Appendix M

Wastewater and Water Supply Technical Memorandum

ESA

PSOMAS

De Soto Ave. & Burbank Blvd. Project
Wastewater and Water Supply
Utilities Technical Memorandum

May 21, 2019

Prepared by:

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Adler Realty

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1.0 Overview

The De Soto Ave. & Burbank Blvd. Project is a mixed-use transit-oriented development consisting of ten structures varying in height from approximately 35 feet (two stories) to 350 feet (24 stories), consisting of residential, office, retail, restaurant and hotel uses, with supporting open space and amenities, and vehicle and bicycle parking on a 24-acre site. The site is currently occupied by 12 one- to three-story office buildings, surface parking lots and landscape areas. The Project Site, is bounded by De Soto Avenue to the east, and Burbank Blvd on the south. Warner Center Lane (a private street) connects De Soto Avenue with Burbank Blvd.

The existing 12 one- to three-story buildings will be demolished in phases. Access to the proposed project will occur via Warner Center Lane on De Soto and Burbank Blvd. and two additional driveways on Burbank Blvd.

2.0 Methodology

This infrastructure analysis provides supporting information for the Project's environmental impact report and documents the results of Psomas' research regarding nearby utility infrastructure for the Project.

Psomas performed a review of the capacities of the nearby wet utility infrastructure and reviewed the need for potential upgrades. This report includes: will-serve letters, a Fire Flow Availability Report and capacity requests from LADWP and the City of Los Angeles (attached in the appendices section).

3.0 Utilities

3.1 Existing Utility Providers

The following is a list of existing wastewater and water service providers that are within the proximity of the project site found from Substructure map and As Built Plans:

- Sanitary Sewer – City of Los Angeles
- Water – Los Angeles Department of Water and Power

3.2 Regulatory Framework

3.2.1 Water

The City of Los Angeles Department of Water and Power (LADWP) is responsible for providing water supply to the City while complying with Local, State, and Federal regulations.

Below are the State and Regional water supply regulations:

- Metropolitan Water District (MWD) official reports and policies as outlined in its Regional Urban Water Management Plan, Water Surplus and Drought Management Plan, Water Supply Allocation Plan, and Integrated Resources Plan.
- California Code of Regulations, Title 20, Chapter 4, Article 4, Section 1605 establishes water efficiency standards for all new plumbing fixtures and Section 1608 prohibits the sale of fixtures that do not comply with the regulations.
- 2016 California Green Building Standards Code, CCR, Title 24, Part 11, adopted on January 1, 2016, requires a water use reduction of 20% above the prescribed limits of the Energy Policy Act of 2005. The code applies to family homes, state buildings, health facilities, and commercial buildings.
- California Urban Water Management Planning Act of 1984 requires water suppliers to adopt an Urban Water Management Plan (UWMP). LADWP's 2015 Urban Water Management Plan outlines the City's long-term water resources management strategy. The Plan was approved by the LADWP Board of Commissioners on April 27, 2016.
- Senate Bill 610, approved on October 9, 2001, require land use agencies to perform a detailed analysis of available water supply when approving large developments. Historically, public water suppliers (PWS) simply provided a "will serve" letter to developers. SB 610 section 10910-10915 of the State Water Code requires lead agencies to request a Water Supply Assessment (WSA) from the local water purveyor prior to project approval. For certain projects subject to CEQA review, SB 610 requires that urban water suppliers prepare a WSA to determine whether the project water demand is included as part of the most recently adopted UWMP. All projects that meet any of the following criteria require a WSA:
    - A proposed residential development of more than 500 dwelling units.
    - A proposed shopping center or business establishment of more than 500,000 square feet of floor space or employing more than 1,000 persons
    - A proposed commercial office building of more than 250,000 square feet of floor space or employing more than 1,000 persons
    - A proposed hotel or motel of more than 500 rooms
    - A proposed industrial, manufacturing, or processing plant or industrial park of more than 40 acres of land, more than 650,000 square feet of floor area, or employing more than 1,000 persons
    - A mixed use project that falls in one or more of the above-identified categories
    - A project not falling in one of the above-identified categories but that would demand water equal or greater than the amount required by a 500-dwelling unit project.

