

By Alameda County Environmental Health 9:08 am, Sep 29, 2017

### **PERJURY STATEMENT**

Subject: Fuel Lake Case No. Ro0002981 and Geotracker Clobal ID T1000000416, Red Hanger Cleaners, 6335-6339 College Ave., Oakland, CA 94618

"I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge."

Ron Elvidge

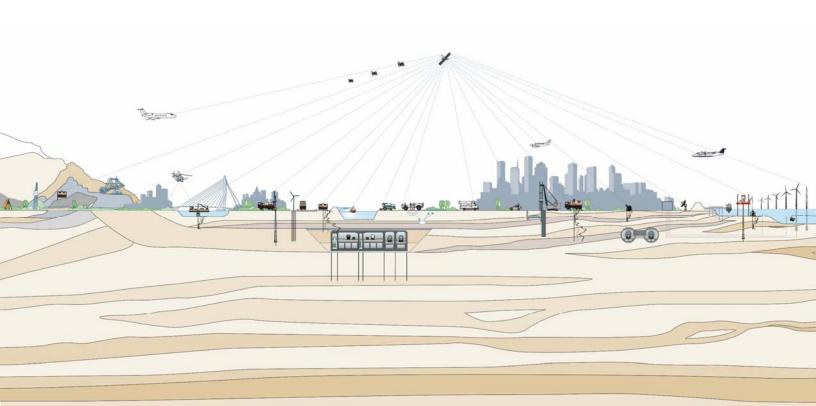
College/Claremont Venture, LLC



## **FUGRO**

Summary of Utility and Topographic Surveys 6235 College Avenue Oakland, California

September 28, 2017 Fugro Project No. 04.72160042





### **FUGRO**

Summary of Utility and Topographic Surveys 6235 College Avenue Oakland, California

September 28, 2017 Fugro Project No. 04.72160042

Prepared for: Alameda County Health Services Agency (County)

1131 Harbor Bay Parkway, Suite 250

Alameda, CA 94502-6577



### **FUGRO**

1777 Botelho Drive, Suite 262 Walnut Creek, California 94596 T +1 925 949 7100 F +1 925 949 7070 www.fugro.com

Fugro Project No. 04.72160042 Document No. 04.72160042-PR-001 September 28, 2017

Alameda County Health Services Agency (County) 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502-6577

Attention: Dilan Roe and Keith Nowell

Summary of Utility and Topographic Survey Services, 6235 College Avenue, Oakland, California

Dear Ms. Roe and Mr. Nowell,

Fugro USA Land, Inc. (Fugro) has the pleasure of submitting this written report as a summary of our work related to evaluating the condition and orientation of accessible sanitary sewer mainlines and collection laterals on and adjacent to the 6235 College Avenue property in 2017. This report also presents a summary of previous utility surveys completed by others in the site vicinity and limited publicly information regarding property renovations which may have included replacement/relocation of sanitary sewer lines on adjacent parcels.

If you have any questions, regarding the results contained herein, please contact the undersigned at 925-949-7100.

Sincerely,

Fugro USA Land, Inc.

Jeriann Alexander, PE, REPA

Principal Engineer

Distribution: One electronic copy to Mr. Ron Elvidge, College Claremont Venture, LLC

One electronic copy to Mr. Patrick Ellwood, Ellwood Commercial Real Estate



### **CONTENTS**

1.	EXEC	UTIVE SUMMARY	1
2.	INTRO	DDUCTION	3
2.1	Scope	of Work	3
3.	SCOP	E OF WORK COMPLETED	4
3.1	Camer	ra and Snake Surveying, January 12, 2017	4
3.2	Topog	raphic Survey	5
3.3	Field C	5	
3.4	Histori	cal Research	5
	3.4.1	City of Oakland Engineering Department	5
	3.4.2	Building Department	6
	3.4.3	Previous Utility Surveys	6
4.	CONC	LUSIONS	8
5.	LIMITA	ATIONS	9
		PLATES	
Invest	igation P	oints	Plate 1
Main \$	Sewer Lin	ne Profile – 63 <sup>rd</sup> Street	Plate 2
		APPENDICES	
A.	FIELD	UTILITY SURVEY DATA FORMS	
В.	CITY	OF OAKLAND SEWER MAINLINE MAPS	
C.	LISTIN	NG OF BUILDING PERMITS	



#### 1. EXECUTIVE SUMMARY

Fugro USA Land, Inc. (Fugro) was retained in January 2017 by College Claremont Ventures, LLC, the owner of the property at 6235 to 6239 College Avenue (Site), to coordinate a preliminary survey of assessible sanitary sewer collector laterals located onsite and the mainline below 63<sup>rd</sup> Street and a topographic survey. In addition, we were retained to review available environmental reports related to historic dry cleaner operations and regulatory required investigations at the Site and adjacent properties, to assess sources of elevated volatile organic compounds (VOC) measured in soil vapor samples on and in the Site vicinity. Based on these activities we have drawn the following conclusions:

- Groundwater data from new monitoring wells installed and sampled in 2017 as part of the Alameda County Health Care Services required study to assess potential impacts to groundwater and provide further delineation of soil vapor impacts at the 6235 to 6239 College Avenue property and adjacent properties, strongly suggests the presence of two separate sources of VOC exist within the study area. Out of the 6 new wells which were sampled, PCE was detected in samples from the 2 wells located in proximity to the two, former dry cleaning business locations (6251 to 6255 and 6235 to 6239 College Avenue). In my opinion, given that these two wells are spatially removed from each other, there is a high probability that source materials (contaminated soil) remains below the two former dry cleaning business locations. Contaminated VOC vapors generated by these soil sources may be commingling given the numerous vapor migration pathways which exist within the area of investigation including along utility corridors and through permeable soil lenses (observed through a review of the numerous test boring logs completed as part of the studies for the 6235 to 6239 College Avenue property from 2005 to current).
- Identification of sewer lateral tie-ins and taps (closed tie-ins) at the mainline within 63<sup>rd</sup> Street was not feasible due to existing construction details and manhole entry obstructions. Tracing of all existing laterals within the local area was also not feasible due to the lack of access to private properties to complete the survey. Laterals and the portion of the mainline below 63<sup>rd</sup> Street which were surveyed on January 12, 2017 are shown on Plate 1.
- It is apparent that a sewer mainline extends below both 63<sup>rd</sup> Street and College Avenue based on
  City of Oakland sewer maps. One recently traced sanitary sewer lateral extending from 309 63<sup>rd</sup>
  Street (see line ss-5 on Plate 1) heads toward College Avenue, directly below the 6251 College
  Avenue property.
- Based on a review of historic available maps, multiple utility trenches have been shown to cross the Site and adjacent properties. The interconnectivity of the sanitary sewer and storm drainage systems between properties is not well understood due to a lack of lateral surveys conducted on adjacent properties and difficulties in accessing the mainlines below 63<sup>rd</sup> Street and College Avenue. However, we have observed possible interconnection between these subsurface Site utility lines and uses on adjacent properties. During the January 12, 2017 site visit at about 7:30 am, we observed sudsy water upwelling through a storm drain inlet at the rear of the Site adjacent to new MW-5 and the location of SVE-1 where elevated soil vapor readings have been measured. We



confirmed that no activities and no tenants were onsite in the 6235 to 6239 College Avenue building at this time. Adjacent property tenant activities were observed coinciding with our observations including operation of the Cole Coffee cafe at the 6255 College Avenue property and Cole Coffee retail shop at 305/307 63<sup>rd</sup> Street, renovation activities within the 6251-6253 College Avenue property, and activity at the Great Wall Chinese Restaurant at the 6247 College Avenue property (possible kitchen preparations). In addition, sudsy water releases have also been observed by Fugro in 2016/2017, in the pedestrian alley behind 6247 College Avenue.

- An enforcement action for releases of unknown and sudsy wash water in the pedestrian alley between behind 305/307and 309 63<sup>rd</sup> Street and near the rear walkway for 6247 College Avenue are documented in the permit history for 305 63<sup>rd</sup> Street in 2007. Further information from the City of Oakland was not provided upon our request, as those details are only provided to documented property owners and their representatives.
- City of Oakland permitting records available online document numerous non-residential building renovations involving 6251-6255 College Avenue, most of which were permitted under associated property addresses including 303 to 307 63<sup>rd</sup> Street. As a result, the location of recently removed and replaced sanitary sewer lines are likely not located in the same alignment as those associated with former dry cleaning operations which date back to the 1930's at that location. Further information from the City of Oakland regarding obtain copies of the plans prepared to support the permitted projects was not provided upon our request, as those details are only provided to documented property owners and their representatives.
- The locations of former dry cleaning machines as shown by EnviroAssets in their 2017 soil vapor report for 6251 to 6255 College Avenue are also likely not representative of all the potential dry cleaning machine, clothes spotting stations, nor waste collection or sanitary discharge locations at this adjacent property given our understanding of the long history of the dry cleaning business practices at this address and the noted periodic interior renovations which have occurred.
- The soil vapor data presented by EnviroAssets in their 2017 report, even if the data could be validated by an accredited laboratory, would not in my opinion serve as evidence that a dry cleaning compound source or a current vapor intrusion concern did not or does not exist at the former location of dry cleaning businesses which operated historically at the 6251 to 6255 College Avenue properties. Based on the permit history alone, which shows a pattern of periodic renovations including the recently completed seismic foundation strengthening and interior renovations, any and all of which may have resulted in disturbance and removal of potential source material from these properties.



### 2. INTRODUCTION

Fugro USA Land, Inc. (Fugro) was retained in January 2017 by College Claremont Ventures, LLC, the owner of the property at 6235 to 6239 College Avenue (Site), to coordinate a preliminary survey of assessible sanitary sewer laterals located onsite and the mainline below 63<sup>rd</sup> Street. This preliminary survey of sanitary sewer lines was conducted in response to a request by Alameda County Health Care Services, the Local Oversight Program (LOP) for information regarding the condition and location of the lines to aid in their evaluation of potential migration flow paths near known and suspected dry cleaner business waste material releases.

General research into the operation of dry cleaners, including interviews which Fugro staff have conducted with dry cleaner business owners with extensive knowledge of dry cleaner business practices for more than 50 years, has indicated that it was common practice for small dry cleaning businesses to dispose of waste cleaning compounds into sanitary sewer systems, toilets, wash basins, floor drains, sumps, and other conveyance points. Historic dry cleaning chemical and waste management practices are currently viewed as less efficient and poor practice in comparison those which are required by current regulatory authority.

As documented in numerous case studies and published records available online regarding the dry cleaning industry, the historic practices and lack of attention to best management practices for handing chemicals, routinely resulted in the discharge of dry cleaning solvents to the subsurface through systems which were not designed or maintained as "water" tight improvements. Sanitary sewer systems are designed to collect waste water and convey it through a system of interconnected piping to treatment facilities. However, the conveyance piping is not designed to be leak resistant. Non-pressurized conveyance piping is designed to accommodate heavy flows through over flowing and seepage through slip joints which are also susceptible to shifting, cracking, and offsets due to normal operations, structural loading, and earthquakes. Advancements in the sanitary sewer system construction practices now require cast iron piping below buildings which has reduced sewer gas emissions. However, even cast iron piping cannot within stand the corrosive, adverse conditions caused by routine disposal of chemicals.

