NEW YORK LONDON SINGAPORE PHILADELPHIA CHICAGO WASHINGTON, DC SAN FRANCISCO SILICON VALLEY SAN DIEGO LOS ANGELES TAIWAN BOSTON HOUSTON AUSTIN HANOI HO CHI MINH CITY DuaneMorris<sup>®</sup>

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SHANGHAI ATLANTA BALTIMORE WILMINGTON MIAMI BOCA RATON PITTSBURGH NEWARK LAS VEGAS CHERRY HILL LAKE TAHOE MYANMAR OMAN A GCC REPRESENTATIVE OFFICE OF DUANE MORRIS

ALLIANCES IN MEXICO AND SRI LANKA

March 29, 2019

### VIA HAND DELIVERY AND E-MAIL

President Norman Yee and Members of the San Francisco Board of Supervisors Dr. Carlton B. Goodlett Place, Room 244 San Francisco, CA 94102-4689

### Re: 1052 - 1060 Folsom Street and 190-194 Russ Street File No. 190093 (Appeal of CEQA Community Plan Evaluation) Hearing Date: April 9, 2019

Dear President Norman Yee and Members of the Board of Supervisors:

We represent Golden Properties LLC, the project Applicant ("Applicant") for the proposed development located at 1052 – 1060 Folsom Street and 190-194 Russ Street ("Site"). The Applicant is proposing to demolish all of the buildings on site and construct a new seven-story mixed-use building containing 63 residential units ("Project"). The Planning Department lawfully issued a Community Plan Evaluation ("CPE") pursuant to the California Environmental Quality Act ("CEQA") for the proposed Project on December 11, 2018. On December 20, 2018, the Planning Commission ("Commission") considered and approved the Project, and on January 22, 2019, the South of Market Community Action Network ("SOMCAN" or "Appellant") filed an appeal of the CPE to the Board of Supervisors ("Board").<sup>1</sup>

For this Project, two separate shadow impact analyses are required -- one under CEQA and one under Planning Code section 295. Under CEQA, an environmental review document is an informational document to inform governmental decision-makers and the public about potential significant environmental effects of projects. (CEQA Guidelines Section 15002(a)(1).) Under

DUANE MORRIS LLP

<sup>1</sup> 

SOMCAN has also appealed to the Board the Conditional Use Authorization issued for the Project. We have submitted a separate letter to the Board opposing that appeal.

Planning Code Section 295, analysis of the Project's shadow impact allows a balancing of the Project's shadow impact against the benefits of the Project. Appellant's complaints about the Project's shadow impact was and is directed at the Commission's finding that the Project will not have significant impact on the Park or its users under Planning Code Section 295. In this case, and as discussed in more detail below, the Project's shadow impact is insignificant under both CEQA and the Planning Code.

The Project's environmental impacts were properly evaluated through an Initial Study and the issuance of the CPE. The Planning Department ("Department") has submitted a response to the issues raised in SOMCAN's appeal letter, which discusses the CEQA review undertaken for the Project and the broader and detailed review provided in the Environmental Impact Report for the Eastern Neighborhoods Plan Area, within which the Project Site is located.

Based on a detailed analysis and evaluation of SOMCAN's claims, the Department recommends that the Board uphold the lawful CPE determination and deny the appeal. For the reasons discussed below, we agree with the staff's analysis, and request that the Board reject the appeal and uphold the CPE determination.

### PROJECT SITE AND PROPOSED PROJECT

The Site is located on the northwest corner of Folsom and Russ Streets between Sixth and Seventh Streets. The Site consists of three lots totaling 11,500 sq. ft. that are located in two zoning districts within the Eastern Neighborhood Plan. Two lots are in the SOMA Neighborhood Commercial Transit District ("SoMa NCT"), and one lot is located in the South of Market Residential Enclave District ("RED") with an overlay of the SoMa Youth and Family Special Use District.

The Site is improved with five buildings ranging from one to two stories high that include four rent-controlled two-bedroom residential units, ground floor retail, other commercial uses, and a surface parking lot. The surrounding neighborhood is developed with buildings ranging from one to four stories whose uses include multi-story apartment buildings, mixed use residential/retail buildings, and commercial use buildings. The Victoria Manalo Draves Park (the "Park") is located across Folsom Street from the Site. Other open spaces within the vicinity of the Site include the Gene Friend Recreation Center, which is one block away on Folsom Street between 6<sup>th</sup> and Harriet Streets, and the outdoor play area of the Bessie Carmichael Elementary School which is adjacent to the Park.

The Project would demolish the five existing buildings on the Site, merge the three lots into one, and construct a new seven-story, 64'-6" tall, 58,663 gross square feet ("gsf") mixed use building with 63 residential units, 2,822 gsf of retail space, a garage with 17 off-street parking spaces (including one car share parking space, one handicapped parking space, and 15 spaces in car stackers), 63 Class I bicycle parking spaces, and 10 Class II bicycle parking spaces between the street trees on Folsom and Russ Streets (subject to MTA approval). Of the 63 residential units, 44 will be new market-rate residential units to be added to the City's housing inventory, 15 (25%)

will be affordable units (one more than required by the Planning Code) and 4 units will be rent-controlled, replacing the 4 demolished rent-controlled units. Of the 15 affordable housing units, ten units will be affordable to the low income households with income not exceeding 50% of area median income (AMI), 2 units to moderate income households with income not exceeding 80% of AMI, and 3 units to middle class households with income not exceed 100% of AMI. See **Exhibit 1** for copies of the existing and proposed site plan, floor plans, elevations, sections, photomontages, photographs and other graphics.

### ADMINISTRATIVE PROCEEDINGS

Approximately three years ago, on June 3, 2016, the Applicant submitted an Environmental Evaluation Application ("EEA") for the Project. The original EEA was based on a 65' high, 54,154 gsf mixed use building with 46 residential units and 3,302 sq. ft. of retail uses with a maximum allowable building envelope. As a result of comments related to the proposed design of the Project by the Department, the Applicant engaged a new architect who redesigned the Project, which reduced the massing fronting on Folsom and Russ Streets and increased the number of units from 46 to 63. On August 7, 2017, the Project Sponsor submitted an amended EEA and entitlement applications for the revised proposed project. On December 11, 2018, the Department issued a CPE for the proposed Project under CEQA. On January 22, 2019, SOMCAN filed an appeal of the CPE to the Board.<sup>2</sup>

### THE ISSUANCE OF THE CPE IS MANDATED BY CEQA SECTION 21083.3

The Site is located within the Eastern Neighborhoods Plan Area for which a Program EIR was prepared and certified in 2008 ("PEIR"). Appellant does not dispute that the Project is consistent with the development densities, community plan or general plan policies under the Site's NCT and RED zoning, as established by the Eastern Neighborhoods Plan.

After review of the submitted environmental review application, the Department found that the Project was eligible for streamlined review pursuant to CEQA Section 21083.3 and CEQA Guidelines Section 15183, and issued a CPE Certificate of Determination for the Project. These provisions of CEQA *mandate* the issuance of a CPE for projects that are consistent with the development density established by existing zoning, community plan or general plan policies for which an EIR was certified. *Therefore, the City's environmental review under CEQA is limited to any potential impacts peculiar to the Project or Site that were not disclosed in the PEIR.* 

<sup>&</sup>lt;sup>2</sup> The Appellant also appealed to the Board the Planning Commission's approvals of the CU and Section 317 applications and appealed the Commission's approval of the LPA to the Board of Appeals. It has been the practice of the Board to schedule and consolidate the hearings for the appeals of the CPE and the CU Authorization during the same public hearing. The Board of Supervisors has no jurisdiction over the LPA appeal, which will be considered by the Board of Appeals on May 15, 2019. Once issued, the Zoning Administrator's decision on the variance application will be appealable to the Board of Appeals.

CEQA also specifically provides that the City **cannot** require further environmental review unless necessary to examine whether there are project-specific impacts peculiar to the project or its site that were not disclosed as significant impacts in the prior EIR. In this instance, the PEIR concluded that new shadow impacts of then unknown development on the Park to be significant and unavoidable for all three alternatives studied in the PEIR, and for the No-Project Alternative. Specifically, and relevant here, the PEIR found that the shadow impact on the Park would be **significant and unavoidable**. See **Exhibit 2** (PEIR Shadow Impact Section), pages 397-98.

As mentioned before, approval of the Project required two different analyses of the Project's shadow impacts. On December 20, 2018, after duly noticed public hearings, both the Recreation and Park Commission in the morning and the Planning Commission in the afternoon considered public testimony and the administrative record before them, and determined that the Project would not have significant impact on the Park under CEQA and under Section 295 of the Planning Code.<sup>3</sup>

### **ISSUES RAISED BY APPELLANT**

The Appellant argues that the CPE should not have been issued because the analysis of the new shadow cast by the Project on the Park is legally insufficient. To support the appeal, the Appellant claims that:

- 1. The massing in the plans used for the evaluation of the shadow impacts is "questionable" or "uncertain" because the plans do not conform to code requirements; and
- 2. The Project description and the shadow analysis in the CPE are legally inadequate.

# THE CPE IS LEGALLY ADEQUATE AND SUPPORTED BY EVIDENCE IN THE RECORD.

The Department undertook a complete evaluation of the Project's potential and specific impacts, which included review and analysis of all required topics in an initial study and various technical studies prepared under the City's direction. These studies included an historic resource evaluation and a shadow impact study, prepared by PreVision Design.<sup>4</sup>

The Department concluded, based on substantial evidence in the record (including the factual information provided in the Shadow Study) that there were no impacts peculiar to the Project or the Project Site that were not disclosed in the PEIR. Therefore, **the City cannot require any further CEQA review**, and the Department complied with the mandates of CEQA in issuing the

<sup>&</sup>lt;sup>3</sup> Both Commissions found the Project beneficial to the City's goals of adding new market rate and low income housing, and not to have a significant new shadow impact on the Park. The Planning Commission also approved the CU, the Section 317 and the LPA applications by a vote of 4-3.

<sup>&</sup>lt;sup>4</sup> A copy of the Shadow Study is attached hereto as **Exhibit 3**.

CPE for the Project. The facts regarding the Project's specific shadow impacts will be more fully discussed below.

# 1. The Shadow Study is based on submitted plans that are more than sufficient to prepare an accurate shadow study.

The Appellant does not cite any violation of any code section in support of the contention that the plans are insufficient, nor does the Appellant provide any evidence that the dimensions used are insufficient for preparation of the Shadow Study. Contrary to Appellant's bald and unfounded allegation, the shadow analysis was based on a set of plans that includes all of the Project's building envelope dimensions. As with any project, as it proceeds through the entitlement process, design revisions are made to the original submitted plans based on a request(s) and/or input from the Department staff. In this case, the Shadow Study was revised to reflect the Project's massing before the Commission, which is slightly smaller than the original proposal. There is no evidence provided that any refinement to be building's exterior facade design would render the analysis or conclusions regarding the Project's shadow on the Park to be misleading or inadequate. Moreover, the Commission's Conditions of Approval relating to the Project design do not alter the Project massing. See Planning Commission Motion 20361 attached to Appellant's Appeal Statement of the Conditional Use Authorization for the Project. See also **Exhibit 1**, Sheets A-0.12, A-0.13, A-0.14, A-4.1, A-4.2, A-4.3.

# 2. Substantial evidence supports the CPE's conclusion that the Project's new shadow on the Park is insignificant.

As noted above, the Department concluded, based on the information provided in the Shadow Study, that there were no shadow impacts peculiar to the Project that were not disclosed in the PEIR. As stated in the Shadow Study, the existing annual shading on the Park is 7.41%. With the Project, the new annual shading would be 7.79%, and when including cumulative projects, the new shading would be 7.87%. This equals an increase in the annual shadow load on the Park of only .38%, or .46%, with cumulative projects included.

The Shadow Study concluded that no new shadow will be cast by the Project between October 18 and February 18. In addition, only the northeast quadrant of the Park would be affected by the Project's new shadow, which would first enter the Park no earlier than 5:15 and no later than 6:00 pm. On March 1, the new shadow would first enter the Park at 5:15 pm; and on April 5, the new shadow would begin at 5:45 p.m. From around early May until mid-August, the new shadow would not enter the Park until 6:00 pm.

The "worst shadow day" (the day of maximum shading from the Project) would be June 21, the longest day of the year. On this day new shadow would be cast on the Park for approximately 1 hour and 36 minutes. New shadow reaches the northern edge of the park at 6:00 p.m., at 6:15 p.m. two very slender finger like shadows would reach the edge of the basketball court, one at center court and the other near the free throw line, at 6:30 p.m. the new shadow would cover

approximately 35% of the northwest corner of the basketball court. At 6:45 p.m. new shadow would extend over almost the entire northeastern half of the basketball court, and a small portion of the entry path. At 7:00 p.m. the new shadow will extend to both sides of the entry path. At 7:15 p.m. the new shadow would cover the northern half of the basketball court, the northern tip of the children's playground, the entrance path, and would reach the top of the oval grass area.

On the worst shadow day, the largest new shadow would occur at 7:36 p.m., and equal 18.24% of the total Park area. The remainder of the Park, including the vast majority of the children's area, the community garden, picnic areas and ball field would not be impacted by any new shadow from the Project.

The Shadow Study also included a qualitative analysis of the impact of the new shadow on Park users. PreVision conducted visual surveys of park usage during both a weekend and weekday in May 2018. The surveys found that usage was higher during weekday midday and afternoon time periods, as well as during the weekend mornings and midday times. Therefore, even on the "worst shadow day," the Project's new shadow would not affect a substantial number of users.

The Shadow Study also noted that the portions of the Park that could be more sensitive to the addition of new shadow, including half the basketball court, a small portion of the play area and seven fixed benches, would receive new shadow only in the late afternoon and evenings, when significantly lower numbers of users were observed relative to peak usage at midday. Observations showed that overall there was no clear pattern of diminished use in areas with or without existing shadows.

For all of the reasons expressed above, the Department correctly concluded, based on substantial evidence, that the Project's shadow impacts would be insignificant.

## 3. The Eastern Neighborhoods PEIR did analyze the shadow impacts on the Park.

The Appellant also alleges that the Eastern Neighborhoods PEIR did not analyze shadow impacts governed by Proposition K upon the Park. This claim is demonstrably false. The PEIR included a lengthy discussion of potential new shadow impacts. The PEIR shadow impact analysis included a discussion of Planning Code Section 295 and the Sunlight Ordinance enacted pursuant to Proposition K. (See **Exhibit 2**, p. 381.) The impact analysis specifically discussed how an increase in height by future buildings under the Preferred Option of the Eastern Neighborhoods Plan Areas would result in potential unavoidable and significant shadow impacts on the Park (See **Exhibit 2**, p. 397-98.).

The PEIR did discuss and analyze shadow impacts on the Park and noted that per Section 295, a project specific analysis would be required. In this case, the Project's new shadows, either individually or cumulatively were found to be insignificant by both the Recreation and Park Commission and the Planning Commission. Even if the Project's new shadows were found to be significant and unavoidable, that finding would still have been consistent with the PEIR's conclusion adopted by this Board. Under CEQA Guidelines Section 15183, the shadow analysis

was properly undertaken and, based on substantial evidence, the Department determined that the Project's shadow impact on the Park to be insignificant prior to issuing the CPE. Therefore, the Project's shadow impact is consistent with the PEIR's conclusion.

#### CONCLUSION

All the claims raised by the Appellant are not supported by any evidence, and therefore without merit. **CEQA Section 21083.3 and CEQA Guidelines Section 15183 mandate the issuance of a CPE for this Project** and the City's environmental review under CEQA is limited to any potential impacts peculiar to the Project or Site that were not disclosed in the PEIR. Thus, the CPE issued by the Planning Department and relied upon by the Planning Commission in approving the Project was and is legally adequate and supported by substantial evidence in the record.

We urge this Board to uphold CPE.

Very truly yours

DUANE MORRIS LLP

William M. Fleishhacker

Attachments: Exhibits 1 - 3.

cc: Supervisor Vallie Brown Supervisor Sandra Lee Fewer Supervisor Matt Haney Supervisor Rafael Mandelman Supervisor Gordon Mar Supervisor Aaron Peskin Supervisor Hillary Ronen Supervisor Ahasha Safai Supervisor Catherine Stefani Supervisor Shamann Walton Angela Calvillo, Clerk of the Board Alisa Somera, Deputy Clerk John Rahaim, (Director. Planning Department) Lisa Gibson (Planning Department Environmental Review) Rich Sucre (Project Planner) Christopher Espiritu (Environmental Review Planner) Sue Hestor (via e-mail and U.S. Mail) Paul Iantorno Reza Khoshnevisan (Project Architect)

# <u>Duane</u>Morris

Supervisor Norman Yee, President of the Board of Supervisors March 29, 2019 Page 8

## TABLE OF EXHIBITS

- Exhibit 1 Existing and Proposed Site Plan, Floor Plans, Elevations, Sections. Photomontages Photographs and other graphics.
- Exhibit 2 Eastern Neighborhoods Program EIR, Chapter IV, Section I (Shadow).
- Exhibit 3 Shadow Study dated October 30, 2018.

# EXHIBIT 1





	5 6	7		8		9		10
	DRAWING INDEX:			PROJECT DATA			PROJECT NAME	
A-0.1 A-0.2 A-0.3 A-0.4 A-0.4.1 A-0.4.2 A-0.5 A-0.5 A-0.6 A-0.7 A-0.8	COVER SHEET PROJECT DATA & INFORMATION ZONING & OPEN SPACE INFORMATION GROSS FLOOR AREA DIAGRAM VAR UNIT DIAGRAM UNIT DESIGNATION DIAGRAM VICINITY MAP MID-BLOCK OPEN SPACE DIAGRAM AERIAL PHOTOS SITE PHOTOS	PLANNING DA Address: Lot Area: Block / Lot: Height Limit: Building Height: Zoning:		1052-1060 FOL 11,500 ± S.F. 3731 / 021,023,0 65-X 64'-6" NCT / RED				Folsom Street AN FRANCISCO, CA
A-0.9 A-0.10 A-0.11 A-0.12 A-0.13 A-0.14 A-0.15 A-1.1 A-1.2 A-2.1 A-2.2 A-2.3 A 2 1	SITE PHOTOS SITE PHOTOS STREET VIEW STREET VIEW STREET VIEW MATERIAL BOARD EXISTING SITE PLAN / SURVEY PROPOSED SITE PLAN (E) DEMO FLOOR PLANS & ELEVATIONS (E) DEMO FLOOR PLANS & ELEVATIONS (E) DEMO FLOOR PLANS & ELEVATIONS	REAR YARD O REQUIRED: PROVIDED: DWELLING UN REQUIRED: PROVIDED:	PEN SPACE IIT USABLE OPE	631(NCT)+ 1,789 N SPACE SEE SHEET A-(	% OF LOT AREA: 11,500 (RED) = <b>2,420 S.F.</b> (21 % ).3 AL (SEE RESIDENTIAL U	OF LOT AREA)	cor	nsulting
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A-4.3 A-5.1 A-5.2	REAR & LEFT ELEVATIONS SECTION A-A STREETSCAPE & SIDEWALK SECTION	RENT CONTROL RE		4 UNITS 15 UNITS 44 UNITS				
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Um				UNIT	ТҮРЕ			
		FLOOR LEVEL	STUDIO	1-BEDROOM	2-BEDROOM	TOTAL		
		1ST FLOOR	2	1	0	3		
		2ND FLOOR	0	1	6	7		
		3RD FLOOR	0	4	7	11	DRAWN	A.A
		4TH FLOOR	0	4	7	11		
		5TH FLOOR	0	4	7	11	CHECKED	R.K.
MA		6TH FLOOR	0	5	6	11	DATE	12/26/2016
		7TH FLOOR	1	4	4	9	REVISED DATE	03/15/2019
		TOTAL	3	23	37	63	JOB NO.	16-1727
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	7		8		9		10
		PROJE	CT DATA			PROJECT NAME	
	PLANNING DATA ADDRESS: LOT AREA: BLOCK / LOT: HEIGHT LIMIT: BUILDING HEIGHT: ZONING:	11,5 373 65-> 64'-0 NCT		STREET			Folsom Street An Francisco, ca
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1	FLOOR LEVEL			E			
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	1ST FLOOR 2			0	3		
	2ND FLOOR 0			6	7		
	3RD FLOOR 0	2		7	11	DRAWN	A.A
18	4TH FLOOR 0			7	11		
	5TH FLOOR 0	2		7	11	CHECKED	R.K.
	6TH FLOOR 0		j	6	11	DATE	12/26/2016
	7TH FLOOR 1			4	9	REVISED DATE	03/15/2019
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						SHEET NO.	A-0.1
					9		10

	1	2	3	4
	1	2	3	4

FLOOR A	FLOOR AREA DATA BREAKDOWN (GSF)								
LEVEL	COMMERCIAL	RESIDENTIAL	CIRCULATION	GARBAGE / UTILITY	GARAGE	BIKE PARKING	OTHER	TOTAL	
1ST FLOOR	2,121 ± S.F.	1,420 ± S.F.	1,762 ± S.F.	939 ± S.F.	3,582 ± S.F.	800 ± S.F.	-	10,624 ± S.F.	
2ND FLOOR	701 ± S.F.	5,209 ± S.F.	847 ± S.F.	-	-	-	-	6,757 ±S.F.	
3RD FLOOR	-	7,816 ± S.F.	837 ± S.F.	-	-	-	-	8,653 ±S.F.	
4TH FLOOR	-	7,816 ± S.F.	837 ± S.F.	-	-	-	-	8,653 ±S.F.	
5TH FLOOR	-	7,816 ± S.F.	837 ± S.F.	-	-	-	-	8,653 ±S.F.	
6TH FLOOR	-	7,605 ± S.F.	833 ± S.F.	-	-	-	-	8,438 ±S.F.	
7TH FLOOR	-	6,048 ± S.F.	837 ± S.F.	-	-	-	-	6,885 ±S.F.	
TOTAL	2,822 ± S.F.	43,730 ± S.F.	6,790 ± S.F.	939 ± S.F.	3,582 ± S.F.	800 ± S.F.	-	58,663 ±S.F.	

FIRST LEVEL MAT	FIRST LEVEL MATRIX									
FLOOR LEVEL	GROSS FLOOR AREA	# BICYCLE	COMMERCIAL FLOOR AREA							
FIRST FLOOR	10,624 ± S.F.	63	2,121 ± S.F.							
	TOTA	L # OF COMMERCAIL UNIT	3							

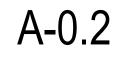
RESIDENTIAL UNIT MATE	RIX			
FLOOR LEVEL	UNIT TYPE # OF EACH TYPE	TOTAL # OF UNIT	OPEN S PRIVATE	SPACE COMMON
1ST FLOOR	STUDIO x 2 / 1-BEDROOM x 1	3	123 S.F.	0 S.F.
2ND FLOOR	1-BEDROOM x 1 / 2-BEDROOM x 6	7	0 S.F.	2,420 S.F.*
3RD FLOOR	1-BEDROOM x 4 / 2-BEDROOM x 7	11	53 S.F.	0 S.F.
4TH FLOOR	1-BEDROOM x 4 / 2-BEDROOM x 7	11	53 S.F.	0 S.F.
5TH FLOOR	1-BEDROOM x 4 / 2-BEDROOM x 7	11	53 S.F.	0 S.F.
6TH FLOOR	1-BEDROOM x 5 / 2-BEDROOM x 6	11	116 S.F.+131 S.F.*	0 S.F.
7TH FLOOR	STUDIO x 1 / 1-BEDROOM x 4 / 2-BEDROOM x 4	9	397 S.F. +1,131 S.F.*	0 S.F.
ROOF	COMMON ROOF DECK	0	0 S.F.	4,351 S.F.*
TOTAL NUMBER OF UNITS	STUDIO x 3 / 1-BEDROOM x 23 / 2-BEDROOM x 37	63 UNITS	2,057 S.F.	6,771 S.F.
TOTAL OPEN SPACE	8,828 S.F. PROVIDED	* QUALIFYING TOTAL: 8,033		

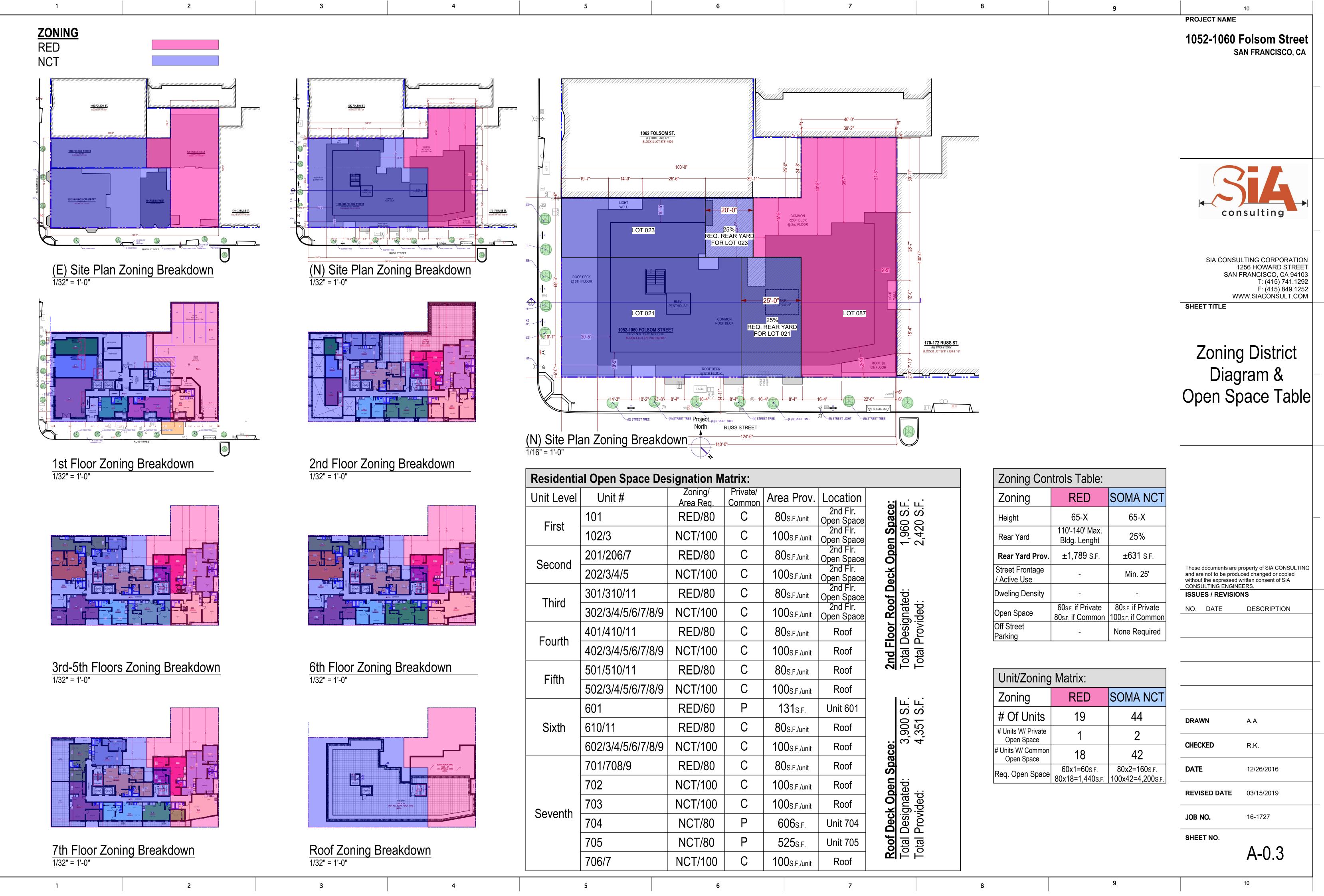
FLOOR A	REA DATA B	REAKDOW	(GSF)						1052-1060 Fo	lsom Street
LEVEL	COMMERCIAL		CIRCULATION	GARBAGE	GARAGE	BIKE PARKING	OTHER	TOTAL		FRANCISCO, CA
1ST FLOOR	2,121 ± S.F.	1,420 ± S.F.	1,762 ± S.F.	/ UTILITY 939 ± S.F.	3,582 ± S.F.	800 ± S.F.	-	10,624 ± S.F.		
2ND FLOOR	701 ± S.F.	5,209 ± S.F.	847 ± S.F.	-	-	-	_	6,757 ±S.F.		
3RD FLOOR	-	7,816 ± S.F.	837 ± S.F.	-	-	-	-	8,653 ±S.F.		
4TH FLOOR	_	7,816 ± S.F.	837 ± S.F.	_	_	-	-	8,653 ±S.F.		
5TH FLOOR	_	7,816 ± S.F.	837 ± S.F.	_	_	-	_	8,653 ±S.F.		
6TH FLOOR	_	7,605 ± S.F.	833 ± S.F.	-	_	-	_	8,438 ±S.F.		
7TH FLOOR	_	6,048 ± S.F.	837 ± S.F.	_	_	-	_	6,885 ±S.F.	<b>►</b> )	
TOTAL	2,822 ± S.F.	43,730 ± S.F.	6,790 ± S.F.	939 ± S.F.	3,582 ± S.F.	800 ± S.F.	-	58,663 ±S.F.	cons	ulting
		GROSS FLOOR A	AREA	# BICYCLE			MMERCIAL OOR AREA		WWW SHEET TITLE	ANCISCO, CA 94 T: (415) 741.12 F: (415) 849.12 /.SIACONSULT.Co
	FLOOR	10,624 ± S.F		63			<b>JOR AREA</b> 121 ± S.F.		···	
		$10,02^{-1} \pm 0.1$	•			<b>-</b> .		1		
	I		TOTAL # O	OF COMMERCAIL U	NIT	,	3		Project	Data &
			TOTAL # O		NIT				Project Inform	Data & nation
RESIDEN	TIAL UNIT M	ATRIX	TOTAL # O		NIT				Project Inform	Data & nation
		ATRIX			NIT	TOTAL # OF UNIT	3	SPACE COMMON	Project Inform	Data & nation
F	TIAL UNIT M			OF COMMERCAIL U UNIT TYPE OF EACH TYPE	NIT	TOTAL	3 OPEN		Project Inform	Data & nation
F	TIAL UNIT M	STUDIO	# O	DF COMMERCAIL U UNIT TYPE DF EACH TYPE OM x 1	NIT	TOTAL # OF UNIT	3 OPEN PRIVATE	COMMON	Project Inform	Data & nation
F	TIAL UNIT M	STUDIO 1-BEDRO	<b># 0</b> x 2 / 1-BEDRO(	<b>DF COMMERCAIL U</b> <b>UNIT TYPE</b> <b>F EACH TYPE</b> OM x 1 DROOM x 6	NIT	TOTAL # OF UNIT 3	3 OPEN PRIVATE 123 S.F.	COMMON 0 S.F.	Project Inform	Data & nation
F	TIAL UNIT M LOOR LEVEL 1ST FLOOR 2ND FLOOR	STUDIO 1-BEDRO 1-BEDRO	<b># 0</b> x 2 / 1-BEDRO( OOM x 1 / 2-BEI	<b>DF COMMERCAIL U</b> <b>UNIT TYPE</b> <b>DF EACH TYPE</b> OM x 1 DROOM x 6 DROOM x 7		TOTAL # OF UNIT 3 7	3 OPEN PRIVATE 123 S.F. 0 S.F.	COMMON 0 S.F. 2,420 S.F.*	Project Inform	Data & nation
F	TIAL UNIT M LOOR LEVEL 1ST FLOOR 2ND FLOOR 3RD FLOOR	STUDIO 1-BEDRO 1-BEDRO 1-BEDRO	<b># 0</b> x 2 / 1-BEDROC OOM x 1 / 2-BEI OOM x 4 / 2-BEI	DF COMMERCAIL U UNIT TYPE DF EACH TYPE OM x 1 DROOM x 6 DROOM x 7 DROOM x 7		<b>TOTAL</b> <b># OF UNIT</b> 3 7 11	3 OPEN PRIVATE 123 S.F. 0 S.F. 53 S.F.	COMMON         0 S.F.         2,420 S.F.*         0 S.F.	Project Inform	Data & nation
F	TIAL UNIT M LOOR LEVEL 1ST FLOOR 2ND FLOOR 3RD FLOOR 4TH FLOOR	STUDIO 1-BEDRO 1-BEDRO 1-BEDRO 1-BEDRO	<b># 0</b> x 2 / 1-BEDROO OOM x 1 / 2-BEI OOM x 4 / 2-BEI OOM x 4 / 2-BEI	<b>DF COMMERCAIL U</b> <b>UNIT TYPE</b> <b>DINIT TYPE</b> <b>OM x 1</b> DROOM x 6 DROOM x 7 DROOM x 7 DROOM x 7		TOTAL         # OF UNIT         3         7         11         11         11         11	3 OPEN PRIVATE 123 S.F. 123 S.F. 53 S.F. 53 S.F. 53 S.F.	COMMON         0 S.F.         2,420 S.F.*         0 S.F.         0 S.F.         0 S.F.         0 S.F.		
F	TIAL UNIT M LOOR LEVEL 1ST FLOOR 2ND FLOOR 3RD FLOOR 4TH FLOOR 5TH FLOOR	STUDIO 1-BEDRO 1-BEDRO 1-BEDRO 1-BEDRO 1-BEDRO	<b># O</b> x 2 / 1-BEDROO OOM x 1 / 2-BEI OOM x 4 / 2-BEI OOM x 4 / 2-BEI OOM x 4 / 2-BEI OOM x 5 / 2-BEI	<b>DF COMMERCAIL U</b> <b>UNIT TYPE</b> <b>DINIT TYPE</b> <b>OM x 1</b> DROOM x 6 DROOM x 7 DROOM x 7 DROOM x 7		TOTAL         # OF UNIT         3         7         11         11         11         11         11         11         11         11         11         11	3 OPEN PRIVATE 123 S.F. 123 S.F. 0 S.F. 53 S.F. 53 S.F. 53 S.F.	COMMON         0 S.F.         2,420 S.F.*         0 S.F.         0 S.F.         0 S.F.         0 S.F.         0 S.F.         0 S.F.	These documents are prope and are not to be produced without the expressed writte	Perty of SIA CONSULTIN I changed or copied en consent of SIA
F	TIAL UNIT M LOOR LEVEL 1ST FLOOR 2ND FLOOR 3RD FLOOR 3RD FLOOR 5TH FLOOR 5TH FLOOR	STUDIO STUDIO 1-BEDRO 1-BEDRO 1-BEDRO 1-BEDRO STUDIO	<b># O</b> x 2 / 1-BEDROO OOM x 1 / 2-BEI OOM x 4 / 2-BEI OOM x 4 / 2-BEI OOM x 4 / 2-BEI OOM x 5 / 2-BEI	DF COMMERCAIL U UNIT TYPE DF EACH TYPE OM x 1 DROOM x 6 DROOM x 7 DROOM x 7 DROOM x 7 DROOM x 7 DROOM x 7 DROOM x 6 OM x 4 / 2-BEDROO		TOTAL         # OF UNIT         3         7         11         11         11         11         11         11         11         11         11         11	3 OPEN PRIVATE 123 S.F. 123 S.F. 0 S.F. 53 S.F. 53 S.F. 53 S.F. 116 S.F.+131 S.F. <sup>3</sup>	COMMON         0 S.F.         2,420 S.F.*         0 S.F.         0 S.F.         0 S.F.         0 S.F.         0 S.F.         0 S.F.	These documents are proper and are not to be produced without the expressed writte CONSULTING ENGINEER	Perty of SIA CONSULTIN I changed or copied ren consent of SIA
F	TIAL UNIT M LOOR LEVEL 1ST FLOOR 2ND FLOOR 3RD FLOOR 3RD FLOOR 4TH FLOOR 5TH FLOOR 6TH FLOOR	STUDIO 1-BEDRO 1-BEDRO 1-BEDRO 1-BEDRO 1-BEDRO STUDIO STUDIO	<b># 0</b> x 2 / 1-BEDROO OOM x 1 / 2-BEI OOM x 4 / 2-BEI OOM x 4 / 2-BEI OOM x 4 / 2-BEI OOM x 5 / 2-BEI OOM x 5 / 2-BEI OOM x 5 / 2-BEI OOM x 5 / 2-BEI	DF COMMERCAIL U UNIT TYPE DF EACH TYPE OM x 1 DROOM x 6 DROOM x 7 DROOM x 7 DROOM x 7 DROOM x 7 DROOM x 7 DROOM x 6 OM x 4 / 2-BEDROO	M x 4	TOTAL         # OF UNIT         3         7         11         11         11         11         11         9	3 OPEN PRIVATE 123 S.F. 123 S.F. 0 S.F. 53 S.F. 53 S.F. 53 S.F. 116 S.F.+131 S.F. <sup>3</sup> 397 S.F. +1,131 S.F.	COMMON         0 S.F.         2,420 S.F.*         0 S.F.         0 S.F.	These documents are proper and are not to be produced without the expressed writte CONSULTING ENGINEER	perty of SIA CONSULTIN I changed or copied en consent of SIA

JOB NO.	16-1727

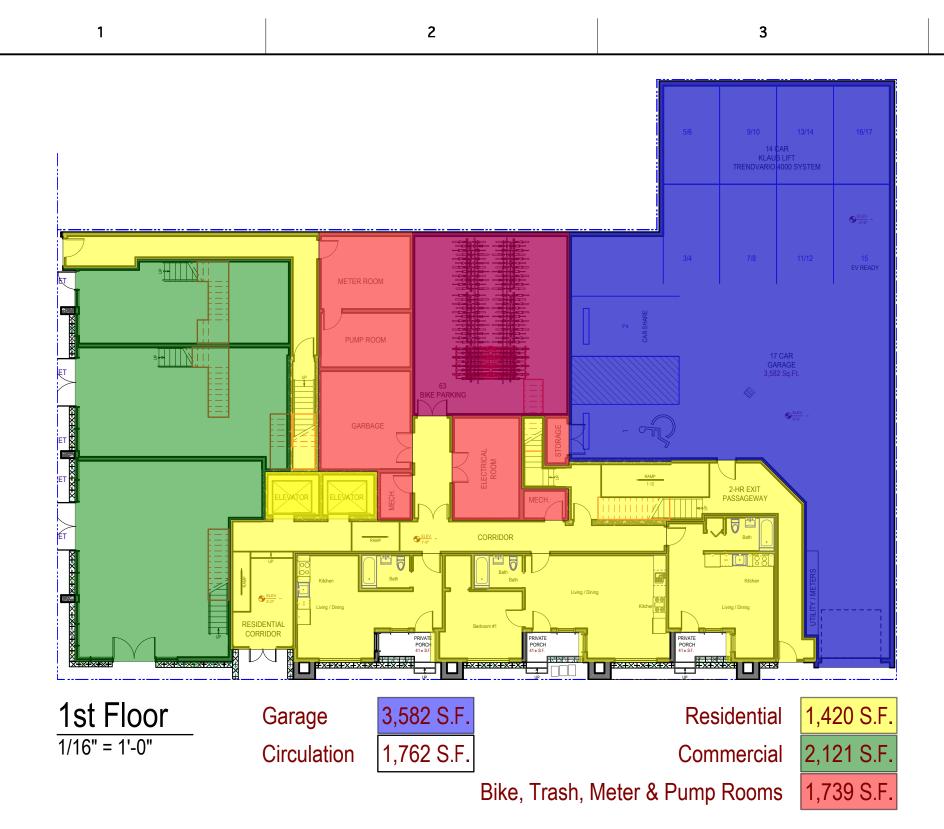
**REVISED DATE** 03/15/2019

SHEET NO.

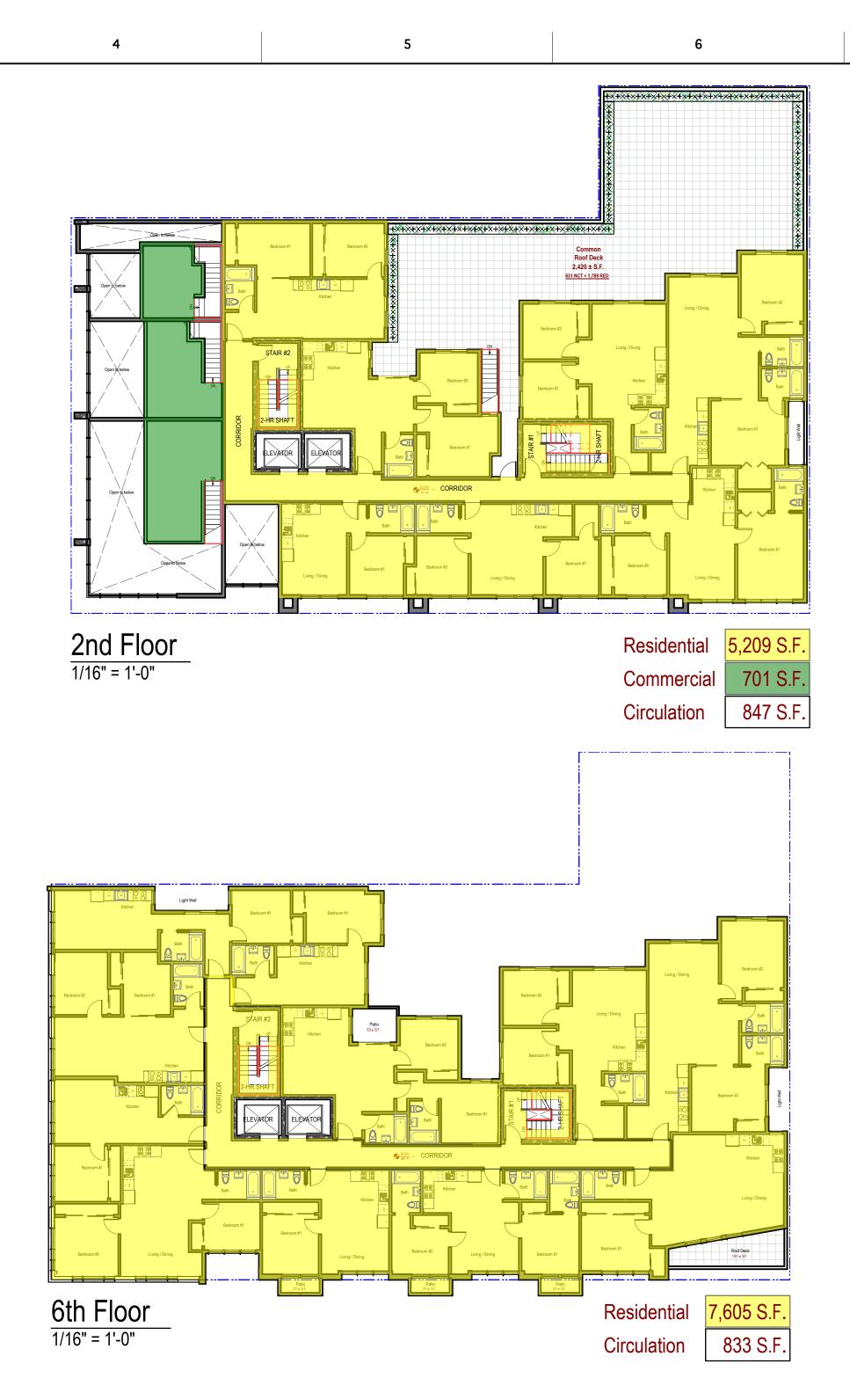


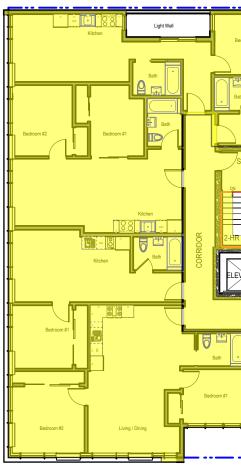


1/16" = 1'-0"		4				
Residentia	al Open Space De	signation M	atrix:			
Unit Level	Unit #	Zoning/ Area Reg.	Private/ Common	Area Prov.	Location	
First	101	RED/80	С	80s.F./unit	2nd Flr. Open Space	en Space: 1,960 S.F.
First	102/3	NCT/100	С	100s.F./unit	2nd Flr. Open Space	<b>n S</b> 1,96
Second	201/206/7	RED/80	С	80s.F./unit	2nd Flr. Open Space	<b>Open</b> 1,0
Second	202/3/4/5	NCT/100	С	100s.F./unit	2nd Flr. Open Space	eck
Third	301/310/11	RED/80	С	80s.F./unit	2nd Flr. Open Space	Floor Roof Deck
THIL	302/3/4/5/6/7/8/9	NCT/100	C	100s.F./unit	2nd Flr. Open Space	<b>Roc</b> gnat
Fourth	401/410/11	RED/80	С	80s.F./unit	Roof	Jesi(
Fourth	402/3/4/5/6/7/8/9	NCT/100	С	100s.F./unit	Roof	<b>2nd Floor Roof I</b> Total Designated:
Fifth	501/510/11	RED/80	C	80s.F./unit	Roof	<b>2</b> 12+
FIIUI	502/3/4/5/6/7/8/9	NCT/100	C	100s.F./unit	Roof	
	601	RED/60	Р	<b>131</b> s.f.	Unit 601	С Г Г
Sixth	610/11	RED/80	C	80s.F./unit	Roof	006,
	602/3/4/5/6/7/8/9	NCT/100	C	100s.F./unit	Roof	
	701/708/9	RED/80	C	80s.F./unit	Roof	Space:
	702	NCT/100	С	100s.F./unit	Roof	
Soverth	703	NCT/100	С	100s.F./unit	Roof	gnai
Seventh	704	NCT/80	Р	606s.f.	Unit 704	Deck Open
	705	NCT/80	Р	<b>525</b> s.f.	Unit 705	Roof Deck Open Total Designated:
	706/7	NCT/100	С	100s.F./unit	Roof	<b>℃</b>  ⊢⊦
	5	6			7	

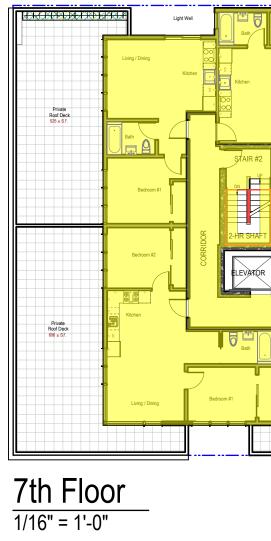


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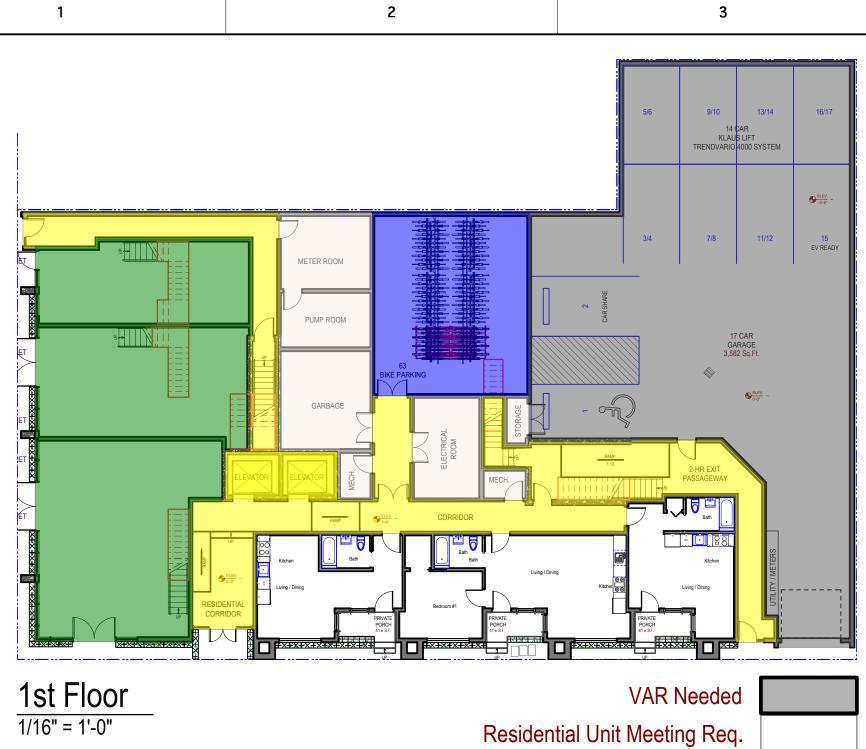




