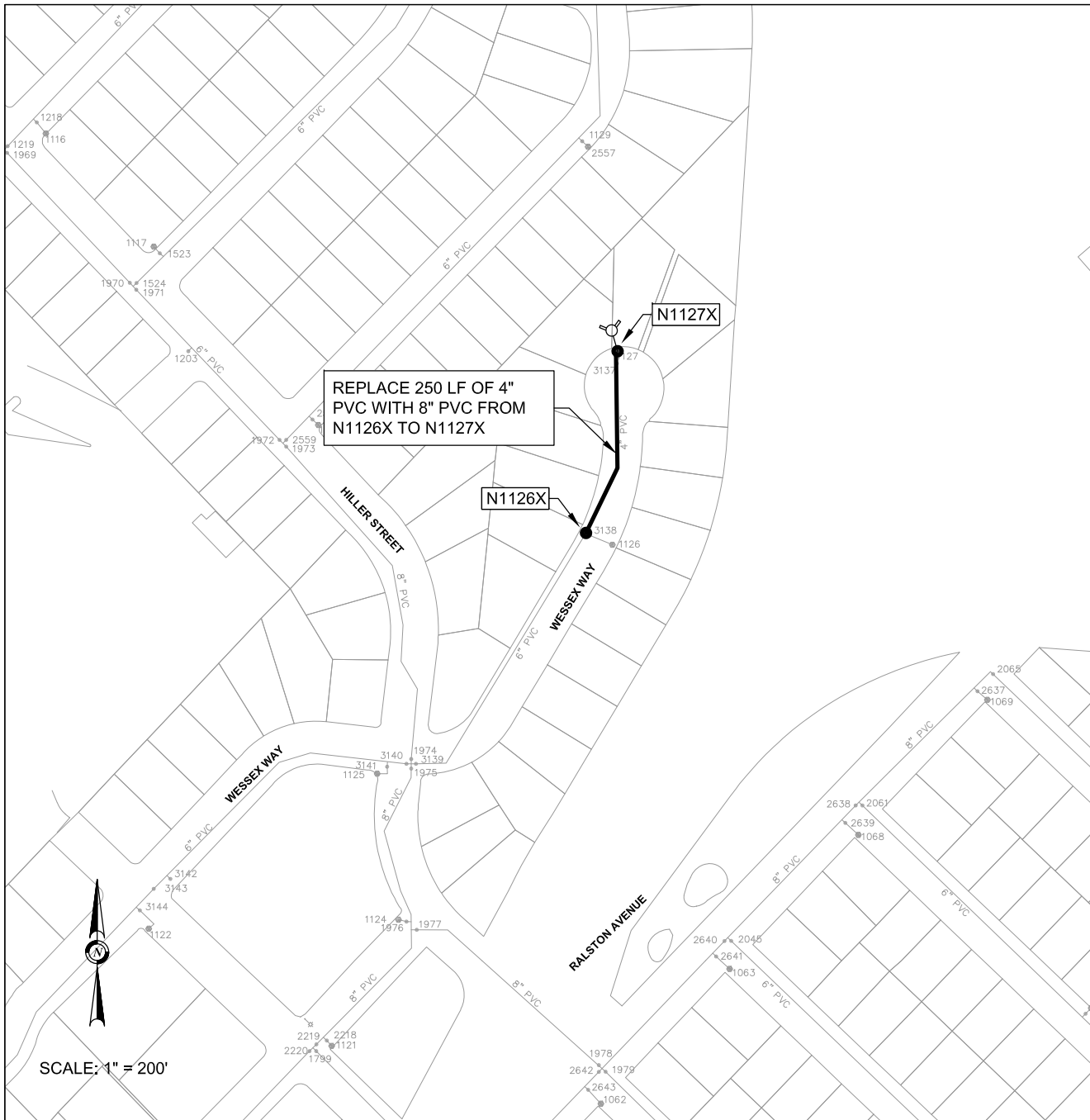
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MID-PENINSULA WATER DISTRICT
 SAN MATEO COUNTY, CALIFORNIA
 3 DAIRY LANE
 BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
 VILLAGE DRIVE AREA IMPROVEMENTS
 PROJECT 15-67

Rev 1 - 02/20
 Original 2015



WESSEX WAY DEAD END IMPROVEMENTS

PROJECT BACKGROUND

Water is currently provided to Wessex Way, a dead end cul-de-sac off Hiller Street, through a 380 LF 6" polyvinyl chloride (PVC) which transitions to a 250 LF 4" PVC before coming to a dead end. The 4" PVC was installed in 1977 and serves 20 customers in addition to one hydrant located at the end of the water main. The fire flow at this hydrant is 588 gpm which is significantly lower than the minimum recommended 1,500 gpm at 20 psi. This project replaces the existing 4" PVC with a larger 8" PVC increasing fire flows to 1,317 gpm, a 124% improvement. To meet the minimum recommendation of 1,500 gpm, the upstream 6" PVC would also require upsizing to an 8" which would bring flows up to 2,345 gpm, a project the District may consider in the future however not critical at this time. Distribution System Analysis No. 073

PROPOSED IMPROVEMENTS

Replace 250 LF of 4" PVC with 8" PVC

Replace 1 fire hydrant

Replace 20 service connections

Cathodic protection of all metallic fittings/materials

PROJECT BENEFITS

The Wessex Way Dead End Improvements replaces an undersized 4" PVC water main with a new 8" PVC, greatly improves fire flows as much as 300% at the dead end, and sets the District up for a future upsizing of the upstream main should the District elect to do so in the future.

PROJECT BUDGET (2020)

8" PVC - 250 LF @ \$450/LF	\$ 112,500
Fire Hydrants - 1 @ \$15,000/EA	\$ 15,000
Service Connections - 20 @ \$4,500/EA	\$ 90,000
Subtotal Construction	\$ 217,500
Planning, Design, & Construction Support	\$ 65,000
Construction Inspection	\$ 20,000
Contingency (±10%)	\$ 27,500
Project Budget	\$ 330,000

PROJECT COMPLETED

Completion Date:

Actual Expenditures

Planning, Design, & Construction Support: \$

Construction: \$

Total Expenditures: \$



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MID-PENINSULA WATER DISTRICT
SAN MATEO COUNTY, CALIFORNIA
3 DAIRY LANE
BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
WESSEX WAY DEAD END IMPROVEMENTS
PROJECT 15-68

Rev 1 - 02/20
Original 2015

SUSSEX COURT IMPROVEMENTS

PROJECT BACKGROUND

Water is currently provided to the Sussex Court cul-de-sac through a 150 LF 4" polyvinyl chloride (PVC) installed in 1977. This water main serves 4 customers and dead ends with no blowoff or fire hydrant preventing the District the ability to flush the water main. The hydraulic model indicates fire flows on the court would be 588 gpm if a hydrant were to be installed which is below the recommended minimum of 1,500 gpm at 20 psi. In addition, current industry standards are for water mains to be at least 6" and the District standard is 8" minimum. This project replaces the undersized water main with a new 8" PVC, replaces 4 service connections, in addition to installing a fire hydrant at the end of the water main. Hydraulic analysis indicates a 295% increase in available fire flows to 2,320 gpm upon completion of this project. An analysis on water age indicates minimal effects with the increase in pipe size. Distribution System Analysis No. 074

PROPOSED IMPROVEMENTS

Replace 150 LF of 4" PVC with 8" PVC
 Replace 1 fire hydrant
 Replace 4 service connections
 Cathodic protection of all metallic fittings/materials

PROJECT BENEFITS

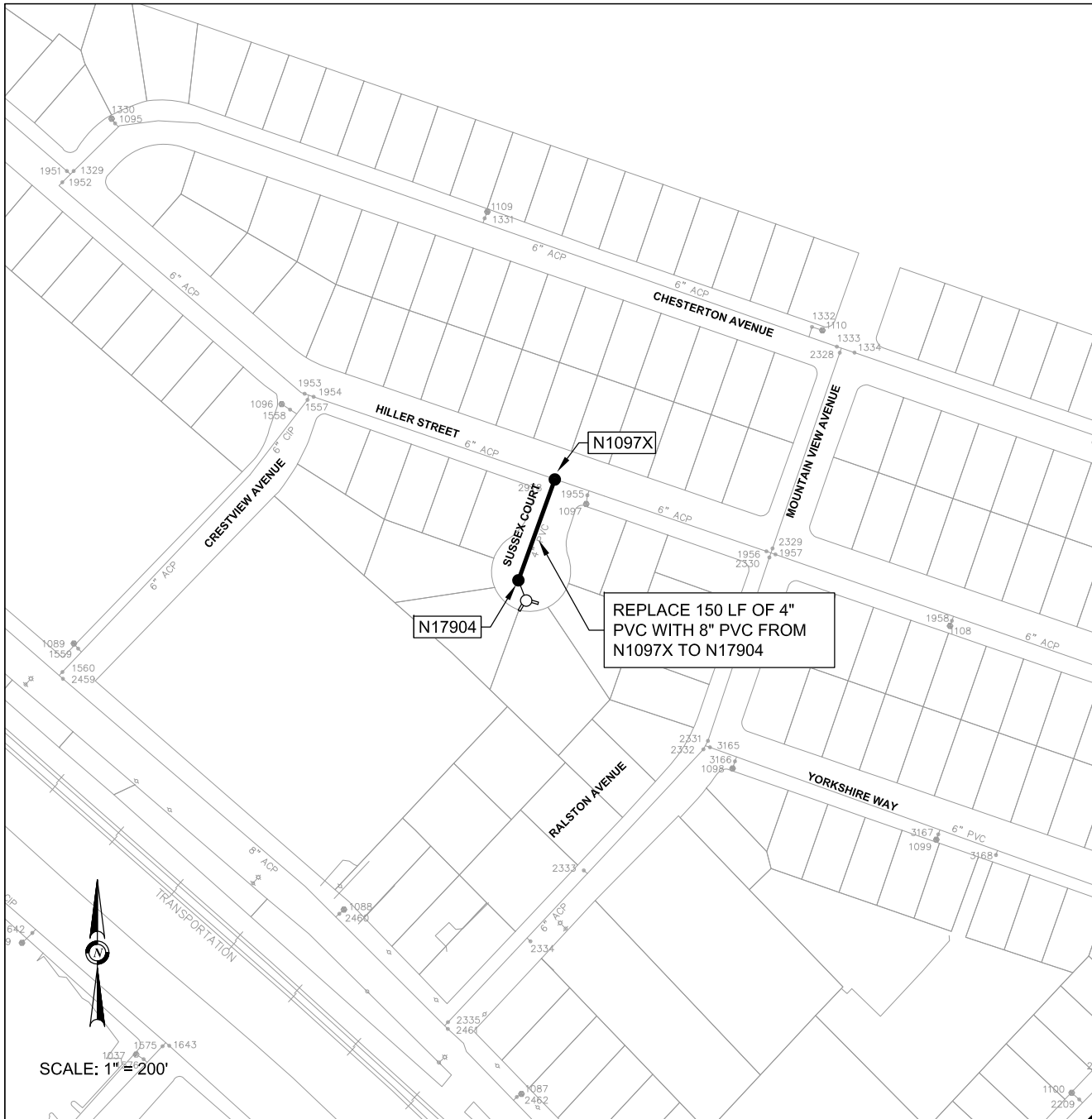
The Sussex Court Improvements replaces an undersized 4" PVC water main with a new 8" PVC, greatly improves fire flows as much as 295% at the dead end, provides dead end flushing capabilities.

PROJECT BUDGET (2020)

8" PVC - 150 LF @ \$450/LF	\$ 67,500
Fire Hydrants - 1 @ \$15,000/EA	\$ 15,000
Service Connections - 4 @ \$4,500/EA	\$ 18,000
Subtotal Construction	\$ 100,500
Planning, Design, & Construction Support	\$ 30,000
Construction Inspection	\$ 10,000
Contingency (±10%)	\$ 14,500
Project Budget	\$ 155,000

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$



SCALE: 1" = 200'



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MID-PENINSULA WATER DISTRICT
 SAN MATEO COUNTY, CALIFORNIA
 3 DAIRY LANE
 BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
 SUSSEX COURT IMPROVEMENTS
 PROJECT 15-69

Rev 1 - 02/20
 Original 2015

SHOREWAY ROAD IMPROVEMENTS

PROJECT BACKGROUND

Shoreway Road has two parallel water mains between Sem Lane and 1101 Shoreway Road: an 850 LF 8" asbestos cement (AC) and an 850 LF 12" polyvinyl chloride (PVC). The existing 8" AC was installed in 1967 and has 2 hydrants and 5 service connections. The existing 12" PVC was installed in the late 1980's as part of the Island Parkway development north of Ralston Avenue to supplement the existing 12" PVC crossing under State Route 101 to the same development. The District believes the 8" AC remained in service solely for the purposes of the existing services and hydrants. Hydraulic analysis indicates the 8" AC provides no hydraulic benefit to the system and therefore can be abandoned with no effect on existing fire flows, all of which are above 2,300 gpm. This project abandons the existing 8" AC and relocates the existing 5 services and 2 hydrants to the 12" parallel PVC. Distribution System Analysis No. 075

PROPOSED IMPROVEMENTS

Abandon 850 LF of 8" AC
Replace 2 fire hydrants
Replace 5 service connections
Cathodic protection of all metallic fittings/materials

PROJECT BENEFITS

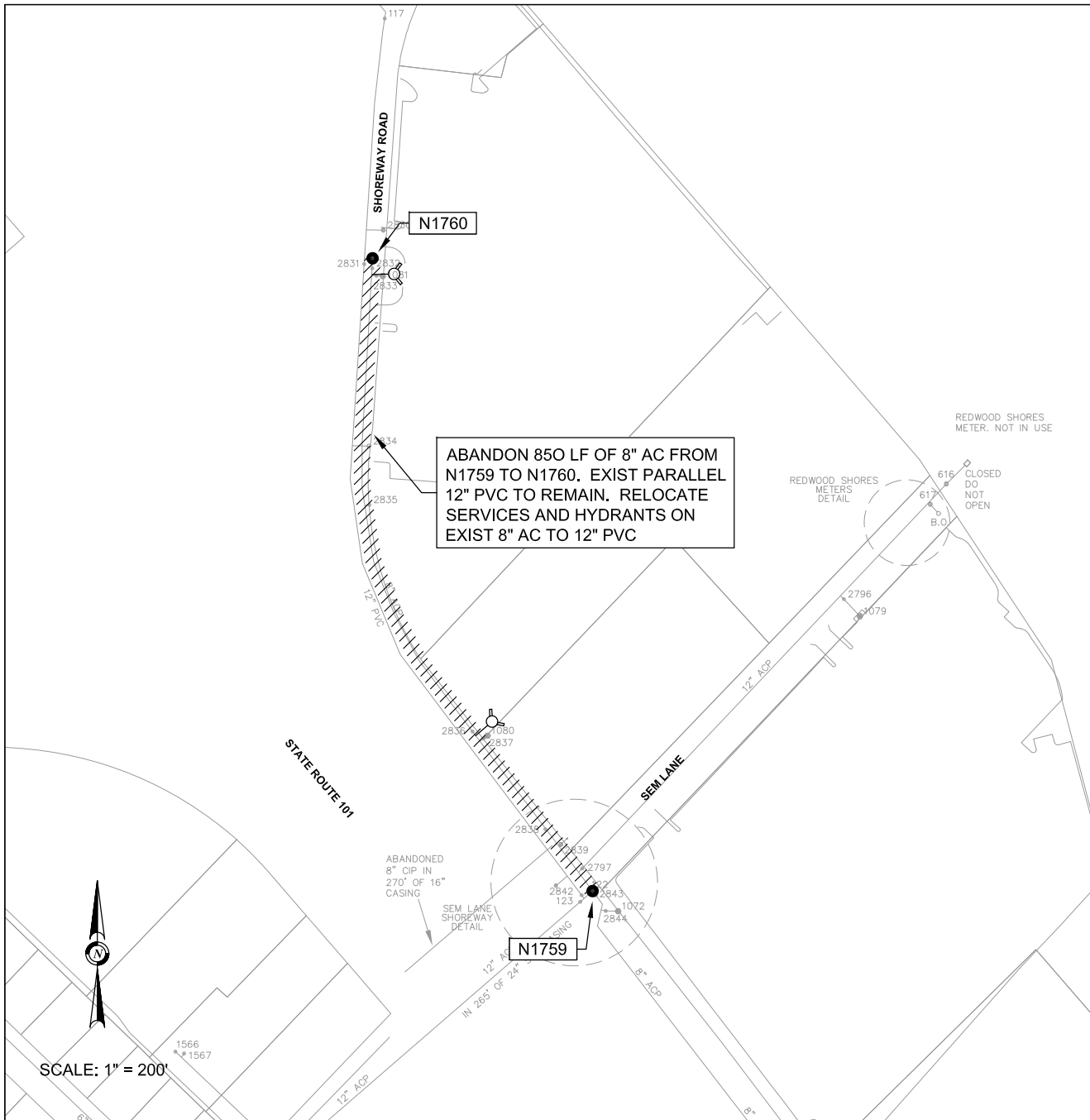
The Shoreway Road Improvements abandons a parallel water main providing little hydraulic benefit to the system, eliminates an old and aging water main, and reduces maintenance.

PROJECT BUDGET (2020)

Pipe Abandonment - 2 @ \$50,000/End	\$ 100,000
Fire Hydrants - 2 @ \$15,000/EA	\$ 30,000
Service Connections - 5 @ \$4,500/EA	\$ 22,500
Subtotal Construction	\$ 152,500
Planning, Design, & Construction Support	\$ 45,000
Construction Inspection	\$ 15,000
Contingency (±10%)	\$ 22,500
Project Budget	\$ 235,000

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$



SCALE: 1" = 200'



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MID-PENINSULA WATER DISTRICT
SAN MATEO COUNTY, CALIFORNIA
3 DAIRY LANE
BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
SHOREWAY ROAD IMPROVEMENTS
PROJECT 15-70

Rev 1 - 02/20
Original 2015

WESSEX WAY LOOP IMPROVEMENTS

PROJECT BACKGROUND

The existing 825 LF 6" polyvinyl chloride (PVC) dead-end water main along the western side of Wessex Way was installed in 1977, serves 16 single family residences, 6 apartment/condo buildings, and 9 commercial businesses. The water main dead-ends with a fire hydrant at the rear entrance of the post office located at 640 Masonic Way. Another fire hydrant is located at Wessex Way / Granada Street and fire flows at this location and at the dead-end are slightly above 1,300 gpm, below the minimum recommended 1,500 gpm. This project installs a new 250 LF 8" PVC beginning at the dead-end, crossing through the post office rear parking lot, and connecting to an existing 6" PVC located in the Sterling Place residential complex on the other side of the post office parcel. This project creates a looped system along Wessex Way, provides area redundancy, eliminates a long dead end, and improves fire flows by an average 85% to above 2,350 gpm. This project will require an easement from the post office and potentially the Sterling Place development. Distribution System Analysis No. 076

PROPOSED IMPROVEMENTS

Install 250 LF of 8" PVC
Replace 1 fire hydrant
Easement Acquisition
Cathodic protection of all metallic fittings/materials

PROJECT BENEFITS

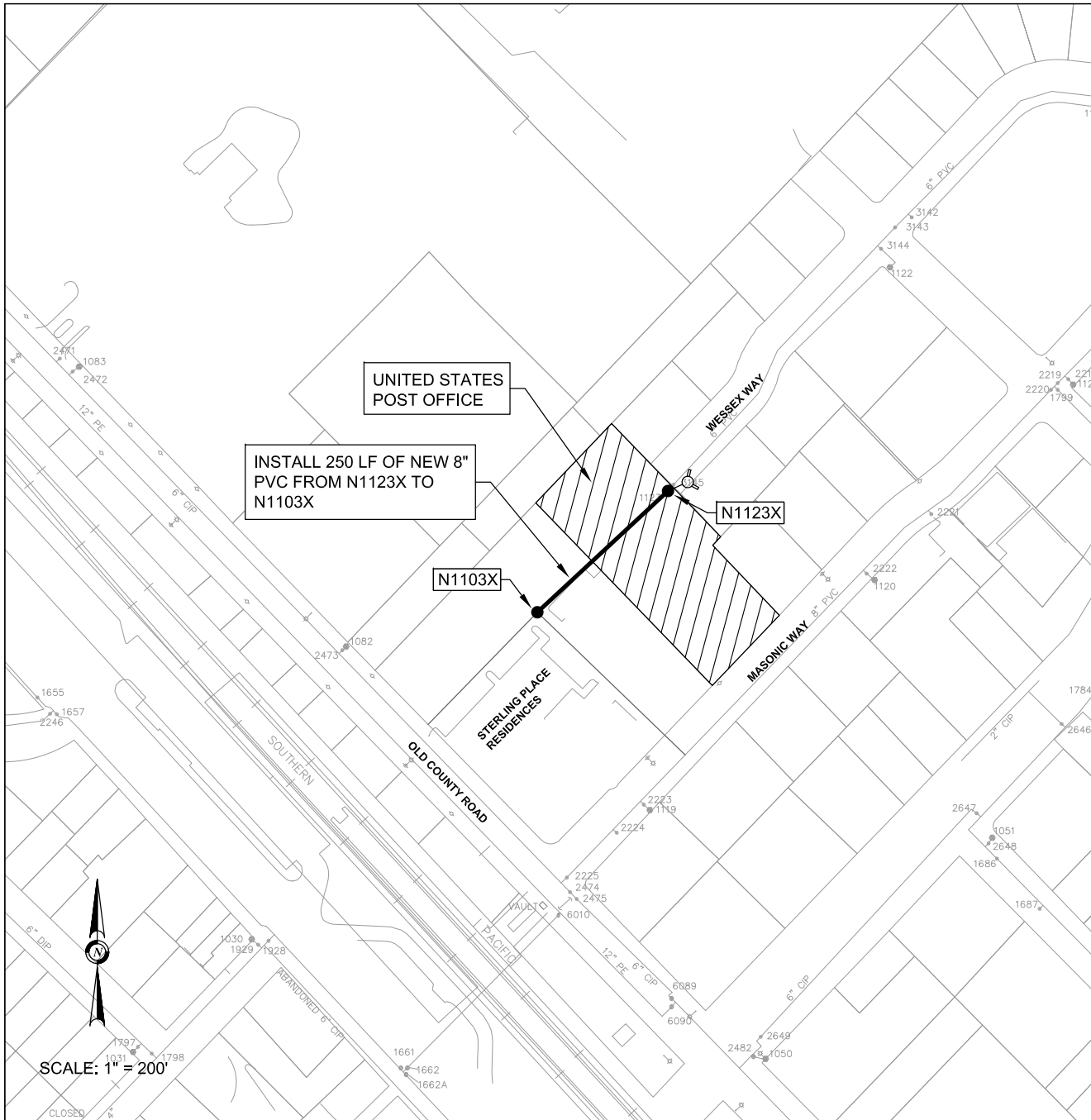
The Wessex Way Loop Improvements eliminates an 825 LF 6" dead end by looping, improves fire flows along Wessex Way as much as 90% to 2,500 gpm, provides additional system redundancy, and improved water movement and quality.

PROJECT BUDGET (2020)

8" PVC - 250 LF @ \$450/LF	\$ 112,500
Fire Hydrants - 1 @ \$15,000/EA	\$ 15,000
Easement Coordination @ \$15,000/LS	\$ 15,000
Subtotal Construction	\$ 142,500
Planning, Design, & Construction Support	\$ 40,000
Construction Inspection	\$ 15,000
Contingency (±10%)	\$ 17,500
Project Budget	\$ 215,000

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$



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MID-PENINSULA WATER DISTRICT
SAN MATEO COUNTY, CALIFORNIA
3 DAIRY LANE
BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
WESSEX WAY LOOP IMPROVEMENTS
PROJECT 15-71

Rev 1 - 02/20
Original 2015

SR 101 CROSSING AT PAMF
IMPROVEMENTS - PHASE 1

PROJECT BACKGROUND

Two State Route 101 (SR 101) water main crossings exist in Zone 1 including a 500 LF 12" asbestos cement (AC) crossing between Karen Road and Sem Lane and another 12" polyvinyl chloride (PVC) crossing a half mile to the north. The 12" AC was installed in 1963 in a 36" steel casing. As part of the PAMF development agreement at the south end of Zone 1, the District obtained a 15 ft easement along the northeast side of the PAMF property in addition to a 40 ft x 40 ft area in the northeast corner to serve as a staging area for an alternate SR 101 crossing. This project abandons the aging 12" AC crossing and relocates it to the PAMF easement with a new 1,100 LF 12" PVC water main. To loop the water main back to the existing water main on Shoreway Road requires the installation of an additional 1,200 LF 8" PVC. Hydraulic analysis indicates increased fire flows along Shoreway Road of approximately 200 gpm. This project will require extensive Caltrans coordination. Distribution System Analysis No. 077

PROPOSED IMPROVEMENTS - PHASE 1

Install 700 LF 12" PVC
Install 1 fire hydrant assembly
Cathodic protection of all metallic fittings/materials

PROJECT BENEFITS

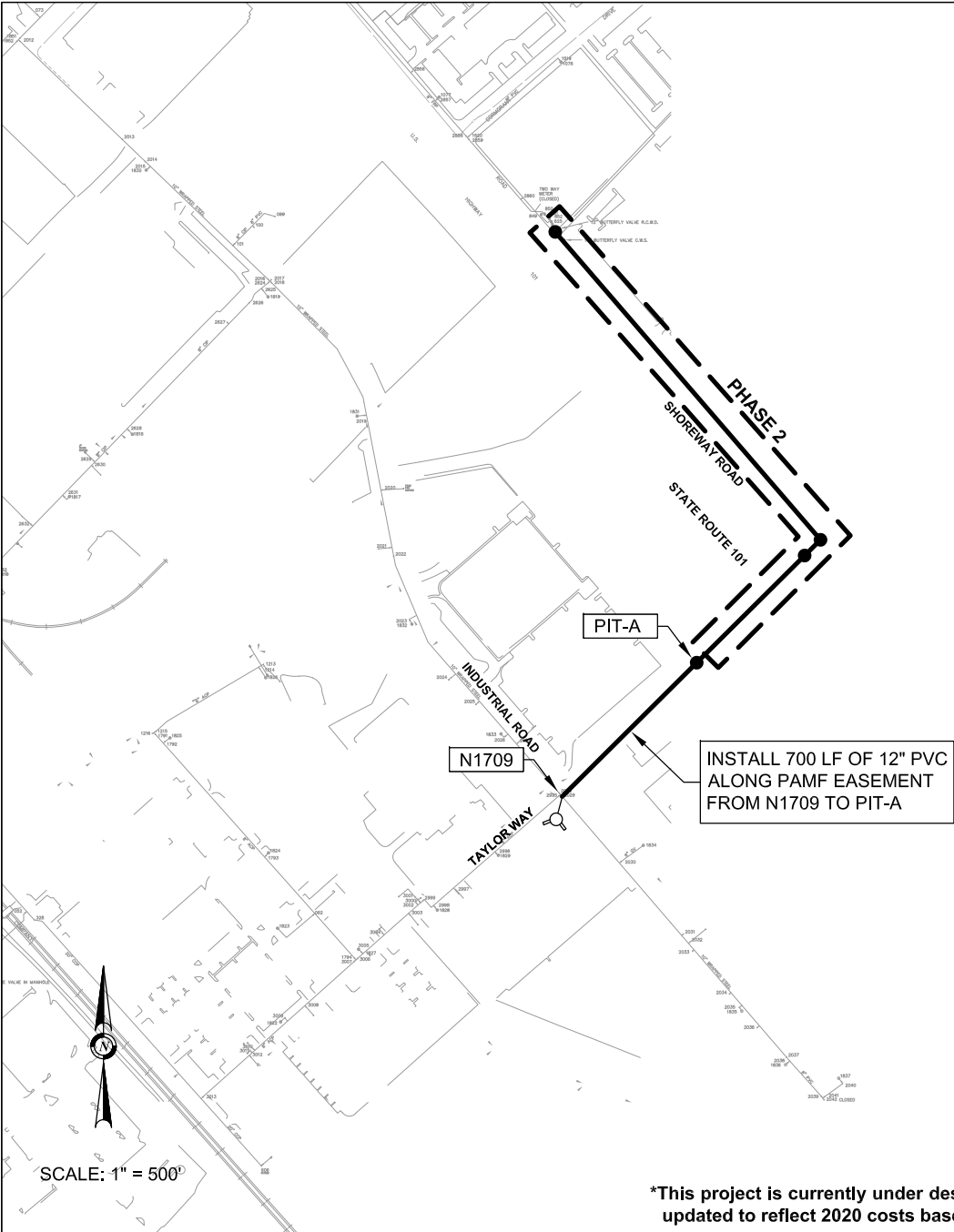
The SR 101 Crossing at PAMF Improvements replaces an old and aging water main capable of causing major disruptions on SR 101 in the event of a main break, eliminates a dead end, creates a looped system, improves fire flows, and constructs a serviceable underground inter-tie utility vault.

PROJECT BUDGET (2020)

12" PVC - 700 LF @ \$550/LF	\$ 385,000
Fire Hydrants - 1 @ \$15,000/EA	\$ 15,000
Subtotal Construction	\$ 400,000
Planning, Design, & Construction Support	\$ 100,000
Construction Inspection	\$ 40,000
Contingency (±10%)	\$ 55,000
Project Budget	\$ 595,000

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$



*This project is currently under design. Construction costs are updated to reflect 2020 costs based on recent bid tabulations.



