

# Solar Project Update

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LASD Board of Trustees

May 22, 2017

# Selection Process for Solar Provider

- District sent RFP to over 2 dozen companies
- 7 responses; short-listed 3 companies to interview
- Conducted interviews on May 9
- Terra Verde (consultant to LASD) followed up interviews with Q & A with top 2 candidates and reference checking
- Based on price and all other factors, District has selected **Forefront Power** as top choice
- Next Step: Negotiate contract terms



# Overview

- Power Purchase Agreement
- Proposed solar arrays would generate 85%+ of annual electricity needed (based on current consumption)
- Mitigations needed to address impacts
  - Parking lots: traffic patterns will change and impact surrounding neighborhoods
  - Tree removal: replacements may be needed
- Outreach needed: parents, neighbors, community
- Other Benefits: Electric charging stations

# Costs & Savings

- Rate per kWh: \$0.149
- Cash Equivalent Price: \$6.35M
- Annual Payments: \$337,317 (no escalation)
- Year 6 Purchase Price: \$3.4M (est.)
- Estimated Annual Savings: \$150,000 - \$200,000



# Source of Funds

- No Measure N funds being used for this project
- District pays utility bill to 3<sup>rd</sup> party provider
  - Estimated payments less than current bills, so 150 – 200k estimated savings
  - Payments come from General Fund (general operating budget)





#### OBJECTS TO BE REMOVED

TREES	7
LIGHT POLES	2

#### ADA PARKING SPACES

TOTAL ADA PARKING SPACES	3
NOT COVERED BY ARRAY	0
COVERED BY ARRAY	3
NEW ADA SPACES	0



ForeFront Power LLC  
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#### PROJECT DETAILS

PROJECT #	CA-17-0067
PORTFOLIO NAME	LOS ALTOS USD
SITE NAME	ALMOND ES
SITE ADDRESS	650 ALMOND AVE LOS ALTOS, CA 94022
LATITUDE/LONGITUDE	37°23'04.36" N 122°06'04.47" W

