TO:

Nicholas Agbobu

Engineering, Budget, and Office Operations

FROM:

Robert Swartz

Field Operations/

CONSOLIDATED SEWER MAINTENANCE DISTRICT CONDITION ASSESSMENT PROGRAM REPORT UNINCORPORATED COUNTY

This memo is to inform you that the County of Los Angeles Department of Public Works Consolidated Sewer Maintenance District (District) has completed a Sewer Condition Assessment Program of a portion of the unincorporated County's sewer system maintained by the District's East Yard.

The enclosed Condition Assessment Report provides details regarding the maintenance and structural condition of your City's sewer mainlines. This information should be included in the District's Sewer System Management Plan as a reference in Chapter 8, System Evaluation and Capacity Assurance Plan. The segments with critical maintenance issues have been cleaned and, where appropriate, incorporated into our enhanced maintenance cleaning schedule for continued monitoring. In addition, the segments with severe structural defects have either been repaired or will be scheduled for repair or replacement as part of the ongoing Accumulative Capital Outlay Project.

HK:

Attach.

bc: RS, FV, File (Y0TV0910C)

# CONDITION ASSESSMENT REPORT COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS CONSOLIDATED SEWER MAINTENANCE DISTRICT

PROJECT NAME: Y0TV0910C PROJECT MGR: Hanna Kebede PROJECT DATE: 01/27/2011 CONTACT NO: (626) 300-4686

SUP. DISTRICT(s): 1 & 5 MAP PAGE(S): 1853, 1905, 1906 & 1907

Report By: Hanna Kebede Report Date: 11/18/16

## INTRODUCTION

As part of the Sewer Condition Assessment Program, the County of Los Angeles Department of Public Works Consolidated Sewer Maintenance District (District) has completed the condition assessment of 224,433 feet or approximately 6.2 percent of the unincorporated County's sewer system maintained by the District's East Yard.

The enclosed Condition Assessment Report outlines the structural and maintenance ratings of our system based on the Pipeline Assessment and Certification Program's (PACP Version 6.0.1) rating methodology. Included in the report are the following:

- Project Overview Map (Enclosure 1)
- Quick Maintenance Rating Map, High Water Levels List and Map, Infiltration List and Map, Sample Lateral Notice Letter (Enclosure 2)
- Quick Structural Rating Report Priority List, Quick Structural Rating Map, and Lining and Point Repair Projects Map (Enclosure 3)

The District has now completed the condition assessment of 1,145,533 feet of the unincorporated County's sewer system maintained by the District's East Yard. Previous Condition Assessment Reports dated January 5, 2009, April 6, 2009, May 28, 2009, October 8, 2009, and May 20, 2011 have been provided to you. A copy of the reports can also be found in the District's website at <a href="http://dpw.lacounty.gov/smd/cctv/city/">http://dpw.lacounty.gov/smd/cctv/city/</a>.

The Sewer Condition Assessment Program utilizes the PACP Quick Rating methodology to rank the structural and maintenance condition of your system based on industry standards.

# PROJECT AREA AND DESCRIPTION

Project No. Y0TV0910C included sewer lines located in the unincorporated County and the Cities of Bell Gardens, Industry, Diamond Bar, La Canada Flintridge, and Walnut. Enclosed for your reference is an overview map of the project area within the unincorporated County. (Enclosure 1).

## **DEFECT GRADE DESCRIPTION**

The Quick Rating indicates the number of occurrences for the highest severity grade for each pipe segment for either maintenance or structural defects. A grade of 1 indicates that a pipe segment is in excellent condition with minor defects while a grade of 5 indicates that a pipe segment may require immediate attention. A legend of the five possible defect grades is as follows:

Grade	Defect Grade Description
1:	MINOR
2:	MINOR TO MODERATE
3:	MODERATE
4:	SIGNIFICANT
5:	MOST SIGNIFICANT

# **MAINTENANCE REPORT**

Our inspection revealed that approximately 45.1 percent of the system televised was free of blockages or restrictions that would impede sewer flows. However, the remaining 54.9 percent of the pipe segments within the unincorporated County had a PACP maintenance grade of 3, 4, or 5 as indicated in the Quick Maintenance Rating Table shown below. These segments have been incorporated into our routine cleaning schedule.

A color-coded map showing the quick maintenance rating for each pipe segment is provided in Enclosure 2.

## **QUICK MAINTENANCE RATING TABLE**

DEFECT GRADE	PIPE LENGTH (FT)	PERCENT TOTAL INSPECTED PIPE LENGTH	NO. SEGMENTS
1: Minor	84,238	37.6	383
2: Minor to Moderate	16,865	7.5	76
3: Moderate	66,286	29.5	288
4: Significant	56,561	25.2	238
5: Most Significant	483	0.2	3
TOTAL	224,433	100.0	988

#### Lateral Notices

Also included in the maintenance inspection reports are private lateral deficiencies discovered during the assessment of the mainline. The District does not maintain lateral lines. It is the responsibility of the property owner to maintain their respective lateral lines to facilitate the flow of wastewater from their property to the mainline. Letters will be sent to property owners notifying them of the maintenance issues detected in their laterals. A sample lateral notice letter is provided in Enclosure 2 for your reference.

## **High Water Levels**

Our inspection revealed that approximately 99.3 percent of the system televised has adequate capacity. Approximately 0.7 percent of the segments inspected exhibited visual signs associated with high water levels. The capacity of the sewer pipe can be determined by analyzing several PACP codes, including Water Level, Water Mark, and miscellaneous remarks, which indicate the camera was underwater or there were sags in the line. A sewer pipe is considered at capacity when 50 percent of the diameter of sewer pipe is full of water. However, there are conditions in which the Water Level or Water Mark has reached 50 percent or greater due to heavy flows in adjoining pipes, a temporary stoppage caused by debris in the sewer lines, or a sag in the line. Therefore, additional review of these pipe segments was conducted to determine if any capacity issues exist.

All sewer pipes where the Water Level, Water Mark, and miscellaneous remarks of camera underwater or sags in the line are at or above 50 percent capacity have been listed and analyzed on the High Water Level table in Enclosure 2. The nature of these high water level conditions is also summarized on this table.

#### Infiltration

Our inspection revealed that approximately 0.1 percent of the system included in this project has infiltration within the pipe segment. Infiltration is the ingress of groundwater into the sewers through a defect or porous area of the pipe wall. All sewer pipes where infiltration has been found are listed on the Infiltration table (Enclosure 2). This table also provides the proposed corrective action for these impacted sewer segments. If a corrective method is proposed, the remediation will be scheduled in the next 24 months as part of the ongoing Accumulative Capital Outlay Project.

A map showing the sewer lines with high water levels and infiltration is provided in Enclosure 2.