### 2.1 Scope of Work

Fugro's scope of work as outlined in consultation with the Site owner included the following activities:

- Site reconnaissance to observe exposed and assessible sewer entry points and the mainline manhole on 63rd Avenue,
- Additional record research including the review of lists of building permits for the Site and the 6251-6255 College Avenue/303, 305, 307 63<sup>rd</sup> Avenue property, both of which have had historic use as dry cleaning businesses,
- Coordinating with Bess Testlabs, Inc. (BTI) to conduct camera and/or snake-surveys within identified and assessible points of entry into the sanitary sewer system on Site on accessible portions of the 63<sup>rd</sup> Street mainline,
- Review of environmental investigation reports provided by the owner for the Site and adjacent properties, and
- Preparing this summary report.



### 3. SCOPE OF WORK COMPLETED

### 3.1 Camera and Snake Surveying, January 12, 2017

On January 12, 2017, BTI met with Fugro personnel to observe sanitary sewer entry points in the vicinity of the Site. All lines surveyed were composed of vitrified clay pipe. Camera surveyed or snaked lines are shown on Plate 1. Field data sheets provided by BTI for each of the lines surveyed are presented in Appendix A.

Surveys conducted evaluated two portions of the sanitary sewer mainline below 63<sup>rd</sup> Street, identified on Plate 1 as ss-1 and ss-2. Surveys were also conducted for the lateral leading from 6235 to 6239 College Avenue to the mainline below 63<sup>rd</sup> Street (ss-3), the lateral leading from 321 63<sup>rd</sup> Street to the mainline below 63<sup>rd</sup> Street (ss-4), and a lateral leading from 309 63<sup>rd</sup> Street toward College Avenue (ss-5). The 309 63<sup>rd</sup> Street lateral was entered by BTI to determine if it was connected to the 6235 to 6239 College Avenue lateral.

Initially, the manhole in the middle of 63<sup>rd</sup> Street nearest the 6235 College driveway was opened and the sewer camera system was deployed. The camera was deployed downstream (ss-1), away from the Site about 47 feet and it was observed that no other lateral tie-ins extended into the mainline from the Site. The next tie-in was observed extending from the property located at 321 63<sup>rd</sup> street. The mainline diameter was 8 inches. Offsets were observed in a number of joints, some significant.

The camera was then removed and re-deployed upstream from the manhole (ss-2), or toward College Avenue. However, the camera could only travel 3 feet before the mainline made a 90 degree vertical bend upward. No lateral tie-ins were observed. No significant defects were observed. The mainline diameter was 8 inches.

The camera was then removed and re-deployed into the sanitary sewer cleanout located at the northwest corner of the 6239 College Avenue building (ss-3). The camera travelled 77.3 feet toward the centerline of 63<sup>rd</sup> Street at which point it was observed that the lateral made a 90 degree vertical bend downward. While there were a number of offset joints and some cracking, the pipeline alignment appeared relatively intact. There was no observed tie-ins to the line. The lateral diameter was 4 inches.

No other camera surveys were conducted.

The BTI crew was requested to trace, using a magnetic snake and hand-held surface tracing equipment the sanitary sewer lateral from the mainline, upstream toward 321 63<sup>rd</sup> Street. (ss-4) As this line followed the 6239 College Avenue property line, BTI staff did not need to enter the 321 63<sup>rd</sup> Street property. The line was traced about 41 feet before it was noted to make an angle to the southwest. The line was snaked another 24 feet before the snaking was terminated. The lateral diameter was 4 inches.

The BTI crew was requested to search in assessible areas for another cleanout which may have connected to a lateral extending toward the 6235 to 6239 College Avenue property, and to trace the line, if found. The crew observed a cleanout below the stairwell south of 309 63<sup>rd</sup> Street (ss-5). Using a magnetic snake and



hand-held surface tracing equipment the sanitary sewer lateral was traced from the cleanout to the east toward College Avenue about 86 feet before a grease clog was encountered. The lateral alignment and length the snake travelled would suggest that the line extends below 6251 College Avenue and may tie-in to the mainline below College Avenue. The lateral diameter was 4 inches and the flowline was checked to be about 5 to 7 feet deep, using remote sensing equipment.

### 3.2 Topographic Survey

Concurrent with the sanitary sewer camera and snake survey, a topographic survey was also conducted to establish reference points for observed points of investigation, the manhole in 63<sup>rd</sup> Street, the sanitary sewer cleanout, storm water drain inlets, and building and property corners in the vicinity of the Site. The survey was conducted by Virgil Chavez Land Surveying. Topographic elevations and coordinates were identified by Chavez using the Smartnet Reference Network operated by Leica Geosystems. A copy of the survey is presented in Appendix B.

#### 3.3 Field Observations

While waiting for survey crews to arrive on January 12, 2017, Fugro observed upwelling through one of the onsite storm drains located adjacent to new MW-5 and the location of SVE-1 where elevated soil vapor readings have been measured. The water was slightly warm and sudsy. A 3 to 4-foot diameter pool of sudsy water ringed the drain inlet, receding in about 30 minutes. The source of the water is unknown. We confirmed that no activities and no tenants were onsite in the 6235 to 6239 College Avenue building at this time. Adjacent property tenant activities were observed coinciding with our observations including operation of the Cole Coffee cafe at the 6255 College Avenue property and Cole Coffee retail shop at 305/307 63<sup>rd</sup> Street, renovation activities within the 6251-6253 College Avenue property, and activity at the Great Wall Chinese Restaurant at the 6247 College Avenue property (possible kitchen preparations).

Sudsy water releases have also been observed by Fugro in 2016/2017, in the pedestrian alley behind 6247 College Avenue.

### 3.4 Historical Research

### 3.4.1 City of Oakland Engineering Department

Fugro contacted the City to obtain sewer alignment maps for the Site area and to check and see if they had any information about lateral tie-ins or sewer camera surveys for the mainlines. No camera surveys or information about tie-ins could be located by the City.

City sewer maps are presented in Appendix B. The maps do suggest that sewer mainlines exist below both 63<sup>rd</sup> Street and College Avenue. The maps also indicate that the 63rd Street mainline is at two different flowlines and composed of both 6 and 8-inch diameter material. One of the maps also suggests that another mainline manhole was located near the College Avenue intersection, however the manhole has been paved over.



Using the flowline elevations shown on the City maps and the topographic survey data for the Site, Fugro developed an approximate profile of the mainline located below 63<sup>rd</sup> Street, to better depict the construction of this line. It is the change in elevation of the line and the paving over of the former manhole near College Avenue which hamper any further camera surveying of the 63<sup>rd</sup> Street mainline without extensive and intrusive excavation activities. The profile is presented on Plate 2.

### 3.4.2 Building Department

Fugro visited the building department to obtain listings of permits obtained for the Site and the 6251 to 6255 College Avenue/303, 305 and 307 63<sup>rd</sup> Street property which has been owned by the Bouzos Family since at least 1949 and is the original location of the former Red Hanger Kleaners. This research was conducted to aid in identifying the sources of dry cleaning compound releases in the Site vicinity. The building permit listings by address, as complied directly through an online search of City records are presented in Appendix C.

A brief review of the listings suggests that a number of improvements have been documented through the building permit history for each of the properties, including improvements to plumbing systems. Hard copy records of improvement plans are only available for documented representatives of a given property owner, thus making detailed research difficult to complete.

Evidence of surface discharges leading to enforcement actions are documented in the permit history for 6251 to 6255 College Avenue/303, 305 and 307 63<sup>rd</sup> Street. In 2007 the two entries listed below were noted:

- "PIPE IS DISCHARGING WASH WATER. PIPE LOCATED BETWEEN 305 63RD AND6247 COLLEGE AVENUE"
- "DISCAHRGE COMING FROM BUILDING TO SIDE ALLEY AND UNKNOWN LIQUID WITHAN ODOR AND SUDS"

### 3.4.3 Previous Utility Surveys

Previous environmental reports and development maps by others including the following have all shown various utility line alignments.

- 1984 Site Improvement Survey Plot Plan for The Gordon Building, Harris Consulting Group. Survey by Bates and Bailey. (New and existing sanitary sewer and storm drain lines are shown, quality of available copy is poor.)
- August 25, 2015, Youngdahl Consulting Group, Inc Phase II Report, Red Hanger Kleaners, 6235 to 6239 College Avenue. (Map shows the location of former dry cleaning machines and a spotting table and a sewer line, cleanout, and drain inlets below the west side of the building.)
- October 16, 2015, P& D Environmental Work Plan, Red Hanger Kleaners, 6235 to 6239 College Avenue.



(Maps indicate a citation to a Gordon Building base map dated July 2007. No base map was attached.)

- July 11, 2016, P&D Environmental Site Investigation Report, Red Hanger Kleaners, 6235 College Avenue.
  - (Included a camera survey from a cleanout located inside the building and south of the bathroom located on the first floor. No video footage exists. The report indicates that the conveyance line below the building is composed of cast iron.)
- June 5, 2017, Enviro Assets Report. Screening Subslab Survey. 6251, 6253, 6255 College Avenue and 305 and 307 63<sup>rd</sup> Street. (Shows location of a new sanitary sewer line and reports that the location is in the same alignment as the most recent sewer line. Maps also show the reported location of former dry cleaning machines and indicates that renovation work is being conducted in the ground floor commercial units of the building. The field surveying soil vapor data was not validated by accredited laboratory testing. Further, with the documented renovation history of the property and long term dry cleaner business usage, it is not reasonable to assume that the machine locations represent all possible locations.)

It is unclear what methods were used by others to document the location of the utility lines shown on the various investigation report maps and development maps. Other line orientations and the location of the suspected dry cleaning machine locations, as presented by various other investigators are shown on Plate 1.



### 4. CONCLUSIONS

Given the length of time the City block has been developed and the number of property ownership and usages changes, it is reasonable to expect that the study area is crossed by active and abandoned utility trenches and pipelines. These trenches and pipelines provide a migration pathway for contaminated vapors to move across a site.

Disturbance of any building element (flooring, slab, foundations) or soil overlying or within proximity to contaminated soils impacted by dry cleaning compounds would create a vapor gradient allowing diffusion /offgassing of the contaminated mass or release of contaminated vapor from the vadose zone pore spaces. Once the improvements are replaced, and given sufficient time, building up of chemical vapors would reoccur within more permeable soil zones. Vapors, once mobilized, will seek out pathways of least resistance including former and existing non-pressurized pipelines and utility trenches, and permeable soil lenses, thus creating the potential for commingling of source area vapor plumes.

Additional study is required on adjacent properties to better define the lateral and vertical extent of the second VOC source area at the 6251 to 6255 College Avenue property.