Since the proposed Project is a mixed use with over 250,000 square feet of office space and over 500 residential units, a WSA will be required from LADWP.

3.22 Sewer

The Los Angeles sewer system is comprised of three systems: Hyperion Sanitary Sewer System, Terminal Island Water Reclamation Plant Sanitary Sewer System, and Regional Sanitary Sewer System. To comply with Waste Discharge Requirements (WDRs), a Sewer System Management Plan (SSMP) was prepared for each of these systems.
The Project Site lies within the Hyperion Sanitary Sewer System. On May 2, 2006, a SSMP was prepared for the Hyperion Sanitary Sewer System in accordance with WDRs and adopted by the State Water Resources Control Board (SWRCB).

The City of Los Angeles Municipal Code (LAMC) includes regulations that allow the City to assure available sewer capacity for new projects and fees for improvements to the infrastructure system. LAMC Section 64.15 requires that the City perform a Sewer Availability Request (SCAR) when any person seeks a sewer permit to connect a property to the City's sewer collection system, proposes additional discharge through their existing public sewer connection, or proposes a future sewer connection or future development that is anticipated to generate 10,000 gallons or more of sewage per day. A SCAR is an analysis of the existing sewer collection system to determine if there is adequate capacity existing in the sewer collection system to safely convey the newly generated sewage to the appropriate sewage treatment plant. LAMC Section 64.11.2 requires the payment of fees for new connections to the sewer system to assure the sufficiency of sewer infrastructure. New connections to the sewer system are assessed a Sewerage Facilities Charge. The rate structure for the Sewage Facilities Charge is based upon wastewater flow strength, as well as volume. The determination of wastewater strength for each applicable project is based on City guidelines for the average wastewater concentrations of two parameters, biological oxygen demand and suspended solids, for each type of land use. Fees paid to the Sewerage Facilities Charge are deposited in the City's Sewer Construction and Maintenance Fund for sewer and sewage-related purposes, including but not limited to industrial waste control and water reclamation purposes.

In addition, the City establishes design criteria for sewer systems to assure that new infrastructure provides sewer capacity and operating characteristics to meet City Standards (Bureau of Engineering Special Order No. S006-0691). Per Special Order, laterals sewers, which are sewers 18 inches or less in diameter, must be designed for a planning period of 100 years. The Special Order also requires that sewers be designed so that the peak dry weather flow depth during their planning period shall not exceed one-half the pipe diameter.

4.0 Sewer

4.1 Existing Infrastructure

There is an existing 15" public main in De Soto Avenue, a 15" main in Burbank Blvd, and a 10" main along the northerly property line.

4.2 Proposed Infrastructure

On March 12, 2018 the Bureau of Sanitation (BOS) approved a Sewer Capacity Availability Request (SCAR) based on the 546,470 gallons per day (GPD) of wastewater flows summarized below by land use type:

Type Description	Average Daily Flow (GPD) [a]	Proposed Number of Units	Average Daily Flow
Residential: Studio	75 GPD	126 DU	9,450
Residential: 1-BDRM	110 GPD	483 DU	53,130
Residential: 2-BDRM	150 GPD	347 DU	52,050
Residential: 3-BDRM	190 GPD	53 DU	10,070
Restaurant	30GPD/Seat	3,599 EA	107,970
Commercial	50GPD/1000 SF	96,556 SF	4,828
Retail area (less than 100,000 SF)	25GPD/1000 SF	33,035 SF	826
Commercial	50GPD/1000 SF	26,153 SF	1,308
Swimming Pool (commercial with backwash filters)		143,589	143,589
Office	120GPD/1000 SF	1,109,078 SF	133,089
Hotel Rooms	120 GPD	228 EA	27,360
Total	-	-	**543,670**

(a) The average daily flow based on City of Los Angeles' sewer generation factors dated April 6, 2012.

As a result of this sewer demand, the project will likely require multiple 8" sewer laterals to connect to main lines in the Burbank Blvd, De Soto Avenue and a new 12" sewer main in Warner Center Lane. Based on the Sewer Capacity Availability Report (SCAR), the City of Los Angeles Bureau of Engineering has determined that there is capacity available to handle the anticipated discharge from the proposed project site. The approved SCAR is included in the appendix for reference.