## STRUCTURAL REPORT

Our inspection revealed that approximately 87.3 percent of the inspected pipe segments within unincorporated County were free of severe structural defects. However, the remaining 12.7 percent of the inspected pipe segments had a PACP structural grade of 4 or 5 as indicated in the Quick Structural Rating Table shown below. These segments have been placed on a priority list based on the severity and the need for action. For items 1 through 111 in the Quick Structural Rating Report Priority List (Enclosure 3) which require a corrective action, the proposed repair or replacement will be scheduled in the next 24 months as part of the ongoing Accumulative Capital Outlay Project. A color-coded map showing the Quick Structural Rating for each pipe segment is located in Enclosure 3. A map showing the sewer lines, which need lining and point repairs, is also provided in Enclosure 3.

## QUICK STRUCTURAL RATING TABLE

DEFECT GRADE	PIPE LENGTH (FT)	PERCENT TOTAL INSPECTED PIPE LENGTH	NO. SEGMENTS
1: Minor	80,181	35.7	401
2: Minor to Moderate	37,956	16.9	149
3: Moderate	77,788	34.7	325
4: Significant	14,283	6.4	54
5: Most Significant	14,225	6.3	59
TOTAL	224,433	100.0	988

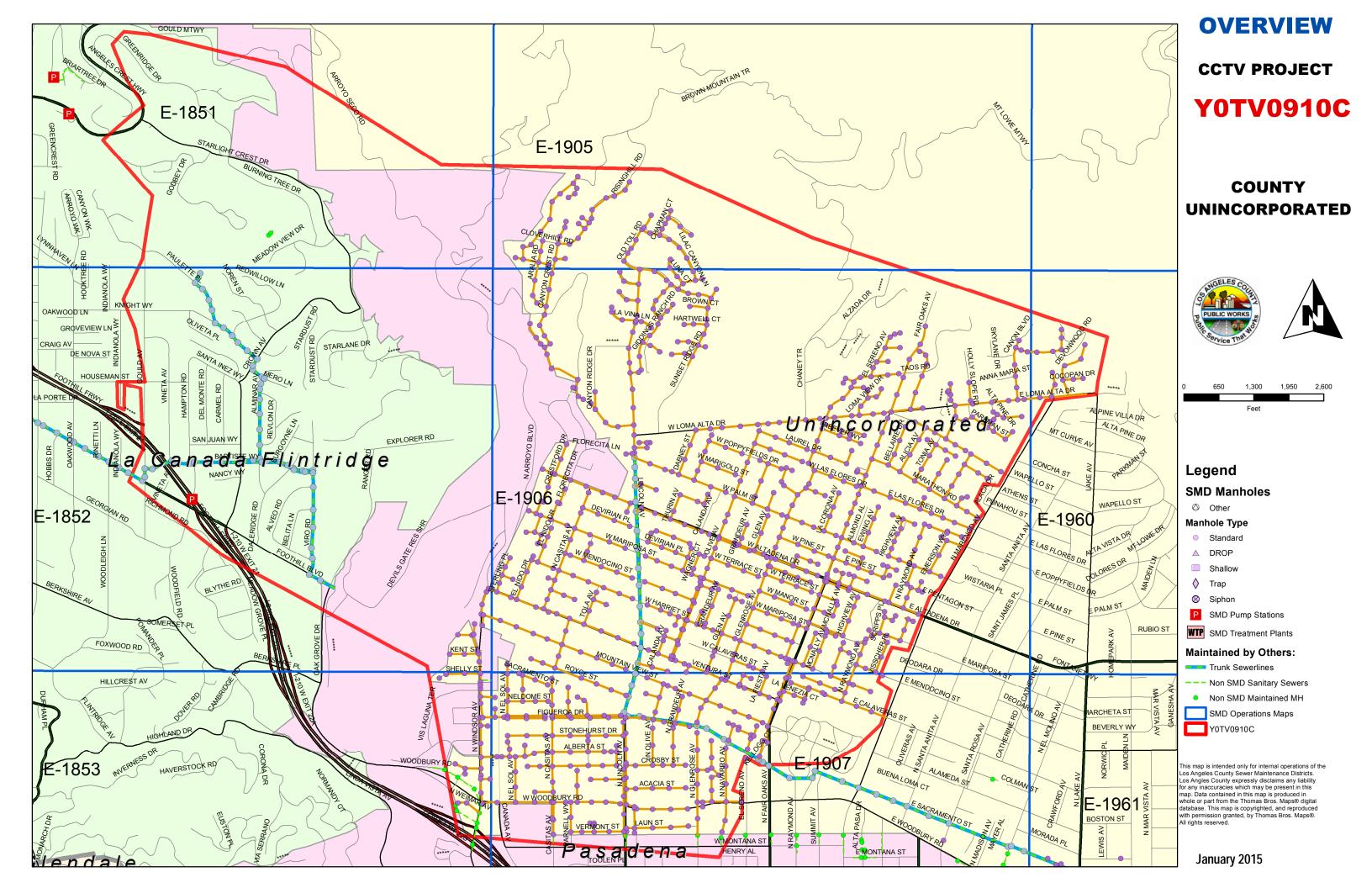
# **CONDITION ASSESSMENT PROJECTS**

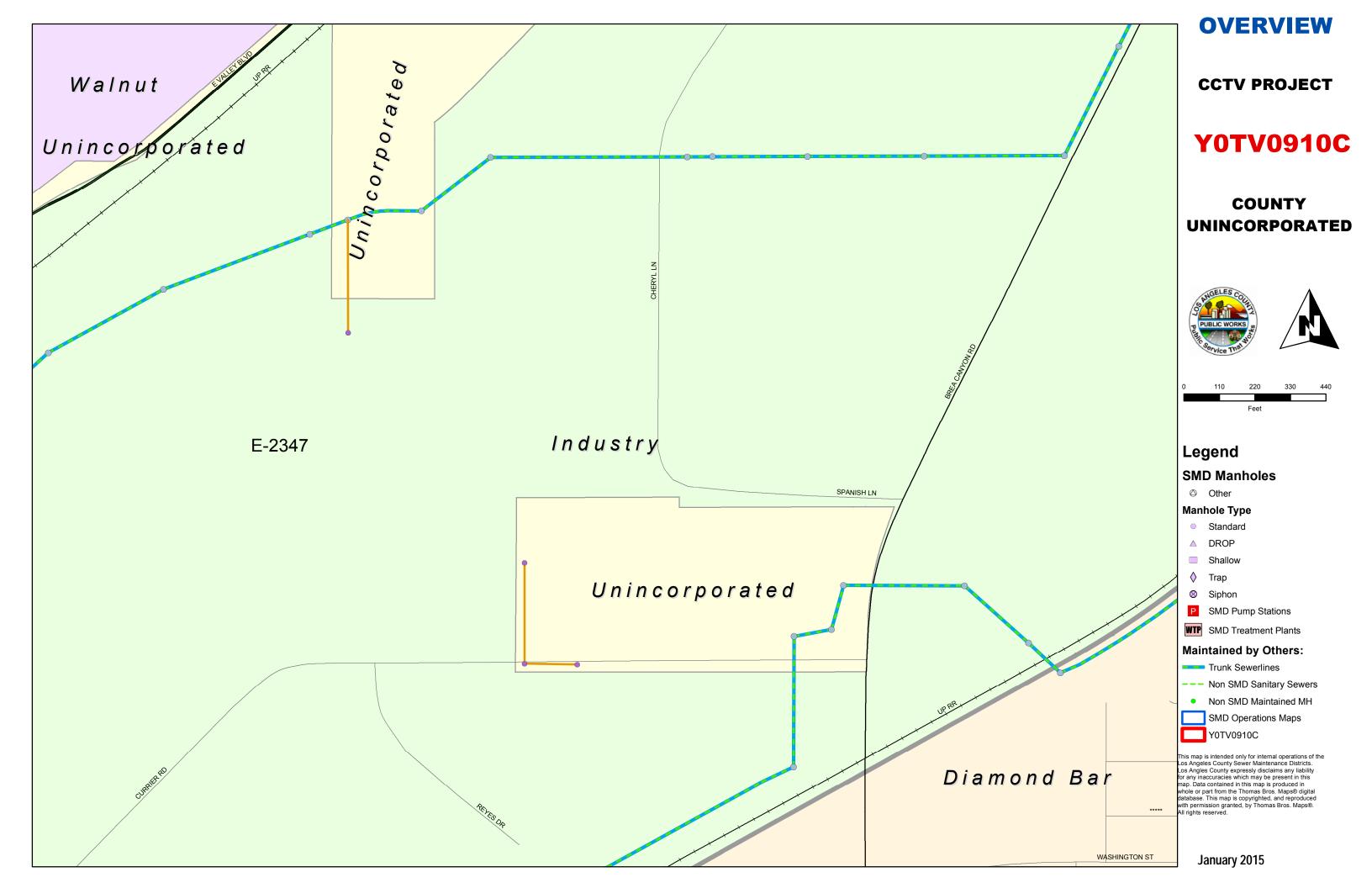
The Sewer Condition Assessment Program performed the condition assessment of the sewer lines within unincorporated County maintained by the East Yard according to the following schedule:

FISCAL YEAR	PROJECT NAME	LENGTH (FT)	PERCENTAGE OF SYSTEM	STATUS
2005-2006	Y0TV0506D	49,010	1.4	COMPLETED
2005-2006	Y0TV0506E	159,581	4.4	COMPLETED
2007-2008	Y0TV0708F	195,437	5.4	COMPLETED
2008-2009	Y0TV0809A	213,884	5.9	COMPLETED
2008-2009	Y0TV0809C	301,513	8.3	COMPLETED
2009-2010	Y0TV0910B	1,675	0.1	COMPLETED
2009-2010	Y0TV0910C	224,433	6.2	COMPLETED
2010-2011	Y0TV1011A	502,737	13.9	REPORT PENDING
2011-2012	Y0TV1112B	767,924	21.2	REPORT PENDING
2013-2014	Y0TV1314B1	292,285	8.1	REPORT PENDING
2013-2014	Y0TV1314B2	324,762	9.0	REPORT PENDING
2014-2015	Y0TV1415B	580,774	16.1	REPORT PENDING
TOTAL		3,614,015	100.0	