#### SYSTEM DETAILS

DC SYSTEM SIZE	134.64 KW
AC SYSTEM SIZE	132.00 KW
CEC-AC SIZE	121.97 KW

#### PHOTOVOLTAIC MODULES

MANUFACTURER	TRINA SOLAR
MODEL	TSM-PD14 (II) 340W
TOTAL MODULES	386

#### INVERTERS

MANUFACTURER	SUNGROW
MODEL	SG38KU / SG60KU-M
TOTAL INVERTERS	2 / 1

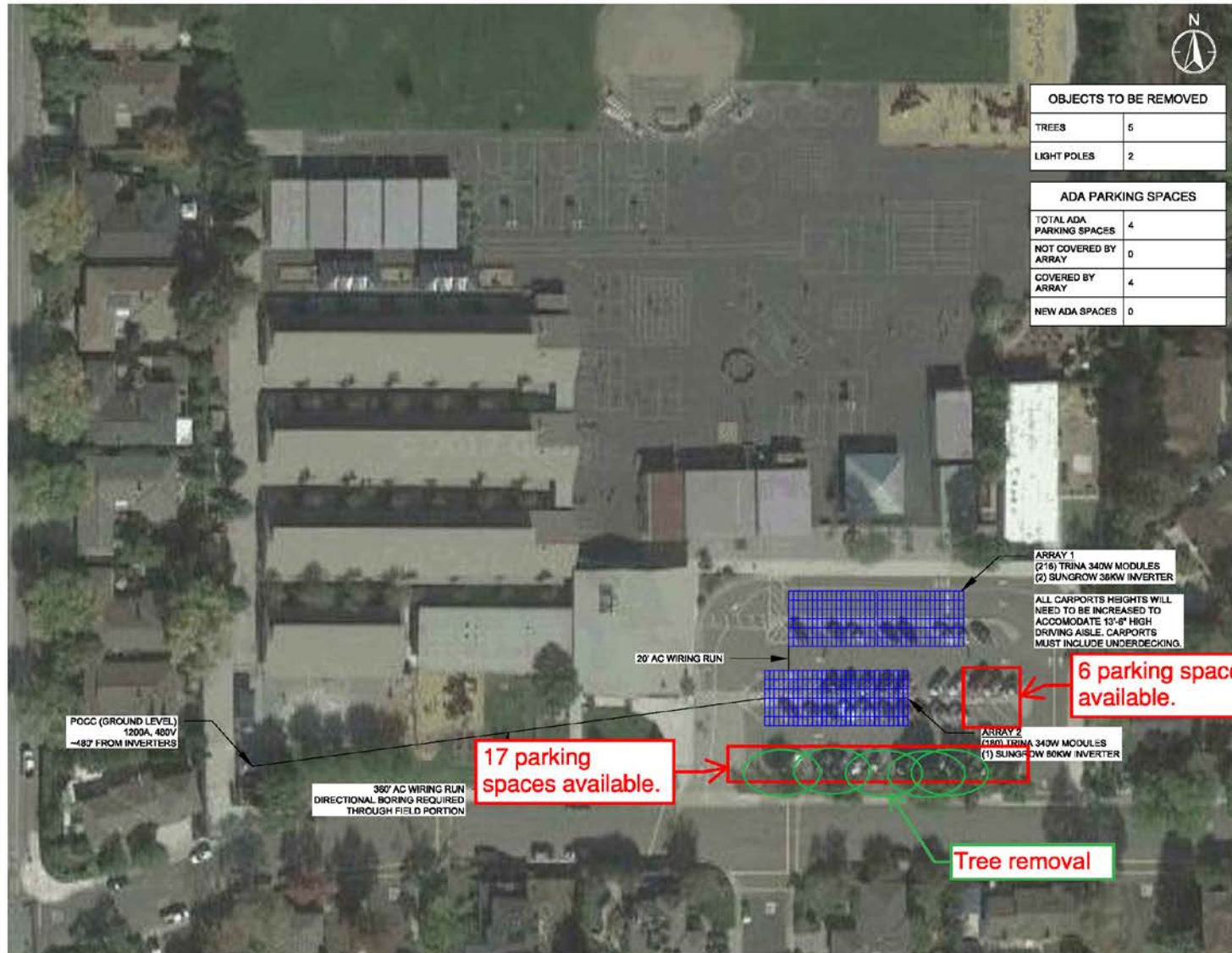
#### RACKING

TYPE	CARPORT
TILT	7°
AZIMUTH	180°

#### SHEET INFORMATION

DATE	4/19/2017
DESIGNER	SV
SCALE	1/8" = 1'-0"
SHEET NO.	CL-1





OBJECTS TO BE REMOVED	
TREES	5
LIGHT POLES	2

ADA PARKING SPACES	
TOTAL ADA PARKING SPACES	4
NOT COVERED BY ARRAY	0
COVERED BY ARRAY	4
NEW ADA SPACES	0



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PROJECT DETAILS	
PROJECT #	CA-17-0073
PORTFOLIO NAME	LOS ALTOS USD
SITE NAME	SPRINGER ES
SITE ADDRESS	1120 ROSE AVE MOUNTAIN VIEW, CA 94040
LATITUDE/LONGITUDE	37°22'18.70" N 122°05'40.33" W