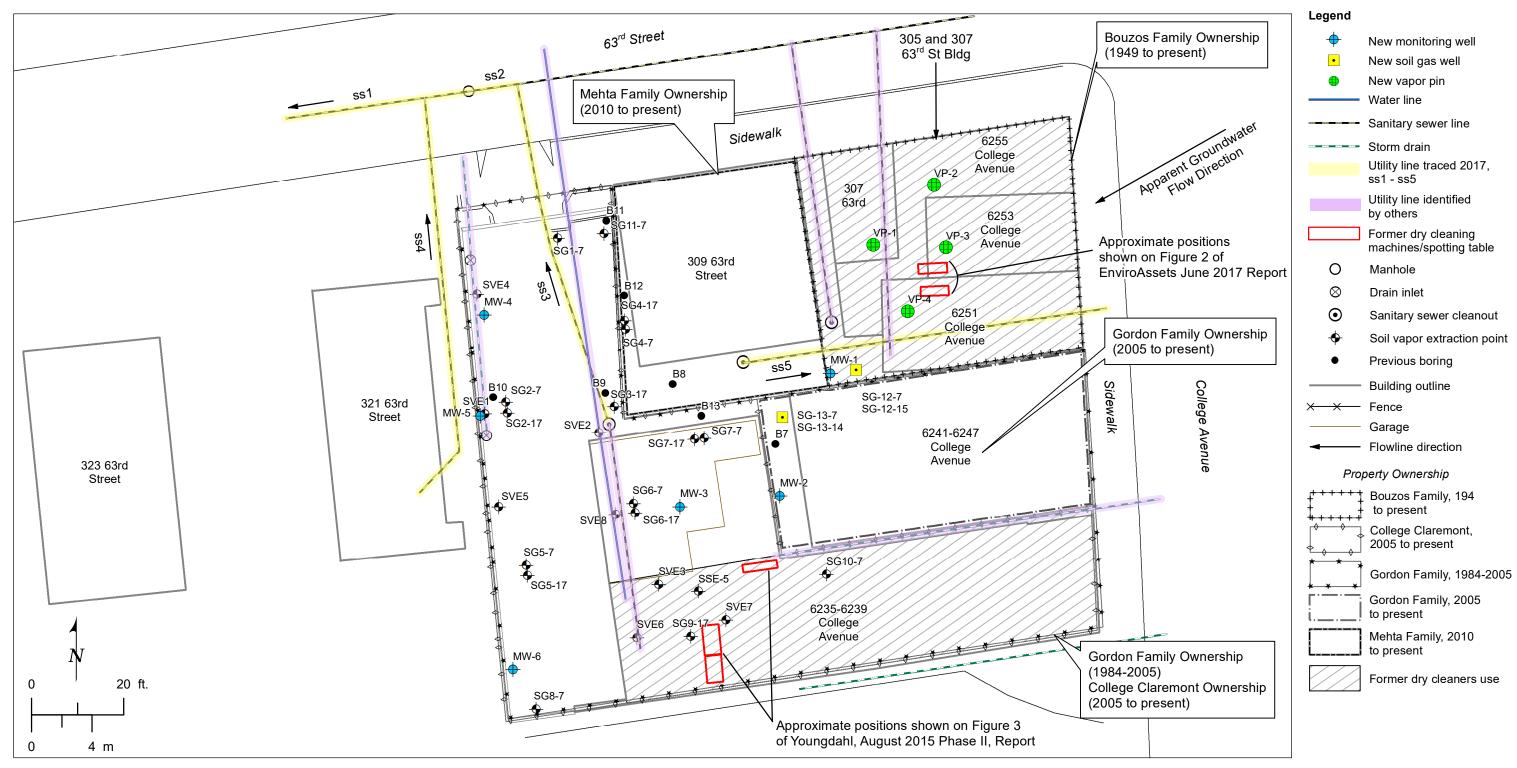
### 5. LIMITATIONS

Fugro has prepared this report in a professional manner, using that degree of skill and care exercised for similar projects under similar conditions by reputable and competent environmental consultants. Fugro shall not be responsible for conditions or consequences arising from relevant facts that were concealed, withheld, or not fully disclosed at the time the report was prepared. Fugro also notes that the facts and conditions referenced in this report may change over time and the conclusions set forth herein are applicable only to the facts and conditions as described at the time of this report. Fugro believes that conclusions stated herein to be factual, but no guarantee is made or implied.



**PLATES** 





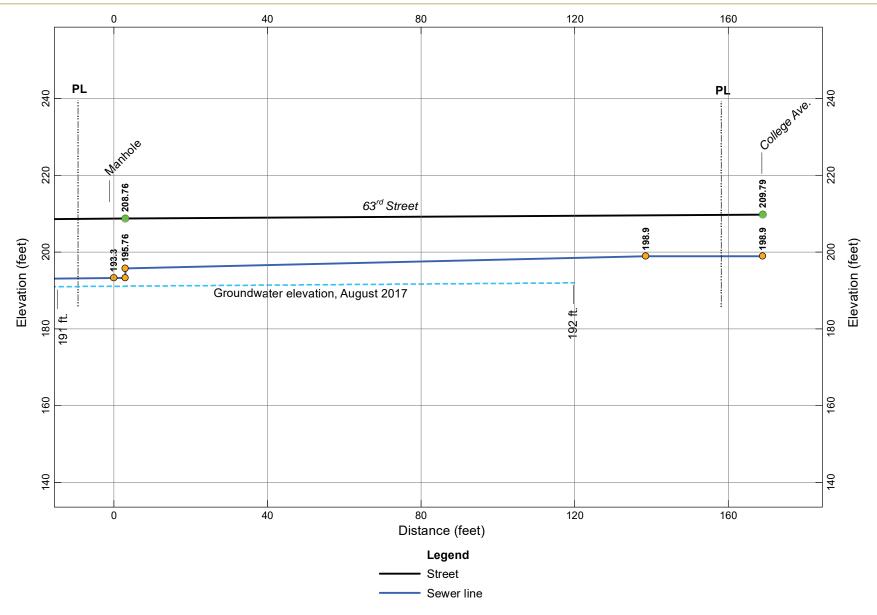
Note: Building extents at 321 and 323 63rd Street are approximate.

### POINTS OF INVESTIGATION

PLATE 1

### COLLEGE CLAREMONT VENTURE, LLC 63RD STREET 6395 COLLEGE AVENUE, OAKLAND, CALIFORNIA





**63<sup>RD</sup> STREET MAINLINE SEWER PROFILE** 

PLATE 2



**APPENDIX A** 



מאכו		rmation
	CCL	

Surveyor Name JAVIER MALO Certificate Number U-1114-06022642

Owner

Customer PO Number

1/12/2017 08:49

Date

Pipe Segment USMH 316\_DSMH

**Reference** 324\_FUGRO

Street 63RD ST City OAKLAND

Comments

**Drainage Area** 

## Manhole

Upstream Cross Street USMH 316 Rim to Invert (U)

Grade to Invert (U) Rim to Grade (U)

Downstream Cross \_\_\_\_\_\_\_

Street DSMH 324 Rim to Invert (D)

Grade to Invert (D) Rim to Grade (D)

Sewer Use Direction of Survey Downstream

### Pipe

Height (Diameter) 8 Width

Shape Circular Material Vitrified Clay Pipe

Lining Method Pipe Joint Length

Total Length Length Surveyed 46.9

Year Laid Year Renewed

### Misc

Flow Control Media Label DVD

Purpose Resurvey Sewer Category
Pre-Cleaning No Pre-Cleaning Date Cleaned
Weather Location Code

Weather Location Code
Additional Info Location Details

### Custom

Number of Taps 3

Number of Roots 0

Num Cracks / 0

Fractures 0

Number of Broken / 0

Holes / Collapse

Number of Obstacles 0

 Struct Grade
 0000

 Overall Grade
 0000

OM Grade 0000 Overall Grade 0000

## Pacp 6

Reverse Setup ID Sheet (Group)

Number

Imperial Units (US) True Pressure Value

Work Order PM Number FUGRO

**Completed** Yes

Cross Bore 1

**Contractor Name** BESSTEST LAB

**Equipment Used** Mainline Truck **Zip Code** 94545

State CA GPS Serial

**Cross Bore 2** 

**Inspection Count** 

Full Inspection Yes Reason Not

Completed Complete Inspection

Other Reasons Not Completed Attempt Number 1

Cross Bore Found No

QA/QC

Date Reviewed Reviewer Name

QA/QC Complete Notes

**Status of Lateral** 

Complete

Created with the report generator

Date: 1/12/2017 8:49:00 AM

Street: 63RD ST

Length Surveyed: 46.9

Pacp Quick Overall Rating: 0000

Height (Diameter): 8

**Surveyor Name: JAVIER MALO** 

Street: 63RD ST

Pipe Segment Reference: USMH 316\_DSMH

324 FUGRO

Upstream Cross Street: USMH 316

Downstream Cross Street: DSMH 324

**Direction of Survey:** Downstream

Material: Vitrified Clay Pipe

Certificate\_Number: U-1114-06022642



AMH - Manhole Distance: 0 Severity: None



MWL - Water Level Distance: 0 Severity: None

Mpeg Time: 14

AT USMH 316



MGO - General Observation

Distance: 6 Severity: None Mpeg Time: 24

5%



TFC - Tap Factory Capped

Distance: 7.5 Position: 3

Severity: None

Size: 4

Mpeg Time: 31 Mpeg Time: 53

AT 6FT MARK

Date: 1/12/2017 8:49:00 AM

Street: 63RD ST

Length Surveyed: 46.9

Pacp Quick Overall Rating: 0000

Height (Diameter): 8

Surveyor Name: JAVIER MALO

Street: 63RD ST

Pipe Segment Reference: USMH 316\_DSMH

324 FUGRO

**Upstream Cross Street:** USMH 316 **Downstream Cross Street:** DSMH 324

**Direction of Survey:** Downstream

Material: Vitrified Clay Pipe

Certificate Number: U-1114-06022642



TFA - Tap Factory Active

Distance: 9.5 Position: 9

Severity: None

Size: 4

TFA - Tap Factory Active

Distance: 11.3 Position: 3

Severity: None

Size: 4

Mpeg Time: 01:50

AT 316 63RD ST

AT 321 63RD ST



AEP - End of Pipe Distance: 46.9 Severity: None

Mpeg Time: 03:25

Mpeg Time: 01:20

PASSED ASSIGNED WORK AREA



Date: 1/12/2017 8:49:00 AM

Street: 63RD ST

Length Surveyed: 46.9

Pacp Quick Overall Rating: 0000

Height (Diameter): 8

Surveyor Name: JAVIER MALO

Total Distance: 46.9

(0.0) AMH - Manhole Remark: AT USMH 316

Street: 63RD ST

Pipe Segment Reference: USMH 316\_DSMH

324 FUGRO

**Upstream Cross Street:** USMH 316 **Downstream Cross Street:** DSMH 324

**Direction of Survey:** Downstream

Material: Vitrified Clay Pipe

Certificate\_Number: U-1114-06022642

ID Number: DSMH 324

ID Number: USMH 316



(46.9) AEP - End of Pipe Remark: PASSED
ASSIGNED WORK AREA

(11.3) TFA - Tap Factory Active - Position: 3
Remark: AT 316 63RD ST

(9.5) TFA - Tap Factory Active - Position: 9 Remark:
AT 321 63RD ST

(7.5) TFC - Tap Factory Capped - Position: 3
Remark:
(6.0) MGO - General Observation Remark: AT 6FT
MARK

(0.0) MWL - Water Level Remark: 5%



	Se	ession Information	
Surveyors Name	JAVIER MALO	Certificate Number	U-1114-06022642
System Owner		Survey Customer	
Drainage Area			
P/O Number		Pipeline Segment Ref	USMH 316_DSMH 324 FUGRO
Date	1/12/2017	Time	08:49
Location	63RD ST		
Locality	OAKLAND		
Further Location De	etails:		
	Ma	anhole Information	
Upstream Manhole	Number: USMH 316		
Rim to Invert		Grade to Invert	
Rim to Grade			
Downstream Manho	le Number: DSMH 324	4	
Rim to Invert		Grade to Invert	
Rim to Grade			
		Sewer	
Use of Sewer		Direction	Downstream
Flow Control		Height	8
Width		Shape	Circular
Material	Vitrified Clay Pipe	Lining Method	
Pipe Joint Length		Total Length	
Length Surveyed	46.9	Year Laid	
Year Rehabilitated		Tape/Media Number	DVD
Purpose	Resurvey	Sewer Category	
Pre-Cleaning	No Pre-Cleaning	Date Cleaned	
Weather		<b>Location Code</b>	
Additional			
Information			

Grade	Structural	O&M	Overall
5	0	0	0
4	0	0	0
3	0	0	0
2	0	0	0
1	0	0	0
Overall	0	0	0
Number of Defects	0	0	0
Pipe Rating	0000	0000	0000
Pipe Ratings Index	0	0	0

D: .	Video	deo	Value Cont		Value		T .	Circumferential Location	
Distance	Ref	Code	Defect	Dime	ension	0/	Joint	At /	Т-
				1st	2nd	%		From	То
0	14	AMH - Manhole							
		AT USMH 316							
0	24	MWL - Water Level				5			
		5%							
6	31	MGO - General Observation							
		AT 6FT MARK	T 6FT MARK						
7.5	53	TFC - Tap Factory Capped		4				3	
9.5	80	TFA - Tap Factory Active		4				9	
		AT 321 63RD ST							
11.3	110	TFA - Tap Factory Active		4				3	
		AT 316 63RD ST							
46.9	205	AEP - End of Pipe							
		PASSED ASSIGNED WORK AREA					_		



## **Videos Created for Session FUGRO**

FUGRO\_BESSTEST LAB\_8\_USMH 316\_DSMH 324\_OAKLAND\_20170112.mp4 Size: 106 MB

Your browser does not support the video tag.