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MID-PENINSULA WATER DISTRICT
SAN MATEO COUNTY, CALIFORNIA
3 DAIRY LANE
BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
SR 101 CROSSING AT PAMF IMPROVEMENTS - PHASE 1
PROJECT 15-72A

Rev 1 - 02/20
Original 2015

SR 101 CROSSING AT PAMF
IMPROVEMENTS - PHASE 2

PROJECT BACKGROUND

Two State Route 101 (SR 101) water main crossings exist in Zone 1 including a 500 LF 12" asbestos cement (AC) crossing between Karen Road and Sem Lane and another 12" polyvinyl chloride (PVC) crossing a half mile to the north. The 12" AC was installed in 1963 in a 36" steel casing. As part of the PAMF development agreement at the south end of Zone 1, the District obtained a 15 ft easement along the northeast side of the PAMF property in addition to a 40 ft x 40 ft area in the northeast corner to serve as a staging area for an alternate SR 101 crossing. This project abandons the aging 12" AC crossing and relocates it to the PAMF easement with a new 1,100 LF 12" PVC water main. To loop the water main back to the existing water main on Shoreway Road requires the installation of an additional 1,200 LF 8" PVC. Hydraulic analysis indicates increased fire flows along Shoreway Road of approximately 200 gpm. Distribution System Analysis No. 077

PROPOSED IMPROVEMENTS - PHASE 2

Install 400 LF of 12" PVC in steel casing and 1,200 LF of 8" PVC
Abandon 500 LF 12" AC
Install 1 fire hydrant, new intertie
Cathodic protection of all metallic fittings/materials

PROJECT BENEFITS

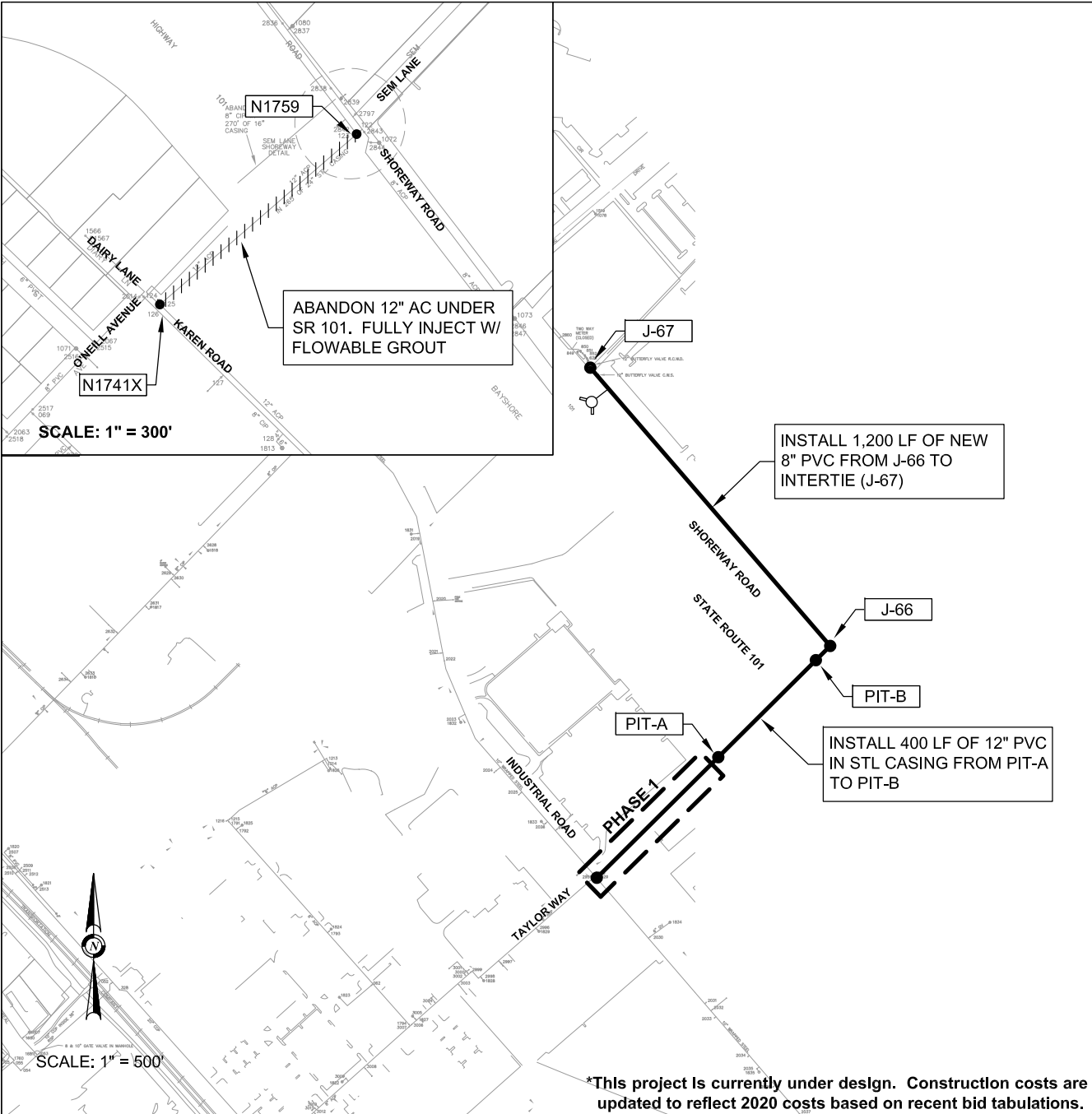
The SR 101 Crossing at PAMF Hospital Improvements replaces an old and aging water main capable of causing major disruptions on SR 101 in the event of a main break, eliminates a dead end, creates a looped system, improves fire flows, and constructs a serviceable underground inter-tie utility vault.

PROJECT BUDGET (2020)

12" PVC SR 101 - 400 LF @ \$2,000/LF	\$ 800,000
8" PVC - 1,200 LF @ \$750/LF	\$ 900,000
Abandon 12" AC Crossing @ \$100,000/LS	\$ 100,000
Intertie	\$ 200,000
Fire Hydrants - 1 @ \$15,000/EA	\$ 15,000
Subtotal Construction	\$ 2,015,000
Planning, Design, & Construction Support	\$ 300,000
Construction Inspection	\$ 200,000
Contingency (±10%)	\$ 250,000
Project Budget	\$ 2,765,000

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$





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JOB No.	10012.07
DATE	10/8/19
SCALE	AS NOTED
DRAWN: BY	BL
CKD	JP



MID-PENINSULA WATER DISTRICT
SAN MATEO COUNTY, CALIFORNIA
3 DAIRY LANE
BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
SR 101 CROSSING AT PAMF IMPROVEMENTS - PHASE 2
PROJECT 15-72B

Rev 1 - 02/20
Original 2015

OLD COUNTY ROAD IMPROVEMENTS - PHASE 1

PROJECT BACKGROUND

Old County Road spans the entire length of Zone 1 and has approximately 5,000 LF of various 4", 6" and 8" cast iron pipe (CIP) and asbestos cement (AC) water mains installed in the 1930's/1940's located on the road's east side. In addition, approximately 3,100 LF of 10" and 12" polyvinyl chloride (PVC) and polyethylene (PE) water mains in steel casings were installed in the late 1980s and parallel the CIP and AC on the road's left side. There are approximately 111 service connections, 15 fire service connections, and 11 fire hydrants along the CIP/AC water mains. Hydraulic analysis indicates the larger parallel water mains (10"-12") provide no significant fire flow benefit to the zone. This project abandons approximately 6,500 LF of various sized parallel water main and replaces all of the 6"- 8" CIP/AC with 8" PVC (3,700 LF) and 1,800 LF of 20" CC with 20" PVC from Bragato Road to Marine View Avenue. Phase 1 includes work between Bragato Road and Ralston Avenue. Distribution System Analysis No. 080

PROPOSED IMPROVEMENTS

Replace 3,170 LF of 6"-20" AC/CIP/PVC/CCP with 1,600 LF 8" PVC
 Replace 4,500 LF OF 4"-20" CIP/PVC/CCP with 1,800 LF 20" PVC
 Replace 7 fire hydrants
 Replace 7 fire services
 Replace 60 service connections

PROJECT BENEFITS

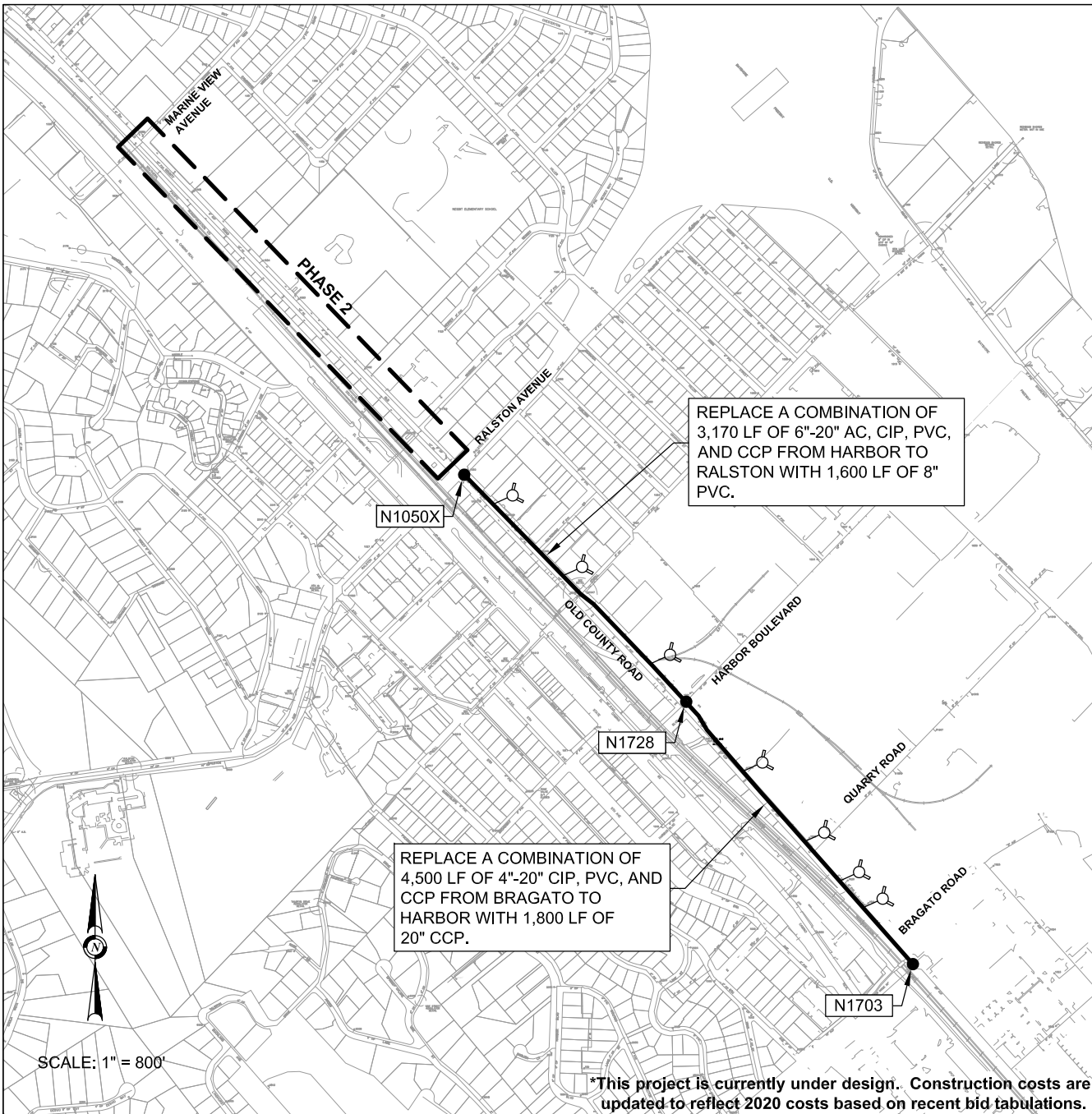
The Old County Road Improvements - Phase 1 replaces old and aging water main, reduces maintenance, and improves fire flows at various locations along Old County Road to as much as 2,500 gpm.

PROJECT BUDGET (2020)

Pipe Abandonments	\$ 75,000
20" PVC - 1,800 LF @ \$750/LF	\$ 1,350,000
8" PVC - 1,600 LF @ \$550/LF	\$ 880,000
Fire Hydrants - 7 @ \$15,000/EA	\$ 105,000
Fire Services - 7 @ \$6,000/EA	\$ 42,000
Service Connections - 60 @ \$4,500/EA	\$ 270,000
Subtotal Construction	\$ 2,722,000
Planning, Design, & Construction Support	\$ 665,000
Construction Inspection	\$ 275,000
Contingency (±10%)	\$ 368,000
Project Budget	\$ 4,030,000

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$



*This project is currently under design. Construction costs are updated to reflect 2020 costs based on recent bid tabulations.

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JOB No.	10012.07
DATE	10/8/19
SCALE	AS NOTED
DRAWN:	BY <u>BL</u>
	CKD <u>JP</u>



MID-PENINSULA WATER DISTRICT
 SAN MATEO COUNTY, CALIFORNIA
 3 DAIRY LANE
 BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
OLD COUNTY ROAD IMPROVEMENTS - PHASE 1
PROJECT 15-75A

Rev 1 - 02/20
 Original 2015

OLD COUNTY ROAD IMPROVEMENTS - PHASE 2

PROJECT BACKGROUND

Old County Road spans the entire length of Zone 1 and has approximately 5,000 LF of various 4", 6" and 8" cast iron pipe (CIP) and asbestos cement (AC) water mains installed in the 1930's/1940's located on the road's east side. In addition, approximately 3,100 LF of 10" and 12" polyvinyl chloride (PVC) and polyethylene (PE) water mains in steel casings were installed in the late 1980s and parallel the CIP and AC on the road's left side. There are approximately 111 service connections, 15 fire service connections, and 11 fire hydrants along the CIP/AC water mains. Hydraulic analysis indicates the larger parallel water mains (10"-12") provide no significant fire flow benefit to the zone. This project abandons approximately 6,500 LF of various sized parallel water main and replaces all of the 6"- 8" CIP/AC with 8" PVC (3,700 LF) and 1,800 LF of 20" CC with 20" PVC from Bragato Road to Marine View Avenue. Phase 2 includes work between Ralston Avenue and Marine View Avenue. Distribution System Analysis No. 080

PROPOSED IMPROVEMENTS

Replace 4,700 LF of 6"-12" AC/CIP/PVC/PE with 2,400 LF 8" PVC
 Replace 4 fire hydrants
 Replace 4 fire services
 Replace 50 service connections

PROJECT BENEFITS

The Old County Road Improvements - Phase 2 replaces old and aging water main, reduces maintenance, and improves fire flows at various locations along Old County Road to as much as 2,500 gpm.

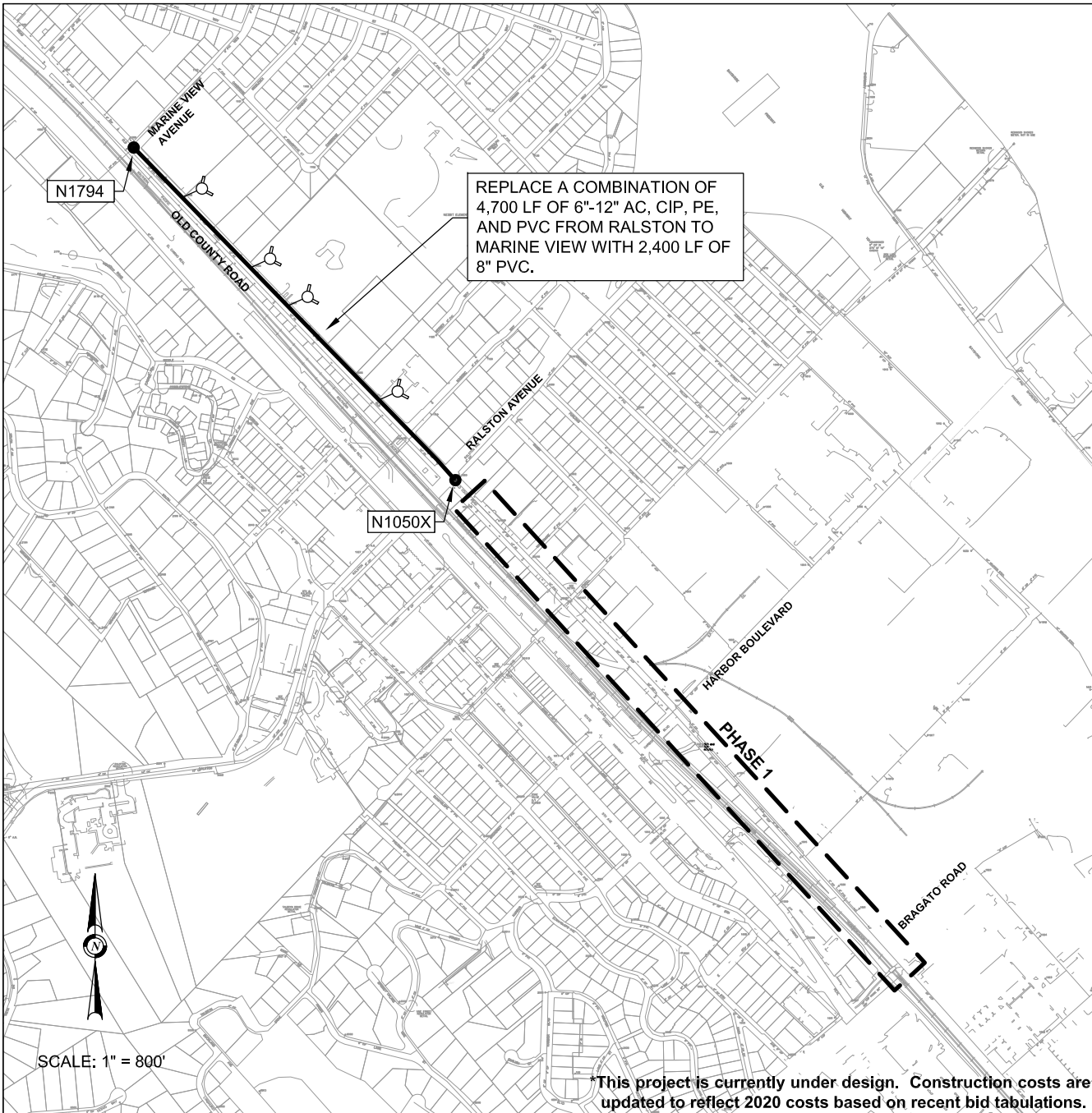
PROJECT BUDGET (2020)

Pipe Abandonments	\$ 75,000
8" PVC - 2,400 LF @ \$550/LF	\$ 1,320,000
Fire Hydrants - 4 @ \$15,000/EA	\$ 60,000
Fire Services - 4 @ \$6,000/EA	\$ 24,000
Service Connections - 50 @ \$4,500/EA	\$ 225,000
Subtotal Construction	\$ 1,704,000
Construction Inspection	\$ 170,000
Contingency (±10%)	\$ 191,000
Project Budget*	\$ 2,065,000

*Planning, Design, Construction Support Included In Phase 1

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$



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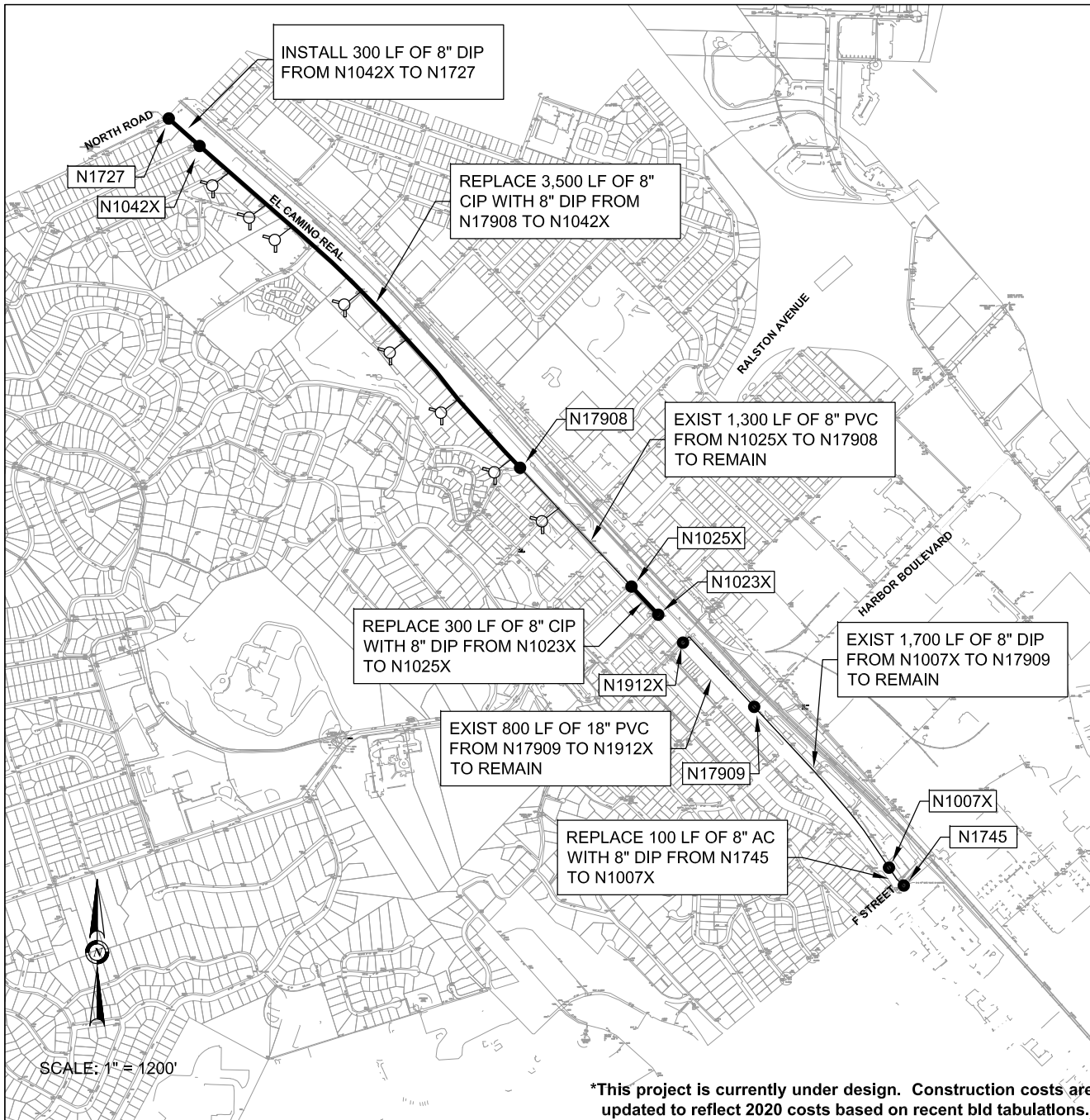
JOB No.	10012.07
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	CKD <u>JP</u>



MID-PENINSULA WATER DISTRICT
 SAN MATEO COUNTY, CALIFORNIA
 3 DAIRY LANE
 BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
OLD COUNTY ROAD IMPROVEMENTS - PHASE 2
PROJECT 15-75B

Rev 1 - 02/20
 Original 2015



***This project is currently under design. Construction costs are updated to reflect 2020 costs based on recent bld tabulations.**

EL CAMINO REAL IMPROVEMENTS

PROJECT BACKGROUND

El Camino Real is located in the western portion of Zone 1 and spans the entire length of the Zone for approximately 8,400 LF. The existing water mains along the road consist of 100 LF of 8" asbestos cement (AC), 1,700 LF of 8" ductile iron pipe (DIP), 3,800 LF of cast iron pipe (CIP), and 1,300 LF of polyvinyl chloride (PVC) for a total 6,900 LF as shown. The District has reported several leaks along the alignment primarily along the CIPs which were installed in 1950 compared to all other pipe on the road installed in the 1990's. This project replaces the 3,800 LF of 8" CIP with 8" DIP, in addition to the installation of 300 LF of new 8" DIP. There are also 8 fire hydrants, 4 fire services, and 23 service connections that will be replaced. Hydraulic analysis indicates an 8" water main along El Camino Real is sufficient to provide fire flows well above the minimum 1,500 gpm at 20 psi. Distribution System Analysis No. 081

PROPOSED IMPROVEMENTS

Replace 3,800 LF of 8" CIP with 8" DIP
 Install 300 LF of new 8" DIP
 Replace 8 fire hydrants
 Replace 4 fire services
 Replace 23 service connections

PROJECT BENEFITS

The El Camino Real Improvements replaces old and aging water main, reduces maintenance, and improves fire flows at various locations along Old County Road to as much as 2,500 gpm.

PROJECT BUDGET (2020)

Pipe Abandonment	\$ 20,000
8" DIP - 4,100 LF @ \$550/LF	\$ 2,255,000
Fire Hydrants - 8 @ \$15,000/EA	\$ 120,000
Fire Services - 4 @ \$6,000/EA	\$ 24,000
Service Connections - 23 @ \$4,500/EA	\$ 103,500
Subtotal Construction	\$ 2,522,500
Planning, Design, & Construction Support	\$ 380,000
Construction Inspection	\$ 250,000
Caltrans Coordination	\$ 50,000
Contingency (±20%)	\$ 317,500
Project Budget	\$ 3,520,000

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$



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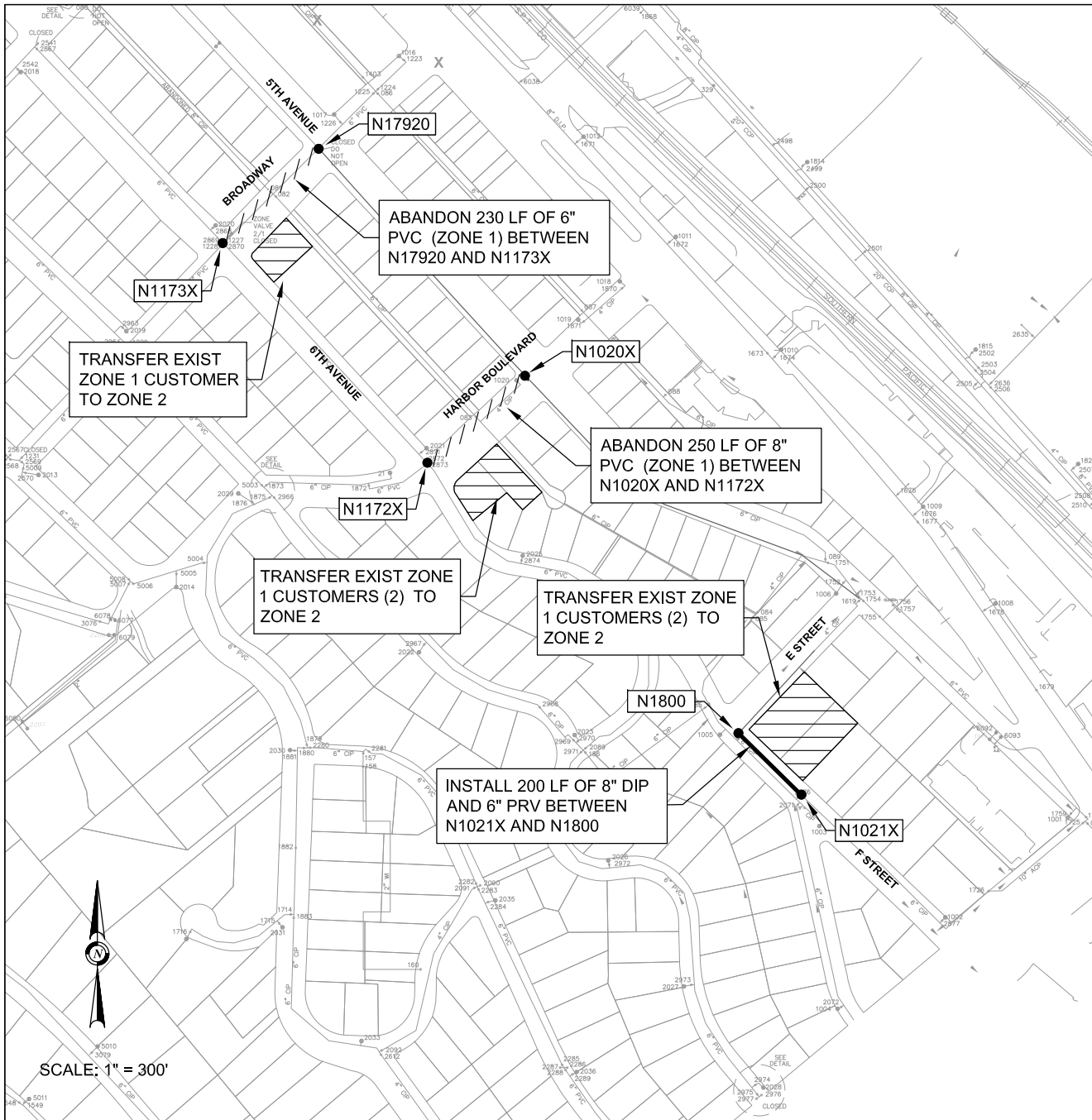
JOB No.	10012.07
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SCALE	AS NOTED
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CKD	JP



MID-PENINSULA WATER DISTRICT
 SAN MATEO COUNTY, CALIFORNIA
 3 DAIRY LANE
 BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
 EL CAMINO REAL IMPROVEMENTS
 PROJECT 15-76

Rev 1 - 02/20
 Original 2015



SIXTH AVENUE (ZONE 1) IMPROVEMENTS

PROJECT BACKGROUND

Sixth Avenue is located in the southwest portion of Zone 1 just off El Camino Real and has a Zone 2 water main along its length. Fifth Avenue to the east runs parallel to Sixth Avenue and has a Zone 1 water main. The zones are connected by perpendicular Zone 1 water mains along Broadway, Harbor Boulevard, E Street and F Street and are isolated via closed valves thereby creating 4 dead ends in Zone 1. Three of the dead ends are approximately 250 LF with each serving 1 to 2 customers whereas the dead end on F Street is much longer at 700 LF serving multiple customers. This project eliminates the Zone 1 dead ends by abandoning the dead ends along Broadway and Harbor Boulevard in addition to installing a new 200 LF 8" ductile iron (DIP) water main between E and F Streets to loop the area. Five Zone 1 customers would be switched to Zone 2. As part of this project, a new 6" pressure reducing valve would also be installed between Zones 1 and 2 to provide extra redundancy to Zone 1 in the event of an emergency. Distribution System Analysis No. 082

PROPOSED IMPROVEMENTS

Install 200 LF of new 8" DIP
Install 6" PRV
Replace 5 service connections

PROJECT BENEFITS

The Sixth Avenue (Zone 1) Improvements eliminates 4 dead ends in Zone 1, provides additional Zone 1 redundancy with an emergency connection to Zone 2, improves water movement, and reduces maintenance.

PROJECT BUDGET (2020)

8" DIP - 200 LF @ \$450/LF	\$ 90,000
6" PRV @ \$50,000/LS	\$ 50,000
Service Connections - 5 @ \$4,500/EA	\$ 22,500
Subtotal Construction	\$ 162,500
Planning, Design, & Construction Support	\$ 50,000
Construction Inspection	\$ 15,000
Contingency (±10%)	\$ 22,500
Project Budget	\$ 250,000

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$



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JOB No. 10012.07
DATE 10/8/19
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MID-PENINSULA WATER DISTRICT
SAN MATEO COUNTY, CALIFORNIA
3 DAIRY LANE
BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
SIXTH AVENUE (ZONE 1) IMPROVEMENTS
PROJECT 15-77

Rev 1 - 02/20
Original 2015

F STREET IMPROVEMENTS

PROJECT BACKGROUND

F Street is located in the southern portion of Zone 1 and crosses El Camino Real where it dead ends before the railroad tracks. A short 150 LF 6" polyvinyl chloride (PVC) water main provides service to one business and a hydrant on F Street. Directly to the south of F Street, the District has a 350 LF 10" concrete (CC) water main located in an easement on the CVS property and is 1 of 5 railroad crossings connecting Old County Road with El Camino Real. The 10" CC was installed in 1963 and is currently out of service due to main break with the exact location of the break unknown. This project relocates the existing 10" CC out of the CVS easement to F Street and installs a new 400 LF 8" PVC. The existing 10" CC will be used as a casing for the new 8" PVC underneath the tracks. Hydraulic analysis indicates this particular crossing does not provide significant fire flow benefit however it does provide other benefits including system redundancy and relocation of a water main out of an easement onto public right-of-way. Distribution System Analysis No. 084

PROPOSED IMPROVEMENTS

Install 400 LF of new 8" DIP
Replace 1 fire hydrant
Replace 2 service connections

PROJECT BENEFITS

The F Street Improvements replaces old and aging water main, relocates a damaged water main out of the CVS property to public right-of-way, and provides system redundancy.