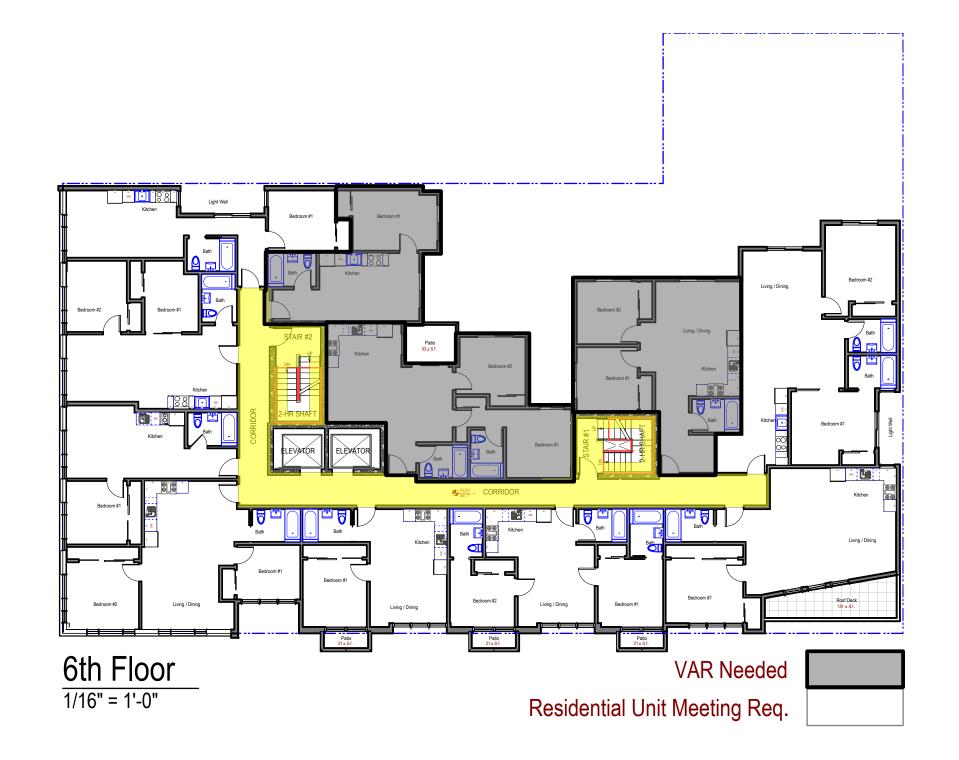
3rd, 4th, 5th Floors

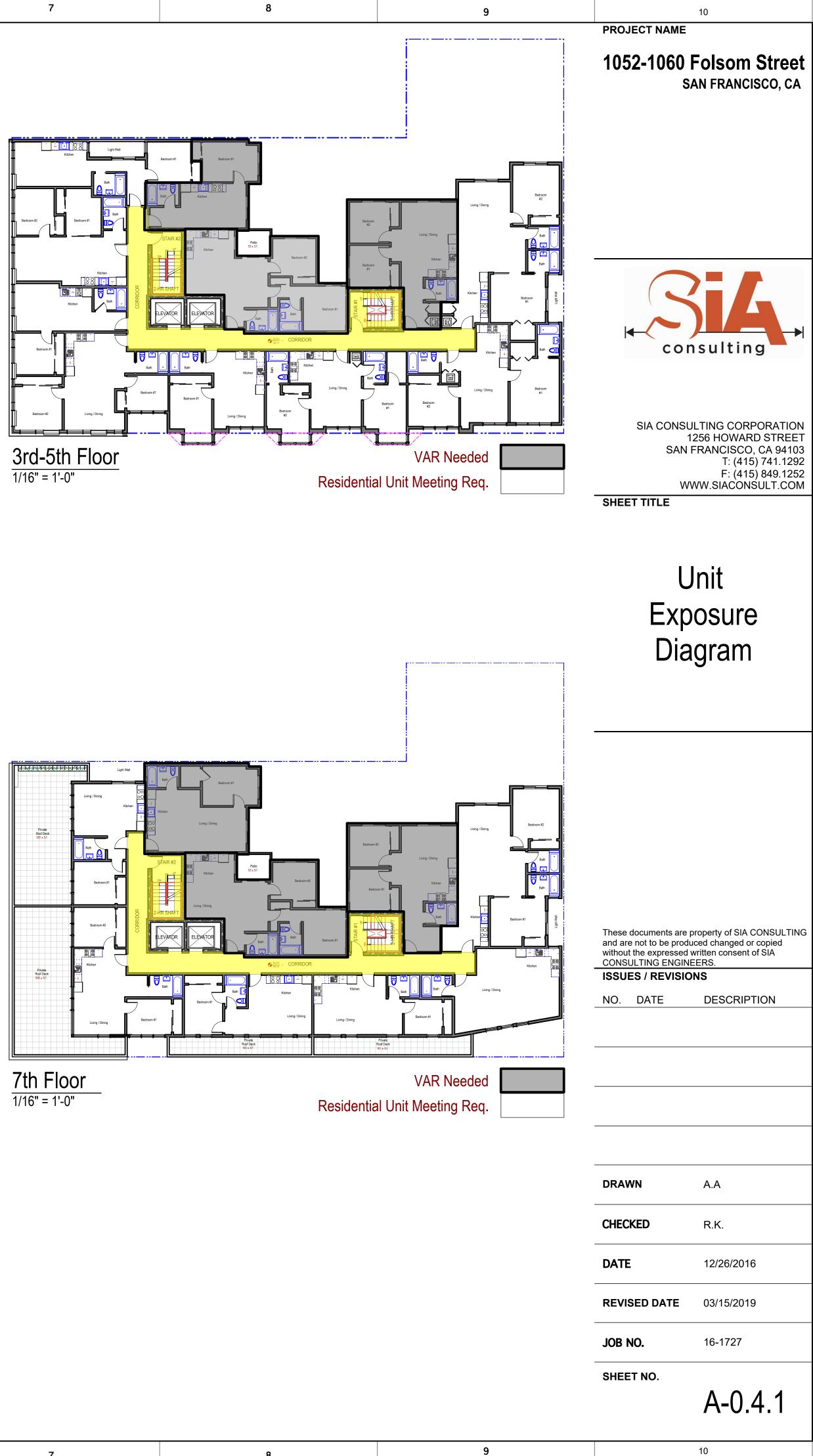


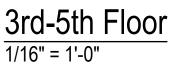
1052-1060 Folsom Street SAN FRANCISCO, CA		8		9			10
Crouteron							
Aligned State       Aligned State         Source       Aligned State         Source       Aligned State         Circulation       Barry State         Aligned State       Aligned State         Biological State       AligneState         Bi			Badroom #2		Bedroom #2 Bah		
SA CONSULTING COORDOR THE STRANSCOOL CASES I (43) 241 322 I (43) 241 32 I (43) 241 32		Kitchen			Bedroom #1 Edemon #1 Bedroom #1 Bedroom #1 Bedroom #1 Bedroom	con	sulting
Diagram Dia	Bedroom #1	Bedroom		Residential	7,816 S.F.	1: SAN F WV	256 HOWARD STREET FRANCISCO, CA 94103 T: (415) 741.1292
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Residential       6,048 S.F.         Circulation       837 S.F.         ISUES / REVISIONS         NO. DATE       DESCRIPTION         DRAWN       A.A         CHECKED       R.K.         DATE       12/26/2016         REVISED DATE       03/15/2019         JOB NO.       16-1727         SHEET NO.       SHEET NO.	2 Kichen Living / Dring	Betroom #2 Betroom #2 Betroom #1 Betroom #1	La Bedroom #1 Uning (Dning	ing / Dining	Bedroon #1	These documents are n	
CHECKED       R.K.         DATE       12/26/2016         REVISED DATE       03/15/2019         JOB NO.       16-1727         SHEET NO.       V				r i i i i i i i i i i i i i i i i i i i		and are not to be produ without the expressed v CONSULTING ENGINE ISSUES / REVISIO	ced changed or copied vritten consent of SIA ERS. <b>NS</b>
CHECKED       R.K.         DATE       12/26/2016         REVISED DATE       03/15/2019         JOB NO.       16-1727         SHEET NO.       V							
DATE       12/26/2016         REVISED DATE       03/15/2019         JOB NO.       16-1727         SHEET NO.       SHEET NO.						DRAWN	A.A
REVISED DATE       03/15/2019         JOB NO.       16-1727         SHEET NO.       16-1727						CHECKED	R.K.
<b>JOB NO.</b> 16-1727 SHEET NO.						DATE	12/26/2016
SHEET NO.							
							16-1727
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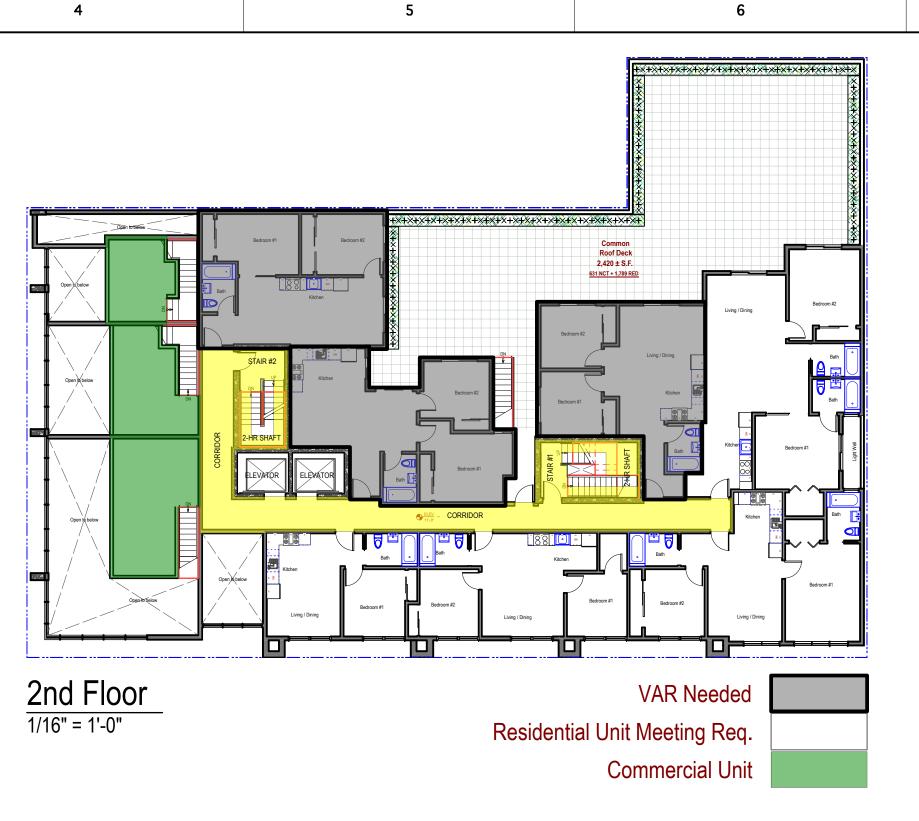


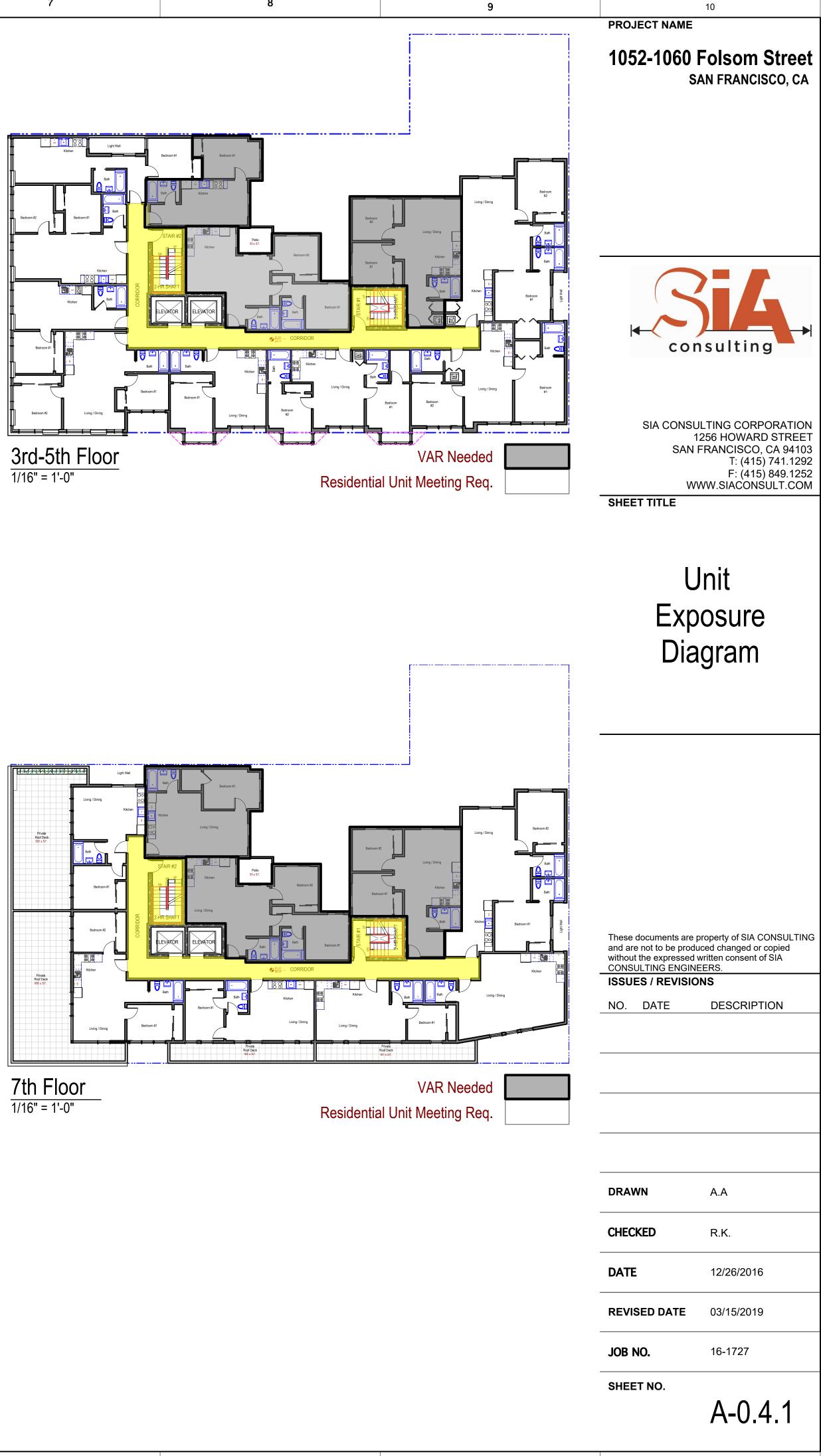


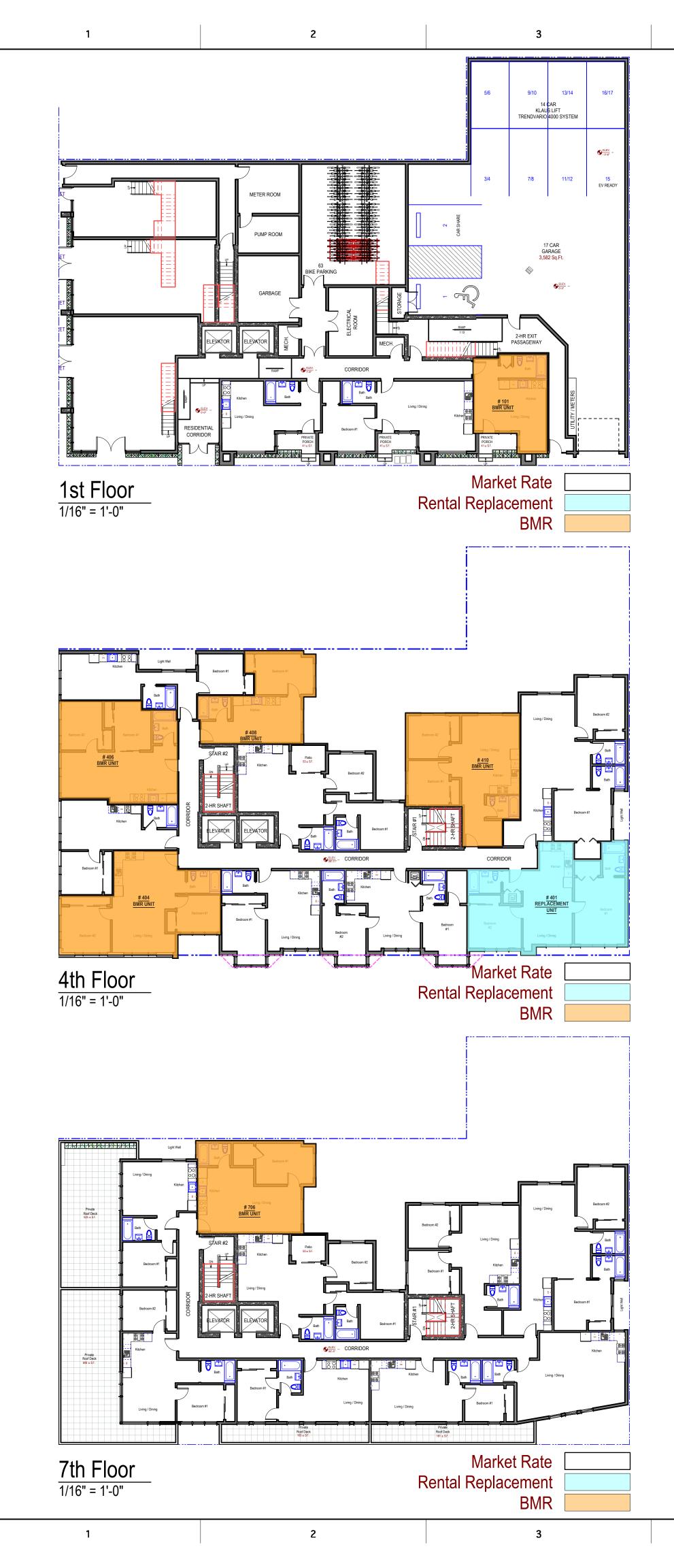


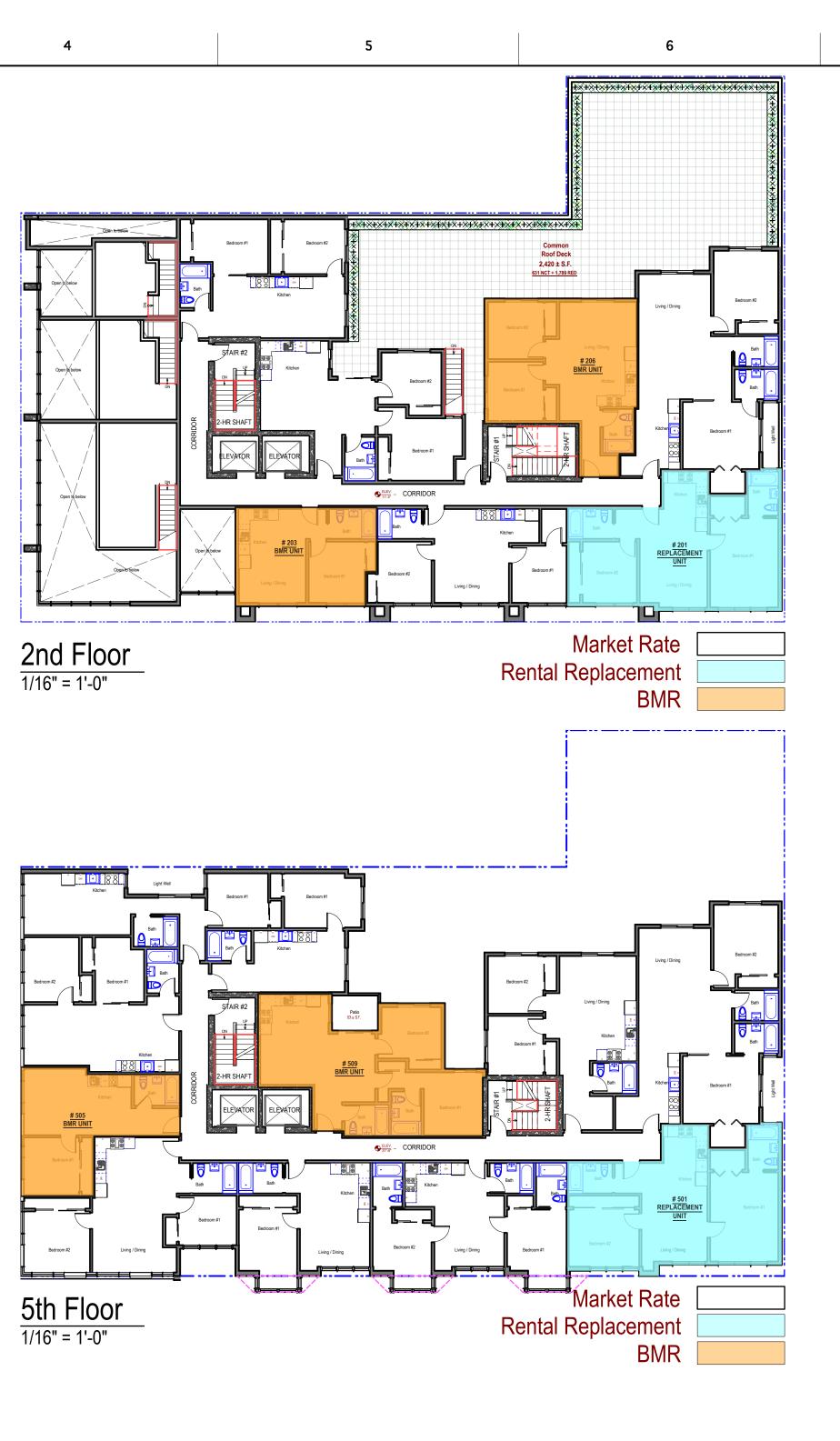


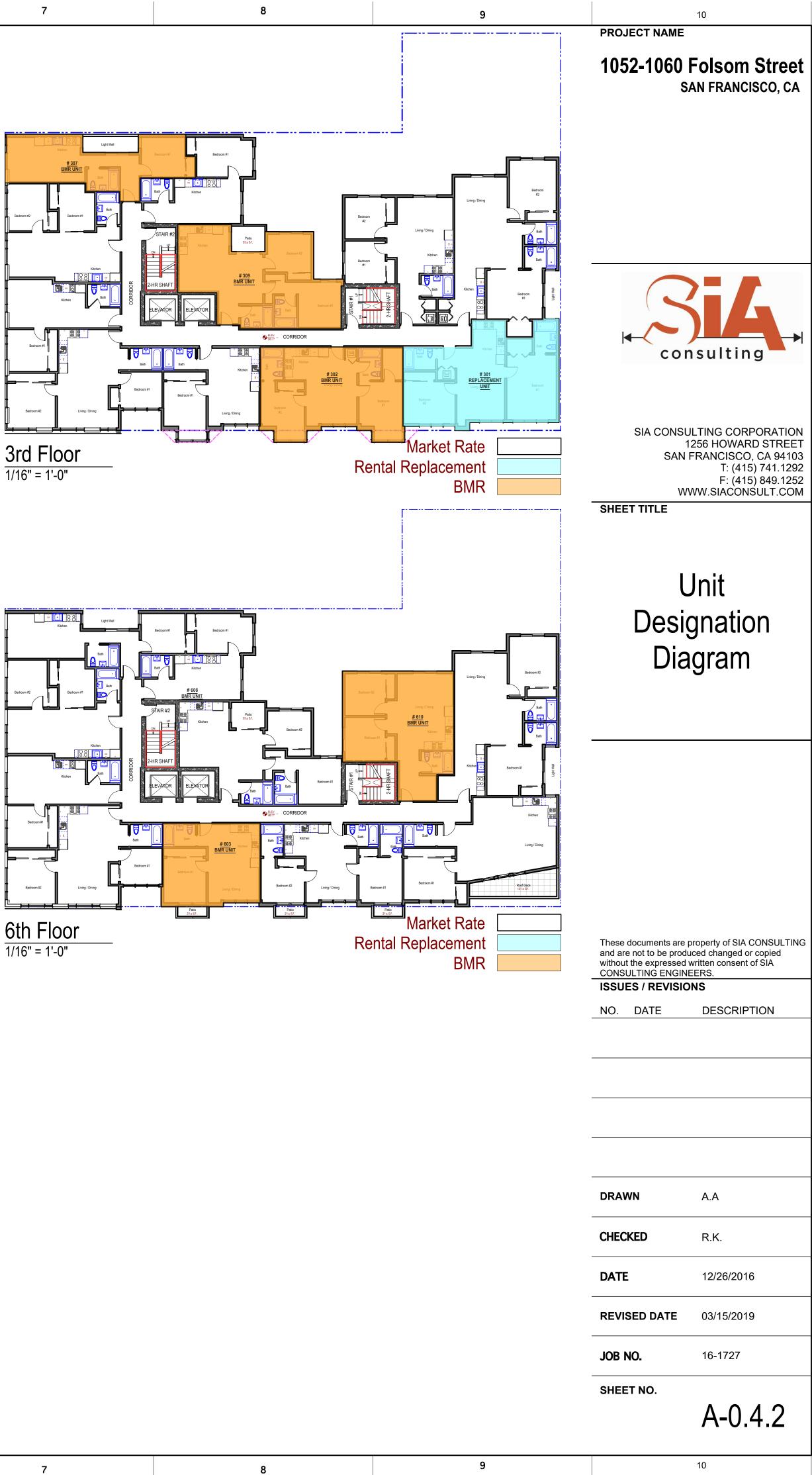


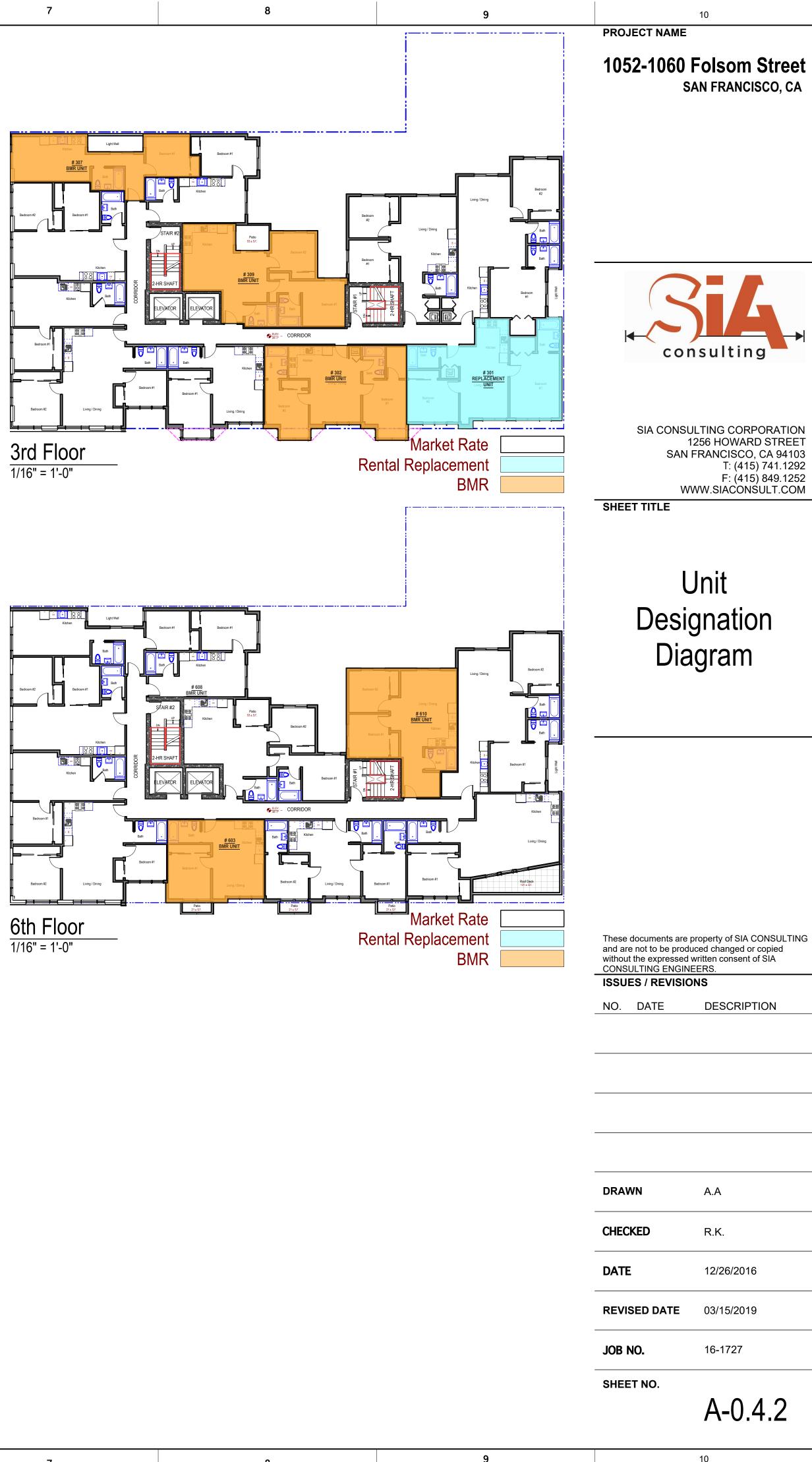


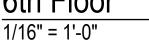


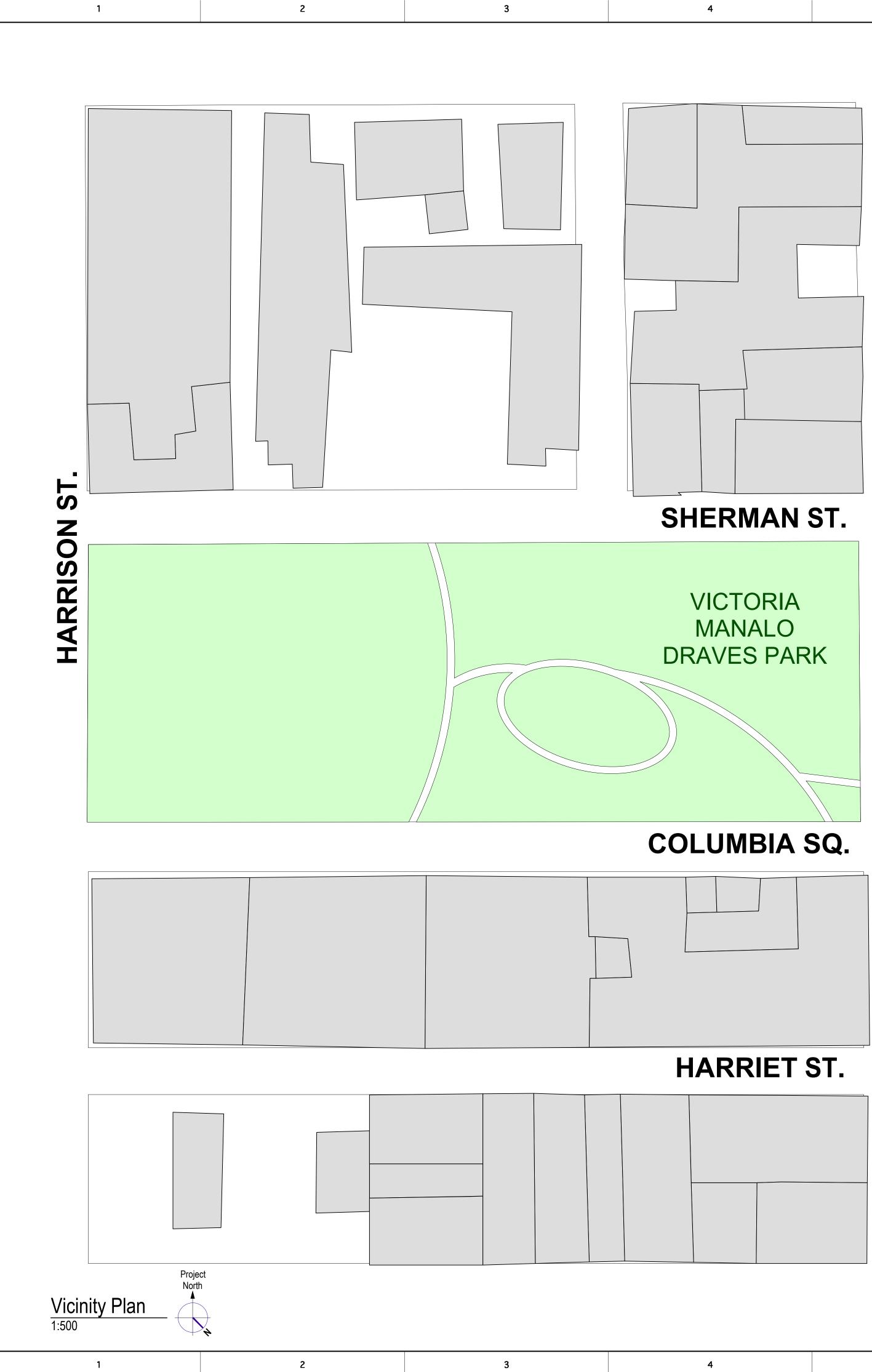




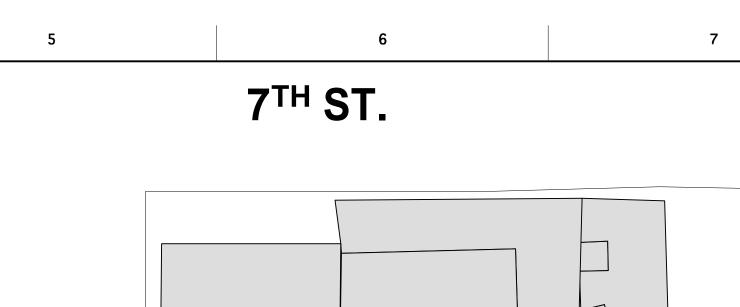


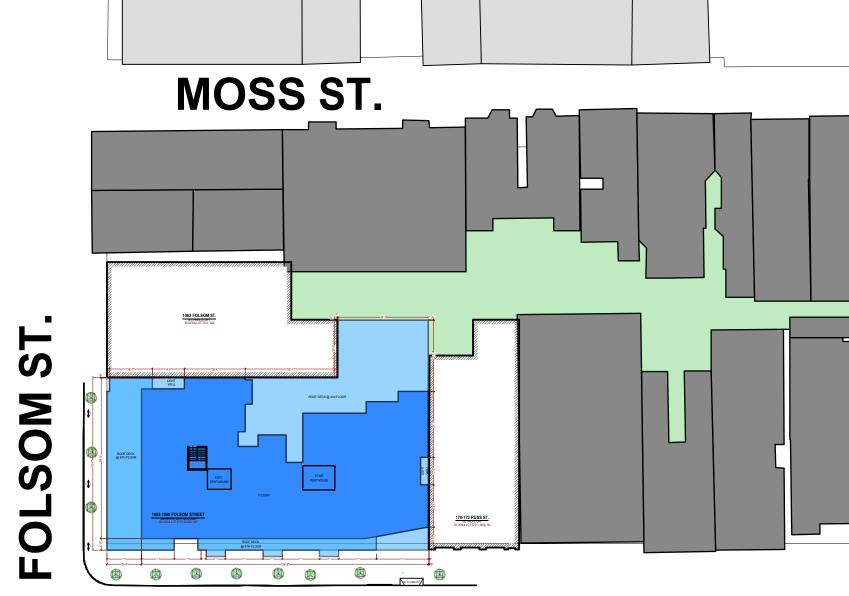




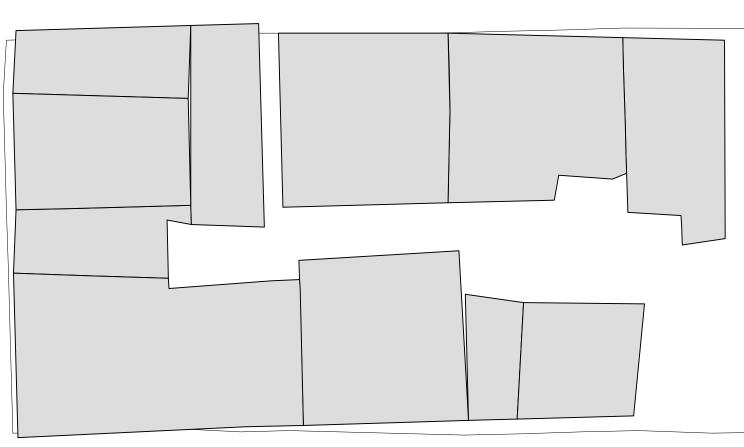


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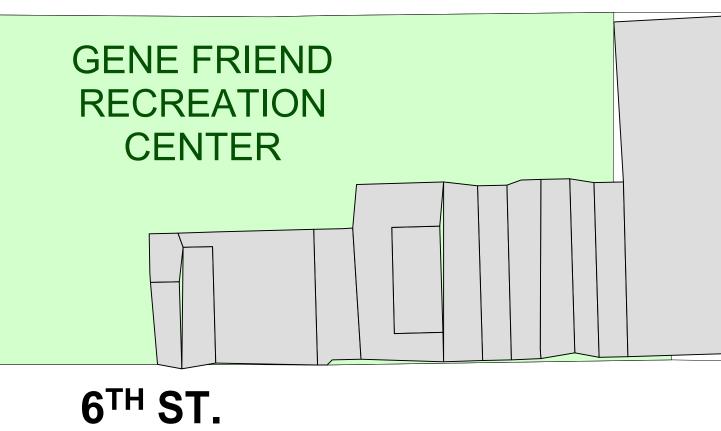




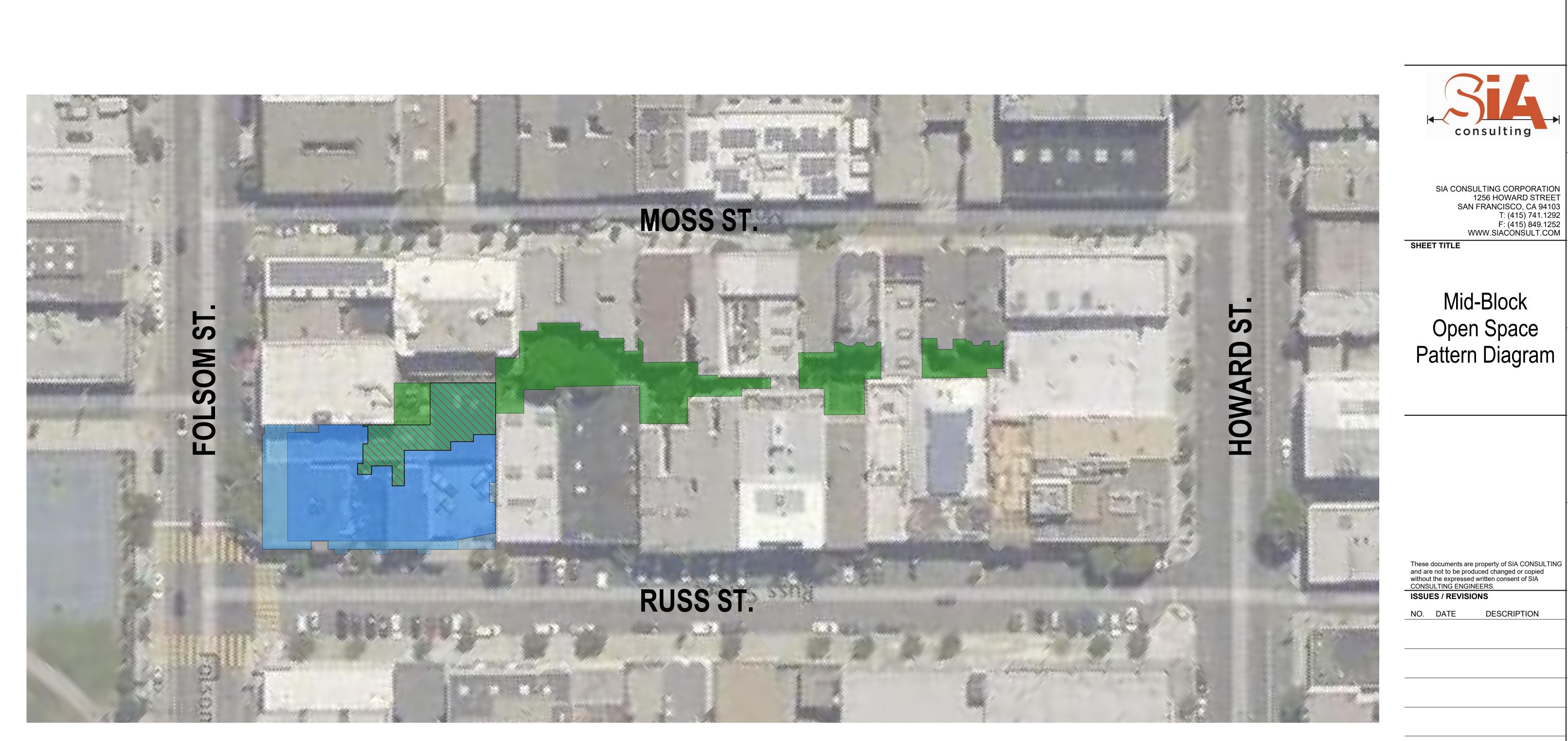
# RUSS ST.



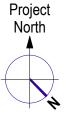
# HARRIET ST.