Created with the PDSM report generator

Date: 1/12/2017 8:49:00 AM

Street: 63RD ST Length Surveyed: 46.9

Pacp Quick Overall Rating: 0000

Height (Diameter): 8

**Surveyor Name: JAVIER MALO** 

Street: 63RD ST

Pipe Segment Reference: USMH 316 DSMH

324 FUGRO

**Upstream Cross Street: USMH 316 Downstream Cross Street:** DSMH 324

**Direction of Survey:** Downstream

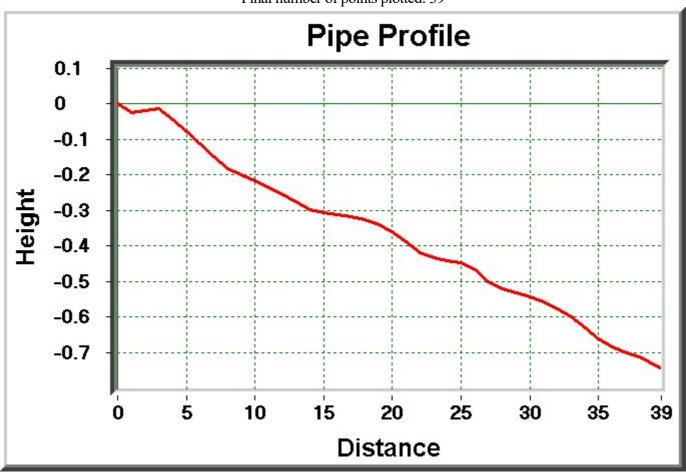
Material: Vitrified Clay Pipe

Certificate\_Number: U-1114-06022642

Percent Grade Mean: -2.00 Plot Distance From: 0 To 48 Max Percent Difference: 5 Number of Window Values: 2

Percent Differnce Max for Windows Values: 50

Number of Feet to Average: 1 Final number of points plotted: 39





## **Additional Reports for Session FUGRO**

Created with the PDSM report generator



	ect	mot	$\mathbf{o}$
			КОЛ
_			1

**Surveyor Name** JAVIER MALO **Certificate Number** U-1114-06022642

**Owner** Customer

**PO Number Drainage Area** 

63RD ST

**Pipe Segment** USMH 308 DSMH

Date 1/12/2017 09:16 Reference 316 FUGRO

Comments

Street

## Manhole

City

**OAKLAND** 

3

**Upstream Cross** Rim to Invert (U) **USMH 308** Street

Grade to Invert (U) Rim to Grade (U)

**Downstream Cross** 

**DSMH 316** Rim to Invert (D) Street

Grade to Invert (D) Rim to Grade (D)

**Sewer Use Direction of Survey** Upstream

### Pipe

Height (Diameter) 8 Width

Circular Material Vitrified Clay Pipe Shape

**Lining Method Pipe Joint Length Total Length Length Surveyed** 

Year Laid Year Renewed

### Misc

Flow Control Media Label DVD

**Purpose** Resurvey **Sewer Category Pre-Cleaning** No Pre-Cleaning **Date Cleaned** Weather **Location Code** 

**Location Details** Additional Info

### Custom

Number of Roots **Number of Taps** 0 0 Num Cracks / Number of Broken / 0 Holes / Collapse **Fractures Number of Deposits** 0 Number of Obstacles 0 Struct Grade

0000 0000

**OM Grade** 0000 **Overall Grade** 

## Pacp 6

Sheet (Group) **Reverse Setup ID** 

Number Imperial Units (US) **Pressure Value** True

Work Order **PM Number FUGRO** 

> Completed Yes

Cross Bore 1

**Contractor Name** BESSTEST LAB

**Equipment Used** Mainline Truck **Zip Code** 94545

State CA GPS Serial

**Cross Bore 2** 

**Inspection Count** 

Full Inspection Yes Reason Not

Completed Complete Inspection

Other Reasons Not Completed Attempt Number 1

Cross Bore Found No

QA/QC

Date Reviewed Reviewer Name

QA/QC Complete Notes

**Status of Lateral** 

Complete

Created with the report generator

Date: 1/12/2017 9:16:00 AM

Street: 63RD ST Length Surveyed: 3

Pacp Quick Overall Rating: 0000

Height (Diameter): 8

Surveyor Name: JAVIER MALO

Street: 63RD ST

Pipe Segment Reference: USMH 308\_DSMH

316 FUGRO

**Upstream Cross Street**: USMH 308 **Downstream Cross Street**: DSMH 316

**Direction of Survey:** Upstream **Material:** Vitrified Clay Pipe

Certificate\_Number: U-1114-06022642



AMH - Manhole Distance: 0 Severity: None



MWL - Water Level

Distance: 0 Severity: None

5%

Mpeg Time: 14

Mpeg Time: 26

AT DSMH



AEP - End of Pipe

Distance: 3 Severity: None

Mpeg Time: 01:12 MAINLINE INVERTS UP AT 90 DEGREES



Date: 1/12/2017 9:16:00 AM

Street: 63RD ST Length Surveyed: 3

Pacp Quick Overall Rating: 0000

Height (Diameter): 8

Surveyor Name: JAVIER MALO

Street: 63RD ST

Pipe Segment Reference: USMH 308\_DSMH

316 FUGRO

**Upstream Cross Street:** USMH 308 **Downstream Cross Street:** DSMH 316

**Direction of Survey:** Upstream **Material:** Vitrified Clay Pipe

Certificate\_Number: U-1114-06022642

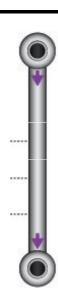


Total Distance: 3

(3.0) AEP - End of Pipe Remark: MAINLINE INVERTS UP AT 90 DEGREES

(0.0) MWL - Water Level Remark: 5%

(0.0) AMH - Manhole Remark: AT DSMH



ID Number: USMH 308

ID Number: DSMH 316



	Se	ession Information	
Surveyors Name	JAVIER MALO	Certificate Number	U-1114-06022642
System Owner		Survey Customer	
Drainage Area			
P/O Number		Pipeline Segment Ref	USMH 308_DSMH 316 FUGRO
Date	1/12/2017	Time	09:16
Location	63RD ST		
Locality	OAKLAND		
Further Location De	etails:		
	Ma	anhole Information	
Upstream Manhole l	Number: USMH 308		
Rim to Invert		Grade to Invert	
Rim to Grade			
Downstream Manho	ole Number: DSMH 310	6	
Rim to Invert		Grade to Invert	
Rim to Grade			
		Sewer	
Use of Sewer		Direction	Upstream
Flow Control		Height	8
Width		Shape	Circular
Material	Vitrified Clay Pipe	Lining Method	
Pipe Joint Length		Total Length	
Length Surveyed	3	Year Laid	
Year Rehabilitated		Tape/Media Number	DVD
Purpose	Resurvey	Sewer Category	
Pre-Cleaning	No Pre-Cleaning	Date Cleaned	
Weather		<b>Location Code</b>	
Additional			
Information			

Grade	Structural	O&M	Overall
5	0	0	0
4	0	0	0
3	0	0	0
2	0	0	0
1	0	0	0
Overall	0	0	0
Number of Defects	0	0	0
Pipe Rating	0000	0000	0000
Pipe Ratings Index	0	0	0

D:-t	Video Ref	l Code l	Cont	Value		T .	Circumferential Location		
Distance			Defect	Dime 1st	ension 2nd	%	Joint	At / From	To
0	14	AMH - Manhole							
		AT DSMH							
0	26	MWL - Water Level				5			
		5%							
3	72	AEP - End of Pipe							
		MAINLINE INVERTS UP AT 90 DEGREES							



## **Videos Created for Session FUGRO**

FUGRO\_BESSTEST LAB\_8\_DSMH 316\_USMH 308\_OAKLAND\_20170112.mp4 Size: 47.9 MB

Your browser does not support the video tag.

Created with the PDSM report generator

Date: 1/12/2017 9:16:00 AM Pipe Segment Referen

Street: 63RD ST Length Surveyed: 3

Pacp Quick Overall Rating: 0000

Height (Diameter): 8

**Surveyor Name:** JAVIER MALO

Street: 63RD ST

Pipe Segment Reference: USMH 308\_DSMH

316 FUGRO

Upstream Cross Street: USMH 308
Downstream Cross Street: DSMH 316

**Direction of Survey:** Upstream **Material:** Vitrified Clay Pipe

Certificate\_Number: U-1114-06022642

Percent Grade Mean: 3.83
Plot Distance From: 0 To 4
Max Percent Difference: 5
Number of Window Values: 2

Percent Differnce Max for Windows Values: 50

Number of Feet to Average: 1 Final number of points plotted: 1



# **Additional Reports for Session FUGRO**



**Project** 

PM Number FUGRO PACP Session ID

Surveyed By JAVIER MALO Certificate Number U-1114-06022462

Date / Time1/12/2017 09:45PO NumberWork Order NumberPurpose

#### Comments

Location

Owner Customer

City OAKLAND Street COLLEGE AVE

Drainage Area Location Code Location Details Additional Info

**Start Manhole** 

Lateral 1

FUGRO\_BESS TEST

Pipe Segment Lateral Segment LABS\_6239\_COLLEGE

Reference Reference AVE OAKLAND ACOH

TO AML L1

Upstream Manhole USMH 308

Downstream
DSMH 316

Upstream Manhole USMH 308 Manhole

Direction of Survey Downstream Tap Location
Purpose of Lateral Lining Method

Length Surveyed 77.3 Total Length

Lateral 2

Lateral Size 4 Lateral Material Vitrified Clay Pipe

Building Address 6239 Property Line
Clean Out Clean Out Rim to
Invert Distance

Pre-Cleaning Date Cleaned

Miscellaneous

Weather Year Laid

Media Label Is Imperial (US Units) True

Sheet Number Reverse Setup ID

**Pressure Value** 

**Completed** Yes

Custom

Number of Roots 0 Num Cracks / Fractures 0

Number of Broken / 0 Number of Deposits 0

Number of Obstacles 0

	Cros	s Bore 1	
<b>Contractor Name</b>	BESS TEST LABS		
<b>Equipment Used</b>	Mainline Truck	Zip Code	94545
State	CA	GPS Serial	

	Cro	ss Bore 2	
Lateral Number	L1	Branch Lateral	
<b>Lateral Section</b>	ACOH TO AML	Inspection Count	
Full Inspection Complete	Yes	Reason Not Completed	Complete Inspection
Other Reasons Not Completed		Attempt Number	1
		<b>Cross Bore Found</b>	No
		QA/QC	
Date Reviewed		<b>Reviewer Name</b>	
QA/QC Complete		Notes	
Status of Lateral			