PROJECT BUDGET (2020)

8" PVC - 400 LF @ \$450/LF	\$ 180,000
Fire Hydrants 1 @ \$15,000/EA	\$ 15,000
Service Connections - 2 @ \$4,500/EA	\$ 9,000
Subtotal Construction	\$ 204,000
Planning, Design, & Construction Support	\$ 60,000
Construction Inspection	\$ 20,000
Contingency (±10%)	\$ 31,000
Project Budget	\$ 315,000

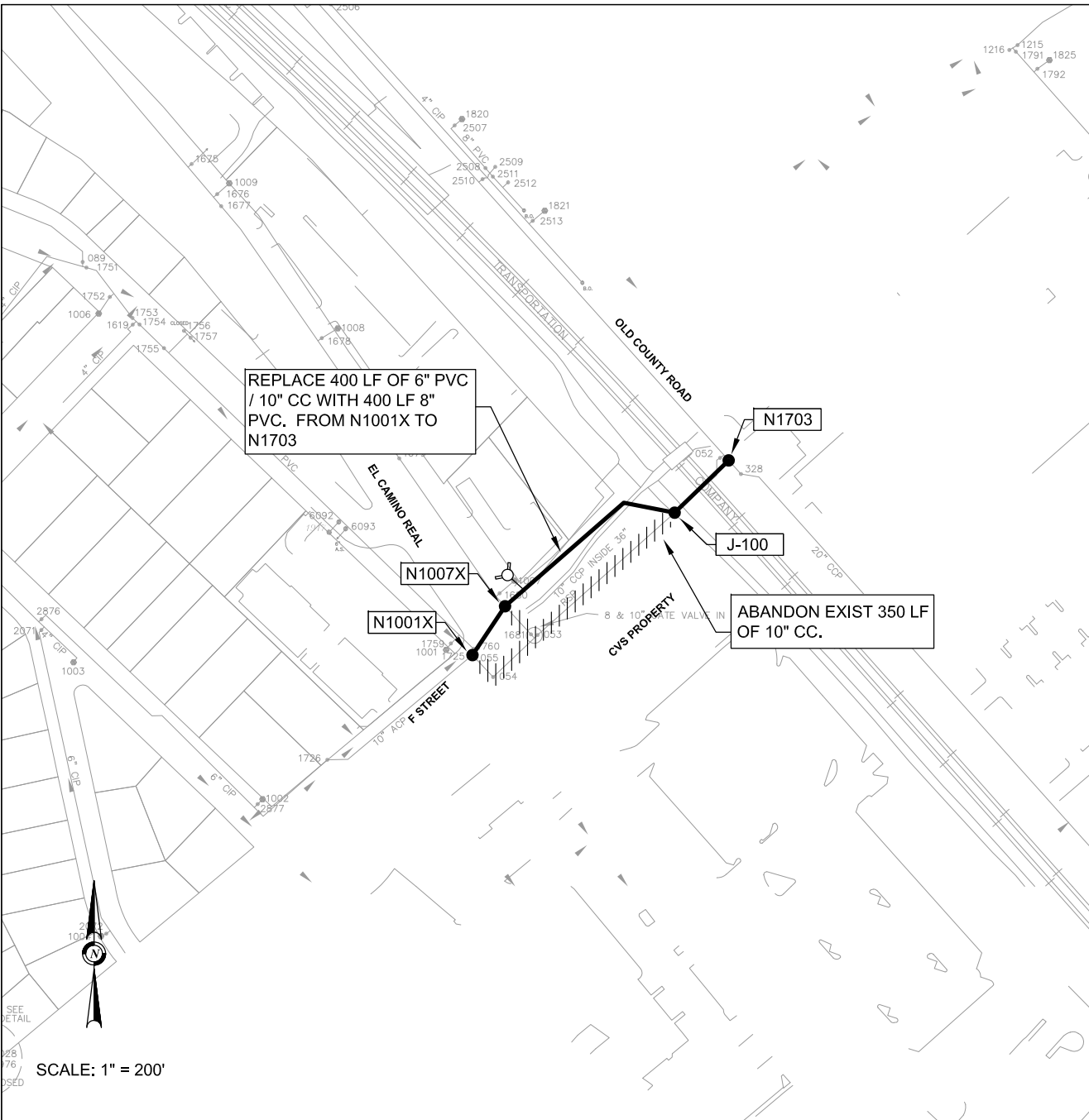
*This project is currently under design. Construction costs are updated to reflect 2020 costs based on recent bid tabulations.

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$

REPLACE 400 LF OF 6" PVC / 10" CC WITH 400 LF 8" PVC. FROM N1001X TO N1703

ABANDON EXIST 350 LF OF 10" CC.



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MID-PENINSULA WATER DISTRICT
SAN MATEO COUNTY, CALIFORNIA
3 DAIRY LANE
BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
F STREET IMPROVEMENTS
PROJECT 15-79

Rev 1 - 02/20
Original 2015

BRAGATO ROAD IMPROVEMENTS

PROJECT BACKGROUND

Glen Way and Bragato Road are located in Zone 1 and have a combined 1,250 LF dead end water main beginning off Taylor Way. The water main begins at the Glen Way / Taylor Way intersection with an 8" asbestos cement (AC) and extends north 900 LF. At the intersection of Glen Way / Bragato Road, the water main transitions to a 6" AC (installed in 1967) and extends east 350 LF along Bragato Road before coming to a dead end. The fire flows at the dead end are 1,322 gpm, below the minimum recommended 1,500 gpm @ 20 psi. This project reduces the length of the existing dead end by installing a new 650 LF 8" polyvinyl chloride (PVC) water main along Bragato Road between Old County Road and Glen Way effectively looping the majority of the existing water mains. Work would also include replacement of 2 fire hydrants and 8 service connections. Hydraulic analysis indicates a 78% increase in fire flows to 2,350 gpm @ 86 psi at the dead end in addition to an 8% increase to 2,500 gpm on Glen Way. Distribution System Analysis No. 085

PROPOSED IMPROVEMENTS

Install 1,000 LF of new 8" PVC
Install 1 new fire hydrant
Replace 1 fire hydrant
Replace 8 Service Connections

PROJECT BENEFITS

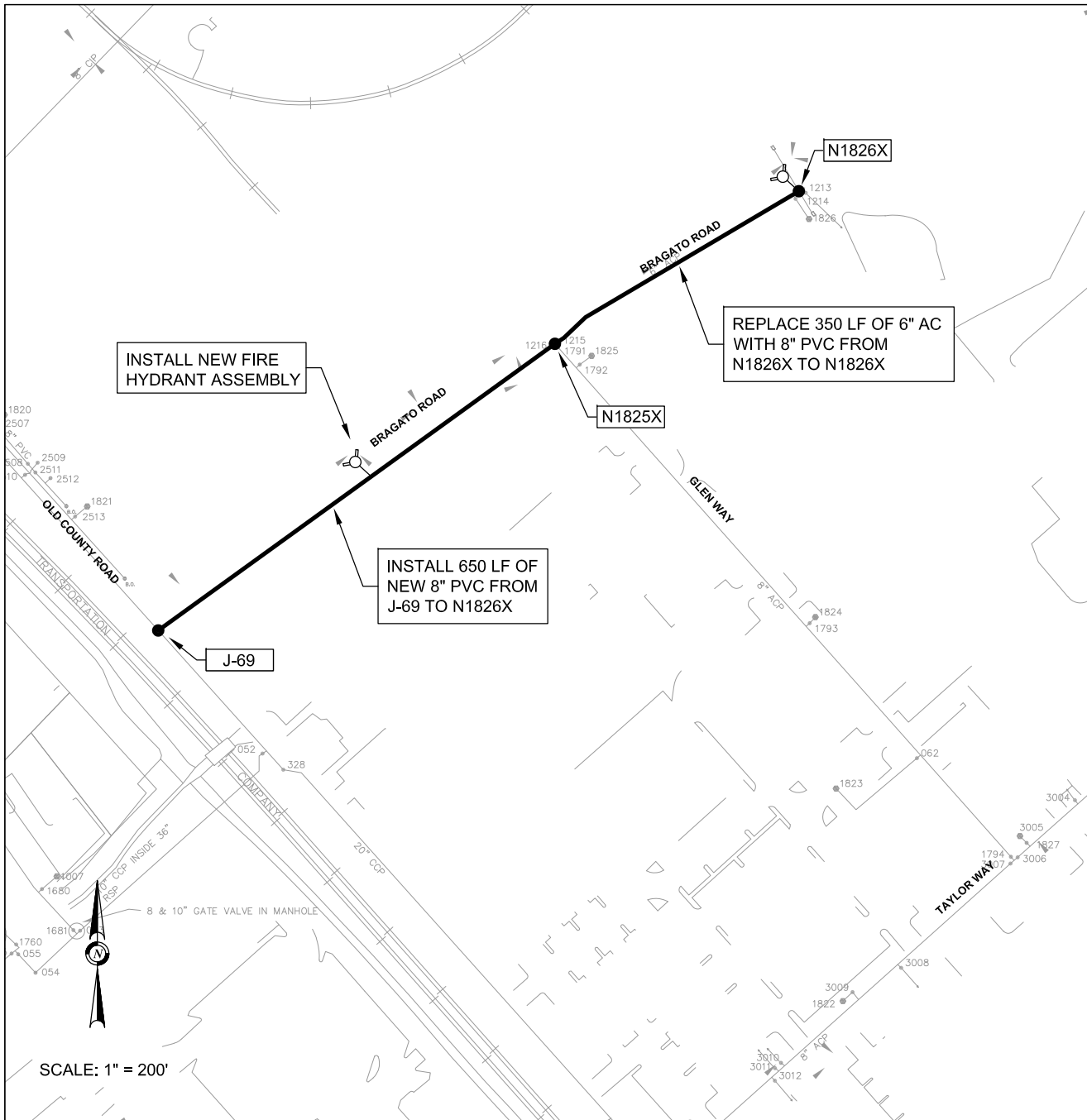
The Bragato Road Improvements replaces old and aging water main, increases fire flows as much as 78%, shortens an existing dead end by 900 LF, loops the water main along Glen Way, and provides system redundancy.

PROJECT BUDGET (2020)

8" PVC - 1,000 LF @ \$450/LF	\$ 450,000
Fire Hydrants - 2 @ \$15,000/EA	\$ 30,000
Service Connections - 8 @ \$4,500/EA	\$ 36,000
Subtotal Construction	\$ 516,000
Planning, Design, & Construction Support	\$ 105,000
Construction Inspection	\$ 50,000
Contingency (±10%)	\$ 69,000
Project Budget	\$ 740,000

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$



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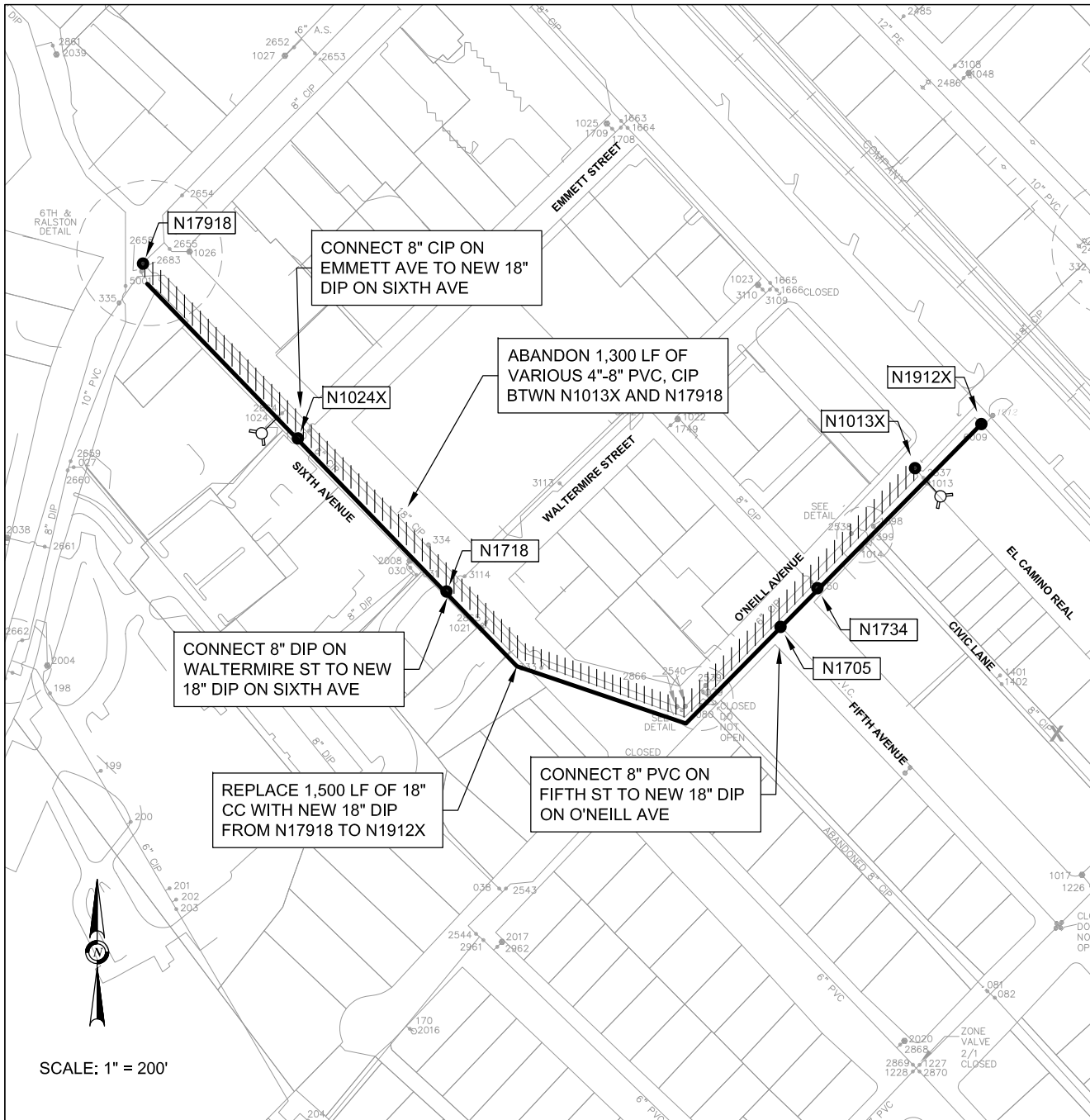
JOB No.	10012.07
DATE	10/8/19
SCALE	AS NOTED
DRAWN:	BY <u>BL</u> CKD <u>JP</u>



MID-PENINSULA WATER DISTRICT
SAN MATEO COUNTY, CALIFORNIA
3 DAIRY LANE
BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
BRAGATO ROAD IMPROVEMENTS
PROJECT 15-80

Rev 1 - 02/20
Original 2015



SIXTH / O'NEILL AVENUE ABANDONMENT

PROJECT BACKGROUND

O'Neill Avenue (between El Camino Real and Sixth Avenue) and Sixth Avenue (between O'Neill Avenue and Ralston Avenue) have parallel water mains as part of Zone 1: a 1,400 LF 18" concrete (CC) transmission main and 1,400 LF of 4"-8" cast iron (CIP) / polyvinyl chloride (PVC). The water mains on Emmett Street, Waltermire Street, and Fifth Avenue south of O'Neill are connected to the 4"-8" water main and Fifth Avenue north of O'Neill is connected to the 18" CC. The CIP water mains were installed in 1937 and fire flows along these are below the minimum recommended 1,500 gpm at 20 psi near El Camino Real. This project abandons the smaller parallel water main and replaces the existing 18" CC with a new 18" DIP and reconnects the branched connections (3 total) and services (15) to the 18" DIP. Hydraulic analysis indicates a fire flow improvement of 89% to 2,500 gpm between Fifth Avenue and El Camino Real upon completion of this project. Distribution System Analysis No. 086

PROPOSED IMPROVEMENTS

Abandon 1,400 LF of 4"-8" CIP/PVC
Replace 1,500 LF of 18" CC with 18" DIP
Relocate 3 connections from the 4"-8" CIP/PVC to the 18" DIP
Replace 2 fire hydrants
Replace 15 service connections

PROJECT BENEFITS

The Sixth / O'Neill Avenue Abandonment eliminates parallel water mains, reduces maintenance, increases fire flows by 89% in select areas.

PROJECT BUDGET (2020)

18" DIP - 1,500 LF @ \$1,000/LF	\$ 1,500,000
Fire Hydrants - 2 @ \$15,000/EA	\$ 30,000
Service Connections - 15 @ \$4,500/EA	\$ 67,500
Subtotal Construction	\$ 1,597,500
Planning, Design, & Construction Support	\$ 240,000
Construction Inspection	\$ 160,000
Contingency (±10%)	\$ 202,500
Project Budget	\$ 2,200,000

PROJECT COMPLETED

Completion Date:

Actual Expenditures

Planning, Design, & Construction Support: \$

Construction: \$

Total Expenditures: \$



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JOB No.	10012.07
DATE	05/28/15
SCALE	AS NOTED
DRAWN:	BY BGL
CKD	JRP



MID-PENINSULA WATER DISTRICT
SAN MATEO COUNTY, CALIFORNIA
3 DAIRY LANE
BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
SIXTH / O'NEILL AVENUE ABANDONMENT
PROJECT 15-81

Rev 1 - 02/20
Original 2015

RALSTON AVENUE IMPROVEMENTS

PROJECT BACKGROUND

The 500 LF 6" cast iron (CIP) water main along Ralston Avenue between Old County Road and Elmer Street was identified by maintenance personnel as a preferred capital improvement project. The CIP was installed in 1937 and it is probable this water main could experience a significant break in the future. Given the location on the highly traveled Ralston Avenue, a main break would not be ideal and would cause major traffic disruptions. This project replaces the existing 6" CIP with a new 8" polyvinyl chloride (PVC) in addition to 5 service replacements and 1 fire hydrant. Traffic control on Ralston Avenue will be challenging where night time work may be a possibility to minimize traffic disruptions.

PROPOSED IMPROVEMENTS

Replace 500 LF of 6" CIP with 8" PVC
 Replace 1 fire hydrant
 Replace 5 service connections

PROJECT BENEFITS

The Ralston Avenue Improvements replaces an old and aging water main capable of creating major traffic disruptions in the event of a main break, and increases the water main to the minimum 8-inches set by the District.

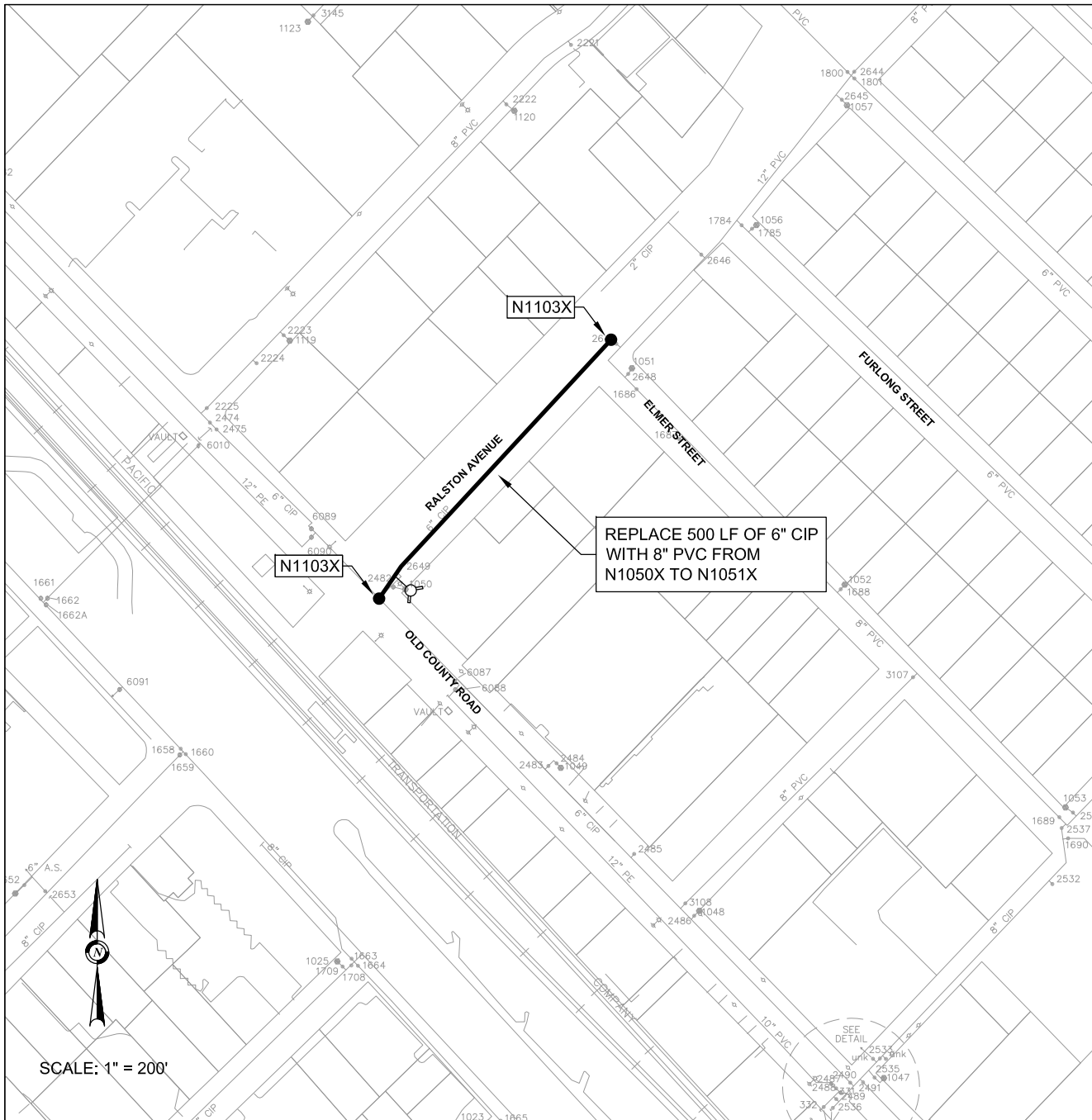
PROJECT BUDGET (2020)

8" PVC - 500 LF @ \$450/LF	\$ 225,000
Fire Hydrants - 1 @ \$15,000/EA	\$ 15,000
Service Connections - 5 @ \$4,500/EA	\$ 22,500
Traffic Control @ \$50,000/LS	\$ 50,000
Subtotal Construction	\$ 312,500
Planning, Design, & Construction Support	\$ 80,000
Construction Inspection	\$ 30,000
Contingency (±10%)	\$ 42,500
Project Budget	\$ 465,000

*This project is currently under design. Construction costs are updated to reflect 2020 costs based on recent bid tabulations.

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$



SCALE: 1" = 200'



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	CKD <u>JP</u>



MID-PENINSULA WATER DISTRICT
 SAN MATEO COUNTY, CALIFORNIA
 3 DAIRY LANE
 BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
 RALSTON AVENUE IMPROVEMENTS
 PROJECT 15-82

Rev 1 - 02/20
 Original 2015



6-INCH CALWATER INTERTIE
LINCOLN AVE / NEWLANDS AVE



6-INCH CALWATER INTERTIE
MARINE VIEW AVE



6-INCH CALWATER INTERTIE
NORTH RD



6-INCH CALWATER / REDWOOD CITY INTERTIE
SHOREWAY RD



6-INCH CALWATER INTERTIE
WITHERIDGE AVE



8-INCH CALWATER INTERTIE
INDUSTRIAL RD (PAMF)

EMERGENCY INTERTIE REBUILDS

PROJECT BACKGROUND

The District has 8 emergency interconnections (interties) throughout the District: 7 with the California Water Service Company (CWS) and 1 with the Estero Municipal Improvement District (EMID-Foster City). The District maintains the 7 interties with CWS and EMID maintains the 8th. The existing configuration for the majority of the interties is shown to the left where the meters are connected directly to 90 degree bends. Although the meters can be installed in this configuration, many manufacturers recommend at least one pipe diameter of straight pipe before and after the meter to reduce reading errors caused by turbulent water. This project reconfigures the intertie locations similar to Industrial Road (pictured bottom) contingent space is available (6 total).

PROPOSED IMPROVEMENTS

Rebuild 6 interties

PROJECT BENEFITS

The Emergency Intertie Rebuilds reconfigures the existing interties to obtain more accurate meter readings.

PROJECT BUDGET (2020)

Rebuild Intertie - 6 @ \$100,000	\$ 600,000
Subtotal Construction	\$ 600,000
Planning, Design, & Construction Support	\$ 120,000
Construction Inspection	\$ 60,000
Contingency (±10%)	\$ 80,000
Project Budget	\$ 860,000

PROJECT COMPLETED

Completion Date:

Actual Expenditures

Planning, Design, & Construction Support: \$

Construction: \$

Total Expenditures: \$



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MID-PENINSULA WATER DISTRICT
SAN MATEO COUNTY, CALIFORNIA
3 DAIRY LANE
BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
EMERGENCY INTERTIE REBUILDS
PROJECT 15-83

Rev 1 - 02/20
Original 2015



ABANDON EXISTING PRV VAULT
RETAINING WALL, BUILDING



HANNIBAL PUMP STATION



HANNIBAL PUMP STATION
600 FT WEST

EXISTING PRV STATION

RALSTON AVENUE REGULATOR RELOCATION

PROJECT BACKGROUND

There is an existing 8' pressure reducing valve (PRV) located along Ralston Avenue directly across 1301 Ralston Avenue. The PRV connects Zones 1 and 2 and allows Zone 2 to provide redundancy and emergency flows to Zone 1. Ralston Avenue is a highly traveled road and there is limited space for District personnel to park their vehicles when servicing the PRV due to the close proximity of the PRV vault to the roadway. This project relocates the existing PRV and associated vault 600 feet west to the Hannibal Pump Station where there is sufficient room for servicing. This requires demolition of the existing vault and building directly behind the vault, reconfiguration of the piping at the existing location, and construction of a new vault at Hannibal Pump Station.

PROPOSED IMPROVEMENTS

Abandon existing PRV Vault and Building

Reconfigure existing piping

Construct new PRV Vault at Hannibal Pump Station

PROJECT BENEFITS

The Ralston Regulator Relocation moves a challenging maintenance location to the Hannibal Pump Station where there is sufficient room.

PROJECT BUDGET (2020)

Demolition @ \$100,000/LS	\$ 100,000
Pipe Reconfiguration @ \$50,000/LS	\$ 50,000
New Regulation Station @ \$100,000/LS	\$ 100,000
Subtotal Construction	\$ 250,000
Planning, Design, & Construction Support	\$ 75,000
Construction Inspection	\$ 25,000
Contingency (±10%)	\$ 35,000
Project Budget	\$ 385,000

PROJECT COMPLETED

Completion Date:

Actual Expenditures

Planning, Design, & Construction Support: \$

Construction: \$

Total Expenditures: \$



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JOB No.	10012.07
DATE	10/8/19
SCALE	AS NOTED
DRAWN: BY	BL
CKD	JP



MID-PENINSULA WATER DISTRICT
SAN MATEO COUNTY, CALIFORNIA
3 DAIRY LANE
BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
RALSTON AVENUE REGULATOR RELOCATION
PROJECT 15-84

Rev 1 - 02/20
Original 2015



12-INCH DIP SUSPENDED UNDER PEDESTRIAN WALKWAY
O'NEILL SLOUGH SPORTS FOOTBRIDGE



12-INCH TEMPFLEX EXPANSION JOINT (TYP BOTH SIDES)
O'NEILL SLOUGH SPORTS FOOTBRIDGE



12-INCH DIP SUSPENDED ALONG BRIDGE
ISLAND PARKWAY BRIDGE



12-INCH TEMPFLEX EXPANSION JOINT (TYP BOTH SIDES)
ISLAND PARKWAY BRIDGE

O'NEILL SLOUGH BRIDGE CROSSING ASSESSMENTS

PROJECT BACKGROUND

Two 12" ductile iron pipe (DIP) water mains suspend over the O'Neill Slough at two locations just north of Ralston Avenue. One is located on the eastern side of the Island Parkway Bridge and the other, approximately 400 feet west of the bridge, underneath the O'Neill Slough Sports Footbridge. Both water mains serve the development north of the slough which includes a mixture of commercial and residential customers. There is also an emergency connection with the Estero Municipal Improvement District (Foster City) north of the slough which places an added importance on these water mains to remain in service following a seismic event. Both water mains have Tempflex expansion joints at each end of the crossings before they go below ground to allow movement. This project provides a structural review of the suspensions in addition to the existing expansion joints and ground entries.

PROPOSED IMPROVEMENTS

Perform a structural / pipe assessment and report

PROJECT BENEFITS

The O'Neill Slough Bridge Crossing Assessments assess the existing condition of the pipes, their associated suspension system, seismic resistance, and will make recommendations on potential improvements.

PROJECT BUDGET (2020)

Structural Analysis/Report	\$	50,000
Contingency ($\pm 10\%$)	\$	5,000
Project Budget	\$	55,000

PROJECT COMPLETED

Completion Date:

Actual Expenditures

Planning, Design, & Construction Support: \$

Construction: \$

Total Expenditures: \$



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MID-PENINSULA WATER DISTRICT
SAN MATEO COUNTY, CALIFORNIA
3 DAIRY LANE
BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
O'NEILL SLOUGH BRIDGE CROSSING ASSESSMENTS
PROJECT 15-85

Rev 1 - 02/20
Original 2015



EXISTING MAINTENANCE BUILDING



EXISTING FOLGER PUMP STATION



INTERIOR OF FOLGER PUMP STATION



EXISTING PARKING LOT

FOLGER PUMP STATION DEMOLITION

PROJECT BACKGROUND

The District owns two opposing parcels of land along Folger Drive where the original District office / shop facilities used to be located. The Folger Pump Station which used to be the primary Zone 2 pump station shared the southern parcel with the District facilities. After construction of the Hannibal Pump Station along Ralston Avenue, now the District's Zone 2 pump station, the Folger Pump Station was abandoned. In addition, the District moved their office / shop facilities to the current location on Dairy Lane. Due to deteriorating conditions and foundation failures, the existing pump station requires demolition. A pre-demolition study was performed detailing the type of materials to dispose of in addition to any hazardous materials that may be encountered. This project demolishes the existing pump station.

PROPOSED IMPROVEMENTS

Demolish the existing pump station.

PROJECT BENEFITS

Will remove a hazardous building and prevent a potential catastrophic collapse of the pump station.