# **ENCLOSURE 1:**

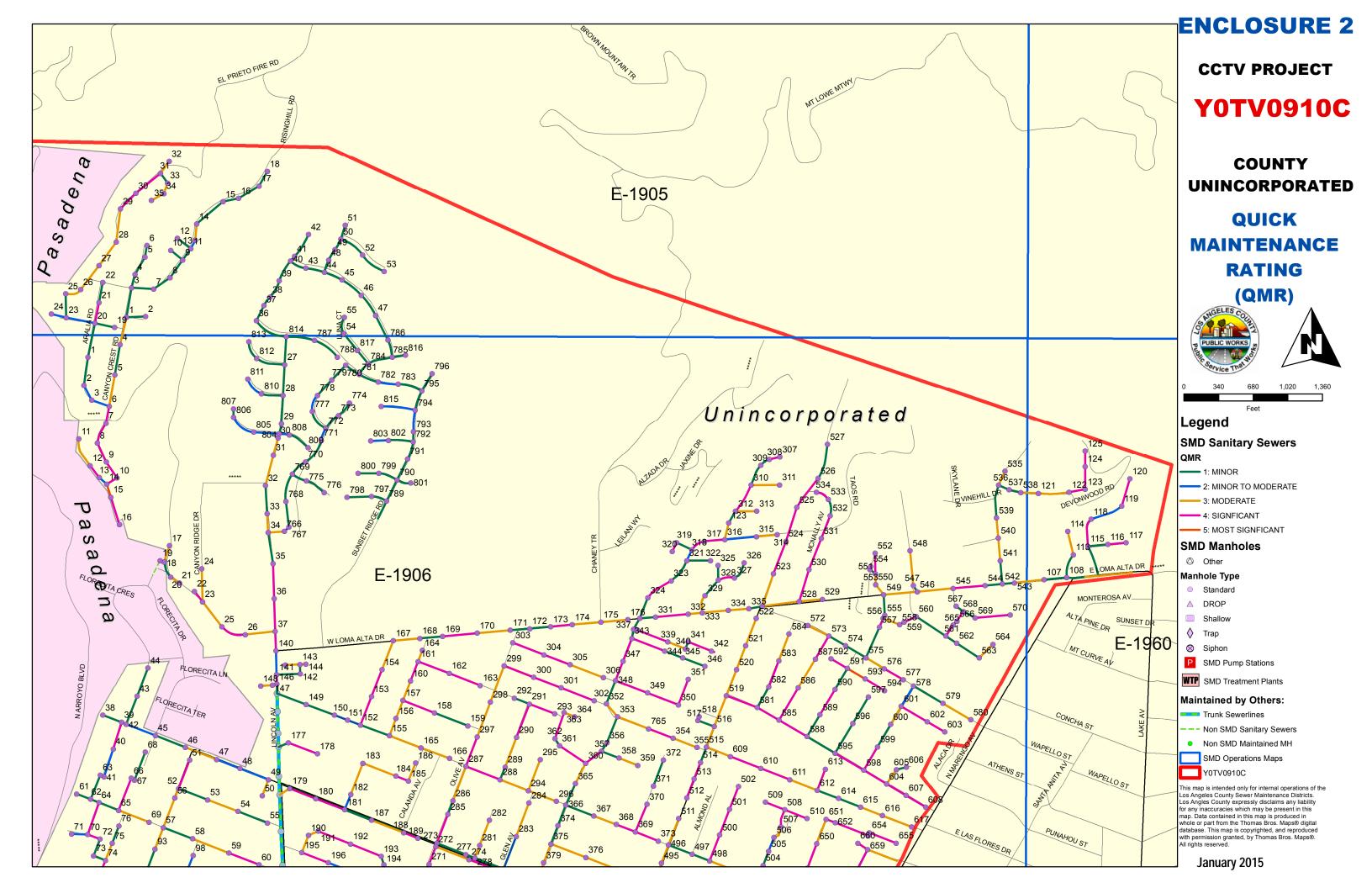
**Project Overview Map** 

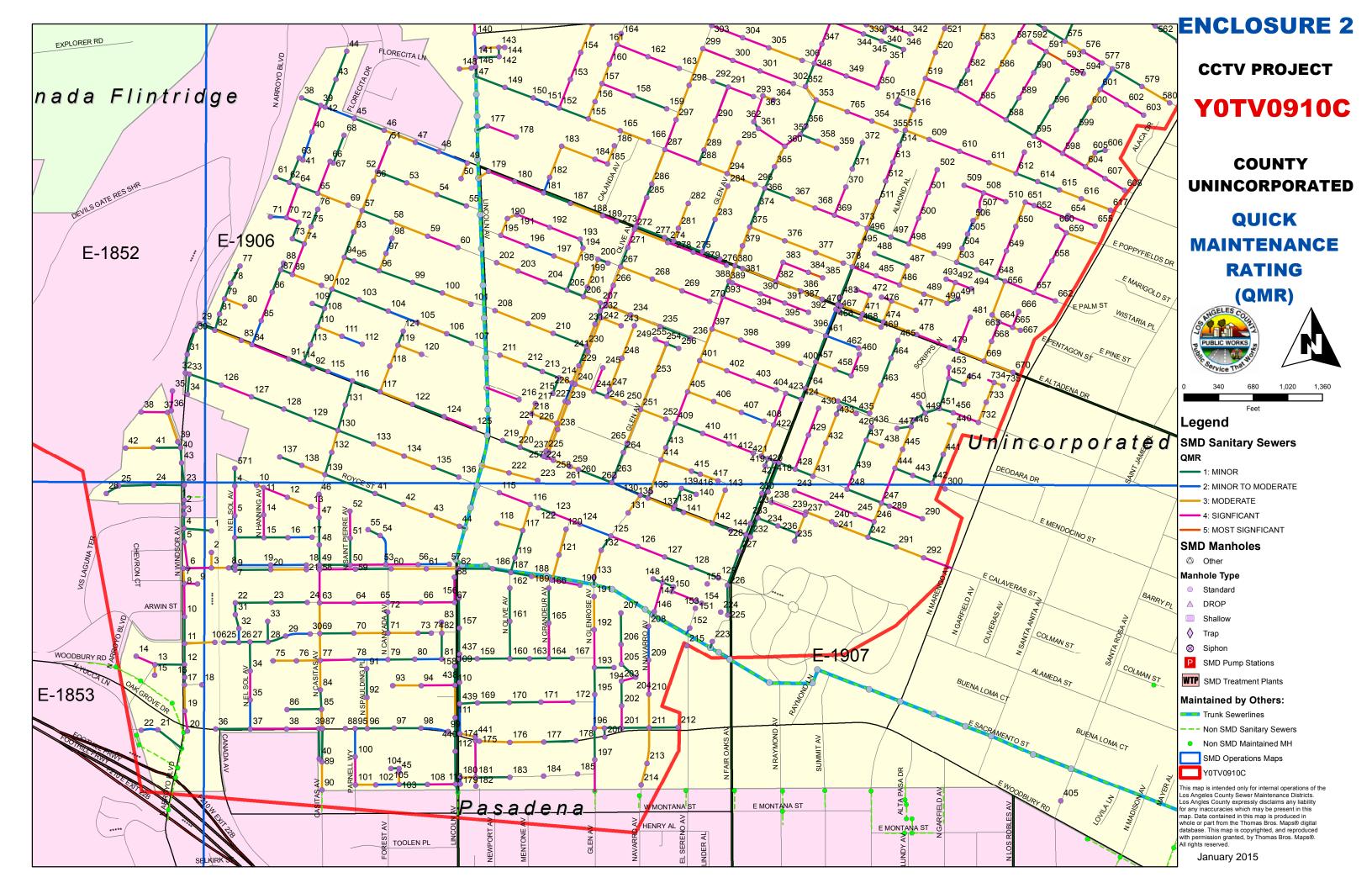


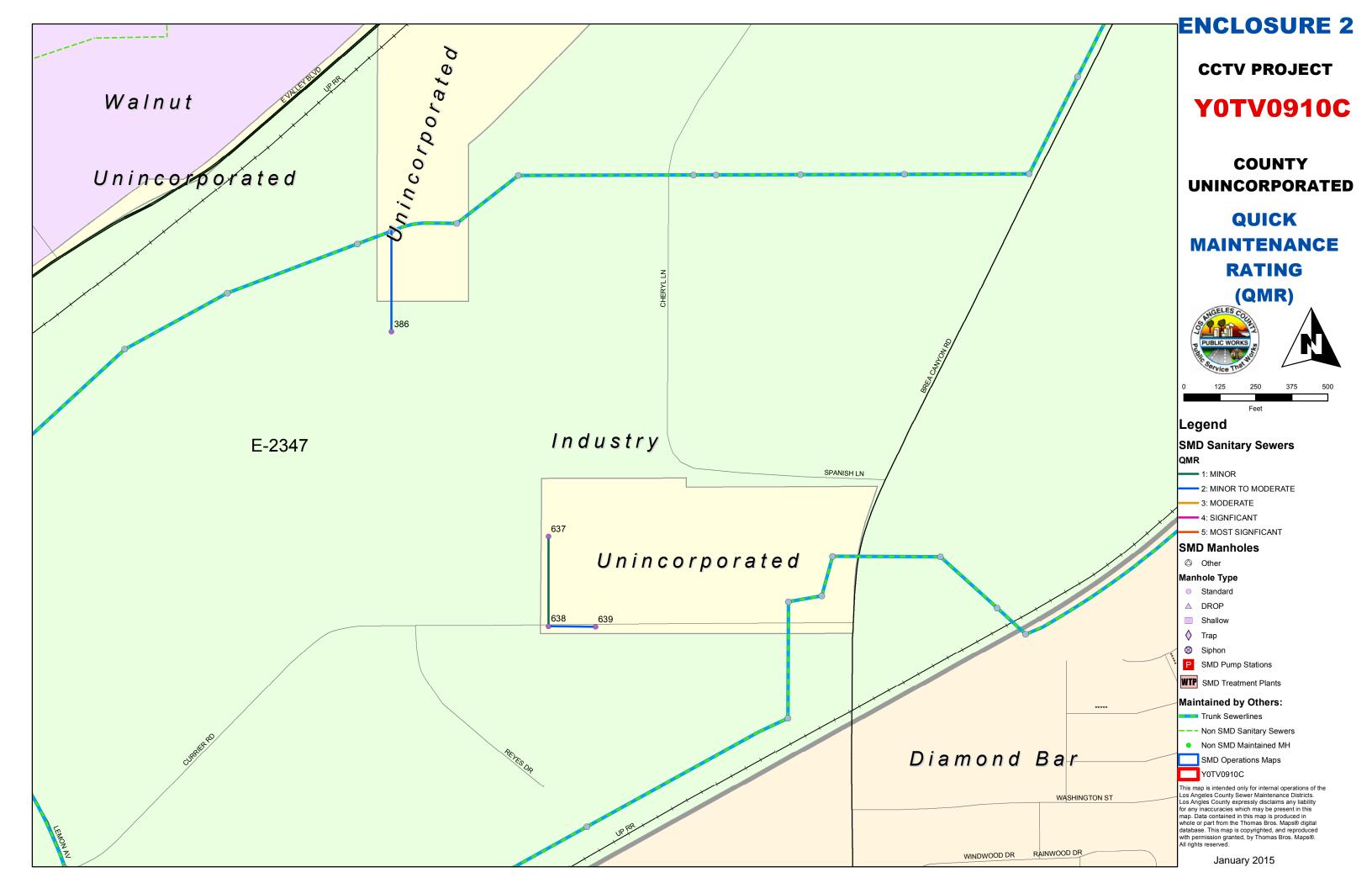


# **ENCLOSURE 2:**

- Quick Maintenance Rating Map
- High Water Levels List and Map
- Infiltration List and Map
- Sample Lateral Notice Letter





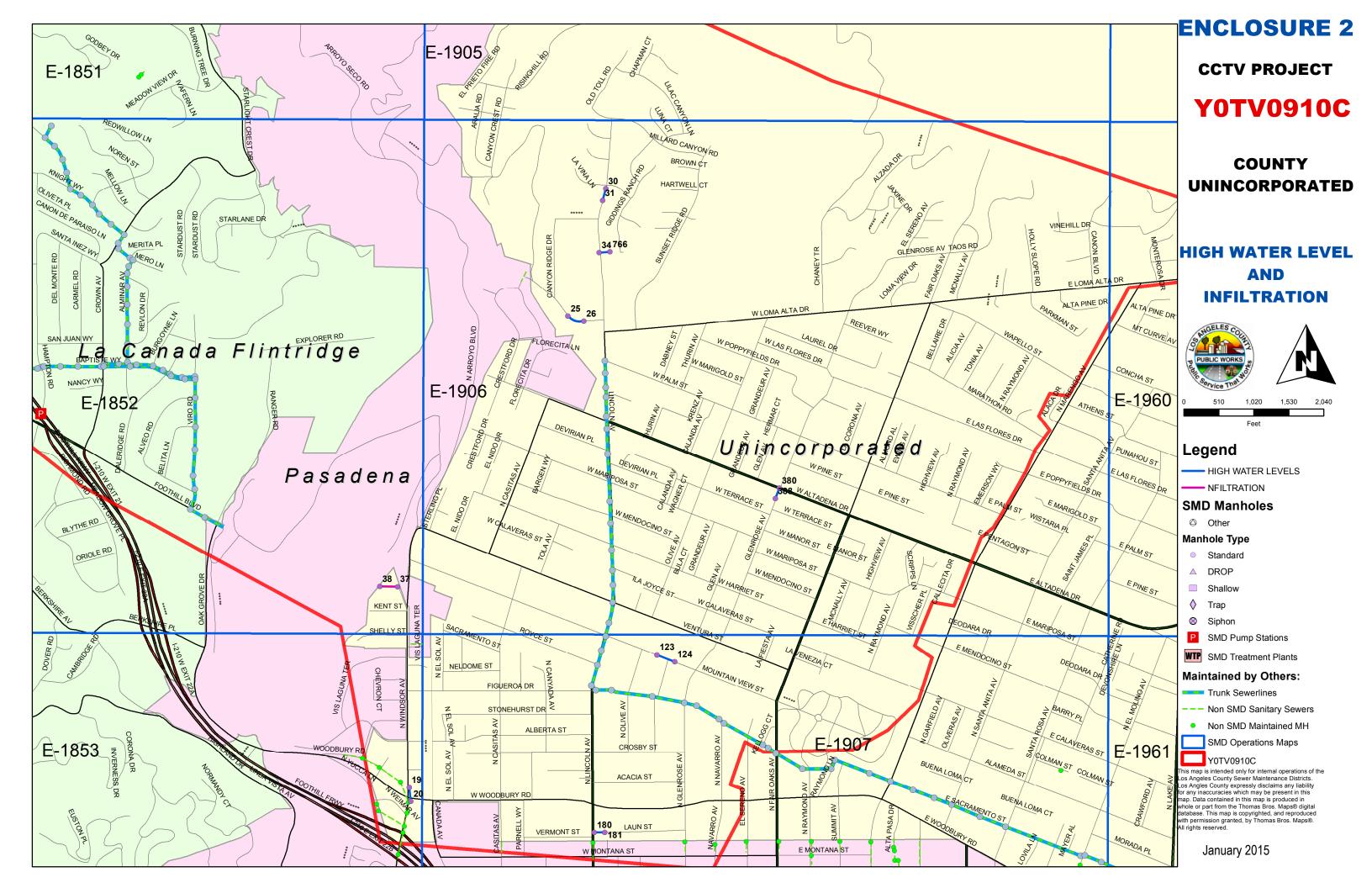


# ENCLOSURE 2 HIGH WATER LEVELS UNINCORPORATED EAST (YOTV0910C)

ITEM NO.	QMR	START MH	END MH	STREET	OBSERVATION: LOCATION
1	4435	1907-0124	1907-0123	MOUNTAIN VIEW ST	Camera underwater (sag); high water level (50%): 0'-21'
2	4337	1853-0019	1853-0020	WINDSOR AV	Camera underwater (sag); high water level (50%): 112'-139'
3	4234	1906-0025	1906-0026	CANYON CREST RD	Camera underwater (sag); high water level (70%): 28'-57'
4	3F23	1906-0030	1906-0031	LINCOLN AV	High water level (40 %): 197'-249'
5	3400	1906-0034	1906-0766	EASEMENT	High water level (40 %): 36'-51'
6	3121	1906-0380	1906-0388	GLENROSE AV	High water level (40 %): 1'-4'
7	3100	1907-0181	1907-0180	LAUN ST	High water level (40 %): 164'-170'

# ENCLOSURE 2 INFILTRATION UNINCORPORATED EAST (Y0TV0910C)

Item No.	QMR	START MH	END MH	STREET	OBSERVATION	Proposed Corrective Method
1	4434	1852-0037	1852-0038	LEHIGH ST	Infiltration (runner): 62'	Infiltration is minimal. No action needed.