Lateral Segment Reference: FUGRO\_BESS TEST LABS\_6239\_COLLEGE AVE\_OAKLAND\_ACOH TO

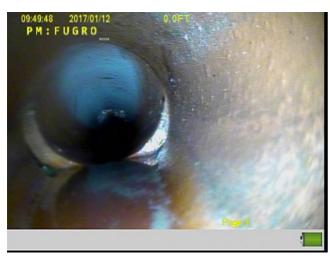
AML L1

Upstream Manhole: USMH 308
Downstream Manhole: DSMH 316
Direction of Survey: Downstream
Lateral Material: Vitrified Clay Pipe

Street: COLLEGE AVE Length Surveyed: 77.3

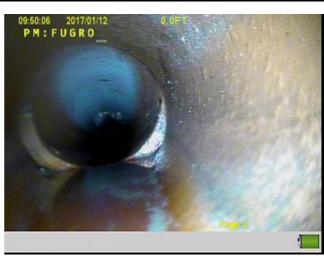
Date / Time: 1/12/2017 9:45:00 AM

Run Number: Lateral Size: 4



ACOH - Cleanout House

Distance: 0 Severity: None



Mpeg Time: 45

MWL - Water Level

Distance: 0 Severity: None

Mpeg Time: 27

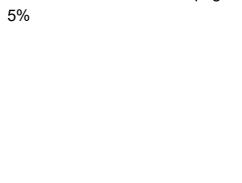
AT 6239 COLLEGE AVE



AML - Mainline Distance: 77.3 Severity: None

Mpeg Time: 03:34

AT MAINLINE





Date / Time: 1/12/2017 9:45:00 AM

Street: COLLEGE AVE Length Surveyed: 77.3

Run Number: Lateral Size: 4 Lateral Segment Reference: FUGRO\_BESS

TEST LABS 6239 COLLEGE

AVE OAKLAND ACOH TO AML L1 **Upstream Manhole: USMH 308** 

**Downstream Manhole: DSMH 316 Direction of Survey:** Downstream Lateral Material: Vitrified Clay Pipe



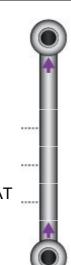
Total Distance: 77.3

(77.3) AML - Mainline Remark: AT MAINLINE

(0.0) MWL - Water Level Remark: 5%

(0.0) ACOH - Cleanout House Remark: AT

6239 COLLEGE AVE



ID Number: DSMH 316

ID Number: USMH 308



	Sessio	n Information	
Surveyors Name	FUGRO	Certificate Number	
System Owner	JAVIER MALO	Survey Customer	U-1114-06022462
Drainage Area	1/12/2017 09:45		
P/O Number		Pipeline Segment Ref	
Date	Time		
Location			
Locality			
Further Location D	Petails:		
	Manho	ole Information	
Upstream Manhole	Number:		
Rim to Invert		Grade to Invert	OAKLAND
Rim to Grade	COLLEGE AVE		
Downstream Manh	ole Number:		·
Rim to Invert		Grade to Invert	
Rim to Grade			
		Sewer	
Use of Sewer		Direction	
Flow Control	4	Height	
Width	FUGRO_BESS TEST LABS_6239_COLLEGE AVE_OAKLAND_ACOH TO AML_L1	Shape	USMH 308
Material	DSMH 316	Lining Method	Downstream
Pipe Joint Length		Total Length	
Length Surveyed		Year Laid	77.3
Year Rehabilitated		Tape/Media Number	Vitrified Clay Pipe
Purpose	6239	Sewer Category	
Pre-Cleaning		Date Cleaned	
Weather		<b>Location Code</b>	
Additional			
Information			

Grade	Structural	O&M	Overall
5	0	0	0
4	0	0	0
3	0	0	0
2	0	0	0
1	0	0	0
Overall	0	0	0
Number of Defects	0	0	0
Pipe Rating	0000	0000	0000
Pipe Ratings Index	0	0	0

D	Video		Cont		Value		T		nferential ation
Distance	Ref	Code	Defect	Dime 1st	ension 2nd	%	Joint	At / From	То
0	27	ACOH - Cleanout House							
		AT 6239 COLLEGE AVE							
0	45	MWL - Water Level				5			
		5%							
77.3	214	AML - Mainline							
		AT MAINLINE					·		



## **Videos Created for Session FUGRO**

FUGRO\_BESS TEST LABS\_6239\_COLLEGE AVE\_OAKLAND\_ACOH TO A-4618.wmv Size: 52.9 MB

# **Additional Reports for Session FUGRO**



**Project** 

PM Number FUGRO PACP Session ID

Surveyed By JAVIER MALO Certificate Number U-1114-06022462

Date / Time1/12/2017 10:39PO NumberWork Order NumberPurpose

#### Comments

Location

Owner Customer

City OAKLAND Street 63RD ST

Drainage Area Location Code Location Details Additional Info

**Start Manhole** 

Lateral 1

FUGRO\_BESS TEST
Pipe Segment Lateral Segment LABS 321 63RD

Reference Reference ST OAKLAND ACOP

TO AML L1

**Upstream Manhole** USMH 316 **Downstream Manhole** DSMH 324

Direction of Survey Downstream Tap Location
Purpose of Lateral Lining Method

Length Surveyed 24.3 Total Length

Lateral 2

Lateral Size 4 Lateral Material Vitrified Clay Pipe

Building Address 321 Property Line
Clean Out Clean Out Rim to
Invert Distance

Pre-Cleaning Date Cleaned

Miscellaneous

Weather Year Laid

Media Label Is Imperial (US Units) True

Sheet Number Reverse Setup ID

**Pressure Value** 

**Completed** Yes

Custom

Number of Roots 0 Num Cracks / Fractures 0

Number of Broken / 0 Number of Deposits 0

Number of Obstacles 0

	Cros	s Bore 1	
<b>Contractor Name</b>	BESS TEST LABS		
<b>Equipment Used</b>	Mainline Truck	Zip Code	94545
State	CA	GPS Serial	

	Cros	s Bore 2	
Lateral Number	L1	<b>Branch Lateral</b>	
<b>Lateral Section</b>	ACOP TO AML	Inspection Count	
Full Inspection Complete	Yes	Reason Not Completed	Complete Inspection
Other Reasons Not Completed		Attempt Number	1
		<b>Cross Bore Found</b>	No
	Q	A/QC	
Date Reviewed		Reviewer Name	
QA/QC Complete		Notes	
Status of Lateral			



Date / Time: 1/12/2017 10:39:00 AM

Street: 63RD ST

Length Surveyed: 24.3

Run Number: Lateral Size: 4 Lateral Segment Reference: FUGRO BESS TEST LABS 321 63RD ST OAKLAND ACOP TO AML L1

**Upstream Manhole: USMH 316 Downstream Manhole: DSMH 324 Direction of Survey:** Downstream Lateral Material: Vitrified Clay Pipe



ACOP - Cleanout Propertyline

Distance: 0 Severity: None



MWL - Water Level

Distance: 0 Severity: None

5%

Mpeg Time: 45

AT 321 63RD ST



AML - Mainline Distance: 24.3 Severity: None

Mpeg Time: 01:48

AT MAINLINE



Created with the report generator

Mpeg Time: 01:03

Date / Time: 1/12/2017 10:39:00 AM

Street: 63RD ST

Length Surveyed: 24.3

Run Number: Lateral Size: 4 **Lateral Segment Reference:** FUGRO\_BESS TEST LABS\_321\_63RD ST\_OAKLAND\_ACOP

TO AML\_L1

Upstream Manhole: USMH 316 Downstream Manhole: DSMH 324 Direction of Survey: Downstream Lateral Material: Vitrified Clay Pipe

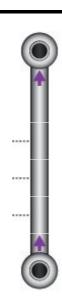


Total Distance: 24.3

(24.3) AML - Mainline Remark: AT MAINLINE

(0.0) MWL - Water Level Remark: 5%

(0.0) ACOP - Cleanout Propertyline Remark: AT 321 63RD ST



ID Number: DSMH 324

ID Number: USMH 316



	Session	n Information	
Surveyors Name	FUGRO	Certificate Number	
System Owner	JAVIER MALO	Survey Customer	U-1114-06022462
Drainage Area	1/12/2017 10:39		
P/O Number		<b>Pipeline Segment Ref</b>	
Date	Time		
Location			
Locality			
Further Location D	etails:		
	Manho	le Information	
Upstream Manhole	Number:		
Rim to Invert		Grade to Invert	OAKLAND
Rim to Grade	63RD ST		
Downstream Manh	ole Number:		
Rim to Invert		Grade to Invert	
Rim to Grade			
		Sewer	
Use of Sewer		Direction	
Flow Control	4	Height	
Width	FUGRO_BESS TEST LABS_321_63RD ST_OAKLAND_ACOP TO AML_L1	Shape	USMH 316
Material	DSMH 324	Lining Method	Downstream
Pipe Joint Length		Total Length	
Length Surveyed		Year Laid	24.3
Year Rehabilitated		Tape/Media Number	Vitrified Clay Pipe
Purpose	321	Sewer Category	
Pre-Cleaning		<b>Date Cleaned</b>	
Weather		<b>Location Code</b>	
Additional			
Information			

Grade	Structural	O&M	Overall
5	0	0	0
4	0	0	0
3	0	0	0
2	0	0	0
1	0	0	0
Overall	0	0	0
Number of Defects	0	0	0
Pipe Rating	0000	0000	0000
Pipe Ratings Index	0	0	0

D: 4	Video	0.1	Cont		Value		T . 1	l	ferential ation
Distance	Ref	Code	Defect		ension	%	Joint	At /	То
				1st	2nd			From	
0	45	ACOP - Cleanout Propertyline							
		AT 321 63RD ST							
0	63	MWL - Water Level				5			
		5%							
24.3	108	AML - Mainline							
		AT MAINLINE							



## **Videos Created for Session FUGRO**

FUGRO\_BESS TEST LABS\_321\_63RD ST\_OAKLAND\_ACOP TO AML\_L1-8431.wmv Size: 36.5 MB

# **Additional Reports for Session FUGRO**



**Project** 

PM Number FUGRO PACP Session ID

Surveyed By JAVIER MALO Certificate Number U-1114-06022462

Date / Time1/12/2017 10:29PO NumberWork Order NumberPurpose

#### Comments

Location

Owner Customer

City OAKLAND Street 63RD ST

Drainage Area Location Code Location Details Additional Info

**Start Manhole** 

Lateral 1

Pipe Segment
Reference

Lateral Segment
Reference

FUGRO\_BESS TEST
LABS\_321\_63RD
ST\_OAKLAND\_TF\_L1

**Upstream Manhole** USMH 316 **Downstream Manhole** DSMH 324

Direction of Survey Downstream Tap Location
Purpose of Lateral Lining Method

Length Surveyed 41.2 Total Length

Lateral 2

Lateral Size 4 Lateral Material Vitrified Clay Pipe

Building Address 321 Property Line
Clean Out Clean Out Rim to
Invert Distance

Pre-Cleaning Date Cleaned

Miscellaneous

Weather Year Laid

Media Label Is Imperial (US Units) True

Sheet Number Reverse Setup ID

**Pressure Value** 

**Completed** Yes

Custom

Number of Roots 0 Num Cracks / Fractures 0

Number of Broken / Number of Deposits 0

Number of Obstacles 0

State	CA	GPS Serial	
		Cross Bore 2	
Lateral Number	L1	Branch Lateral	
<b>Lateral Section</b>	TF	Inspection Count	
Full Inspection Complete	Yes	Reason Not Completed	Complete Inspection
Other Reasons Not Completed		Attempt Number	1
-		Cross Bore Found	No
		QA/QC	