PROJECT BUDGET (2020)

Demolition @ \$250,000/LS	\$ 250,000
Subtotal Construction	\$ 250,000
Planning, Design, & Construction Support	\$ 50,000
Contingency ($\pm 10\%$)	\$ 30,000
Project Budget	\$ 330,000

PROJECT COMPLETED

Completion Date:

Actual Expenditures

Planning, Design, & Construction Support: \$

Construction: \$

Total Expenditures: \$



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MID-PENINSULA WATER DISTRICT
SAN MATEO COUNTY, CALIFORNIA
3 DAIRY LANE
BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
FOLGER PUMP STATION DEMOLITION
PROJECT 15-86

Rev 1 - 02/20
Original 2015

VINE STREET (ZONE 5) IMPROVEMENTS

PROJECT BACKGROUND

The water mains along Vine Street are comprised of 1,400 LF of 6" cast iron pipe (CIP) installed in the mid 1950's. Due to age, the District has reported several leaks on the 6" CIP and maintenance personnel recommend replacement. This project replaces the 6" CIP with a new 8" DIP in addition to replacing 15 services and 3 fire hydrants. Distribution System Analysis No. 098

PROPOSED IMPROVEMENTS

Replace 1,400 LF of 6" CIP with 8" DIP
Replace 3 fire hydrants
Replace 15 service connections

PROJECT BENEFITS

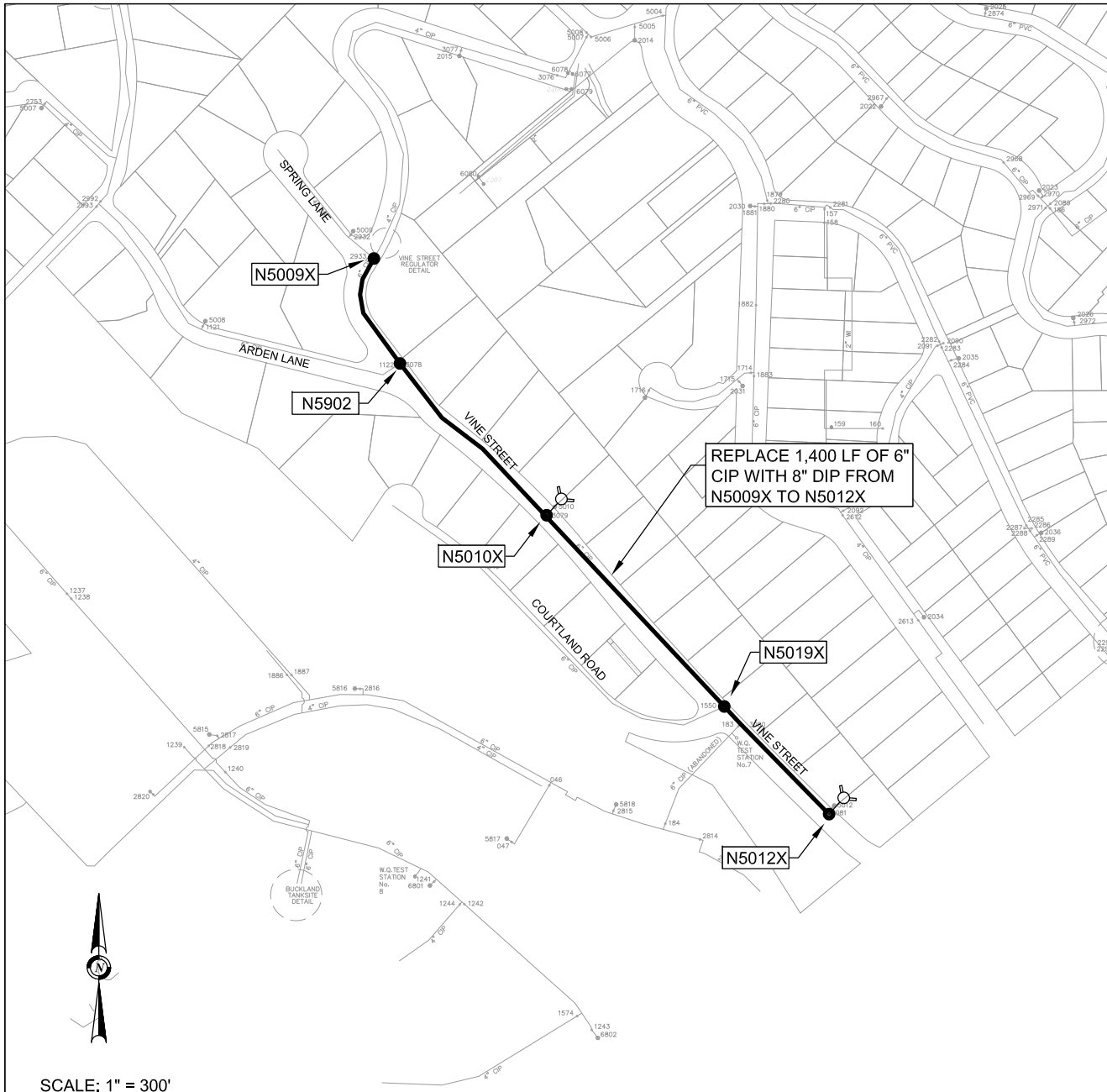
The Vine Street (Zone 5) Improvements replaces old and aging 6" CIP water mains that have experienced significant leaks with a new 8" DIP.

PROJECT BUDGET (2020)

8" DIP - 1,400 LF @ \$450/LF	\$ 630,000
Fire Hydrants - 3 @ \$15,000/EA	\$ 45,000
Service Connections - 15 @ \$4,500/EA	\$ 67,500
Subtotal Construction	\$ 742,500
Planning, Design & Construction Support	\$ 150,000
Construction Inspection	\$ 75,000
Contingency (±10%)	\$ 97,500
Project Budget	\$ 1,065,000

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$



SCALE: 1" = 300'



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MID-PENINSULA WATER DISTRICT
SAN MATEO COUNTY, CALIFORNIA
3 DAIRY LANE
BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
VINE STREET (ZONE 5) IMPROVEMENTS
PROJECT 15-88

Rev 1 - 02/20
Original 2015



***This project is currently under design. Construction costs are updated to reflect 2020 costs based on recent bid tabulations.**

DEKOVEN TANKS REPLACEMENT

PROJECT BACKGROUND

The Dekoven Tanks, constructed in 1952, are a critical element of the Zone 3 water distribution system. The existing tanks are 52 and 60 feet in diameter, approximately 48 feet tall and have capacities of 720,000 gallons and 1,000,000 gallons respectively. The tanks are currently operating between 17 feet (pump on) to 30 feet (pump off) and the overflow is located at 47 feet. A recent structural analysis determined the maximum capacity level (MCL) in the tanks should be reduced to 22 feet (from the current 30 feet) to withstand seismic events. However, the District would lose more than half of the tanks capacity and operation staff indicated this may not be feasible during high summer demands. The coatings on each tank are also failing increasing the urgency to rehabilitate or replace the tanks.

Given the seismic vulnerability and the coating failures, the District explored 3 options for rehabilitation / replacement including a) only recoating the tanks and reducing the MCL to 22 feet, b) seismic retrofits to each tank, and c) demolish and rebuild two 800,000 gallon tanks. After a cost analysis of each option and viewing potential construction difficulties, the District determined replacement of the tanks was the best option.

PROPOSED IMPROVEMENTS

Replace the existing 1.0 MG and 0.7 MG tanks with two 0.8 MG tanks.

PROJECT BENEFITS

The Dekoven Tanks Replacement project replaces seismically unsound water tanks with new tanks capable of withstanding seismic events while maintaining existing operating levels.

PROJECT BUDGET (2020)

Tank Removal x2	\$ 150,000
Grading and Excavation	\$ 300,000
Foundation and Anchors	\$ 450,000
Tank Construction w/ Coating x2	\$ 1,600,000
PAX Mixing System	\$ 300,000
Subtotal Construction	\$ 2,800,000
Planning, Design & Construction Support	\$ 420,000
Construction Inspection	\$ 280,000
Contingency (±10%)	\$ 350,000
Project Budget	\$ 3,850,000

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$



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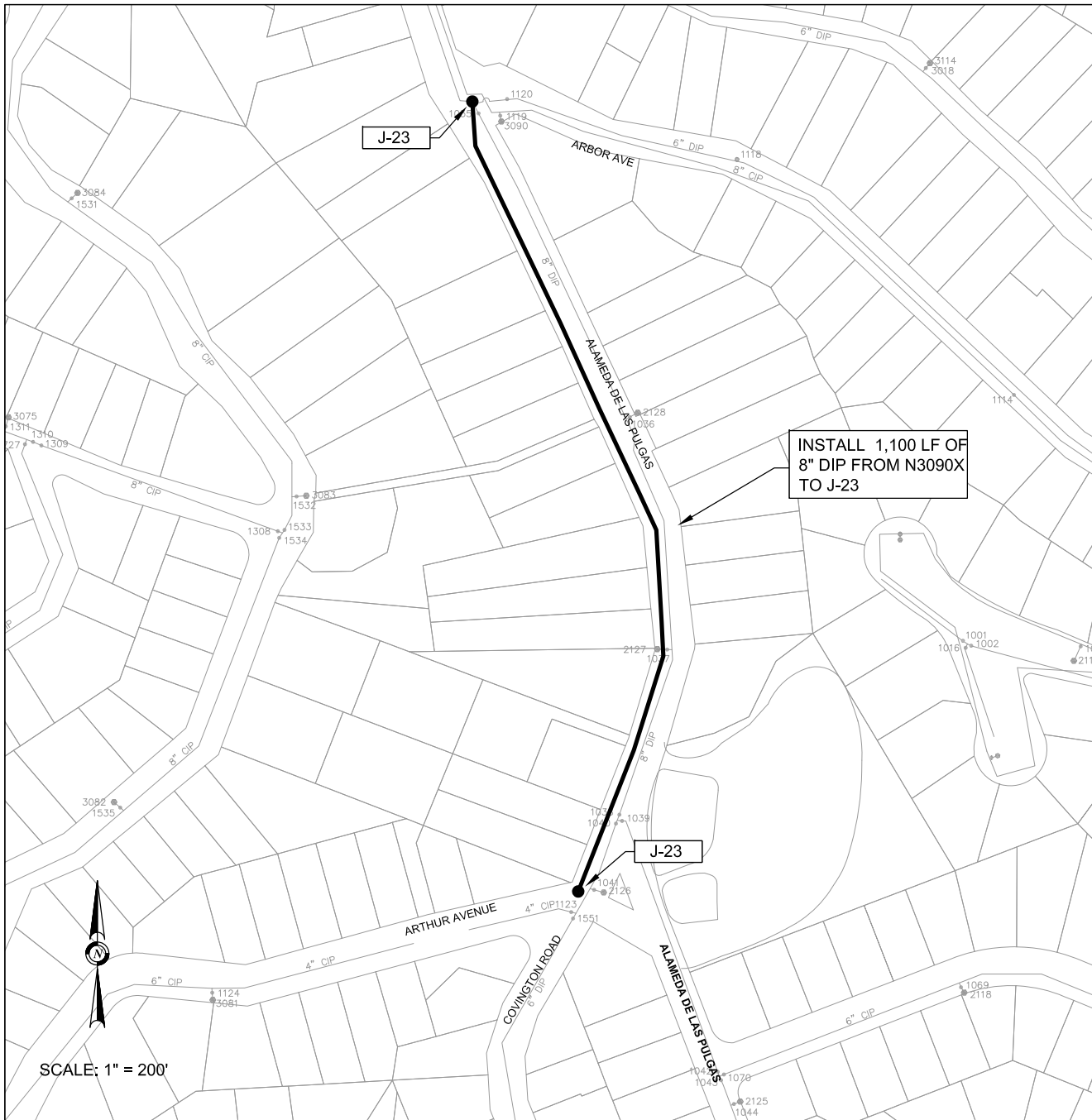
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DATE	10/8/19
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MID-PENINSULA WATER DISTRICT
SAN MATEO COUNTY, CALIFORNIA
3 DAIRY LANE
BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
DEKOVEN TANKS REPLACEMENT
PROJECT 15-89

Rev 1 - 02/20
Original 2015



ALAMEDA DE LAS PULGAS LOOP IMPROVEMENTS

PROJECT BACKGROUND

Alameda de Las Pulgas (ADLP) is a main collector street running north-south through the middle of the District in Zones 2 and 3. Two Zone 3 dead ends exist along or near ADLP due to the recent abandonment of the Zone 3 water main along Arbor Avenue. The first is a 450 LF dead end on ADLP between Mezes Avenue and Arbor Avenue and the second is an approximate 660 LF along Arthur Avenue ending 200 LF before ADLP. This project would install a 1,100 LF 8" ductile iron pipe (DIP) along ADLP between Arbor Avenue and Arthur Avenue that parallels the existing Zone 2 water main. This project in combination with CIP 15-22 Arthur Avenue Improvements would close the Zone 3 loop and eliminate the dead ends in the area. No services or hydrants would be replaced as these are located along the Zone 2 main. Distribution System Analysis No. 096

PROPOSED IMPROVEMENTS

Install 1,100 LF of 8" DIP

PROJECT BENEFITS

The Alameda De Las Pulgas Loop Improvements eliminates two Zone 3 dead ends and improves water quality.

PROJECT BUDGET (2020)

8" DIP - 1,100 @ \$450/LF	\$ 495,000
Subtotal Construction	\$ 495,000
Planning, Design & Construction Support	\$ 125,000
Construction Inspection	\$ 50,000
Contingency (±10%)	\$ 70,000
Project Budget	\$ 740,000

PROJECT COMPLETED

Completion Date:

Actual Expenditures

Planning, Design, & Construction Support: \$

Construction: \$

Total Expenditures: \$



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JOB No.	10012.07
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	CKD <u>JP</u>



MID-PENINSULA WATER DISTRICT
SAN MATEO COUNTY, CALIFORNIA
3 DAIRY LANE
BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
ALAMEDA DE LAS PULGAS LOOP IMPROVEMENTS
PROJECT 15-90

Rev 1 - 02/20
Original 2015

HASTINGS DRIVE SERVICE CONNECTION REPLACEMENTS

PROJECT BACKGROUND

The District serves approximately 119 customers along Hastings Drive where the District has had several leaks on the existing polybutylene service connections serving residents. Some have undermined asphalt and there are many asphalt patches on Hastings from previous leaks/repairs where concerns may begin on behalf of both the residents and City of Belmont. This project would replace all of the existing polybutylene service connections along Hastings Drive with new copper service connections per the District's standard detail.

PROPOSED IMPROVEMENTS

Replace 119 service connections

PROJECT BENEFITS

The Hastings Drive Service Connection Replacements improves system reliability and updates the existing service connection materials to current standards.

PROJECT BUDGET (2020)

Service Connections - 119 @ \$4,500/EA	\$ 535,500
Road Restoration (Slurry Seal/Striping)	\$ 100,000
Subtotal Construction	\$ 635,500
Planning, Design, Construction Support	\$ 125,000
Construction Inspection	\$ 65,000
Contingency (±10%)	\$ 84,500
Project Budget	\$ 910,000

PROJECT COMPLETED

Completion Date:

Actual Expenditures

Planning, Design, & Construction Support: \$

Construction: \$

Total Expenditures: \$

REPLACE 119 EXISTING POLY
SERVICE CONNECTIONS PER
MPWD SERVICE DETAIL

SCALE: 1" = 600'



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MID-PENINSULA WATER DISTRICT
SAN MATEO COUNTY, CALIFORNIA
3 DAIRY LANE
BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
HASTINGS DRIVE SERVICE CONNECTION REPLACEMENTS
PROJECT 20-01

Original 2020



HALLMARK TANKS STRUCTURAL RETROFIT / RECOAT

PROJECT BACKGROUND

The Hallmark Tanks, constructed in 1967, are a critical element of the District's water distribution system. The existing tanks are 140 feet in diameter, approximately 24 feet tall and have capacities of 2.5 million gallons each. A recent structural analysis determined the maximum capacity level (MCL) in the tanks should be reduced to 14.5 feet (from the current 22 feet) allowing adequate freeboard to withstand seismic events. To increase the useable storage in the tanks, structural engineers assessed several retrofit alternatives while also meeting current seismic codes. The four alternatives included 1) lowering the operating level to 14.5 ft (no retrofit required), 2) retrofitting for 16 feet, 3) retrofitting for 22 ft (raising the tank height to ± 32 ft), and 4) complete replacement. For each foot of water level increase in the tanks, the District can gain an additional 230,000 gallons.

Following the review of the various alternatives, the District selected Option 2, to retrofit the tanks to a 16 foot operating level. This is primarily due to general operating levels at or below 15 feet and cost implications with Options 3 and 4. As part of this project, the tanks would also be recoated.

PROPOSED IMPROVEMENTS

Structurally retrofit each tank to a 16 ft operating level
Recoat each tank

PROJECT BENEFITS

The Hallmark Tanks Structural Retrofit / Recoat project increases the operating level to 16 feet while still being able to withstand a seismic events. Recoating the tank will also extend the tanks service life.

PROJECT BUDGET (2020)

Structural Retrofit	\$ 1,000,000
Tank Recoating	\$ 1,500,000
Subtotal Construction	\$ 2,500,000
Planning, Design & Construction Support	\$ 375,000
Construction Inspection	\$ 250,000
Contingency ($\pm 10\%$)	\$ 315,000
Project Budget	\$ 3,440,000

PROJECT COMPLETED

Completion Date:

Actual Expenditures

Planning, Design, & Construction Support: \$

Construction: \$

Total Expenditures: \$



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MID-PENINSULA WATER DISTRICT
SAN MATEO COUNTY, CALIFORNIA
3 DAIRY LANE
BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
HALLMARK TANKS STRUCTURAL RETROFIT / RECOAT
PROJECT 20-02

Original 2020

LAXAGUE DRIVE 18" CCP ABANDONMENT

PROJECT BACKGROUND

The Folger Pump Station used to be the primary pump station pumping water to Zones 2 and 3 and was supplied water from an existing 18" concrete cylinder pipe (CCP) running along Laxague Drive and Ralston Avenue. The Folger Pump Station was abandoned in favor of the newer Hannibal Pump Station located at the Ralston Avenue / Laxague Drive intersection. The existing $\pm 2,000$ LF of 18" CCP between this intersection and the abandoned pump station became a long dead end and remained in service to serve 3 fire hydrants located on Notre Dame de Namur University's (NDNU) property.

The District has reported water quality issues along this water main due to it's size and infrequent use of the hydrants. Given this water main no longer serves it's original purpose, the District will abandon the water main to eliminate water quality concerns. Should NDNU want to maintain hydrant service, they can explore installing a backflow device near the Hannibal Pump Station and take over the responsibility of maintaining the 18" CCP and backflow device.

PROPOSED IMPROVEMENTS

Abandon $\pm 2,000$ LF of 18" CCP

PROJECT BENEFITS

The Laxague Drive 18" CCP Abandonment will eliminate the potential for dead end water to feed back into the system and improve water quality.

PROJECT BUDGET (2020)

Abandonment	\$ 50,000
Subtotal Construction	\$ 50,000
Planning, Design & Construction Support	\$ 15,000
Construction Inspection	\$ 5,000
Contingency ($\pm 10\%$)	\$ 5,000
Project Budget	\$ 75,000

PROJECT COMPLETED

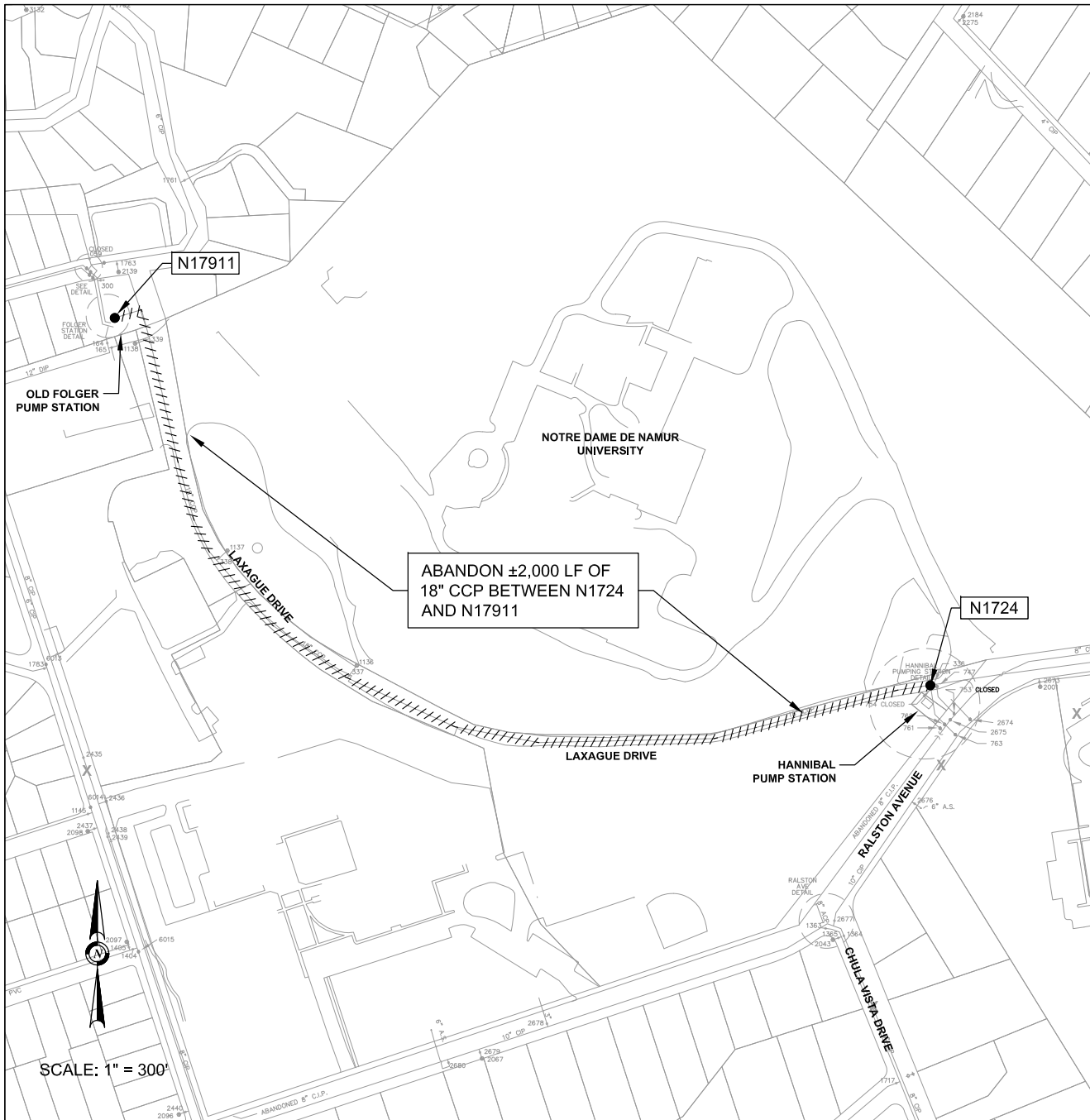
Completion Date:

Actual Expenditures

Planning, Design, & Construction Support: \$

Construction: \$

Total Expenditures: \$



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MID-PENINSULA WATER DISTRICT
SAN MATEO COUNTY, CALIFORNIA
3 DAIRY LANE
BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
LAXAGUE DRIVE 18" CCP ABANDONMENT
PROJECT 20-03

Original 2020

LAUREL AVENUE CROSS COUNTRY ABANDONMENT

PROJECT BACKGROUND

A cross country 6" ductile iron pipe (DIP) water main exists between South Road and the Cypress Avenue / Laurel Avenue / Forest Lane intersection. This water main, constructed in 1979, is located in steep cross country terrain, under or beside an access stairway, and nearly inaccessible. The water main is not in service and is a dead end physically disconnected at South Road with a closed valve at Laurel Road.

Analysis showed reinstatement of this water main provided little fire flow benefit to the surrounding area and is recommended to remain abandoned. This project properly abandons the cross country water main by removing the existing closed valve, capping, and reconfiguring the water mains in the area. Distribution System Analysis No. 094

PROPOSED IMPROVEMENTS

Abandon 360 LF of 6" CC DIP

PROJECT BENEFITS

The Laurel Avenue Cross Country Abandonment eliminates a cross country 6" DIP without adversely affecting fire flows within the area.

PROJECT BUDGET (2020)

Abandonments at each end @ \$25,000/ea	\$ 50,000
Subtotal Construction	\$ 50,000
Planning, Design & Construction Support	\$ 15,000
Construction Inspection	\$ 5,000
Contingency (±10%)	\$ 5,000
Project Budget	\$ 75,000

PROJECT COMPLETED

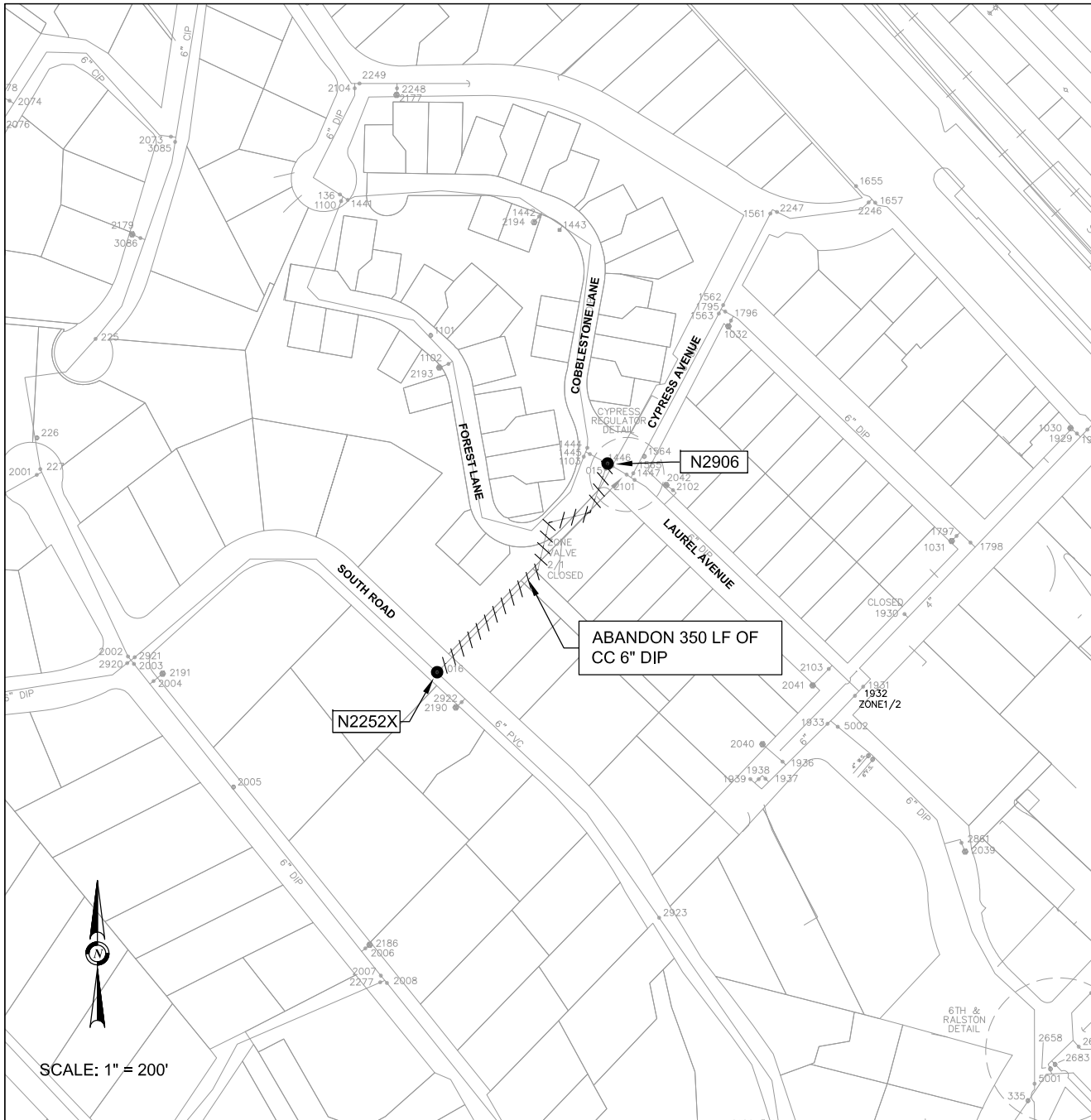
Completion Date:

Actual Expenditures

Planning, Design, & Construction Support: \$

Construction: \$

Total Expenditures: \$



SCALE: 1" = 200'



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MID-PENINSULA WATER DISTRICT
SAN MATEO COUNTY, CALIFORNIA
3 DAIRY LANE
BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
LAUREL AVENUE CROSS COUNTRY ABANDONMENT
PROJECT 20-04

Original 2020

TRANSMISSION WATER MAIN ASSESSMENTS

PROJECT BACKGROUND

The District is supplied water from two source locations being 1) the Tunnels Pump Station located below Hallmark Tanks and 2) the SFPUC Hillcrest Connection located approximately 3 miles south west of the District service area.

The transmission water main between the Tunnels Pump Station and Hallmark Tanks is an approximate 1 mile 24" Ductile Iron Pipe (DIP) and is located in steep, cross country terrain. This water main brings water into Zone 8 allowing the District to feed water from the top down. The transmission main from the Hillcrest Connection to the Hannibal Pump Station is comprised of 18"-20" Polyvinyl Chloride (PVC) and Concrete Cylinder Pipe (CCP). This particular water main brings water into Zone 1 allowing the District to feed water from bottom up. Both transmission mains were installed in the 1960's-1970's.

This project is an assessment of each transmission main to determine the existing conditions, identify any leaks, and remaining life expectancy.

PROPOSED IMPROVEMENTS

Assess the transmission mains supplying the District from the top and bottom.

PROJECT BENEFITS

The Transmission Water Main Assessment determines the existing condition of the water mains, identifies any potential leaks, and remaining life expectancy.

PROJECT BUDGET (2020)

Assessment	\$ 200,000
Subtotal Construction	\$ 200,000
Planning, Design & Construction Support	\$
Contingency (±10%)	\$ 20,000
Project Budget	\$ 220,000

PROJECT COMPLETED

Completion Date:

Actual Expenditures

Planning, Design, & Construction Support: \$

Construction: \$

Total Expenditures: \$



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MID-PENINSULA WATER DISTRICT
SAN MATEO COUNTY, CALIFORNIA
3 DAIRY LANE
BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
TRANSMISSION WATER MAIN ASSESSMENTS
PROJECT 20-05

Original 2020

AUTOMATED CHLORAMINE
MANAGEMENT SYSTEMS

PROJECT BACKGROUND

The District has 10 above ground storage tanks over 6 sites throughout their service area. To help alleviate thermal stratification and inconsistent disinfection residual, tank mixers are frequently used in the tanks to promote water movement. The District has several tanks already equipped with tank mixers however still experiences inconsistent chloramine residuals at some locations throughout the District. Automated chloramine management systems are available that generate a constant and reliable chloramine residual within the reservoirs by automatically detecting the residual and injecting chlorine and/or ammonia at the location of the tank mixer when the residual drops below a predetermined set point. Water quality is continually monitored to ensure the ideal state of chloramine disinfection. This project would install these systems at the Exborne and West Belmont Tank sites.

PROPOSED IMPROVEMENTS

Install automated chloramine management systems at Exborne and West Belmont Tank sites.

PROJECT BENEFITS

The Automated Chloramine Management System would automatically detect tank disinfection residuals and adjust levels accordingly to maintain an ideal state of chloramine disinfection.