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			Folsom Street an francisco, ca
		cor	nsulting
	Length Le	1 SAN W SHEET TITLE	JLTING CORPORATION 1256 HOWARD STREET FRANCISCO, CA 94103 T: (415) 741.1292 F: (415) 849.1252 WW.SIACONSULT.COM
	HOWARD	Vicin	ity Map
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		DATE	12/26/2016
		REVISED DATE	03/15/2019
		JOB NO.	16-1727
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Mid-Block Open Space Diagram



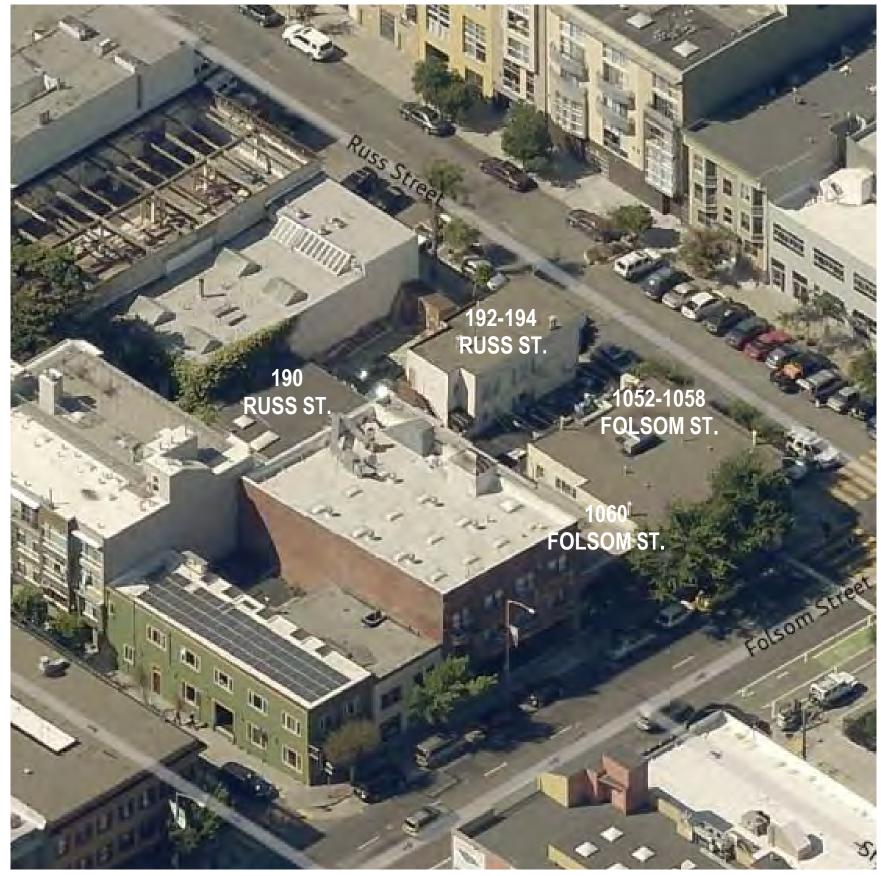
**Proposed Project:** Proposed Open Space: Mid-Block Open Space:



# 1052-1060 Folsom Street SAN FRANCISCO, CA

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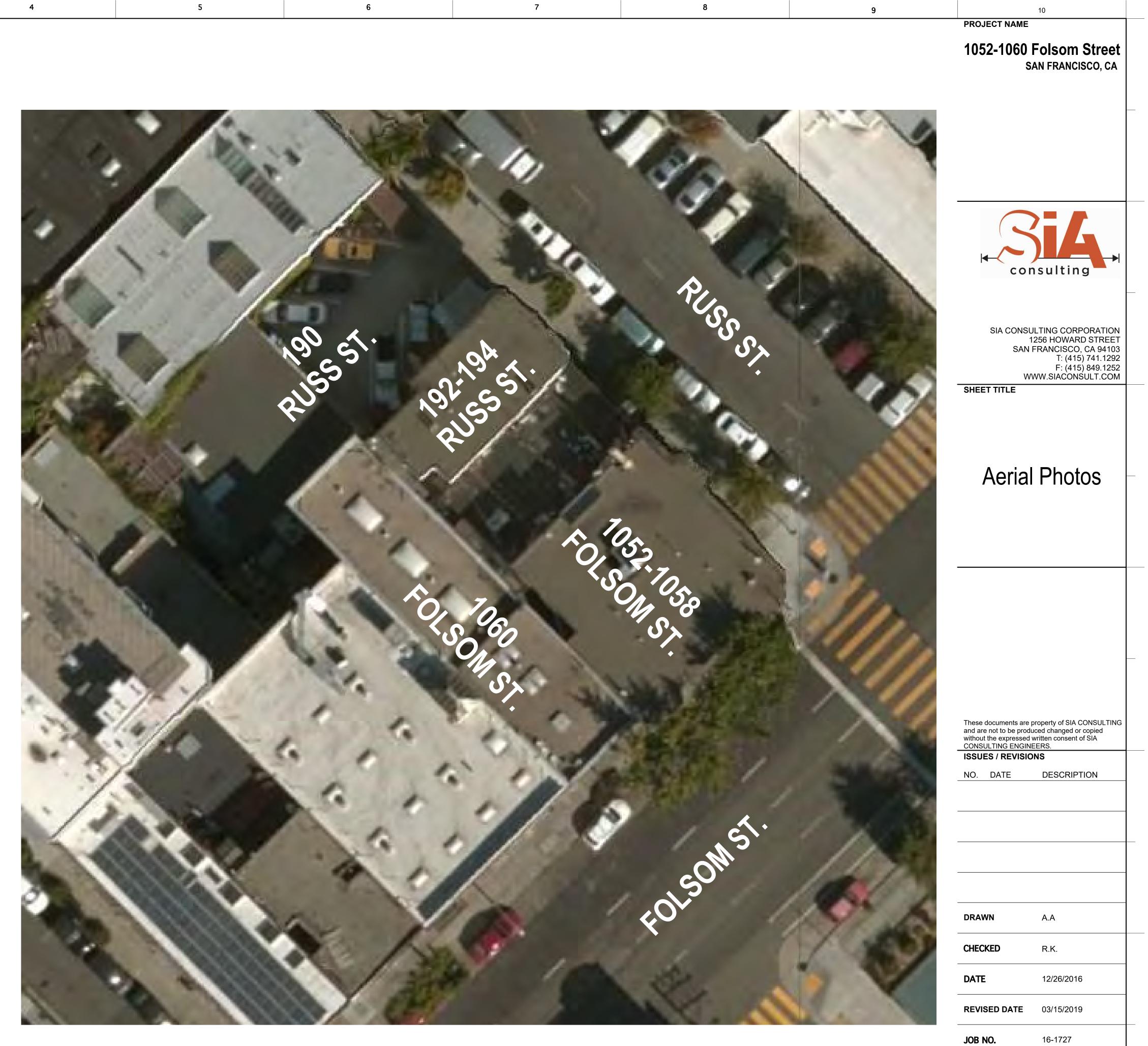
A-0.6



Aerial View 1



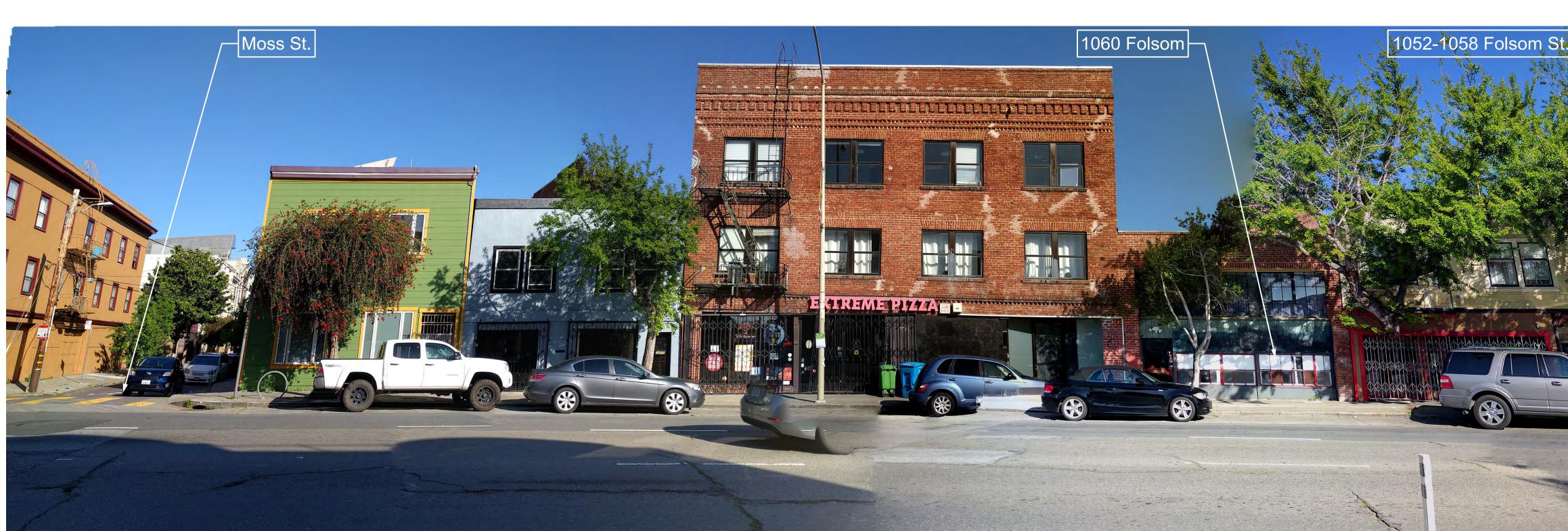
Aerial View 2



Aerial View 3

A-0.7

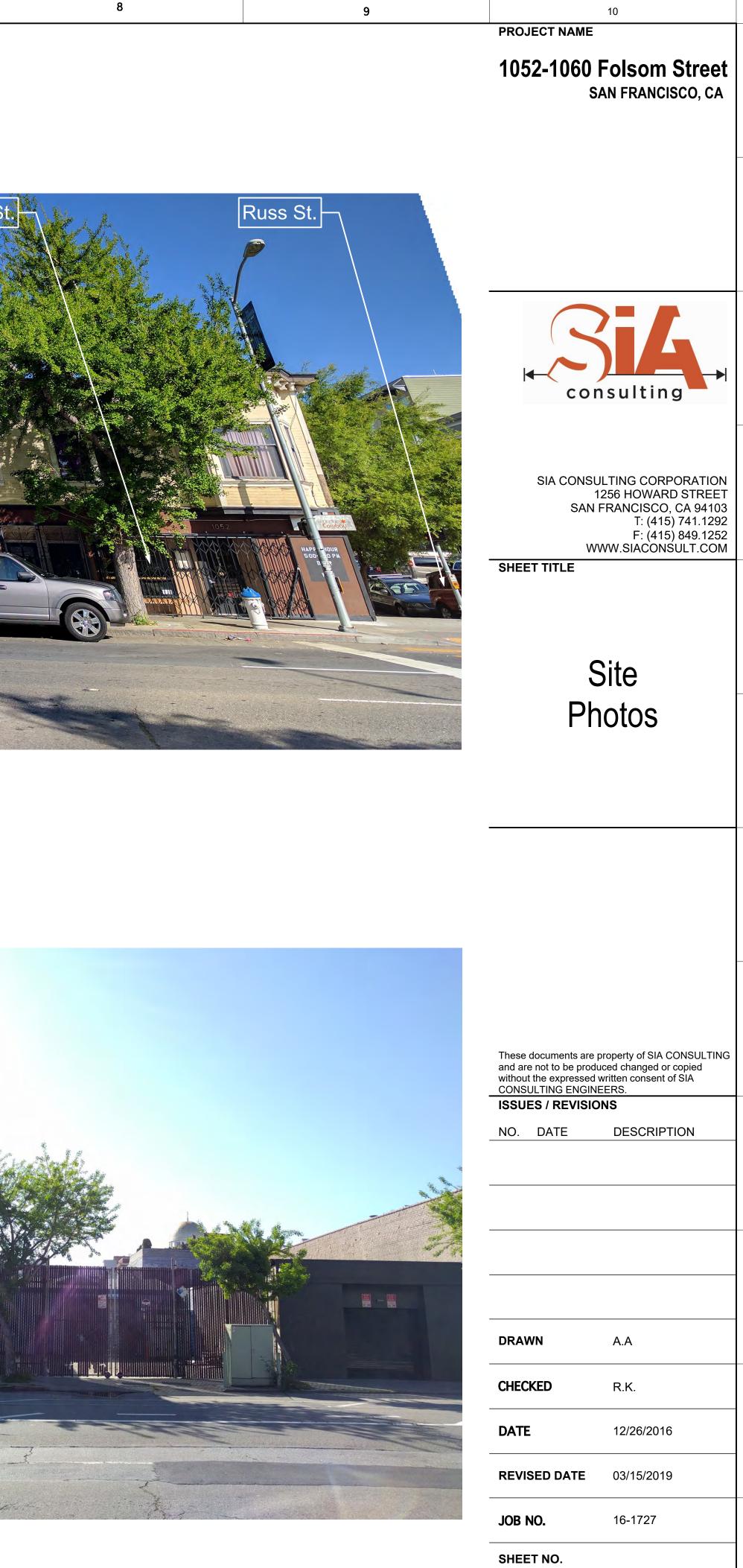
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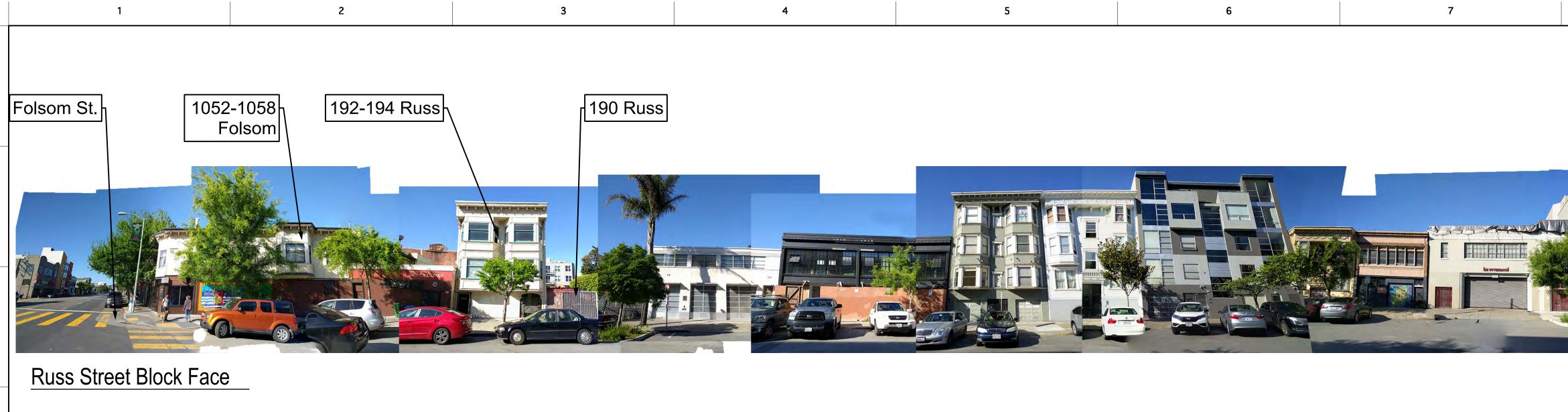
# Folsom Street Block Face



Folsom Across Street Block Face

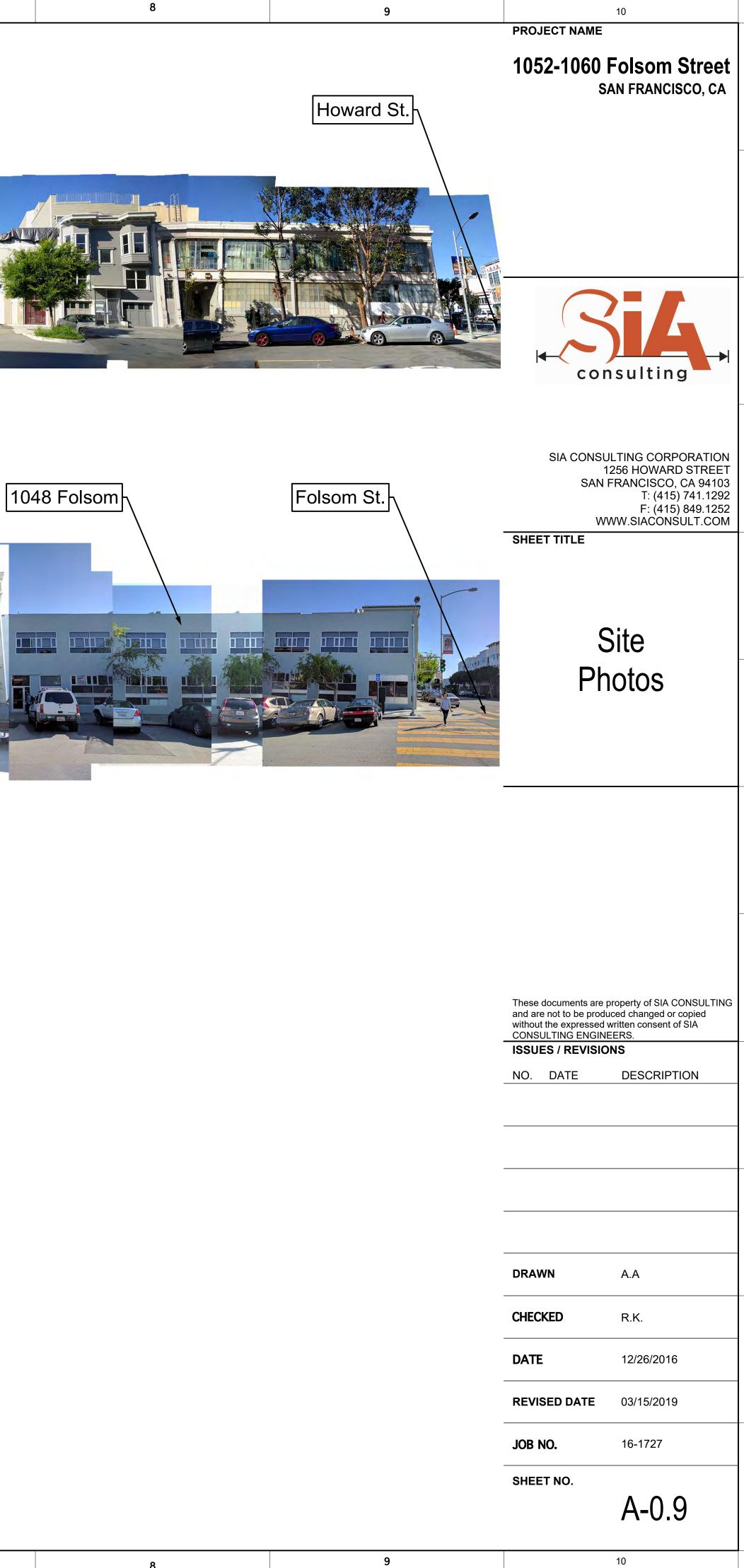


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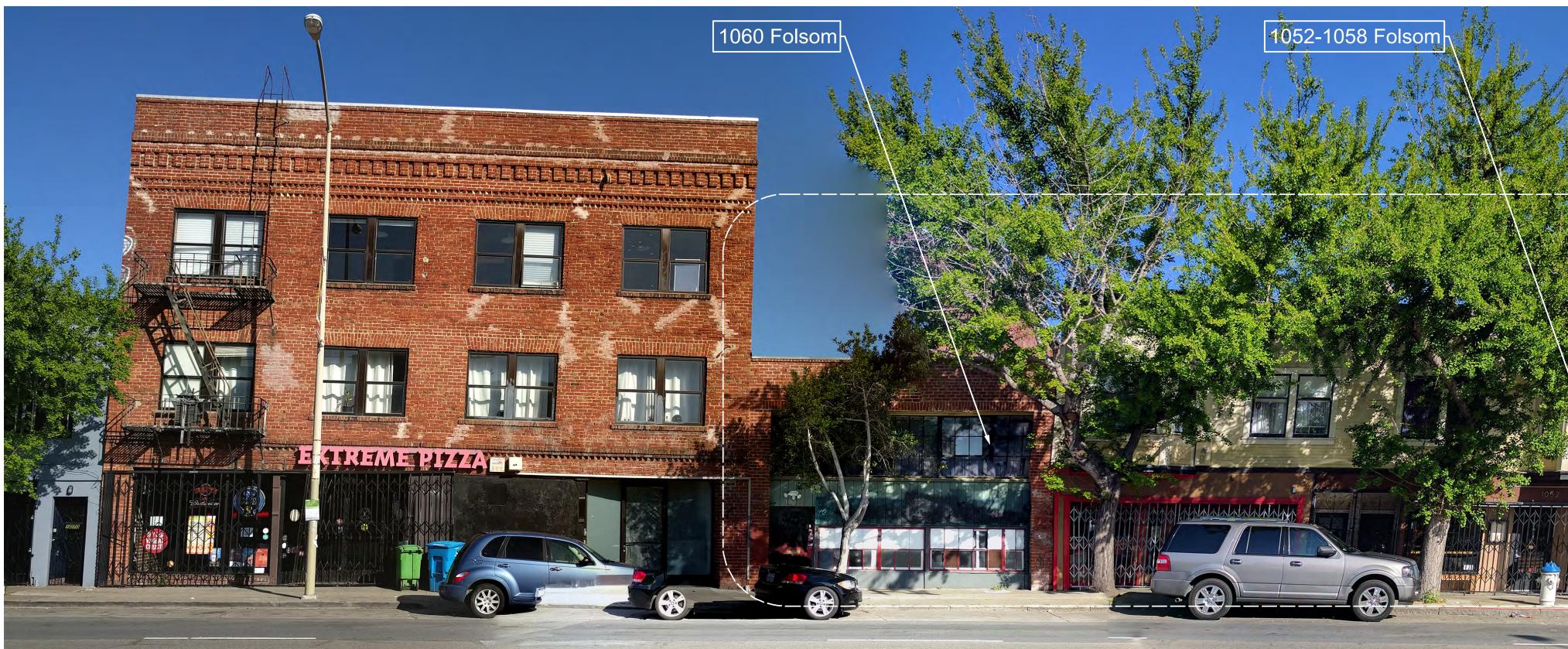


Russ Across Street Block Face





Folsom-Russ Corner Street View



Folsom Street View



PROJECT NAME











# 1052-1060 Folsom Street

SAN FRANCISCO, CA







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Phenolic Resin Panel - Wood Grain Finish



Corrugated Corten Steel Panel



Porcelain Tiles - Wood Grain Finish



High Quality Smooth Stucco



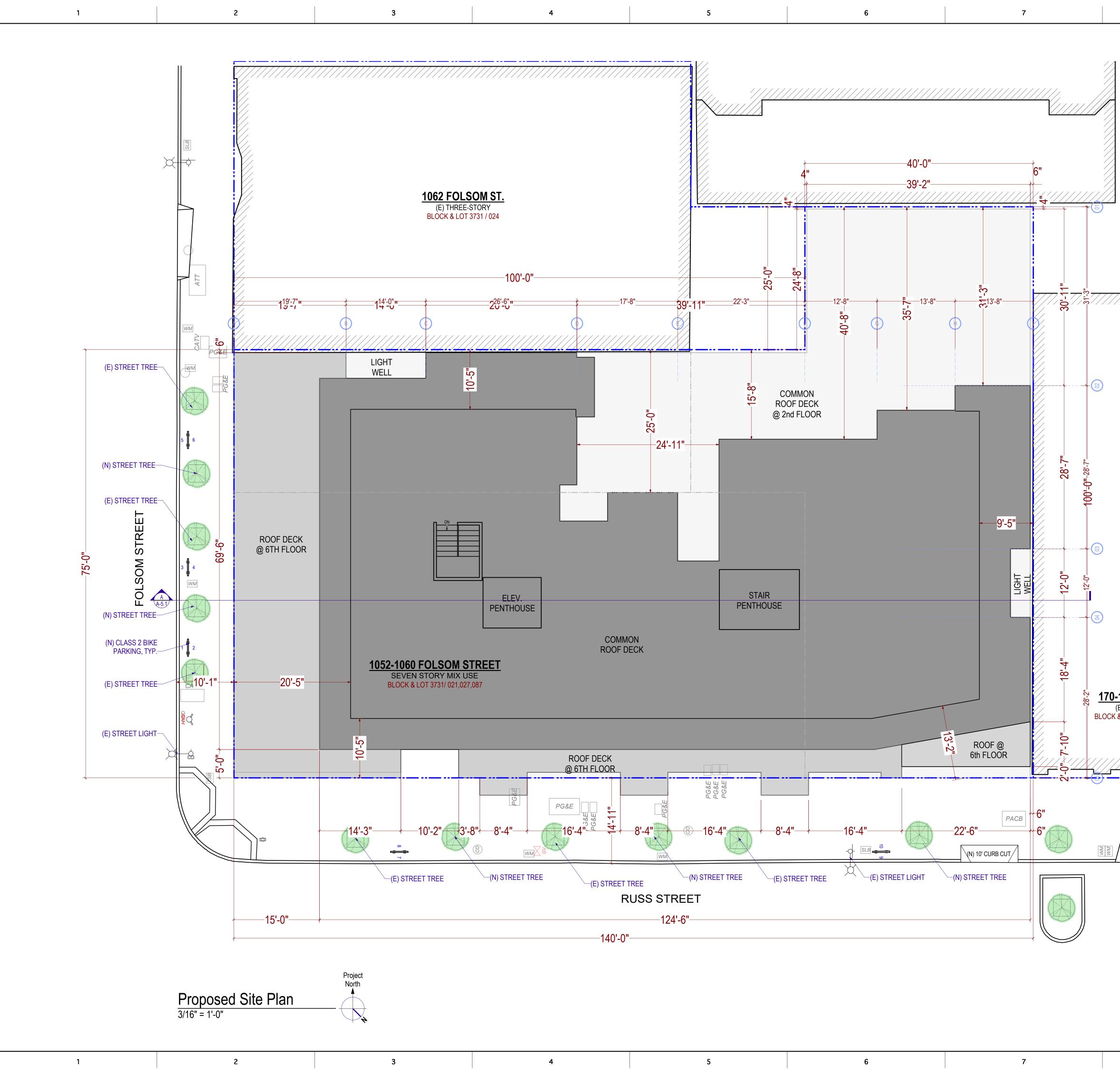
Smooth Corten Steel Panel



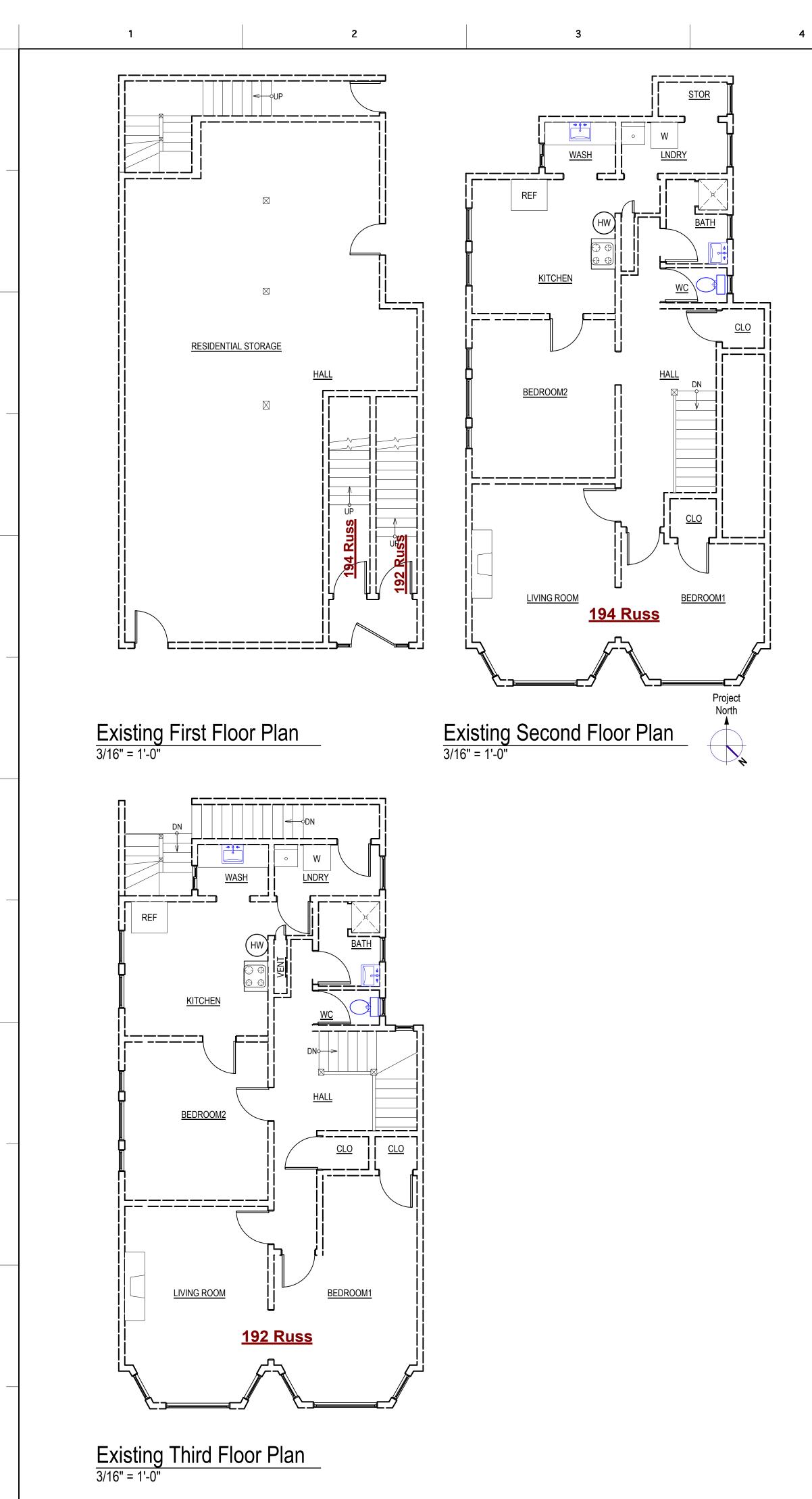


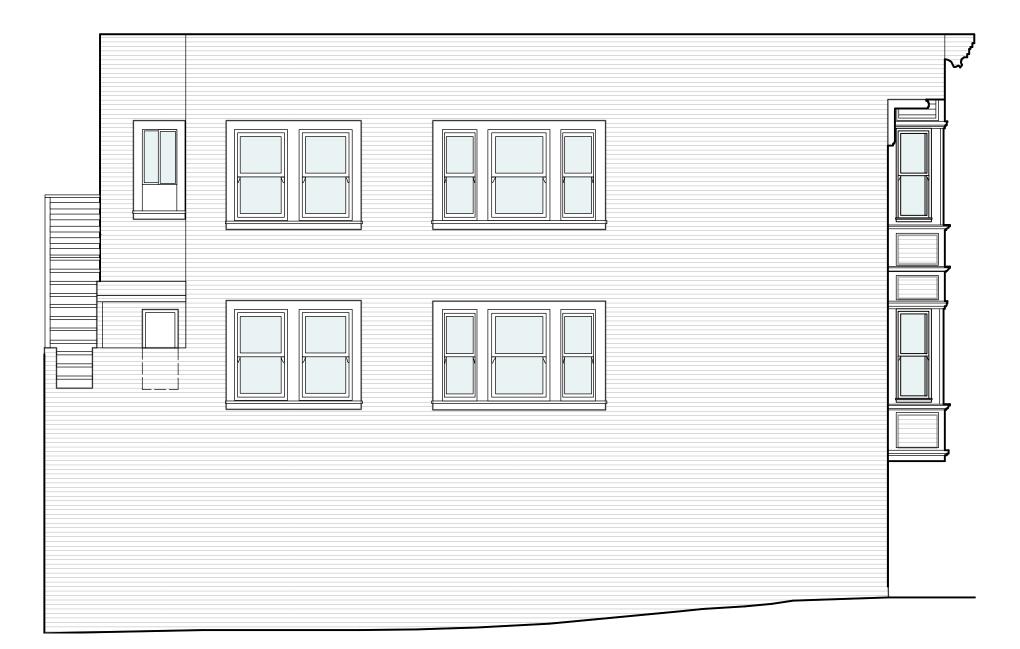


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		SAN FRANCISCO, C
		consulting
		SIA CONSULTING CORPORATIO 1256 HOWARD STRE SAN FRANCISCO, CA 941
		T: (415) 741.12 F: (415) 849.12 WWW.SIACONSULT.CC
		SHEET TITLE
		(E) Site Plan
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TATE RUSS ST.         TWO-STORY         A LOT 3731 / 160 & 161		without the expressed written consent of SIA CONSULTING ENGINEERS. ISSUES / REVISIONS
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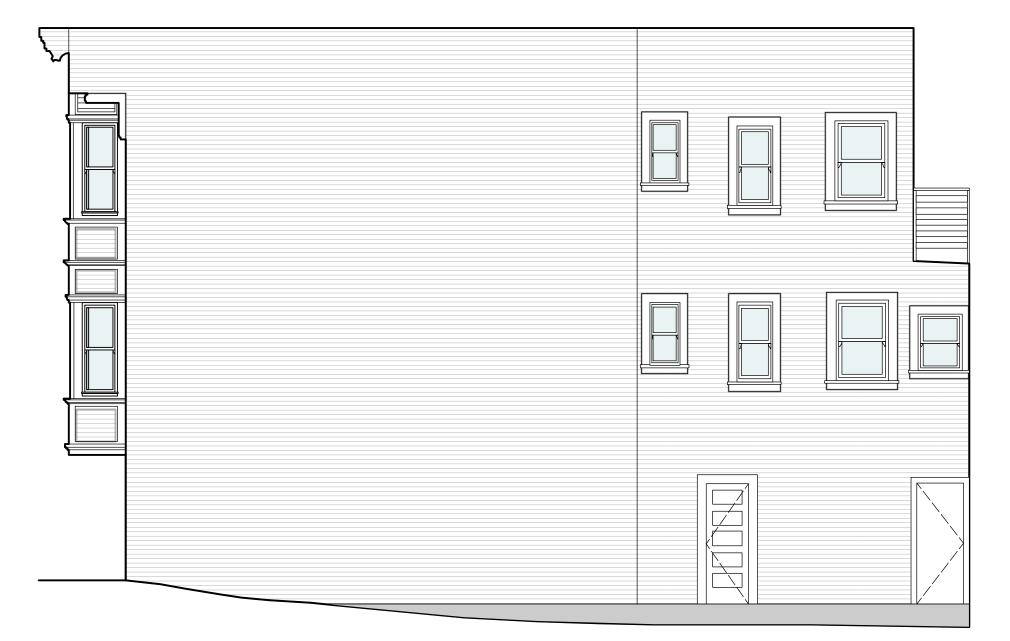


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1	1052-1060 Folsom Street
	SAN FRANCISCO, CA
	consulting
	consulting
	SIA CONSULTING CORPORATION
	1256 HOWARD STREET SAN FRANCISCO, CA 94103 T: (415) 741.1292
	F: (415) 849.1252 WWW.SIACONSULT.COM SHEET TITLE
	(N) Site Plan
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E) TWO-STORY	ISSUES / REVISIONS
E) TWO-STORY & LOT 3731 / 160 & 161	ISSUES / REVISIONS
E) TWO-STORY & LOT 3731 / 160 & 161	ISSUES / REVISIONS NO. DATE DESCRIPTION
E) TWO-STORY & LOT 3731 / 160 & 161	ISSUES / REVISIONS         NO. DATE       DESCRIPTION
E) TWO-STORY & LOT 3731 / 160 & 161	CONSULTING ENGINEERS.       ISSUES / REVISIONS       NO. DATE     DESCRIPTION       Image: Descrite Descrite Description       Image:
(E) TWO-STORY & LOT 3731 / 160 & 161	DRAWN       A.A         CHECKED       R.K.         DATE       12/26/2016
	CONSULTING ENGINEERS.ISSUES / REVISIONSNO. DATEDESCRIPTIONDATEDESCRIPTIONDRAWNA.ACHECKEDR.K.DATE12/26/2016REVISED DATE03/15/2019

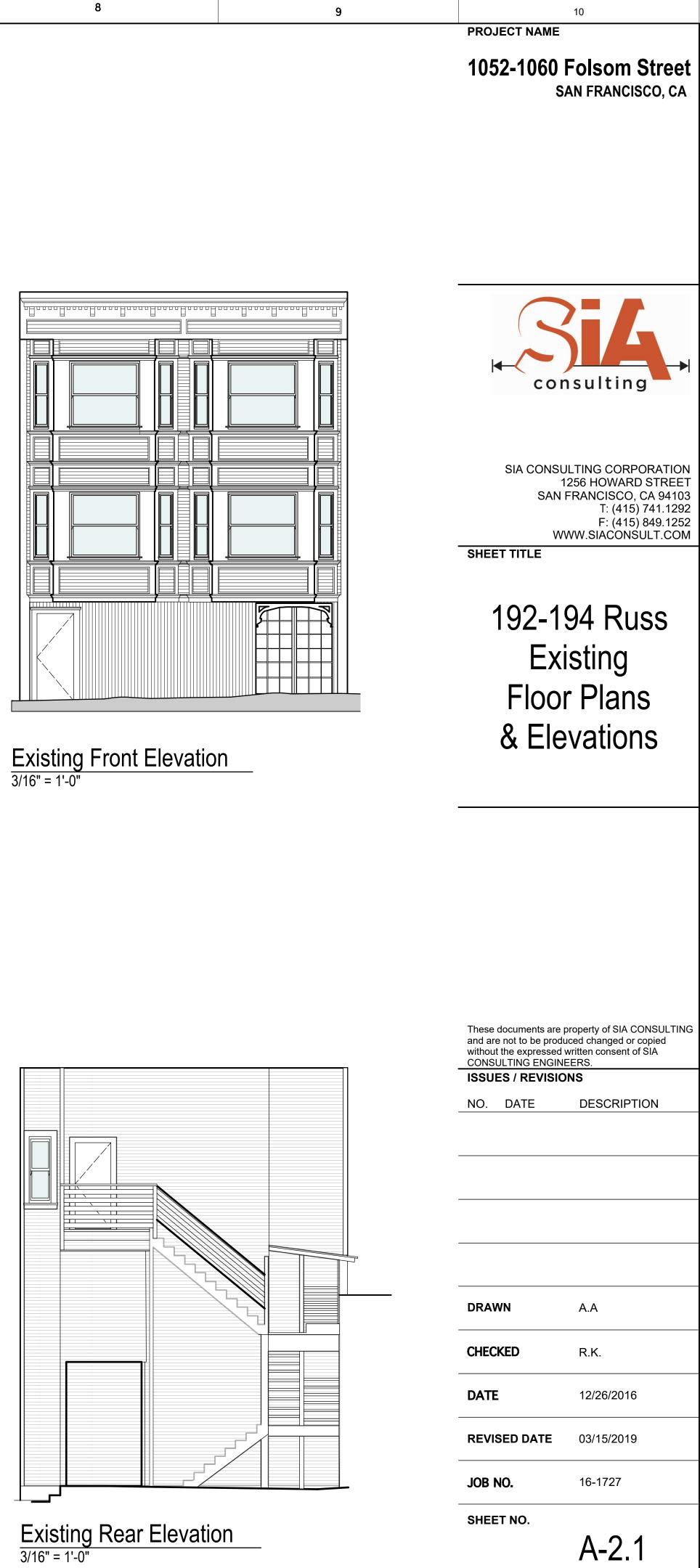


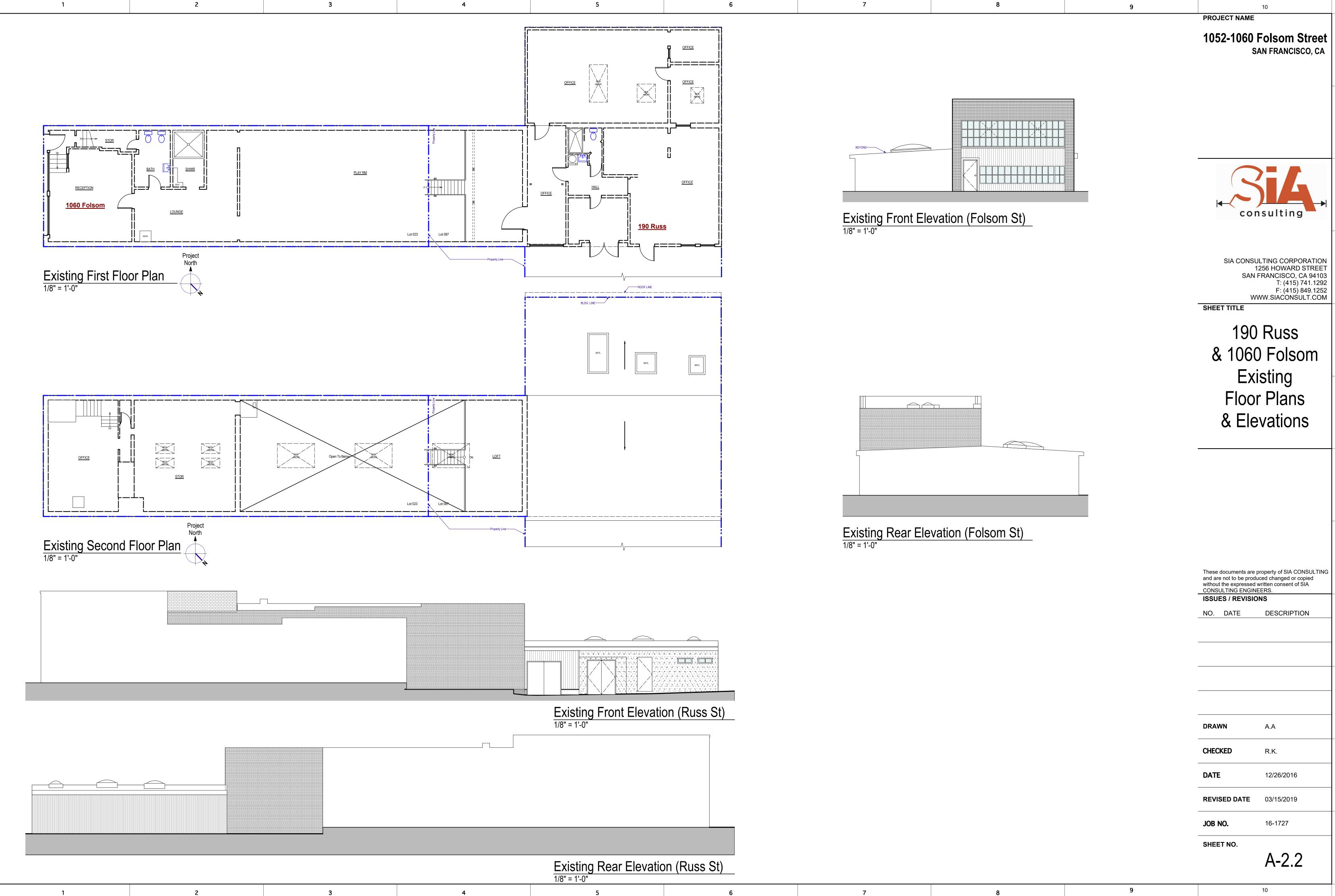


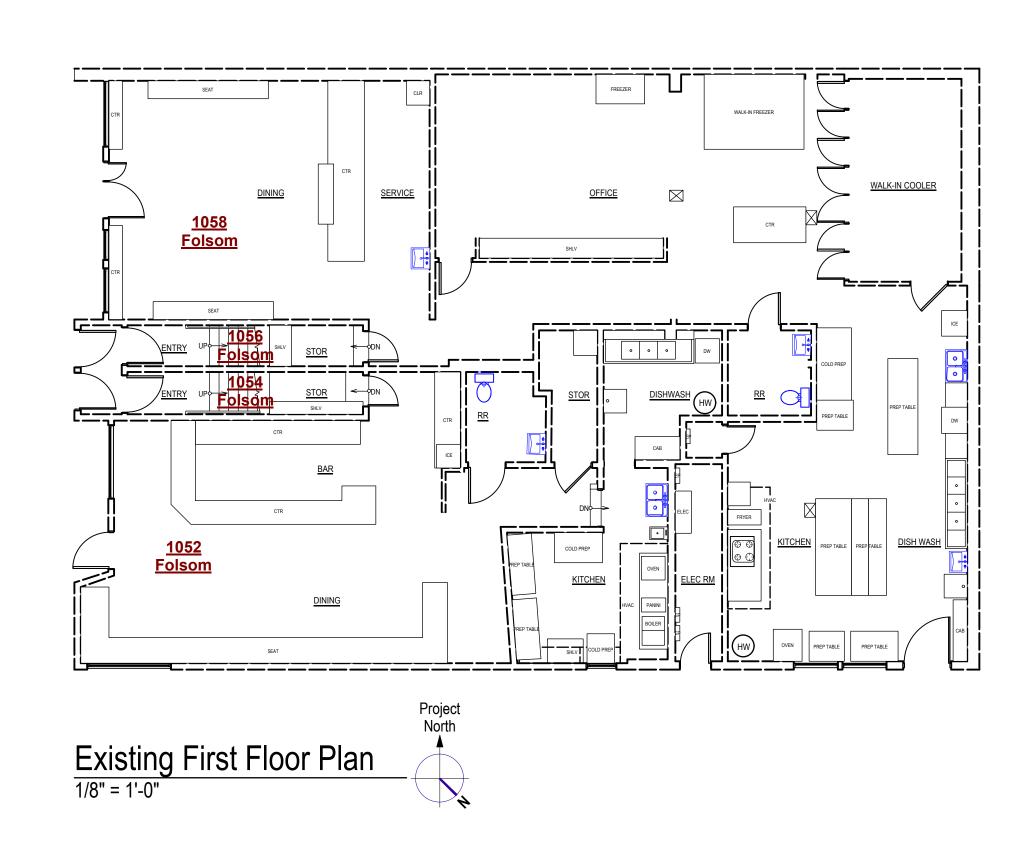
Existing Left Elevation

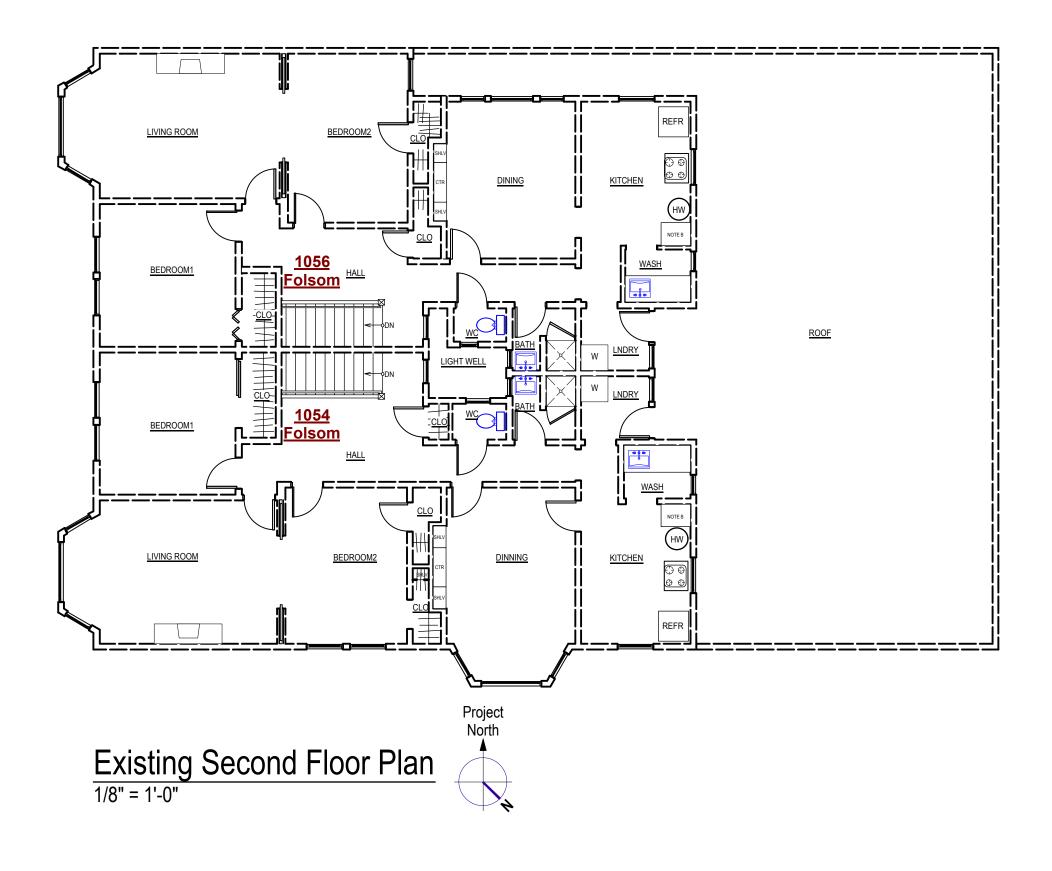


Existing Right Elevation









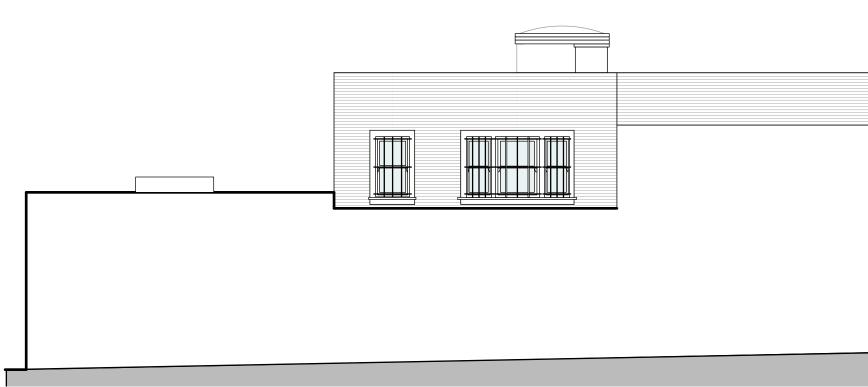


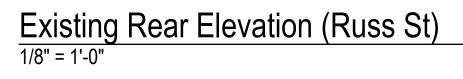
# Existing Front Elevation (Folsom St)

Existin 1/8" = 1'-0"



Existing Front Elevation (Russ St)





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			con	sulting
ng Rear Elevation (F	olsom St)		1 SAN F	LTING CORPORATION 256 HOWARD STREET FRANCISCO, CA 94103 T: (415) 741.1292 F: (415) 849.1252 WW.SIACONSULT.COM
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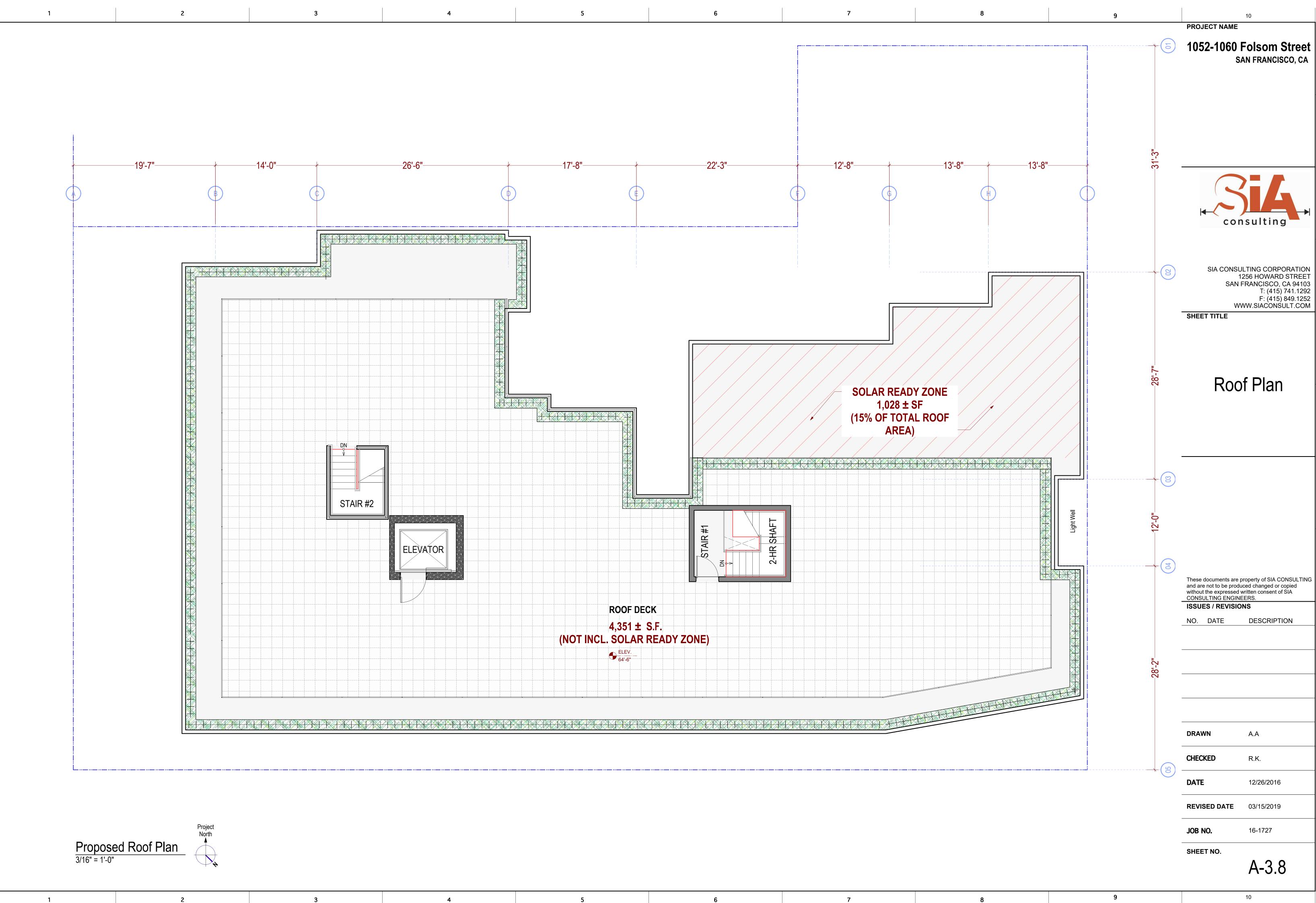