4.3 Significant Thresholds – Sewer

Appendix G of the CEQA Guidelines provides a set of sample questions that address impacts with regard to wastewater. Specifically, would the project:

- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

- Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which would cause significant environmental effects?
- Result in a determination by the wastewater treatment provider, which serves or may serve the project, that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

In the context of these questions from the CEQA Guidelines, the City of Los Angeles CEQA Thresholds Guide states that a project would normally have a significant wastewater impact if:

- The project would cause a measureable increase in wastewater flows at a point where, and a time when, a sewer's capacity is already constrained or that would cause a sewer's capacity to become constrained; or
- The project's additional wastewater flows would substantially or incrementally exceed the future scheduled capacity of any one treatment plant by generating flows greater than those anticipated in the Wastewater Facilities Plan or General Plan and its elements.

These thresholds are applicable to the Project and as such are used to determine if the Project would have significant wastewater impacts.

4.4 Project Impacts

Construction activities for the Project would result in a temporary increase in wastewater generation as a result of construction workers on-site. Wastewater generation would occur incrementally throughout construction of the Project. However, such use would be temporary and nominal when compared with the wastewater generated by the Project. In addition, construction workers would typically utilize portable restrooms, which would not contribute to wastewater flows to the local wastewater system. In the event there is an increase in wastewater flow during construction, this increase would be limited, and would be within, the capacity of the wastewater facilities that currently serve the Project Site. Thus wastewater generation from Project construction activities is not anticipated to cause a measurable increase in wastewater flows. Therefore, the Project construction impacts to the wastewater system would be less than significant.

Operational impacts from the Project Site are not expected to significantly impact the existing sewer system. The analysis for the sewer generation is considered conservative by including the pool and spa into the sewer generation factor for the SCAR approval. Typically, a pool is not drained and refilled daily, therefore the approved SCAR total GPD is greater than the average daily demand for wastewater discharge.

5.0 Water

5.1 Existing Infrastructure

The water infrastructure in the vicinity of the Project Site includes an existing 12" water main on De Soto Avenue, a 12" water main on Burbank Blvd., and a 12" water main on Warner Center Lane. There are multiple existing fire hydrants that surround the Project Site: four on the south along Burbank Blvd., two along De Soto Ave., and two along on the Warner Center Ln.

5.2 Proposed Infrastructure

The City calculates development project's anticipated water demand using the City's approved sewer generation rates. Using these generation rates, the project is expected to generate the following water demands:

Type Description	Average Daily Flow (GPD) [a]	Proposed Number of Units	Average Daily Flow
Residential: Studio	75 GPD	126 DU	9,450
Residential: 1-BDRM	110 GPD	483 DU	53,130
Residential: 2-BDRM	150 GPD	347 DU	52,050
Residential: 3-BDRM	190 GPD	53 DU	10,070
Restaurant	30GPD/Seat	3,599 EA	107,970
Commercial	50GPD/1000 SF	96,556 SF	4,828
Retail area (less than 100,000 SF)	25GPD/1000 SF	33,035 SF	826
Commercial	50GPD/1000 SF	26,153 SF	1,308
Swimming Pool (commercial with backwash filters)		143,589	143,589
Office	120GPD/1000 SF	1,109,078 SF	133,089
Hotel Rooms	120 GPD	228 EA	27,360
Irrigation)[b]			10,897
Total	-	-	**554,567**

(a) The average daily flow based on City of Los Angeles' sewer generation factors dated April 6, 2012.

(b) Average daily flow provided by the Project's landscape architect

Domestic water is expected to be the main contributor of water consumption for the Project; however, firewater demands will create a much greater immediate impact on the water network. For a site of this magnitude, a fire flow between 6,000 to 9,000 GPM is required, which amounts to a maximum of 12,960,000 GPD. Since the fire demand is exponentially larger than the daily operations demand, the fire water demand will be the

primary and more conservative approach to analyzing the water demand for the proposed Project.

Psomas met with Inspector Dallas of the Los Angeles Fire Department, Hydrants and Access Section, to discuss the hydrant coverage for the Project. Upon review of the existing water services, Inspector Dallas concluded that the current hydrant locations and coverage are adequate, and that no additional public or private fire hydrants would be necessary.