PROJECT BUDGET (2020)

Chloramine Management Systems (2)	\$ 350,000
Subtotal Construction	\$ 350,000
Planning, Design & Construction Support	\$ 85,000
Construction Inspection	\$ 35,000
Contingency (±10%)	\$ 50,000
Project Budget	\$ 520,000

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$



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MID-PENINSULA WATER DISTRICT
SAN MATEO COUNTY, CALIFORNIA
3 DAIRY LANE
BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
AUTOMATED CHLORAMINE MANAGEMENT SYSTEMS
PROJECT 20-06

HARBOR BOULEVARD IMPROVEMENTS

PROJECT BACKGROUND

The District has experienced several leaks on the existing 12" asbestos cement (AC) water main, installed in 1967, located along Harbor Boulevard. Harbor is a highly traveled roadway serving local businesses in addition to on/off ramps to Highway 101 and leaks along this particular stretch of roadway are not ideal. This project replaces the existing water main with a new 12" polyvinyl chloride (PVC).

PROPOSED IMPROVEMENTS

Replace 2,100 LF of 12" AC w/ 12" PVC
 Replace 7 fire hydrants
 Replace 30 service connections

PROJECT BENEFITS

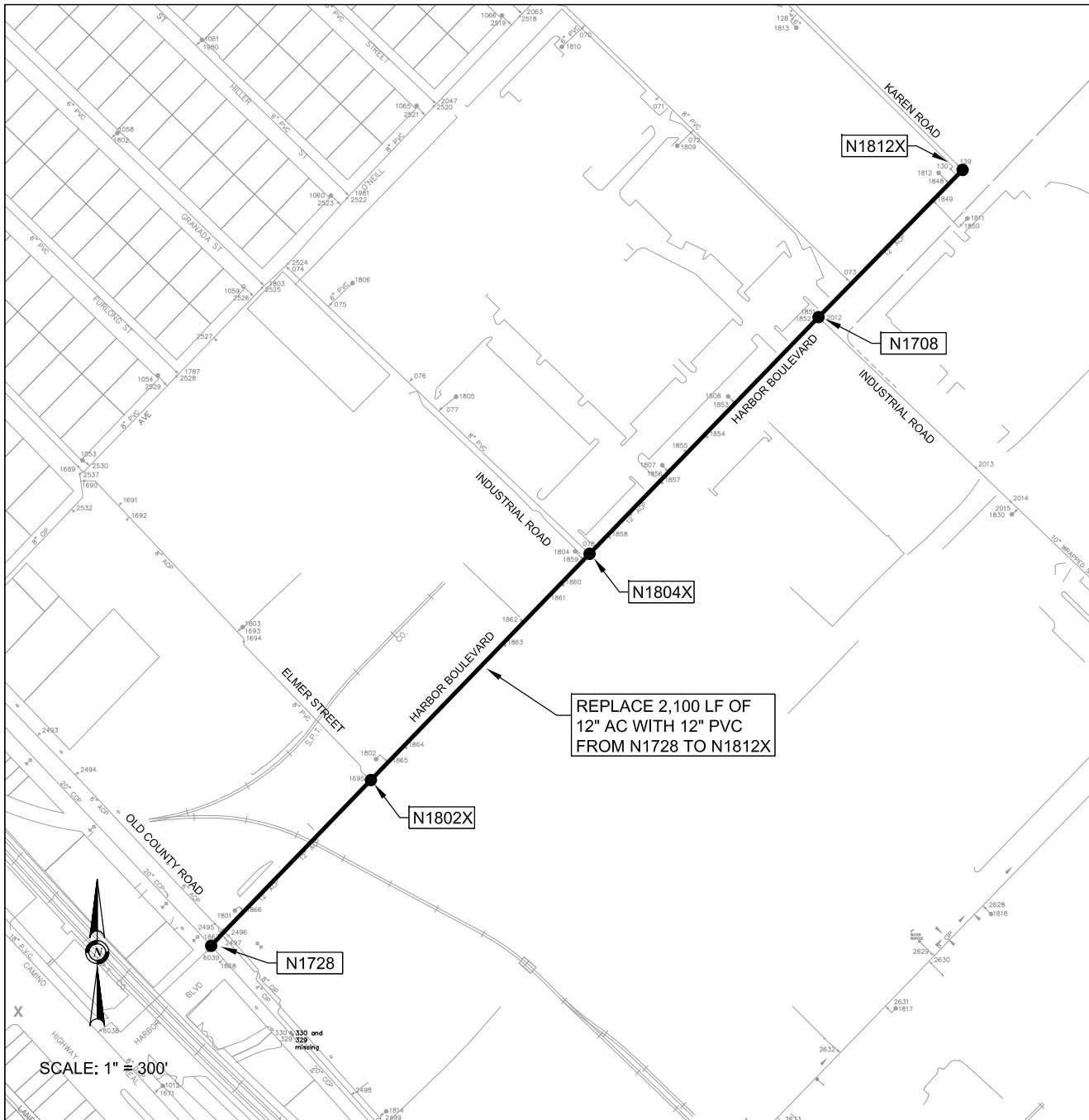
The Harbor Boulevard Improvements replaces old infrastructure, with a history of extensive leaks, with a new water main.

PROJECT BUDGET (2020)

12" PVC - 2,100 LF @ \$750/LF	\$ 1,575,000
Service Connections - 30 @ \$4,500/EA	\$ 135,000
Fire Hydrants - 7 @ \$15,000/EA	\$ 105,000
Reconnects - 15 @ \$20,000/EA	\$ 300,000
Subtotal Construction	\$ 2,115,000
Planning, Design & Construction Support	\$ 315,000
Construction Inspection	\$ 210,000
Contingency (±10%)	\$ 260,000
Project Budget	\$ 2,900,000

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$



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MID-PENINSULA WATER DISTRICT
 SAN MATEO COUNTY, CALIFORNIA
 3 DAIRY LANE
 BELMONT, CA 94002

**CAPITAL IMPROVEMENT PROGRAM
 HARBOR BOULEVARD IMPROVEMENTS
 PROJECT 20-07**

Original 2020



SCADA IMPROVEMENTS

PROJECT BACKGROUND

Replace the aged SCADA system with modern, cloud based monitoring and control system from XiO, Inc. This SCADA system provides a secure website where water operations can be viewed and equipment status displayed; system provides a secured site for authorized operators to monitor and alter water system operation via set points; and the system provides an advanced alarm system that notifies District personnel via text or email when user-defined system operations are not met. This will expand and complete the update to the District's entire water system SCADA for the remaining six pump stations, 12 regulator sites, one tank site, at the Corporation Yard and for one pressure monitoring station at the end of a water line in the Treasure Island area.

PROPOSED IMPROVEMENTS

Replace the old SCADA system with a modern, cloud based system.

PROJECT BENEFITS

Expands the existing SCADA system to capture the remaining pump stations, regulator sites, among other District elements.

PROJECT BUDGET (2020)

SCADA Design & Implementation	\$ 300,000
Planning, Design & Construction Support	\$ 75,000
Contingency (±10%)	\$ 45,000
Project Budget	\$ 420,000

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$



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SCALE	AS NOTED
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MID-PENINSULA WATER DISTRICT
SAN MATEO COUNTY, CALIFORNIA
3 DAIRY LANE
BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
SCADA IMPROVEMENTS
PROJECT 20-08

Original 2020



DAIRY LANE OPERATIONS CENTER REHABILITATION - PHASE 1

PROJECT BACKGROUND

The District purchased its Dairy Lane Operations Center in 1999. Minor alterations were made to the building to accommodate operations and administration at that time but nothing significant other than security fencing for security and external painting of the structure.

An inspection and seismic study of the structure and property was conducted by Cornerstone Structural Engineering Group in February 2018. The report was presented to the MPWD Board of Directors on March 22, 2018. It revealed significant structural deficiencies in the roof and shop area of the structure. A geotechnical investigation of the site was also performed by Romig Engineers in March 2018 confirming the site is suitable for the seismic upgrades and provided geotechnical recommendations within.

Besides the large leaking roof, there are plumbing and electrical issues requiring attention, HVAC system upgrades, replacement of old carpet, and safe and humane work areas for all staff, including locker rooms for men and women.

PROPOSED IMPROVEMENTS

Repair various deficiencies with the building in addition to improving its structural and seismic reliability.

PROJECT BENEFITS

The Dairy Lane Operations Center Rehabilitation will seismically retrofit the building to ensure the building remains operational during a seismic event in addition to repairing several building deficiencies to extend the useful service life of the building.

PROJECT BUDGET (2020)

Design & Seismic Study Update	\$ 135,000
Contingency ($\pm 10\%$)	\$ 15,000
Project Budget	\$ 150,000

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$



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MID-PENINSULA WATER DISTRICT
SAN MATEO COUNTY, CALIFORNIA
3 DAIRY LANE
BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
DAIRY LANE OPERATIONS CENTER REHABILITATION - PH 1
PROJECT 20-09

Original 2020



DAIRY LANE OPERATIONS CENTER REHABILITATION - PHASE 2

PROJECT BACKGROUND

The District purchased its Dairy Lane Operations Center in 1999. Minor alterations were made to the building to accommodate operations and administration at that time but nothing significant other than security fencing for security and external painting of the structure.

An inspection and seismic study of the structure and property was conducted by Cornerstone Structural Engineering Group in February 2018. The report was presented to the MPWD Board of Directors on March 22, 2018. It revealed significant structural deficiencies in the roof and shop area of the structure. A geotechnical investigation of the site was also performed by Romig Engineers in March 2018 confirming the site is suitable for the seismic upgrades and provided geotechnical recommendations within.

Besides the large leaking roof, there are plumbing and electrical issues requiring attention, HVAC system upgrades, replacement of old carpet, and safe and humane work areas for all staff, including locker rooms for men and women.

PROPOSED IMPROVEMENTS

Repair various deficiencies with the building in addition to improving its structural and seismic reliability.

PROJECT BENEFITS

The Dairy Lane Operations Center Rehabilitation will seismically retrofit the building to ensure the building remains operational during a seismic event in addition to repairing several building deficiencies to extend the useful service life of the building.

PROJECT BUDGET (2020)

Seismic Retrofit & Rehabilitation/Construction	\$ 1,550,000
Construction Inspection	\$ 150,000
Contingency (±10%)	\$ 150,000
Project Budget	\$ 1,850,000

PROJECT COMPLETED

Completion Date:	
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$
Total Expenditures:	\$



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MID-PENINSULA WATER DISTRICT
SAN MATEO COUNTY, CALIFORNIA
3 DAIRY LANE
BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
DAIRY LANE OPERATIONS CENTER REHABILITATION - PH 2
PROJECT 20-10

Original 2020

MEZES AVENUE IMPROVEMENTS

PROJECT BACKGROUND

Water is currently provided to Mezes Avenue through a single 310 LF 4" cast iron pipe (CIP) from Lyon Avenue. It then transitions to a 415 LF 6" CIP and dead ends at the end of Mezes Avenue. Fire flows on this street are below the recommended 1,500 gpm at 20 psi recommendation due to the 4" bottleneck. In addition, the 4" main is over 50 years old. This project would replace the undersized pipe with a new 8" ductile iron pipe (DIP). One fire hydrant and 10 service connections will be replaced. Hydraulic analysis indicates a 192% increase in available fire flows upon completion of this project. This project has a negligible affect on water age increasing from 0.1 to 0.2 days during the winter and no increase during the summer. Distribution System Analysis No. 017

PROPOSED IMPROVEMENTS

Replace 310 LF of 4" CIP with 8" DIP
 Replace 1 fire hydrant
 Replace 10 service connections

PROJECT BENEFITS

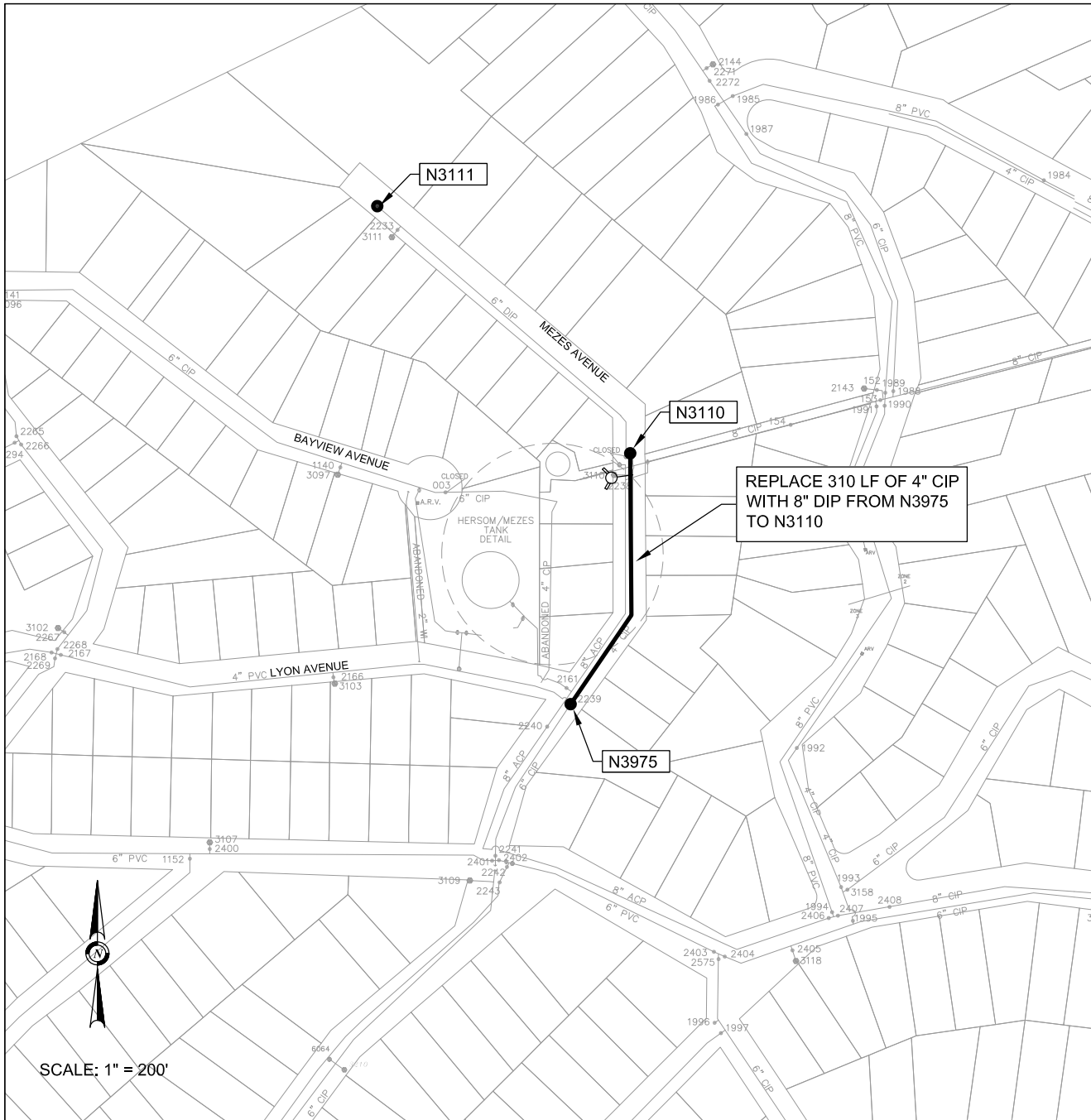
The Mezes Avenue Improvements replaces an undersized 4" water main with 8" DIP. Fire flows at the midway point along Mezes Avenue increase by 192%.

PROJECT BUDGET (2015)

8" DIP - 310 LF @ \$ 250/LF	\$ 77,500
Fire Hydrants - 1 @ \$15,000/EA	\$ 15,000
Service Connections - 10 @ \$3,000/EA	\$ 30,000
Subtotal Construction	\$ 122,500
Planning, Design & Construction Support	\$ 37,000
Contingency (±10%)	\$ 15,500
Project Budget	\$ 175,000

PROJECT COMPLETED

Completion Date:	07/18
Actual Expenditures	
Planning, Design, & Construction Support:	\$ 11,302
Construction:	\$ 247,222
Total Expenditures:	\$ 258,524



SCALE: 1" = 200'



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MID-PENINSULA WATER DISTRICT
 SAN MATEO COUNTY, CALIFORNIA
 3 DAIRY LANE
 BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
 MEZES AVENUE IMPROVEMENTS
 PROJECT 15-14

Rev 1 - 02/20
 Original 2015

ARTHUR AVENUE IMPROVEMENTS

PROJECT BACKGROUND

Water is provided to Arthur Avenue through two dead end 4" and 6" cast iron pipe (CIP) water mains: a Zone 3 water main from Coronet Blvd and a Zone 2 water main from Alameda De Las Pulgas. These undersized water mains, installed in the 1950's, are incapable of providing the minimum recommended fire flow of 1,500 gpm at 20 psi. This project replaces the existing 4" and 6" CIP with new 8" ductile iron pipe (DIP). The Zone 2 water main will be abandoned and the Zone 3 water main extended to Alameda De Las Pulgas and connected to Zone 2 with a 8" pressure reducing valve (PRV). Fifteen service connections will be replaced, 3 of which are transfers from Zone 2 to Zone 3. One hydrant will also be replaced and a new one will be installed to improve the existing hydrant spacing. Hydraulic analysis indicates a 281% increase in available fire flows along Arthur Avenue with the completion of this project. Distribution System Analysis 025

PROPOSED IMPROVEMENTS

Replace 660 LF of 4" and 6" CIP (Zone 3) with 8" DIP
 Replace 220 LF of 4" CIP (Zone 2) with 8" DIP (Zone 3)
 Install a new 8" PRV
 Install 1 new fire hydrant
 Replace 1 fire hydrant
 Replace 15 service connections

PROJECT BENEFITS

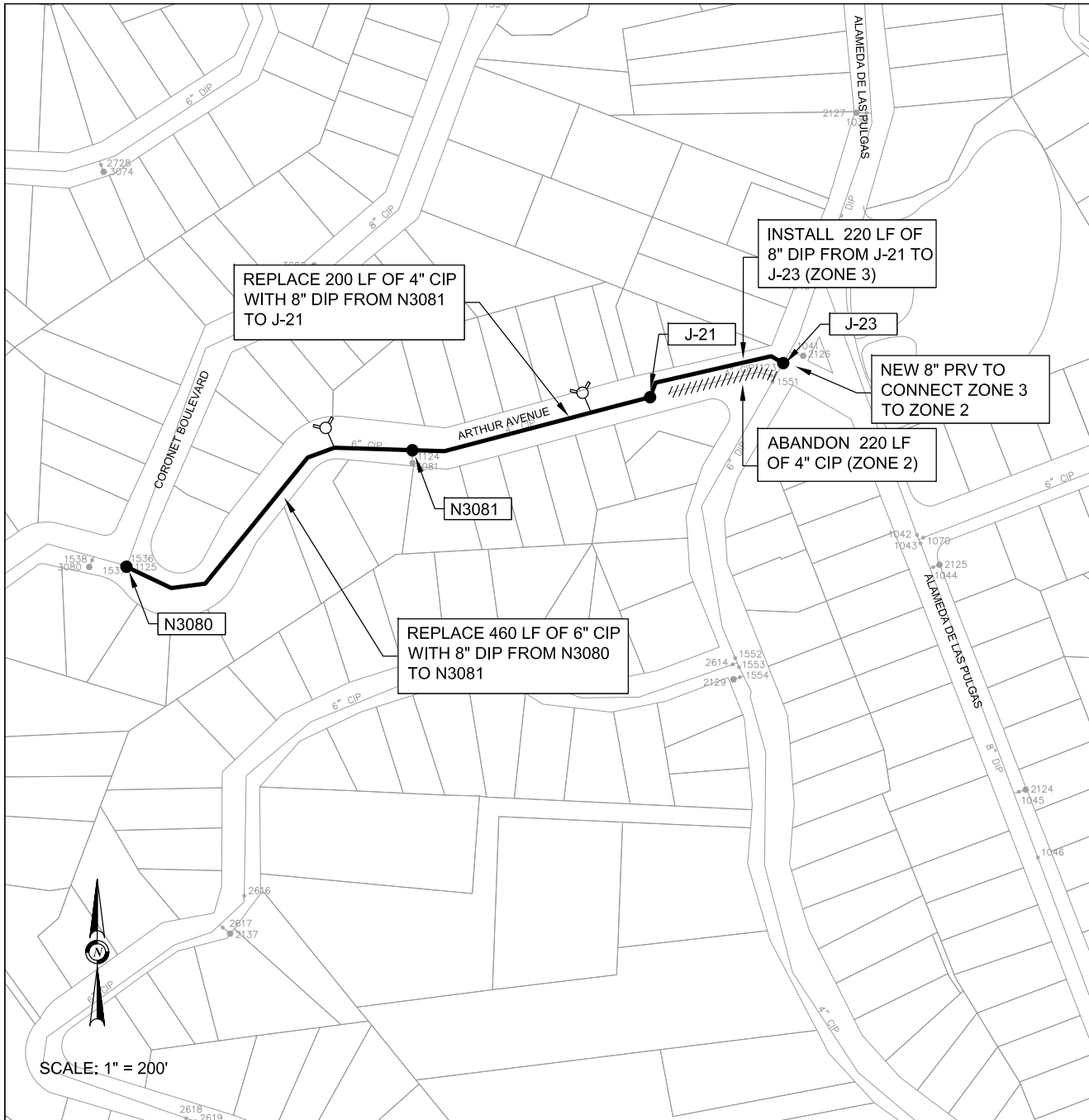
The Arthur Avenue Improvements eliminates two dead ends, replaces aging and undersized water mains with new 8" DIP, provides a direct connection between Zone 3 and Zone 2, increases fire flows on the street by 281%, improves fire hydrant spacing.

PROJECT BUDGET (2015)

8" DIP - 880 LF @ \$ 250/LF	\$ 220,000
Fire Hydrants - 2 @ \$15,000/EA	\$ 30,000
8" PRV @ \$50,000/EA	\$ 50,000
Service Connections - 15 @ \$3,000/EA	\$ 45,000
Subtotal Construction	\$ 345,000
Planning, Design & Construction Support	\$ 87,000
Contingency (±10%)	\$ 43,000
Project Budget	\$ 475,000

PROJECT COMPLETED

Completion Date:	07/18
Actual Expenditures	
Planning, Design, & Construction Support:	\$ 122,119
Construction:	\$ 578,817
Total Expenditures:	\$ 700,936



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MID-PENINSULA WATER DISTRICT
 SAN MATEO COUNTY, CALIFORNIA
 3 DAIRY LANE
 BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
 ARTHUR AVENUE IMPROVEMENTS
 PROJECT 15-22

Rev 1 - 02/20
 Original 2015

HALLMARK / DEKOVEN TANKS STRUCTURAL EVALUATIONS

PROJECT BACKGROUND

The Hallmark Tanks, located in Zone 8 at the highest point off Hallmark Drive were constructed in the late 1960's. They are the largest tanks in the District (140 ft diameter x 25 ft height) with a capacity of 2.5 MG each. They are a critical element for the entire upper portion of the District providing water to Zone 8 and primary flow down to tanks in Zones 3, 4, and 7 in addition to as-needed flow down capabilities to Zones 1, 2, 5 and 6.

The Dekoven Tanks, constructed in 1952, are a critical element of the Zone 3 water distribution system. The existing tanks are 52 and 60 feet in diameter, approximately 48 feet tall and have capacities of 720,000 gallons and 1,000,000 gallons respectively.

The structural and seismic evaluation will be an independent analysis of the site using AWWA D100 as the acceptance for essential service facilities.

PROPOSED IMPROVEMENTS

Comprehensive structural analysis to ensure the Hallmark and Dekoven tanks are capable of withstanding a 975 year earthquake.

PROJECT BENEFITS

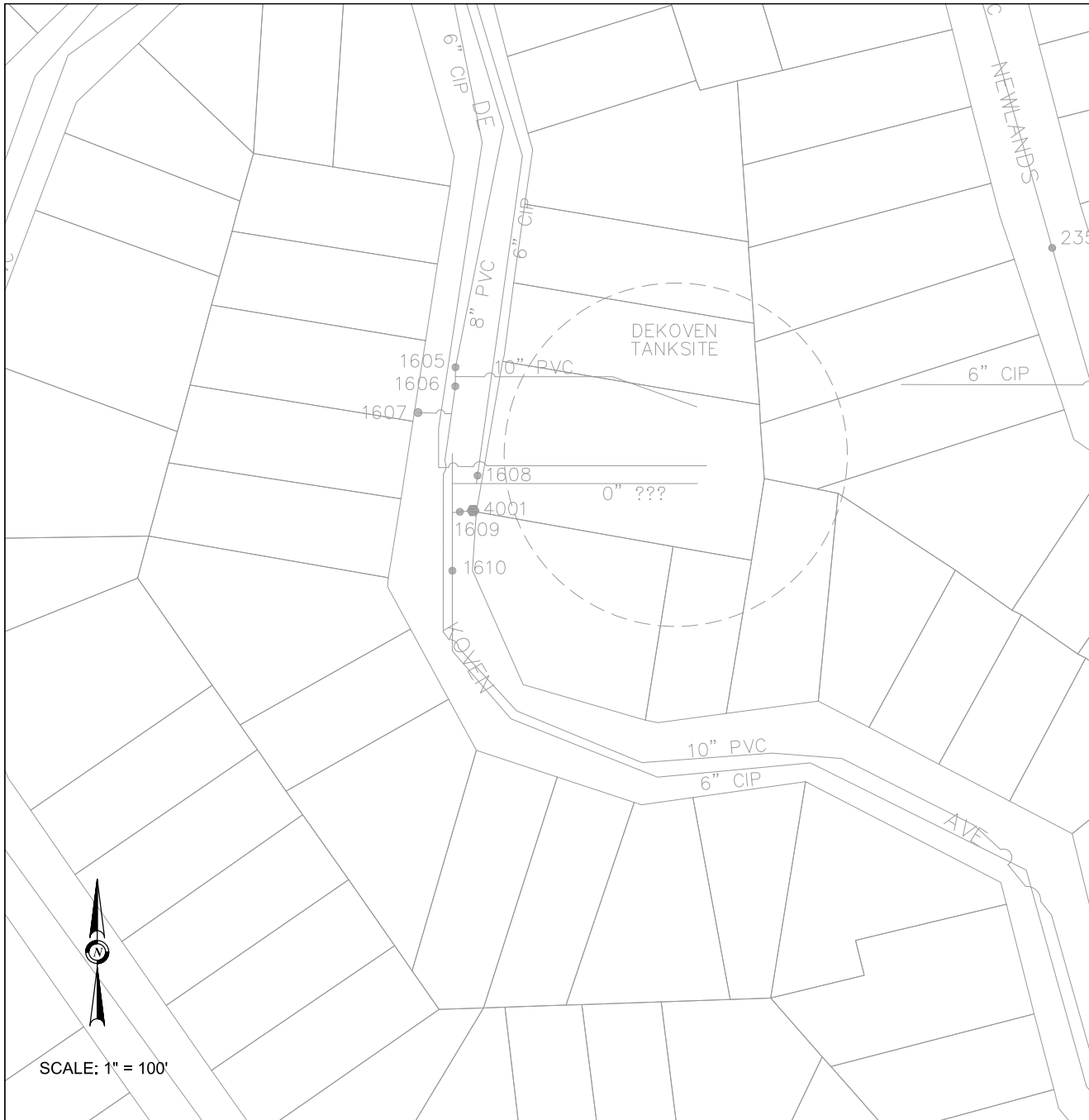
The Hallmark and Dekoven tanks will remain operational after a 975 year earthquake.

PROJECT BUDGET (2015)

Hallmark Structural Analysis/Report	\$ 50,000
Dekoven Structural Analysis/Report	\$ 50,000
Contingency (±10%)	\$ 10,000
Project Budget	\$ 110,000

PROJECT COMPLETED

Completion Date:	10/16
Actual Expenditures	
Planning, Design, & Construction Support:	\$ 88,748
Construction:	\$ N/A
Total Expenditures:	\$ 88,748



SCALE: 1" = 100'



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MID-PENINSULA WATER DISTRICT
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3 DAIRY LANE
BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM HALLMARK / DEKOVEN STRUCTURAL EVALUATIONS PROJECT 15-23

Rev 1 - 02/20
Original 2015

ALAMEDA DE LAS PULGAS IMPROVEMENTS

PROJECT BACKGROUND

The existing 6" and 8" cast iron pipe (CIP) water mains along Alameda De Las Pulgas between Cipriani Boulevard and Arbor Avenue, installed in the mid-1950s, have experienced several water main breaks over past years. During the past 10 years, the District replaced a 320 LF section with new 8" polyvinyl chloride pipe (PVC) between Coronet Boulevard and Belle Monti Avenue. This project will replace the sections of pipe on Alameda De Las Pulgas between Cipriani Boulevard and Arbor Avenue with new 8" ductile iron pipe (DIP) eliminating all Zone 3 6" pipe along this road. Other improvements include reconfiguring intersection valves, a PRV connection between Zones 2 and 3, installing a direct connection from Sharon Avenue to eliminate parallel mains, and abandonment of the "not in service" water mains. A hydraulic analysis shows there are no adverse affects of increasing the pipe size and fire flows in the area remain the same with a small increase of residual pressure. Distribution System Analysis No. 032

PROPOSED IMPROVEMENTS

Replace 1,455 LF of 6"/8" CIP with 8" DIP
Two abandonments
6" PRV between Zones 2 and 3
Replace 4 fire hydrant assemblies
Replace 32 service connections

PROJECT BENEFITS

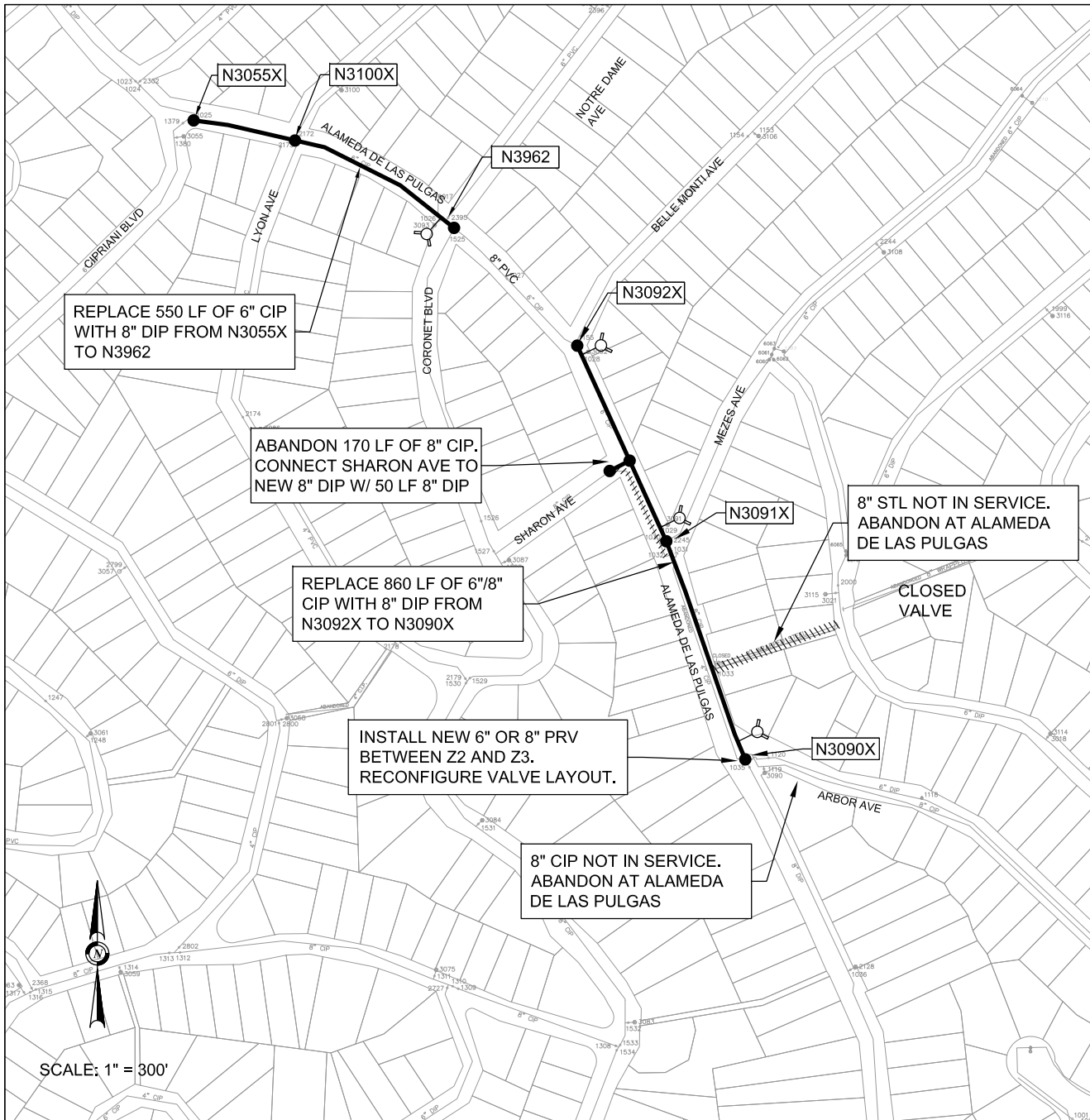
The Alameda De Las Pulgas Improvements eliminates a bottlenecks, replaces old and aging infrastructure prone to main breaks, and reconfigures the existing layout.