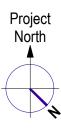












1	HIGH QUALITY SMOOTH STUCCO
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- 2 CABLE RAILING, 42" HIGH MIN. TYP.
- 3 DARK ANODIZED ALUM. WINDOW
- 4 DARK ANODIZED ALUM. PATIO DOOR
- (5) DARK ANODIZED ALUM. STORE FRONT, TYP.
- 6 PHENOLIC RESIN PANEL - WOOD GRAIN FINISH, TYP.
- (7) CORRUGATED CORTEN STEEL PANELS
- (8) PORCELAIN TILES - WOOD GRAIN FINISH, TYP.
- 9 GLASS RAILING, 42" HIGH MIN. TYP.
- (10) SMOOTH CORTEN STEEL PANELS
- (11) FIBER CEMENT PANEL

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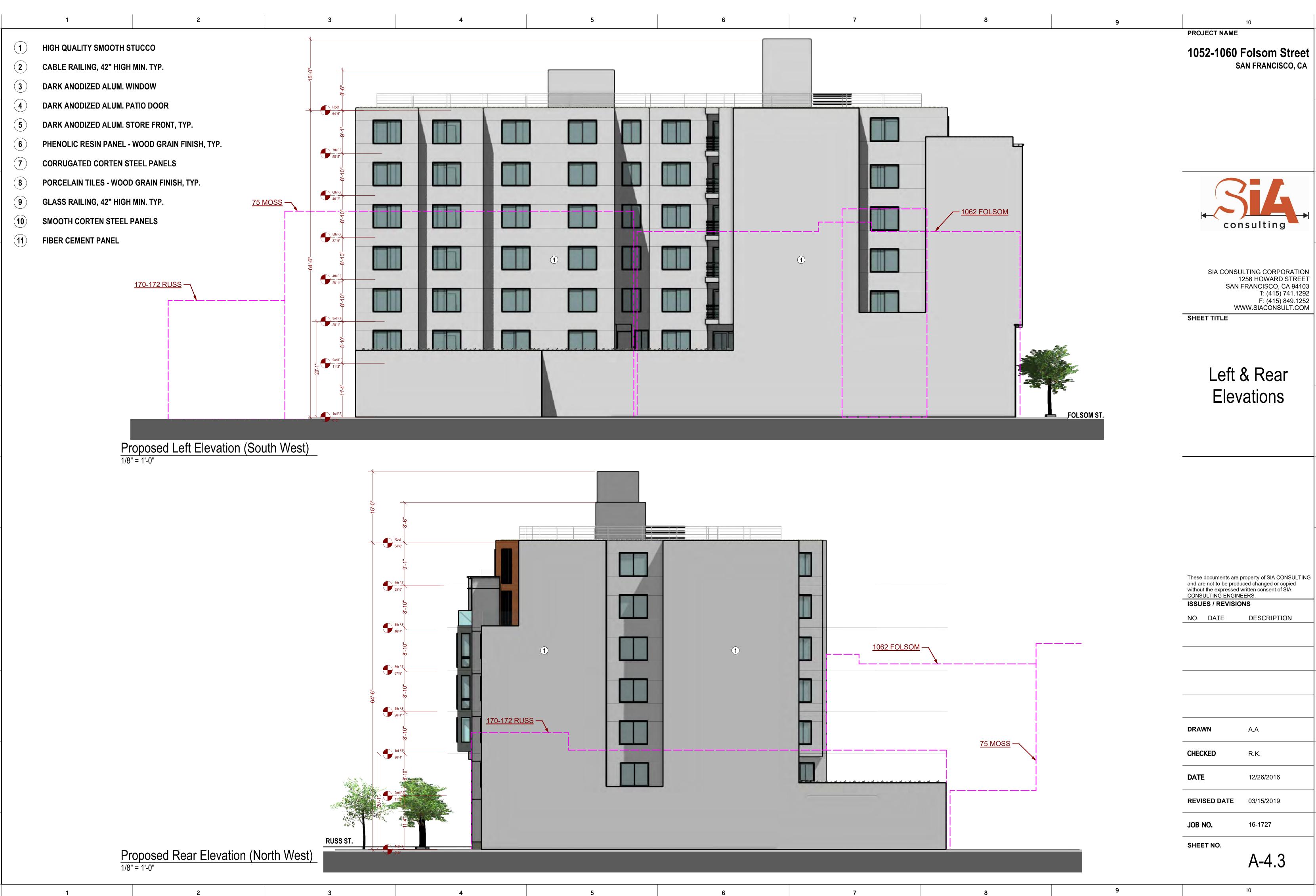
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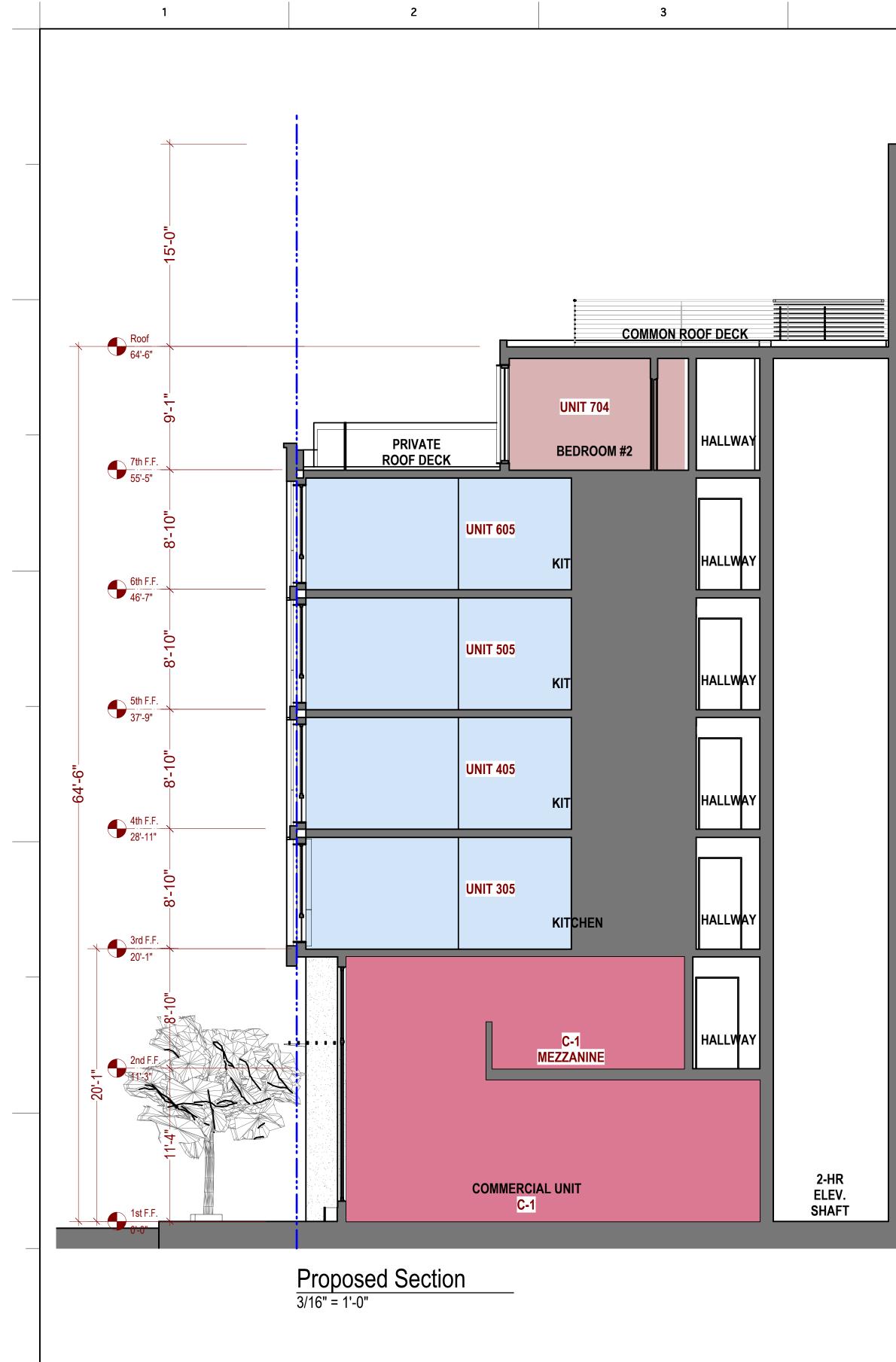
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HIGH QUALITY SMOOTH	STUCCO	1	PROJECT NAME	Folsom Street
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DARK ANODIZED ALUM.	PATIO DOOR	4		-
DARK ANODIZED ALUM.	STORE FRONT, TYP.	5		
PHENOLIC RESIN PANEL	- WOOD GRAIN FINISH, TYP.	6		
CORRUGATED CORTEN	STEEL PANELS	7		
PORCELAIN TILES - WOO	OD GRAIN FINISH, TYP.	8		
GLASS RAILING, 42" HIG	H MIN. TYP.	9		
SMOOTH CORTEN STEEL	L PANELS	10	con	sulting
FIBER CEMENT PANEL		(11)		-
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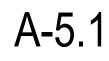
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		COMMON ROOF DECK	STAIR #1	
	UNIT 709 BATH	BATH BEDROOM #1		UNIT 710
	UNIT 609 BATH	BATH BEDROOM #1		UNIT 610
	UNIT 509 BATH	BATH BEDROOM #1		UNIT 510
	UNIT 409 BATH	BATH BEDROOM #1		UNIT 410
	UNIT 309 BATH	BATH BEDROOM #1		UNIT 310
	UNIT 205 BATH	BEDROOM #1		UNIT 20 BATH
2-HR ELEV. SHAFT	MECH.	STORAGE MECH.	2-H	IR EXIT PASSAGEWAY



**REVISED DATE** 03/15/2019 16-1727 JOB NO.

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# EXHIBIT 2

## I. Shadow

This section describes shadow effects on publicly accessible areas, including public parks, publicly-accessible private open spaces, and sidewalks.

## **Environmental Setting**

## **Existing Parks and Open Space**

There are 24 parks within the boundaries of the Eastern Neighborhoods project area (see **Figure 20** in Section IV.H, Parks, Recreation, and Open Space, p. 366). Nineteen parks are under the jurisdiction of the San Francisco Recreation and Park Department. One public open space is owned by the San Francisco Redevelopment Agency and maintained by the Tenants and Owners Development Corporation, the Alice Street Community Gardens (on Lapu Lapu Street between Folsom, Harrison, Third and Fourth Streets), a public open space for seniors that includes garden plots and benches.

Three public open spaces in the study area are under the jurisdiction of the Port of San Francisco: South Beach Park, located along San Francisco Bay north of AT&T Park; Warm Water Cove, at the foot of 24th Street in the Central Waterfront; and Tulare Park, an open space area along the north side of Islais Creek between Third and Illinois Streets. Finally, one small open space is owned by the Municipal Transportation Authority (Muni), in front of Muni's Woods Division bus yard in the Central Waterfront.

Two Recreation and Park Department parks are outside of but near the project area, including Precita Park one block south of César Chávez Street in the Mission, and the Howard and Langton Mini Park one block east of East SoMa. Additionally within East SoMa, are a number of small, privately-owned, publicly accessible open spaces that were established in conjunction with recent housing developments in the South Beach area. These open spaces are located along the Embarcadero at Beale, Delancey (First), and Townsend streets.

## Planned Parks

The 2005 Annual Update to the Recreation and Park Department's Capital Plan lists two sites within the project area for potential future acquisition and park development.<sup>183</sup> Both are located within the Central Waterfront neighborhood.

• The I. M. Scott School site, a vacant former school building and grounds located at 1060 Tennessee Street near 22nd Street, has been identified in the Draft Central Waterfront Plan as a potential recreational facility. The Recreation and Park Department has contacted the San Francisco Unified School District to explore the possibility of transferring or using a portion of the property for playgrounds and other recreational uses.

<sup>&</sup>lt;sup>183</sup>These proposals would be subject to a separate CEQA process and are not part of the Eastern Neighborhoods Rezoning and Area Plans project.

• The Recreation and Park Department is pursuing the transfer of a 0.44-acre parcel located at Third Street and 20th Street (the former location of Bayview Police Station). The property would be transferred from the San Francisco Police Department, which has identified it as surplus property. The property would temporarily be used as office space and long-term as a recreational facility.

#### **Regulatory Setting**

The San Francisco Planning Code regulates shadow impacts on parks and other publicly accessible spaces. The Code's height and bulk districts establish maximum building heights throughout the city. The Planning Code also contains specific provisions to ensure sunlight in public parks, and to ensure sunlight on sidewalks in the greater Downtown area, including part of East SoMa. These specific sections of the Planning Code are discussed in detail in Section IV.B, Plans and Policies, and summarized briefly here.

Planning Code Section 295, the Sunlight Ordinance, generally prohibits buildings greater than 40 feet tall that would shade City parks (under the jurisdiction of the Recreation and Park Department), except during early morning and late afternoon hours, if the shadow would adversely affect use of the park, unless the Planning Commission determines that the effect would be insignificant. In practice, therefore, Section 295 acts as a kind of overlay that further limits heights and/or shapes of certain buildings around protected parks: the Section 295 limit is in addition to the height limits in the Height and Bulk districts. Privately-owned open spaces and those under the jurisdiction of other entities, such as the Redevelopment Agency, are not subject to Section 295.

Planning Code Section 147, applicable to C-3 (downtown) use districts and in South of Market mixed-use districts where heights greater than 40 feet are permitted (RSD, SLR, SLI, and SSO), requires that new buildings and additions greater than 50 feet tall be shaped to minimize shadow on public plazas or other publicly accessible open spaces, subject to design considerations and without unduly restricting development potential. Section 147 applies to the following locations within the project area:

- A portion of one block in East SoMa located between Folsom, Harrison, Third, and Hawthorne streets, designated C-3-S.
- Much of the area between Harrison, Townsend, First and Fourth streets in East SoMa, zoned SLI or SSO.
- The majority of the area in blocks between Fourth, Seventh, Market and Harrison streets in East SoMa, zoned RSD or SLR.
- In Showplace Square/Potrero Hill, a few properties located between Bryant, Brannan, Seventh and 10th streets, zoned SLI.

## Impact Analysis

### Significance Criteria

Implementation of the proposed project would have a significant shadow impact if it were to:

• Create new shadow in a manner that substantially affects outdoor recreation facilities or other public areas.

In addition, shadow effects would be significant if they would affect, in an adverse manner, the use of any park or open space under the jurisdiction of the Recreation and Park Department, or significantly detract from the usability of other existing publicly accessible open space, or alter temperature so as to substantially affect public areas, or change the climate either in the community or region.

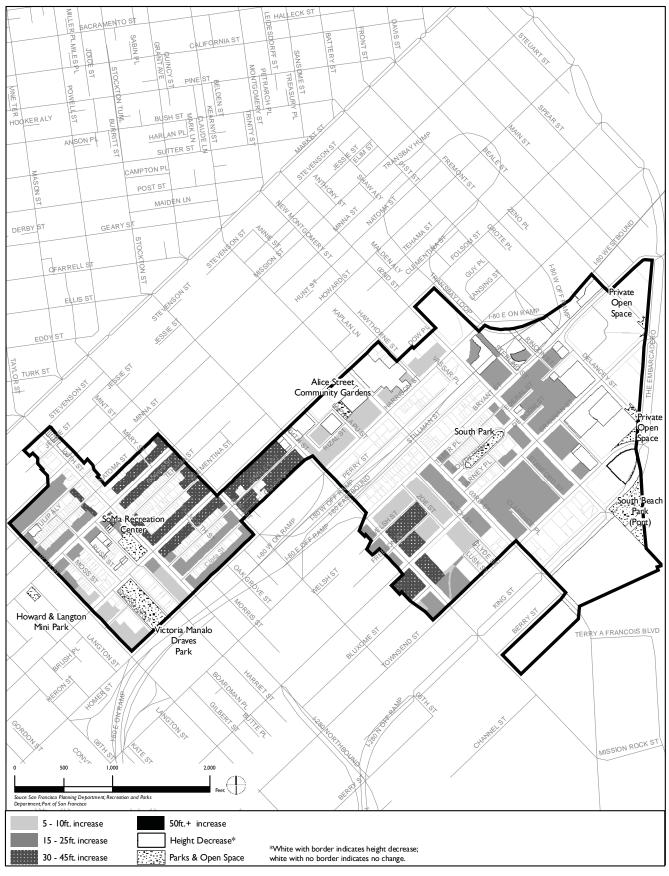
#### Shadow Effects on Existing Parks and Open Spaces

This analysis focuses on changes to building height limits that are part of the proposed rezoning project, and how such changes could affect shading on parks and other publicly accessible spaces.

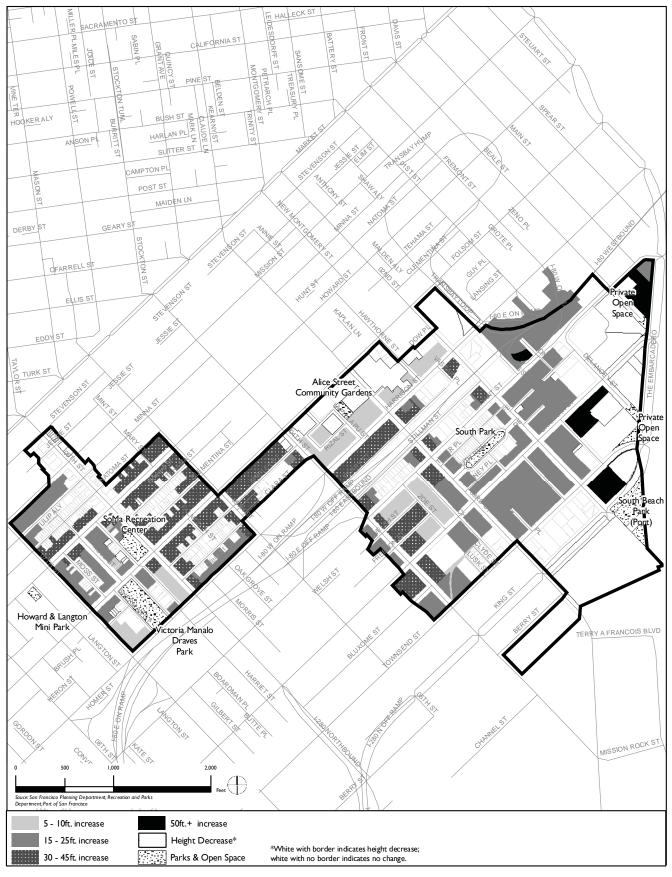
**Figures 22 through 28** indicate proposed changes to height districts in each neighborhood, by rezoning option. Immediately surrounding nine of the parks within the project area, and both of the Recreation and Park Department parks located near but outside of the project area, there would be either no change in height limits or decreases in the building height limit under all three rezoning options. Height limits on some or all sides of another 15 parks (12 under Recreation and Park Department jurisdiction) within the project area would increase. Most of the increases would be slight: five feet. Near a few parks, height limit increases of 15 feet are proposed, and near one recreation center in East SoMa, increases of 25 and 45 feet are proposed.

In some instances, existing development near publicly accessible parks and open space is not as tall as the current height limit would allow. The rezoning project itself would not directly lead to an increase in the height of, or the shadows cast by, existing buildings. However, in areas where the proposed rezoning would allow for changes to permitted land uses, additions to existing buildings and redevelopment of parcels may be more likely to occur, as the incentive for development would potentially be greater due to the additional permitted heights. New buildings could be constructed up to the applicable height limit, unless restrictions were imposed by Section 295 or other applicable controls under the Planning Code.

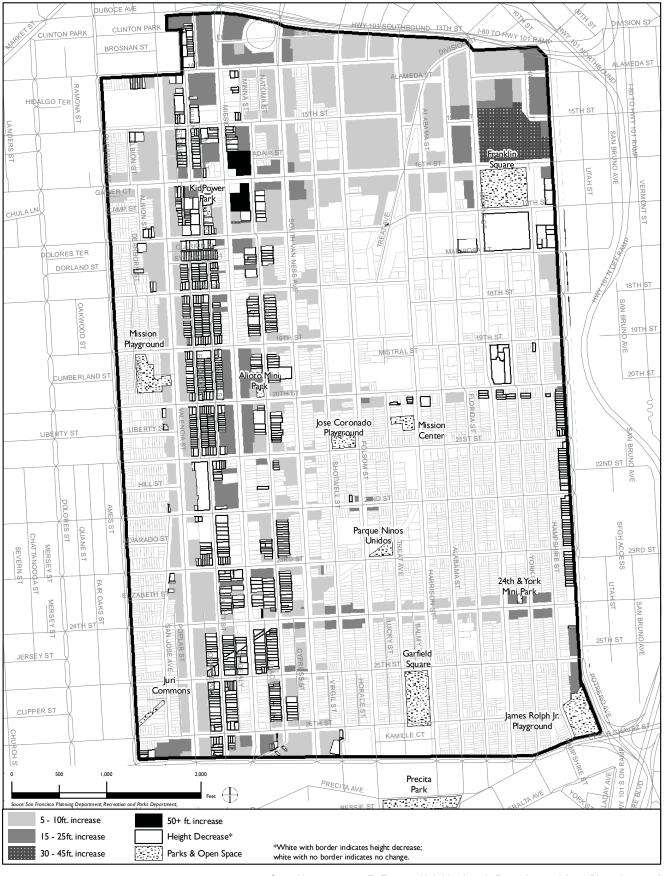
To assess the potential new shading attributable to increased height limits, the following shadow study assumes a "worst-case" shadow scenario that would be caused by full build-out under existing height limits—the No-Project Alternative—and compares those "worst-case" shadows to the corresponding "worst-case" shadows that would be cast under each of the proposed rezoning



Case No. 2004.0160E: Eastern Neighborhoods Rezoning and Area Plans (203091)

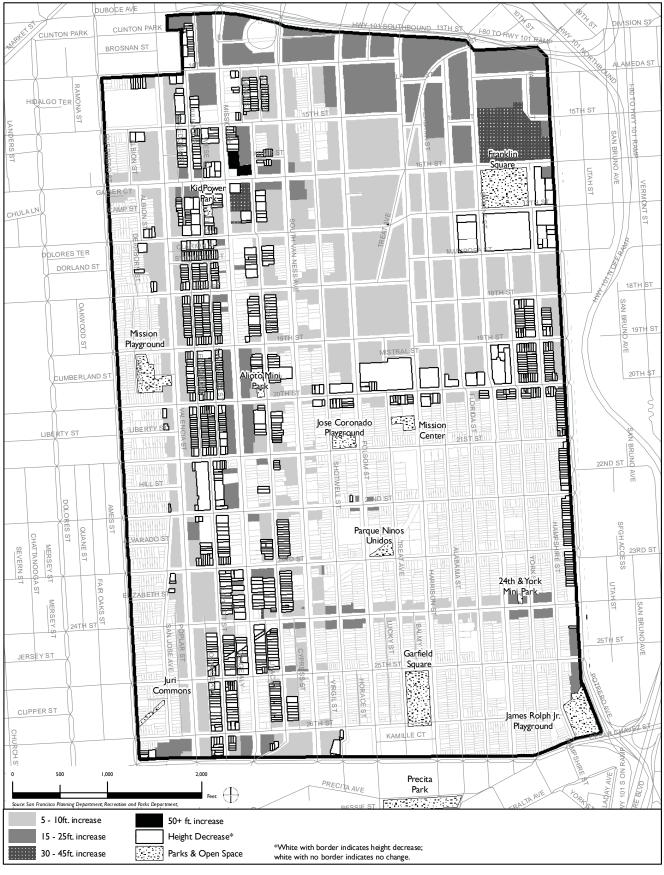


Case No. 2004.0160E: Eastern Neighborhoods Rezoning and Area Plans (203091)



Case No. 2004.0160E: Eastern Neighborhoods Rezoning and Area Plans (203091)

#### Figure 24 Height Change Mission, Options A & C



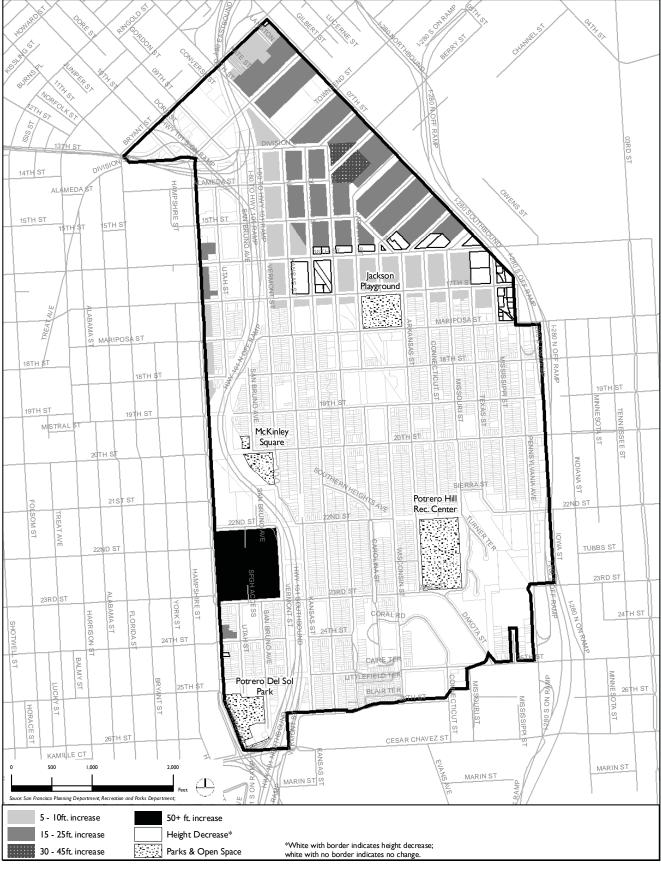
Case No. 2004.0160E: Eastern Neighborhoods Rezoning and Area Plans (203091)

#### Figure 25 Height Change Mission, Option B

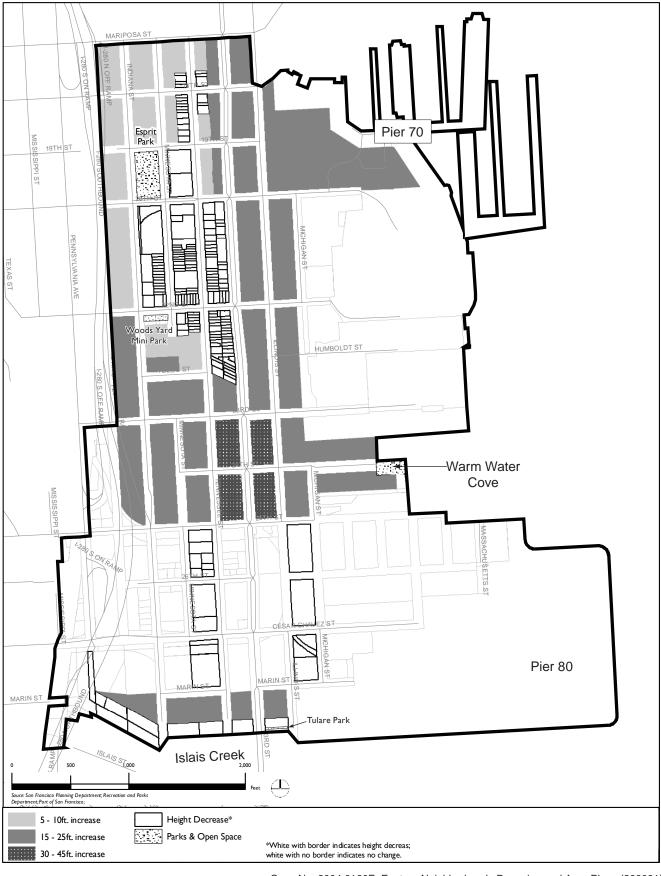


Case No. 2004.0160E: Eastern Neighborhoods Rezoning and Area Plans (203091)

#### Figure 26 Height Change Showplace Square / Potrero Hill, Options A & C



Case No. 2004.0160E: Eastern Neighborhoods Rezoning and Area Plans (203091)



- Case No. 2004.0160E: Eastern Neighborhoods Rezoning and Area Plans (203091)

options. Although the study does not directly consider whether or not the existing building heights differ from the existing height limits and therefore does not measure the actual existing shadowing of public open spaces, the subsequent analysis and conclusions draw on the study findings to capture the incremental effect that could result from the newly permitted heights that would be allowed with implementation of each of the three proposed rezoning options.

#### Parks Where No Increase to Surrounding Height Limits is Proposed

The following parks are surrounded by parcels and blocks in which the existing height limits would remain the same or decrease under all three of the Eastern Neighborhoods rezoning options. The majority of these parks are also located in residential neighborhoods where the use regulations are not expected to substantively change, so the project would not likely to result in any development pressure on properties not currently built to the maximum height.

- South Beach Park (East SoMa)
- Mission Center (Mission)
- Jose Coronado Playground (Mission)
- Parque Ninos Unidos (Mission)
- Juri Commons (Mission)
- Garfield Square (Mission)
- McKinley Square (Showplace Square/Potrero Hill)
- Potrero Hill Recreation Center (Showplace Square/Potrero Hill)
- Tulare Park (Central Waterfront)

Because no changes to the height limits surrounding these parks and open spaces are proposed, none of the rezoning options are expected to result in increases in the extent or duration of daily shadow cast on them. Additionally, no changes to existing height limits are proposed surrounding the non-Recreation and Park Department open spaces along the Embarcadero in East SoMa, and thus these spaces would not be adversely affected by the project.

Some of the above parks could be shaded by development pursuant to existing height limits (i.e., under the No-Project scenario). Those in the Mission District would have the greatest potential for new shadow under existing height limits, as many of these parks are relatively small and some are nestled within city blocks. In particular, Juri Commons, located on a former railroad right-of-way that cuts through the block bounded by 25th, 26th, Guerrero, and Valencia Streets, is a narrow open space. Although taller buildings than those that exist could be constructed within the current 40-foot height limit, the effect on Juri Commons would be limited because the narrowness of the space means existing buildings already cast substantial shadows except at midday. Moreover, this park is heavily landscaped, with several mature trees that also cast shade.

Both Jose Coronado Playground and Parke Niños Unidos are located at the south end of city blocks, meaning that each has a buffer from buildings to the south in the form of a 64-foot-wide street right-of-way. Each has two- and three-story buildings to the south, east, and west, and there is limited potential for new shadow if one or more of these properties were to be redeveloped at

greater height. The existing 40-foot height limit and the surrounding streets would minimize the potential new shadow that could fall on either of these parks.

Mission Center is primarily an indoor facility. While it has an outdoor soccer field, this field is within the interior of the block, surrounding by rear yards of existing dwellings, and thus there is very limited potential for new shadow on this open space.

No substantial new shading of Garfield Square is likely because the property immediately to the south (Bernal Dwellings) has recently been rebuilt by the San Francisco Housing Authority. Existing parcels to the east, southeast, and west—primarily developed with multi-family housing—could cause new shadow, although the exiting height limit of 40 feet and the width of surrounding streets would limit new shadow. Potential effects would be greatest along the western edge of the park, where Treat Avenue is 60 feet wide, compared to Harrison Street's 82.5-foot width along the east side of the park.

The *People's Plan*, a project variant for the Mission District described in Chapter III, Project Description (see p. 17), would have similar effects to those described above because its height proposals are similar to those under each of the three rezoning options, A, B, and C. Another variant, the MCEJJ plan (see p. 18), does not propose specific height limits, and thus cannot be evaluated as to shadow effects.

Little new shadow is likely on Potrero Hill Recreation Center, because it sits atop a hill and parcels to the south and east (Housing Authority property) slope down from the park. Parcels containing existing single-family dwellings west of the park could be redeveloped to greater heights in some instances, but the existing 40-foot height limits and the width of Arkansas Street would restrict the amount of new shadow that could fall on the park.

Likewise, little new shadow is possible on McKinley Square, atop the western edge of Potrero Hill, with the U.S. 101 freeway downslope to the south and west. As with Potrero Hill Recreation Center, parcels to the east of McKinley Square could, if redeveloped to the 40-foot height limit, incrementally increase shadow on the park, but the existing 40-foot height limits and the width of Vermont Street would restrict the amount of new shadow

No new shadow would be expected on the Redevelopment Agency's South Beach Park because this park is immediately northeast of AT&T Park and east of the 14-story One Embarcadero South residential building.

No new shadow would be expected on Tulare Park, as it sits on the north bank of Islais Creek, at the southern boundary of the project area, and no new buildings of sufficient height are likely to be constructed across the creek, within the Bayview-Hunters Point neighborhood.

In summary, it is unlikely that the No-Project Alternative would result in significant shadow impacts on the above parks as a result of construction to existing height limits.

#### Parks Where an Increase to Surrounding Height Limits is Proposed

For the 15 parks around which height limit increases are proposed, potential shading attributable to the proposed project was studied by comparing the shadows that would be cast at build-out under existing height limits (i.e., the No-Project Alternative) to those that would be cast at build-out under each of the three rezoning options. The tallest buildings that could be constructed under existing and proposed height limits on all properties directly adjacent to or across a street from each park was modeled using an architectural drawing and three-dimensional modeling software. Height was measured as specified in the San Francisco Planning Code and no building setbacks were modeled. Topographic data was incorporated in the model to account for differences in elevation. Shadow impacts were analyzed for the period from one hour after sunrise to one hour before sunset—the period regulated by the Sunlight Ordinance—for winter and summer: in December on the winter solstice, when the sun is at its lowest and the shadows are at their longest, and in June on the summer solstice, when the sun is at its highest and shadows are at their shortest. Shadows on any other day of the year would be within the range of shadows present during the solstices.

Two parks, Victoria Manalo Draves Park (East SoMa) and Esprit Park (Central Waterfront), are near elevated roadways. The existing elevated structures may cast shadows on the parks, but they are not part of, or affected by, the proposed project and are not included in the shadow analysis. The location and height of these elevated freeway structures would not change as a result of the proposed rezoning project.

**Tables 56 and 57**, pp. 393 and 395, detail the potential shadow impacts at these times and seasonal points for each of the proposed rezoning options and for the No-Project scenario. For each park, they show the percentage of the park's area that would be in shadow at the opening and closing "Prop K minutes," one hour after sunrise and before sunset. They also indicate when shadows would recede and the park would be in full sun. All times stated for June are in daylight savings time while those in December are standard time.

The following subsections describe the potential shadow impacts on each park and open space in the study area where surrounding height limits are proposed to increase.

Twelve of the 15 parks are under the jurisdiction of the Recreation and Park Department and therefore subject to Planning Code Section 295. All future development greater than 40 feet in height would be subject to the Section 295 review process and the potential shadow impacts would be evaluated based on the guidelines of that code section. In addition, future proposals for development would undergo site-specific environmental review including individual evaluation of shadowing impacts to public parks and open spaces. As the Planning Commission could not

● TABLE 56 POTENTIAL SHADOW ON PARKS AT BUILDOUT ON ADJACENT PROPERTIES--SUMMER SOLSTICE (JUNE 21), 5:48 AM TO 7:35 PM PDT

			Existi	ng Height Lir	nits (No-Pro	ject Alternative)			Option	A Height Li	mits			Option I	B Height Limits			Option C	Height Limi	ts
Park Name	Neighborhood	Percent of park in shadow, 6:48 AM	Shadow recedes; park in full sun	Shadow resumes	Percent of park in shadow, 7:35 PM	Notes	Percent of park in shadow, 6:48 AM	Shadow recedes; park in full sun		Percent of park in shadow, 7:35 PM	Notes	Percent of park in shadow, 6:48 AM	Shadow recedes; park in full sun	Shadow resumes	Percent of park in shadow, 7:35 PM Notes	Percent of park in shadow, 6:48 AM	Shadow recedes; park in full sun	Shadow resumes	Percent of park in shadow, 7:35 PM	Notes
Victoria Manalo Draves Park	East SoMa	75	9:10 AM	5:30 PM	30		75	9:10 AM	5:30 PM	30				Same heigh	t limits as Option A.	75	9:10 AM/ 10:30 AM	2:40 PM/ 5:30 PM	85	A small shadow covering less than 5% of the park area persists on the far NE corner until 10:30 AM. A small shadow (less than 5% of park area) cast by adjacent buildings on Folsom Street is present starting at 2:40 PM. A shadow cast by buildings across Folsom street begin to fall along the western edge of the park at 5:30 PM
SoMa Recreation Center	East SoMa	60	7:55 AM	2:15 / 5:45 PM	80	Shadows begin to be cast at the north edge of the park at 2:15 PM and along the west edge of the park at 5:45 PM.	75	9:10 AM	2:15/ 5:45 PM	80				Same heigh	t limits as Option A.	75	9:10 AM	2:15 PM/ 3:15 PM/ 5:45 PM	80	
Alice Street Community Gardens	East SoMa	100	2:00 PM	2:30 PM / 3:30 PM	100		100	2:00 PM	2:30/ 3:15 PM	100				Same heigh	t limits as Option A.		S	ame height	limits as Opt	on A.
South Park	East SoMa	75	9:30 AM	4:30 PM	100	Shadows recede from the long southeastern edge at 9:30 AM, but don't recede from the far eastern end of the park until 10:30 AM.	85	10:30 AM	4:30 PM	100	Shadows recede from the long southeastern edge at 8:30 AM, but don't recede from the far eastern end of the park until 10:30 AM.			Same heigh	t limits as Option A.	85	10:30 AM	4:30 PM	100	Shadows recede from th long southeastern edge a 8:30 AM, but don't reced from the far eastern end the park until 10:30 AM.
KidPower Park	Mission	100			100	The park is in full shade from the first Prop K minute until 9:45 AM, when the western edge begins to receive sun. At solar noon (1:12 PM), 80% of the park is in sun, but the southern edge remains shaded by building on the adjacent parcel to the south. Much of the park remains in sun through the afternoon, through shadows cast by buildings across Hoff Street begin to hit the western edge at 4:15 PM. Shadow increases until it covers the whole park at 6:45 PM.	100	4:25 PM	4:45 PM	100	The park is in full shadow until 9:45 AM, same as under the existing (No-Project) height limit. At solar noon, 10% of the park is shaded. The park remains mostly sunny throughout the afternoon. Shadow recedes from the southern edge at 4:25 PM, but begins to hit the western edge at 4:45 PM. the park is in full shadow from 7:00 PM until the last Prop K minute.	100	4:25 PM	4:45 PM	100 Same morning pattern as "existing" (No-Project) and "Options A and C" scenario, with the park in full shade until 9:45 AM. Approximately 10% of park in shade at solar noon. Afternoon pattern same as Options A and C.		S	ame height	limits as Opt	on A.
Franklin Square	Mission	45	9:15 AM	5:45 PM	40		60	9:15 AM	5:30 PM	50		50	8:55 AM	6:00 PM	40		S	ame height	limits as Opt	on A.
Mission Playground	Mission	80	1:00 PM	4:15 PM	75		80	1:00 PM	4:15 PM	80				Same heigh	t limits as Option A.		S	ame height	limits as Opt	on A.
Alioto Mini Park	Mission	100	9:35 AM	1:15 PM	100	The park is in full shade starting at 6:00 PM until last Prop K minute.	100	9:35 AM	1:15 PM	100	Park in full shade from 5:15 PM until last Prop K minute.	100	9:35 AM	1:15 PM	100 Park in full shade from 5:15 PM until the last Prop K minute.		S	ame height	limits as Opt	on A.
24th & York Mini Park	Mission	100	1:05 PM	1:15 PM	100	The park is in full shade from the first Prop K minute until approximately 9:15 AM, when sunny areas begin to appear. It is in full sun only at solar noon (1:12 p.m.), then the western edge begins to be shaded until it is in full shadow again from 4:30 PM until the last Prop K minute.	100	1:05 PM	1:15 PM	100	The park is in full shade until 9:30 AM, when sunny areas begin to appear. It is in full sun only at solar noon (1:12 PM), then the western edge becomes progressively shaded until it is in full shadow again from 4:30 PM until the last Prop K minute.			Same heigh	t limits as Option A.		S	ame height	limits as Opt	on A.
James Rolph Jr. Playground	Mission	5	7:05 AM	1:15 PM	65		5	7:05 AM	1:15 PM	65				Same heigh	t limits as Option A.		S	ame height	limits as Opt	on A.

TABLE 56 (Continued) POTENTIAL SHADOW ON PARKS AT BUILDOUT ON ADJACENT PROPERTIES--SUMMER SOLSTICE (JUNE 21), 5:48 AM TO 7:35 PM PDT

			Existing Height Limits (No-Project Alternative)						Option	A Height Li	mits			Option	B Height Lir	nits	Option C Height Limits					
Park Name	Neighborhood	Percent of park in shadow, 6:48 AM	Shadow recedes; park in full sun	Shadow resumes	Percent of park in shadow, 7:35 PM	Notes	Percent of park in shadow, 6:48 AM	Shadow recedes; park in full sun	Shadow resumes	Percent of park in shadow, 7:35 PM		Percent of park in shadow, 6:48 AM	Shadow recedes; park in full sun	Shadow resumes		Notes	Percent of park in shadow, 6:48 AM	Shadow recedes; park in full sun	Percer of park Shadow resumes 7:35 Pl	in		
Potrero Del Sol Park	Showplace Sq./ Potrero	50	8:30 AM/ 	/ 6:30 PM	25	Small shadows persist throughout the entire day on either the southern or northern edges of the park, because there are parcels directly adjacent to the park. However, the majority of the park is in full sun from 8:30 AM until 6:30 PM.	50	8:30 AM/ 	/ 6:00 PM	30				Same heig	nt limits as O	ption A.		S	Same height limits as C	iption A.		
Jackson Playground	Showplace Sq./ Potrero	25	8:15 AM	6:15 PM	25			Same heigh			. (No Project)	30	8:15 AM	M 6:15 PM 30		A small shadow covering less than 2% of the park would persist until 8:30 AM at the northeast corner. Another small shadow covering less than 2% would be present at the northwestern corner at approximately 5:50 PM, 20 minutes before the whole western edge begins to be shaded.				(No Project).		
Esprit Park	Central Waterfront	80	8:45 AM	5:30 PM	90		80	8:30 AM	5:00 PM	90				Same heigh	nt limits as O	ption A.		S	Same height limits as C	ption A.		
Warm Water Cove	Central Waterfront	2		9:45 AM/ 2:15 PM	75	A narrow shadow begins to fall on the park's southern edge at 9:45 AM and on the western edge at 2:15 PM.	2		9:45 AM/ 1:55 PM	90	A narrow shadow begins to fall on the park's southern edge at 9:45 AM and on the western edge at 1:55 PM.			Same heig	nt limits as O	ption A.		S	Same height limits as C	ption A.		
Wood Yard Mini-Park	Central Waterfront	0			0		0			0				Same heigh	nt limits as O	ption A.		S	Same height limits as C	ption A.		

TABLE 57 POTENTIAL SHADOW ON PARKS AT BUILDOUT ON ADJACENT PROPERTIES--WINTER SOLSTICE (DECEMBER 21), 8:22 AM TO 3:54 PM PST

			Existi	ng Height Lir	nits (No-Pro	ject Alternative)			Option	A Height L	imits			Option E	B Height Li	imits				Option C	Height Limi	s
Park Name	Neighborhood	Percent of park in shadow, 8:22 AM	Shadow recedes; park in full sun.	Shadow resumes	Percent of park in shadow, 3:54 PM		Percent of park in shadow, 8:22 AM	Shadow recedes; park in full sun.	Shadow resumes	Percent of park in shadow, 3:54 PM	n ,	Percent of park in shadow, 8:22 AM	Shadow recedes; park in full sun.	Shadow	Percent of park in shadow, 3:54 PM		p sh	cent of ark in adow, 2 AM	Shadow recedes; park in full sun.	Shadow resumes	Percent of park in shadow, 3:54 PM	Notes
Victoria Manalo Draves Park	East SoMa	0	NA	11:15 AM	95	The model indicates that shadow recedes from the park at 8:15 AM, prior to the first Prop K minute. This is due to the orientation of the park and the direction of shadow at this time (from the southeast). There may be shadow cast by the I-80 freeway, but this was not modeled because it would not be a project-related impact. The freeway height is assumed to be stable.	0	8:15 AM	11:15 AM	95				Same heigh	t limit as O	Option A.		0	8:15 AM	11:15 AM	95	
SoMa Recreation Center	East SoMa	40	10:30 AM	11:45 AM	100		80	11:45 AM	11:45 AM	100				Same heigh	t limit as O	option A.		80			100	
Alice Street Community Gardens	East SoMa	100	NA	NA	85	Some portion of the park experiences shadow throughout the day at the winter solstice.	100	NA	NA	85				Same heigh	t limit as O	Option A.			S	Same heigh	limit as Optio	n A.
South Park	East SoMa	95	12:40 PM / 3:30 PM	3:30 PM	10	Shadows would recede from long southeastern edge at 12:40 PM, though small shadow representing less than 5% of park area would persist at far western end until 3:30 PM.	95	12:40/ 3:30	3:30	15	Shadows would recede from long southeastern edge at 12:40 PM, though small shadow representing less than 5% of park area would persist at far western end until 3:30 PM.			Same heigh	t limit as C	option A.		95	12:40/ 3:30	3:30	15	Shadows would recede from long southeastern edge at 12:40 PM, though small shadow representin less than 5% of park area would persist at far wester end until 3:30 PM.
KidPower Park	Mission	100			100	The park remains in full shade until a few minutes before 12:00 PM, when sun begins to hit part of the western side. No more than 1/3 of the park is ever in sun during the afternoon. The park is in full shade again from 3:15 PM until the last Prop K minute.	100			100	Sunny areas begin to appear on the park's western edge around 9:30 AM. At solar noon, the southern 2/3rds of the park is in shadow. Extent of afternoon shadow is greater than under existing (No-Project) height limits. The park is in full shade again from 3:30 PM until last Prop K minute.	100			100	Sunny areas begin to a on the park's western e around 9:30 AM. At sola noon, the southern 2/3r the park is in shadow. E of afternoon shadow is than under existing (No Project) height limits. Th park is in full shade aga from 3:30 PM until the le Prop K minute.	edge lar rds of Extent great D- 'he ain		5	ame heigh	limit as Optio	n B.
Franklin Square	Mission	75			70	A shadow persists along the southern edge of the park often occupying up to 25% of the park area, throughout the entire day. Times shown are for eastern and western park edges.	75			60	A shadow persists along the southern edge of the park often occupying up to 255 of the park area, throughout the entire day. Times shown are for eastern and western park edges.	65	9:45 AM/ 	/ 2:15 PM	60	A shadow persists alon southern edge of the pa often occupying up to 2 the park area, througho entire day. Times show for eastern and western edges.	ark, 25% of out the /n are		S	ame heigh	limit as Optio	n A.
Mission Playground	Mission	95			100	A shadow occupying approximately 20% of the park area persists along its southern edge even at solar noon.	95			100				Same heigh	t limit as O	Dption A.			S	ame heigh	limit as Optio	on A.
Alioto Mini Park	Mission	100			100	The southern 40% of the park is shaded at solar noon by buildings across 20th Street.	100			100		100			100				S	ame heigh	limit as Optio	on A.
24th & York Mini Park	Mission	100			100	The park is in full shade at the first Prop K minute. Sunny patches begin to appear between 9 and 10 AM. Approximately 2/3rds of the park is in sun at the solar noon (12:08 PM), while the southern edge remains shaded by buildings across 24th Street. The park is in full shade from 2:45 PM until the last Prop K minute.	100			100	The park is in full shade at the first Prop K minute. Sunny patches begin to appear between 9 and 10 AM. Approximately 2/3rds of the park is in sun at the solar noon (12:08 PM), while the southern edge remains shaded by buildings across 24th Street. The park is in full shade from 2:45 PM until the last Prop K minute.			Same heigh	t limit as C	ption A.			5	ame heigh	limit as Optio	on A.