# **COUNTY OF LOS ANGELES**

## DEPARTMENT OF PUBLIC WORKS

"To Enrich Lives Through Effective and Caring Service"

900 SOUTH FREMONT AVENUE ALHAMBRA, CALIFORNIA 91803-1331 Telephone: (626) 458-5100 http://dpw.lacounty.gov

ADDRESS ALL CORRESPONDENCE TO: P.O. BOX 1460 ALHAMBRA, CALIFORNIA 91802-1460

IN REPLY PLEASE

REFER TO FILE: SM-1

(DATE)

Mr./Ms. (NAME) (ADDRESS)

Dear Ms. (LAST NAME):

## **SEWER LATERAL ROOT INTRUSION**

The County of Los Angeles Consolidated Sewer Maintenance District is responsible for the maintenance of the sanitary sewer system in your area. We recently televised the sewer mainline and discovered roots in your sewer lateral connection. The intrusion of the roots from your lateral may block the flow of sewage in the mainline sewer causing an overflow upstream of your property. You are hereby requested to perform maintenance on the private sewer lateral serving the property located at 4474 El Prieto Road, Altadena, California 91001.

In accordance with <u>County Code 20.24.080 Maintenance of Sewer Laterals</u>. "All house laterals, industrial connection sewers, septic tank outlet connections to STEP system, and appurtenances thereto existing as of January 23, 1953, or thereafter constructed, shall be maintained by the owner of the property served in a safe and sanitary condition, and all devices or safeguards which are required by this Division 2 for the operation thereof shall be maintained in good working order."

As the property owner, you are responsible for the entire length of the sewer lateral, which includes the portion that extends beyond the property line into the public right of way. We request that you contact a licensed plumber to service your sewer lateral within 90 days to remove roots and any other obstructions that may cause a sewage backup.

Your licensed plumber is required to protect the District's sewer mainlines from dislodged roots and other debris by utilizing catcher baskets at the manhole downstream from your lateral connection. Prior to your plumber cleaning your lateral, please notify the District's sewer maintenance yard in your area at (626) 446-5227 to arrange for authorization to access the downstream manhole.

We have enclosed photos of your lateral connection showing the root blockage. In addition, we have included literature on ways to minimize sewer overflows and damage to your home. Please consider establishing a routine cleaning schedule for your sewer lateral to minimize potential plumbing problems caused by root intrusion that are likely to reoccur.

If your sewer lateral has been cleaned after the date on the enclosed photos, no further action is necessary. After your lateral has been serviced, please notify Mr. Fernando Villaluna, Sewer Maintenance Division, at (626) 300-3380 or fvillaluna@dpw.lacounty.gov.

Thank you for helping keep the sewer lines clean and in good working order.

Very truly yours,

GAIL FARBER
Director of Public Works

WILLIAM J. WINTER
Assistant Deputy Director
Sewer Maintenance Division

XXXXX

Enc.

1 ate

**XXXXX** 

#### Roots at Lateral Connection





## Minimizing Sewer Overflows and Damage to Your Home

The sewer system within the County of Los Angeles Consolidated Sewer Maintenance District (District) is comprised of a series of underground pipes. Many are publicly owned; however, the sewer laterals are entirely owned by the private property owner they serve. The laterals extend from the building to the mainline within the street (or within an easement at the rear of your home). The laterals are typically four inches in diameter while the District's mainline is typically at least eight inches in diameter. The private property owner is responsible for the entire length of the lateral, which includes the portion that may be located within the public right of way (under the asphalt and street landscaping).

# Homeowner is responsible for lateral maintenance up to the sewer mainline. Sewer Easement Sewer Lateral Homeowner's Responsibility Sewer Mainline District's Responsibility Sewer Mainline District's Responsibility

## **SEWER LATERALS - AREAS OF RESPONSIBILITY**

Sewer backups can cause tremendous damage to the interior of a home. In order to minimize these, the District provides continual maintenance services for the public sewer mainlines.

Unfortunately, sewer laterals are often not maintained by private property owners until a disaster strikes. "Out of sight, out of mind" is a typical approach to sewer lateral maintenance and operation by many. It is our hope that we can provide you various means of addressing these issues and thus, minimize your risk of an overflow entering your home.

The three methods we suggest are:

- 1. Maintain your lateral through proper cleaning, repair, and replacement.
- 2. Do not place improper items into the sewer or make improper connections to the sewer.
  - a. Keep rainwater out of the sewer lines as it overwhelms the capacity of the sewer lines and may cause sewer spills.
  - b. Do not pour fats, oils, and grease in your drains as these products harden and stick to the inside of the sewer pipes, which build up and may eventually cause a blockage in the sewer pipe.
- 3. Install a backflow preventer and cleanout in your sewer lateral.

# **ENCLOSURE 3:**

- Quick Structural Rating Report Priority List
- Quick Structural Rating Map
- Lining and Point Repair Projects Map