**Cross Bore 1** 

Zip Code

**Reviewer Name** 

**Notes** 

94545

**BESS TEST LABS** 

Mainline Truck

**Contractor Name** 

**Equipment Used** 

**Date Reviewed** 

**QA/QC** Complete

**Status of Lateral** 

Date / Time: 1/12/2017 10:29:00 AM

Street: 63RD ST

Length Surveyed: 41.2

Run Number: Lateral Size: 4 Lateral Segment Reference: FUGRO\_BESS TEST

LABS 321 63RD ST OAKLAND TF L1

Upstream Manhole: USMH 316 Downstream Manhole: DSMH 324 Direction of Survey: Downstream Lateral Material: Vitrified Clay Pipe



ACOP - Cleanout Propertyline

Distance: 0 Severity: None



MWL - Water Level

Distance: 0 Severity: None

5%

Mpeg Time: 01:27

AT 321 63RD ST



ACOH - Cleanout House

Distance: 41.2 Severity: None

Mpeg Time: 04:43

AT FOUNDATION



Mpeg Time: 01:46

Date / Time: 1/12/2017 10:29:00 AM

Lateral Segment Reference: FUGRO\_BESS
TEST LABS 321 63RD ST OAKLAND TF L1

Upstream Manhole: USMH 316
Downstream Manhole: DSMH 324
Direction of Survey: Downstream
Lateral Material: Vitrified Clay Pipe



Length Surveyed: 41.2 Run Number: Lateral Size: 4

Street: 63RD ST

Total Distance: 41.2

(41.2) ACOH - Cleanout House Remark: AT FOUNDATION

(0.0) MWL - Water Level Remark: 5%

(0.0) ACOP - Cleanout Propertyline Remark: AT 321 63RD ST



ID Number: DSMH 324

ID Number: USMH 316



	Sessi	on Information	
Surveyors Name	FUGRO	Certificate Number	
System Owner	JAVIER MALO	Survey Customer	U-1114-06022462
Drainage Area	1/12/2017 10:29		
P/O Number		Pipeline Segment Ref	
Date	Time		
Location			
Locality			
Further Location D	Details:		
	Mank	nole Information	
Upstream Manhole	Number:		
Rim to Invert		Grade to Invert	OAKLAND
Rim to Grade	63RD ST		
Downstream Manh	ole Number:		
Rim to Invert		Grade to Invert	
Rim to Grade			
		Sewer	
Use of Sewer		Direction	
Flow Control	4	Height	
	FUGRO_BESS TEST		
Width	LABS_321_63RD	Shape	USMH 316
	ST_OAKLAND_TF_L1		
Material	DSMH 324	Lining Method	Downstream
Pipe Joint Length		Total Length	
Length Surveyed		Year Laid	41.2
Year Rehabilitated		Tape/Media Number	Vitrified Clay Pipe
Purpose	321	Sewer Category	
Pre-Cleaning		Date Cleaned	
Weather		<b>Location Code</b>	
Additional			
Information			

Grade	Structural	O&M	Overall
5	0	0	0
4	0	0	0
3	0	0	0
2	0	0	0
1	0	0	0
Overall	0	0	0
Number of Defects	0	0	0
Pipe Rating	0000	0000	0000
Pipe Ratings Index	0	0	0

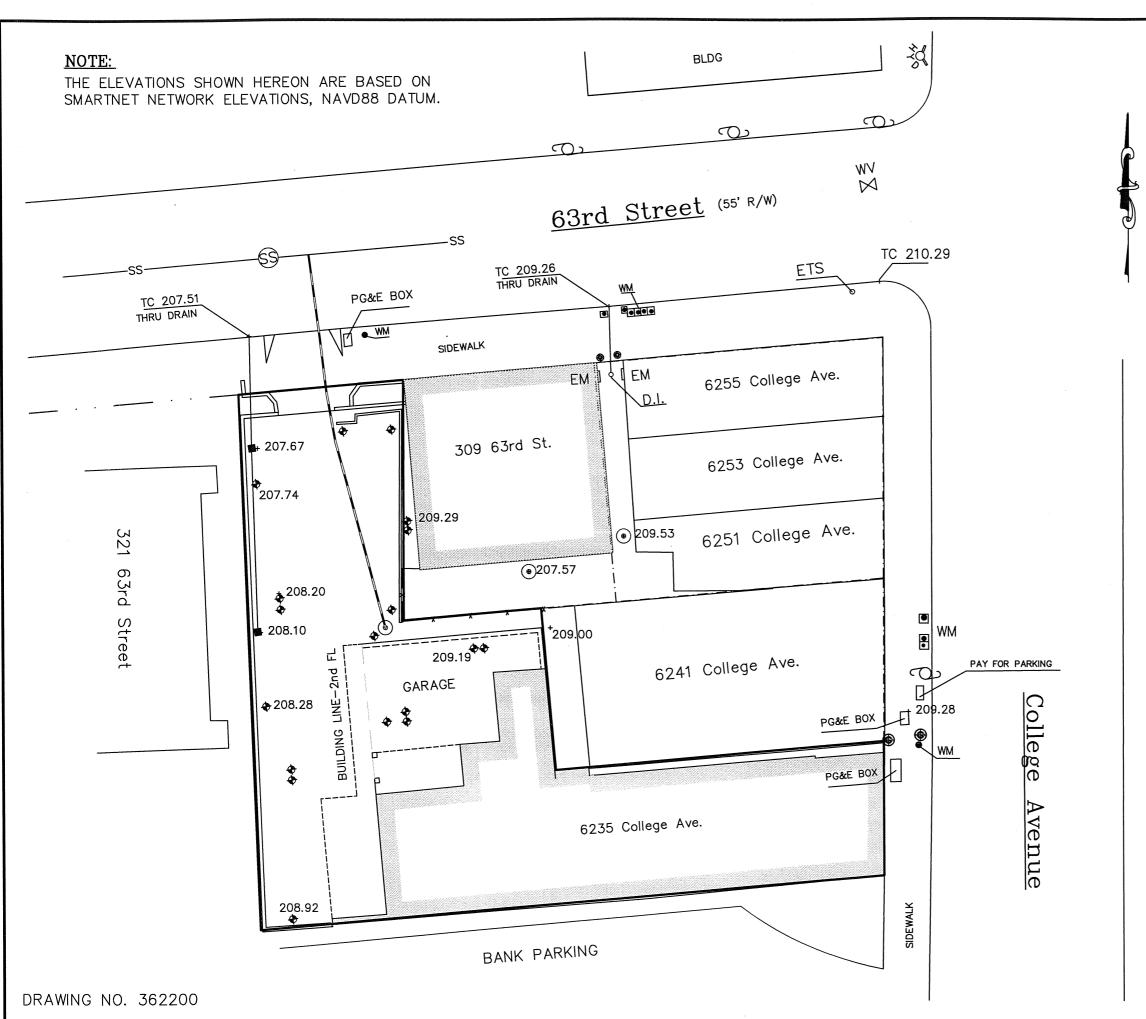
D: 4	Video	Code	Cont	Value			T : .	Circumferential Location	
Distance	Ref		Defect		ension 2nd	%	Joint	At / From	То
				lst	ZIIG			PIOIII	
0	87	ACOP - Cleanout Propertyline							
		AT 321 63RD ST							
0	106	MWL - Water Level				5			
		5%							
41.2	283	ACOH - Cleanout House							·
		AT FOUNDATION							



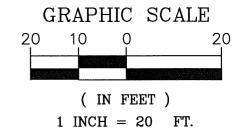
## **Videos Created for Session FUGRO**

FUGRO\_BESS TEST LABS\_321\_63RD ST\_OAKLAND\_TF\_L1\_20170112\_1.wmv Size: 65.8 MB

# **Additional Reports for Session FUGRO**



SITE MAP 6235 COLLEGE AVE. OAKLAND CA.