TABLE 57 (Continued) POTENTIAL SHADOW ON PARKS AT BUILDOUT ON ADJACENT PROPERTIES--WINTER SOLSTICE (DECEMBER 21), 8:22 AM TO 3:54 PM PST

			Exist	ing Height Li	nits (No-Pro	ject alternative)			Option	A Height L	imits			Option	B Height L	imits	Option C Height Limits				
Park Name	Neighborhood	Percent of park in shadow, 8:22 AM	Shadow recedes; park in full sun.		Percent of park in shadow, 3:54 PM	Notes	Percent of park in shadow, 8:22 AM	Shadow recedes; park in full sun.	Shadow resumes	Percent of park in shadow, 3:54 PM		Percent of park in shadow, 8:22 AM	Shadow recedes; park in full sun.	Shadow resumes	Percent of park ir shadow, 3:54 PM		Percent of park in shadow, 8:22 AM	Shadow recedes; park in full sun.			
James Rolph Jr. Playground	Mission	15	8:45 AM	12:15 PM	70		15	8:45 AM	12:15 PM	70				Same heig	ht limit as (	Dption A.			Same heig	ht limit as Option A.	
Jackson Playground	Showplace Sq./Potrero	35	9:15 AM/ -	/2:45 PM	40	A small shadow persists along the southern edge of the park throughout the entire day. The times shown for disappearance and assumption of shadow are for the eastern and western edges.		Sam	ie height limi	it as Existing	g (No Project).	35	9:15 AM/ 	/ 2:45 PM	40	A small shadow persists along the southern edge of the park throughout the entire day. The times shown for disappearance and assumption of shadow are for the eastern and western edges.		Same	height limi	t as Existing (No Project).	
Potrero Del Sol Park	Showplace Sq./Potrero	50			10	Some shadow is present during all times of the day, but never exceeds more than 25% of the park area after 9:00 AM.	50			15	A small shadow persists along the southern edge of the park throughout the entire day. The times shown for disappearance and assumption of shadow are for the eastern and western edges.			Same heig	ht limit as (	Option A.			Same heig	ht limit as Option A.	
Esprit Park	Central Waterfront	55	9:30 AM / 	/ 2:20 PM	80	The southern edge of Esprit Park remains in shadow during the entire day. The time shown for disappearance and resumption of shadow are for the eastern and western edges.	50	9:20 AM/ 	/ 2:00 PM	80				Same heig	ht limit as (	Option A.			Same heig	ht limit as Option A.	
Warm Water Cove	Central Waterfront	35	9:15 AM/ -		90		35			100				Same heig	ht limit as (	Dption A.			Same heig	ht limit as Option A.	
Wood Yard Mini-Park	Central Waterfront	25	9:30 AM / 	2:40 PM	25	Existing shadow includes that cast by existing Woods Yard administration building, on the same parcel as the mini-park.	20	9:20 AM	2:20 PM	35	Decreased height limit to east reduces morning shadow; reverse is true in the afternoon.			Same heig	ht limit as (	Option A.			Same heig	ht limit as Option A.	

approve a project determined to have significant shadow impacts per Section 295, implementation of the project is not expected to result in significant shadow impacts.

#### East SoMa

#### Victoria Manalo Draves Park

Victoria Manalo Draves Park is the Recreation and Park Department's newest park, located on the block between Folsom, Harrison, Sixth, and Seventh Streets. Existing height limits surrounding the park (under No-Project Alternative) are predominantly 40 feet, though one parcel at the southern corner has a 50-foot height limit. This park is to the east of the newly constructed Bessie Carmichael Elementary School/Filipino Education Center. The southeast side of the park fronts Harrison Street along the study area boundary. Just south of Harrison Street is the elevated I-80 skyway. While building height limits south of Harrison Street are established at 30 feet, no buildings are expected to be constructed in these blocks because of the existing elevated freeway. Furthermore, any height change in this area south of the park would not be an impact of the project, since Harrison Street forms the southern boundary of East SoMa at this location. Therefore, structures south of Harrison were not included in the shadow model.

Under Options A and B, height limits would not change, except that the height limit on one parcel near the southern corner of the park would increase from 50 to 55 feet. Under Option C, in addition to this five-foot height increase at the southern corner, the height limits on both sides of Folsom Street would rise from 40 to 85 feet.

The shading that would occur under a build-out scenario up to the proposed height limit under Options A and B is nearly identical to that under the existing height limit. The five-foot height limit increase at the southern corner would not create a discernable increase in shadow on the park.

In a build-out scenario under Option C, in which height limits would increase to as much as 85 feet along Folsom Street, additional shadow would be evident at the summer solstice. While under the existing height limit (the No-Project Alternative), the period of full sun would begin at 9:10 a.m., under Option C a shadow would persist on the northeast corner of the park until 10:30 a.m. and would occupy less than five percent of the park's area. In addition, a small shadow (again covering less than five percent of the park) cast by buildings along Folsom Street would fall on the park's northwest corner from approximately 2:45 p.m. until 5:30 p.m., when the whole western edge of the park would begin to be shaded. At the winter solstice, modeled shadows under Option C would be unchanged from the future No-Project scenario.

All future development in East SoMa would be subject to the Section 295 review process and the potential shadow impacts would be evaluated based on the guidelines of that code section. Future development in the area surrounding Victoria Manalo Draves Park would also be subject to Section 147 review and site-specific environmental analysis. The presence of the elevated

freeway to the southeast and the new elementary school to the southwest and the fact that the Planning Commission could not approve a project determined to have significant shadow impacts on properties under the jurisdiction of the Recreation and Park Commission per Section 295 would limit potential new shadow impacts, compared to what could otherwise occur. However, it cannot be stated with certainty that compliance with Section 295 would always mitigate any potential significant effects under CEQA.<sup>184</sup> Moreover, sites to the northeast and southeast of the park are occupied by single-story buildings and could be redeveloped with taller (40-foot) buildings without triggering Section 295. Therefore, under both existing height limits (the No-Project Alternative) and with implementation of the project, there could potentially be significant shadow impacts on Victoria Manalo Draves Park. As noted in the following tables, under existing height limits, up to 95 percent of the park could be shaded at the last Section 295 minute in winter and up to 75 percent of the park could be shaded at the first Section 295 minute in summer with full buildout in accordance with existing height limits. Potential impacts from future proposed development would be evaluated on a project-specific basis, and shadow effects could be limited through design of individual projects that takes into consideration shading effects on nearby parks. However, because the potential existing for new shadow, possibly in substantial amounts depending on subsequent individual proposal(s) that may be put forth, and because the feasibility of complete mitigation for potential new shadow impacts of currently unknown development proposals cannot be determined at this time, it cannot be concluded that this impact would be less than significant, and therefore the impact on this park is judged to be significant and unavoidable for all three rezoning options and for the No-Project Alternative.

#### South of Market Recreation Center/Eugene Friend Recreation Center

The South of Market Recreation Center fronts on Sixth, Folsom and Harriet Streets. A large proportion of the property is occupied by a building housing the recreation center along Sixth Street, while the southern and western edges of the property are landscaped open space. All of the surrounding properties currently have 40-foot height limits, except for one parcel across Harriet Street that has a height limit of 50 feet.

Under Options A and B, height limits on the northeast side of Sixth Street, across the street from the recreation center, would increase from 40 feet to 85 feet. On the southwest side of Sixth Street, the height limit would increase from 40 feet to 65 feet. For a set of parcels across Harriett Street from the park property, the height limit would decrease by five feet from 40 to 35 feet. Across Folsom Street from the recreation center, the height limit would increase from 40 feet to 65 feet.

<sup>&</sup>lt;sup>184</sup>In practice, when a project is consistent with Section 295 and when the Planning Commission determines that project shadow would not adversely affect use of the park, or determines that the effect would be "insignificant" in the context of Section 295. the Planning Department normally finds potential physical effects of shading to be less than significant under CEQA. However, it is theoretically possible for different conclusions to be reached under the two sets of criteria for Section 295 and CEQA review. Also, as discussed herein, projects not subject to Section 295—either because they are 40 feet tall or less or because they affect non-Recreation and Park Department open space—could potentially have significant shadow effects under CEQA, apart from Section 295.

Under Option C, the height limit increases along Sixth Street would be the same as those under Options A and B. However, the height limit increases along both sides of Folsom Street east of Sixth Street, as well as the south side of Folsom Street across from this park, would be more extensive, rising from 40 feet to 85 feet.

At the summer solstice under build-out at existing height limits (the No-Project Alternative), the property would be approximately 60 percent shaded at the first Prop K minute (6:48 a.m.) by buildings located across Sixth Street. The shadow would fall largely on the eastern part of the property occupied by the indoor recreation center. The property would then be in full sun starting at around 7:55 a.m. Some shadow would begin to be cast along the northern edge by buildings on the adjacent property to the north around 2:15 p.m., and along the western edge by buildings across Harriet Street at around 5:45 p.m. By the last Prop K minute (7:35 p.m.), approximately 80 percent of the property would be in shadow. At the winter solstice, shadow would be cast on the southern end of the park from buildings across Folsom Street in the morning, from the first Prop K minute (8:22 a.m.) until 10:30 a.m. The property would remain in full sun until about 11:45 a.m., when shadows begin to be cast along the western edge, gradually increasing until the property is in full shade around 3:40 p.m.

At build-out under Options A and B, shadows would be more extensive and persist longer during the morning than existing (No-Project) conditions. Shadows cast by buildings across Folsom Street would cover approximately 80 percent of the park property at the first Prop K minute at the summer solstice (6:48 a.m.) and persist until 9:10 a.m., compared to 7:55 a.m. under the future No-Project (existing build-out) scenario. At the winter solstice, the park would also experience more extensive and persistent morning shadows, with approximately 80 percent of the park in shadow cast by buildings to the south across Folsom Street at the first Prop K minute (8:22 a.m.), compared to 40 percent at existing heights. Shadows would persist along the southern edge of the park until approximately 11:45 a.m., compared to 10:30 a.m. under the No-Project Alternative, with existing height limits. Shadows cast in the afternoon would not vary from the future No-Project scenario, since height limits on the western side of the park would not increase.

Under Option C, summer morning shadows on the park would be very similar to those under Options A and B, covering approximately 80 percent of the park at the first Prop K minute and persisting until 9:10 a.m. The difference would occur in the afternoon, when taller buildings along Folsom Street would cast a small shadow covering less than five percent of the property between 3:15 and 5:45 p.m. In the late morning and early afternoon, 85-foot buildings on Folsom Street would continually cast some form of shadow on the southern and western parts of the property.

All future development in East SoMa would be subject to the Section 295 review process and the potential shadow impacts would be evaluated based on the guidelines of that code section. Future development in the area surrounding the South of Market Recreation Center would also be

subject to Section 147 review and site-specific environmental analysis. The fact that the Planning Commission could not approve a project determined to have significant shadow impacts on properties under the jurisdiction of the Recreation and Park Commission per Section 295 would limit potential new shadow impacts, compared to what could otherwise occur. However, it cannot be stated with certainty that compliance with Section 295 would always mitigate any potential significant effects under CEQA. Moreover, sites surrounding the southern end of the recreation center are occupied by one- two- and three-story structures and could be redeveloped with taller (40-foot) buildings without triggering Section 295. Therefore, under both existing height limits (the No-Project Alternative) and with implementation of the project, there could potentially be significant shadow impacts on the South of Market Recreation Center. As noted in the preceding tables, under existing height limits, up to 100 percent of the park could be shaded at the last Section 295 minute in winter and up to 80 percent of the park could be shaded at the last Section 295 minute in summer with full buildout in accordance with existing height limits. Potential impacts from future proposed development would be evaluated on a project-specific basis, and shadow effects could be limited through design of individual projects that takes into consideration shading effects on nearby parks. However, because the potential existing for new shadow, possibly in substantial amounts depending on subsequent individual proposal(s) that may be put forth, and because the feasibility of complete mitigation for potential new shadow impacts of currently unknown development proposals cannot be determined at this time, it cannot be concluded that this impact would be less than significant, and therefore the impact on this park is judged to be significant and unavoidable for all three rezoning options and for the No-Project Alternative.

## Alice Street Community Gardens (San Francisco Redevelopment Agency jurisdiction)

Alice Street Community Gardens is currently surrounded by parcels with height limits of 130 feet on three sides, and a height limit of 80 feet on its southern edge. The park is directly adjacent to existing buildings on three sides, and to a narrow local street (Lapu Lapu Street) on one side.

Under Options A, B, and C, height limits that were previously 80 feet would increase by five feet to 85 feet, while the 130-foot height limit on the northern side would remain the same. Sites immediately east and west of the park would decrease to 85 feet.

This is a small open space that directly abuts other properties on three sides, and the height limits on these surrounding properties are 80 to 130 feet. Consequently, the garden would experience some shadow throughout most of the day under both existing regulations (the No-Project Alternative) and proposed rezoning options A, B, and C. At the first Prop K minute at the summer solstice (6:48 a.m.), the entire park would be in shadow, and shadows would persist along the garden's northeast and southeast sides until 2:00 p.m. Shadows would begin to fall on the garden's northwest and southwest sides at 2:30 p.m. and 3:30 p.m., respectively. From 6:15 p.m. until the last Prop K minute (7:35 p.m.), the garden would be entirely in shadow. All parts of

the garden would receive sun for at least a few hours per day in the summer. Despite the limited duration of sunlight, the garden appears to be active and the plots occupied. At the winter solstice, shadows would cover more than half of the garden at all times during the Prop K period (8:22 a.m. to 3:54 p.m.), and would move generally from the east to west sides.

The only difference that the proposed five-foot height limit increase on surrounding parcels would make is that shadows would begin on the southwest edge of the gardens at 3:15 p.m. instead of 3:30 p.m. as they would under the future No-Project scenario, with existing height limits. Buildout under Options A, B, and C would leave the park entirely in shadow starting at 6:15 p.m. At the winter solstice, the shadow on the garden would be nearly identical to that under the future No-Project scenario, with existing height limits.

As noted in the preceding tables, up to 100 percent of the park could be shaded at the last Section 295 minute in winter and up to 100 percent of the park could be shaded at the first and last Section 295 minutes in summer with full buildout in accordance with existing height limits. As such, the garden would be in a great deal of shadow from existing buildings subject to the existing height limit (No-Project Alternative). The 15-minute difference in the onset of shadow along the garden's southwest edge under rezoning options A, B, and C would not notably detract from the usability of the garden when compared with the No-Project Alternative. However, the garden is currently surrounded by surface parking as well as buildings between five and 10 stories in height. These sites could be redeveloped with taller code-compliant buildings (80-130 foot) under existing height limits. Therefore, under both the No-Project Alternative and with implementation of the project, there could potentially be significant shadow impacts on the Alice Street Community Gardens. Potential impacts from future proposed development would be evaluated on a project-specific basis, and shadow effects could be limited through design of individual projects that takes into consideration shading effects on nearby parks. However, because the potential existing for new shadow, possibly in substantial amounts depending on subsequent individual proposal(s) that may be put forth, and because the feasibility of complete mitigation for potential new shadow impacts of currently unknown development proposals cannot be determined at this time, it cannot be concluded that this impact would be less than significant, and therefore the impact on this park is judged to be significant and unavoidable for all three rezoning options and for the No-Project Alternative.

#### South Park

South Park is surrounded by parcels with 40-foot height limits on all sides, except for two parcels with 55-foot limits that border the far southeast edge of the park.

Under all three options, height limits on the parcels directly adjacent to South Park would remain the same. However, height limits on parcels within the same blocks fronting on Second and Third Streets would increase from 40 to 55 and 65 feet, because these parcels would be designated Neighborhood Commercial Transit, a higher-density mixed-use designation. The increase in height limits on Second Street could affect shadow patterns during the morning hours. In the future No-Project scenario under existing height limits, 75 percent of the park would be shaded at the first Prop K minute (6:48 a.m.), while under build-out with the proposed height increase on Second Street, 85 percent of the park would be shaded at this time. Shadows would recede from the park's long southeastern edge at the same time under both existing (No-Project) and proposed heights. However, with the proposed building height increase along Second Street, shadows would recede from the far northeastern end of the park one hour later, at 10:30 a.m. instead of 9:30 a.m.

In the evening hours, the only discernable difference in shadow patterns would occur between 3:30 p.m. and the last Prop K minute (3:54 p.m.), when shadows on the park's southwestern end would occupy approximately 15 percent of the total park area compared to 10 percent under the future No-Project scenario with existing height limits.

All future development in East SoMa would be subject to the Section 295 review process and the potential shadow impacts would be evaluated based on the guidelines of that code section. Future development in the area surrounding South Park would also be subject site-specific environmental analysis. The fact that the Planning Commission could not approve a project determined to have significant shadow impacts on properties under the jurisdiction of the Recreation and Park Commission per Section 295 would limit potential new shadow impacts, compared to what could otherwise occur. However, it cannot be stated with certainty that compliance with Section 295 would always mitigate any potential significant effects under CEQA. Moreover, several sites surrounding the park are occupied by buildings lower than the existing permitted height and could be redeveloped with taller (40-foot) buildings without triggering Section 295. Therefore, under both existing height limits (the No-Project Alternative) and with implementation of the project, there could potentially be significant shadow impacts on South Park. As noted in the preceding tables, under existing height limits, up to 100 percent of the park could be shaded at the last Section 295 minute in summer and up to 95 percent of the park could be shaded at the first Section 295 minute in winter with full buildout in accordance with existing height limits. Potential impacts from future proposed development would be evaluated on a project-specific basis, and shadow effects could be limited through design of individual projects that takes into consideration shading effects on nearby parks. However, because the potential existing for new shadow and because the feasibility of complete mitigation for potential new shadow impacts of currently unknown development proposals cannot be determined at this time, it cannot be concluded that this impact would be less than significant, and therefore the impact on this park is judged to be significant and unavoidable for all three rezoning options and for the No-Project Alternative.

#### Mission

#### **KidPower Park**

The recently completed KidPower Park (referred to during its planning phase as Hoff Street Park), located on Hoff Street mid-block between 16th and 17th Streets, is surrounded by parcels with varied height limits. Parcels adjacent to the park's north side are currently designated with a 105-foot limit. Parcels adjacent to the south side of the park currently have an 80-foot height limit. The block across Hoff Street to the west of the park is designated with a 50-foot height limit.

Under the proposed rezoning project, most height limits around the park would decrease or remain the same, while one area on the southeastern side of the park would increase by five feet. Under all three options, height limits on the parcels immediately adjacent to the park's north and south sides would decrease from 105 and 80 feet, respectively, to 40 feet. Under Options A and C, the parcels adjacent to the park's east side (and fronting on Mission Street) would retain the 105-foot height existing height limit in the northern portion of the block, and increase from 80 feet to 85 feet in the southern portion. Under Option B, only the corner parcel at 16th Street and Mission would remain at 105 feet, and the remainder of the parcels on Mission would decrease to 85 feet. Under all three options, the height limit on the block across Hoff Street to the west of the park would decrease from 50 to 40 feet.

The proposed project would result in a net decrease in the extent and duration of shadows on the park compared to a future No-Project scenario at existing height limits.

Because this is a relatively small park surrounded by development directly abutting other parcels, under the future No-Project scenario at existing height limits, it would receive some shadow at all points of any day of the year. It would be in full shadow in the early morning and late evening hours, but would experience variations of sunlight during the middle of the day. The variations are therefore best described in terms of the onset of sun on the park and the sun patterns during mid-day hours.

At the summer solstice under future No-Project conditions with existing height limits, the park would be in full shade from the first Prop K minute until 9:45 a.m., when the western edge begins to receive sun. At solar noon (1:12 p.m.), 80 percent of the park would be in sun, but the southern edge would remain shaded by buildings on the adjacent parcels to the south. Much of the park would remain in sun through the afternoon, though shadows cast by buildings across Hoff Street would begin to hit the park's western edge at 4:15 p.m. Shadow would increase until the whole park would be in shade at 6:45 p.m.

Under Options A and C, the park would remain in full shadow until 9:45 a.m., as under the existing height limit (No-Project scenario). However, at solar noon, 10 percent of the park area would be shaded, and more than half of the park area would remain in sun through most of the

afternoon. Shadow would recede completely from the southern edge at 4:45 p.m., then begin to hit the park's western edge at 4:45 p.m., one-half hour later than under the future No-Project scenario, with existing height limits. The park would be in full shadow starting at 7:00 p.m.

The sun and shadow patterns under Option B would be almost identical to those under Options A and C, and also would represent a net decrease in shadow compared to future No-Project conditions at existing height limits.

The *People's Plan* would have height limits similar around Kid Power Park to those of Option B, and therefore would have similar shadow impacts. The MCEJJ plan does not propose specific height limits, and thus cannot be evaluated as to shadow effects.

All future development in the Mission District would be subject to the Section 295 review process and the potential shadow impacts would be evaluated based on the guidelines of that code section. Future development in the area surrounding KidPower Park would also be subject sitespecific environmental analysis. The fact that the Planning Commission could not approve a project determined to have significant shadow impacts on properties under the jurisdiction of the Recreation and Park Commission per Section 295 would limit potential new shadow impacts, compared to what could otherwise occur. However, it cannot be stated with certainty that compliance with Section 295 would always mitigate any potential significant effects under CEQA. Moreover, several sites surrounding the park are occupied by buildings lower than the existing permitted height and could be redeveloped with taller (40-foot) buildings without triggering Section 295. Therefore, under both existing height limits (the No-Project Alternative) and with implementation of the project, there could potentially be significant shadow impacts on KidPower Park. As noted in the preceding tables, under existing height limits, up to 100 percent of the park could be shaded at the first and last Section 295 minutes in both summer and winter with full buildout in accordance with existing height limits. Potential impacts from future proposed development would be evaluated on a project-specific basis, and shadow effects could be limited through design of individual projects that takes into consideration shading effects on nearby parks. However, because the potential existing for new shadow, possibly in substantial amounts depending on subsequent individual proposal(s) that may be put forth, and because the feasibility of complete mitigation for potential new shadow impacts of currently unknown development proposals cannot be determined at this time, it cannot be concluded that this impact would be less than significant, and therefore the impact on this park is judged to be significant and unavoidable for all three rezoning options and for the No-Project Alternative.

#### Franklin Square

Franklin Square fronts on four streets. To the north across 16th Street, the Potrero Shopping Center has a 40-foot height limit. The front part of the shopping center is not currently built up but rather is occupied by a parking lot serving the center. The Muni Metro facility across 17th Street to the south has an 80-foot height limit. The blocks to the west and east of the park currently have height limits of 50 and 65 feet.

Under Options A and C, height limits on three sides of the park would change to 65 feet, while the height limit at the Potrero Shopping Center, north of the park, would increase to 85 feet and one parcel on the corner of 16th and Bryant streets would increase to 55 feet. Under Option B, the height limit for the Potrero Shopping Center would increase to 85 feet as in Option A, but the height limit on surrounding blocks to the west, east and south would increase to 55 rather than 65 feet.

Because the proposed changes would result in some height increases and some decreases around the park, the potential shadow impacts are mixed.

With the future No-Project Alternative under existing height limits, approximately 45 percent of the park would be shaded at the first Prop K minute at the summer solstice. At build-out under Options A and C, additional building height across 16th Street would cast a shadow on the northern edge of the park, increasing the extent of the shadow at the first Prop K minute to approximately 60 percent of the park area. Under Options A and C, the shadow would also begin to be cast on the western edge of the park approximately 15 minutes earlier than it would under future No-Project conditions at existing height limits, and occupy a greater proportion of the park in the evening.

- Under Option B, at the summer solstice, the period of full sunlight would begin approximately
- 15 minutes earlier and end approximately 15 minutes later. The shadow cast on the park at the last Prop K minute would be of a greater extent than under the future No-Project scenario, covering approximately 70 percent of the park area, compared to 40 percent.

The *People's Plan* would have similar height limits around Franklin Square to the height limits proposed in Options A and C, and therefore would have similar shadow impacts. The MCEJJ plan does not propose specific height limits, and thus cannot be evaluated as to shadow effects.

All future development in the Mission would be subject to the Section 295 review process and the potential shadow impacts would be evaluated based on the guidelines of that code section. Future development in the area surrounding Franklin Square would also be subject site-specific environmental analysis. The fact that the Planning Commission could not approve a project determined to have significant shadow impacts on properties under the jurisdiction of the Recreation and Park Commission per Section 295 would limit potential new shadow impacts, compared to what could otherwise occur. However, it cannot be stated with certainty that compliance with Section 295 would always mitigate any potential significant effects under CEQA. Moreover, sites surrounding the park are occupied by surface parking or small buildings between one and three stories and could be redeveloped with taller (40-foot) buildings without

triggering Section 295. Therefore, under both existing height limits (the No-Project Alternative) and with implementation of the project, there could potentially be significant shadow impacts on Franklin Square. As noted in the preceding tables, under existing height limits, up to 45 percent of the park could be shaded at the first Section 295 minute in summer and up to 75 percent of the park could be shaded at the first Section 295 minute in winter with full buildout in accordance with existing height limits. Potential impacts from future proposed development would be evaluated on a project-specific basis, and shadow effects could be limited through design of individual projects that takes into consideration shading effects on nearby parks. However, because the potential existing for new shadow, possibly in substantial amounts depending on subsequent individual proposal(s) that may be put forth, and because the feasibility of complete mitigation for potential new shadow impacts of currently unknown development proposals cannot be determined at this time, it cannot be concluded that this impact would be less than significant, and therefore the impact on this park is judged to be significant and unavoidable for all three rezoning options and for the No-Project Alternative.

#### **Mission Playground**

Mission Playground is located in the middle of a predominantly residential block between Valencia, Guerrero, 19th and 20th Streets, but fronts primarily on a small street called Linda Street. Adjacent parcels and blocks on the north, south, and west sides of the park are all designated with a 40-foot height limit, while the parcels fronting on Valencia Street on the east side of the park are currently designated with a 50-foot height limit. Under all three rezoning options, the height limit on Valencia Street would increase to 55 feet, while on all other sides of the park, the existing height limit would remain unchanged.

If new buildings were constructed to meet the proposed five-foot height limit increase on the park's eastern side, the resulting shadows would cover approximately five percent more of the park's area at the first Prop K minute at both the summer and winter solstice. Afternoon shadow patterns in both seasons that were modeled would be the same.

The *People's Plan* would have similar height limits around Mission Playground to the height limits proposed in the three rezoning options, and therefore would have similar shadow impacts. The MCEJJ plan does not propose specific height limits, and thus cannot be evaluated as to shadow effects.

All future development in the Mission District would be subject to the Section 295 review process and the potential shadow impacts would be evaluated based on the guidelines of that code section. Future development in the area surrounding Mission Playground would also be subject site-specific environmental analysis. The fact that the Planning Commission could not approve a project determined to have significant shadow impacts on properties under the jurisdiction of the Recreation and Park Commission per Section 295 would limit potential new shadow impacts, compared to what could otherwise occur. However, it cannot be stated with certainty that compliance with Section 295 would always mitigate any potential significant effects under CEQA. Moreover, with the exception of the five-story building on the northwest corner of 20th and Valencia Streets, sites surrounding the park are occupied by two- and three-story buildings and could be redeveloped with taller (40-foot) buildings without triggering Section 295. Therefore, under both existing height limits (the No-Project Alternative) and with implementation of the project, there could potentially be significant shadow impacts on Mission Playground. As noted in the preceding tables, under existing height limits, up to 100 percent of the park could be shaded at the last Section 295 minute in winter and up to 80 percent of the park could be shaded at the first Section 295 minute in summer with full buildout in accordance with existing height limits. Potential impacts from future proposed development would be evaluated on a projectspecific basis, and shadow effects could be limited through design of individual projects that takes into consideration shading effects on nearby parks. However, because the potential existing for new shadow, possibly in substantial amounts depending on subsequent individual proposal(s) that may be put forth, and because the feasibility of complete mitigation for potential new shadow impacts of currently unknown development proposals cannot be determined at this time, it cannot be concluded that this impact would be less than significant, and therefore the impact on this park is judged to be significant and unavoidable for all three rezoning options and for the No-Project Alternative.

#### Alioto Mini Park

The Alioto Mini Park is located at the corner of 20th and Capp Streets. Adjacent parcels and surrounding blocks are all currently designated with 50-foot height limits.

Options A and C call for a five-foot height limit increase to 55 feet along both sides of 20th Street as well as a 15-foot increase to 65 feet on the parcel abutting the mini park on the north and along the Mission Street corridor half a block to the west of the mini park. Option B calls for the same height limit increases in this immediate area, except that the height on the parcel abutting the mini park on its north side would remain at 40 feet.

Because it is a relatively small park surrounded by development, the Alioto Mini Park is typically in full shadow in the early morning and late evening hours. The potential differences in shadow patterns under the proposed increased height limits appear as earlier onset of full shading in the afternoon. For example, at build-out under the future No-Project scenario, with existing height limits, at the summer solstice, the park would be in full shadow beginning at 6:00 p.m. until the last Prop K minute, while under Options A, B, and C, where building heights would increase 15 feet on the west of the park, it would be in full shadow starting at 5:15 p.m.

The proposed five-foot height limit increase on 20th Street is expected to have less of a potential impact on shadow because the height limit increase would be small, and buildings are separated from the park by the intervening street right-of-way. In fact, the noontime shading at the winter solstice, which is influenced by buildings to the south, would not be discernibly different from the

future No-Project scenario in the model, with existing height limits. Under both an existing and proposed height limits, approximately 40 percent of the park would be shaded at solar noon.

The *People's Plan* would have similar height limits around Alioto Mini Park to the height limits proposed in Options A and C, and therefore would have similar shadow impacts. The MCEJJ plan does not propose specific height limits, and thus cannot be evaluated as to shadow effects.

All future development in the Mission District would be subject to the Section 295 review process and the potential shadow impacts would be evaluated based on the guidelines of that code section. Future development in the area surrounding Alioto Mini Park would also be subject sitespecific environmental analysis. The fact that the Planning Commission could not approve a project determined to have significant shadow impacts on properties under the jurisdiction of the Recreation and Park Commission per Section 295 would limit potential new shadow impacts, compared to what could otherwise occur. However, it cannot be stated with certainty that compliance with Section 295 would always mitigate any potential significant effects under CEQA. Moreover, sites to the west, south and southeast of the park are occupied by one to three story structures and surface parking currently abuts the park to the north. These sites could be redeveloped with taller (40-foot) buildings without triggering Section 295. Therefore, under both existing height limits (the No-Project Alternative) and with implementation of the project, there could potentially be significant shadow impacts on Alioto Mini Park. As noted in the preceding tables, under existing height limits, up to 100 percent of the park could be shaded at the first and last Section 295 minutes in both the winter and summer solstices with full buildout in accordance with existing height limits. Potential impacts from future proposed development would be evaluated on a project-specific basis, and shadow effects could be limited through design of individual projects that takes into consideration shading effects on nearby parks. However, because the potential existing for new shadow, possibly in substantial amounts depending on subsequent individual proposal(s) that may be put forth, and because the feasibility of complete mitigation for potential new shadow impacts of currently unknown development proposals cannot be determined at this time, it cannot be concluded that this impact would be less than significant, and therefore the impact on this park is judged to be significant and unavoidable for all three rezoning options and for the No-Project Alternative.

#### 24th and York Mini Park

24th and York Mini Park is a small park that fronts on 24th Street on its south side and is surrounded by buildings on all other sides. Under all three rezoning options, the existing 40-foot height limits would be retained on all of the residential parcels to the north of the park. The height limit for parcels fronting along 24th Street itself would increase by 15 feet to 55 feet.

Because the park is small and directly abutted by other parcels on three sides, it would experience significant shading throughout the day, both under the future No-Project Alternative, at existing height limits, and with the proposed height limit increase along 24th Street. At build-out to the

existing (No-Project) 40-foot height limit, the park would experience some shadow at all parts of the day. For example, at the summer solstice, the park would be completely in shadow from the first Prop K minute until 9:15 a.m., when sunny areas begin to appear. It would be in full sun for only a few minutes around solar noon (1:12 p.m.). Then, the western edge of the park would begin to be shaded until it again would be in full shadow from 4:30 p.m. until the last Prop K minute. The only change in shadow under build-out with an increased height limit along 24th Street would be the patches of sun that begin to appear about 15 minutes later during the morning period.

The *People's Plan* would have the same height limits around the 24th and York Mini Park as the height limits proposed under the proposed rezoning options, and therefore would have similar shadow impacts. The MCEJJ plan does not propose specific height limits, and thus cannot be evaluated as to shadow effects.

All future development in the Mission would be subject to the Section 295 review process and the potential shadow impacts would be evaluated based on the guidelines of that code section. Future development in the area surrounding 24th and York Mini Park would also be subject site-specific environmental analysis. The fact that the Planning Commission could not approve a project determined to have significant shadow impacts on properties under the jurisdiction of the Recreation and Park Commission per Section 295 would limit potential new shadow impacts, compared to what could otherwise occur. However, it cannot be stated with certainty that compliance with Section 295 would always mitigate any potential significant effects under CEQA. Moreover, sites surrounding the park are occupied by buildings lower than the existing permitted height and could be redeveloped with taller (40-foot) buildings without triggering Section 295. Therefore, under both existing height limits (the No-Project Alternative) and with implementation of the project, there could potentially be significant shadow impacts on 24th and York Mini Park. As noted in the preceding tables, under existing height limits, up to 100 percent of the park could be shaded at the first and last Section 295 minutes in both the winter and summer solstices with full buildout in accordance with existing height limits. Potential impacts from future proposed development would be evaluated on a project-specific basis, and shadow effects could be limited through design of individual projects that takes into consideration shading effects on nearby parks. However, because the potential existing for new shadow, possibly in substantial amounts depending on subsequent individual proposal(s) that may be put forth, and because the feasibility of complete mitigation for potential new shadow impacts of currently unknown development proposals cannot be determined at this time, it cannot be concluded that this impact would be less than significant, and therefore the impact on this park is judged to be significant and unavoidable for all three rezoning options and for the No-Project Alternative.

#### James Rolph Jr. Playground

James Rolph Jr. Playground is in the southeastern corner of the Mission Neighborhood directly across Potrero Avenue from Potrero del Sol Park. The surrounding blocks, including those outside the project area across César Chávez to the south, currently have 40-foot height limits. Under all three re-zoning options, the 40-foot height limits would be maintained, except for a 15-foot increase to 55 feet on the west side of Potrero Avenue adjacent to the north side of the park.

This height increase on the northern edge of the park would not discernibly increase the extent or duration of shadow on the park either at the summer or winter solstice during the period from one hour after sunrise to one hour before sunset. This is because of the direction in relation to the park of the parcels that would see an increased height limit.

The *People's Plan* would have the same height limits around Rolph Playground as the height limits proposed under the proposed rezoning options, and therefore would have similar shadow impacts. The MCEJJ plan does not propose specific height limits, and thus cannot be evaluated as to shadow effects.

All future development in the Mission would be subject to the Section 295 review process and the potential shadow impacts would be evaluated based on the guidelines of that code section. Future development in the area surrounding James Rolph Jr. Playground would also be subject sitespecific environmental analysis. The presence of the elevated roadway ramps to the southeast, the generous street widths on the southern and eastern borders of the park and the fact that the Planning Commission could not approve a project determined to have significant shadow impacts on properties under the jurisdiction of the Recreation and Park Commission per Section 295 would limit potential new shadow impacts, compared to what could otherwise occur. However, it cannot be stated with certainty that compliance with Section 295 would always mitigate any potential significant effects under CEQA. Moreover, sites to the east of the park are occupied by one to two story buildings and could be redeveloped with taller (40-foot) buildings without triggering Section 295. Therefore, under both existing height limits (the No-Project Alternative) and with implementation of the project, there could potentially be significant shadow impacts on James Rolph Jr. Playground. As noted in the preceding tables, under existing height limits, at the last Section 295 minute, up to 65 percent of the park could be shaded summer and up to 70 percent in winter with full buildout in accordance with existing height limits. Potential impacts from future proposed development would be evaluated on a project-specific basis, and shadow effects could be limited through design of individual projects that takes into consideration shading effects on nearby parks. However, because the potential existing for new shadow, possibly in substantial amounts depending on subsequent individual proposal(s) that may be put forth, and because the feasibility of complete mitigation for potential new shadow impacts of currently unknown development proposals cannot be determined at this time, it cannot be concluded that this impact would be less than significant, and therefore the impact on this park is

judged to be significant and unavoidable for all three rezoning options and for the No-Project Alternative.

#### Showplace Square/Potrero Hill

#### Potrero del Sol Park

Potrero del Sol Park is located directly across Potrero Avenue from the James Rolph Jr. Playground. All the blocks surrounding the park currently have a maximum building height of 40 feet.

All three rezoning options would maintain the existing 40-foot building height limits on the blocks surrounding Potrero del Sol Park, except on the opposite side of Potrero Avenue from the park's northwestern corner, where the height limit would increase to 55 feet.

At the summer solstice, the only difference in potential shadow cast with the increased height limit would appear in the evening hours. Compared to the future No-Project scenario with existing height limits, shadow would be cast on the western edge of the park beginning at 6:00 p.m. rather than at 6:30 p.m. and would cover approximately five percent more of the park area by the last Prop K minute. At the winter solstice, some portion of the park would be shaded at all points during the day by buildings on adjacent parcels on the park's southern edge. Under the rezoning options, at the last Prop K minute, approximately 15 percent of the park would be shaded, compared with 10 percent of the park under the future No-Project scenario.

All future development in Showplace Square/Potrero Hill would be subject to the Section 295 review process and the potential shadow impacts would be evaluated based on the guidelines of that code section. Future development in the area surrounding Potrero del Sol Park would also be subject site-specific environmental analysis. The fact that the Planning Commission could not approve a project determined to have significant shadow impacts on properties under the jurisdiction of the Recreation and Park Commission per Section 295 would limit potential new shadow impacts, compared to what could otherwise occur. However, it cannot be stated with certainty that compliance with Section 295 would always mitigate any potential significant effects under CEQA. Moreover, several sites surrounding the park are occupied by buildings lower than the existing permitted height and could be redeveloped with taller (40-foot) buildings without triggering Section 295. Therefore, under both existing height limits (the No-Project Alternative) and with implementation of the project, there could potentially be significant shadow impacts on Potrero del Sol Park. As noted in the preceding tables, under existing height limits, up to 50 percent of the park could be shaded at the first Section 295 minute on the summer and winter solstices with full buildout in accordance with existing height limits. Potential impacts from future proposed development would be evaluated on a project-specific basis, and shadow effects could be limited through design of individual projects that takes into consideration shading effects on nearby parks. However, because the potential existing for new shadow, possibly in

substantial amounts depending on subsequent individual proposal(s) that may be put forth, and because the feasibility of complete mitigation for potential new shadow impacts of currently unknown development proposals cannot be determined at this time, it cannot be concluded that this impact would be less than significant, and therefore the impact on this park is judged to be significant and unavoidable for all three rezoning options and for the No-Project Alternative.

#### Jackson Playground

Jackson Playground fronts on four streets. Parcels across the street from all sides of the park currently have height limits of 40 feet. In Options A and C, the height limits on surrounding blocks would not change. Under Option B, the height limits for parcels fronting on 17th Street would increase from 40 to 45 feet.

Under the No-Project Alternative, with the existing 40-foot height limit, the park would be in full sun from 8:15 a.m. until 6:15 p.m. at the summer solstice. A shadow occupying approximately 25 percent of the park area would be present on the eastern side of the park at the first Prop K minute and on the western side at the last Prop K minute.

Under Option B, the five-foot height increase along 17th Street could result in small changes in the extent and duration of shadows cast. At the summer solstice, the park would still be in full sun from 8:15 a.m. until 6:15 p.m., except that a small shadow constituting less than two percent of the total park area would be present for 15 to 20 minutes after the start of and before the end of this full sun period. At the last Prop K minute, 30 percent of the park would be in shadow, compared to 25 percent under build-out under future No-Project conditions, at existing height limits, from buildings across 17th Street that would cast shadows on the northern edge of the park. No difference in shadow pattern or duration would be present at the winter solstice.

All future development in Showplace Square/Potrero Hill would be subject to the Section 295 review process and the potential shadow impacts would be evaluated based on the guidelines of that code section. Future development in the area surrounding Jackson Playground would also be subject site-specific environmental analysis. The fact that the Planning Commission could not approve a project determined to have significant shadow impacts on properties under the jurisdiction of the Recreation and Park Commission per Section 295 would limit potential new shadow impacts, compared to what could otherwise occur. However, it cannot be stated with certainty that compliance with Section 295 would always mitigate any potential significant effects under CEQA. With the exception of two four-story structures south of the park across Mariposa Street, the park is currently surrounded by one- to three-story structures as well as surface parking lots south, west and northwest of the park. These sites could be redeveloped with taller (40-foot) buildings without triggering Section 295. Therefore, under both existing height limits (the No-Project Alternative) and with implementation of the project, there could potentially be significant shadow impacts on Jackson Playground. As noted in the preceding tables, under existing height limits, up to 25 percent of the park could be shaded at the first and last Section 295 minutes in

summer and up to 40 percent of the park could be shaded at the last Section 295 minute in winter with full buildout in accordance with existing height limits. Potential impacts from future proposed development would be evaluated on a project-specific basis, and shadow effects could be limited through design of individual projects that takes into consideration shading effects on nearby parks. However, because the potential existing for new shadow, possibly in substantial amounts depending on subsequent individual proposal(s) that may be put forth, and because the feasibility of complete mitigation for potential new shadow impacts of currently unknown development proposals cannot be determined at this time, it cannot be concluded that this impact would be less than significant, and therefore the impact on this park is judged to be significant and unavoidable for all three rezoning options and for the No-Project Alternative.

#### **Central Waterfront**

#### Esprit Park

Esprit Park occupies the block between 19th, 20th, Minnesota and Indiana streets. 20th street has an elevated ramp that connects the Central Waterfront to Potrero Hill over the freeway. The elevated roadway has the potential to shade the park but would not be affected by the proposed rezoning project.

Currently, Esprit Park is surrounded by parcels with 50-foot height limits. Options A, B, and C all call for the height limits on parcels across 19th and Indiana streets from the park to increase by five feet, to 55 feet. One parcel across 20th Street from the park would decrease by ten feet.

The proposed five-foot height limit increase would have a minor impact on the duration of shadows on the park. Under the future No-Project scenario, with existing height limits, at the summer solstice, shadows would cover approximately 80 percent of the park area at the first Prop K minute (6:48 a.m.). The park would be in full sun from 8:30 a.m. until 5:30 p.m., when shadows would begin to be cast along its western edge, increasing to cover 90 percent of the park at the last Prop K minute (7:35 p.m.). With the five-foot height increase under Options A, B, and C, the model indicates the same shadow coverage at the first and final Prop K minutes, but a resumption of shadow on the western edge of the park at 5:00 p.m. rather than 5:30 p.m. Similarly, at the winter solstice, buildings constructed to the increased height limit would not discernibly increase shadow coverage at the beginning and end of the day, but would shorten the period of full sun on the park by approximately 15 minutes.

All future development in Showplace Square/Potrero Hill would be subject to the Section 295 review process and the potential shadow impacts would be evaluated based on the guidelines of that code section. Future development in the area surrounding Esprit Park would also be subject site-specific environmental analysis. The presence of the elevated roadway to the south and the fact that the Planning Commission could not approve a project determined to have significant shadow impacts on properties under the jurisdiction of the Recreation and Park Commission per

Section 295 would limit potential new shadow impacts, compared to what could otherwise occur. However, it cannot be stated with certainty that compliance with Section 295 would always mitigate any potential significant effects under CEQA. Moreover, sites surrounding the park are either empty or occupied by buildings lower than the existing permitted height and could be redeveloped with taller (40-foot) buildings without triggering Section 295. Therefore, under both existing height limits (the No-Project Alternative) and with implementation of the project, there could potentially be significant shadow impacts on Esprit Park. As noted in the preceding tables, under existing height limits, up to 80 percent of the park could be shaded at the last Section 295 minute in winter and up to 90 percent of the park could be shaded at the last Section 295 minute in summer with full buildout in accordance with existing height limits. Potential impacts from future proposed development would be evaluated on a project-specific basis, and shadow effects could be limited through design of individual projects that takes into consideration shading effects on nearby parks. However, because the potential existing for new shadow, possibly in substantial amounts depending on subsequent individual proposal(s) that may be put forth, and because the feasibility of complete mitigation for potential new shadow impacts of currently unknown development proposals cannot be determined at this time, it cannot be concluded that this impact would be less than significant, and therefore the impact on this park is judged to be significant and unavoidable for all three rezoning options and for the No-Project Alternative.

#### Warm Water Cove (Port of San Francisco jurisdiction)

The eastern and northern sides of the Warm Water Cove abut the San Francisco Bay, and would thus remain open. On the west and south sides of the park, adjacent parcels currently have a 40-foot height limit that would increase to 55 feet under all three rezoning options.

Under the future No-Project scenario with existing height limits, the park would not experience any shadow during summer mornings until 9:45 a.m., when a narrow shadow would begin to fall on the southern edge. The first shadows would begin to fall on the park's western edge at 2:15 p.m., increasing gradually to cover approximately 75 percent of the park by the last Prop K minute (7:35 p.m.). At the winter solstice, shadows would be cast on some portion of the park throughout the day, and would occupy approximately 90 percent of its area at the last Prop K minute (3:54 p.m.). However, the shoreline would remain in sun for much of the day, from sunrise until approximately 3:00 p.m.

With the proposed 15-foot height limit increase, the duration and extent of afternoon shadow would increase slightly, beginning along the park's western edge on the summer solstice at 2:00 p.m. instead of 2:15 p.m. and increasing to cover 90 percent of the park at the last Prop K minute. At the winter solstice, the extent of shadow would also increase somewhat in the evening, from 90 percent to 100 percent of the park at the last Prop K minute. However, most of the shoreline, where fishing activities occur, would remain in sun from sunrise until approximately 2:45 p.m.

The proposed 15-foot increase in height limits on the park's western and southern sides could increase the extent and duration of daily shadow cast on the Warm Water Cove park, if the adjacent parcels were redeveloped up to the proposed increased height limit. However, the increase in shadow duration—fifteen additional minutes in the afternoon/evening period—and extent—10 to 15 percent more of the park in the evening—would not have a significant adverse impact on the use of the park.

As noted in the preceding tables, up to 75 percent of the park could be shaded at the last Section 295 minute in summer and up to 90 percent of the park could be shaded at the last Section 295 minutes in winter with full buildout in accordance with existing height limits (No-Project Alternative). Under rezoning options A, B, and C, a substantial portion of the park, and all of the shoreline, would remain in the sun for most of the day. However, aside from a few low structures, sites immediately south and west of the park are currently undeveloped and could be developed with taller code-compliant buildings (40 foot) under existing height limits. Therefore, under both the No-Project Alternative and with implementation of the project, there could potentially be significant shadow impacts on the Warm Water Cove. Potential impacts from future proposed development would be evaluated on a project-specific basis, and shadow effects could be limited through design of individual projects that takes into consideration shading effects on nearby parks. However, because the potential existing for new shadow, possibly in substantial amounts depending on subsequent individual proposal(s) that may be put forth, and because the feasibility of complete mitigation for potential new shadow impacts of currently unknown development proposals cannot be determined at this time, it cannot be concluded that this impact would be less than significant, and therefore the impact on this park is judged to be significant and unavoidable for all three rezoning options and for the No-Project Alternative.