ITEM NO.	QSR	START MH	END MH	STREET	OBSERVATION: LOCATION	PROPOSED CORRECTIVE METHOD	LENGTH OF REPAIR (FT)
1	5445	1907-0081	1907-0080	CROSBY ST	Broken: 92', 164'; fractures/cracks: multiple locations	Lining: MH to MH (CIPP)	299
2	533M	1907-0098	1907-0097	WOODBURY RD	Hole: base of both MH 98 &97	CSMD will repair base of MH 97 & 98.	
3	523L	1907-0097	1907-0096	WOODBURY RD	Broken/fractures: 4'-9'	Point Repair	
4	523J	1907-0102	1907-0103	VERMONT ST	Broken: base of MH 103	CSMD will repair base of MH 103.	
5	523F	1906-0014	1906-0015	EASEMENT	Broken: 127'	Structural integrity in tact. No action needed.	
6	523C	1907-0094	1907-0093	ARCHWOOD PL	Broken: 124'	Point Repair	
7	513N	1907-0103	1907-0108	VERMONT ST	Broken: 236'	Point Repair	
8	513K	1907-0099	1907-0098	WOODBURY RD	Hole: base of both MH 98	CSMD will repair base of MH 98.	
9	513J	1906-0047	1906-0046	ALTADENA DR	Hole: 185'	Point Repair	
10	5248	1906-0161	1906-0164	THURIN AV	Broken/deformed/fractures: 76'-99'	Lining: MH to MH (CIPP)	149
11	5247	1906-0016	1906-0015	EASEMENT	Broken/deformed/fractures: 82'-132'	Lining: MH to MH	285
12	5242	1907-0093	1907-0094	ARCHWOOD PL	Broken: 173'	Point Repair	
13	5241	1906-0384	1906-0385	EASEMENT	Broken/fractures: 31'-60'	Lining: MH to MH	145
14	5234	1906-0485	1906-0484	PINE ST	Broken: 22', 278'	Lining: MH to MH	286
15	5231	1906-0501	1906-0502	EWING AV	Broken/fractures: 130'-140'	Point Repair	
16	5200	1906-0427	1907-0231	FAIR OAKS AV	Broken: 181'	Point Repair	
17	5142	1906-0319	1906-0320	EASEMENT	Broken: 81'	Structural integrity in tact. No action needed.	
18	5142	1906-0573	1906-0587	ALICIA AV	Broken: 312'	Linian Milles Mill	312
18	5142	1906-0587	1906-0573	- ALICIA AV	Broken: 9'; fractures: 32'	Lining: MH to MH	312
19	5141	1906-0158	1906-0157	MARIGOLD ST	Broken/fractures: 121'-122'; cracks: multiple locations	Lining: MH to MH	345
20	5141	1906-0220	1906-0224	VENTURA ST	Fractures: 115'; hole: base of MH 224	CSMD will repair base of MH 224.	
21	5141	1906-0572	1906-0573	WAPELLO ST	Broken: 224'; fractures: 81'	Lining: MH to MH	232
22	5141	1906-0610	1906-0609	LAS FLORES DR	Broken: 126'; fractures: 37'	Lining: MH to MH	300
23	5141	1906-0649	1906-0648	RAYMOND AV	Fractures: 87'; hole at base of MH 648	CSMD will repair base of MH 648.	
24	5141	1907-0147	1907-0146	EASEMENT	Broken: 296'-299'; fractures: 66'	Lining: MH to MH	311
25	5141	1906-0608	1906-0607	MARATHON RD	Broken: 136'	Point Repair	
26	5137	1906-0664	1906-0668	EASEMENT	Fracture: 4'; cracks: multiple locations; hole at base of MH 668	Lining: MH to MH; CSMD will repair base of MH 668.	204
27	5134	1907-0210	1907-0211	NAVARRO AV	Broken: 331'; joint offset (large): 346'	Point Repairs	
28	5133	1906-0178	1906-0177	VILLA ZANITA	Broken: 11'; fractures: multiple locations	Lining: MH to MH (CIPP)	293

ITEM NO.	QSR	START MH	END MH	STREET	OBSERVATION: LOCATION	PROPOSED CORRECTIVE METHOD	LENGTH OF REPAIR (FT)
29	5133	1906-0205	1906-0206	MARIPOSA ST	Hole: base of MH 206	CSMD will repair base of MH 206	
30	5133	1906-0657	1906-0656	PALM ST	Broken: 305'	Lining: MH to MH	310
31	5133	1907-0006	1907-0007	EL SOL AV	Broken: 51'	Structural integrity in tact. No action needed.	
32	5133	1907-0037	1907-0038	WOODBURY RD	Hole: 85'	Point Repair	
33	5133	1907-0132	1907-0133	GLENROSE AV	Broken: 32'	Point Repair	
34	5132	1906-0593	1906-0591	EASEMENT	Broken: 47'	Lining: MH to MH	203
35	5131	1906-0081	1906-0082	STERLING PL	Broken: 212'; fractures: 205'	Point Repair	
36	5131	1906-0085	1906-0084	EL NIDO DR	Broken/fractures: 259' (concrete encasement)	Structural integrity in tact. No action needed.	
37	5131	1906-0091	1906-0084	VENTURA ST	Broken/fractures: 126' -127'	Structural integrity in tact. No action needed.	
38	5131	1906-0242	1906-0243	EASEMENT	Broken: 208'	Structural integrity in tact. No action needed.	
39	5131	1906-0404	1906-0403	MARIPOSA ST	Broken: base of MH 403	CSMD will repair base of MH 403.	
40	5131	1906-0570	1906-0569	ALTA PINE DR	Broken: base of MH 569	CSMD will repair base of MH 569.	
41	5131	1907-0181	1907-0180	LAUN ST	Broken: 156'	Point Repair (sleeve)	
42	5131	1907-0202	1907-0201	EASEMENT	Hole: base of MH 201	CSMD will repair base of MH 201.	
43	5123	1906-0279	1906-0278	ALTADENA DR	Hole: base of MH 278	CSMD will repair base of MH 278.	
44	5122	1907-0005	1907-0006	EL SOL AV	Broken: 234'	Structural integrity in tact. No action needed.	
45	5121	1905-0012	1905-0011	SUNMORE LN	Hole at base of MH 11	CSMD will repair base of MH 11	
46	5121	1906-0169	1906-0168	LOMA ALTA DR	Broken: 87'	Structural integrity in tact. No action needed.	
47	5112	1905-0014	1905-0013	RISINGHILL RD	Hole at base of MH 13	CSMD will repair base of MH 13	
48	5112	1906-0201	1906-0206	WAGNER CT	Hole: base of MH 206	CSMD will repair base of MH 206.	
49	5112	1907-0065	1907-0064	STONEHURST DR	Hole: base of MH 64	CSMD will repair base of MH 64.	
50	5112	1960-0120	1960-0119	EASEMENT	Broken: 34'	Point Repair (sleeve)	
51	5111	1906-0084	1906-0083	VENTURA ST	Broken: 11'	Structural integrity in tact. No action needed.	
52	5100	1853-0013	1853-0015	EASEMENT	Broken: 46'	Point Repair (sleeve)	
53	5100	1906-0219	1906-0220	VENTURA ST	Hole: base of MH 220	CSMD will repair base of MH 220.	
54	5100	1906-0331	1906-0330	LOMA ALTA DR	Broken: 98' -100'	Lining: MH to MH (CIPP)	112
55	5100	1906-0793	1906-0792	SUNSET RIDGE RD	Broken: 53'	Structural integrity in tact. No action needed.	
56	5100	1907-0087	1907-0089	CASITAS AV	Broken: 167'	Structural integrity in tact. No action needed.	
57	5100	1907-0124	1907-0123	MOUNTAIN VIEW ST	Broken: 2'	Structural integrity in tact. No action needed.	