PROJECT BUDGET (2015)

1,460 LF - 8" DIP @ \$ 250/LF	\$ 365,000
Two Abandonments @ \$10,000/EA	\$ 20,000
6" PRV Connection	\$ 50,000
4 Fire Hydrants @ \$15,000/EA	\$ 60,000
32 Service Connections @ \$3,000/EA	\$ 96,000
Subtotal Construction	\$ 591,000
Planning, Design & Construction Support	\$ 118,000
Contingency (±10%)	\$ 71,000
Project Budget	\$ 780,000

PROJECT COMPLETED

Completion Date:	09/16
Actual Expenditures	
Planning, Design, & Construction Support:	\$ -
Construction:	\$ 655,765
Total Expenditures:	\$ 655,765



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MID-PENINSULA WATER DISTRICT
SAN MATEO COUNTY, CALIFORNIA
3 DAIRY LANE
BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
ALAMEDA DE LAS PULGAS IMPROVEMENTS
PROJECT 15-30

Rev 1 - 02/20
Original 2015

MONSERAT AVENUE CROSS COUNTRY ABANDONMENT

PROJECT BACKGROUND

A cross country 6" cast iron pipe (CIP) water main exists between Monserat Avenue and Monte Cresta Drive just north of San Juan Boulevard. This water main, constructed in 1956, runs between 2630 and 2632 Monserat Avenue at the top (elev. 432 ft) and extends downhill to between 2602 and 2600 Monte Cresta Drive at the bottom (elev. 299 ft). Should a break occur on this section of water main, there is significant risk of water damage to the homes on Monte Cresta Drive. A hydraulic analysis shows the abandonment of this water main has no adverse effects on fire flows within the area. Distribution System Analysis No. 033

PROPOSED IMPROVEMENTS

Abandon 355 LF 6" CIP

PROJECT BENEFITS

The Monserat Avenue Cross Country Abandonment eliminates a cross country 6" CIP without adversely affecting fire flows within the area.

PROJECT BUDGET (2015)

Abandonments at each end @ \$10,000/ea	\$ 20,000
Subtotal Construction	\$ 20,000
Planning, Design & Construction Support	\$ 7,000
Contingency (±10%)	\$ 3,000
Project Budget	\$ 30,000

PROJECT COMPLETED

Completion Date:	10/17
Actual Expenditures	
Planning, Design, & Construction Support:	\$
Construction:	\$ 10,000
Total Expenditures:	\$ 10,000

ABANDON 355 LF OF 6" CIP
CROSS COUNTRY MAIN
FROM N3022 TO N3921

N3022

N3921

SCALE: 1" = 200'



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MID-PENINSULA WATER DISTRICT
SAN MATEO COUNTY, CALIFORNIA
3 DAIRY LANE
BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
MONSERAT AVENUE CROSS COUNTRY ABANDONMENT
PROJECT 15-31

Rev 1 - 02/20
Original 2015

NORTH ROAD CROSS COUNTRY / DAVEY GLEN ROAD IMPROVEMENTS

PROJECT BACKGROUND

The water mains along Davey Glen Road were installed in 1961 and comprise of 600 LF of 6" cast iron pipe (CIP) and 800 LF of 8" CIP. Water is supplied to Davey Glen from Middle Road and a 6" CIP cross country (CC) water main, installed in 1962, extending down from North Road to where the 6" CIP on Davey Glen transitions to the 8" CIP. The CC water main runs beneath a 4 FT wide sidewalk along a dedicated easement. Beyond the edge of walk the terrain drops fairly steeply where at its base is an apartment complex pool and common area. Any breaks along this alignment could result in significant damage to both the hillside and the apartment complex below. This project abandons the CC water main and replaces 1,400 LF of CIP water main along Davey Glen Road with 8" DIP to correct fire flow deficiencies upon the CC abandonment. Hydraulic analysis indicates a fire flow decrease of up to 38% from approximately 2,400 gpm to 1,500 gpm with these improvements. However, combining this project with the South Road Improvements (DSA 045) brings the majority of the fire flows to above 2,000 gpm with a select few around 1,800 gpm. Distribution System Analysis No. 044.

PROPOSED IMPROVEMENTS

Abandon 400 LF of 6" CC CIP
Replace 1,400 LF of 6" & 8" CIP w/ 8" DIP
Replace 5 fire hydrants
Replace 17 service connections

PROJECT BENEFITS

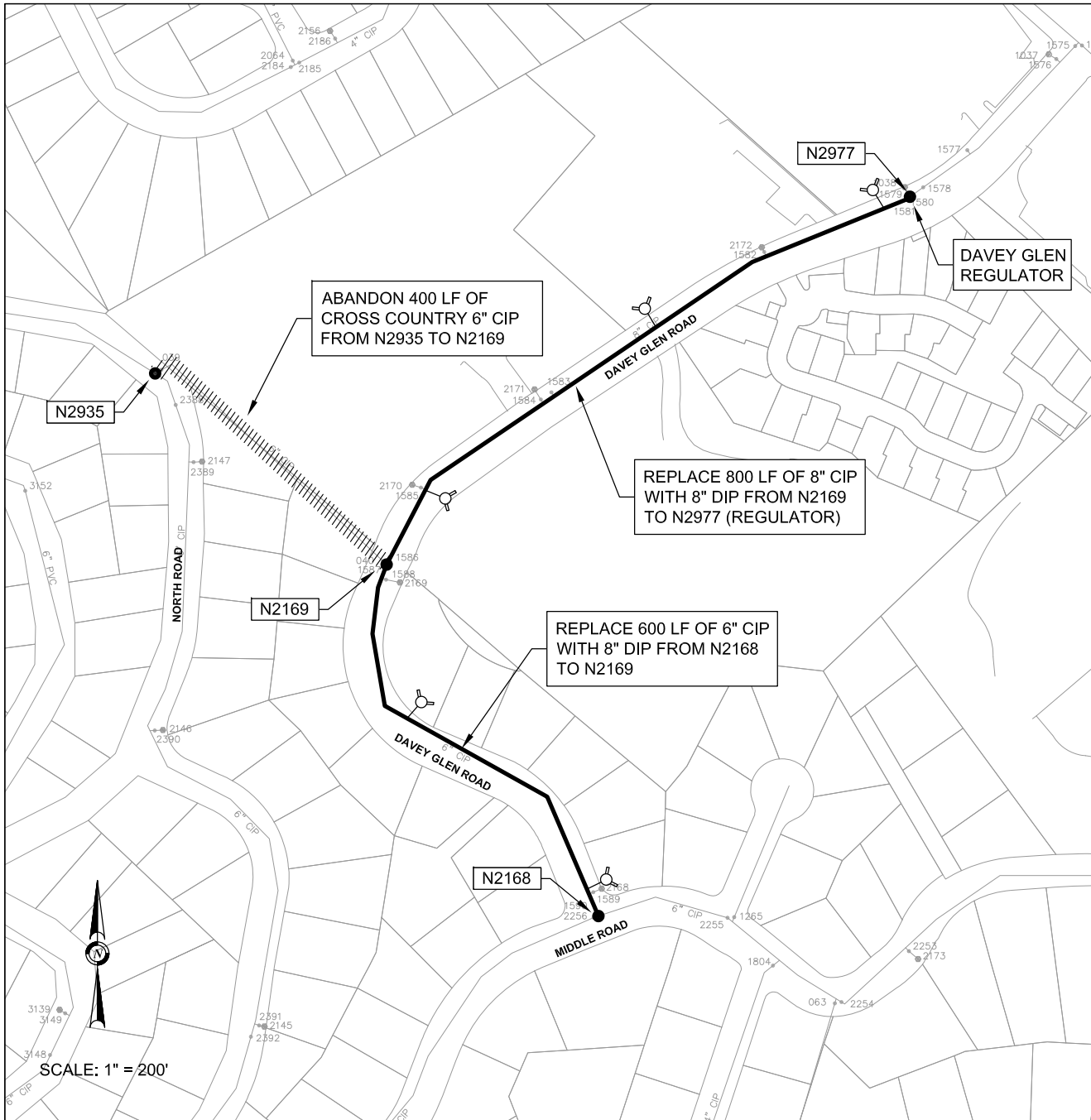
The North Road Cross Country / Davey Glen Road Improvements abandons a CC water main, reduces District maintenance, and replaces an aging water main along Davey Glen Road.

PROJECT BUDGET (2015)

Pipe Abandonment - 2 @ \$10,000/End	\$ 20,000
8" DIP - 1,400 LF @ \$250/LF	\$ 350,000
Fire Hydrants - 5 @ \$15,000/EA	\$ 75,000
Service Connections - 17 @ \$3,000/EA	\$ 51,000
Subtotal Construction	\$ 496,000
Planning, Design & Construction Support	\$ 124,000
Contingency (±10%)	\$ 60,000
Project Budget	\$ 680,000

PROJECT COMPLETED

Completion Date:	03/19
Actual Expenditures	
Planning, Design, & Construction Support:	\$ 336,238
Construction:	\$ 702,426
Total Expenditures:	\$ 1,038,664



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MID-PENINSULA WATER DISTRICT
SAN MATEO COUNTY, CALIFORNIA
3 DAIRY LANE
BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM NORTH ROAD CROSS COUNTRY / DAVEY GLEN ROAD IMPROVEMENTS PROJECT 15-43

Rev 1 - 02/20
Original 2015

SOUTH ROAD ABANDONMENT

PROJECT BACKGROUND

South Road between Notre Dame Avenue and College View Way has 1,325 LF of parallel 4" cast iron (CIP) and 8" polyvinyl chloride (PVC) water mains. The 4" CIP and 8" PVC were installed in 1940 and 1983 respectively. According to the District GIS and hydraulic model, all branches off South Road including Middle Road, Debbie Lane, Hainline Drive, Korbel Way, Vannier Drive, and College View Way, are connected to the 4" CIP thereby restricting water flow and reducing fire flows to those areas. Fire flows in the immediate area, under existing conditions, are below minimum recommendations of 1,500 gpm at 20 psi. This project abandons the 4" CIP and reconnects all branches on this stretch of water main to the 8" PVC. Three new fire hydrants will also be added to the alignment to improve hydrant spacing in the area. Hydraulic analysis indicates an increase in fire flows as high as 175% (2,400 gpm) with an average increase of over 57%. Approximately 19 service connections would also be transferred from the 4" CIP to the 8" PVC. This project also provides additional fire flow benefits when combined with other DSA's within the area. Distribution System Analysis No. 045

PROPOSED IMPROVEMENTS

Abandon 1,325 LF of 4" CIP
Reconnect 6 branches to the existing 8" PVC
Install 3 new fire hydrants
Replace 19 service connections

PROJECT BENEFITS

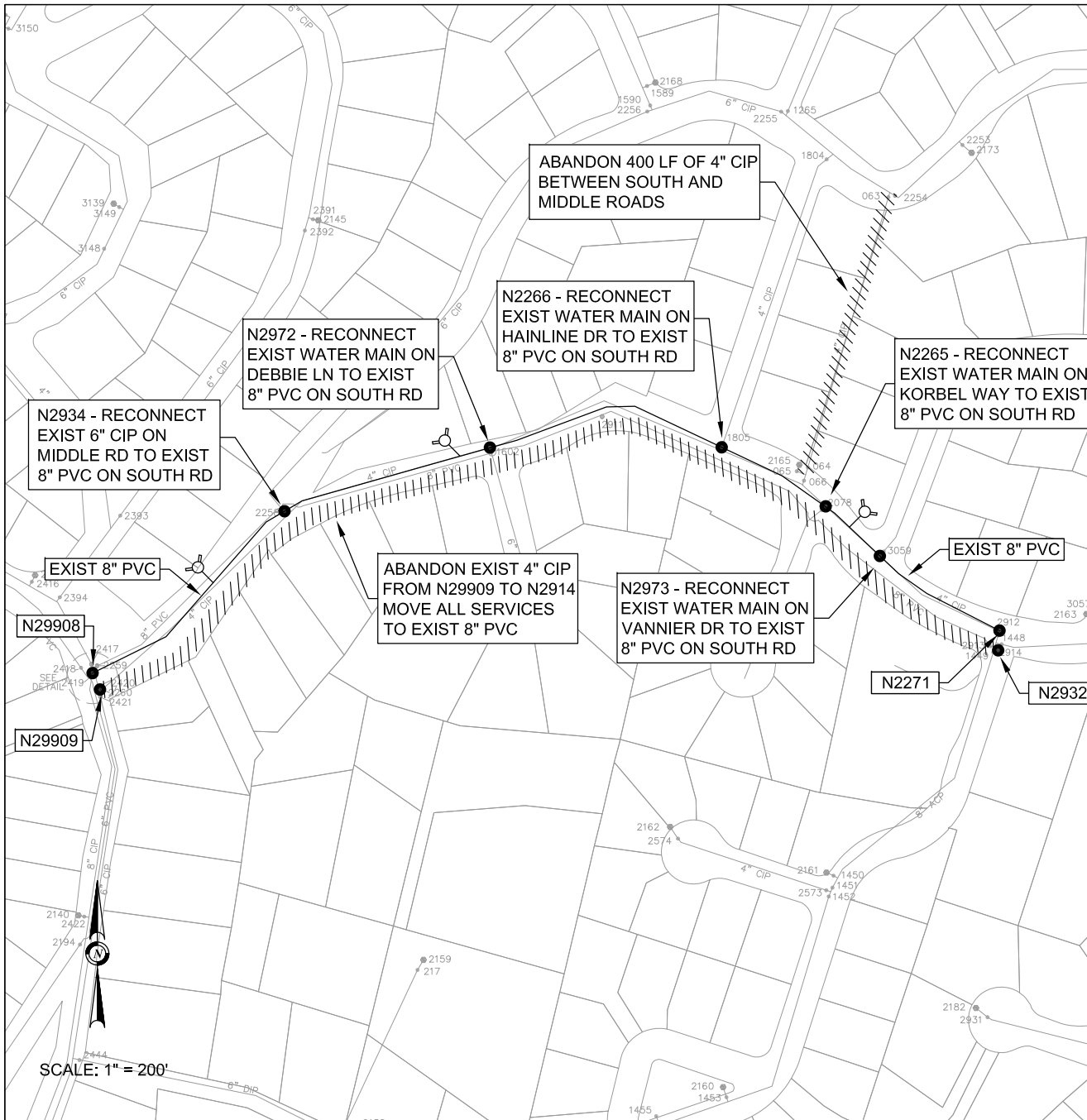
The South Road Abandonment abandons an old and aging water main, reduces District maintenance, and increases fire flows in the area as much as 175% by moving all branches to an existing 8" PVC.

PROJECT BUDGET (2015)

Pipe Reconnects - 6 @ \$30,000/EA	\$ 180,000
Pipe Abandonments - 2 @ \$10,000/End	\$ 20,000
Fire Hydrants - 3 @ \$15,000/EA	\$ 45,000
Service Connections - 19 @ \$3,000/EA	\$ 57,000
Subtotal Construction	\$ 302,000
Planning, Design & Construction Support	\$ 75,000
Contingency (±10%)	\$ 38,000
Project Budget	\$ 415,000

PROJECT COMPLETED

Completion Date:	07/18
Actual Expenditures	
Planning, Design, & Construction Support:	\$ 46,436
Construction:	\$ 357,402
Total Expenditures:	\$ 403,838



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MID-PENINSULA WATER DISTRICT
SAN MATEO COUNTY, CALIFORNIA
3 DAIRY LANE
BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
SOUTH ROAD ABANDONMENT
PROJECT 15-44

Rev 1 - 02/20
Original 2015

FRANCIS AVENUE / COURT
IMPROVEMENTS

PROJECT BACKGROUND

Francis Avenue is located between Fairway Drive and Notre Dame Avenue and has a 640 LF 4" polyvinyl chloride (PVC) water main installed in 1975. Francis Court is located directly off Francis Avenue and also has 190 LF of 4" PVC installed in 1976. Fire flows along these streets are well below the recommended 1,500 gpm at 20 psi with flows as low as 925 gpm and 590 gpm on Francis Avenue and Francis Court respectively. In addition, no hydrant currently exists at the end of Francis Court. This project replaces a total 830 LF of 4" PVC with 8" ductile iron pipe (DIP) and adds an additional hydrant in the area. Hydraulic analysis indicates fire flow increases as much as 300% to over 2,350 gpm upon completion of this project. Distribution System Analysis No. 055

PROPOSED IMPROVEMENTS

- Replace 830 LF of 4" PVC with 8" DIP
- Install 1 new fire hydrant
- Replace 1 fire hydrant
- Replace 23 service connections

PROJECT BENEFITS

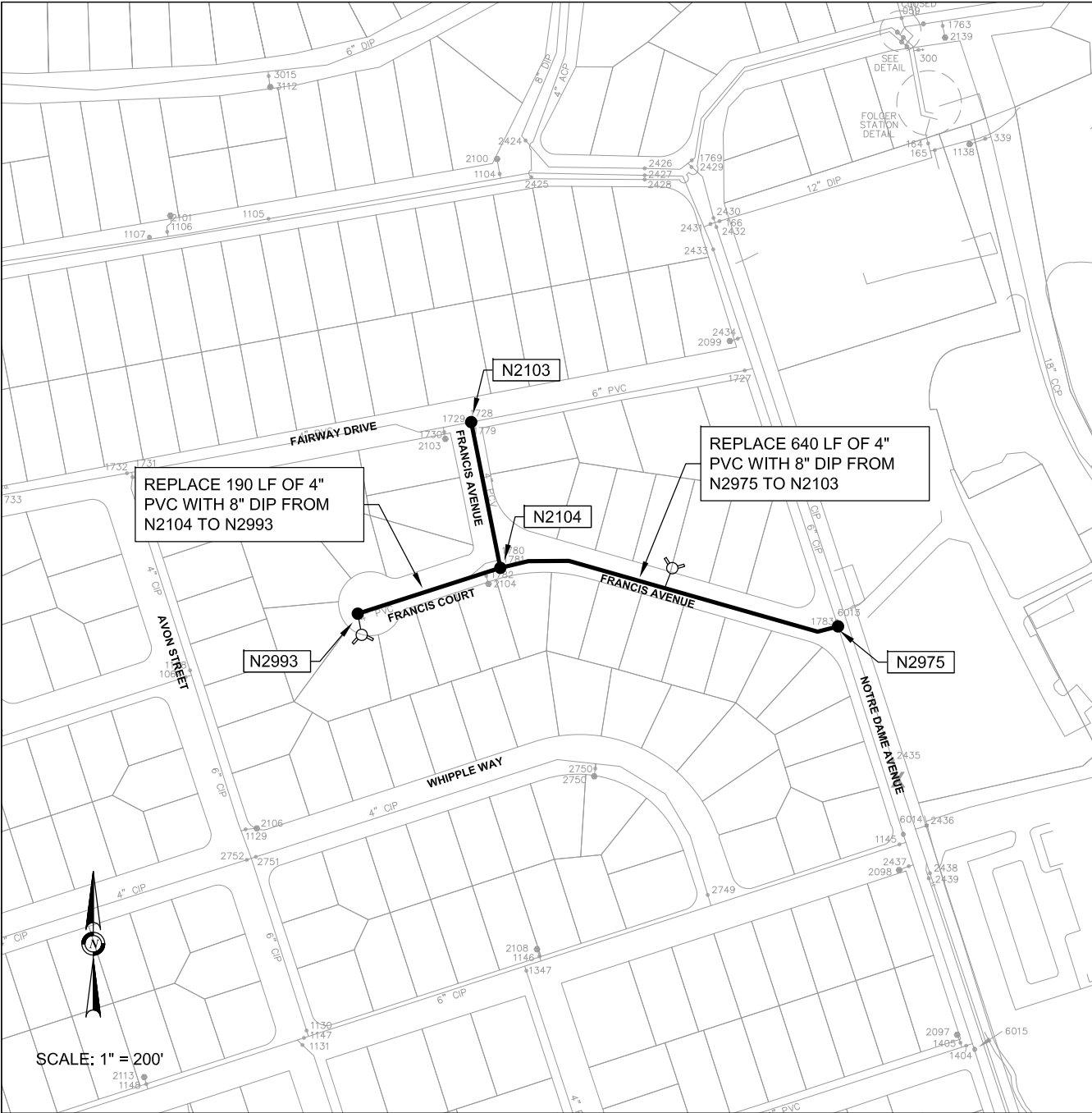
The Francis Avenue/Court Improvements replaces undersized 4" PVC water main with 8" DIP, improves fire protection with the addition of a hydrant, and improves fire flows in the area as much as 300%.

PROJECT BUDGET (2015)

830 LF - 8" DIP @ \$250/LF	\$ 207,500
Fire Hydrants - 2 @ \$15,000/EA	\$ 30,000
Service Connections - 23 @ \$3,000/EA	\$ 69,000
Subtotal Construction	\$ 306,500
Planning, Design & Construction Support	\$ 78,000
Contingency (±10%)	\$ 40,500
Project Budget	\$ 425,000

PROJECT COMPLETED

Completion Date:	03/19
Actual Expenditures	
Planning, Design, & Construction Support:	\$ 166,334
Construction:	\$ 347,483
Total Expenditures:	\$ 513,817



ACADEMY AVENUE / BELBURN DRIVE IMPROVEMENTS

PROJECT BACKGROUND

Academy Avenue between Ralston Avenue and Belburn Drive has two parallel water mains: a 600 LF 4" polyvinyl chloride (PVC) water main installed in the 1970 and a 6" cast iron (CIP) water main installed in 1977. Hydraulic analysis indicates the existing 4" PVC provides little hydraulic benefit to the system. It is assumed the existing services are located on the 4" PVC. In addition, Belburn Drive between Academy Avenue and Villa Avenue also has a 300 LF 4" PVC water main incapable of achieving the minimum recommended fire flow of 1,500 gpm at 20 psi with fire flows at 1,080 gpm. The two 4" PVC water mains aforementioned connect to each other at Academy Avenue. This project abandons the existing 4" PVC on Academy Avenue, relocates 22 service connections to the existing 6" CIP, and replaces 150 LF of PVC on Belburn Drive with 8" ductile iron pipe (DIP) connecting it to the existing 6" CIP on Academy Avenue. Hydraulic analysis indicates a 132% increase in fire flows on Belburn Drive to 2,500 gpm. Distribution System Analysis Nos. 057 and 058

PROPOSED IMPROVEMENTS

Abandon 600 LF of 4" PVC
 Replace 300 LF of 4" PVC with 8" DIP
 Replace 25 service connections (22 on Academy, 3 on Belburn)

PROJECT BENEFITS

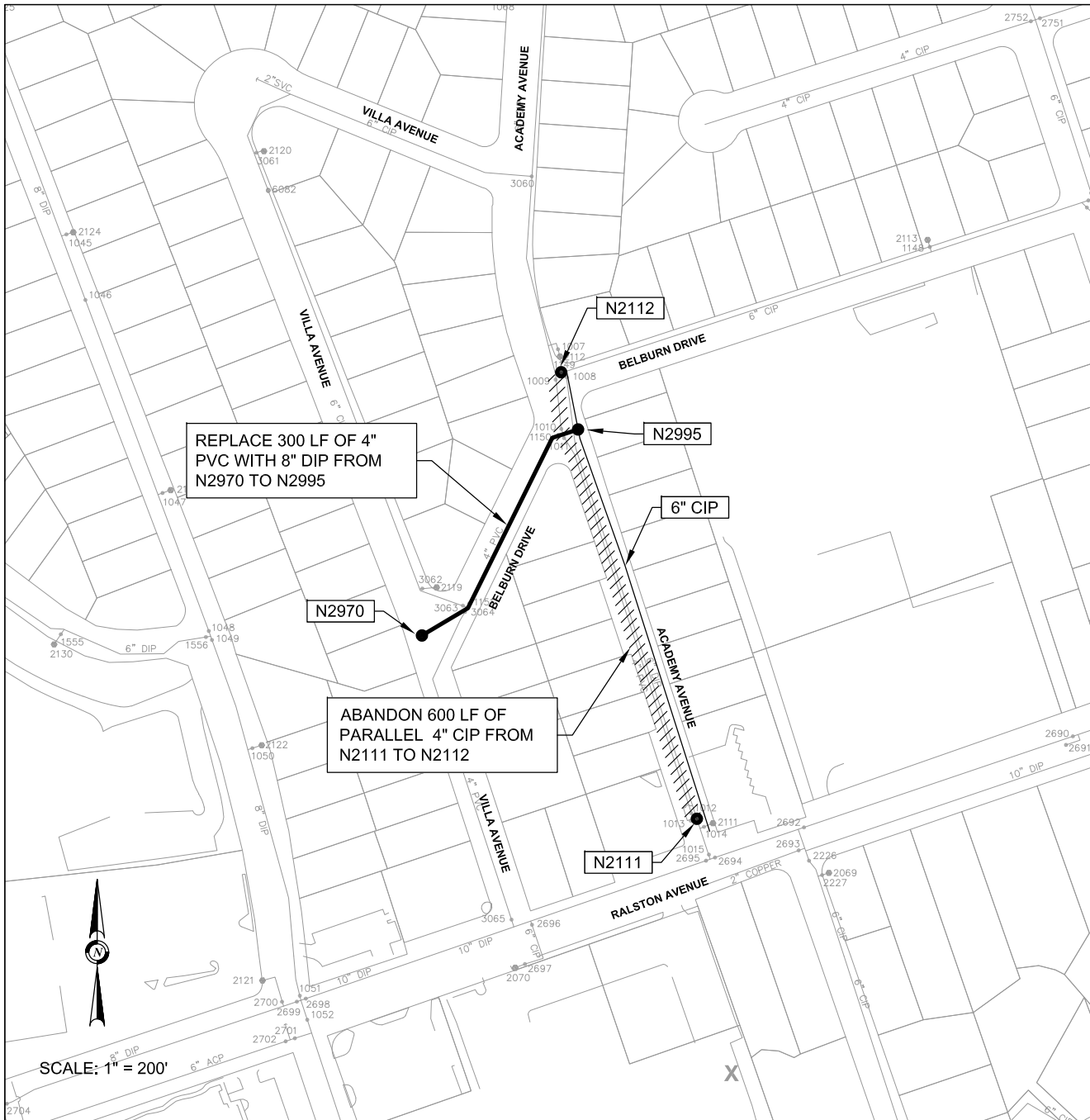
The Academy Avenue / Belburn Drive Improvements abandons a 4" PVC water main providing little benefit to the system, replaces old and aging 4" PVC with new 8" DIP, reduces District maintenance, and improves fire flows in the area as much as 132%.

PROJECT BUDGET (2015)

Pipe Reconnection - 1 @ \$20,000/EA	\$ 20,000
Pipe Abandonments - 2 @ \$10,000/EA	\$ 20,000
8" DIP - 300 LF @ \$250/LF	\$ 75,000
Service Connections - 25 @ \$3,000/EA	\$ 75,000
Subtotal Construction	\$ 190,000
Planning, Design & Construction Support	\$ 57,000
Contingency (±10%)	\$ 23,000
Project Budget	\$ 270,000

PROJECT COMPLETED

Completion Date:	03/19
Actual Expenditures	
Planning, Design, & Construction Support:	\$ 105,454
Construction:	\$ 220,300
Total Expenditures:	\$ 325,754



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JOB No.	10012.07
DATE	10/8/19
SCALE	AS NOTED
DRAWN:	BY <u>BL</u> CKD <u>JP</u>

MID-PENINSULA WATER DISTRICT
 SAN MATEO COUNTY, CALIFORNIA
 3 DAIRY LANE
 BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
ACADEMY AVENUE / BELBURN DRIVE IMPROVEMENTS
PROJECT 15-53

Rev 1 - 02/20
 Original 2015

FOLGER DRIVE IMPROVEMENTS

PROJECT BACKGROUND

The water mains along Folger Drive are comprised of 350 LF of 10" polyvinyl chloride (PVC) and 700 LF of 6" CIP. The 10" PVC was installed in 1987 and the 6" CIP in 1935, one of the oldest water mains in the District. Due to age, the District has reported several leaks on the 6" CIP. This project replaces the 6" CIP with a new 10" DIP further continuing the 10" up to Notre Dame Avenue. Upon completion of the parallel water main replacement along Notre Dame Avenue between Folger Drive and Ralston with a new 10" DIP, 10" pipe will extend further beyond the Hannibal Pump Station. This project also replaces 130 LF of 6" CIP on Folger Court, installed in 1959, with an 8" DIP. A total of 3 fire hydrants and 12 services would be replaced along Folger Drive and Folger Court.