#### Wood Yard Mini-Park (Municipal Transportation Authority jurisdiction)

Wood Yard Mini Park is a small park that fronts on 22nd Street on its north side, Minnesota Street to its east and Indiana Street to its west. The park abuts a narrow surface parking lot on its south side. Under all three rezoning options, the existing 50-foot height limits would be increase by between 5 and 15 feet to the south and west and decrease by between 5 and 10 feet to the north and east. Height limits for the parcels to the north across 22nd Street would decrease by 5 feet to 45 feet and by 10 feet to 40 feet on the northeast corner of 22<sup>nd</sup> and Indiana Streets. To the east across Minnesota Street, height limits would decrease by 5 feet to 45 feet. West of the park, across Indiana Street, height limits would increase by 15 feet to 55 feet.

Because the park is small and directly abutted by other parcels on the south side, it would experience shading at the winter solstice both under the future No-Project Alternative, at existing height limits, and with the proposed height limit changes. Under the No-Project Alternative, with the existing 50-foot height limit, a shadow occupying approximately 25 percent of the park area

would be present at the first and last Prop K minutes. The park would be in full sun from 9:30 a.m. to 2:40 p.m.

Height limit changes under Options A, B, and C could result in minor changes in the extent and duration of shadows cast. At the first Prop K minute on the winter solstice, the 5 foot height limit decrease east of the park would reduce the percent of the park area shaded by 5 percent to 20 percent. Though the shadow would recede 10 minutes earlier and resume 20 minutes earlier than under future No-Project conditions, the park would still be in full sun for the majority of the day (9:20 a.m. to 2:20 p.m.). Under build-out with height increases along Indiana Street, 35 percent of the park would be in shadow at the last Prop K minute, compared to 25 percent under future No-Project conditions. No difference in shadow pattern or duration would be present at the summer solstice.

The proposed 15-foot increase in height limits on the park's western side could increase the duration and extent of daily shadow cast on the Wood Yard Mini Park, if the adjacent parcels were redeveloped up to the proposed increased height limit. However, the increase in shadow duration—10 additional minutes in the afternoon period—and extent—10 percent more of the park in the evening at the winter solstice—would not have a significant adverse impact on the use of the park. The park would remain in full sun for most of the day.

However, the site immediately to the south of the park is currently occupied by a surface parking lot and could be redeveloped with taller code-compliant buildings (50 foot) under existing height limits. Therefore, under both the No-Project Alternative and with implementation of the project, there could potentially be significant shadow impacts on the Wood Yard Mini-Park. Potential impacts from future proposed development would be evaluated on a project-specific basis, and shadow effects could be limited through design of individual projects that takes into consideration shading effects on nearby parks. However, because the potential existing for new shadow, possibly in substantial amounts depending on subsequent individual proposal(s) that may be put forth, and because the feasibility of complete mitigation for potential new shadow impacts of currently unknown development proposals cannot be determined at this time, it cannot be concluded that this impact would be less than significant, and therefore the impact on this park is judged to be significant and unavoidable for all three rezoning options and for the No-Project Alternative.

#### Shadow Impacts on Proposed Parks and Open Spaces

Two potential park sites within the project area have been identified in the Recreation and Park Department's Capital Plan. As these parks have not yet been constructed, potential shadow impacts on them are not identified as significant. If and when these properties become public parks, they would be subject to either Section 295 of the Planning Code if under the jurisdiction of the Recreation and Park Department, or to other applicable controls under the Planning Code.

## **Shadow Impacts on Sidewalks**

Where the project would include increases to the maximum building height, the extent and duration of shadows cast on public sidewalks could increase if and when individual properties are redeveloped up to the new height limits. The effect likely would be most noticeable along longer street corridors and where the proposed height limit increase would be greatest, such as along Folsom, Howard, Fourth and Sixth streets in East SoMa. However, even in these locations, the shadows that could be cast on sidewalks by buildings constructed up to the new height limits would not be in excess of that which would be normal and expected in a highly urban area. Furthermore, the policies set forth in the draft area plans for East SoMa, the Mission, and Showplace Square/Potrero Hill encourage all future development to adhere to alleyway sunlight access guidelines and to apply Streetscape Master Plan guidelines as proposed by the Planning Department (see Appendix B).

## Conclusion

The shadow effects of the project on public parks, publicly accessible open spaces, and public sidewalks can be summarized as follows:

While project would increase height limits around 12 Recreation and Park Department parks located within the project area, all potential increases in the extent or duration of shadow would be somewhat ameliorated by the fact that all proposed development would be subject to site-specific environmental review and any additions or new development over 40 feet in height to the provisions of Planning Code Section 295. Under Section 295, the Planning Commission could not approve a project determined to have significant shadow impacts on the use of a park property.

Three parks within the project area—the Alice Street Community Gardens in East SoMa and the Warm Water Cove and Wood Yard Mini-Park in the Central Waterfront—are under the jurisdiction of other agencies and hence not subject to Section 295 of the Planning Code. However, the height limit around Alice Street Community Gardens is already up to 130 feet, and the proposed five-foot height limit increase would not noticeably increase the duration of shadow or detract from the use of the space. The extent and duration of shadows on Warm Water Cove could increase with the proposed 15-foot height limit increase on the park's western and southern sides, but the park would still experience substantial sunlight throughout the day, particularly along the shoreline, and its usability would not be significantly affected. Neither would the increase in shadow duration and extent on Woods Yard Mini-Park have a significant adverse impact on the use of the park as it would remain in full sun for most of the day.

The extent and duration of shadow on public sidewalks could increase along street corridors where the project includes an increase in the maximum building height. However, this new shadow would not be in excess of that which would be expected in a highly urban area.

None of the potential increases in shadow would alter temperatures in such a way to substantially affect public areas or change the climate in the community or region.

Nevertheless it cannot be stated with certainty that compliance with Section 295 would always mitigate any potential significant effects under CEQA. Moreover, sites surrounding many of these parks could be redeveloped with taller buildings without triggering Section 295. Therefore, under both existing height limits (the No-Project Alternative) and with implementation of the project, there could potentially be significant shadow impacts in the project area parks. It cannot be concluded that this impact would be less than significant because of the potential existing for new shadow, possibly in substantial amounts depending on subsequent individual proposal(s) that may be put forth, and because the feasibility of complete mitigation for potential new shadow impacts of currently unknown development proposals cannot be determined at this time. Therefore the project impact with respect to shadow is judged to be significant and unavoidable for all three rezoning options and for the No-Project Alternative.

## **Cumulative Impacts**

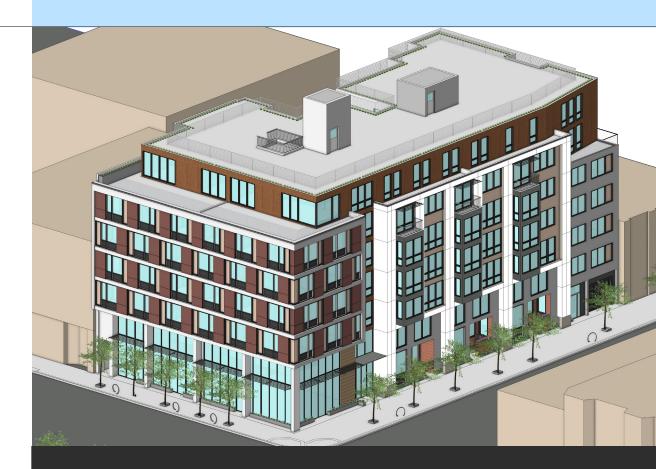
Shadow impacts from development resulting from project implementation is not likely to create cumulative impacts in conjunction with other potential development outside the project area, because the proposed Eastern Neighborhoods Rezoning and Area Plans would have jurisdiction over all future development in the project area. Therefore, no development not subject to the proposed rezoning and area plans is reasonably foreseeable.

# EXHIBIT 3



OCTOBER 30, 2018 FINAL

# SHADOW ANALYSIS REPORT FOR THE PROPOSED 1052 FOLSOM STREET PER SF PLANNING CODE SECTION 295 STANDARDS



FROM: ADAM PHILLIPS PRINCIPAL PREVISION DESIGN **TO:** 

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## I. INTRODUCTION AND OVERVIEW

This report describes the results of an analysis conducted by PreVision Design to identify the shadow effects that would be caused by the proposed construction of a seven-story commercial/residential project at 1052 Folsom Street ("the proposed project") on Victoria Manalo Draves Park, a public park protected under Section 295 of the San Francisco Planning Code. The project sponsor is Golden Properties, LLC, and the project architect is SIA Consulting.

The analysis was conducted according to criteria described in (1) the February 3, 1989 memorandum titled "Proposition K – The Sunlight Ordinance" adopted by the San Francisco Recreation and Park Commission (RPC) and the San Francisco Planning Commission ("the 1989 Proposition K memorandum"), and (2) the July 2014 memorandum titled "Shadow Analysis Procedures and Scope Requirements" prepared by the Planning Department.

This report includes a discussion of all criteria factored into the analysis: quantitative and qualitative reporting of new shadow generated by the project (including graphical detail of the location and extent of the project's shading), and a discussion of what modifications to the project would be required to eliminate all new shading on Victoria Manalo Draves Park. This report does not present opinions nor conclusions about whether or not the shadow from the proposed project would or should be considered significant/insignificant or acceptable/unacceptable. These determinations must be made by the San Francisco Planning Commission with input and recommendations from the RPC.



1052 Folsom Street Parks and Open Spaces 1 Victoria Manalo Draves Park 2 Gene Friend Recreation Center Cumulative Projects 1 988 Harrison Street **2** 363 6th Street **3** 345 6th Street 999 Folsom Street (5) 980 Folsom Street 6 850 Bryant St. (Hall of Justice) (7) 40 Cleveland Street (8) 1075-1089 Folsom Street (9) 280 7th Street



FIGURE 1: Area Map



FIGURE 2: Project Rendering @ Russ / Folsom Streets

## **II. PROPOSED PROJECT**

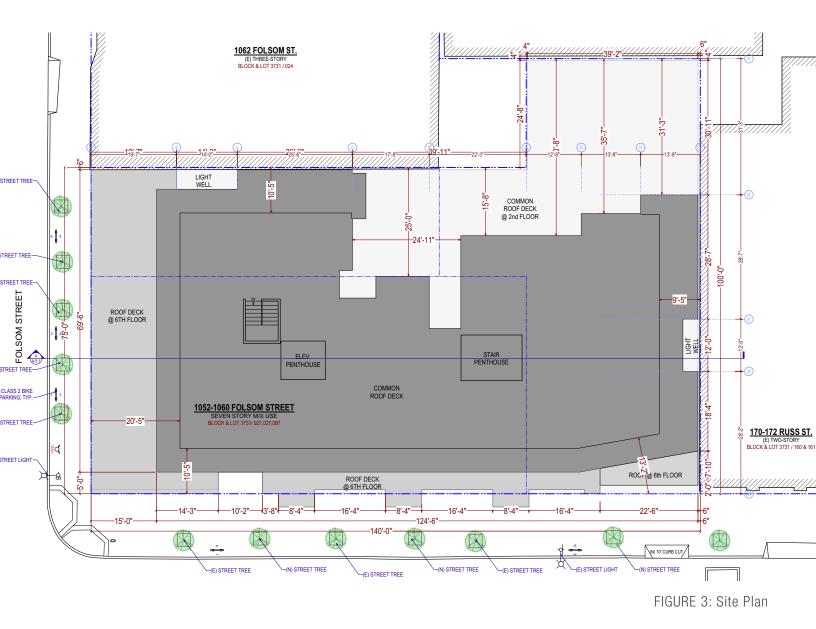
The proposed project would be located on a 11,494 sf lot in the South of Market (SOMA) neighborhood of San Francisco on Assessor's Block 3731 / Lots 21, 23 & 87. The project site is located in two zoning districts, the SOMA Neighborhood Commercial Transit District (SoMaNCT) and the South of Market Residential Enclave District (RED). It is in a 65-X Height & Bulk District, the Youth and Family Special Use District, and the Filipino Cultural Heritage District. Figure 1 shows the location of the proposed project.

The area surrounding the proposed project site features several different zoning designations in close proximity to one another, including SoMa NCT, RED, and Mixed Use-General (MUG). Height-bulk designations also vary between 45-X to 85- X. Existing buildings in the immediate vicinity represent a mix of residential and commercial uses and most are 2-4 stories in height.

The proposed project involves the demolition of four existing buildings located at 1052-1058 Folsom Street (two stories, with two residential units over ground floor commercial), 1060 Folsom Street (one story commercial), 192-194 Russ Street (three stories, with two residential units over ground floor storage), and 190 Russ Street (one

story commercial) and the erection of a new seven-story, 64'-6" (79'-6" including elevator/stair penthouse) mixed-use building. The first floor would include: 2,822-sf of commercial spaces along Folsom and Russ Streets, a parking garage with 17 vehicle parking spaces and 63 Class I and four Class II bicycle spaces for the residential units as well as six Class II bicycle spaces for non-residential uses, a residential entry foyer as well as entrances directly from the sidewalk to the three first floor residential units at the north end of the project along Russ Street. Above the ground level, 60 additional new residential units will be provided for a total of 63 units. The unit mix would include three studios, 23 one-bedroom units, and 37 two-bedroom units. The project would provide a total of 19 below market rate (BMR) units.

Figure 2 shows a rendering of the proposed project, Figure 3 shows the proposed project site plan, and Figure 4 shows proposed building elevations.





Proposed Front Elevation (Folsom Street)



Proposed Right Elevation (Russ Street) 3/16" = 1'-0"

FIGURE 4: Project Elevations



Children's Play Area



Ball Field



Park Benches

## **III. AFFECTED PARKS AND OPEN SPACES**

#### Victoria Manalo Draves Park

Victoria Manalo Draves Park is a public park under the jurisdiction of RPD. It is a 2.53 acre (109,997 sf) urban park located in the SOMA neighborhood of San Francisco on Assessor's Block 3754 / Lot 16. The park is bounded by Folsom Street to the northwest, Harrison Street to the southeast, Columbia Square to the northeast, and Sherman Street to the southwest. The park is enclosed by a 5-foot tall fence and locked at night. The stated hours of operation for Victoria Manalo Draves Park are from sunrise to sunset, 365 days per year. Figure 5 shows a site plan of Victoria Manalo Draves Park.

The park contains landscaped areas, walkways and areas for active and passive uses. Victoria Manalo Draves Park's primary public entrance is located on the corner of Folsom Street and Columbia Square. The entry diagonally bisects the northeast area of the park and is flanked on either side by grassy areas. The walkway branches off towards the center of the park, paths lead to the basketball court, a community garden, and 2 children's play areas to the south of the community garden with a variety of play structures. The northern play area is designed for younger children while the southern area has larger play equipment for older kids. To the east is an oval-shaped mounded





FIGURE 5: Victoria Manalo Draves Park



Park Entry / Main Path

grassy area which is ringed by fixed benches on the north/east/south sides. The walk continues to south/southeast along a walled playground and terminates in an east-west running transverse walkway which borders the ball field. This walkway connects a restroom structure and secondary public entrance at Sherman Street at the western edge to a third public entrance from Columbia Square to the east. South of the walkway are fixed picnic tables and the ball field.

#### Other Parks and Open Spaces

The proposed project would not cast new shadows on the Gene Friend Recreation Center nor any other public parks, privately owned public open spaces, nor the outdoor play area of the Bessie Carmichael Elementary School (SFUSD).

## **IV. SECTION 295 EVALUATION CRITERIA**

Proposed buildings that would be more than 40 feet tall and that could cause new shadow in parks under the control of the RPD are subject to review under Section 295 of the San Francisco Planning Code. Section 295 requires the Planning Commission to deny building permits for projects that would have adverse shadow impacts on these parks, unless the impacts are found to be insignificant<sup>1</sup>.

Following the direction provided by Section 295, an adverse impact is defined as the addition of new shadow from any development over 40 feet in height at any time throughout the year at times between one hour after sunrise through one hour before sunset, unless the Planning Commission, with input from the general manager of the RPD and the Recreation and Park Commission, determines that the impact would be insignificant. (In this report, the term "Section 295 cutoff times" refers to one hour after sunrise and one hour before sunset, and "Section 295 start time" refers to one hour after sunrise.)

#### Quantitative Evaluation Criteria

To guide the RPC and the Planning Commission in determining what levels of new shading may be permissible, the 1989 Proposition K memorandum establishes potentially acceptable new shadow level limits for parks and recreations centers under the jurisdiction of the Recreation and Park Department. Certain parks have specifically assigned potentially permissible limits, while most other parks are covered by generic standards tied to park size and the existing amount of annual shading that currently falls on the park. These limits are tied to the additional new square-foot-hours of shadow expressed as a percentage of the theoretical annual available sunlight (TAAS) for each park over a period of one year as shown below in Table 6.

PARK SIZE	CURRENT ANNUAL SHADING PERCENTAGE	POTENTIALLY PERMISSIBLE SHADING INCREASE
Parks smaller than 2 acres	20% or less	no standard established
	20% or more	0.0% (no increase)
Parks larger than 2 acres	20% or less	1.0%
	20%-40%	0.1%
	40% or more	no standard established

TABLE 6: Potentially Permissible Shading Increases

<sup>1</sup> Project-generated shadow is also often evaluated as part of environmental review under the California Environmental Quality Act (CEQA), however the threshold for significance under CEQA is different than under Section 295. Under CEQA, the new shadow would need to be shown to "substantially affect outdoor recreation facilities or other public areas".

Victoria Manalo Draves Park is 2.53 acre (109,997 sf) and as such, it is considered a large park under the 1989 Proposition K memorandum. As it is currently shaded 7.41% of the year, a maximum potentially permissible shading increase of 1.0% has been suggested by the 1989 Proposition K memorandum.

#### Qualitative Evaluation Criteria

The 1989 Proposition K memorandum establishes qualitative evaluation criteria for parks based on existing shadow profiles, important times of the day, important seasons in the year, size and duration of new shadows, and the service of public good by buildings that would cast new shadows. In particular, in order to be considered insignificant, new shadows must not adversely affect existing patterns of use in the park when evaluated by factors such as the value of sunlight and shadow characteristics (size, duration, and location).

## V. ANALYSIS METHODOLOGY

#### Quantitative Analysis

The shadow analysis completed by PreVision Design for the 1052 Folsom Street project used a 3D computer model of the proposed project, the park, and the surrounding urban environment to simulate and calculate both existing amounts of shading and levels of new shading (if any) that would be present with the addition of the proposed project during times protected under Section 295 which include one hour after sunrise through one hour before sunset. The analysis was conducted using solar angles from 1989 as established at the time of Proposition K's passage and reflect a "solar year", defined per city standards as June 21st through December 20th. The sun angles during the other side of the calendar year, (December 21st through June 20th), mirrors the "solar year" sun angles. Since the angles are mirrored, an analysis of the other half year is not conducted and instead a multiplier is used extrapolate the "solar year" results into full year results. To calculate levels of shading throughout the "solar year", snapshot analyses are performed at 15-minute intervals between Section 295 cutoff times every seven days throughout the "solar year". The difference between the current levels of shading and the levels of shading that would be present with the addition of the proposed project yields the total increase of project generated shadow, measured in annual square-foot-hours (sfh) of shadow. This increase is also taken as a percentage of the theoretically available annual sunlight (TAAS) for the park, which represents the amount of sun that would fall on the park throughout the year if there were no shading present at any time, to determine whether the new shadows created by the proposed

project would fall within or outside potentially permissible limits of increased shading for the park as established by the 1989 Memorandum. The findings of this quantitative analysis are discussed in Section VI.

#### Qualitative Analysis

To evaluate whether and how new shading might affect existing patterns of park use, PreVision Design conducted six site visits to the park to observe park use(s). Two site visits were performed in the morning, two at midday, and two late in the day, all within Section 295 cutoff times, with one set of visits on a weekday and one on a weekend. The findings of this qualitative analysis are discussed in Section VII.

#### Cumulative Shadow Analysis

This report also considers shadows that would be cast by other future projects in the vicinity of the proposed project that are both considered by the Planning Department to be "reasonably foreseeable" and would also potentially shade the parks or open spaces affected by the proposed project. Projects with net new shadow that would be cast on or near Victoria Manalo Draves Park are included in this report in order to determine the cumulative shadow that would be cast from these projects combined with the proposed project. The cumulative condition projects considered by this study include<sup>2</sup>:

CUMULATIVE PROJECT ADDRESS	PROJECT HEIGHT	DATE OF DESIGN DATA
280 7th Street	Approx 65'	4/7/2016
363 6th Street	Approx 85'	4/15/2017
345 6th Street	Approx 80'	4/15/2017
988 Harrison Street	Approx 84'	8/31/2015
999 Folsom Street	Approx 85'	4/15/2017
980 Folsom Street	Approx 100'	4/15/2017
850 Bryant Street (Hall of Justice)	Approx 95'	10/28/2014
40 Cleveland Street	Approx 40'	4/11/2016
1075-1089 Folsom Street	Approx 65'	3/15/2017

TABLE 7: Cumulative Condition Projects

<sup>2</sup> Several projects in the vicinity of the Victoria Manalo Draves park on the cumulative projects list prepared by San Francisco Planning (as of May 2018) have not been included as part of this study as their net new shadows would fall well short of the park. Proposed projects at 280 7th Street, 363 6th Street, 345 6th Street, 988 Harrison Street, 999 Folsom Street and 980 Folsom Street will also not cast net new shadow the park due to the presence of intervening buildings, however due to their proximity they have been included in the study for reference.

The impact of the included projects listed is discussed quantitatively and displayed graphically in the shadow diagrams in Exhibits B through D The findings of the cumulative shadow analysis are discussed as part of Section VI.

## **VI. QUANTITATIVE SHADOW MODELING FINDINGS**

Table 8 summarizes the existing condition data and quantitative shadow impacts of the proposed project on the park. The full quantitative calculations for shading conditions on the park on all 27 analysis dates are included as Exhibit E.

#### **Existing Conditions**

The park is a 2.53 acre (109,997 sf) public open space which currently experiences 30,345,597 annual square-foot-hours (sfh) of shadow. Based on a theoretical annual available sunlight (TAAS) of 409,342,836 sfh, the park is currently shaded 7.41% of the year. Existing shadows are cast by buildings surrounding the park on all 4 sides, with the southern and eastern sides of the park cast in shadow during morning hours, few shadows throughout the midday hours, with increasing shadows entering the park's western and northern sides in the afternoon.

#### Increase in Shadow from Proposed Project

The proposed project would result in new shadows falling on the park, adding approximately 1,569,594 net new annual sfh of shadow and increasing sfh of shadow by 0.38% above current levels, resulting in a new annual total shading of 7.79%.

#### Timing and Location of New Shadows from Proposed Project

New shadows from the proposed project would occur between approximately February 23th and October 17th annually, would enter the park in the late afternoon between approximately 5:15 and 6pm and be present though the remainder of the afternoon and evening. New shadows would occur in the northeastern quarter of the park and at various times cast new shadows on the park entry, the basketball court, the northern children's play area, lawn areas, and seven fixed benches. Exhibit A graphically represents the aggregate shadow boundary of areas receiving new shading from the proposed project throughout the year.

The days of maximum shading on the park due to the proposed project would occur on June 21, when the proposed project would shade the northeastern quarter of the park

THEORETICAL ANNUAL AVAILABLE SUNLIGHT (TAAS)	VICTORIA MANALO DRAVES PARK
Area of Victoria Manalo Draves Park	2.53 acres (109,997 sf)
Hours of annual available sunlight	3721.4 hrs
TAAS for Victoria Manalo Draves Park	409,342,836 sfh
EXISTING (CURRENT) LEVELS OF SHADOW	VICTORIA MANALO DRAVES PARK
Existing annual total shading on park (sfh)	30,345,597 sfh
Existing shading as percentage of TAAS	7.41%
NEW SHADOW CAST BY THE PROPOSED 1052 FOLSOM STREET PROJECT	VICTORIA MANALO DRAVES PARK
Additional annual shading on Victoria Manalo Draves Park from Project	1,569,594 sfh
Additional annual shading from Project as percentage of TAAS	0.38%
Combined total annual shading existing + Project (sfh)	31,915,191 sfh
Combined total annual shading from existing + Project as percentage of TAAS	7.79%
Number of days when new shading from Project would occur	225-237 days annually
Dates when new shadow from Project would be cast on Victoria Manalo Draves Park	Between approx. Feb 23 - Oct 17
Annual range in duration of new Project shadow	Zero to up to 110 min
Range in area of new Project shadow (sf)	Zero to 20,064 sf
Average daily duration of new Project shadow (when present)	Approx. 72 min.
MAXIMUM NEW SHADING BY THE PROPOSED PROJECT	VICTORIA MANALO DRAVES PARK
Dates of maximum new shading from proposed Project (max sfh)	June 21
Total new shading on date(s) of maximum shading (sfh)	13,194.89 sfh
Percentage new shadow on date(s) of maximum shading	0.94%
Date and duration of longest duration of new shading	Up to 110 min on June 21
Date and time of largest area of new Project shadow	20,064 sf on June 21 at 7:36 PM
Percentage of Victoria Manalo Draves Park covered by largest new shadow	18.24%

NEW SHADOW CAST BY THE PROPOSED PROJECT + CUMULATIVE	VICTORIA MANALO DRAVES PARK
Additional annual shading from Project + Cumulative only (sfh)	1,883,149 sfh
Additional annual shading from Project + Cumulative only as percentage of TAAS	0.46%
Combined total annual shading Existing + Project + Cumulative (sfh)	32,228,746 sfh
Combined shading from Existing + Project + Cumulative as percentage of TAAS	7.87%
Number of days when new shading from Project + Cumulative would occur	365 days annually
Dates when new shading from Project + Cumulative would occur	Year-round
Annual range in duration of new Project +Cumulative shadow (duration variance +/- 7 min.)	Approx. 24 min to approx. 103 min
Range in area of Project + Cumulative new shadows (sf)	Zero to 20,975 sf
Average daily duration of new Project + Cumulative shadow (when present)	Approx. 71 min.
PROPOSED PROJECT + CUMULATIVE MAX SHADING DAY(S)	VICTORIA MANALO DRAVES PARK
Dates of maximum Project + Cumulative new shading (max sfh)	June 21
Total new shading on date(s) of maximum shading (sfh)	13,358.82 sfh
Percentage new shading on date(s) of maximum shading	0.95%
Date and duration of longest duration of new shading (duration variance +/- 7 min.)	Approx. 103 min on June 21
Date and time of largest area of new Cumulative shadow	20,975 sf on June 21 at 7:36 PM
Percentage of Victoria Manalo Draves Park covered by largest new shadow	19.07%

TABLE 8: Project quantitative shading breakdown for Victoria Manalo Draves Park

starting between 5:46pm and 6pm and be present for between 96-110 minutes<sup>3</sup> within Section 295 times. The duration of proposed project-generated new shadow would vary throughout the year, with new shadow duration lasting between zero minutes up to a possible maximum duration of 110 minutes.

#### Increase in Shadow under Cumulative Conditions

Proposed projects at 1075 Folsom Street, 40 Cleveland Street, and 850 Bryant Street (Hall of Justice) would cast net new shadow on Victoria Manalo Draves Park and combined with the proposed project would result in an increase of 1,883,149 sfh of shadow on the park, compared to an increase of 1,569,594 sfh from the proposed project alone. This cumulative increase in sfh would represent a cumulative annual shading total of 7.87%, a cumulative increase of 0.46% over existing conditions. The increase in shading relative to the project alone would be 0.08%. Table 8 additionally includes a breakdown of shading for the cumulative condition shadow scenario.

## **VII. QUALITATIVE ANALYSIS**

#### **Observed Park Uses**

Within the six 30-minute observation periods conducted by PreVision Design between May 18 and May 20, 2018, the number of users in the park ranged from 4 to 68, with uses that varied at different times of day and days of the week. Observed park uses included children playing in the playground areas, eating lunch and resting on benches, walking dogs, playing basketball or soccer, barbecuing, working in the community garden and for a small portion of observed users, passing through the park. See Table 9 for an observation summary.

OBSERVATION TIME	DATE OF VISIT	USERS	TEMP - WEATHER
Weekday Morning	5/18/2018 9:30am	4	55° F – cloudy, light rain
Weekday Midday	5/21/2018 12:45pm	68	61° F – sunny
Weekday Afternoon	5/18/2018 5:50pm	31	58° F – partially sunny
Weekend Morning	5/19/2018 9:30am	39	59° F – sunny
Weekend Midday	5/19/2018 12:00pm	42	58° F – sunny
Weekend Afternoon	5/20/2018 5:20pm	4	59° F – partly cloudy

TABLE 9: Park Use Observations

<sup>3</sup> Due to the fact shading data is captured at 15-minute intervals, the precise duration of project shading is shown as range in possible maximum duration.

Overall, observed usage was higher during the weekday midday and afternoon visits as well as during the weekend morning and midday visits. The areas of highest use at these times were children using the playground areas, with fewer users occupying the other park features. On both morning visits and the weekday afternoon visit, one user was observed working in the community garden area. The observed intensity of use varied between the various observation times but could be characterized as low to moderate given the park's size. Observed peak use on May 21 corresponded to a ratio of approximately 1,615 square feet of park area per user.

#### The Value of Sunlight

The portions of Victoria Manalo Draves Park that would likely be more sensitive to the addition of new shadow would be those portions of the park that are: fixed in location, where users remain rather than pass through, observed to be well used. Based on the use observations performed, the basketball court, the children's play area, the park's fixed benches, and the tables and seating areas would be considered as the most sensitive areas per the criteria established above. Of these, approximately half of the basketball court, a small portion of children's play area, and seven fixed benches would receive new shadow from the project at some point during the periods affected by net new shadow, with potentially less sensitive areas such as the park entry, grassy areas, and walkways also receiving new shadow. The park's picnic benches, community garden, ball field and southern children's play area would receive no new shadow at any time throughout the year. New project shadow would be present at times when significantly lower numbers of weekend user were observed (relative to the number of observed users at the midday hour), while during weekday afternoons approximately half the number of park users were observed as compared to peak activity around midday. If the proposed project were to be built, users in the affected areas could be affected by the presence of new shadow, however no clear pattern of diminished use of shaded features (vs. unshaded features) was observed over the course of the park observation visits.

#### Shadow Characteristics

Throughout the year, new shadow due to the proposed project would occur in the northeastern quarter of the park (see Exhibit A), with new shadow being present for up to 110 minutes. On the date of maximum annual shading (June 21), the largest new shadow would occur at 7:36pm and cover 20,064 sf, equal to 18.24% of the total park area (existing shading at that time covers 30% of the park area). Maximum shading would occur at a time (7:36pm) when both existing and project shadows would be lengthening at an accelerated rate as compared to other times of day.



FIGURE 10: Largest new shadow on Victoria Manalo Draves Park (7:36pm on 6/21)



Proposed Project Existing (current) Shadows New Shading by Proposed Project New Shading from Cumulative Projects



6 280 7th St.

**Note:** Shadows from 345 6th Street, 999 Folsom Street, 980 Folsom and 850 Bryant Street (Hall of Justice) are considered as part of the analysis but these buildings fall outside the graphical view of this diagram. Exhibits B through D graphically illustrate shading conditions at hourly intervals throughout the day between the Section 295 cutoff times at the Summer Solstice/Day of Maximum Shading (June 21), near the Vernal and Autumnal Equinoxes (March 20 and September 22), and near the Winter Solstice (December 21).

#### Other Factors Affecting Sunlight

Per Planning Department direction, shadows cast by trees are considered "impermanent" and were therefore not accounted for in the quantitative shading analysis. However, on a practical basis, existing trees do contribute to the current shading present in Victoria Manalo Draves Park, which shape the experience and expectations of park users. The park is bounded by 13 large and densely foliated street trees along Columbia Square, Sherman, and Harrison Streets and 7 young street trees have also been planted in recent years along Folsom Street which would increasingly capture some of the shading of the proposed project. Inside the park, other trees separate the community garden from the basketball court and trees present beside the benches surrounding the oval grassy mound currently shade a portion of three northeastern park benches that would be shaded by the proposed project.

## **VIII. DEVELOPMENT ALTERNATIVES**

#### No New Shadow on Victoria Manalo Draves Park

The existing buildings on the project sites fronting onto Folsom Street all currently cast existing shadows onto Victoria Manalo Draves Park in the afternoon; therefore, any proposed project on those sites would be required to stay within the profile of these existing buildings (2 stories) in order to cast no additional new shadows on the park, while portions of the project along Russ Street further away from the park could potentially be up to 40' in height without generating new shadow.

To modify the project to eliminate all net new shadow would involve a reduction in height to match the elevation profiles of the existing buildings, shortening the project as proposed by approximately 25-40' and resulting in the likely elimination of approximately 38 to 42 of the 63 proposed residential units.

It should also be noted that a lesser reduction in height of the project to 40' would exempt the project from the requirements of Section295 review, even though new shadow would still be cast on Victoria Manalo Draves Park.

# EXHIBIT A: AGGREGATE SHADOW DIAGRAM

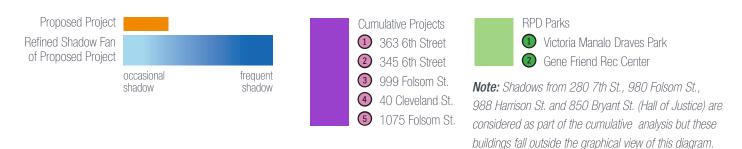
A1 - Areas of new shading from project (full-year)

Diagram showing extents of all areas receiving new shadow from the proposed project at *some* point during the year.





**REFINED SHADOW FAN** 



# EXHIBIT B: SHADOW DIAGRAMS ON SUMMER SOLSTICE

B1 - June 21 / Day of Maximum Project Shading

Diagrams at one hour intervals starting one hour after sunrise to one hour prior to sunset, and at 15 minute intervals when project shading is present within the park.









Proposed Project Existing (current) Shadows New Shading by Proposed Project New Shading from Cumulative Projects **Note:** Shadows from 980 Folsom, 988 Harrison, and 850 Bryant (Hall of Justice) are considered as part of the analysis but these buildings fall outside the graphical view of this diagram.

Cumulative Projects

 1
 363 6th Street

 2
 345 6th Street

 3
 999 Folsom St.

 4
 40 Cleveland St.

 5
 1075-1089 Folsom St.

 6
 280 7th St.

### 6:46 AM











Proposed Project Existing (current) Shadows New Shading by Proposed Project New Shading from Cumulative Projects Note: Shadows from 980 Folsom, 988 Harrison, and 850 Bryant (Hall of Justice) are considered as part of the analysis but these buildings fall outside the graphical view of this diagram.

Cun	nulative Projects
1	363 6th Street
2	345 6th Street
3	999 Folsom St.
4	40 Cleveland St.
5	1075-1089 Folso

6 280 7th St.

)89 Folsom St.

### 7:00 AM









Proposed Project Existing (current) Shadows New Shading by Proposed Project New Shading from Cumulative Projects Note: Shadows from 980 Folsom, 988 Harrison, and 850 Bryant (Hall of Justice) are considered as part of the analysis but these buildings fall outside the graphical view of this diagram.



6 280 7th St.

## 8:00 AM









Proposed Project Existing (current) Shadows New Shading by Proposed Project New Shading from Cumulative Projects **Note:** Shadows from 980 Folsom, 988 Harrison, and 850 Bryant (Hall of Justice) are considered as part of the analysis but these buildings fall outside the graphical view of this diagram.

Cun	nulative Projects
1	363 6th Street
2	345 6th Street
3	999 Folsom St.
4	40 Cleveland St.
5	1075-1089 Folsom St.
6	280 7th St.











Proposed Project Existing (current) Shadows New Shading by Proposed Project New Shading from Cumulative Projects **Note:** Shadows from 980 Folsom, 988 Harrison, and 850 Bryant (Hall of Justice) are considered as part of the analysis but these buildings fall outside the graphical view of this diagram.

Cun	nulative Projects
1	363 6th Street
2	345 6th Street
3	999 Folsom St.

- 40 Cleveland St.
- 5 1075-1089 Folsom St.
  6 280 7th St.











Proposed Project Existing (current) Shadows New Shading by Proposed Project New Shading from Cumulative Projects **Note:** Shadows from 980 Folsom, 988 Harrison, and 850 Bryant (Hall of Justice) are considered as part of the analysis but these buildings fall outside the graphical view of this diagram.

nulative Projects
363 6th Street
345 6th Street
999 Folsom St.
40 Cleveland St.

6 280 7th St.

**(5)** 1075-1089 Folsom St.













Proposed Project Existing (current) Shadows New Shading by Proposed Project New Shading from Cumulative Projects **Note:** Shadows from 980 Folsom, 988 Harrison, and 850 Bryant (Hall of Justice) are considered as part of the analysis but these buildings fall outside the graphical view of this diagram.

Cumulative Projects 363 6th Street 345 6th Street 999 Folsom St. 40 Cleveland St.

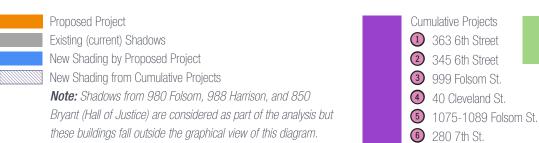
5 1075-1089 Folsom St.
6 280 7th St.



















#### Proposed Project Cumulative Projects **RPD** Parks 1 363 6th Street 1 Victoria Manalo Draves Park Existing (current) Shadows 2 Gene Friend Rec Center New Shading by Proposed Project 2 345 6th Street New Shading from Cumulative Projects 3 999 Folsom St. Note: Shadows from 980 Folsom, 988 Harrison, and 850 40 Cleveland St. Bryant (Hall of Justice) are considered as part of the analysis but **(5)** 1075-1089 Folsom St. these buildings fall outside the graphical view of this diagram. 6 280 7th St.



















Proposed Project Existing (current) Shadows New Shading by Proposed Project New Shading from Cumulative Projects **Note:** Shadows from 980 Folsom, 988 Harrison, and 850 Bryant (Hall of Justice) are considered as part of the analysis but these buildings fall outside the graphical view of this diagram.

Cun	nulative Projects
1	363 6th Street
2	345 6th Street
3	999 Folsom St.
4	40 Cleveland St.
5	1075-1089 Folsom St.

6 280 7th St.











Proposed Project Existing (current) Shadows New Shading by Proposed Project New Shading from Cumulative Projects **Note:** Shadows from 980 Folsom, 988 Harrison, and 850 Bryant (Hall of Justice) are considered as part of the analysis but these buildings fall outside the graphical view of this diagram.

Cun	nulative Projects
1	363 6th Street
2	345 6th Street
3	999 Folsom St.
4	40 Cleveland St.
5	1075-1089 Folsom
6	280 7th St.

St.

### **5:00 PM**









Proposed Project Existing (current) Shadows New Shading by Proposed Project New Shading from Cumulative Projects **Note:** Shadows from 980 Folsom, 988 Harrison, and 850 Bryant (Hall of Justice) are considered as part of the analysis but these buildings fall outside the graphical view of this diagram.

Cun	nulative Projects
1	363 6th Street
2	345 6th Street
3	999 Folsom St.
4	40 Cleveland St.
5	1075-1089 Folsom St.
6	280 7th St.

### 6:00 PM









Proposed Project Existing (current) Shadows New Shading by Proposed Project New Shading from Cumulative Projects **Note:** Shadows from 980 Folsom, 988 Harrison, and 850 Bryant (Hall of Justice) are considered as part of the analysis but these buildings fall outside the graphical view of this diagram.

Cun	nulative Projects
1	363 6th Street
2	345 6th Street
3	999 Folsom St.
4	40 Cleveland St.
5	1075-1089 Folsom St.
6	280 7th St.

### 6:15 PM









Proposed Project Existing (current) Shadows New Shading by Proposed Project New Shading from Cumulative Projects **Note:** Shadows from 980 Folsom, 988 Harrison, and 850 Bryant (Hall of Justice) are considered as part of the analysis but these buildings fall outside the graphical view of this diagram.



### 6:30 PM









Proposed Project Existing (current) Shadows New Shading by Proposed Project New Shading from Cumulative Projects **Note:** Shadows from 980 Folsom, 988 Harrison, and 850 Bryant (Hall of Justice) are considered as part of the analysis but these buildings fall outside the graphical view of this diagram.

Cun	nulative Projects
1	363 6th Street
2	345 6th Street
3	999 Folsom St.
4	40 Cleveland St.
5	1075-1089 Folsom St.
6	280 7th St.

### 6:45 PM











Proposed Project Existing (current) Shadows New Shading by Proposed Project New Shading from Cumulative Projects **Note:** Shadows from 980 Folsom, 988 Harrison, and 850 Bryant (Hall of Justice) are considered as part of the analysis but these buildings fall outside the graphical view of this diagram.

Cun	nulative Projects
1	363 6th Street
2	345 6th Street
3	999 Folsom St.
4	40 Cleveland St.
5	1075-1089 Folsom
6	280 7th St.

St.











Proposed Project Existing (current) Shadows New Shading by Proposed Project New Shading from Cumulative Projects **Note:** Shadows from 980 Folsom, 988 Harrison, and 850 Bryant (Hall of Justice) are considered as part of the analysis but these buildings fall outside the graphical view of this diagram.

Cun	nulative Projects
1	363 6th Street
2	345 6th Street
3	999 Folsom St.
4	40 Cleveland St.
5	1075-1089 Folsom St.
6	280 7th St.

### 7:15 PM

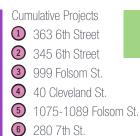








Proposed Project Existing (current) Shadows New Shading by Proposed Project New Shading from Cumulative Projects **Note:** Shadows from 980 Folsom, 988 Harrison, and 850 Bryant (Hall of Justice) are considered as part of the analysis but these buildings fall outside the graphical view of this diagram.



### 7:36 PM



### EXHIBIT C: SHADOW DIAGRAMS NEAR EQUINOXES

C1 - September 20 (Autumnal), March 22 (Vernal) similar

Diagrams at one hour intervals starting one hour after sunrise to one hour prior to sunset.







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Proposed Project Existing (current) Shadows New Shading by Proposed Project New Shading from Cumulative Projects **Note:** Shadows from 980 Folsom, 988 Harrison, and 850 Bryant (Hall of Justice) are considered as part of the analysis but these buildings fall outside the graphical view of this diagram.

Cun	nulative Projects	
1	363 6th Street	
2	345 6th Street	
3	999 Folsom St.	
4	40 Cleveland St.	
5	1075-1089 Folsom	St.
6	280 7th St.	

## **7:57 AM**









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Proposed Project Existing (current) Shadows New Shading by Proposed Project New Shading from Cumulative Projects **Note:** Shadows from 980 Folsom, 988 Harrison, and 850 Bryant (Hall of Justice) are considered as part of the analysis but these buildings fall outside the graphical view of this diagram.

Cun	nulative Projects	
1	363 6th Street	
2	345 6th Street	
3	999 Folsom St.	
4	40 Cleveland St.	
5	1075-1089 Folsom	St.
6	280 7th St.	









Proposed Project Existing (current) Shadows New Shading by Proposed Project New Shading from Cumulative Projects **Note:** Shadows from 980 Folsom, 988 Harrison, and 850 Bryant (Hall of Justice) are considered as part of the analysis but these buildings fall outside the graphical view of this diagram.

Cun	nulative Projects
1	363 6th Street
2	345 6th Street
3	999 Folsom St.
4	40 Cleveland St.
5	1075-1089 Fols
6	280 7th St.

Folsom St.









Proposed Project Existing (current) Shadows New Shading by Proposed Project New Shading from Cumulative Projects **Note:** Shadows from 980 Folsom, 988 Harrison, and 850 Bryant (Hall of Justice) are considered as part of the analysis but these buildings fall outside the graphical view of this diagram.

Cun	nulative Projects	
1	363 6th Street	
2	345 6th Street	
3	999 Folsom St.	
4	40 Cleveland St.	
5	1075-1089 Folsom	St.
6	280 7th St.	









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Proposed Project Existing (current) Shadows New Shading by Proposed Project New Shading from Cumulative Projects **Note:** Shadows from 980 Folsom, 988 Harrison, and 850 Bryant (Hall of Justice) are considered as part of the analysis but these buildings fall outside the graphical view of this diagram.

Cun	nulative Projects	
1	363 6th Street	
2	345 6th Street	
3	999 Folsom St.	
4	40 Cleveland St.	
5	1075-1089 Folsom	St.
6	280 7th St.	









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Proposed Project Existing (current) Shadows New Shading by Proposed Project New Shading from Cumulative Projects **Note:** Shadows from 980 Folsom, 988 Harrison, and 850 Bryant (Hall of Justice) are considered as part of the analysis but these buildings fall outside the graphical view of this diagram.

Cun	nulative Projects	
1	363 6th Street	
2	345 6th Street	
3	999 Folsom St.	
4	40 Cleveland St.	
5	1075-1089 Folsom	St.
6	280 7th St.	









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Proposed Project Existing (current) Shadows New Shading by Proposed Project New Shading from Cumulative Projects **Note:** Shadows from 980 Folsom, 988 Harrison, and 850 Bryant (Hall of Justice) are considered as part of the analysis but these buildings fall outside the graphical view of this diagram.

Cur	nulative Projects
1	363 6th Street
2	345 6th Street
3	999 Folsom St.
4	40 Cleveland St.
5	1075-1089 Folsom St.
6	280 7th St.









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Proposed Project Existing (current) Shadows New Shading by Proposed Project New Shading from Cumulative Projects **Note:** Shadows from 980 Folsom, 988 Harrison, and 850 Bryant (Hall of Justice) are considered as part of the analysis but these buildings fall outside the graphical view of this diagram.

Cun	nulative Projects
1	363 6th Street
2	345 6th Street
3	999 Folsom St.
4	40 Cleveland St.
5	1075-1089 Folsom St.
6	280 7th St.









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Proposed Project Existing (current) Shadows New Shading by Proposed Project New Shading from Cumulative Projects **Note:** Shadows from 980 Folsom, 988 Harrison, and 850 Bryant (Hall of Justice) are considered as part of the analysis but these buildings fall outside the graphical view of this diagram.

Cun	nulative Projects
1	363 6th Street
2	345 6th Street
3	999 Folsom St.
4	40 Cleveland St.
5	1075-1089 Folsom St.
6	280 7th St.

### 3:00 PM







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Proposed Project Existing (current) Shadows New Shading by Proposed Project New Shading from Cumulative Projects **Note:** Shadows from 980 Folsom, 988 Harrison, and 850 Bryant (Hall of Justice) are considered as part of the analysis but these buildings fall outside the graphical view of this diagram.

Cun	nulative Projects
1	363 6th Street
2	345 6th Street
3	999 Folsom St.
4	40 Cleveland St.
5	1075-1089 Folsom St.
6	280 7th St.









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Proposed Project Existing (current) Shadows New Shading by Proposed Project New Shading from Cumulative Projects **Note:** Shadows from 980 Folsom, 988 Harrison, and 850 Bryant (Hall of Justice) are considered as part of the analysis but these buildings fall outside the graphical view of this diagram.

Cun	nulative Projects	
1	363 6th Street	
2	345 6th Street	
3	999 Folsom St.	
4	40 Cleveland St.	
5	1075-1089 Folsom	St.
6	280 7th St.	

### **5:00 PM**







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Proposed Project Existing (current) Shadows New Shading by Proposed Project New Shading from Cumulative Projects **Note:** Shadows from 980 Folsom, 988 Harrison, and 850 Bryant (Hall of Justice) are considered as part of the analysis but these buildings fall outside the graphical view of this diagram.