Service Advisory Requests (SAR) were provided by LADWP to determine water pressure and flow capacity for the existing water lines. The water pressures range between 87-46 PSI, depending on the street. The SAR's for Burbank Blvd., De Soto Ave. and Warner Center Ln. are provided in the appendix section. This pressure is generally considered low for a development of this size and a pump is proposed to provide fire flow pressures inside the building (refer to the fire section in the EIR Report). Proposed connections will be installed by LADWP and will be made from a 12" main line in Warner Center Lane, Burbank Blvd and De Soto Avenue.

5.3 Significance Thresholds – Water

The City of Los Angeles CEQA Thresholds Guide states that the determination of significance with regard to impacts on water shall be made on a case-by-case basis, considering the following:

- The total estimated water demand for the project;
- Whether sufficient capacity exists in the water infrastructure that would serve the project, taking into account the anticipated conditions at project buildout;
- The amount by which the project would cause the projected growth in population, housing or employment for the Community Plan area to be exceeded in the year of the project completion; and
- The degree to which scheduled water infrastructure improvements or project design features would reduce or offset service impacts

Based on these factors, the Project would have a significant impact if the City's water supplies would not adequately serve the Project or water distribution capacity would be inadequate to serve the Project to the extent that new or expanded facilities and water entitlements would be required. The analysis herein focuses on impacts related to infrastructure capacity.

5.4 Project Impacts

Water demand for construction of the Project would be required for dust control, cleaning of equipment, excavation/export, removal and re-compaction, etc. Water use during construction would be limited and would be within the availability of LADWP's water supply.

Operational impacts for domestic, irrigation and fire demand are less than significant with the approval of the WSA from LADWP.

6.0 Level of significance

Based on the analysis of the proposed Project Site, no significant impacts have been identified for water, or sewer.

7.0 Appendices

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03/12/2018

ION CRETU
555 S FLOWER ST, #4300
LOS ANGELES, CA, 90071

Dear ION CRETU,

SEWER AVAILABILITY: 20950 WARNER CENTER LANE

The Bureau of Sanitation has reviewed your request of 12/18/2017 for sewer availability at **20950 WARNER CENTER LANE**. Based on their analysis, it has been determined on 03/12/2018 that there is capacity available to handle the anticipated discharge from your proposed project(s) as indicated in the attached copy of the Sewer Capacity Availability Request (SCAR) .

This determination is valid for 180 days from the date shown on the Sewer Capacity Availability request (SCAR) approved by the Bureau of Sanitation.

While there is hydraulic capacity available in the local sewer system at this time, availability of sewer treatment capacity will be determined at the Bureau of Engineering Public Counter upon presentation of this letter. A Sewer Connection Permit may also be obtained at the same counter provided treatment capacity is available at the time of application.

A Sewerage Facilities Charge is due on all new buildings constructed within the City. The amount of this charge will be determined when application is made for your building permit and the Bureau of Engineering has the opportunity to review the building plans. To facilitate this determination a preliminary set of plans should be submitted to Bureau of Engineering District Office, Public Counter.

Provision for a clean out structure and/or a sewer trap satisfactory to the Department of Building and Safety may be required as part of the sewer connection permit.

Sincerely,

Steve Melgar

Central District, Bureau of Engineering

Scar Request Number: 2172

City of Los Angeles
Bureau of Engineering

SEWER CAPACITY AVAILABILITY REVIEW FEE (SCARF) - Frequently Asked Questions

SCAR stands for Sewer Capacity Availability Review that is performed by the Department of Public Works, Bureau of Sanitation. This review evaluates the existing sewer system to determine if there is adequate capacity to safely convey sewage from proposed development projects, proposed construction projects, proposed groundwater dewatering projects and proposed increases of sewage from existing facilities. The SCAR Fee (SCARF) recovers the cost, incurred by the City, in performing the review for any SCAR request that is expected to generate 10,000 gallons per day (gpd) of sewage.