#### **LEGEND**

രം − EXISTING UTILITY POLE

SANITARY SEWER CLEANOUT

(S) - SANITARY SEWER MANHOLE

□ - COLUMN

GM - GAS METER

EM - ELECTRIC METER

· - PROPERTY LINE

---- - LOT LINE

-X- - FENCE

VV − WATER VALVE

WM - WATER METER

GAS VALVE

♦ - MONITORING WELL



VIRGIL CHAVEZ LAND SURVEYING

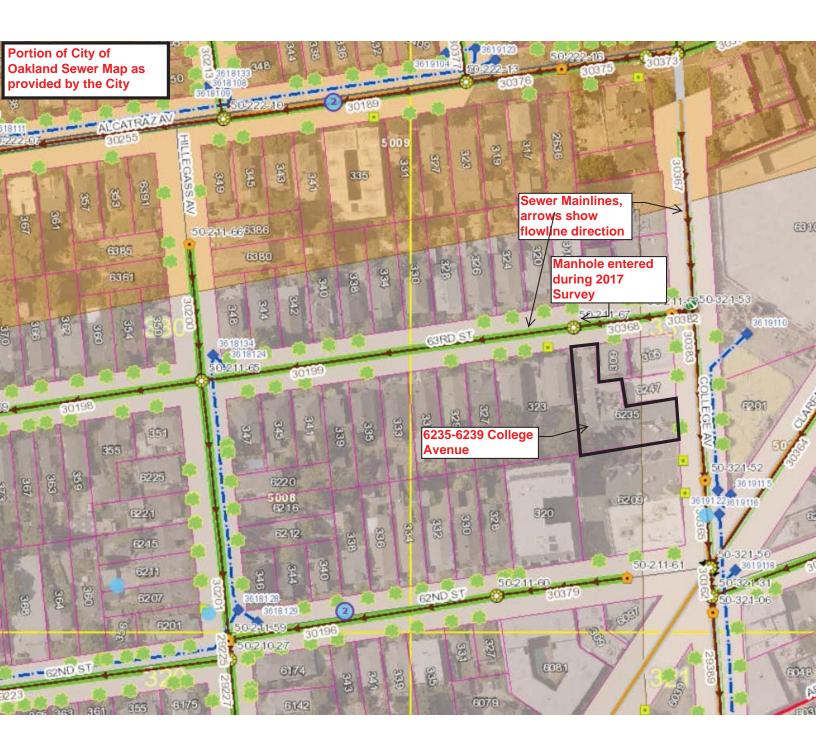
721 TUOLUMNE STREET VALLEJO, CALIFORNIA (707) 553-2476

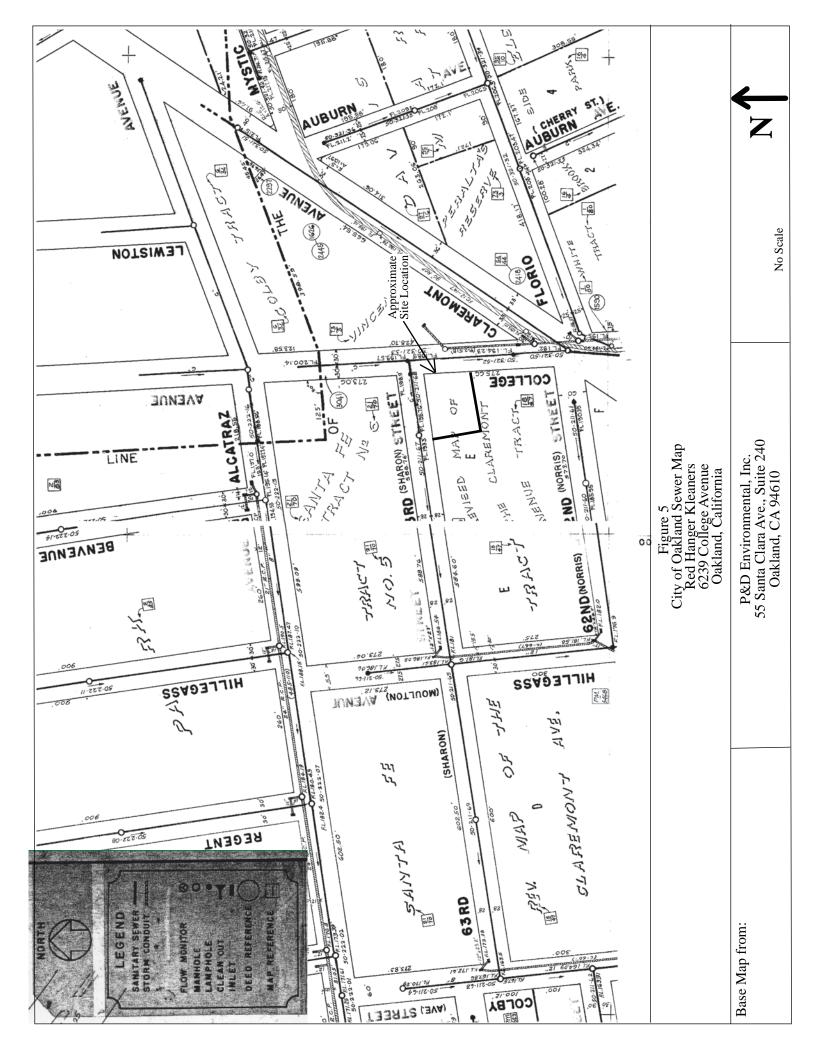
FEB., 2017 SCALE: 1"=20'

# SUMMARY OF UTILITY AND TOPOGRAPHIC SURVEY SERVICES 6235 TO 6239 COLLEGE AVENUE OAKLAND, CALIFORNIA



**APPENDIX B** 





# SUMMARY OF UTILITY AND TOPOGRAPHIC SURVEY SERVICES 6235 TO 6239 COLLEGE AVENUE OAKLAND, CALIFORNIA



**APPENDIX C** 

6239 College Avenue Building Permit Listing			2016 Online Search				
File Date	Status	Record Number	Record Type	Address	Description		
6/15/1987		B8702988	Building/Non-Residential/Building/Alteration	6239 COLLEGE AVE, OAKLAND CA	TENANT IMPROVEMENT		
6/15/1987	•	B8702989	Building/Non-Residential/Building/Alteration	6239 COLLEGE AVE, OAKLAND CA	TENANT IMPROVEMENT		
6/15/1987	•	E8701994	Building/Non-Residential/Electrical/Alteration	6239 COLLEGE AVE, OAKLAND CA	TENANT IMPROVEMENTS		
6/15/1987	•	E8701995	Building/Non-Residential/Electrical/Alteration	6239 COLLEGE AVE, OAKLAND CA	TENANT IMPROVEMENT #302		
7/8/1987	•	B8703413	Building/Non-Residential/Building/Alteration	6239 COLLEGE AVE, OAKLAND CA	DEVIDING OF OFFICE SUITE		
3/30/1989	•	E8900916	Building/Non-Residential/Electrical/Repair	6239 COLLEGE AVE, OAKLAND CA	NEW ELECT. SIGN		
3/30/1989		S8900031	Building/Non-Residential/Sign/New	6239 COLLEGE AVE, OAKLAND CA	ELECTRIC WALL SIGN		
3/4/1991	•	E9100789	Building/Non-Residential/Electrical/Alteration	6239 COLLEGE AVE, #201, OAKLAND CA	INSTALL 100AMP SERVICE AND (3) CTS - 110V AS NEEDED		
	Permit Issued	X9600347	Building/Public Infrastructure/Excavation/NA	6239 COLLEGE AVE, OAKLAND CA	boring one hole for soil exploration		
10/19/2005		ZC053007	Planning/Applications/Counter/Zoning Clearance	6239 COLLEGE AVE, OAKLAND CA	establish a CPA firm on the second floor		
8/3/2006	Approved	ZC062072	Planning/Applications/Counter/Zoning Clearance	6239 COLLEGE AVE, OAKLAND CA	Zoning Clearance for business license for continuation of existing Consumer Laundry Commercial Activity (dry cleaners with on-site cleaning)		
12/29/2006	Approved	ZC063348	Planning/Applications/Counter/Zoning Clearance	6239 COLLEGE AVE, 303, OAKLAND CA	Counseling office - medical service above the ground floor is permitted in the C-31 Zone.		
5/15/2007		ZC071268	Planning/Applications/Counter/Zoning Clearance	6239 COLLEGE AVE, 301, OAKLAND CA	Insurance and financial services. (consultative and financi al services)		
6/26/2007		ZC071586	Planning/Applications/Counter/Zoning Clearance	6239 COLLEGE AVE, 303, OAKLAND CA	Zoning clearance for a psychotherapy office on the third floor. Floor area approx. 200sqft.		
8/24/2007	Final	B0703976	Building/Non-Residential/Building/Alteration	6239 COLLEGE AVE, #201, OAKLAND CA	T.I., CHIROPRACTIC OFFICE, INTERIOR REMODEL		
10/5/2007	Expired	E0703369	Building/Non-Residential/Electrical/Alteration	6239 COLLEGE AVE, OAKLAND CA	Electrical for T.I., CHIROPRACTIC OFFICE, INTERIOR REMODEL		
10/5/2007	Expired	P0702805	Building/Non-Residential/Plumbing/Alteration	6239 COLLEGE AVE, OAKLAND CA	Plumbing for T.I., CHIROPRACTIC OFFICE, INTERIOR REMODEL		
10/5/2007	Final	M0701812	Building/Non-Residential/Mechanical/Alteration	6239 COLLEGE AVE, OAKLAND CA	Mechanical for T.I., CHIROPRACTIC OFFICE, INTERIOR REMODEL		
10/30/2007	Approved	ZC072606	Planning/Applications/Counter/Zoning Clearance	6239 COLLEGE AVE, 201, OAKLAND CA	chiropractic office (medical service).		
12/7/2007	Abated	708848	Enforcement/Private Property/Facility Complaint/Blight	6239 COLLEGE AVE, OAKLAND CA	SANDWICH BOARD SIGN (JESSICA HEBERT) LOCATED IN PUBLIC RIGHT OF WAYAND IS AN OBSTRUCTION TO PEDESTRIAN TRAFFIC.		
	Approved	ZC081961	Planning/Applications/Counter/Zoning Clearance	6239 COLLEGE AVE, 303, OAKLAND CA	medical services above the ground floor		
5/11/2010	Approved	ZC101160	Planning/Applications/Counter/Zoning Clearance	6239 COLLEGE AVE, 303, OAKLAND CA	Proposal for a psychotherapy office - medical service commer cial - located above the ground floor is permitted in the C- 31 zone.  Administrative Commercial Activity - Administrative office and consultancy for home based study program where clients come once or twice a week to drop off and pick up (con't)		
11/18/2010	Approved	ZC102525	Planning/Applications/Counter/Zoning Clearance	6239 COLLEGE AVE, 301, OAKLAND CA	assignments. No classes or personal instruction occur on site.  General office purposes include accounting, data analysis, client orientation. Office is located on 3rd floor of existing commercia building.		

	T	T			
					Administrative Commercial Activity - Administrative office and consultancy for home based study program where clients come once or twice a week to drop off and pick up (con't) assignments. No classes or personal instruction occur on site. General office purposes include accounting, data analysis, client
11/18/2010	Void	ZP100072	Planning/Applications/Other/Pre-Application	6239 COLLEGE AVE, 301, OAKLAND CA	orientation.
4/27/2011	Approved	ZC111091	Planning/Applications/Counter/Zoning Clearance	6239 COLLEGE AVE, OAKLAND CA	Psychotherapy office - medical service commercial - located above the ground floor is permitted in the CN-1 Zone.
7/11/2011		70144642		CARROLLEGE AVE. 202. GARRAND CA	Zoning Clearance for Medical Service Commercial Activity
7/11/2011	Approved	ZC111642	Planning/Applications/Counter/Zoning Clearance	6239 COLLEGE AVE, 303, OAKLAND CA	(psychotherapy - individual, couple, & family)
7/25/2013	Abated	1304040	Enforcement/Private Property/Facility Complaint/Blight	6239 COLLEGE AVE, OAKLAND CA	UNLAWFUL PUBLIC RIGHT OF WAY ENCROACHMENT (SIGN "ALIGN CHIROPRACTIC")  Chiropractic office (Medical Service Commercial Activity)
4/30/2014	Approved	ZC141115	Zoning Clearance	6239 COLLEGE AVE, Oakland CA 94618	Chiropractic office (Medical Service Commercial Activity) located on second floor.
4/30/2014	прргочец	20141113	Zoning Cicarance	0233 COLLEGE AVE, Odklana CA 34010	Zoning clearance for a psychotherapy business. This medical
					services activity is permitted per section 17.33.030. The office is
7/9/2015	Approved	ZC151603	Zoning Clearance	6239 COLLEGE AVE, Oakland CA 94618	on the 3rd floor.
7/20/2015	Expired	X1501601	Excavation	6239 COLLEGE AVE, Oakland CA 94618	Install new vault and bore new conduit
7/30/2015	5 Final	OB1500745	Obstruction	6239 COLLEGE AVE, Oakland CA 94618	Reserve 4 parking spaces and divert 75' traffic per approved TCP on 63rd St.Related: Excavate bore pits on 63rd Street at College Ave per site plan.Permit valid 90 days. Separate Obstruction permit required to reserve/block parking lane.Set up PWA PRE-CON prior to start work: 510-238-3651.
7/30/2015	5 Expired	X1501667	OPW - Excavation	6239 COLLEGE AVE, Oakland CA 94618	Excavate bore pits on 63rd Street at College Ave per site plan.Permit valid 90 days. Separate Obstruction permit required to reserve/block parking lane.Set up PWA PRE-CON prior to start work: 510-238-3651.  VACANT STOREFRONT WITH GRAFFITI ACROSS THE FRONT
8/12/2015	Abated	1502868	Blight Complaint	6239 COLLEGE AVE, Oakland CA 94618	WINDOW & DOOR
11/12/2015		ZC152507	Zoning Clearance	6239 COLLEGE AVE, Oakland CA 94618	Zoning clearance for psychotherapy, upstairs  Zoning clearance for a consumer service activity for a Float Spa and Cryo-therapy business. Space is on the ground floor of s street fronting building, floor are is approximately 2,400 sq.ft. activity meets provisions set forth in 17.33.01 & (L6)(L10). Sign and tenant improvements under a separate permits and
	Approved	ZC161049	Zoning Clearance	6239 COLLEGE AVE, Oakland CA 94618	approvals.
5/13/2016		E1601718	Non-Residential Electrical - Alteration	6239 COLLEGE AVE, Oakland CA 94618	TI/ Float Spa and Cryo-therapy business. Renovate space to include spa treatment rooms, laundry, reception area and
7/8/2016 9/29/2016	S Permit Issued	B1603214 E1603621	Non-Residential Building - Alteration  Non-Residential Electrical - Alteration	6239 COLLEGE AVE, Oakland CA 94618 6239 COLLEGE AVE, Oakland CA 94618	storage - no massage.  ELECTRICAL / TI/ Float Spa and Cryo-therapy business. Renovate space to include spa treatment rooms, laundry, reception area and storage - no massage.
	S Permit Issued	M1601851	Non-Residential Mechanical -Alteration	6239 COLLEGE AVE, Oakland CA 94618	MECHANICAL / TI/ Float Spa and Cryo-therapy business. Renovate space to include spa treatment rooms, laundry, reception area and storage - no massage.