Cun	nulative Projects
1	363 6th Street
2	345 6th Street
3	999 Folsom St.
4	40 Cleveland St.
5	1075-1089 Folsom St.
6	280 7th St.









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÷			
	 		2

Proposed Project Existing (current) Shadows New Shading by Proposed Project New Shading from Cumulative Projects **Note:** Shadows from 980 Folsom, 988 Harrison, and 850 Bryant (Hall of Justice) are considered as part of the analysis but these buildings fall outside the graphical view of this diagram.

Cun	nulative Projects
1	363 6th Street
2	345 6th Street
3	999 Folsom St.
4	40 Cleveland St.
5	1075-1089 Folsom St.
6	280 7th St.

### 6:09 PM



### EXHIBIT D: SHADOW DIAGRAMS ON WINTER SOLSTICE

D1 - December 20

Diagrams at one hour intervals starting one hour after sunrise to one hour prior to sunset.



**D1.1 1052 FOLSOM STREET** Shading diagrams on the Winter Solstice



Proposed Project Existing (current) Shadows New Shading by Proposed Project New Shading from Cumulative Projects **Note:** Shadows from 980 Folsom, 988 Harrison, and 850 Bryant (Hall of Justice) are considered as part of the analysis but these buildings fall outside the graphical view of this diagram.

#### WINTER SOLSTICE DECEMBER 20



### 8:19 AM









#### WINTER SOLSTICE DECEMBER 20



Proposed Project Existing (current) Shadows New Shading by Proposed Project New Shading from Cumulative Projects **Note:** Shadows from 980 Folsom, 988 Harrison, and 850 Bryant (Hall of Justice) are considered as part of the analysis but these buildings fall outside the graphical view of this diagram.

Cumulative Projects 363 6th Street
 345 6th Street
 999 Folsom St.
 40 Cleveland St.
 1075-1089 Folsom St.
 280 7th St.









Proposed Project Existing (current) Shadows New Shading by Proposed Project New Shading from Cumulative Projects **Note:** Shadows from 980 Folsom, 988 Harrison, and 850 Bryant (Hall of Justice) are considered as part of the analysis but these buildings fall outside the graphical view of this diagram.

### WINTER SOLSTICE DECEMBER 20

Cumulative Projects

363 6th Street
345 6th Street
999 Folsom St.
40 Cleveland St.
1075-1089 Folsom St.

6 280 7th St.

# 10:00 AM









Proposed Project Existing (current) Shadows New Shading by Proposed Project New Shading from Cumulative Projects **Note:** Shadows from 980 Folsom, 988 Harrison, and 850 Bryant (Hall of Justice) are considered as part of the analysis but these buildings fall outside the graphical view of this diagram.

### WINTER SOLSTICE DECEMBER 20

Cumulative Projects 363 6th Street
 345 6th Street
 999 Folsom St.
 40 Cleveland St.
 1075-1089 Folsom St.
 280 7th St.

# 11:00 AM









Proposed Project Existing (current) Shadows New Shading by Proposed Project New Shading from Cumulative Projects

### WINTER SOLSTICE **DECEMBER 20**

Cumulative Projects 1 363 6th Street 2 345 6th Street 3 999 Folsom St. 40 Cleveland St. **(5)** 1075-1089 Folsom St. 6 280 7th St.

# 12:00 PM



Note: Shadows from 980 Folsom, 988 Harrison, and 850 Bryant (Hall of Justice) are considered as part of the analysis but these buildings fall outside the graphical view of this diagram.







Proposed Project Existing (current) Shadows New Shading by Proposed Project New Shading from Cumulative Projects **Note:** Shadows from 980 Folsom, 988 Harrison, and 850 Bryant (Hall of Justice) are considered as part of the analysis but these buildings fall outside the graphical view of this diagram.

### WINTER SOLSTICE DECEMBER 20



# 1:00 PM

RPD Parks
Victoria Manalo Draves Park
Gene Friend Rec Center



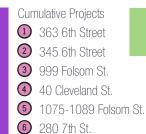






Proposed Project Existing (current) Shadows New Shading by Proposed Project New Shading from Cumulative Projects **Note:** Shadows from 980 Folsom, 988 Harrison, and 850 Bryant (Hall of Justice) are considered as part of the analysis but these buildings fall outside the graphical view of this diagram.

#### WINTER SOLSTICE DECEMBER 20



# 2:00 PM





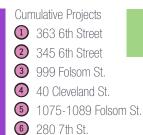




#### WINTER SOLSTICE DECEMBER 20



Proposed Project Existing (current) Shadows New Shading by Proposed Project New Shading from Cumulative Projects **Note:** Shadows from 980 Folsom, 988 Harrison, and 850 Bryant (Hall of Justice) are considered as part of the analysis but these buildings fall outside the graphical view of this diagram.



# 3:00 PM









Proposed Project Existing (current) Shadows New Shading by Proposed Project New Shading from Cumulative Projects **Note:** Shadows from 980 Folsom, 988 Harrison, and 850 Bryant (Hall of Justice) are considered as part of the analysis but these buildings fall outside the graphical view of this diagram.

#### WINTER SOLSTICE DECEMBER 20



# **3:54 PM**



### EXHIBIT E: QUANTITATIVE SHADING DATA

Quantitative Shading Data for Victoria Manalo Draves Park

Shadow data for existing conditions, new shading from project, and cumulative condition shading

### **JUNE 21**

#### Analysis Hours: 6:46 AM-7:36 PM (PDT)

#### SUMMER SOLSTICE

Analysis Time	CURRENT SHADOW			NEW SHADOW FROM 1052 FOLSOM STREET			1052 FOLSOM STREET + CUMULATIVE SHADOW			
Analysis Time	Area (sf)	Area/Time (sfh)	Coverage	Area (sf)	Area/Time (sfh)	Coverage	Area (sf)	Area/Time (sfh)	Coverage	
6:46 AM	62,106.43	6831.71	56.5%	0.00	0.00	0.0%	0.00	0.00	0.0%	
7:00 AM	43,483.91	10001.30	39.5%	0.00	0.00	0.0%	0.00	0.00	0.0%	
7:15 AM	32,607.66	8151.92	29.6%	0.00	0.00	0.0%	0.00	0.00	0.0%	
7:30 AM	21,984.76	5496.19	20.0%	0.00	0.00	0.0%	0.00	0.00	0.0%	
7:45 AM	15,686.98	3921.74	14.3%	0.00	0.00	0.0%	0.00	0.00	0.0%	
8:00 AM	10,286.72	2571.68	9.4%	0.00	0.00	0.0%	0.00	0.00	0.0%	
8:15 AM	7,770.83	1942.71	7.1%	0.00	0.00	0.0%	0.00	0.00	0.0%	
8:30 AM	5,559.57	1389.89	5.1%	0.00	0.00	0.0%	0.00	0.00	0.0%	
8:45 AM	4,811.87	1202.97	4.4%	0.00	0.00	0.0%	0.00	0.00	0.0%	
9:00 AM	3,519.98	879.99	3.2%	0.00	0.00	0.0%	0.00	0.00	0.0%	
9:15 AM	3,304.95	826.24	3.0%	0.00	0.00	0.0%	0.00	0.00	0.0%	
9:30 AM	2,537.00	634.25	2.3%	0.00	0.00	0.0%	0.00	0.00	0.0%	
9:45 AM	2,840.56	710.14	2.6%	0.00	0.00	0.0%	0.00	0.00	0.0%	
10:00 AM	2,044.26	511.07	1.9%	0.00	0.00	0.0%	0.00	0.00	0.0%	
10:15 AM	2,560.12	640.03	2.3%	0.00	0.00	0.0%	0.00	0.00	0.0%	
10:30 AM	2,127.99	532.00	1.9%	0.00	0.00	0.0%	0.00	0.00	0.0%	
10:45 AM	1,986.21	496.55	1.8%	0.00	0.00	0.0%	0.00	0.00	0.0%	
11:00 AM	1,854.04	463.51	1.7%	0.00	0.00	0.0%	0.00	0.00	0.0%	
11:15 AM	1,733.21	433.30	1.6%	0.00	0.00	0.0%	0.00	0.00	0.0%	
11:30 AM	1,622.37	405.59	1.5%	0.00	0.00	0.0%	0.00	0.00	0.0%	
11:45 AM	1,520.96	380.24	1.4%	0.00	0.00	0.0%	0.00	0.00	0.0%	
12:00 PM	1,425.62	356.40	1.3%	0.00	0.00	0.0%	0.00	0.00	0.0%	
12:15 PM	1,351.18	337.80	1.2%	0.00	0.00	0.0%	0.00	0.00	0.0%	
12:30 PM	1,297.95	324.49	1.2%	0.00	0.00	0.0%	0.00	0.00	0.0%	
	,		1.2%	0.00		0.0%	0.00	0.00	0.0%	
12:45 PM	1,273.94	318.49			0.00					
1:00 PM	1,246.80	311.70	1.1%	0.00	0.00	0.0%	0.00	0.00	0.0%	
1:15 PM	1,254.28	313.57	-		0.00					
1:30 PM	1,257.02	314.25	1.1%	0.00	0.00	0.0%	0.00	0.00	0.0%	
1:45 PM	1,289.94	322.49	1.2%	0.00	0.00	0.0%	0.00	0.00	0.0%	
2:00 PM	1,319.30	329.82	1.2%	0.00	0.00	0.0%	0.00	0.00	0.0%	
2:15 PM	1,393.93	348.48	1.3%	0.00	0.00	0.0%	0.00	0.00	0.0%	
2:30 PM	1,487.20	371.80	1.4%	0.00	0.00	0.0%	0.00	0.00	0.0%	
2:45 PM	1,589.58	397.40	1.4%	0.00	0.00	0.0%	0.00	0.00	0.0%	
3:00 PM	1,698.20	424.55	1.5%	0.00	0.00	0.0%	0.00	0.00	0.0%	
3:15 PM	2,068.84	517.21	1.9%	0.00	0.00	0.0%	0.00	0.00	0.0%	
3:30 PM	1,940.67	485.17	1.8%	0.00	0.00	0.0%	0.00	0.00	0.0%	
3:45 PM	2,081.18	520.30	1.9%	0.00	0.00	0.0%	0.00	0.00	0.0%	
4:00 PM	2,212.55	553.14	2.0%	0.00	0.00	0.0%	0.00	0.00	0.0%	
4:15 PM	2,138.57	534.64	1.9%	0.00	0.00	0.0%	0.00	0.00	0.0%	
4:30 PM	2,524.28	631.07	2.3%	0.00	0.00	0.0%	0.00	0.00	0.0%	
4:45 PM	2,310.01	577.50	2.1%	0.00	0.00	0.0%	0.00	0.00	0.0%	
5:00 PM	2,907.67	726.92	2.6%	0.00	0.00	0.0%	0.00	0.00	0.0%	
5:15 PM	3,200.28	800.07	2.9%	0.00	0.00	0.0%	0.00	0.00	0.0%	
5:30 PM	3,627.28	906.82	3.3%	0.00	0.00	0.0%	0.00	0.00	0.0%	
5:45 PM	4,326.34	1081.59	3.9%	0.00	0.00	0.0%	0.00	0.00	0.0%	
6:00 PM	5,153.90	1288.48	4.7%	618.50	154.63	0.6%	618.50	154.63	0.6%	
6:15 PM	6,130.59	1532.65	5.6%	1,876.17	469.04	1.7%	1,876.17	469.04	1.7%	
6:30 PM	7,424.80	1856.20	6.7%	3,730.26	932.56	3.4%	3,730.26	932.56	3.4%	
6:45 PM	9,834.21	2458.55	8.9%	6,442.15	1610.54	5.9%	6,442.15	1610.54	5.9%	
7:00 PM	13,674.64	3418.66	12.4%	9,655.82	2413.95	8.8%	9,655.82	2413.95	8.8%	
7:15 PM	19,749.83	5924.95	18.0%	13,342.30	4002.69	12.1%	13,342.30	4002.69	12.1%	
7:36 PM	33,038.12	5946.86	30.0%	20,063.78	3611.48	18.2%	20,974.51	3775.41	19.1%	

### **JUNE 28**

#### Analysis Hours: 6:48 AM-7:36 PM (PDT)

#### JUNE 14 SIMILAR

Analysis Time		CURRENT SHADOV		NEW SHADO	W FROM 1052 FOI	SOM STREET	1052 FOLSOM	STREET + CUMUL	ATIVE SHADOW
Analysis fille	Area (sf)	Area/Time (sfh)	Coverage	Area (sf)	Area/Time (sfh)	Coverage	Area (sf)	Area/Time (sfh)	Coverage
6:48 AM	61,874.99	6187.50	56.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
7:00 AM	45,942.43	10107.34	41.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
7:15 AM	32,540.57	8135.14	29.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
7:30 AM	22,935.63	5733.91	20.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
7:45 AM	15,372.40	3843.10	14.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:00 AM	10,558.97	2639.74	9.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:15 AM	7,473.94	1868.49	6.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:30 AM	5,719.90	1429.98	5.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:45 AM	4,620.90	1155.23	4.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:00 AM	3,748.83	937.21	3.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:15 AM	3,129.09	782.27	2.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:30 AM	2,851.23	712.81	2.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:45 AM	2,645.95	661.49	2.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:00 AM	2,464.96	616.24	2.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:15 AM	2,299.05	574.76	2.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:30 AM	2,145.51	536.38	2.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:45 AM	2,002.44	500.61	1.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:00 AM	1.868.93	467.23	1.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:15 AM	1,747.63	436.91	1.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:30 AM	1,635.18	408.79	1.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:45 AM	1,533.75	383.44	1.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:00 PM	1,437.35	359.34	1.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:15 PM	1,360.14	340.03	1.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:30 PM	1,306.09	326.52	1.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:45 PM	1,280.30	320.02	1.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:00 PM	1,251.86	312.96	1.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:15 PM	1,258.25	312.90	1.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:30 PM	1,258.62	314.50	1.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:45 PM	1,200.02	314.00	1.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
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2:00 PM	1,317.96	329.49	1.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:15 PM	1,387.53	346.88	1.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:30 PM	1,479.77	369.94	1.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:45 PM	1,581.80	395.45	1.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:00 PM	1,689.50	422.37	1.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:15 PM	1,806.28	451.57	1.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:30 PM	1,930.56	482.64	1.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:45 PM	2,062.13	515.53	1.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
4:00 PM	2,201.47	550.37	2.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
4:15 PM	2,351.06	587.76	2.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
4:30 PM	2,511.71	627.93	2.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
4:45 PM	2,688.44	672.11	2.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
5:00 PM	2,892.79	723.20	2.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
5:15 PM	3,183.66	795.91	2.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
5:30 PM	3,607.30	901.83	3.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
5:45 PM	4,302.78	1075.69	3.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
6:00 PM	5,127.59	1281.90	4.7%	525.76	131.44	0.5%	525.76	131.44	0.5%
6:15 PM	6,098.41	1524.60	5.5%	1,746.28	436.57	1.6%	1,746.28	436.57	1.6%
6:30 PM	7,307.23	1826.81	6.6%	3,544.70	886.18	3.2%	3,544.70	886.18	3.2%
6:45 PM	9,706.50	2426.62	8.8%	6,217.56	1554.39	5.7%	6,217.56	1554.39	5.7%
7:00 PM	13,442.55	3360.64	12.2%	9,402.77	2350.69	8.5%	9,402.77	2350.69	8.5%
7:15 PM	19,385.91	5815.77	17.6%	13,150.10	3945.03	12.0%	13,150.10	3945.03	12.0%
7:36 PM	33,146.16	5966.31	30.1%	19,935.08	3588.32	18.1%	20,893.74	3760.87	19.0%

## JULY 5

#### Analysis Hours: 6:52 AM-7:36 PM (PDT)

#### JUNE 7 SIMILAR

Analysis Time		CURRENT SHADOV	V	NEW SHADO	W FROM 1052 FOI	LSOM STREET	1052 FOLSOM	STREET + CUMUL	ATIVE SHADOW
Analysis Time	Area (sf)	Area/Time (sfh)	Coverage	Area (sf)	Area/Time (sfh)	Coverage	Area (sf)	Area/Time (sfh)	Coverage
6:52 AM	61,012.91	3660.77	55.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
7:00 AM	49,064.44	9322.24	44.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
7:15 AM	34,448.25	8612.06	31.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
7:30 AM	24,434.27	6108.57	22.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
7:45 AM	16,293.61	4073.40	14.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:00 AM	11,042.50	2760.62	10.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:15 AM	7,846.80	1961.70	7.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:30 AM	5,885.78	1471.44	5.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:45 AM	4,737.39	1184.35	4.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:00 AM	3,840.66	960.16	3.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:15 AM	3,183.13	795.78	2.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:30 AM	2,886.65	721.66	2.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:45 AM	2,677.48	669.37	2.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:00 AM	2,492.98	623.25	2.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:15 AM	2,324.41	581.10	2.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:30 AM	2,167.42	541.86	2.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:45 AM	2,022.84	505.71	1.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:00 AM	1,887.43	471.86	1.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:15 AM	1,765.34	441.34	1.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:30 AM	1,651.98	412.99	1.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:45 AM	1,549.91	387.48	1.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:00 PM	1,452.89	363.22	1.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:15 PM	1,375.89	343.97	1.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:30 PM	1.321.96	330.49	1.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:45 PM	1,295.35	323.84	1.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:00 PM	1,266.55	316.64	1.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:15 PM	1,270.88	317.72	1.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:30 PM	1,270.27	317.57	1.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:45 PM	1,301.77	325.44	1.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:00 PM	1,324.95	331.24	1.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:15 PM	1,387.55	346.89	1.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:30 PM	1,478.48	369.62	1.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:45 PM	1,580.15	395.04	1.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:43 PM 3:00 PM	1,687.25	421.81	1.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:15 PM	1,803.39	421.01	1.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:30 PM	1,003.39	430.85	1.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:45 PM	,	515.08	1.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
4:00 PM	2,060.30	549.93	2.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
4:00 PM 4:15 PM				0.00		0.0%			
4:15 PM 4:30 PM	2,349.80 2,511.91	587.45 627.98	2.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
4:45 PM	2,688.54	672.13	2.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
5:00 PM	2,898.22	724.55	2.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
5:15 PM	3,202.33	800.58	2.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
5:30 PM	3,685.50	921.37	3.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
5:45 PM	4,402.31	1100.58	4.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
6:00 PM	5,244.18	1311.04	4.8%	470.03	117.51	0.4%	470.03	117.51	0.4%
6:15 PM	6,238.95	1559.74	5.7%	1,682.22	420.55	1.5%	1,682.22	420.55	1.5%
6:30 PM	7,484.84	1871.21	6.8%	3,483.86	870.97	3.2%	3,483.86	870.97	3.2%
6:45 PM	9,938.05	2484.51	9.0%	6,163.67	1540.92	5.6%	6,163.67	1540.92	5.6%
7:00 PM	13,750.03	3437.51	12.5%	9,402.93	2350.73	8.5%	9,402.93	2350.73	8.5%
7:15 PM	19,843.08	5952.92	18.0%	13,279.06	3983.72	12.1%	13,279.06	3983.72	12.1%
7:36 PM	33,498.48	6029.73	30.5%	19,554.10	3519.74	17.8%	20,636.36	3714.55	18.8%

### **JULY 12**

#### Analysis Hours: 6:56 AM-7:33 PM (PDT)

#### MAY 31 SIMILAR

Analysis Time	CURRENT SHADOW			NEW SHADOW FROM 1052 FOLSOM STREET			1052 FOLSOM STREET + CUMULATIVE SHADOW		
Analysis mile	Area (sf)	Area/Time (sfh)	Coverage	Area (sf)	Area/Time (sfh)	Coverage	Area (sf)	Area/Time (sfh)	Coverage
6:56 AM	59,455.74	1783.67	54.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
7:00 AM	53,395.20	8009.28	48.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
7:15 AM	37,058.75	9264.69	33.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
7:30 AM	26,250.30	6562.58	23.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
7:45 AM	17,549.92	4387.48	16.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:00 AM	11,689.41	2922.35	10.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:15 AM	8,272.57	2068.14	7.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:30 AM	6,077.75	1519.44	5.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:45 AM	4,875.60	1218.90	4.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:00 AM	3,937.74	984.44	3.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:15 AM	3,244.28	811.07	2.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:30 AM	2,928.72	732.18	2.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:45 AM	2,716.91	679.23	2.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:00 AM	2,527.10	631.78	2.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:15 AM	2,354.07	588.52	2.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:30 AM	2,194.37	548.59	2.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:45 AM	2,046.50	511.62	1.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:00 AM	1,910.05	477.51	1.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:15 AM	1,786.96	446.74	1.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:30 AM	1,672.70	418.17	1.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:45 AM	1,569.84	392.46	1.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:00 PM	1,472.00	368.00	1.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:00 PM	1,398.30	349.58	1.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:30 PM	1,344.77	336.19	1.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:45 PM	,	329.64	1.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
12.45 PM 1:00 PM	1,318.57	329.04	1.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:15 PM	1,209.27	323.27	1.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
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1:30 PM 1:45 PM	1,291.37 1,321.47	322.84 330.37	1.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
			1.2%	0.00	-	0.0%	0.00	0.00	0.0%
2:00 PM	1,342.12	335.53			0.00				
2:15 PM	1,398.53	349.63	1.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:30 PM	1,483.70	370.92	1.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:45 PM	1,585.09	396.27	1.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:00 PM	1,692.33	423.08	1.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:15 PM	1,808.08	452.02	1.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:30 PM	1,932.90	483.23	1.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:45 PM	2,066.43	516.61	1.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
4:00 PM	2,207.34	551.83	2.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
4:15 PM	2,359.35	589.84	2.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
4:30 PM	2,523.14	630.78	2.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
4:45 PM	2,702.58	675.65	2.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
5:00 PM	2,944.09	736.02	2.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
5:15 PM	3,264.48	816.12	3.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
5:30 PM	3,872.04	968.01	3.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
5:45 PM	4,626.29	1156.57	4.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
6:00 PM	5,510.57	1377.64	5.0%	450.71	112.68	0.4%	450.71	112.68	0.4%
6:15 PM	6,556.96	1639.24	6.0%	1,684.32	421.08	1.5%	1,684.32	421.08	1.5%
6:30 PM	7,909.89	1977.47	7.2%	3,553.37	888.34	3.2%	3,553.37	888.34	3.2%
6:45 PM	10,542.77	2635.69	9.6%	6,288.20	1572.05	5.7%	6,288.20	1572.05	5.7%
7:00 PM	14,583.18	3645.80	13.3%	9,640.92	2410.23	8.8%	9,640.92	2410.23	8.8%
7:15 PM	21,373.66	5984.63	19.4%	13,904.31	3893.21	12.6%	13,904.31	3893.21	12.6%
7:33 PM	34,127.00	5119.05	31.0%	18,964.01	2844.60	17.2%	20,154.37	3023.16	18.3%

### JULY 19

#### Analysis Hours: 7:01 AM-7:30 PM (PDT)

#### MAY 24 SIMILAR

Analysis Time		CURRENT SHADOV	N	NEW SHADO	W FROM 1052 FOI	LSOM STREET	1052 FOLSON	I STREET + CUMUL	ATIVE SHADOW
Analysis Time	Area (sf)	Area/Time (sfh)	Coverage	Area (sf)	Area/Time (sfh)	Coverage	Area (sf)	Area/Time (sfh)	Coverage
7:01 AM	57,239.92	7441.19	52.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
7:16 AM	39,091.62	9381.99	35.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
7:30 AM	28,301.97	6792.47	25.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
7:45 AM	19,057.55	4764.39	17.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:00 AM	12,454.38	3113.59	11.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:15 AM	8,730.75	2182.69	7.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:30 AM	6,283.54	1570.88	5.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:45 AM	5,012.81	1253.20	4.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:00 AM	4,036.33	1009.08	3.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:15 AM	3,305.75	826.44	3.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:30 AM	2,978.79	744.70	2.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:45 AM	2,761.15	690.29	2.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:00 AM	2,565.95	641.49	2.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:15 AM	2,387.29	596.82	2.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:30 AM	2,223.62	555.91	2.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:45 AM	2,072.32	518.08	1.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:00 AM	1,935.09	483.77	1.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:15 AM	1,811.66	452.92	1.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:30 AM	1,696.30	424.08	1.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:45 AM	1,593.42	398.36	1.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:00 PM	1,494.79	373.70	1.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:15 PM	1,494.79	356.82	1.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:30 PM	1,374.36	343.59	1.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:30 PM 12:45 PM	1,349.66	337.42	1.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
12.45 PM 1:00 PM	1,349.00	330.29	1.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:15 PM	1,324.05	331.01	1.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:30 PM	1,322.03	330.51	1.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
	· · · · · · · · · · · · · · · · · · ·		1.2%				0.00	0.00	
1:45 PM	1,350.41	337.60	•	0.00	0.00	0.0%			0.0%
2:00 PM	1,370.80	342.70	1.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:15 PM	1,420.91	355.23	1.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:30 PM	1,498.53	374.63	1.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:45 PM	1,598.89	399.72	1.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:00 PM	1,705.77	426.44	1.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:15 PM	1,822.30	455.58	1.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:30 PM	1,946.39	486.60	1.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:45 PM	2,083.09	520.77	1.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
4:00 PM	2,226.96	556.74	2.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
4:15 PM	2,382.02	595.50	2.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
4:30 PM	2,549.00	637.25	2.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
4:45 PM	2,745.73	686.43	2.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
5:00 PM	3,029.14	757.29	2.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
5:15 PM	3,492.11	873.03	3.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
5:30 PM	4,182.73	1045.68	3.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
5:45 PM	4,999.38	1249.84	4.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
6:00 PM	5,945.63	1486.41	5.4%	481.88	120.47	0.4%	481.88	120.47	0.4%
6:15 PM	7,088.32	1772.08	6.4%	1,778.65	444.66	1.6%	1,778.65	444.66	1.6%
6:30 PM	8,670.44	2167.61	7.9%	3,790.47	947.62	3.4%	3,790.47	947.62	3.4%
6:45 PM	11,587.80	2896.95	10.5%	6,620.13	1655.03	6.0%	6,620.13	1655.03	6.0%
7:00 PM	16,151.44	4037.86	14.7%	10,211.91	2552.98	9.3%	10,211.91	2552.98	9.3%
7:15 PM	24,034.30	6008.57	21.8%	15,146.55	3786.64	13.8%	15,311.17	3827.79	13.9%
7:30 PM	35,041.32	4555.37	31.9%	18,100.74	2353.10	16.5%	19,099.27	2482.91	17.4%

### **JULY 26**

#### Analysis Hours: 7:07 AM-7:25 PM (PDT)

#### MAY 17 SIMILAR

Analvsis Time		CURRENT SHADOV	V	NEW SHADO	W FROM 1052 FOI	SOM STREET	1052 FOLSON	I STREET + CUMUL	ATIVE SHADOW
Analysis mile	Area (sf)	Area/Time (sfh)	Coverage	Area (sf)	Area/Time (sfh)	Coverage	Area (sf)	Area/Time (sfh)	Coverage
7:07 AM	54,969.18	3298.15	50.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
7:15 AM	44,457.49	8446.92	40.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
7:30 AM	30,706.21	7676.55	27.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
7:45 AM	20,824.46	5206.12	18.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:00 AM	13,589.73	3397.43	12.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:15 AM	9,217.00	2304.25	8.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:30 AM	6,514.91	1628.73	5.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:45 AM	5,161.03	1290.26	4.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:00 AM	4,149.07	1037.27	3.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:15 AM	3,372.95	843.24	3.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:30 AM	3,038.83	759.71	2.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:45 AM	2,812.01	703.00	2.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:00 AM	2,609.05	652.26	2.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:15 AM	2,424.64	606.16	2.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:30 AM	2,255.96	563.99	2.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:45 AM	2,103.16	525.79	1.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:00 AM	1,964.57	491.14	1.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:15 AM	1,839.10	459.78	1.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:30 AM	1,724.30	431.07	1.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:45 AM	1,619.81	404.95	1.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:00 PM	1,521.51	380.38	1.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:15 PM	1,463.50	365.88	1.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:30 PM	1,412.96	353.24	1.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:45 PM	1.388.42	347.11	1.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:00 PM	1,361.24	340.31	1.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:15 PM	1,364.30	341.08	1.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:30 PM	1,362.05	340.51	1.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:45 PM	1,388.95	347.24	1.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:00 PM	1,409.25	352.31	1.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:15 PM	1,453.07	363.27	1.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:30 PM	1,520.91	380.23	1.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:45 PM	1,620.45	405.11	1.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:00 PM	1,728.32	432.08	1.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:15 PM	1,845.70	461.42	1.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:30 PM	1,971.27	492.82	1.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:45 PM	2,108.71	527.18	1.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
4:00 PM	2,256.87	564.22	2.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
4:15 PM	2,416.86	604.21	2.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
4:30 PM	2,593.98	648.49	2.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
4:45 PM	2,847.45	711.86	2.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
4.43 PM 5:00 PM	3,213.23	803.31	2.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
5:00 PM 5:15 PM	3,867.96	966.99	3.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
5:30 PM	4,632.40	1158.10	4.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
5:45 PM	5,524.23	1381.06	5.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
6:00 PM	6,558.50	1639.63	6.0%	565.67	141.42	0.0%	565.67	141.42	0.0%
6:15 PM	7,902.41	1975.60	7.2%	1,965.87	491.47	1.8%	1,965.87	491.47	1.8%
6:30 PM	9,823.79	2455.95	8.9%	4,201.83	1050.46	3.8%	4,201.83	1050.46	3.8%
6:30 PM 6:45 PM	· · · · · · · · · · · · · · · · · · ·	3287.44	12.0%	· · · · · ·		6.5%		1781.50	6.5%
6:45 PM 7:00 PM	13,149.76			7,126.00	1781.50	_	7,126.00		
	18,645.35	4661.34	17.0%	11,602.13	2900.53	10.5%	11,602.85	2900.71	10.5%
7:15 PM	28,038.60	5888.11	25.5%	15,181.91	3188.20	13.8%	15,616.60	3279.49	14.2%
7:25 PM	36,198.00	3257.82	32.9%	16,930.33	1523.73	15.4%	17,462.87	1571.66	15.9%

### AUGUST 2

#### Analysis Hours: 7:12 AM-7:18 PM (PDT)

#### MAY 10 SIMILAR

Analysis Time		CURRENT SHADOV	N	NEW SHADO	W FROM 1052 FO	LSOM STREET	1052 FOLSON	N STREET + CUMUL	ATIVE SHADOW
Analysis Time	Area (sf)	Area/Time (sfh)	Coverage	Area (sf)	Area/Time (sfh)	Coverage	Area (sf)	Area/Time (sfh)	Coverage
7:12 AM	52,232.57	1044.65	47.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
7:15 AM	48,887.91	7333.19	44.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
7:30 AM	33,265.50	8316.38	30.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
7:45 AM	22,640.68	5660.17	20.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:00 AM	14,763.46	3690.86	13.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:15 AM	9,711.35	2427.84	8.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:30 AM	6,719.27	1679.82	6.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:45 AM	5,308.36	1327.09	4.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:00 AM	4,254.23	1063.56	3.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:15 AM	3,448.65	862.16	3.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:30 AM	3,103.14	775.78	2.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:45 AM	2,865.73	716.43	2.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:00 AM	2,654.09	663.52	2.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:15 AM	2,463.08	615.77	2.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:30 AM	2,289.65	572.41	2.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:45 AM	2,135.25	533.81	1.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:00 AM	1,995.99	499.00	1.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:15 AM	1,869.54	467.38	1.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:30 AM	1,754.07	438.52	1.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:45 AM	1,648.32	412.08	1.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:00 PM	1,558.65	389.66	1.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:15 PM	1,506.48	376.62	1.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:30 PM	1,458.32	364.58	1.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:45 PM	1,435.25	358.81	1.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:00 PM	1,409.31	352.33	1.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:15 PM	1,412.75	353.19	1.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:30 PM	1,410.81	352.70	1.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:45 PM	1,437.05	359.26	1.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:00 PM	1,457.54	364.38	1.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:15 PM	1,497.02	374.25	1.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:30 PM	1,552.76	388.19	1.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:45 PM	1,652.87	413.22	1.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:00 PM	1,762.13	440.53	1.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:15 PM	1,879.80	469.95	1.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:30 PM	2,008.14	502.03	1.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:45 PM	2,148.11	537.03	2.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
4:00 PM	2,300.59	575.15	2.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
4:15 PM	2,469.27	617.32	2.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
4:30 PM	2,701.48	675.37	2.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
4:45 PM	3,028.07	757.02	2.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
5:00 PM	3,648.59	912.15	3.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
5:15 PM	4,396.98	1099.25	4.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
5:30 PM	5,242.60	1310.65	4.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
5:45 PM	6,225.25	1556.31	5.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
6:00 PM	7,457.14	1864.28	6.8%	738.49	184.62	0.7%	738.49	184.62	0.0%
6:15 PM	9,028.46	2257.11	8.2%	2,309.40	577.35	2.1%	2,309.40	577.35	2.1%
6:30 PM	11,401.20	2850.30	10.4%	4,812.68	1203.17	4.4%	4,812.68	1203.17	4.4%
6:45 PM	15,660.67	3915.17	14.2%	4,012.00 8,087.46	2021.86	7.4%	8,087.46	2021.86	7.4%
7:00 PM	22,509.37	5627.34	20.5%	12,758.09	3189.52	11.6%	13,023.53	3255.88	11.8%
7:15 PM	34,180.78	5127.12	31.1%	14,824.12	2223.62	13.5%	14,980.28	2247.04	13.6%
7:13 PM	37,364.00	1120.92	34.0%	15,161.43	454.84	13.8%	15,464.05	463.92	14.1%
7.101101	07,004.00	1120.32	0.10	10,101.40		13.070	10,404.00	400.92	17.170

### **AUGUST 9**

#### Analysis Hours: 7:19 AM-7:10 PM (PDT)

#### **MAY 3 SIMILAR**

Analysis Time		CURRENT SHADOW	I	NEW SHADO	W FROM 1052 FOI	LSOM STREET	1052 FOLSOM	I STREET + CUMUL/	ATIVE SHADOW
Analysis Time	Area (sf)	Area/Time (sfh)	Coverage	Area (sf)	Area/Time (sfh)	Coverage	Area (sf)	Area/Time (sfh)	Coverage
7:19 AM	48,650.66	4378.56	44.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
7:30 AM	36,332.23	7629.77	33.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
7:45 AM	24,380.64	6095.16	22.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:00 AM	16,136.09	4034.02	14.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:15 AM	10,279.53	2569.88	9.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:30 AM	6,954.19	1738.55	6.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:45 AM	5,451.35	1362.84	5.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:00 AM	4,356.89	1089.22	4.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:15 AM	3,525.91	881.48	3.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:30 AM	3,173.34	793.34	2.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:45 AM	2,924.29	731.07	2.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:00 AM	2,703.07	675.77	2.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:15 AM	2,504.55	626.14	2.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:30 AM	2,328.25	582.06	2.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:45 AM	2,173.68	543.42	2.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:00 AM	2,030.53	507.63	1.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:15 AM	1,904.81	476.20	1.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:30 AM	1,787.09	446.77	1.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:45 AM	1,681.54	420.38	1.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:00 PM	1,605.82	401.46	1.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:15 PM	1,556.53	389.13	1.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:30 PM	1,511.81	377.95	1.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:45 PM	1,489.06	372.26	1.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:00 PM	1,466.46	366.61	1.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:15 PM	1,470.43	367.61	1.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:30 PM	1,468.76	367.19	1.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:45 PM	1,494.11	373.53	1.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:00 PM	1,514.94	378.74	1.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:15 PM	1,552.43	388.11	1.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:30 PM	1,604.40	401.10	1.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:45 PM	1,696.23	424.06	1.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:00 PM	1,804.87	451.22	1.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:15 PM	1,926.80	481.70	1.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:30 PM	2,057.00	514.25	1.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:45 PM	2,200.10	550.03	2.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
4:00 PM	2,359.05	589.76	2.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
4:15 PM	2,586.90	646.73	2.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
4:30 PM	2,890.48	722.62	2.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
4:45 PM	3,516.18	879.05	3.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
5:00 PM	4,236.16	1059.04	3.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
5:15 PM	5,075.28	1268.82	4.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
5:30 PM	6,011.51	1502.88	5.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
5:45 PM	7,187.43	1796.86	6.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
6:00 PM	8,624.01	2156.00	7.8%	1,010.26	252.56	0.9%	1,010.26	252.56	0.9%
6:15 PM	10,425.86	2606.46	9.5%	2,877.45	719.36	2.6%	2,877.45	719.36	2.6%
6:30 PM	13,767.20	3441.80	12.5%	5,632.76	1408.19	5.1%	5,632.76	1408.19	5.1%
6:45 PM	19,372.23	6586.56	17.6%	9,252.33	3145.79	8.4%	9,290.05	3158.62	8.4%
7:10 PM	38,448.25	8074.13	35.0%	13,170.46	2765.80	12.0%	9,290.03 13,599.81	2855.96	12.4%
7.101101	00,740.20	0074.10	00.070	10,170.40	2100.00	12.070	- 10,000.01	2000.00	12.470

**AUGUST 16** 

#### Analysis Hours: 7:25 AM-7:02 PM (PDT)

#### **APRIL 26 SIMILAR**

Analysis Time		CURRENT SHADOV	V	NEW SHADO	W FROM 1052 FOI	SOM STREET	1052 FOLSON	I STREET + CUMUL	ATIVE SHADOW
Analysis fille	Area (sf)	Area/Time (sfh)	Coverage	Area (sf)	Area/Time (sfh)	Coverage	Area (sf)	Area/Time (sfh)	Coverage
7:25 AM	44,609.02	1784.36	40.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
7:30 AM	39,658.08	6741.87	36.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
7:45 AM	26,278.91	6569.73	23.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:00 AM	17,508.36	4377.09	15.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:15 AM	11,118.71	2779.68	10.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:30 AM	7,240.17	1810.04	6.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:45 AM	5,601.91	1400.48	5.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:00 AM	4,451.46	1112.86	4.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:15 AM	3,607.17	901.79	3.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:30 AM	3,250.45	812.61	3.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:45 AM	2,988.48	747.12	2.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:00 AM	2,756.12	689.03	2.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:15 AM	2,553.18	638.29	2.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:30 AM	2,373.51	593.38	2.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:45 AM	2,214.96	553.74	2.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:00 AM	2,071.56	517.89	1.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:15 AM	1,944.37	486.09	1.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:30 AM	1,824.04	456.01	1.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:45 AM	1,729.30	432.33	1.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:00 PM	1,661.61	415.40	1.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:15 PM	1,615.05	403.76	1.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:30 PM	1,573.72	393.43	1.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:45 PM	1,552.55	388.14	1.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:00 PM	1,531.89	382.97	1.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:15 PM	1,535.85	383.96	1.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:30 PM	1,535.82	383.95	1.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:45 PM	1,560.48	390.12	1.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:00 PM	1,582.28	395.57	1.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:15 PM	1,620.40	405.10	1.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:30 PM	1,664.78	416.19	1.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:45 PM	1,748.40	437.10	1.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:00 PM	1,857.51	464.38	1.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:15 PM	1,983.80	495.95	1.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:30 PM	2,116.55	529.14	1.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:45 PM	2,269.88	567.47	2.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
4:00 PM	2,485.09	621.27	2.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
4:15 PM	2,813.14	703.29	2.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
4:30 PM	3,418.75	854.69	3.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
4:45 PM	4,152.94	1038.24	3.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
5:00 PM	4,963.25	1240.81	4.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
5:15 PM	5,896.58	1474.15	5.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
5:30 PM	6,997.45	1749.36	6.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
5:45 PM	8,347.15	2086.79	7.6%	1.65	0.00	0.0%	1.65	0.41	0.0%
6:00 PM	10,054.02	2513.50	9.1%	1,409.23	352.31	1.3%	1,409.23	352.31	1.3%
6:15 PM	12,511.19	3127.80	11.4%	3,627.27	906.82	3.3%	3,627.27	906.82	3.3%
6:30 PM	17,212.99	4303.25	15.6%	6,628.72	1657.18	6.0%	6,628.72	1657.18	6.0%
6:45 PM	24,737.64	6679.16	22.5%	9,553.06	2579.32	8.7%	9,818.99	2651.13	8.9%
7:02 PM	39,240.06	5493.61	35.7%	9,003.00	1526.63	9.9%	9,010.99	1684.60	10.9%
I.UZ FIVI	J9,240.00	3493.01	55.7%	10,904.47	1320.03	9.9%	12,032.04	1004.00	10.9%

**AUGUST 23** 

#### Analysis Hours: 7:31 AM-6:52 PM (PDT)

#### **APRIL 19 SIMILAR**

Analysis Time		CURRENT SHADOV	DOW         New Shadow from 1052 Folsom street         1052 Folsom street + cumulative street		ATIVE SHADOW				
Analysis Time	Area (sf)	Area/Time (sfh)	Coverage	Area (sf)	Area/Time (sfh)	Coverage	Area (sf)	Area/Time (sfh)	Coverage
7:31 AM	40,392.70	4443.20	36.7%	0.00	0.00	0.0%	477.74	52.55	0.4%
7:45 AM	28,517.37	6559.00	25.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:00 AM	18,425.69	4606.42	16.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:15 AM	11,907.12	2976.78	10.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:30 AM	7,527.98	1881.99	6.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:45 AM	5,725.54	1431.38	5.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:00 AM	4,519.04	1129.76	4.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:15 AM	3,675.40	918.85	3.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:30 AM	3,328.39	832.10	3.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:45 AM	3,052.93	763.23	2.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:00 AM	2,812.50	703.13	2.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:15 AM	2,605.35	651.34	2.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:30 AM	2,422.17	605.54	2.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:45 AM	2,261.11	565.28	2.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:00 AM	2,115.96	528.99	1.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:15 AM	1,985.60	496.40	1.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:30 AM	1,865.43	466.36	1.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:45 AM	1,789.69	447.42	1.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:00 PM	1,724.93	431.23	1.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:15 PM	1,682.81	420.70	1.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:30 PM	1,643.13	410.78	1.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:45 PM	1,623.85	405.96	1.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:00 PM	1,605.75	401.44	1.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:15 PM	1,610.70	402.67	1.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:30 PM	1,611.05	402.76	1.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:45 PM	1,635.82	408.96	1.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:00 PM	1,659.50	414.87	1.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:15 PM	1,698.31	424.58	1.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:30 PM	1,739.32	434.83	1.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:45 PM	1,814.74	453.69	1.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:00 PM	1,925.47	481.37	1.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:15 PM	2,054.10	513.53	1.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:30 PM	2,199.93	549.98	2.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:45 PM	2,418.49	604.62	2.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
4:00 PM	2,764.79	691.20	2.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
4:15 PM	3,398.40	849.60	3.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
4:30 PM	4,113.39	1028.35	3.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
4:45 PM	4,939.29	1234.82	4.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
5:00 PM	5,845.28	1461.32	5.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
5:15 PM	6,922.31	1730.58	6.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
5:30 PM	8,219.59	2054.90	7.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
5:45 PM	9,921.41	2480.35	9.0%	267.53	66.88	0.2%	267.53	66.88	0.2%
6:00 PM	12,250.84	3062.71	11.1%	2,035.40	508.85	1.9%	2,035.40	508.85	1.9%
6:15 PM	15,912.96	3978.24	14.5%	4,514.63	1128.66	4.1%	4,514.62	1128.65	4.1%
6:30 PM	22,460.93	5615.23	20.4%	6,819.18	1704.80	6.2%	6,819.18	1704.80	6.2%
6:45 PM	32,150.25	6108.55	29.2%	8,860.21	1683.44	8.1%	9,680.61	1839.32	8.8%
6:52 PM	39,887.46	2393.25	36.3%	8,804.22	528.25	8.0%	10,460.24	627.61	9.5%

**AUGUST 30** 

#### Analysis Hours: 7:37 AM-6:42 PM (PDT)

#### **APRIL 12 SIMILAR**

Analysis Time		CURRENT SHADOW			NEW SHADOW FROM 1052 FOLSOM STREET			1052 FOLSOM STREET + CUMULATIVE SHADOW		
Analysis Time	Area (sf)	Area/Time (sfh)	Coverage	Area (sf)	Area/Time (sfh)	Coverage	Area (sf)	Area/Time (sfh)	Coverage	
7:37 AM	36,502.94	2190.18	33.2%	0.00	0.00	0.0%	2,550.54	153.03	2.3%	
7:45 AM	30,249.79	5747.46	27.5%	0.00	0.00	0.0%	102.68	19.51	0.1%	
8:00 AM	19,711.48	4927.87	17.9%	0.00	0.00	0.0%	0.00	0.00	0.0%	
8:15 AM	12,637.96	3159.49	11.5%	0.00	0.00	0.0%	0.00	0.00	0.0%	
8:30 AM	7,888.62	1972.15	7.2%	0.00	0.00	0.0%	0.00	0.00	0.0%	
8:45 AM	5,863.75	1465.94	5.3%	0.00	0.00	0.0%	0.00	0.00	0.0%	
9:00 AM	4,586.62	1146.65	4.2%	0.00	0.00	0.0%	0.00	0.00	0.0%	
9:15 AM	3,751.54	937.88	3.4%	0.00	0.00	0.0%	0.00	0.00	0.0%	
9:30 AM	3,412.28	853.07	3.1%	0.00	0.00	0.0%	0.00	0.00	0.0%	
9:45 AM	3,127.05	781.76	2.8%	0.00	0.00	0.0%	0.00	0.00	0.0%	
10:00 AM	2,878.60	719.65	2.6%	0.00	0.00	0.0%	0.00	0.00	0.0%	
10:15 AM	2,667.16	666.79	2.4%	0.00	0.00	0.0%	0.00	0.00	0.0%	
10:30 AM	2,477.91	619.48	2.3%	0.00	0.00	0.0%	0.00	0.00	0.0%	
10:45 AM	2,315.21	578.80	2.1%	0.00	0.00	0.0%	0.00	0.00	0.0%	
11:00 AM	2,165.90	541.48	2.0%	0.00	0.00	0.0%	0.00	0.00	0.0%	
11:15 AM	2,033.09	508.27	1.8%	0.00	0.00	0.0%	0.00	0.00	0.0%	
11:30 AM	1,928.28	482.07	1.8%	0.00	0.00	0.0%	0.00	0.00	0.0%	
11:45 AM	1,860.91	465.23	1.7%	0.00	0.00	0.0%	0.00	0.00	0.0%	
12:00 PM	1,797.38	449.34	1.6%	0.00	0.00	0.0%	0.00	0.00	0.0%	
12:15 PM	1,760.00	440.00	1.6%	0.00	0.00	0.0%	0.00	0.00	0.0%	
12:30 PM	1,720.75	430.19	1.6%	0.00	0.00	0.0%	0.00	0.00	0.0%	
12:45 PM	1,704.46	426.11	1.5%	0.00	0.00	0.0%	0.00	0.00	0.0%	
1:00 PM	1,687.39	421.85	1.5%	0.00	0.00	0.0%	0.00	0.00	0.0%	
1:15 PM	1,694.25	423.56	1.5%	0.00	0.00	0.0%	0.00	0.00	0.0%	
1:30 PM	1,695.80	423.95	1.5%	0.00	0.00	0.0%	0.00	0.00	0.0%	
1:45 PM	1,721.17	430.29	1.6%	0.00	0.00	0.0%	0.00	0.00	0.0%	
2:00 PM	1,745.57	436.39	1.6%	0.00	0.00	0.0%	0.00	0.00	0.0%	
2:15 PM	1,786.37	446.59	1.6%	0.00	0.00	0.0%	0.00	0.00	0.0%	
2:30 PM	1,824.94	456.24	1.7%	0.00	0.00	0.0%	0.00	0.00	0.0%	
2:45 PM	1,900.05	475.01	1.7%	0.00	0.00	0.0%	0.00	0.00	0.0%	
3:00 PM	2,004.34	501.08	1.8%	0.00	0.00	0.0%	0.00	0.00	0.0%	
3:15 PM	2,149.48	537.37	2.0%	0.00	0.00	0.0%	0.00	0.00	0.0%	
3:30 PM	2,363.50	590.88	2.1%	0.00	0.00	0.0%	0.00	0.00	0.0%	
3:45 PM	2,779.78	694.95	2.5%	0.00	0.00	0.0%	0.00	0.00	0.0%	
4:00 PM	3,394.53	848.63	3.1%	0.00	0.00	0.0%	0.00	0.00	0.0%	
4:15 PM	4,137.00	1034.25	3.8%	0.00	0.00	0.0%	0.00	0.00	0.0%	
4:30 PM	4,931.33	1232.83	4.5%	0.00	0.00	0.0%	0.00	0.00	0.0%	
4:45 PM	5,864.12	1466.03	5.3%	0.00	0.00	0.0%	0.00	0.00	0.0%	
5:00 PM	6,884.80	1721.20	6.3%	0.00	0.00	0.0%	0.00	0.00	0.0%	
5:15 PM	8,188.07	2047.02	7.4%	0.00	0.00	0.0%	0.00	0.00	0.0%	
5:30 PM	9,875.74	2468.94	9.0%	0.00	0.00	0.0%	0.00	0.00	0.0%	
5:45 PM	12,214.03	3053.51	11.1%	703.26	175.82	0.6%	703.26	175.82	0.6%	
6:00 PM	15,380.01	3845.00	14.0%	2,677.42	669.35	2.4%	2,677.42	669.36	2.4%	
6:15 PM	20,946.93	5236.73	19.0%	4,827.06	1206.77	4.4%	4,827.07	1206.77	4.4%	
6:30 PM	29,253.14	6728.22	26.6%	6,557.99	1508.34	6.0%	6,853.29	1576.26	6.2%	
6:42 PM	41,008.09	4510.89	37.3%	6,736.11	740.97	6.1%	8,261.52	908.77	7.5%	