PROPOSED IMPROVEMENTS

Replace 700 LF of 6" CIP with 10" DIP
 Replace 130 LF of 6" CIP with 8" DIP
 Replace 3 fire hydrants
 Replace 12 service connections

PROJECT BENEFITS

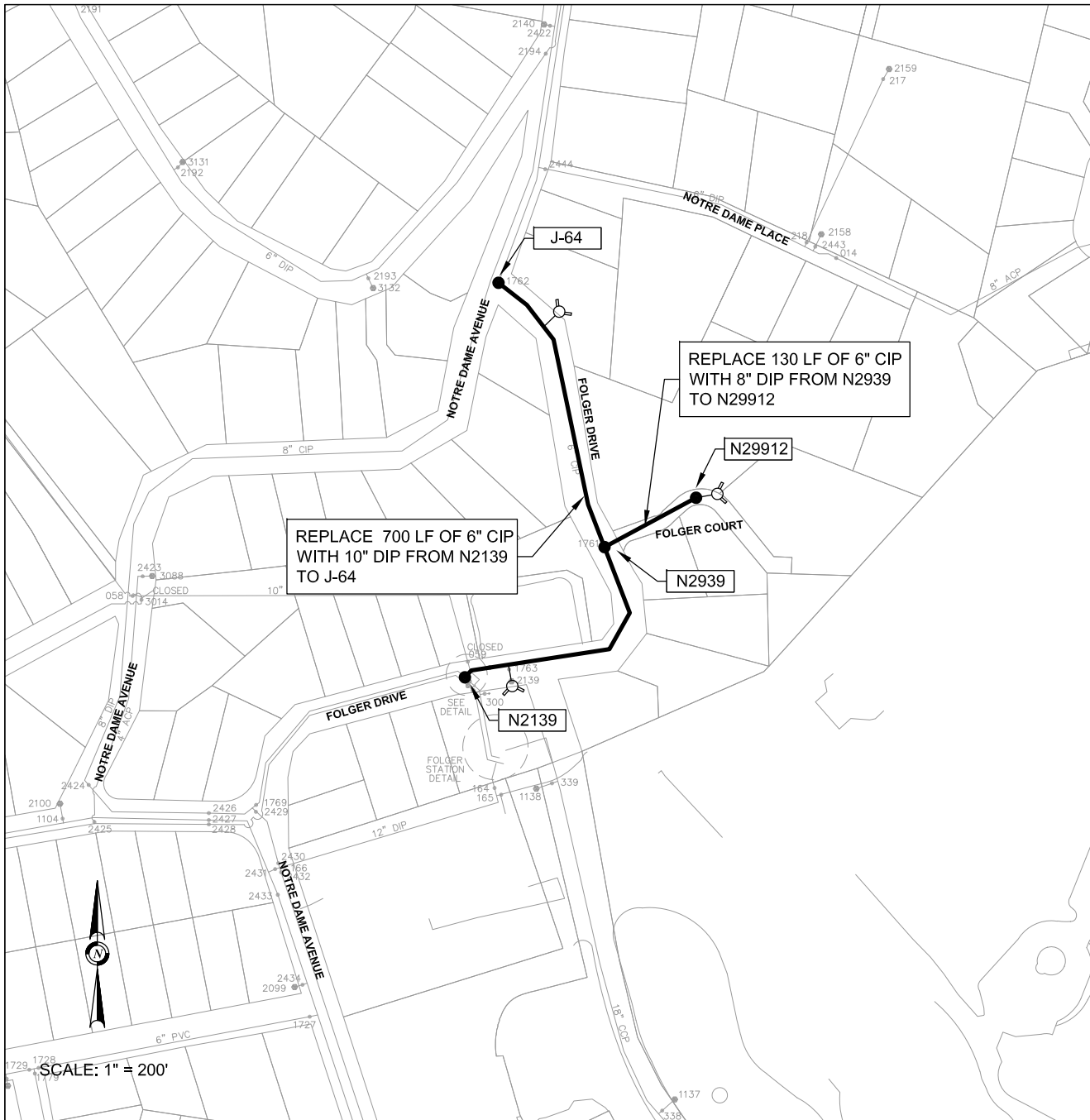
The Folger Drive Improvements replaces old and aging 6" CIP water mains that have experienced significant leaks with a new 8" or 10" DIP. This also extends the 10" water main from Hannibal Pump Station further up towards Hersom Tank.

PROJECT BUDGET (2015)

10" DIP - 700 LF @ \$275/LF	\$ 192,500
8" DIP - 130 LF @ \$250/LF	\$ 32,500
Fire Hydrants - 3 @ \$15,000/EA	\$ 45,000
Service Connections - 12 @ \$3,000/EA	\$ 36,000
Subtotal Construction	\$ 306,000
Planning, Design & Construction Support	\$ 77,000
Contingency (±10%)	\$ 37,000
Project Budget	\$ 420,000

PROJECT COMPLETED

Completion Date:	07/18
Actual Expenditures	
Planning, Design, & Construction Support:	\$ 124,825
Construction:	\$ 460,761
Total Expenditures:	\$ 585,586



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MID-PENINSULA WATER DISTRICT
 SAN MATEO COUNTY, CALIFORNIA
 3 DAIRY LANE
 BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
 FOLGER DRIVE IMPROVEMENTS
 PROJECT 15-65

Rev 1 - 02/20
 Original 2015

KAREN ROAD IMPROVEMENTS

PROJECT BACKGROUND

Karen Road is located immediately parallel to SR 101 between Harbor Boulevard and O'Neill Avenue and has two parallel water mains: an 800 LF 8" cast iron (CIP) installed in 1952 and an 800 LF 12" asbestos cement (AC) installed in 1957. The 12" AC is part of a continuous 12" transmission main serving Zone 1 on the eastern side of SR 101 whereas the 8" CIP is primarily used for the hydrants and service connections. The District has reported several leaks and subsequent repairs along the 8" CIP. Hydraulic analysis indicates the parallel water mains can be reduced to a single 8" water main with no affects on fire flows. In addition, with the likelihood of the 12" AC SR 101 crossing being relocated to the PAMF easement (CIP 15-72), there is no need for an additional 12" along Karen Road. Distribution System Analysis No. 078

PROPOSED IMPROVEMENTS

Replace 800 LF of parallel 12" AC and 8" CIP with a new single 8" PVC
 Replace 2 fire hydrants
 Replace 9 service connections
 Cathodic protection of all metallic fittings/materials

PROJECT BENEFITS

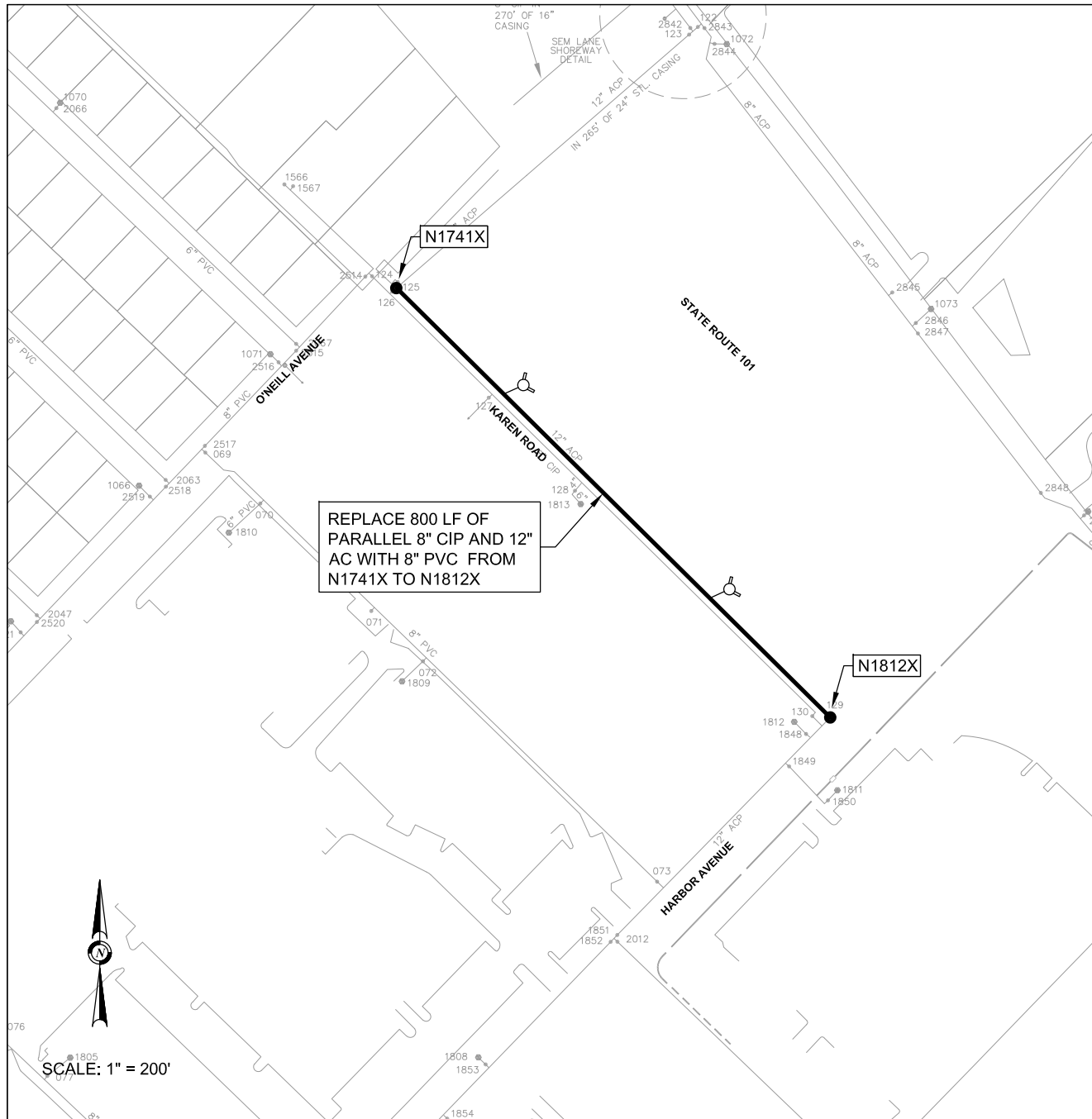
The Karen Road Improvements replaces two old and aging water mains prone to leaks and service repairs, and minimizes maintenance.

PROJECT BUDGET (2015)

Abandon 12" AC @ \$20,000/LS	\$ 20,000
Abandon 8" CIP @ \$20,000/LS	\$ 20,000
8" PVC - 800 LF @ \$250/LF	\$ 200,000
Fire Hydrants - 2 @ \$15,000/EA	\$ 30,000
Service Connections - 9 @ \$3,000/EA	\$ 27,000
Caltrans Coordination @ \$10,000/LS	\$ 10,000
Subtotal Construction	\$ 307,000
Planning, Design, & Construction Support	\$ 80,000
Contingency (±10%)	\$ 38,000
Project Budget	\$ 425,000

PROJECT COMPLETED

Completion Date:	07/18
Actual Expenditures	
Planning, Design, & Construction Support:	\$ 187,909
Construction:	\$ 478,386
Total Expenditures:	\$ 666,295



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JOB No.	10012.07
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SCALE	AS NOTED
DRAWN:	BY <u>BL</u> CKD <u>JP</u>



MID-PENINSULA WATER DISTRICT
 SAN MATEO COUNTY, CALIFORNIA
 3 DAIRY LANE
 BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
 KAREN ROAD IMPROVEMENTS
 PROJECT 15-73

Rev 1 - 02/20
 Original 2015

MALCOLM AVENUE AREA IMPROVEMENTS

PROJECT BACKGROUND

The neighborhood along Malcolm Avenue, Anita Avenue, Julia Court, and Belmont Avenue is currently served by Zone 2 and consists of 55 residences and 5 fire hydrants. Streets to the immediate north of Malcolm Avenue and those on Ruth Avenue and North Road are all served by Zone 1. The zones are connected at the North Road Regulating Station in addition to four other connections via closed valves creating 5 dead ends within the area. This project eliminates all the dead ends except the one associated with the North Road Regulator by installing a new parallel 550 LF ductile iron pipe (DIP) water main along the existing Zone 2 water main on Malcolm Avenue. The existing Zone 2 water main would become part of Zone 1 and the new water main would become part of Zone 2. Hydraulic analysis indicates a static pressure loss of approximately 40 psi to an average 98 psi with the Zone 2 to Zone 1 switch. Fire flows are minimally affected with differences around 100 gpm on average however the majority of the flows are above 2,000 gpm. Distribution System Analysis No. 079

PROPOSED IMPROVEMENTS

Install 550 LF of 8" DIP along Malcolm Avenue
Reconfigure Zone 1 and 2 boundaries
Replace 2 service connections

PROJECT BENEFITS

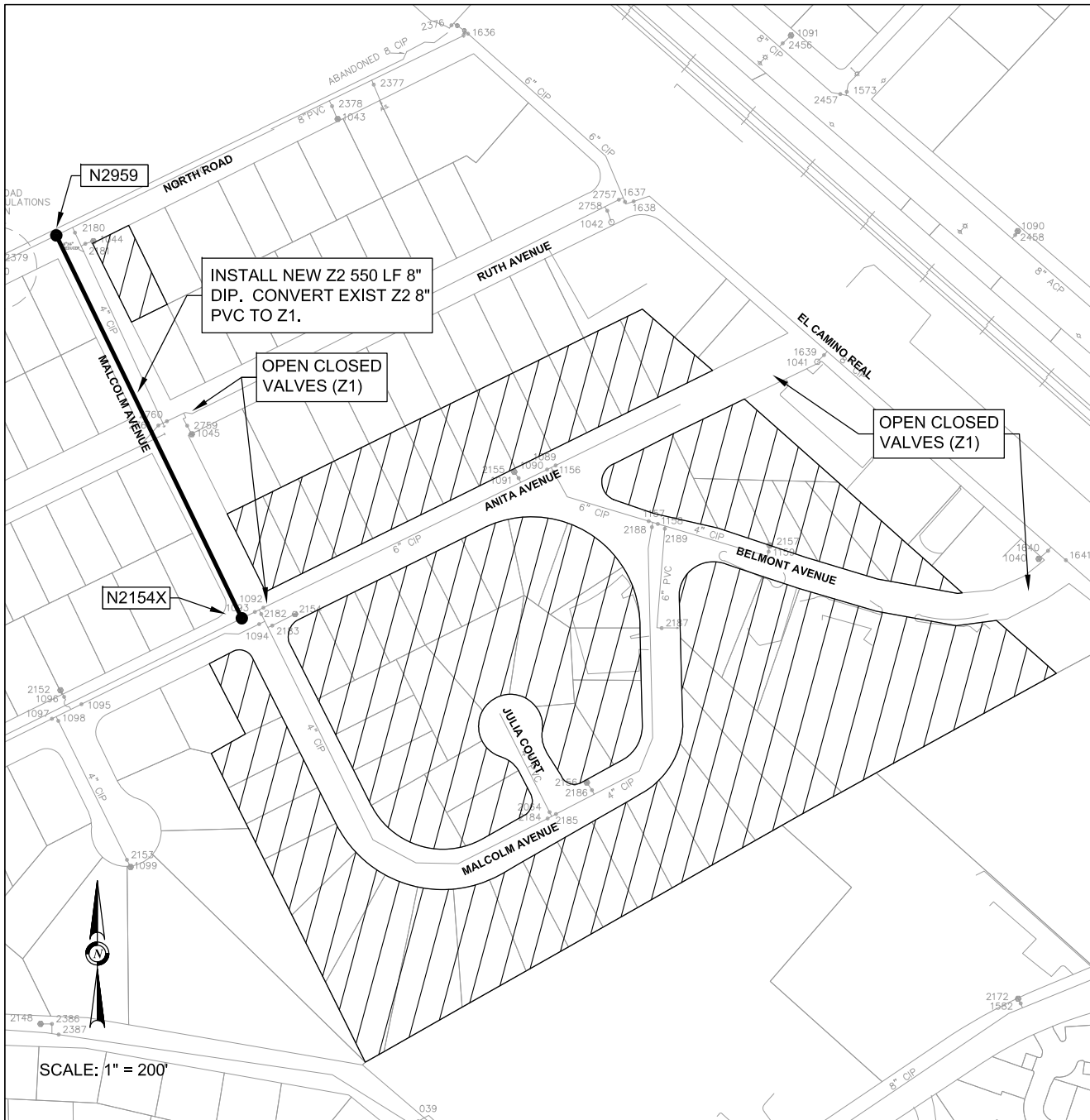
The Malcolm Avenue Area Improvements include reduced static pressures, elimination of 4 dead ends, creating a completely looped system in both Zones 1 and 2, increased fire protection for a few select nodes.

PROJECT BUDGET (2015)

8" DIP - 550 LF @ \$250/LF	\$ 137,500
Tie-Ins - 4 @ \$10,000/EA	\$ 40,000
Service Connections - 2 @ \$3,000/EA	\$ 6,000
Subtotal Construction	\$ 183,500
Planning, Design, & Construction Support	\$ 57,000
Contingency (±10%)	\$ 24,500
Project Budget	\$ 265,000

PROJECT COMPLETED

Completion Date:	12/19
Actual Expenditures	
Planning, Design, & Construction Support:	\$ -
Construction:	\$ 225,000
Total Expenditures:	\$ 225,000



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JOB No. 10012.07
DATE 10/8/19
SCALE AS NOTED
DRAWN: BY BL
CKD JP



MID-PENINSULA WATER DISTRICT
SAN MATEO COUNTY, CALIFORNIA
3 DAIRY LANE
BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
MALCOLM AVENUE AREA IMPROVEMENTS
PROJECT 15-74

Rev 1 - 02/20
Original 2015



HILLCREST CONNECTION PRESSURE REGULATING STATION

PROJECT BACKGROUND

The District's water is supplied from the SFPUC at two main inlets: the Tunnels Pump Station, located on Canada Road near the Crystal Springs Reservoir, and Hillcrest Meters, located in Redwood City. The Tunnels Pump Station sends water into Zone 8 (the highest zone in the District) and the Hillcrest Meters sends water into Zone 1 (the lowest zone in the District). The Hillcrest Meters connection is a simple connection with a flow meter and has no pressure regulating capabilities. The District has reported multiple pressure fluctuations in Zone 1 due to SFPUC oscillating pressures upstream of the meter. Because of the incapability of regulating pressures downstream of the SFPUC connection, the District has run into operational issues. This project installs a pressure regulating station consisting of multiple pressure reducing valves (PRV) to operate under specific Zone 1 operating conditions. A new vault will be constructed downstream of the Hillcrest Meters and will house up to 3 PRV's, two 6" and one 8". Each PRV will operate under conditions such as low flows, high demands, and under Hannibal Pump Station operation.

PROPOSED IMPROVEMENTS

Install a pressure regulating station at the Hillcrest Meters

PROJECT BENEFITS

The Hillcrest Connection Pressure Regulating Station allows the District to maintain a more constant pressure in Zone 1 and eliminates pressure fluctuations caused by the SFPUC system.

PROJECT BUDGET (2015)

Pressure Regulating Station	\$ 250,000
Subtotal Construction	\$ 250,000
Planning, Design, & Construction Support	\$ 65,000
Contingency (±10%)	\$ 30,000
Project Budget	\$ 345,000

PROJECT COMPLETED

Completion Date:	07/19
Actual Expenditures	
Planning, Design, & Construction Support:	\$ 222,802
Construction:	\$ 630,520
Total Expenditures:	\$ 853,322



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JOB No.	10012.07
DATE	10/8/19
SCALE	AS NOTED
DRAWN: BY	BL
CKD	JP



MID-PENINSULA WATER DISTRICT
SAN MATEO COUNTY, CALIFORNIA
3 DAIRY LANE
BELMONT, CA 94002

CAPITAL IMPROVEMENT PROGRAM
HILLCREST REGULATING STATION
PROJECT 15-87

Rev 1 - 02/20
Original 2015

RESOLUTION NO. 2016-06

**ADOPTING MPWD COMPREHENSIVE SYSTEM ANALYSIS AND
CAPITAL IMPROVEMENT PROGRAM FY 2016-2017 UPDATE, AND
AUTHORIZING MPWD 5-YEAR CAPITAL IMPROVEMENT PROGRAM
FOR FISCAL YEARS 2016/2017 THROUGH 2020/2021**

* * *

MID-PENINSULA WATER DISTRICT

WHEREAS, the Mid-Peninsula Water District ("MPWD") completed a comprehensive water hydraulic model of the entire MPWD system over the course of the past 18 months; and

WHEREAS, almost 90 capital improvement projects were identified for completion as a result of the water hydraulic modeling, and a list of six scoring criteria was developed in order to rank and prioritize each of the 90 capital projects; and

WHEREAS, an updated FY 2016/2017 Comprehensive System Analysis and Capital Improvement Program report was developed by the District Engineer and MPWD staff, and presented to the Board of Directors at its May 26, 2016, regular meeting; and

WHEREAS, a preliminary draft 5-year capital improvement program was introduced to the Board of Directors on November 16, 2015, totaling \$12 million, and the Board provided direction to staff to revise it to expand beyond what the MPWD is currently funding on a pay-go basis and develop financing options; and

WHEREAS, a revised 5-year capital improvement program was developed totaling \$25 million and presented to the Board on December 16, 2015, and was accepted in principle but not approved until financing options were reviewed and considered; and

WHEREAS, on April 28, 2016, updated cash flow projections for FY 2016/2017 were presented by MPWD's rate consultant Bartle Wells Associates, and financing alternatives for potential capital improvements were created by the MPWD's Municipal Finance Advisors based upon the updated cash flow projections and presented to the Board at that same meeting; and

WHEREAS, as a result of the updated financial information for FY 2016/2017, staff

modified the MPWD's 5-year capital planning and presented the Board with three (3) program alternatives on May 26, 2016, and recommended Alternative One totaling \$20,000,000.

NOW, THEREFORE, BE IT RESOLVED that the Board of Directors of the Mid-Peninsula Water District hereby:

1. Adopts the MPWD Comprehensive System Analysis and Capital Improvement Program FY 2016/2017 Update Report; and
2. Authorizes the 5-Year Capital Improvement Program for Fiscal Years 2016/2017 through 2020/2021 totaling \$20,000,000 (attached as Exhibit "A").

BE IT FURTHER RESOLVED that the Board directs staff to commence coordination with the MPWD's Municipal Finance Advisor on developing the appropriate financing options for the 5-Year Capital Improvement Program, that are most advantageous for the Mid-Peninsula Water District, for presentation to the Board at an upcoming regular meeting.

REGULARLY PASSED AND ADOPTED this 26th day of May 2016, by the following vote:

AYES: Linville, Stuebing, Vella, and Zucca

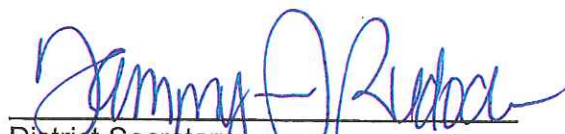
NOES: 0

ABSENT: Warden



President, Board of Directors
Mid-Peninsula Water District

ATTEST:



District Secretary



**5-YEAR CAPITAL IMPROVEMENT PROGRAM
FY 2016/2017 THROUGH FY 2020/2021**

PROJECT NUMBER	PROJECT NAME	PROJECTED COST (2015)
15-14	Mezes Avenue Improvements	\$ 175,000
15-76	El Camino Real Improvements	2,100,000
15-65	Folger Drive Improvements	420,000
15-73	Karen Road Improvements	425,000
15-10	Notre Dame Avenue Loop Closure	910,000
15-44	South Road Abandonment	415,000
15-22	Arthur Avenue Improvements	475,000
15-16	Williams Avenue, Ridge Road, Hillman Avenue Improvements	1,100,000
15-43	North Road Cross Country/Davey Glen Road Improvements	680,000
15-06	Zone 5 Fire Hydrant Upgrades	150,000
15-78	Civic Lane Improvements	800,000
15-17	Monte Cresta Drive/Alhambra Drive Improvements	1,075,000
15-87	Hillcrest Pressure Regulating Station	345,000
15-09	Dekoven Tank Utilization Project	1,035,000
15-28	Tahoe Drive Area Improvements	510,000
15-29	Belmont Canyon Road Improvements	420,000
15-38	Cliffside Court Improvements	220,000
15-42	North Road Improvements	220,000
15-75	Old County Road Improvements	3,400,000
15-72	SR 101 Crossing at PAMF Hospital	1,670,000
15-89	Dekoven Tanks Replacement	3,500,000
	TOTAL	\$20,045,000

Project No. 15-92: AMI Completion Project (\$2.5 million) is also a priority project that could be substituted for the projects highlighted in gray.



CAPITAL IMPROVEMENT PROGRAM (CIP) FY 2019/2020 through FY 2023/2024

PROJECT NUMBER	PROJECT NAME	PROJECTED COST (2020 ESTIMATE)	2016 COP FUNDED	REVENUE (PAY-GO) FUNDED	PROJECTED CONSTRUCTION COMPLETION
15-74	COMPLETED Malcolm Avenue Water Main Replacement	\$ 355,000	\$ 225,000		FY 2019/2020
15-10, 15-06, 15-28, and 15-38	COMPLETED FY 2019/2020 Water Main Replacement Project (Notre Dame Avenue, Cliffside Court, and Tahoe Drive, and Zone 5 Fire Hydrant Upgrades)	400,000	400,000		FY 2019/2020
15-76	El Camino Real Water Main Replacement	3,520,000	3,520,000		FY 2020/2021
15-89	Dekoven Tanks Replacement	3,850,000	3,850,000		FY 2020/2021
15-72-A	SR 101 Crossing at PAMF Hospital – Phase 1 (Water Main Construction within easement on PAMF property in San Carlos from Industrial Road to PAMF property line west of SR101)	595,000	595,000		FY 2020/2021
20-08	Completion of SCADA System Replacement	420,000		253,000	FY 2020/2021
15-75-A	Old County Road Improvements – Phase 1 (Full Engineering Design from MPWD southern to northern boundaries, and construction only from MPWD southern boundary at San Carlos to Ralston Avenue)	4,030,000	4,030,000		FY 2022/2023



April 7, 2020

PROJECT NUMBER	PROJECT NAME	PROJECTED COST (2020 ESTIMATE)	2016 COP FUNDED	REVENUE (PAY-GO) FUNDED	PROJECTED CONSTRUCTION COMPLETION
15-79	F Street Improvements	315,000		315,000	FY 2022/2023
15-82	Ralston Avenue Improvements	465,000		465,000	FY 2022/2023
15-86	Folger Pump Station Demolition	330,000		330,000	FY 2020/2021
20-05	Transmission Water Main Assessments	220,000		220,000	FY 2020/2021
20-09	Dairy Lane Operations Center Rehabilitation – Phase 1 (Design, Engineering, and Project Management)	150,000		150,000	FY 2020/2021
20-10	Dairy Lane Operations Center Rehabilitation – Phase 2 (Seismic Retrofit and Rehabilitation/Construction)	1,850,000		1,850,000	FY2021/2022
20-01 and 15-40	Hastings Drive Service Connection Replacements; and Hastings Drive Water Main Replacement	910,000 485,000		910,000 485,000	FY 2021/2022
15-88	Vine Street (Zone 5) Improvements	1,065,000		1,065,000	FY 2021/2022
20-07	Harbor Boulevard Water Main Replacement (Old County Road to Karen Road)	2,900,000		2,900,000	FY 2022/2023
15-29	Belmont Canyon Road Water Main Replacement	735,000		735,000	FY 2023/2024



April 7, 2020

PROJECT NUMBER	PROJECT NAME	PROJECTED COST (2020 ESTIMATE)	2016 COP FUNDED	REVENUE (PAY-GO) FUNDED	PROJECTED CONSTRUCTION COMPLETION
15-72-B	SR 101 Crossing at PAMF Hospital – Phase 2 (Water Main Construction from PAMF property line under SR 101 east to 333 Shoreway Boulevard and north to approximately 125 Shoreway Boulevard) <i>TO BE COORDINATED WITH SILICON VALLEY CLEAN WATER SEWER FORCE MAIN REPLACEMENT PROJECT ON SHOREWAY BOULEVARD IN 2022</i>	2,765,000		2,765,000	FY 2023/2024
15-75-B	Old County Road Improvements – Phase 2 (Construction from Ralston Avenue to MPWD northern boundary at San Mateo) <i>TO BE COORDINATED WITH CITY OF BELMONT PAVING IN 2022</i>	2,065,000		2,065,000	FY 2023/2024
	TOTAL* Cost difference (\$130,000) for completed Project #15-74 plus the negotiated cost difference (\$167,000) for Project #20-08 for a total \$297,000 difference between projected costs and proposed funding.	\$27,425,000	\$12,620,000	\$14,508,000	

Key: Completed project highlighted in green.
Project highlighted in red could be advanced in priority depending upon coordination schedule.
Fiscal years separated by alternating white and gray highlighting.



April 7, 2020



DATE: April 7, 2020

TO: Board Finance Committee:
▪ Brian Schmidt, Vice President
▪ Dave Warden, Director
▪ Jeff Ira, District Treasurer

FROM: Tammy Rudock, General Manager

RE: Funding Sources for Proposed FY 2019/2020 through FY 2023/2024 CIP

MEMORANDUM

As requested last month by the Committee, here are the projected available cash/revenue-funding sources for the proposed MPWD CIP:

\$ 3,500,000	Cash Reserves – FY 2019/2020
\$ 1,500,000	Property Sale Proceeds (1513-1515 Folger Drive in Belmont) – FY 2019/2020
\$ 780,000	Property Sale Proceeds (F Street Parcel in San Carlos) – FY 2020/2021
\$ 1,000,000	Operating Surplus & Depreciation Expense Transfers to Capital – FY 2020/2021
\$ 1,300,000	Operating Surplus & Depreciation Expense Transfers to Capital – FY 2021/2022
\$ 1,300,000	Operating Surplus & Depreciation Expense Transfers to Capital – FY 2022/2023
\$ 1,300,000	Operating Surplus & Depreciation Expense Transfers to Capital – FY 2023/2024
<u>\$ 2,000,000</u>	Projected Revenues from Development (Water Capacity Charges) – FYEs 2020-2024
\$12,680,000	TOTAL



TO: Board of Directors

FROM: Tammy A. Rudock
General Manager

DATE: April 23, 2020

MANAGER'S REPORT

FOLLOW-UP FROM 02/27/2020 REGULAR BOARD MEETING

- Received an extension on the proposal from Tom Hovorka and Cheryl Villanueva for the Real Estate and Brokerage Services.
- Staff will post the approved updated MPWD Strategic Plan and Director Assignments on the website.
- Staff will post the approved MPWD Mid-Year Budgets for FY 2019/2020 on the website.