The SCARF is based on the effort required to perform data collection and engineering analysis in completing a SCAR. A brief summary of that effort includes, but is not limited to, the following:

1. Research and trace sewer flow levels upstream and downstream of the point of connection.
2. Conduct field surveys to observe and record flow levels. Coordinate with maintenance staff to inspect sewer maintenance holes and conduct smoke and dye testing if necessary.
3. Review recent gauging data and in some cases closed circuit TV inspection (CCTV) videos.
4. Perform gauging and CCTV inspection if recent data is not available.
5. Research the project location area for other recently approved SCARs to evaluate the cumulated impact of all known SCARs on the sewer system.
6. Calculate the impact of the proposed additional sewage discharge on the existing sewer system as it will be impacted from the approved SCARs from Item 6 above. This includes tracing the cumulative impacts of all known SCARs, along with the subject SCAR, downstream to insure sufficient capacity exist throughout the system.
7. Correspond with the applicant for additional information and project and clarification as necessary.
8. Work with the applicant to find alternative sewer connection points and solutions if sufficient capacity does not exist at the desired point of connection.

Questions and Answers:

1. **When is the SCARF applied, or charged?**
   It applies to all applicants seeking a Sewer Capacity Availability Review (SCAR). SCARs are generally required for Sewer Facility Certificate applications exceeding 10,000 gpd, or request from a property owner seeking to increase their discharge thru their existing connection by 10,000 gpd or more, or any groundwater related project that discharges 10,000 gpd or more, or any proposed or future development for a project that could result in a discharge of 10,000 gpd.
2. **Why is the SCARF being charged now when it has not been in the past?**
   The City has seen a dramatic increase in the number of SCARs over 10,000 gpd in the last few years and has needed to increase its resources, i.e., staff and gauging efforts, to respond to them. The funds collected thru SCARF will help the City pay for these additional resources and will be paid by developers and property owners that receive the benefit from the SCAR effort.
3. **Where does the SCARF get paid?**
   The Department of Public Works, Bureau of Engineering (BOE) collects the fee at its public counters. Once the fee is paid then BOE prepares a SCAR request and forwards it to the BOS where it is reviewed and then returned to BOE. BOE then informs the applicant of the result. In some cases, BOS works directly with the applicant during the review of the SCAR to seek additional information and work out alternative solutions

City of Los Angeles
Bureau of Engineering

Sewer Capacity Availability Request (SCAR)

To: Bureau of Sanitation
The following request is submitted to you on behalf of the applicant requesting to connect to the public sewer system. Please verify that the capacity exists at the requested location for the proposed developments shown below. The results are good for 180 days from the date the sewer capacity approval from the Bureau of Sanitation.

Job Address:	**20950 WARNER CENTER LANE**	Sanitation Scar ID:	**62-3988-1217**
Date Submitted	12/18/2017	Request Will Serve Letter?	Yes
BOE District:	Valley District		
Applicant:	ION CRETU		
Address:	555 S FLOWER ST, #4300	City :	LOS ANGELES
State:	CA	Zip:	90071
Phone:	213.223.1528	Fax:	
Email:	ION.CRETU@PSOMAS.COM	BPA No.	IN PROCESS
S-Map:		Wye Map:	174B109

SIMM Map - Maintenance Hole Locations

No.	Street Name	U/S MH	D/S MH	Diam. (in)	Approved Flow %	Notes
1	BURBANK BLVD	43110069	43110070	15	50.00	
2	DE SOTO AVE	43110054	43110039	15	50.00	

Proposed Facility Description

No.	Proposed Use Description	Sewage Generation (GPD)	Unit	Qty	GPD
1	RESIDENTIAL: APT - BACHELOR	75	DU	116	8,700
2	RESIDENTIAL: APT - 1 BDRM. *6	110	DU	503	55,330
3	RESIDENTIAL: APT - 2 BDRMS *6	150	DU	356	53,400
4	RESIDENTIAL: APT - 3 BDRMS *6	190	DU	53	10,070
5	RESTAURANT: FULL SERVICE INDOOR SEAT	30	SEAT	3,599	107,970
6	COMMERCIAL USE	50	KGSF	96,556	4,828
7	SWIMMING POOL (COMMERCIAL WITH BACKWASH FILTERS)		GPD	143,589	143,589
8	OFFICE BUILDING	120	KGSF	1,109,078	133,089
9	HOTEL: USE GUEST ROOMS ONLY	120	ROOM	228	27,360
10	RETAIL AREA (LESS THAN 100,000 SF)	25	KGSF	33,035	826
11	COMMERCIAL USE	50	KGSF	26,153	1,308
				Proposed Total Flow (gpd):	**546,470**

Remarks: 1] Approved maximum allowable capacity of 547,840 GPD (391.31 gpm). 2] Discharge as indicated on SCAR form. 3] Industrial Wastewater Permit (IWP) required.