**SEPTEMBER 6** 

Analysis Hours: 7:44 AM-6:31 PM (PDT)

#### **APRIL 5 SIMILAR**

Analysis Time		CURRENT SHADOV	l	NEW SHADO	W FROM 1052 FOI	SOM STREET	1052 FOLSOM	STREET + CUMUL	ATIVE SHADOW
	Area (sf)	Area/Time (sfh)	Coverage	Area (sf)	Area/Time (sfh)	Coverage	Area (sf)	Area/Time (sfh)	Coverage
7:44 AM	32,825.34	4267.29	29.8%	0.00	0.00	0.0%	6,341.58	824.40	5.8%
8:00 AM	21,098.84	5274.71	19.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:15 AM	13,300.81	3325.20	12.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:30 AM	8,339.41	2084.85	7.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:45 AM	5,996.98	1499.24	5.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:00 AM	4,655.14	1163.78	4.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:15 AM	3,848.42	962.11	3.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:30 AM	3,502.54	875.63	3.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:45 AM	3,211.82	802.95	2.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:00 AM	2,957.25	739.31	2.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:15 AM	2,736.05	684.01	2.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:30 AM	2,543.87	635.97	2.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:45 AM	2,376.57	594.14	2.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:00 AM	2,220.68	555.17	2.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:15 AM	2,095.78	523.95	1.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:30 AM	2,006.50	501.62	1.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:45 AM	1,941.34	485.34	1.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:00 PM	1,881.03	470.26	1.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:15 PM	1,845.25	461.31	1.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:30 PM	1,807.30	451.83	1.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:45 PM	1,792.67	448.17	1.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:00 PM	1,778.80	444.70	1.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:15 PM	1,786.84	446.71	1.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:30 PM	1,789.66	447.41	1.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:45 PM	1,816.08	454.02	1.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:00 PM	1,842.16	460.54	1.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:15 PM	1,884.82	471.21	1.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:30 PM	1,922.48	480.62	1.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:45 PM	1,996.64	499.16	1.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:00 PM	2,120.87	530.22	1.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:15 PM	2,335.05	583.76	2.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:30 PM	2,800.18	700.04	2.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:45 PM	3,455.76	863.94	3.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
4:00 PM	4,169.61	1042.40	3.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
4:15 PM	4,985.55	1246.39	4.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
4:30 PM	5,894.21	1473.55	5.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
4:45 PM	6,933.91	1733.48	6.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
5:00 PM	8,199.29	2049.82	7.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
5:15 PM	9,989.31	2497.33	9.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
5:30 PM	12,253.51	3063.38	11.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
5:45 PM	15,388.80	3847.20	14.0%	1,211.00	302.75	1.1%	1,211.00	302.75	1.1%
6:00 PM	19,890.53	4972.63	18.1%	3,075.41	768.85	2.8%	3,075.41	768.85	2.8%
6:15 PM	27,513.41	7428.62	25.0%	4,690.01	1266.30	4.3%	4,690.01	1266.30	4.3%
6:31 PM	42,171.31	5903.98	38.3%	4,887.65	684.27	4.4%	5,897.16	825.60	5.4%

### **SEPTEMBER 13**

Analysis Hours: 7:50 AM-6:21 PM (PDT)

#### MARCH 29 SIMILAR

Analysis Time		CURRENT SHADOV	V	NEW SHADO	N FROM 1052 FOL	SOM STREET	1052 FOLSOM	STREET + CUMUL	ATIVE SHADOW
7 maryolo mino	Area (sf)	Area/Time (sfh)	Coverage	Area (sf)	Area/Time (sfh)	Coverage	Area (sf)	Area/Time (sfh)	Coverage
7:50 AM	29,398.20	2351.86	26.7%	0.00	0.00	0.0%	9,648.77	771.90	8.8%
8:00 AM	22,221.40	4666.49	20.2%	0.00	0.00	0.0%	2,137.06	448.78	1.9%
8:15 AM	14,137.53	3534.38	12.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:30 AM	8,633.51	2158.38	7.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:45 AM	6,082.93	1520.73	5.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:00 AM	4,720.60	1180.15	4.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:15 AM	3,966.37	991.59	3.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:30 AM	3,602.56	900.64	3.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:45 AM	3,303.90	825.98	3.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:00 AM	3,042.34	760.58	2.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:15 AM	2,818.16	704.54	2.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:30 AM	2,617.66	654.42	2.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:45 AM	2,443.28	610.82	2.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:00 AM	2,284.89	571.22	2.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:15 AM	2,182.34	545.58	2.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:30 AM	2,095.16	523.79	1.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:45 AM	2,030.71	507.68	1.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:00 PM	1,974.66	493.66	1.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:15 PM	1,939.34	484.84	1.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:30 PM	1,903.04	475.76	1.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:45 PM	1,890.77	472.69	1.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:00 PM	1,877.91	469.48	1.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:15 PM	1,887.09	471.77	1.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:30 PM	1,891.88	472.97	1.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:45 PM	1,920.06	480.01	1.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:00 PM	1,948.59	487.15	1.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:15 PM	1,993.44	498.36	1.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:30 PM	2,032.73	508.18	1.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:45 PM	2,153.32	538.33	2.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:00 PM	2,330.14	582.54	2.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:15 PM	2,880.09	720.02	2.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:30 PM	3,509.25	877.31	3.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:45 PM	4,262.09	1065.52	3.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
4:00 PM	5,036.98	1259.25	4.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
4:15 PM	6,000.18	1500.05	5.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
4:30 PM	7,003.39	1750.85	6.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
4:45 PM	8,304.98	2076.25	7.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
5:00 PM	10,082.58	2520.65	9.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
5:15 PM	12,483.75	3120.94	11.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
5:30 PM	15,454.38	3863.59	14.0%	73.19	18.30	0.1%	73.19	18.30	0.1%
5:45 PM	19,826.97	4956.74	18.0%	1,565.28	391.32	1.4%	1,565.28	391.32	1.4%
6:00 PM	26,251.02	6562.75	23.9%	3,134.40	783.60	2.8%	3,134.40	783.60	2.8%
6:15 PM	36,571.35	6582.84	33.2%	3,780.70	680.53	3.4%	4,076.97	733.85	3.7%
6:21 PM	43,226.26	2161.31	39.3%	3,306.70	165.34	3.0%	4,184.03	209.20	3.8%

Quantitative Shading Calculations for 1052 Folsom Street

## **SEPTEMBER 20**

Analysis Hours: 7:57 AM-6:09 PM (PDT)

#### APPROXIMATE EQUINOXES March 22 Similar

Analysis Time		CURRENT SHADOV	V	NEW SHADO	W FROM 1052 FOI	LSOM STREET	1052 FOLSOM	STREET + CUMUL	ATIVE SHADOW
	Area (sf)	Area/Time (sfh)	Coverage	Area (sf)	Area/Time (sfh)	Coverage	Area (sf)	Area/Time (sfh)	Coverage
7:57 AM	26,312.55	526.25	23.9%	0.00	0.00	0.0%	11,680.63	233.61	10.6%
8:00 AM	23,567.75	3535.16	21.4%	0.00	0.00	0.0%	8,217.98	1232.70	7.5%
8:15 AM	14,580.75	3645.19	13.3%	0.00	0.00	0.0%	326.17	81.54	0.3%
8:30 AM	9,073.73	2268.43	8.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:45 AM	6,254.01	1563.50	5.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:00 AM	4,793.78	1198.45	4.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:15 AM	4,099.10	1024.78	3.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:30 AM	3,717.12	929.28	3.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:45 AM	3,403.31	850.83	3.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:00 AM	3,137.78	784.45	2.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:15 AM	2,909.41	727.35	2.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:30 AM	2,699.53	674.88	2.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:45 AM	2,519.21	629.80	2.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:00 AM	2,378.04	594.51	2.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:15 AM	2,282.14	570.54	2.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:30 AM	2,194.97	548.74	2.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:45 AM	2,132.77	533.19	1.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:00 PM	2,077.85	519.46	1.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:15 PM	2,042.75	510.69	1.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:30 PM	2,008.31	502.08	1.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:45 PM	1,998.23	499.56	1.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:00 PM	1,985.77	496.44	1.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:15 PM	1,997.23	499.31	1.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:30 PM	2,003.82	500.96	1.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:45 PM	2,034.11	508.53	1.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:00 PM	2,064.93	516.23	1.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:15 PM	2,117.32	529.33	1.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:30 PM	2,221.69	555.42	2.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:45 PM	2,476.52	619.13	2.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:00 PM	2,963.59	740.90	2.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:15 PM	3,627.46	906.87	3.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:30 PM	4,327.16	1081.79	3.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:45 PM	5,145.23	1286.31	4.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
4:00 PM	6,087.62	1521.90	5.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
4:15 PM	7,153.07	1788.27	6.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
4:30 PM	8,386.98	2096.75	7.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
4:45 PM	10,190.06	2547.51	9.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
5:00 PM	12,594.86	3148.71	11.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
5:15 PM	15,709.78	3927.45	14.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
5:30 PM	19,817.68	4954.42	18.0%	441.13	110.28	0.4%	441.13	110.28	0.4%
5:45 PM	25,574.16	6393.54	23.2%	1,741.93	435.48	1.6%	1,741.93	435.48	1.6%
6:00 PM	34,669.91	7280.68	31.5%	2,624.03	551.05	2.4%	2,767.36	581.15	2.5%
6:09 PM	44,584.53	3566.76	40.5%	1,999.43	159.95	1.8%	2,992.15	239.37	2.7%

**SEPTEMBER 27** 

Analysis Hours: 8:03 AM-5:58 PM (PDT)

#### MARCH 15 SIMILAR

Analysis Time		CURRENT SHADOV	V	NEW SHADO	W FROM 1052 FOI	SOM STREET	1052 FOLSOM	STREET + CUMUL	ATIVE SHADOW
Analysis fille	Area (sf)	Area/Time (sfh)	Coverage	Area (sf)	Area/Time (sfh)	Coverage	Area (sf)	Area/Time (sfh)	Coverage
8:03 AM	24,019.93	2401.99	21.8%	0.00	0.00	0.0%	12,600.70	1260.07	11.5%
8:15 AM	15,147.93	3332.54	13.8%	0.00	0.00	0.0%	2,345.78	516.07	2.1%
8:30 AM	9,394.84	2348.71	8.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:45 AM	6,495.53	1623.88	5.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:00 AM	4,907.55	1226.89	4.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:15 AM	4,253.84	1063.46	3.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:30 AM	3,843.63	960.91	3.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:45 AM	3,519.14	879.79	3.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:00 AM	3,241.30	810.32	2.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:15 AM	3,006.30	751.57	2.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:30 AM	2,789.78	697.44	2.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:45 AM	2,617.70	654.42	2.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:00 AM	2,489.10	622.28	2.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:15 AM	2,394.07	598.52	2.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:30 AM	2,304.73	576.18	2.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:45 AM	2,246.46	561.61	2.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:00 PM	2,190.01	547.50	2.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:15 PM	2,155.62	538.90	2.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:30 PM	2,122.30	530.57	1.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:45 PM	2,114.39	528.60	1.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:00 PM	2,103.76	525.94	1.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:15 PM	2,115.75	528.94	1.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:30 PM	2,124.12	531.03	1.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:45 PM	2,157.46	539.37	2.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:00 PM	2,201.50	550.37	2.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:15 PM	2,336.58	584.15	2.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:30 PM	2,627.30	656.82	2.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:45 PM	3,147.63	786.91	2.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:00 PM	3,743.16	935.79	3.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:15 PM	4,454.63	1113.66	4.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:30 PM	5,230.37	1307.59	4.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:45 PM	6,224.65	1556.16	5.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
4:00 PM	7,266.21	1816.55	6.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
4:15 PM	8,513.87	2128.47	7.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
4:30 PM	10,283.22	2570.80	9.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
4:45 PM	12,753.16	3188.29	11.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
5:00 PM	15,829.89	3957.47	14.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
5:15 PM	19,949.19	4987.30	18.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
5:30 PM	25,364.78	6341.20	23.1%	644.25	161.06	0.6%	644.25	161.06	0.6%
5:45 PM	33,254.26	7648.48	30.2%	1,459.90	335.78	1.3%	1,640.28	377.26	1.5%
5:58 PM	46,394.73	5103.42	42.2%	1,035.60	113.92	0.9%	2,312.63	254.39	2.1%



#### Analysis Hours: 8:09 AM-5:47 PM (PDT)

#### **MARCH 8 SIMILAR**

Analysis Time		CURRENT SHADOV	V	NEW SHADO	W FROM 1052 FOL	SOM STREET	1052 FOLSOM	STREET + CUMUL	ATIVE SHADOW
Analysis Time	Area (sf)	Area/Time (sfh)	Coverage	Area (sf)	Area/Time (sfh)	Coverage	Area (sf)	Area/Time (sfh)	Coverage
8:09 AM	22,677.96	907.12	20.6%	0.00	0.00	0.0%	12,421.69	496.87	11.3%
8:15 AM	17,445.54	2965.74	15.9%	0.00	0.00	0.0%	6,597.61	1121.59	6.0%
8:30 AM	9,671.45	2417.86	8.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:45 AM	6,832.30	1708.08	6.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:00 AM	5,085.16	1271.29	4.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:15 AM	4,434.09	1108.52	4.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:30 AM	3,996.82	999.20	3.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:45 AM	3,651.61	912.90	3.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:00 AM	3,357.22	839.30	3.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:15 AM	3,109.08	777.27	2.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:30 AM	2,893.78	723.44	2.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:45 AM	2,745.73	686.43	2.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:00 AM	2,615.86	653.96	2.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:15 AM	2,517.66	629.41	2.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:30 AM	2,428.38	607.09	2.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:45 AM	2,370.62	592.66	2.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:00 PM	2,311.82	577.96	2.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:15 PM	2,278.57	569.64	2.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:30 PM	2,245.35	561.34	2.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:45 PM	2,238.75	559.69	2.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:00 PM	2,229.25	557.31	2.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:15 PM	2,243.85	560.96	2.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:30 PM	2,253.28	563.32	2.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:45 PM	2,319.50	579.88	2.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:00 PM	2,445.91	611.48	2.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:15 PM	2,836.94	709.24	2.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:30 PM	3,315.30	828.83	3.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:45 PM	3,931.43	982.86	3.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:00 PM	4,567.18	1141.80	4.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:15 PM	5,379.08	1344.77	4.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:30 PM	6,340.93	1585.23	5.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:45 PM	7,452.37	1863.09	6.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
4:00 PM	8,670.20	2167.55	7.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
4:15 PM	10,496.12	2624.03	9.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
4:30 PM	12,793.07	3198.27	11.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
4:45 PM	15,935.32	3983.83	14.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
5:00 PM	19,878.11	4969.53	18.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
5:15 PM	25,070.93	6267.73	22.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
5:30 PM	32,188.92	8691.01	29.3%	491.88	132.81	0.4%	730.35	197.20	0.7%
5:47 PM	48,448.35	6782.77	44.0%	525.31	73.54	0.5%	2,574.15	360.38	2.3%



Analysis Hours: 8:16 AM-5:37 PM (PDT)

#### Quantitative Shading Calculations for 1052 Folsom Street

#### MARCH 1 SIMILAR

Analysis Time		CURRENT SHADOW	I	NEW SHADO	W FROM 1052 FOI	LSOM STREET	1052 FOLSOM	STREET + CUMUL	ATIVE SHADOW
Analysis Time	Area (sf)	Area/Time (sfh)	Coverage	Area (sf)	Area/Time (sfh)	Coverage	Area (sf)	Area/Time (sfh)	Coverage
8:16 AM	22,762.53	2731.50	20.7%	0.00	0.00	0.0%	10,340.79	1240.89	9.4%
8:30 AM	10,884.25	2612.22	9.9%	0.00	0.00	0.0%	354.09	84.98	0.3%
8:45 AM	7,039.56	1759.89	6.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:00 AM	5,337.84	1334.46	4.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:15 AM	4,650.16	1162.54	4.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:30 AM	4,176.04	1044.01	3.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:45 AM	3,802.55	950.64	3.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:00 AM	3,485.49	871.37	3.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:15 AM	3,225.66	806.42	2.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:30 AM	3,026.55	756.64	2.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:45 AM	2,885.20	721.30	2.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:00 AM	2,755.01	688.75	2.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:15 AM	2,653.27	663.32	2.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:30 AM	2,563.34	640.84	2.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:45 AM	2,502.99	625.75	2.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:00 PM	2,443.34	610.84	2.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:15 PM	2,409.43	602.36	2.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:30 PM	2,377.56	594.39	2.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:45 PM	2,371.87	592.97	2.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:00 PM	2,363.38	590.84	2.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:15 PM	2,379.14	594.78	2.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:30 PM	2,433.87	608.47	2.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:45 PM	2,608.71	652.18	2.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:00 PM	2,997.40	749.35	2.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:15 PM	3,530.65	882.66	3.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:30 PM	4,084.34	1021.08	3.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:45 PM	4,736.80	1184.20	4.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:00 PM	5,480.27	1370.07	5.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:15 PM	6,492.85	1623.21	5.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:30 PM	7,639.69	1909.92	6.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:45 PM	9,050.74	2262.69	8.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
4:00 PM	10,759.02	2689.75	9.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
4:15 PM	13,069.18	3267.29	11.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
4:30 PM	15,934.60	3983.65	14.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
4:45 PM	19,736.23	4934.06	17.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
5:00 PM	24,586.30	6146.58	22.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
5:15 PM	31,383.89	7845.97	28.5%	13.49	3.37	0.0%	366.69	91.67	0.3%
5:30 PM	41,123.59	7813.48	37.4%	223.22	42.41	0.2%	1,497.39	284.50	1.4%
5:37 PM	50,060.16	3003.61	45.5%	164.58	9.87	0.1%	2,873.30	172.40	2.6%

**OCTOBER 18** 

#### Analysis Hours: 8:22 AM-5:27 PM (PDT)

#### **FEBRUARY 22 SIMILAR**

Analysis Time		CURRENT SHADOV	V	NEW SHADO	W FROM 1052 FOL	SOM STREET	1052 FOLSOM	STREET + CUMUL	ATIVE SHADOW
	Area (sf)	Area/Time (sfh)	Coverage	Area (sf)	Area/Time (sfh)	Coverage	Area (sf)	Area/Time (sfh)	Coverage
8:22 AM	23,750.03	1425.00	21.6%	0.00	0.00	0.0%	7,166.96	430.02	6.5%
8:30 AM	17,359.30	3124.67	15.8%	0.00	0.00	0.0%	1,262.77	227.30	1.1%
8:45 AM	7,788.88	1947.22	7.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:00 AM	5,632.00	1408.00	5.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:15 AM	4,927.99	1232.00	4.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:30 AM	4,380.92	1095.23	4.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:45 AM	3,973.00	993.25	3.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:00 AM	3,629.60	907.40	3.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:15 AM	3,366.29	841.57	3.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:30 AM	3,176.07	794.02	2.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:45 AM	3,032.65	758.16	2.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:00 AM	2,902.28	725.57	2.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:15 AM	2,801.96	700.49	2.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:30 AM	2,709.27	677.32	2.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:45 AM	2,645.62	661.40	2.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:00 PM	2,582.10	645.53	2.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:15 PM	2,549.68	637.42	2.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:30 PM	2,516.35	629.09	2.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:45 PM	2,511.66	627.91	2.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:00 PM	2,504.05	626.01	2.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:15 PM	2,587.19	646.80	2.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:30 PM	2,761.73	690.43	2.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:45 PM	3,196.81	799.20	2.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:00 PM	3,677.72	919.43	3.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:15 PM	4,267.99	1067.00	3.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:30 PM	4,860.99	1215.25	4.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:45 PM	5,642.40	1410.60	5.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:00 PM	6,561.91	1640.48	6.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:15 PM	7,769.68	1942.42	7.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:30 PM	9,253.62	2313.41	8.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:45 PM	11,250.53	2812.63	10.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
4:00 PM	13,358.93	3339.73	12.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
4:15 PM	16,221.73	4055.43	14.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
4:30 PM	19,605.03	4901.26	17.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
4:45 PM	24,088.89	6022.22	21.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
5:00 PM	30,282.79	7570.70	27.5%	0.00	0.00	0.0%	454.30	113.57	0.4%
5:15 PM	38,015.46	8363.40	34.6%	0.00	0.00	0.0%	1,131.59	248.95	1.0%
5:27 PM	51,391.14	5139.11	46.7%	0.00	0.00	0.0%	2,546.16	254.62	2.3%

**OCTOBER 25** 

Analysis Hours: 7:30 AM-4:18 PM (PST)

#### FEBRUARY 15 SIMILAR

Analysis Time		CURRENT SHADOW		NEW SHADO	W FROM 1052 FOI	SOM STREET	1052 FOLSOM	STREET + CUMUL	ATIVE SHADOW
Analysis Time	Area (sf)	Area/Time (sfh)	Coverage	Area (sf)	Area/Time (sfh)	Coverage	Area (sf)	Area/Time (sfh)	Coverage
7:30 AM	27,383.57	3559.86	24.9%	0.00	0.00	0.0%	3,124.08	406.13	2.8%
7:45 AM	13,368.75	3342.19	12.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:00 AM	6,347.65	1586.91	5.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:15 AM	5,232.31	1308.08	4.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:30 AM	4,641.05	1160.26	4.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:45 AM	4,167.43	1041.86	3.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:00 AM	3,797.62	949.40	3.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:15 AM	3,544.06	886.01	3.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:30 AM	3,340.55	835.14	3.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:45 AM	3,188.59	797.15	2.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:00 AM	3,053.62	763.40	2.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:15 AM	2,956.46	739.11	2.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:30 AM	2,862.62	715.65	2.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:45 AM	2,795.48	698.87	2.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:00 AM	2,729.95	682.49	2.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:15 AM	2,695.63	673.91	2.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:30 AM	2,662.03	665.51	2.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:45 AM	2,659.52	664.88	2.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:00 PM	2,724.25	681.06	2.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:15 PM	2,954.75	738.69	2.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:30 PM	3,331.70	832.92	3.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:45 PM	3,849.54	962.38	3.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:00 PM	4,368.63	1092.16	4.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:15 PM	5,001.75	1250.44	4.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:30 PM	5,715.64	1428.91	5.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:45 PM	6,679.81	1669.95	6.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:00 PM	7,775.31	1943.83	7.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:15 PM	9,318.21	2329.55	8.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:30 PM	11,283.18	2820.79	10.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:45 PM	13,816.21	3454.05	12.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:00 PM	16,422.50	4105.63	14.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:15 PM	19,795.05	4948.76	18.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:30 PM	23,750.14	5937.53	21.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:45 PM	29,083.57	7270.89	26.4%	0.00	0.00	0.0%	373.47	93.37	0.3%
4:00 PM	36,773.21	9193.30	33.4%	0.00	0.00	0.0%	988.19	247.05	0.9%
4:15 PM	49,457.71	7418.66	45.0%	0.00	0.00	0.0%	2,786.32	417.95	2.5%
4:18 PM	52,106.71	1563.20	47.4%	0.00	0.00	0.0%	2,342.47	70.27	2.1%

**NOVEMBER 1** 

Analysis Hours: 7:36 AM-4:10 PM (PST)

#### **FEBRUARY 8 SIMILAR**

Analvsis Time		CURRENT SHADOV	l	NEW SHADO	W FROM 1052 FOL	SOM STREET	1052 FOLSOM	STREET + CUMUL	ATIVE SHADOW
Analysis fille	Area (sf)	Area/Time (sfh)	Coverage	Area (sf)	Area/Time (sfh)	Coverage	Area (sf)	Area/Time (sfh)	Coverage
7:36 AM	32,144.80	2250.14	29.2%	0.00	0.00	0.0%	404.49	28.31	0.4%
7:45 AM	23,709.95	4504.89	21.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:00 AM	9,297.88	2324.47	8.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:15 AM	5,793.83	1448.46	5.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:30 AM	4,914.42	1228.61	4.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:45 AM	4,390.72	1097.68	4.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:00 AM	3,998.65	999.66	3.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:15 AM	3,739.21	934.80	3.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:30 AM	3,519.49	879.87	3.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:45 AM	3,357.66	839.42	3.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:00 AM	3,212.25	803.06	2.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:15 AM	3,112.19	778.05	2.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:30 AM	3,017.51	754.38	2.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:45 AM	2,950.95	737.74	2.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:00 AM	2,881.74	720.44	2.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:15 AM	2,845.70	711.42	2.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:30 AM	2,812.18	703.04	2.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:45 AM	2,892.30	723.07	2.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:00 PM	3,083.39	770.85	2.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:15 PM	3,498.43	874.61	3.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:30 PM	3,938.27	984.57	3.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:45 PM	4,486.76	1121.69	4.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:00 PM	5,040.43	1260.11	4.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:15 PM	5,797.93	1449.48	5.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:30 PM	6,659.91	1664.98	6.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:45 PM	7,825.78	1956.44	7.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:00 PM	9,168.03	2292.01	8.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:15 PM	11,156.90	2789.23	10.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:30 PM	13,499.74	3374.94	12.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:45 PM	16,555.82	4138.96	15.1%	0.00	0.00	0.0%	17.81	4.45	0.0%
3:00 PM	19,753.57	4938.39	18.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:15 PM	23,732.65	5933.16	21.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:30 PM	28,238.33	7059.58	25.7%	0.00	0.00	0.0%	267.97	66.99	0.2%
3:45 PM	34,548.00	8637.00	31.4%	0.00	0.00	0.0%	868.13	217.03	0.8%
4:00 PM	45,145.66	9480.59	41.0%	0.00	0.00	0.0%	2,691.15	565.14	2.4%
4:10 PM	54,160.05	4874.40	49.2%	0.00	0.00	0.0%	2,006.86	180.62	1.8%

**NOVEMBER 8** 

Analysis Hours: 7:43 AM-4:03 PM (PST)

#### **FEBRUARY 1 SIMILAR**

Analysis Time		CURRENT SHADOV	I	NEW SHADO	W FROM 1052 FOL	SOM STREET	1052 FOLSOM	STREET + CUMUL	ATIVE SHADOW
Analysis fille	Area (sf)	Area/Time (sfh)	Coverage	Area (sf)	Area/Time (sfh)	Coverage	Area (sf)	Area/Time (sfh)	Coverage
7:43 AM	38,058.80	380.59	34.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
7:45 AM	37,073.56	4819.56	33.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:00 AM	19,775.18	4943.79	18.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:15 AM	7,062.25	1765.56	6.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:30 AM	5,312.74	1328.19	4.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:45 AM	4,669.17	1167.29	4.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:00 AM	4,235.68	1058.92	3.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:15 AM	3,949.68	987.42	3.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:30 AM	3,709.70	927.42	3.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:45 AM	3,532.37	883.09	3.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:00 AM	3,376.92	844.23	3.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:15 AM	3,269.59	817.40	3.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:30 AM	3,170.07	792.52	2.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:45 AM	3,102.38	775.59	2.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:00 AM	3,035.39	758.85	2.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:15 AM	2,997.32	749.33	2.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:30 AM	3,033.64	758.41	2.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:45 AM	3,239.57	809.89	2.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:00 PM	3,572.56	893.14	3.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:15 PM	4,046.87	1011.72	3.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:30 PM	4,507.25	1126.81	4.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:45 PM	5,084.53	1271.13	4.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:00 PM	5,734.16	1433.54	5.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:15 PM	6,631.32	1657.83	6.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:30 PM	7,656.17	1914.04	7.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:45 PM	9,048.43	2262.11	8.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:00 PM	10,739.53	2684.88	9.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:15 PM	13,078.28	3269.57	11.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:30 PM	15,820.13	3955.03	14.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:45 PM	19,306.68	4826.67	17.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:00 PM	23,207.26	5801.82	21.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:15 PM	27,802.01	6950.50	25.3%	0.00	0.00	0.0%	99.50	24.88	0.1%
3:30 PM	32,971.25	8242.81	30.0%	0.00	0.00	0.0%	777.69	194.42	0.7%
3:45 PM	40,663.78	10165.95	37.0%	0.00	0.00	0.0%	1,371.24	342.81	1.2%
4:00 PM	53,825.11	8073.77	48.9%	0.00	0.00	0.0%	2,298.31	344.75	2.1%
4:03 PM	57,374.07	1721.22	52.2%	0.00	0.00	0.0%	1,526.15	45.78	1.4%

Quantitative Shading Calculations for 1052 Folsom Street

## **NOVEMBER 15**

Analysis Hours: 7:51 AM-3:57 PM (PST)

#### **JANUARY 25 SIMILAR**

Analysis Time		CURRENT SHADOV	I	NEW SHADO	W FROM 1052 FOL	SOM STREET	1052 FOLSOM	STREET + CUMUL	ATIVE SHADOW
7 maryolo mine	Area (sf)	Area/Time (sfh)	Coverage	Area (sf)	Area/Time (sfh)	Coverage	Area (sf)	Area/Time (sfh)	Coverage
7:51 AM	44,232.82	3538.63	40.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:00 AM	32,858.75	6571.75	29.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:15 AM	14,685.16	3671.29	13.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:30 AM	6,244.71	1561.18	5.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:45 AM	4,977.32	1244.33	4.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:00 AM	4,512.78	1128.20	4.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:15 AM	4,172.62	1043.16	3.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:30 AM	3,907.01	976.75	3.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:45 AM	3,711.82	927.95	3.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:00 AM	3,543.72	885.93	3.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:15 AM	3,427.21	856.80	3.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:30 AM	3,318.57	829.64	3.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:45 AM	3,248.21	812.05	3.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:00 AM	3,178.55	794.64	2.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:15 AM	3,204.75	801.19	2.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:30 AM	3,323.95	830.99	3.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:45 AM	3,670.19	917.55	3.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:00 PM	4,047.49	1011.87	3.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:15 PM	4,541.64	1135.41	4.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:30 PM	5,018.64	1254.66	4.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:45 PM	5,673.42	1418.36	5.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:00 PM	6,424.32	1606.08	5.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:15 PM	7,462.39	1865.60	6.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:30 PM	8,671.48	2167.87	7.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:45 PM	10,314.66	2578.66	9.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:00 PM	12,311.05	3077.76	11.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:15 PM	14,957.48	3739.37	13.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:30 PM	18,004.75	4501.19	16.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:45 PM	21,845.46	5461.37	19.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:00 PM	26,524.39	6631.10	24.1%	0.00	0.00	0.0%	7.12	1.78	0.0%
3:15 PM	31,832.95	7958.24	28.9%	0.00	0.00	0.0%	440.50	110.13	0.4%
3:30 PM	37,625.34	9406.34	34.2%	0.00	0.00	0.0%	1,291.57	322.89	1.2%
3:45 PM	47,259.64	10869.72	43.0%	0.00	0.00	0.0%	2,787.38	641.10	2.5%
3:57 PM	59,987.03	6598.57	54.5%	0.00	0.00	0.0%	1,015.09	111.66	0.9%

Quantitative Shading Calculations for 1052 Folsom Street

## **NOVEMBER 22**

Analysis Hours: 7:57 AM-3:54 PM (PST)

#### **JANUARY 18 SIMILAR**

Analysis Time		CURRENT SHADOW	I	NEW SHADO	W FROM 1052 FOL	SOM STREET	1052 FOLSOM	STREET + CUMUL	ATIVE SHADOW
	Area (sf)	Area/Time (sfh)	Coverage	Area (sf)	Area/Time (sfh)	Coverage	Area (sf)	Area/Time (sfh)	Coverage
7:57 AM	50,237.13	1004.74	45.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:00 AM	47,633.69	7145.05	43.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:15 AM	25,459.62	6364.91	23.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:30 AM	9,705.50	2426.37	8.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:45 AM	5,674.59	1418.65	5.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:00 AM	4,782.50	1195.62	4.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:15 AM	4,424.59	1106.15	4.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:30 AM	4,107.75	1026.94	3.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:45 AM	3,890.60	972.65	3.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:00 AM	3,707.31	926.83	3.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:15 AM	3,579.35	894.84	3.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:30 AM	3,461.03	865.26	3.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:45 AM	3,384.78	846.20	3.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:00 AM	3,332.11	833.03	3.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:15 AM	3,435.43	858.86	3.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:30 AM	3,670.87	917.72	3.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:45 AM	4,062.06	1015.51	3.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:00 PM	4,455.91	1113.98	4.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:15 PM	4,959.52	1239.88	4.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:30 PM	5,474.03	1368.51	5.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:45 PM	6,208.48	1552.12	5.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:00 PM	7,051.93	1762.98	6.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:15 PM	8,236.26	2059.07	7.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:30 PM	9,624.00	2406.00	8.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:45 PM	11,506.66	2876.66	10.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:00 PM	13,677.55	3419.39	12.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:15 PM	16,580.38	4145.09	15.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:30 PM	19,850.90	4962.73	18.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:45 PM	24,048.78	6012.19	21.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:00 PM	29,128.72	7282.18	26.5%	0.00	0.00	0.0%	137.22	34.31	0.1%
3:15 PM	35,468.04	8867.01	32.2%	0.00	0.00	0.0%	791.99	198.00	0.7%
3:30 PM	42,187.10	10546.78	38.4%	0.00	0.00	0.0%	1,599.98	399.99	1.5%
3:45 PM	52,263.22	10452.64	47.5%	0.00	0.00	0.0%	2,790.03	558.01	2.5%
3:54 PM	62,159.62	4972.77	56.5%	0.00	0.00	0.0%	765.69	61.26	0.7%

Quantitative Shading Calculations for 1052 Folsom Street

## **NOVEMBER 29**

Analysis Hours: 8:04 AM-3:51 PM (PST)

#### **JANUARY 11 SIMILAR**

Analysis Time		CURRENT SHADOV	I	NEW SHADO	W FROM 1052 FOL	SOM STREET	1052 FOLSOM	STREET + CUMUL	ATIVE SHADOW
, analysis mile	Area (sf)	Area/Time (sfh)	Coverage	Area (sf)	Area/Time (sfh)	Coverage	Area (sf)	Area/Time (sfh)	Coverage
8:04 AM	55,129.78	4961.68	50.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:15 AM	38,362.18	8056.06	34.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:30 AM	16,722.86	4180.71	15.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:45 AM	6,790.39	1697.60	6.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:00 AM	5,199.15	1299.79	4.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:15 AM	4,653.83	1163.46	4.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:30 AM	4,302.38	1075.59	3.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:45 AM	4,062.41	1015.60	3.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:00 AM	3,860.89	965.22	3.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:15 AM	3,720.98	930.25	3.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:30 AM	3,591.40	897.85	3.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:45 AM	3,507.43	876.86	3.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:00 AM	3,509.03	877.26	3.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:15 AM	3,685.09	921.27	3.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:30 AM	3,959.80	989.95	3.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:45 AM	4,344.07	1086.02	3.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:00 PM	4,709.47	1177.37	4.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:15 PM	5,255.46	1313.86	4.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:30 PM	5,844.00	1461.00	5.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:45 PM	6,649.99	1662.50	6.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:00 PM	7,563.68	1890.92	6.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:15 PM	8,894.76	2223.69	8.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:30 PM	10,383.66	2595.91	9.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:45 PM	12,443.34	3110.83	11.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:00 PM	14,765.52	3691.38	13.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:15 PM	17,804.39	4451.10	16.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:30 PM	21,222.66	5305.67	19.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:45 PM	25,721.59	6430.40	23.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:00 PM	31,059.40	7764.85	28.2%	0.00	0.00	0.0%	226.79	56.70	0.2%
3:15 PM	38,487.66	9621.92	35.0%	0.00	0.00	0.0%	957.43	239.36	0.9%
3:30 PM	45,617.71	11404.43	41.5%	0.00	0.00	0.0%	1,585.81	396.45	1.4%
3:45 PM	56,005.46	10080.98	50.9%	0.00	0.00	0.0%	2,040.50	367.29	1.9%
3:51 PM	63,847.59	3192.38	58.0%	0.00	0.00	0.0%	649.13	32.46	0.6%

**DECEMBER 6** 

Analysis Hours: 8:10 AM-3:51 PM (PST)

#### **JANUARY 4 SIMILAR**

Analysis Time	CURRENT SHADOW			NEW SHADO	W FROM 1052 FOL	SOM STREET	1052 FOLSOM STREET + CUMULATIVE SHADOW		
7 analysis mile	Area (sf)	Area/Time (sfh)	Coverage	Area (sf)	Area/Time (sfh)	Coverage	Area (sf)	Area/Time (sfh)	Coverage
8:10 AM	58,727.73	2349.11	53.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:15 AM	51,919.00	8826.23	47.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:30 AM	24,730.79	6182.70	22.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:45 AM	10,585.80	2646.45	9.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:00 AM	5,877.35	1469.34	5.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:15 AM	4,890.04	1222.51	4.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:30 AM	4,503.98	1126.00	4.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:45 AM	4,217.89	1054.47	3.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:00 AM	3,997.05	999.26	3.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:15 AM	3,843.05	960.76	3.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:30 AM	3,702.53	925.63	3.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:45 AM	3,622.59	905.65	3.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:00 AM	3,654.68	913.67	3.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:15 AM	3,874.15	968.54	3.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:30 AM	4,162.21	1040.55	3.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:45 AM	4,593.68	1148.42	4.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:00 PM	4,998.37	1249.59	4.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:15 PM	5,520.25	1380.06	5.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:30 PM	6,093.36	1523.34	5.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:45 PM	6,941.69	1735.42	6.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:00 PM	7,903.63	1975.91	7.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:15 PM	9,328.46	2332.11	8.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:30 PM	10,880.47	2720.12	9.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:45 PM	13,013.14	3253.29	11.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:00 PM	15,415.98	3854.00	14.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:15 PM	18,529.57	4632.39	16.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:30 PM	22,016.99	5504.25	20.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:45 PM	26,625.96	6656.49	24.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:00 PM	32,147.39	8036.85	29.2%	0.00	0.00	0.0%	307.53	76.88	0.3%
3:15 PM	39,985.00	9996.25	36.4%	0.00	0.00	0.0%	1,134.83	283.71	1.0%
3:30 PM	47,599.71	11899.93	43.3%	0.00	0.00	0.0%	1,642.69	410.67	1.5%
3:45 PM	57,847.36	9834.05	52.6%	0.00	0.00	0.0%	1,693.58	287.91	1.5%
3:51 PM	65,265.53	3263.28	59.3%	0.00	0.00	0.0%	524.12	26.21	0.5%

Quantitative Shading Calculations for 1052 Folsom Street

### **DECEMBER 13**

Analysis Hours: 8:15 AM-3:52 PM (PST)

#### **DECEMBER 28 SIMILAR**

Analysis Time	CURRENT SHADOW			NEW SHADO	W FROM 1052 FOL	SOM STREET	1052 FOLSOM STREET + CUMULATIVE SHADOW		
/ indigoio mino	Area (sf)	Area/Time (sfh)	Coverage	Area (sf)	Area/Time (sfh)	Coverage	Area (sf)	Area/Time (sfh)	Coverage
8:15 AM	60,861.84	7303.42	55.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:30 AM	34,071.58	8517.90	31.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:45 AM	15,084.68	3771.17	13.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:00 AM	6,676.20	1669.05	6.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:15 AM	5,228.87	1307.22	4.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:30 AM	4,658.48	1164.62	4.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:45 AM	4,347.29	1086.82	4.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:00 AM	4,106.68	1026.67	3.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:15 AM	3,939.57	984.89	3.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:30 AM	3,787.73	946.93	3.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:45 AM	3,708.64	927.16	3.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:00 AM	3,744.97	936.24	3.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:15 AM	3,973.35	993.34	3.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:30 AM	4,259.47	1064.87	3.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:45 AM	4,675.25	1168.81	4.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:00 PM	5,067.73	1266.93	4.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:15 PM	5,603.25	1400.81	5.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:30 PM	6,188.88	1547.22	5.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:45 PM	7,045.73	1761.43	6.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:00 PM	8,016.62	2004.15	7.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:15 PM	9,458.79	2364.70	8.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:30 PM	11,031.39	2757.85	10.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:45 PM	13,166.00	3291.50	12.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:00 PM	15,569.39	3892.35	14.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:15 PM	18,676.84	4669.21	17.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:30 PM	22,138.17	5534.54	20.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:45 PM	26,691.06	6672.76	24.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:00 PM	32,200.37	8050.09	29.3%	0.00	0.00	0.0%	301.44	75.36	0.3%
3:15 PM	40,017.87	10004.47	36.4%	0.00	0.00	0.0%	943.21	235.80	0.9%
3:30 PM	48,040.50	12010.13	43.7%	0.00	0.00	0.0%	1,772.42	443.10	1.6%
3:45 PM	57,614.14	10370.54	52.4%	0.00	0.00	0.0%	1,771.10	318.80	1.6%
3:52 PM	66,234.41	3974.06	60.2%	0.00	0.00	0.0%	446.53	26.79	0.4%

Quantitative Shading Calculations for 1052 Folsom Street

## **DECEMBER 20**

Analysis Hours: 8:19 AM-3:54 PM (PST)

#### WINTER SOLSTICE December 21 Similar

Analysis Time	CURRENT SHADOW			NEW SHADO	W FROM 1052 FOL	SOM STREET	1052 FOLSOM STREET + CUMULATIVE SHADOW		
, analysis mile	Area (sf)	Area/Time (sfh)	Coverage	Area (sf)	Area/Time (sfh)	Coverage	Area (sf)	Area/Time (sfh)	Coverage
8:19 AM	61,665.22	4933.22	56.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:30 AM	42,423.43	8908.92	38.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
8:45 AM	19,186.21	4796.55	17.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:00 AM	7,823.62	1955.90	7.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:15 AM	5,583.07	1395.77	5.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:30 AM	4,770.93	1192.73	4.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
9:45 AM	4,439.25	1109.81	4.0%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:00 AM	4,180.88	1045.22	3.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:15 AM	4,001.02	1000.25	3.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:30 AM	3,840.00	960.00	3.5%	0.00	0.00	0.0%	0.00	0.00	0.0%
10:45 AM	3,745.08	936.27	3.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:00 AM	3,767.18	941.80	3.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:15 AM	3,973.61	993.40	3.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:30 AM	4,247.59	1061.90	3.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
11:45 AM	4,654.46	1163.61	4.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:00 PM	5,038.24	1259.56	4.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:15 PM	5,557.98	1389.50	5.1%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:30 PM	6,126.25	1531.56	5.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
12:45 PM	6,957.41	1739.35	6.3%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:00 PM	7,896.41	1974.10	7.2%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:15 PM	9,288.29	2322.07	8.4%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:30 PM	10,833.15	2708.29	9.8%	0.00	0.00	0.0%	0.00	0.00	0.0%
1:45 PM	12,909.47	3227.37	11.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:00 PM	15,240.08	3810.02	13.9%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:15 PM	18,274.53	4568.63	16.6%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:30 PM	21,627.75	5406.94	19.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
2:45 PM	28,229.37	7057.34	25.7%	0.00	0.00	0.0%	0.00	0.00	0.0%
3:00 PM	31,315.41	7828.85	28.5%	0.00	0.00	0.0%	222.58	55.65	0.2%
3:15 PM	41,777.01	10444.25	38.0%	0.00	0.00	0.0%	448.83	112.21	0.4%
3:30 PM	47,039.37	11759.84	42.8%	0.00	0.00	0.0%	1,876.50	469.13	1.7%
3:45 PM	56,162.54	11794.13	51.1%	0.00	0.00	0.0%	1,984.44	416.73	1.8%
3:54 PM	58,854.15	4708.33	53.5%	0.00	0.00	0.0%	920.36	73.63	0.8%

### APPENDIX 1: CUMULATIVE PROJECT SHADOW COMPARISON

Quantitative Shading for Cumulative Projects: Individual/Aggregated

ShadowData for:

- All Cumulative Projects Combined without 1052 Folsom Street
- 280 7th Street
- 1075-1089 Folsom Street
- 40 Cleveland Street
- 999 Folsom Street
- 363 6th Street
- 345 6th Street
- 988 Harrison Street
- 850 Bryant Street (Hall of Justice)



SHADOW DATA INFORMATION	ALL CUMULATIVE	280 7TH STREET	40 CLEVELAND	1075-89 FOLSOM	999 FOLSOM	363 6TH STREET	345 6TH STREET	988 HARRISON	850 BRYANT (HOJ)
Net New Annual Shadow (SFH)	276,282 sfh	None	13,206 sfh	156,666 sfh	None	None	None	None	106,510 sfh
Shadow as percentage of TAAS	0.07%	N/A	0.003%	0.04%	N/A	N/A	N/A	N/A	0.03%
Largest net new shadow (sf)	10,954 sf	N/A	954 sf	2,551 sf	N/A	N/A	N/A	N/A	10,954 sf
Date(s) of largest net new shadow	Mar 8 / Oct 4	N/A	Feb 8 & Nov 1	Nov 15 & Jan 25	N/A	N/A	N/A	N/A	Mar 8 / Oct 4
Time largest shadow occurs	8:09 AM	N/A	4:10 PM	3:45 PM	N/A	N/A	N/A	N/A	8:09 AM
Dates affected by net new shadow	Year-Round	N/A	Sep 29 - Mar 15	Year-Round	N/A	N/A	N/A	N/A	2/3-4/25 & 8/17-11/7

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### 1052 FOLSOM STREET CUMULATIVE PROJECT SHADING SUMMARY FOR VICTORIA MANALO DRAVES PARK

October 11, 2018

1052 Folsom Street
Parks and Open Spaces
Victoria Manalo Draves Park (RPD)
Gene Friend Rec Center (RPD)
Cumulative Projects
280 7th Street
280 7th Street
1075-1089 Folsom Street
40 Cleveland Street
999 Folsom Street
363 6th Street
345 6th Street
988 Harrison Street
850 Bryant Street (Hall of Justice)

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