				PLUMBING / TI/ Float Spa and Cryo-therapy business. Renovate
				space to include spa treatment rooms, laundry, reception area
9/29/2016 Permit Issued	P1602774	Non-Residential Plumbing - Alteration	6239 COLLEGE AVE, Oakland CA 94618	and storage - no massage.

#### 6251-6255 College Building Permit Record List

#### 2017 Online Search

File Date	Status	Record Number	Record Type	Address	Description
3/2	20/1987 Final	P8701103	Building/Non-Residential/Plumbing/Alteration	6251 COLLEGE AVE, OAKLAND CA	B8700510; LAWN SPRINKLER
6/:	17/1987 Final	B8703052	Building/Non-Residential/Building/Addition	6255 COLLEGE AVE, OAKLAND CA	INSTALL CANVAS AWNING
8/:	14/1987 Final	B8704063	Building/Non-Residential/Building/Alteration	6253 COLLEGE AVE, OAKLAND CA	TWO BATH WALL'S
8/:	14/1987 Final	P8702724	Building/Non-Residential/Plumbing/Alteration	6253 COLLEGE AVE, OAKLAND CA	
8/:	14/1987 Final	E8702820	Building/Non-Residential/Electrical/Alteration	6253 COLLEGE AVE, OAKLAND CA	WATER HEATER
4/:	16/1996 Under Poview	CMD96068	Planning/Applications/Zoning/Development Permit	6255 COLLEGE AVE OAKLAND CA	MAJOR CONDITIONAL USE PERMIT TO ALLOW A GENERAL FOOD SALES COMMERCIAL ACTIVITY WITH A SIDEWALK CAFE AND DESIGN REVIEW TO ALTER THE EXTERIOR AND INSTALL NEW SIGNS AT 6255 COLLEGE AVENUE IN THE C-31 SPECIAL RETAIL COMMERCIAL ZONE. (ENVIRONMENTAL DETERMINATION: EXEMPT; SECTION 15301, STATE CEQA GUIDELINES; MINOR ALTERATIONS TO AN EXISTING FACILITY.)
4/.	16/1996 Under Review	CIVID96068	Planning/Applications/Zoning/Development Permit	6255 COLLEGE AVE, OAKLAND CA	Rennovation of vacant existing commercial space into a general food sales cafe with sidewalk
	1/1/1996 Final	B9602860	Building/Non-Residential/Building/Alteration	6255 COLLEGE AVE, OAKLAND CA	cafe.
	29/1996 Final	E9602625	Building/Non-Residential/Electrical/Alteration	6255 COLLEGE AVE, OAKLAND CA	Electrical for T.I. to create Cafe'
	19/1996 Final	P9601632	Building/Non-Residential/Plumbing/Alteration	6255 COLLEGE AVE, OAKLAND CA	Plumbing for new cafe.
	/4/1996 Final	M9601484	Building/Non-Residential/Mechanical/Alteration	6255 COLLEGE AVE, OAKLAND CA	Bath fan
	/2/1997 Expired	B9701700	Building/Non-Residential/Building/Addition	6255 COLLEGE AVE, OAKLAND CA	Add awning to (e) building
	26/1997 Final	E9702805	Building/Non-Residential/Electrical/Repair	6255 COLLEGE AVE, OAKLAND CA	Install 2 circuits, 21 lights. 1 switch
	26/2001 Approved	ZC010167	Planning/Applications/Counter/Zoning Clearance	6251 COLLEGE AVE, OAKLAND CA	General Retail (stationary, gifts, etc.)
	29/2005 Approved	ZC051382	Planning/Applications/Counter/Zoning Clearance	6251 COLLEGE AVE, OAKLAND CA	change of ownership of existing gift shop
	29/2005 Approved	ZC053330	Planning/Applications/Counter/Zoning Clearance	6253 COLLEGE AVE, OAKLAND CA	Change in ownership of pre-existing hair salon - convenience sales and service commercial activity.
11/	14/2006 Approved	ZC062959	Planning/Applications/Counter/Zoning Clearance	6251 COLLEGE AVE, OAKLAND CA	Zoning clearance to establish a nail salon (convenience sales and service commercial activity)
12/	18/2006 Approved	ZC063254	Planning/Applications/Counter/Zoning Clearance	6253 COLLEGE AVE, OAKLAND CA	Hair Salon - Convenience sales and service permitted on the ground floor in the C-31 Zone.
10/2	26/2011 Approved	ZC112362	Planning/Applications/Counter/Zoning Clearance	6251 COLLEGE AVE, OAKLAND CA	Zoning clearance a nail salon (convenience sales and service commercial activity) CHANGE OF OWNERSHIP
2/:	15/2017 Approved	ZC170395	Zoning Clearance	6255 College AVE, OAKLAND CA 94618	to continue an existing coffee shop use

#### 303, 305 and 307 63rd Street Building Permit Record List

#### 2017 Online Search

Date Status	Record Number	Record Type	Address	Description
8/18/1988 Expired	P8803109	Building/Non-Residential/Plumbing/Repair	305 63RD ST, OAKLAND CA	REPLACE EXISTING WATER MAINS WITH NEW COPPER
10/18/1996 Permit Issued	CGS960381	Building/Public Infrastructure/Curb-Gutter Sidewalk/NA	305 63RD ST, OAKLAND CA	repair sidewalk
10/18/1996 Final	P9601800	Building/Non-Residential/Plumbing/Repair	305 63RD ST, OAKLAND CA	Two new water services to meters.
				one day (6hrs) sidewalk obstruction. customer must allow at least 5 ft. for pedestrian walkway. approved by city manager office, Larry Carse
7/10/1997 Final	OB970338	Building/Public Use/Activity/Obstructions	307 63RD ST, OAKLAND CA	for Kofi S. Bonner
7/26/2005 Approved	ZC052212	Planning/Applications/Counter/Zoning Clearance	307 63RD ST, OAKLAND CA	Change in ownership of existing coffee shop
12/18/2006 Approved	ZC063254	Planning/Applications/Counter/Zoning Clearance	6253 COLLEGE AVE, OAKLAND CA	Hair Salon - Convenience sales and service permitted on the ground floor in the C-31 Zone.
8/29/2007 No Violation Found	706864	Enforcement/Private Property/Facility Complaint/Blight	305 63RD ST, OAKLAND CA	PIPE IS DISCHARGING WASH WATER. PIPE LOCATED BETWEEN 305 63RD AND6247 COLLEGE AVENUE
8/30/2007 Open	706898	Enforcement/Private Property/Facility Complaint/Housing	305 63RD ST, OAKLAND CA	DISCAHRGE COMING FROM BUILDING TO SIDE ALLEY AND UNKNOWN LIQUID WITHAN ODOR AND SUDS.
			·	Install sidewalk canopy for pedestrian access. Canopy to comply with Standard Details M-4 & M-5 Public Works Con- struction. Call 510-238
9/2/2011 Permit Issued	OB110660	Building/Public Use/Activity/Obstructions	305 63RD ST, OAKLAND CA	7734 or 510-238-3235.
9/2/2011 Permit Issued	OB110658	Building/Public Use/Activity/Obstructions	305 63RD ST, OAKLAND CA	Reserve metered space(s) related to Building Permit. No impact on traffic lane or sidewalk allowed. NON-CONSECUTIVE DAYS
5/31/2013 Final	B1302033	Building/Non-Residential/Building/Repair	305 63RD ST, #1, OAKLAND CA	Remodel kitchen and bathroom (non-structural)
5/31/2013 Final	P1301260	Building/Non-Residential/Plumbing/Repair	305 63RD ST, #1, OAKLAND CA	Plumbing for Remodel kitchen and bathroom
5/31/2013 Permit Issued	E1301594	Building/Non-Residential/Electrical/Repair	305 63RD ST, #1, OAKLAND CA	Electrical for Remodel kitchen and bathroom
5/31/2016 Approved	ZC161281	Zoning Clearance	309 63RD ST, Oakland CA 94618	Home occupation for the home office of a communication consulting business
9/15/2016 Issued	B1604455	Non-Residential Building - Alteration	305 63RD ST, Oakland CA 94618	Voluntary Seismic Strengthening
40/4/2045 5 1111	004504455		205 C200 CT O. H. v. I CA 04540	Reserve 1 METERED parking space(s) in front of parcel only for dumpster, construction vehicle, moving van or storage pod. Park at least 20 away from all driveways. No impact on traffic lane or sidewalk allowed. No-parking signs picked up by applicant after payment, 4TH FLOOR To Have Illegally Parked Vehicle Ticketed Call 510-777-3333. Applicant arranges towing. Comply with terms set forth in CVC Section 22651
10/4/2016 Expired	OB1601156	Obstruction Alexandre	305 63RD ST, Oakland CA 94618	(m). For Towed Vehicle: Call 510-238-3021.Contact: B1604455 10/04/16
10/4/2016 Permit Issued	E1603685	Non-Residential Electrical - Alteration	305 63RD ST, Oakland CA 94618	ELECTRICAL / Voluntary Seismic Strengthening
10/4/2016 Permit Issued	M1601880	Non-Residential Mechanical -Alteration	305 63RD ST, Oakland CA 94618	MECHANICAL / Voluntary Seismic Strengthening
10/4/2016 Permit Issued	P1602825	Non-Residential Plumbing - Alteration	305 63RD ST, Oakland CA 94618	PLUMBING / Voluntary Seismic Strengthening
1/26/2017 Final	B1700393	Non-Residential Building - Alteration	305 63RD ST, Oakland CA 94618	T. I enlarge space by opening demising wall between 6253 and 6255 college avenue, 2 new ADA Unisex bathrooms, new kitchen area. Fully Accessible shown on plans. AMR1700089, for omission of Urinal approved with conditions
2/15/2017 Approved	ZC170395	Zoning Clearance	6255 College AVE, OAKLAND CA 94618	to continue an existing coffee shop use
3/8/2017 AMR Approved	AMR1700089	Non-Residential Alternate Method Request	305 63RD ST, Oakland CA 94618	Grant For Modification for omitting required Urinal from Plumbing Fixture Count (per 2016 CPC, table 422.1, exception foot note #3 ) for a to enlarge space including remodel existing restroom for HC access and construct new HC accessible restroom. Both restrooms are Gender Neutral Facility
3/28/2017 Final	P1700919	Non-Residential Plumbing - Alteration	305 63RD ST, Oakland CA 94618	PLUMBING 25% COMBO FOR COFFEE HOUSE / 2 toilets, 3 lav basins, 6 sinks, 4 floor sinks, 3 floor drains, 1 water alteration, water heater, g test medium, dishwasher com, grease trap, waste/vent alt com.
3/28/2017 Final	E1701099	Non-Residential Electrical - Alteration	305 63RD ST, Oakland CA 94618	ELECTRICAL 25% COMBO FOR COFFEE HOUSE / Sub panel 21 circuit/feeder, 12 incandes/LED fixtures, 10 switches, 25 receptacles, 2 fan (exhaust), 1 furnace.
3/28/2017 Permit Issued	M1700654	Non-Residential Mechanical -Alteration	305 63RD ST, Oakland CA 94618	MECHANICAL 25% COMBO FOR COFFEE HOUSE / 1 FAU, 1 fan blower to 10k cfm.