Note: Results are good for 180 days from the date of approval by the Bureau of Sanitation

Date Processed: 03/12/2018 Expires On: 09/08/2018

Scar Request Number: 2172

Processed by:	Albert Lew Bureau of Sanitation Phone: 323-342-6207 Sanitation Status: Approved Reviewed by: on	Submitted by:	Steve Melgar Bureau of Engineering Central District Phone: 213-482-7050

Fees Collected	Yes	SCAR FEE (W:37 / QC:709)	$3,135.00
Date Collected	12/18/2017	SCAR Status:	**Completed**

Scar Request Number: 2172

City of Los Angeles

Los Angeles Department of Water and Power - Water System

SAR NUMBER **64345**

Fire Service Pressure Flow Report

SERVICE NUMBER **622035**

For: **20970 WARNER CENTER LN** Approved Date: **1-2-2018**

Proposed Service **10 INCH** off of the

12 inch main in **DE SOTO AVE** on the **WEST** side approximately

550 feet **NORTH** of **CENTERLINE** of **BURBANK BLVD** The System maximum pressure is

118 psi based on street curb elevation of **852** feet above sea level at this location.

The distance from the DWP street main to the property line is **25** feet

System maximum pressure should be used only for determining class of piping and fittings.

Residual Flow/Pressure Table for water system street main at this location

Flow (gpm)	Press. (psi)	Flow (gpm)	Press. (psi)	Flow (gpm)	Press. (psi)
0	87	3795	69		
795	86	3905	68		
1160	85	4015	67		
1440	84	4125	66		
1685	83	4230	65		
1900	82	4330	64		
2095	81	4430	63		
2280	80	4530	62		
2450	79	4630	61		
2610	78	4725	60		
2765	77	4815	59		
2910	76	4910	58		
3050	75	5000	57		
3185	74				
3315	73				
3440	72				
3560	71				
3680	70				

Meter Assembly Capacities

Domestic Meters	
1 inch =	56 gpm
1-1/2 inch =	96 gpm
2 inch =	160 gpm
3 inch =	220 gpm
4 inch =	400 gpm
6 inch =	700 gpm
8 inch =	1500 gpm
10 inch =	2500 gpm

Fire Service	
2 inch =	250 gpm
4 inch =	600 gpm
6 inch =	1400 gpm
8 inch =	2500 gpm
10 inch =	5000 gpm

FM Services	
8 inch =	2500 gpm
10 inch =	5000 gpm

These values are subject to change due to changes in system facilities or demands.

Notes: There are three SARs that were ran independently with this request. The other two were SAR 64365 & 64366

This information will be sent to the Department of Building and Safety for plan checking.

This SAR is valid for one year from 01-02-18. Once the SAR expires, the applicant needs to re-apply and pay applicable processing fee.

For additional information contact the Water Distribution Services Section **WEST VALLEY (213) 367-1250**

RAFAEL VIRAMONTES	**RAFAEL VIRAMONTES**	**176-108**
Prepared by	**Approved by**	**Water Service Map**

City of Los Angeles

Los Angeles Department of Water and Power - Water System

SAR NUMBER **64365**

Fire Service Pressure Flow Report

SERVICE NUMBER **622036**

For: **20970 WARNER CENTER LN** Approved Date: **1-2-2018**

Proposed Service **10 INCH** off of the

12 inch main in **WARNER CENTER L** on the **SOUTH** side approximately

350 feet **WEST** of **CENTERLINE** of **DE SOTO AV** The System maximum pressure is

118 psi based on street curb elevation of **851** feet above sea level at this location.

The distance from the DWP street main to the property line is **48** feet

System maximum pressure should be used only for determining class of piping and fittings.