FINANCE COMMITTEE MEETING

The Board's Finance Committee met on April 9, 2020 with staff and discussed the following items:

- DRAFT MPWD 5-Year Capital Improvement Program (CIP) for FYs 2019/2020 through FY 2023/2024 and Projected Sources of Funding
- Preliminary DRAFT of MPWD FY 2020/2021 Operating and Capital Budgets
- GASB 75 OPEB Actuarial Report for FYE June 30, 2019 and Proposed Funding Management Plan
- XiO Proposal for SCADA Hardware and Equipment
- 2016 COPs and Potential Refunding Opportunities
- Potential COVID-19 Impacts on MPWD Finances

3-MONTH "LOOK AHEAD" FOR BOARD MEETINGS

MAY 28, 2020

- Consider/Adopt MPWD Operating and Capital Budgets for FY 2020/2021.
- Adopt Ordinance amending Attachment "A" to the MPWD Water Service Ordinance No. 103 regarding rates and charges, and a 0.0% water rate adjustment, effect July 1, 2020.
- Authorize professional services agreement with District Counsel Hanson Bridgett LLP.
- Authorize professional services agreement with Wulff, Hansen & Company for Municipal Finance Advisor Services.
- Receive BAWSCA report.

JUNE 25, 2020

- Establish Appropriations Limit applicable to the MPWD during fiscal year.
- Consider/Approve budgeted annual professional services agreements.

JULY 23, 2020

- Consider/Approve living wage adjustment for MPWD Employee Association, per Section 10 of Letter Agreement dated September 25, 2018 (through September 2023).
- Review Conflict of Interest code.
- Receive BAWSCA report.

BOARD FINANCE COMMITTEE MEETING – TENTATIVE SCHEDULE

May 2020

- Second review of DRAFT FY 2020/2021 Operating and Capital Budgets; and
- Funding management plan for PARS Section 115 combined trust management plan [OPEB—Other Post-Employment Benefits and PRSP—Pension Rate Stabilization Program].

UPCOMING MEETINGS/EVENTS

BAWSCA Water Management Meeting (teleconference): May 14, 2020

HIA Meeting (Belmont): CANCELED (until further notice)

ACWA JPIA 2020 Spring Conference & Exhibition (Monterey): May 4-8, 2020 - CANCELED

CSDA Special District Legislative Days (Sacramento): May 19-20, 2020 – VIRTUAL ONLY

CSDA Annual Conference (Palm Desert): August 24-27, 2020

CSDA Special District Leadership Academy – Governance Conference (South Lake Tahoe): September 27-30, 2020



TO: Board of Directors

FROM: Candy Pina

DATE: April 23, 2020

ADMINISTRATIVE SERVICES MANAGER'S REPORT

FINANCIAL REPORTING:

Schedule of Cash and Investments:

SCHEDULE OF CASH AND INVESTMENTS		
CASH ACCOUNT	BALANCE 3/31/2020	BALANCE @02/20/2020
PETTY CASH	\$400	\$400
CASH DRAWER	\$200	\$200
WELLS FARGO CHECKING	\$317,955	\$165,608
LAIF	\$6,703,428	\$6,503,428
BNY INSTALLMENT ACCOUNT	\$477,911	\$477,911
TOTAL	\$7,499,894	\$7,147,546

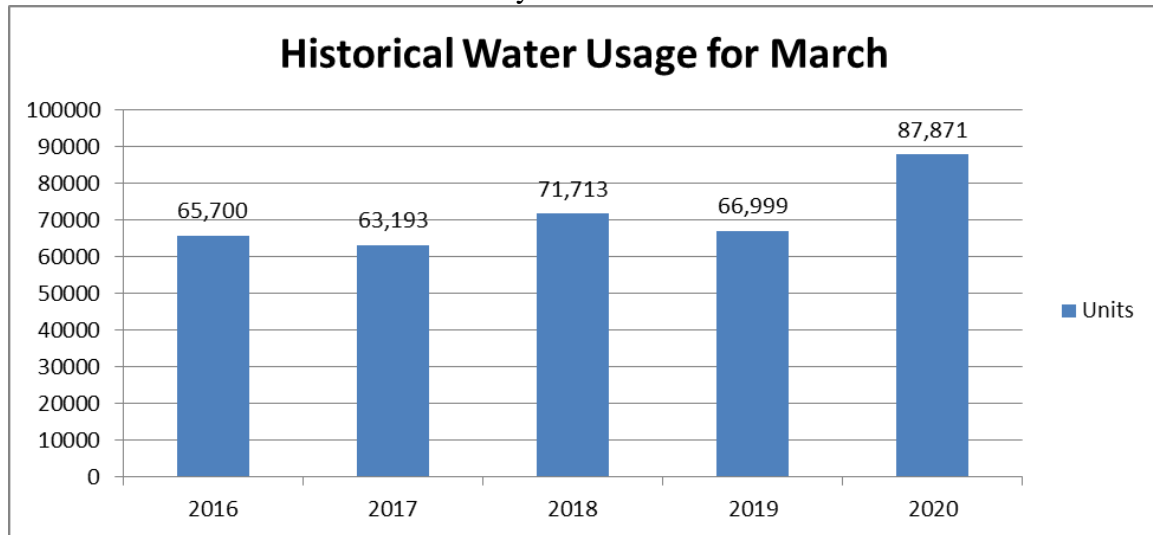
Water Revenue Report:

WATER REVENUES for FISCAL YEAR 2019/2020					
Month	Total Units	Water Commodity Charges	Fixed System Charges	Total Water Revenues	Misc Rev
JUL	121,093	1,069,535	243,845	1,313,380	1,357
AUG	131,410	1,184,349	262,218	1,446,567	1,364
SEP	132,893	1,209,744	264,656	1,474,400	1,367
OCT	118,671	1,075,887	261,819	1,337,706	1,372
NOV	116,636	1,014,767	261,231	1,275,998	1,330
DEC	86,924	742,321	263,074	1,005,395	1,461
JAN	71,404	610,345	261,351	871,696	1,275
FEB	75,495	642,820	263,201	906,021	1,379
MAR	87,871	749,681	262,780	1,012,461	1,373
TOTAL	942,397	8,299,449	2,344,175	10,643,624	12,278

Please note the following: Total Units for each month on this report are calculated when customer meters are read:

- Zone 2 meters are read on the 1st of every month;
- Zone 3 meters are read on the 5th and,
- Zones 1, 4, 5, 6, 7, 8 and 9 are read on the 15th

In the Operations Manager's report, units being reported are based on SFPUC reads, which occurs at 8:00 a.m. on the last day of each month.



FINANCE COMMITTEE MEETING UPDATE:

Staff was asked to provide an update on the how the credit card expense line item in our budget is generated by the credit card companies. This will be reported on at the May 2020 board meeting.

CONFERENCES, TRAINING, & MEETINGS:

- 1) Jeanette Kalabolas: 02/25/20 – WQTS, Inc. Operations Nitrification Training
- 2) Candy Pina: 03/02/20 – Meeting with 15-Five Employee Evaluation Software Tool
- 3) Jeanette Kalabolas: 03/09/20 – DWR Annual Water Supply & Demand Assessment Workshop
- 4) Candy Pina: 03/09/20 – Webex with ADP regarding Employee Evaluation Tool
- 5) Jeanette Kalabolas: 03/10/20 – DWR UWMP Guidebook Workshop
- 6) Misty Malczon/Candy Pina: 03/11/20 - CSDA Webinar on How to Collect Unpaid Bills: SB 998 new restrictions
- 7) Candy Pina: 03/11/20 - Executive Team Meeting
- 8) Candy Pina: 03/12/20 – Meeting with Koff & Associates regarding Employee Evaluation Tool
- 9) Jeanette Kalabolas: 03/11/20 – BAWSCA Large Meter Test Program Meeting (Host Only)
- 10) Ron Okada: 03/12/20 – BAWSCA Workshop on Meter Testing
- 11) Jeanette Kalabolas: 03/18/20 & 03/25/20 – QWEL Landscapes Professionals Training (Host Only)
- 12) Misty Malczon: 03/19/20 – Springbrook Academy
- 13) Candy Pina: 03/19/20 – Covid-19 Conference call
- 14) Misty Malczon/Candy Pina: 03/23/20 – Leadership Team Covid-19 Response Plan Update
- 15) Candy Pina: 03/24/20 – ADP Employee Module Webinar

- 16) Candy Pina: 03/25/20 – Novus Agenda go to meeting
- 17) Misty Malczon/Candy Pina: 03/26/20 – Leadership Team Covid-19 Briefing
- 18) Candy Pina: 03/31/20 – Leadership Team Covid-19 Briefing
- 19) Candy Pina: 04/02/20 – ACWA JPIA Covid-19 Webinar
- 20) Candy Pina: 04/07/20 – Leadership Team Covid-19 Briefing
- 21) Candy Pina: 04/07/20 – Novus Agenda go to meeting
- 22) Candy Pina: 04/09/20 – Finance Committee Meeting
- 23) Misty Malczon/Candy Pina: 04/14/20 – Leadership Team Covid-19 Briefing
- 24) Candy Pina: 04/21/20 – Executive Team Meeting
- 25) Candy Pina: 04/21/20 – Novus Agenda go to meeting
- 26) Misty Malczon/Candy Pina: 04/21/20 – Leadership Team Covid-19 Briefing
- 27) Misty Malczon/Candy Pina: 04/28/20 – Leadership Team Covid-19 Briefing

PUBLIC SERVICE ETHICS EDUCATION (AB 1234)

Everyone is current with their Ethics training. The due dates (in alphabetical order) for certification renewal of Public Service Ethics education, required every two (2) years by AB 1234:

- | | |
|------------------|-------------------|
| • Jeff Ira | November 23, 2020 |
| • Joubin Pakpour | November 19, 2020 |
| • Candy Pina | December 13, 2020 |
| • Rene Ramirez | December 7, 2020 |
| • Tammy Rudock | November 29, 2020 |
| • Brian Schmidt | March 18, 2021 |
| • Julie Sherman | February 8, 2021 |
| • Louis Vella | December 4, 2020 |
| • Dave Warden | January 26, 2021 |
| • Kirk Wheeler | January 3, 2021 |
| • Matt Zucca | March 29, 2021 |

For compliance, training should be completed on or before the due date, and the certificate turned in to the MPWD.

Here is the link to the FPPC free online ethics training:

<http://localethics.fppc.ca.gov/login.aspx>

SEXUAL HARASSMENT PREVENTION EDUCATION (AB 1825 FOR MANAGERS, SB 1343 FOR EMPLOYEES, AB 1661 FOR ELECTED OFFICIALS)

Everyone is current with Harassment Prevention training (required every two years). Due dates (in alphabetical order) for certification renewal of Sexual Harassment Prevention Education:

- | | |
|------------------|-------------------|
| • Jeff Ira | December 18, 2021 |
| • Joubin Pakpour | June 14, 2021 |
| • Candy Pina | December 18, 2021 |
| • Rene Ramirez | December 18, 2021 |
| • Tammy Rudock | December 18, 2021 |
| • Brian Schmidt | December 18, 2021 |
| • Julie Sherman | December 13, 2020 |
| • Louis Vella | October 22, 2021 |
| • Dave Warden | December 18, 2021 |
| • Kirk Wheeler | December 17, 2021 |
| • Matt Zucca | March 19, 2021 |



TO: Board of Directors

FROM: Rene A. Ramirez, Operations Manager

DATE: April 23, 2020

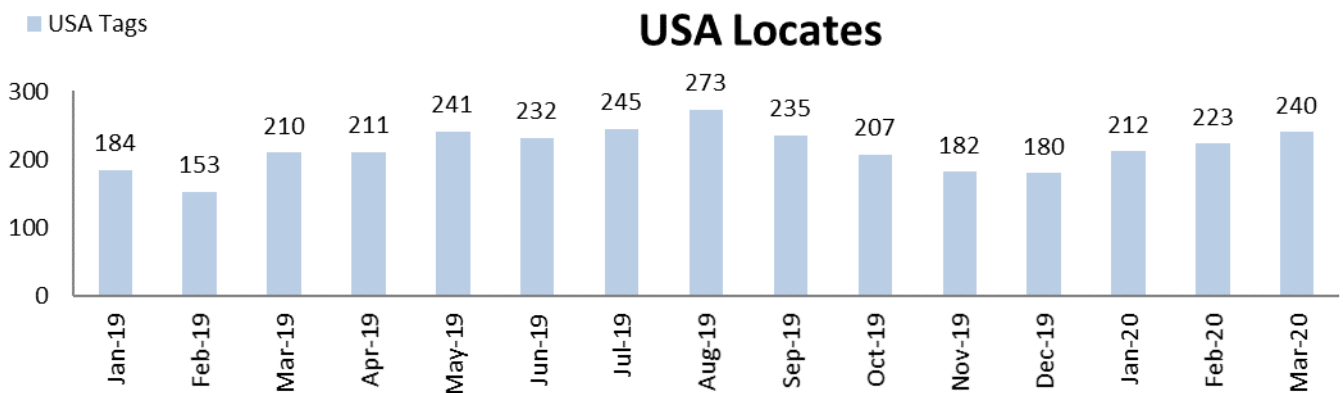
OPERATIONS REPORT – February and March

Projects:

- Participated in discussions related to an update to the Capital Improvement Plan;
- Held a conference call regarding the SR101 Crossing at PAMF capital project with District representatives and a representative from the Silicon Valley Clean Water organization to discuss their plans to decommission a large diameter sewer force main under Shoreway Road around 2022, which will mitigate a construction concern for District's pipeline under Shoreway Road;

Maintenance:

- Responded to and completed 223 USA (underground service alerts) requests in February and 240 requests in March. Both numbers are an increase from same month last year. During March COVID-19 had not slowed down all construction;



- During the months for February and March 37 and 15 fire hydrants respectively were serviced. Service includes cleaning around fire hydrant, making certain hydrant clearances are correct, exercising valves feeding hydrant and on the hydrant work, and replace if hydrant scheduled for replacement;
- Made repairs to the water system following two (2) service leaks on the 4000 block of Marsten and 2300 block of Buena Vista;

- Called out to repair a privately owned fire hydrant located at 301 Industrial Way. Staff made repairs and will be billing customer for repairs;
- Collected a requisite 44 water samples during each of the months of February and March for bacteriological testing – all samples were absent of any coliform bacteria contamination;
- Continue to routinely monitor, less frequently, water system dead-ends continued for disinfectant residual; and
- Monitoring for signs of nitrification within our tanks, sample stations and dead ends continues, as often as possible, as a part of regular water quality monitoring.

System Repairs:

Date	Location	Event	Material	Installation Date	Estimated Water Loss (Gals.)
3/16/20	4000 block Marsten	Service Leak			
3/30/20	2300 block Buena Vista	Service Leak			
3/31/20	301 Industrial Way	Private Fire Hydrant damaged			

Development:

Staff is currently working with developers on 55 development projects:

Mixed Use Commercial/Multi-Family Residential:

- o 1300 El Camino Real - Currently reviewing plans, letter of intent and schedule for apartment building provided;
- o 1325 Old County Rd. – Site has been cleared of the existing structures;
- o 425/501 Old County Rd - Contacted by engineer regarding system information;
- o 800 Belmont Ave – information provided to developer;
- o 800 Laurel Ave - Awaiting plans;
- o 803 Belmont Ave -815 Old County Rd. – currently reviewing plans;
- o 815 Old County Rd. – Currently reviewing plans; and
- o 900 El Camino Real – Letter of intent provided.

Commercial:

- o 612-614 Mountain View – Met with Fire Authority, awaiting revised plans;
- o 1110 Old County Rd. – Plans are through staff approval process;
- o 1306-1308 Old County Rd. – Submittals approved;
- o 1400 Alameda de las Pulgas – Plans are through staff approval process;
- o 1500 Ralston – Plans are through staff approval process;
- o 2710 Ralston – Fee schedule provided;

- 300 Industrial – Fee schedule provided;
- 405 Industrial – Information provided to developer; and
- Belmont Ave Parcels – awaiting plans.

Residential:

- 0 Longfellow - Currently reviewing plans;
- 10 Notre Dame Place – Awaiting contractor installation schedule;
- 1241 Hiller - Plans are through staff approval process;
- 1320 Talbryn Lane development- Contractor completed water main installation to District Standards;
- 1465 Sixth – Plans are through staff approval process;
- 1525 Winding Way – Currently reviewing plans;
- 1707 Pine Knoll – Currently reviewing plans;
- 1789 Terrace – Currently reviewing plans;
- 1926 Oak Knoll – Plans are through staff approval process;
- 1961 Bishop - Plans are through staff approval process;
- 2033 Mezes – Currently reviewing plans;
- 2110 Pullman – Installation complete, awaiting compliance;
- 2503 Cipriani - Plans are through staff approval process;
- 2709 Comstock - Plans are through staff approval process;
- 2723 Monserat – Plans are through staff approval process;
- 2723 Wemberly - Plans are through staff approval process;
- 2728 Belmont Canyon - Installation complete;
- 2828 Monroe - Plans are through staff approval process;
- 2836 Benson Way - Plans are through staff approval process;
- 3105 Marburger – Plans are through staff approval process;
- 3143 Beresford – Currently reviewing plans;
- 3244 Longfellow – Currently reviewing plans;
- 3311 Haskins – Currently reviewing plans;
- 3900 Marsten – Plans are through staff approval process;
- 406 Alameda de las Pulgas – Currently reviewing plans;
- 45 Hartford – Currently reviewing plans;
- 50 Notre Dame Place – Plans are through staff approval process;
- 539 South - Plans are through staff approval process;
- 55 Ralston Ranch - Plans are through staff approval process;
- 665 South - Plans are through staff approval process;
- 76 Miramar Terrace - Awaiting revised plans;
- 796 Miramar Terrace – Currently reviewing plans;
- 853 Alameda de las Pulgas – Plans are through staff approval process;
- 857 Alameda de las Pulgas – Plans are through staff approval process;
- 861 Alameda de las Pulgas – Currently reviewing plans;
- Monte Cresta Drive Extension – Currently reviewing plans;
- Ralston parcel - Developer requesting system information/ District requirements; and
- Talbryn Dr. parcel – Information provided to developer.

Administration:

- Keeping abreast of city's sewer rehab project;
- Participating in weekly call with District Engineer and General Manager;
- Attended organizational safety meetings in February only. March cancelled due to COVID-19;
- Attended and participated in Board Finance Committee meeting;
- Worked on several personnel evaluations;
- Participated on a GoTo Meeting training session for Novus Agenda;
- Participating in Agenda Review meetings;
- Participating in Executive Team and Leadership Team meetings;
- Attended quarterly GM meeting put on by Pakpour Consulting in February;
- Met with representatives on a potential development located at Old County Road and Marine View;
- Staff attended annual SFPUC meeting;
- District personnel and staff from other agencies attended a Nitrification Training Class held in Board Room in February;
- Had visit from XiO staff after their meeting with Stanford water system staff;
- Staff met with City staff at a City Park to discuss District assets;
- Attended an Urban Water Management Plan workshop in Sacramento;
- Staff met to discuss options/alternatives when Air Relief Valves have to be located in right of way in residential neighborhoods;
- Mid-March – shelter-in-place order issued to District staff. Ops responding only to essential services; system emergencies, customer emergencies, utility locating requests and regulatory water system sampling;
- Ops staff using shelter-in-place to obtain continuing education units for state certification and taking course work to prepare for certification examination;
- Participated in a GoTo meeting for an update to the San Mateo County CASGEM;
- Participating in weekly conference call for the JPIA Leadership class; and
- Continue to actively manage power use for pumping operations via SCADA.

Water Conservation:

Recent 2-Month Comparison Summary

2019/2020 MONTH	2019/2020 UNITS	2013 UNITS	PERCENT CHANGE*	CUMULATIVE WATER SAVINGS*	2019/2020 R-GPCD**	2013 R-GPCD
February 2020	85,252	86,478	-1.4%	-9.8%	73.5	75.4
March 2020	92,468	106,663	-13.3%	-10.2%	74.6	84.0

2018/2019 MONTH	2018/2019 UNITS	2013 UNITS	PERCENT CHANGE*	CUMULATIVE WATER SAVINGS*	2018/2019 R-GPCD**	2013 R-GPCD
February 2019	68,879	86,478	-19.2%	-13.3%	62.4	75.4
March 2019	77,800	106,663	-27.1%	-14.9%	62.8	84.0

**MID-PENINSULA WATER DISTRICT
BUDGET FOR YEAR 2019-2020
SUMMARY**

DESCRIPTION	APPROVED FY 2019-2020 BUDGET \$	ACTUALS 7/1/2019 3/31/20	REMAINING BALANCE/ (OVER BUDGET)	Target YTD % 75.1%
				Y-T-D % OF BUDGET
OPERATING REVENUE				
WATER COMMODITY CHARGES (A)	9,800,000	8,299,449	1,500,551	84.7%
FIXED SYSTEM CHARGES	3,000,000	2,344,175	655,825	78.1%
FIRE SERVICE CHARGES	14,000	12,278	1,722	87.7%
MISC CUSTOMER ACCOUNT FEES (B)	43,000	106,044	(63,044)	246.6%
MISCELLANEOUS OPERATING	25,000	-	25,000	NA
PROPERTY TAX REVENUE '(C)	268,000	289,501	(21,501)	108.0%
TOTAL OPERATING REVENUE	13,150,000	11,051,446	2,098,554	84.0%
WATER SYSTEM CAPACITY CHARGES (D)	100,000	338,277	(238,277)	338.3%
WATER DEMAND OFFSET CHARGES (D)	10,000	45,396	(35,396)	454.0%
SERVICE LINE & INSTALLATION CHARGES (D)	10,000	63,882	(53,882)	638.8%
MISCELLANEOUS NON-OPERATING (E)	50,000	62,561	(12,561)	125.1%
INTEREST REVENUE - LAIF (F)	75,000	85,893	(10,893)	114.5%
INTEREST REVENUE - COP (F)	150,000	181,852	(31,852)	121.2%
LEASE OF PHYSICAL PROPERTY (G)	175,000	174,428	572	99.7%
LANDSCAPE PERMIT REVENUE (H)	1,000	18,320	(17,320)	1832.0%
TOTAL NON-OPERATING REVENUE	571,000	970,609	(399,609)	170.0%
TOTAL REVENUE	13,721,000	12,022,055	1,698,945	87.6%
OPERATING EXPENDITURES (OP EXP)				
SALARIES & WAGES	2,069,385	1,340,033	729,352	64.8%
PAYROLL TAXES & BENEFITS	1,414,093	795,655	618,438	56.3%
CAPITAL PAYROLL, TAXES & BENEFITS	-	(209,760)	-	0.0%
PURCHASED WATER	5,654,624	4,413,956	1,240,668	78.1%
OUTREACH & EDUCATION	60,000	29,737	30,263	49.6%
M&R - OPS SYSTEM	387,751	198,086	189,665	51.1%
M&R - FACILITIES & EQUIPMENT	162,625	91,211	71,414	56.1%
MAJOR MAINTENANCE	35,000	-	35,000	NA
OFFICE SUPPLIES & EQUIPMENT	306,377	200,091	106,286	65.3%
MEMBERSHIP & GOV FEES	228,585	199,805	28,780	87.4%
BAD DEBT & CLAIMS	30,000	-	30,000	NA
UTILITIES	326,814	221,622	105,192	67.8%
PROFESSIONAL SERVICES	460,575	370,332	90,243	80.4%
TRAINING/TRAVEL & RECRUITMENT	37,500	21,061	16,439	56.2%
RESTRICTED EARNINGS (F)	225,000	267,745	(42,745)	119.0%
DEPRECIATION	970,000	785,487	184,513	81.0%
DEBT SERVICE TRUSTEE FEES & EXP	-	1,099	(1,099)	N/A
DEBT SERVICE 2016 COPs (J)	1,069,200	886,439	182,761	82.9%
TOTAL OPERATING EXPENSES	13,437,528	9,612,597	3,824,931	71.5%
NET OPERATING SURPLUS/(LOSS)	283,472	2,409,458	(2,125,986)	850.0%
TRANSFER TO CAPITAL	(283,472)	(2,409,458)	2,125,986	850.0%
DEBT SERVICE COVERAGE	1.93	3.95		

- A Water revenues are at 84.7% and water purchases are at 78.4%.
- B See discussion on Administrative Services Manager's report.
- C Second half of property tax revenue starting to come in.
- D Recognized revenue for 3 New services installed.
- E Closed 26 meter upgrade installations and 15 Fire Flow tests.
- F LAIF & COP interest higher than expected.
- G Received payment for City of Belmont's Buckland Tank Lease for prior year.
- H Recognized 4 Landscape Review Revenue and 2 Plan Check Review Revenue.
- I LAFCO from July19-Mar20 totals \$6,533 & SWRCBACC increase in dues from prior year totals \$3,802.
- J Includes Debt Service Principal Payment of \$375,000.

**MID-PENINSULA WATER DISTRICT
STATEMENT OF NET POSITION
PREVIOUS YEAR COMPARISON**

	31-Mar-20	31-Mar-19	\$ Change	% Change
ASSETS				
CURRENT ASSETS				
Total Checking/Savings	7,529,893.66	19,523,417.92	-11,993,524.26	-61.43%
Total COP Funds	12,053,440.82	0.00	0.00	100.0%
Total Accounts Receivable	1,031,502.40	735,735.68	295,766.72	40.2%
Total Other Current Assets	268,243.96	232,584.52	35,659.44	15.33%
TOTAL CURRENT ASSETS	20,883,080.84	20,491,738.12	391,342.72	1.91%
FIXED ASSETS				
Fixed Assets	51,481,283.89	47,936,240.38	3,545,043.51	7.4%
Accumulated Depreciation	-29,067,218.17	-27,956,607.78	-1,110,610.39	-3.97%
Construction in Progress	3,966,241.82	3,737,824.46	228,417.36	6.11%
TOTAL FIXED ASSETS	26,380,307.54	23,717,457.06	2,662,850.48	11.23%
TOTAL OTHER ASSETS	2,226,591.34	1,210,079.34	1,016,512.00	84.0%
TOTAL ASSETS	49,489,979.72	45,419,274.52	4,070,705.20	8.96%
LIABILITIES & EQUITY				
LIABILITIES				
CURRENT LIABILITIES				
Total Accounts Payable	458,358.90	181,197.57	277,161.33	152.96%
Total Other Current Liabilities	1,169,819.99	1,490,813.17	-320,993.18	-21.53%
TOTAL CURRENT LIABILITIES	1,628,178.89	1,672,010.74	-43,831.85	-2.62%
LONG TERM LIABILITIES				
Total COP Financing Debt (B)	17,175,000.00	17,550,000.00	-375,000.00	-2.14%
Total COP Premium (B)	834,175.30	865,456.90	-31,281.60	-3.61%
Total Other Long Term Liabilities (B)	2,281,061.00	1,135,175.00	1,145,886.00	100.94%
TOTAL LONG TERM LIABILITIES	20,290,236.30	19,550,631.90	739,604.40	3.78%
TOTAL LIABILITIES	21,918,415.19	21,222,642.64	695,772.55	3.28%
EQUITY				
3000 - Opening Bal Equity	0.00	0.00	0.00	0.0%
3800 - RESERVES	6,703,427.80	3,892,275.76	2,811,152.04	72.22%
3940 - Fund Bal Invest in Util Plant	26,380,307.54	23,797,172.51	2,583,135.03	10.86%
Net Assets (A)	-5,512,170.81	-3,492,816.39	-2,019,354.42	-57.82%
TOTAL EQUITY	27,571,564.53	24,196,631.88	3,374,932.65	13.95%
TOTAL LIABILITIES & EQUITY	49,489,979.72	45,419,274.52	4,070,705.20	8.96%

(A) CalPERS Net Pension Liability - GASB 68 requirement.

(B) COP Financing Debt and Debt Premium total \$19,185,626.90.

**MID-PENINSULA WATER DISTRICT
STATEMENT OF REVENUES & EXPENSES
PREVIOUS YEAR COMPARISON - GAAP BASIS**

	Jul 19-Mar 20	Jul 18-Mar 19	\$ Change	% Change
Ordinary Income/Expense				
Income				
OPERATING REVENUE	11,051,446	10,208,137	843,309	8.26%
INTEREST INCOME	267,745	339,950	-72,205	-21.24%
CAPITAL CONTRIBUTION	205,419	244,776	-39,357	-16.08%
OTHER INCOME	702,864	517,302	185,562	35.87%
Total Income	12,227,475	11,310,165	917,310	8.11%
Expense				
PERSONNEL COSTS	1,925,928	1,884,731	41,197	2.19%
PURCHASED WATER	4,413,956	4,232,317	181,640	4.29%
OUTREACH/EDUCATION	29,737	31,302	-1,565	-5.0%
M&4 - OPS SYSTEMS	198,086	177,871	20,214	11.37%
FACILITIES & EQUIPMENT	91,211	122,183	-30,972	-25.35%
OFFICE SUPPLIES & EQUIPMENT	200,091	217,785	-17,694	-8.13%
MEMBERSHIP & GOV FEES	199,805	179,853	19,952	11.09%
BAD DEBT & CLAIMS	0	24,844	-24,844	-100.0%
UTILITIES	221,622	217,929	3,693	1.7%
PROFESSIONAL SERVICES	370,332	425,080	-54,748	-12.88%
TRAINING & TRAVEL	21,061	23,106	-2,045	-8.85%
Total Expense	7,671,829	7,537,001	134,828	1.79%
Net Ordinary Income	4,555,646	3,773,164	782,482	20.74%
Other Income/Expense				
Other Expense				
DEPRECIATION	785,487	689,839	95,647	13.87%
COP Financing Costs	511,439	519,895	-8,456	-1.63%
Total Other Expense	1,298,024	1,209,734	88,290	7.3%
Net Revenue/(Expenses)	3,257,621	2,563,429	694,192	27.1%

RECONCILIATION TO OPERATING BUDGET

Adjustments to Increase Net Operating Surplus

Interest Income - LAIF & COP Interest	-267,744
Capital Contribution	-205,419
Debt Service Principal Payment	-375,000
Total Adjustments to Increase Net Operating Surplus	-848,163

Net Operating Surplus/(Loss) Transfer to Capital	2,409,458
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**MID-PENINSULA WATER DISTRICT
BUDGET FOR FY 2019-2020
Capital Projects**

DESCRIPTION	APPROVED FY 2019-2020 BUDGET \$	ACTUAL 7/1/2019 3/31/2020	REMAINING BALANCE/ (OVER BUDGET)	Target YTD % 75.1%
				Y-T-D % OF BUDGET
CAPITAL IMPROVEMENTS - WORK IN PROCESS (WIP)				
Miscellaneous Capital Improvements*	-	115,958	(115,958)	N/A
CAPITAL IMPROVEMENTS - WIP TOTAL	-	115,958	(115,958)	N/A
CAPITAL OUTLAY				
Miscellaneous Capital Outlay/Projects	50,000	-	50,000	0.0%
CAPITAL OUTLAY TOTAL	50,000	0	50,000	0.0%
CAPITAL IMPROVEMENTS & CAPITAL OUTLAY TOTAL	50,000	115,958	(65,958)	231.9%
DEPRECIATION	970,000	785,487	184,513	81.0%
TRANSFER FROM OPS	283,477	2,409,457	(2,125,980)	850.0%
TRANSFER (TO)/FROM CAPITAL RESERVES**	(1,203,477)	(3,078,986)	1,875,509	255.8%
CAPITAL OUTLAY/CAPITAL PROJECTS	(50,000)	(115,958)	65,958	231.9%
NET RESULTS OF CAPITAL	-	(0)	0	N/A

*COP-CIP Malcolm Aveue WMR materials and supplies in-house construction.