ITEM NO.	QSR	START MH	END MH	STREET	OBSERVATION: LOCATION	PROPOSED CORRECTIVE METHOD	LENGTH OF REPAIR (FT)
58	5100	1907-0238	1907-0237	CALAVERAS ST	Broken: base of MH 237	CSMD will repair base of MH 237.	
59	4435	1906-0586	1906-0585	ALICIA AV	Fractures: 24', 79', 192'; hole: base of MH 89	Lining: MH to MH; CSMD will repair base of MH 89.	282'
60	4236	1907-0053	1907-0056	FIGUEROA DR	Fractures: 248', 269', 275'	Lining: MH to MH	352'
61	4235	1906-0297	1906-0287	OLIVE AV	Fractures: 332'	Point Repair	
62	4235	1906-0339	1906-0338	EASEMENT	Fractures: 93', 112'	Lining: MH to MH	315'
63	4235	1907-0160	1907-0159	CROSBY ST	Fractures: 72'; hole: base of MH 159	CSMD will repair base of MH 159.	
64	4232	1960-0112	1960-0111	LOMA ALTA DR	Fractures: 55', 289'	Structural integrity in tact. No action needed.	
65	4231	1907-0206	1907-0205	EASEMENT	Fractures: 139'-161'	Lining: MH to MH	194'
66	4221	1907-0052	1907-0051	ST PIERRE AV	Fractures: 118', 297'	Lining: MH to MH	302'
67	413M	1907-0102	1907-0101	VERMONT ST	Hole: base of MH 102	CSMD will repair base of MH 102.	
68	413J	1852-0034	1852-0033	WINDSOR AV	Fractures: 40'	Structural integrity in tact. No action needed.	
69	413J	1907-0051	1907-0050	ST PIERRE AV	Fracture: 45'	Lining: MH to MH	240'
70	413A	1906-0099	1906-0096	MENDOCINO ST	Fractures: 141'; cracks: multiple locations	Lining: MH to MH	351'
71	413A	1906-0166	1906-0165	PALM ST	Fractures/cracks: multiple locations	Lining: MH to MH	335
72	412A	2347-0638	2347-0639	CURRIER RD	Broken: 154'	Structural integrity in tact. No action needed.	
73	4138	1906-0222	1906-TRNK	EASEMENT	Fractures: 90'; cracks: multiple locations	Lining: MH to MH	275
74	4137	1906-0332	1906-0331	LOMA ALTA DR	Fractures: 42'; cracks: multiple locations	Lining: MH to MH (CIPP)	352
75	4137	1906-0519	1906-0516	FAIR OAKS AV	Fractures: 174'; cracks: multiple locations	Lining: MH to MH	314
76	4135	1906-0096	1906-0095	MENDOCINO ST	Fractures: 64'	Lining: MH to MH	305
77	4135	1906-0349	1906-0348	LAUREL DR	Fractures: 113'; cracks: multiple locations	Lining: MH to MH	341'
78	4135	1906-0582	1906-0581	BELLAIRE DR	Fractures: 222'	Lining: MH to MH	256
79	4134	1906-0025	1906-0026	CANYON CREST RD	Sag	Structural integrity in tact. No action needed.	
80	4134	1906-0093	1906-0094	CASITAS AV	Fractures: 202'	Structural integrity in tact. No action needed.	
81	4134	1906-0580	1906-0579	WAPELLO ST	Fractures: 186'	Lining: MH to MH	
82	4134	1907-0030	1907-0029	ALBERTA ST	Fractures: 144'	Structural integrity in tact. No action needed.	
83	4134	1907-0038	1907-0039	WOODBURY RD	Fractures: 156'	Point Repair	
84	4134	1907-0039	1907-0040	CASITAS AV	Fractures: 254'	Point Repair	
85	4134	1907-0056	1907-0057	FIGUEROA DR	Fractures: 88'	Lining: MH to MH	259'
86	4133	1906-0508	1906-0509	EASEMENT	Fractures: 127'	Lining: MH to MH	205

ITEM NO.	QSR	START MH	END MH	STREET	OBSERVATION: LOCATION	PROPOSED CORRECTIVE METHOD	LENGTH OF REPAIR (FT)
87	4133	1906-0579	1906-0578	WAPELLO ST	Fractures: 311'; cracks: multiple locations	Lining: MH to MH	348'
88	4133	1906-0597	1906-0596	LAURICE AV	Fractures: 224'; cracks: multiple locations	Lining: MH to MH	333'
89	4133	1907-0004	1907-0005	EL SOL AV	Broken: 239'	Structural integrity in tact. No action needed.	
90	4133	1907-0016	1907-0017	NELDOME ST	Fractures: 148'	Structural integrity in tact. No action needed.	
91	4132	1906-0031	1906-0032	LINCOLN AV	Fractures: 165'	Structural integrity in tact. No action needed.	
92	4132	1906-0035	1906-0036	LINCOLN AV	Fractures: 57'	Structural integrity in tact. No action needed.	
93	4132	1906-0138	1906-0137	ROYCE ST	Fractures: 266'	Structural integrity in tact. No action needed.	
94	4132	1906-0578	1906-0601	RAYMOND AV	Fractures: 130'	Lining: MH to MH	253
95	4132	1906-0661	1906-0659	POPPYFIELDS DR	Fractures: 147'	Lining: MH to MH	250'
96	4132	1906-0662	1906-0657	PALM ST	Fractures: 215'	Lining: MH to MH	237'
97	4131	1906-0600	1906-0599	RAYMOND AV	Fractures: 145'	Lining: MH to MH	225
98	4131	1906-0601	1906-0602	EASEMENT	Fractures: 80'	Structural integrity in tact. No action needed.	
99	4131	1907-0116	1907-0117	OLIVE AV	Fractures: 142'	Structural integrity in tact. No action needed.	
100	4131	1907-0161	1907-0162	OLIVE AV	Fractures: 190'	Point Repair (sleeve)	
101	4128	1906-0291	1906-0290	GRANDEUR AV	Fractures: 30'; cracks: multiple locations	Lining: MH to MH	330'
102	4125	1906-0318	1906-0319	EASEMENT	Fractures: 160'; cracks: multiple locations	Lining: MH to MH	167'
103	4121	1906-0105	1906-0106	HARRIET ST	Fractures: 32'	Structural integrity in tact. No action needed.	
104	4121	1907-0139	1907-0138	EASEMENT	Broken: 173'	Lining: MH to MH	176
105	4111	1906-0207	1906-0232	OLIVE AV	Fractures: 6'	Structural integrity in tact. No action needed.	
106	4100	1853-0008	1853-0009	ALLEY	Fractures: 37'	Structural integrity in tact. No action needed.	
107	4100	1906-0018	1906-0017	CANYON CREST RD	Fractures: 141'	Structural integrity in tact. No action needed.	
108	4100	1906-0024	1906-0023	CANYON RIDGE DR	Fractures: 40'	Structural integrity in tact. No action needed.	
109	4100	1906-0106	1906-0107	HARRIET ST	Fractures: 8'	Structural integrity in tact. No action needed.	
110	4100	1906-0539	1906-0536	CANNON BV	Joint offset (large): 52'-56'	Point Repair	
111	4100	1906-0556	1906-0557	EASEMENT	Fractures: 48'	Structural integrity in tact. No action needed.	