Residual Flow/Pressure Table for water system street main at this location

Flow (gpm)	Press. (psi)	Flow (gpm)	Press. (psi)	Flow (gpm)	Press. (psi)
0	86	4100	68		
860	85	4220	67		
1250	84	4340	66		
1560	83	4455	65		
1820	82	4570	64		
2055	81	4680	63		
2265	80	4790	62		
2460	79	4895	61		
2645	78	5000	60		
2820	77				
2985	76				
3140	75				
3295	74				
3440	73				
3580	72				
3715	71				
3845	70				
3975	69				

Meter Assembly Capacities

Domestic Meters	
1 inch =	56 gpm
1-1/2 inch =	96 gpm
2 inch =	160 gpm
3 inch =	220 gpm
4 inch =	400 gpm
6 inch =	700 gpm
8 inch =	1500 gpm
10 inch =	2500 gpm

Fire Service	
2 inch =	250 gpm
4 inch =	600 gpm
6 inch =	1400 gpm
8 inch =	2500 gpm
10 inch =	5000 gpm

FM Services	
8 inch =	2500 gpm
10 inch =	5000 gpm

These values are subject to change due to changes in system facilities or demands.

Notes: SAR was ran independently from SAR 64366 & 64345.

This information will be sent to the Department of Building and Safety for plan checking.

This SAR is valid for one year from 01-02-18. Once the SAR expires, the applicant needs to re-apply and pay applicable processing fee.

For additional information contact the Water Distribution Services Section **WEST VALLEY (213) 367-1250**

RAFAEL VIRAMONTES	**RAFAEL VIRAMONTES**	**176-108**
Prepared by	**Approved by**	**Water Service Map**

City of Los Angeles

Los Angeles Department of Water and Power - Water System

SAR NUMBER **64366**

Fire Service Pressure Flow Report

SERVICE NUMBER **622037**

For: **20970 WARNER CENTER LN** Approved Date: **1-2-2018**

Proposed Service **10 INCH** off of the

12 inch main in **BURBANK BL** on the **NORTH** side approximately

200 feet **WEST** of **CENTERLINE** of **DE SOTO AV** The System maximum pressure is

114 psi based on street curb elevation of **860** feet above sea level at this location.

The distance from the DWP street main to the property line is **32** feet

System maximum pressure should be used only for determining class of piping and fittings.

Residual Flow/Pressure Table for water system street main at this location

Flow (gpm)	Press. (psi)	Flow (gpm)	Press. (psi)	Flow (gpm)	Press. (psi)
0	83	3440	65	5000	47
720	82	3540	64		
1050	81	3640	63		
1305	80	3735	62		
1525	79	3830	61		
1720	78	3925	60		
1900	77	4015	59		
2065	76	4105	58		
2220	75	4195	57		
2365	74	4280	56		
2505	73	4365	55		
2635	72	4450	54		
2765	71	4530	53		
2885	70	4610	52		
3000	69	4690	51		
3115	68	4770	50		
3225	67	4850	49		
3335	66	4925	48		

These values are subject to change due to changes in system facilities or demands.

Meter Assembly Capacities

Domestic Meters	
1 inch =	56 gpm
1-1/2 inch =	96 gpm
2 inch =	160 gpm
3 inch =	220 gpm
4 inch =	400 gpm
6 inch =	700 gpm
8 inch =	1500 gpm
10 inch =	2500 gpm

Fire Service	
2 inch =	250 gpm
4 inch =	600 gpm
6 inch =	1400 gpm
8 inch =	2500 gpm
10 inch =	5000 gpm

FM Services	
8 inch =	2500 gpm
10 inch =	5000 gpm

Notes: SAR was ran independently from SAR 64345 & 64365

This information will be sent to the Department of Building and Safety for plan checking.

This SAR is valid for one year from 01-02-18. Once the SAR expires, the applicant needs to re-apply and pay applicable processing fee.

For additional information contact the Water Distribution Services Section **WEST VALLEY (213) 367-1250**

RAFAEL VIRAMONTES	**RAFAEL VIRAMONTES**	**174-108**
Prepared by	**Approved by**	**Water Service Map**