SYSTEM DETAILS	
DC SYSTEM SIZE	134.64 KW
AC SYSTEM SIZE	132.00 KW
CEC-AC SIZE	121.97 KW

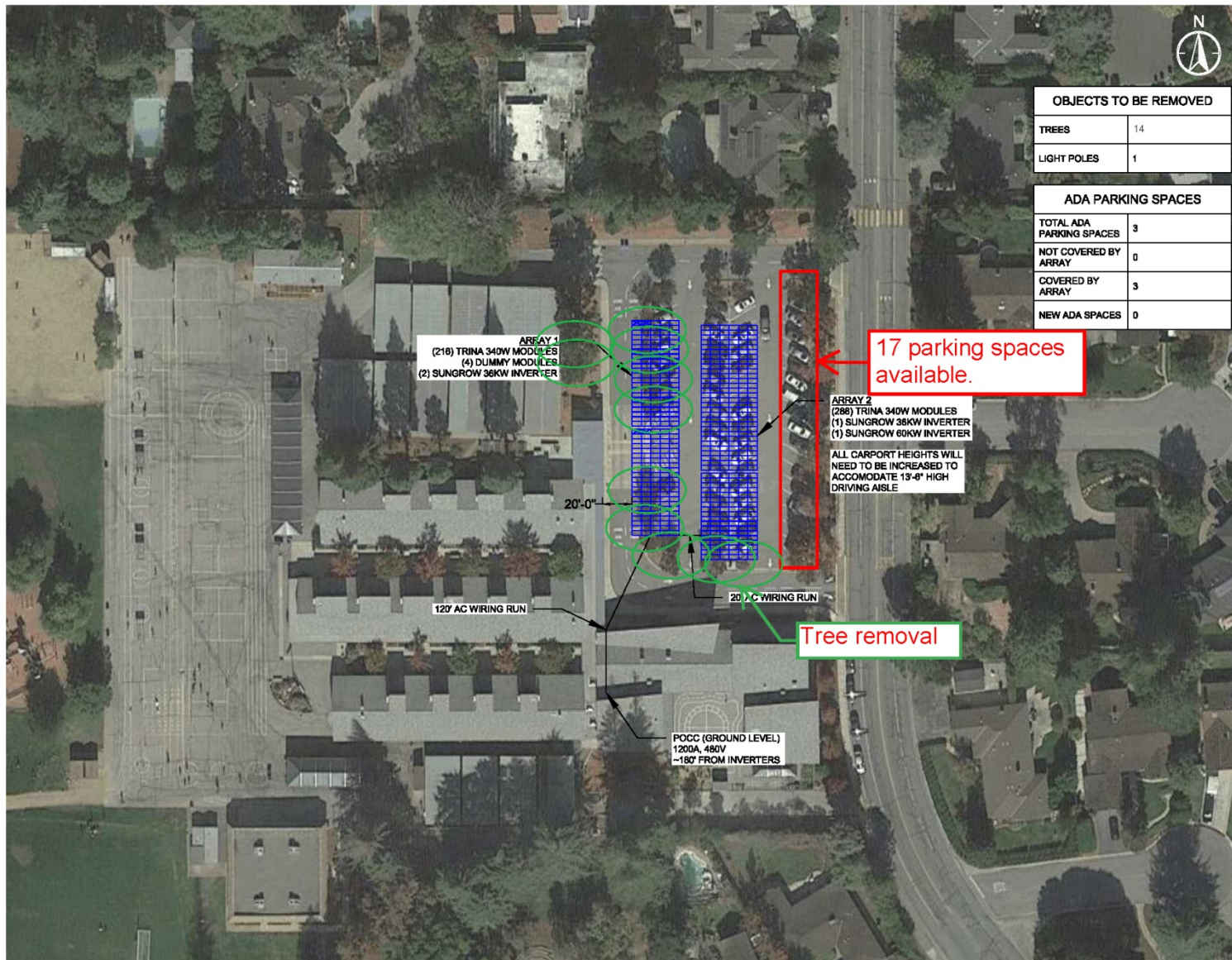
PHOTOVOLTAIC MODULES	
MANUFACTURER	TRINA SOLAR
MODEL	TSM-PD14 (II) 340W
TOTAL MODULES	396

INVERTERS	
MANUFACTURER	SUNGROW
MODEL	S036KU / S660KU-M
TOTAL INVERTERS	2 / 1

RACKING	
TYPE	CARPORT
TILT	7°
AZIMUTH	180°

SHEET INFORMATION	
DATE	4/20/2017
DESIGNER	SV
SCALE	1/8" = 1'-0"
SHEET NO.	CL-1





OBJECTS TO BE REMOVED	
TREES	14
LIGHT POLES	1

ADA PARKING SPACES	
TOTAL ADA PARKING SPACES	3
NOT COVERED BY ARRAY	0
COVERED BY ARRAY	3
NEW ADA SPACES	0



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	A	B
1	<b>PROJECT DETAILS</b>	
2	PROJECT #	CA-17-0072
3	PORTFOLIO NAME	LOS ALTOS USD
4	SITE NAME	SANTA RITA ES
5	SITE ADDRESS	700 LOS ALTOS AVE LOS ALTOS, CA 94022
6	LATITUDE/LONGITUDE	37°23'38.33" N 122°07'22.25" W

#### SYSTEM DETAILS

DC SYSTEM SIZE	171.38 KW
AC SYSTEM SIZE	168.00 KW
CEC-AC SIZE	155.24 KW

#### PHOTOVOLTAIC MODULES

MANUFACTURER	TRINA SOLAR
MODEL	TSM-PD14 (1) 340W
TOTAL MODULES	504

#### INVERTERS

MANUFACTURER	SUNGROW
MODEL	SG36KU / SG60KU-M
TOTAL INVERTERS	3 / 1

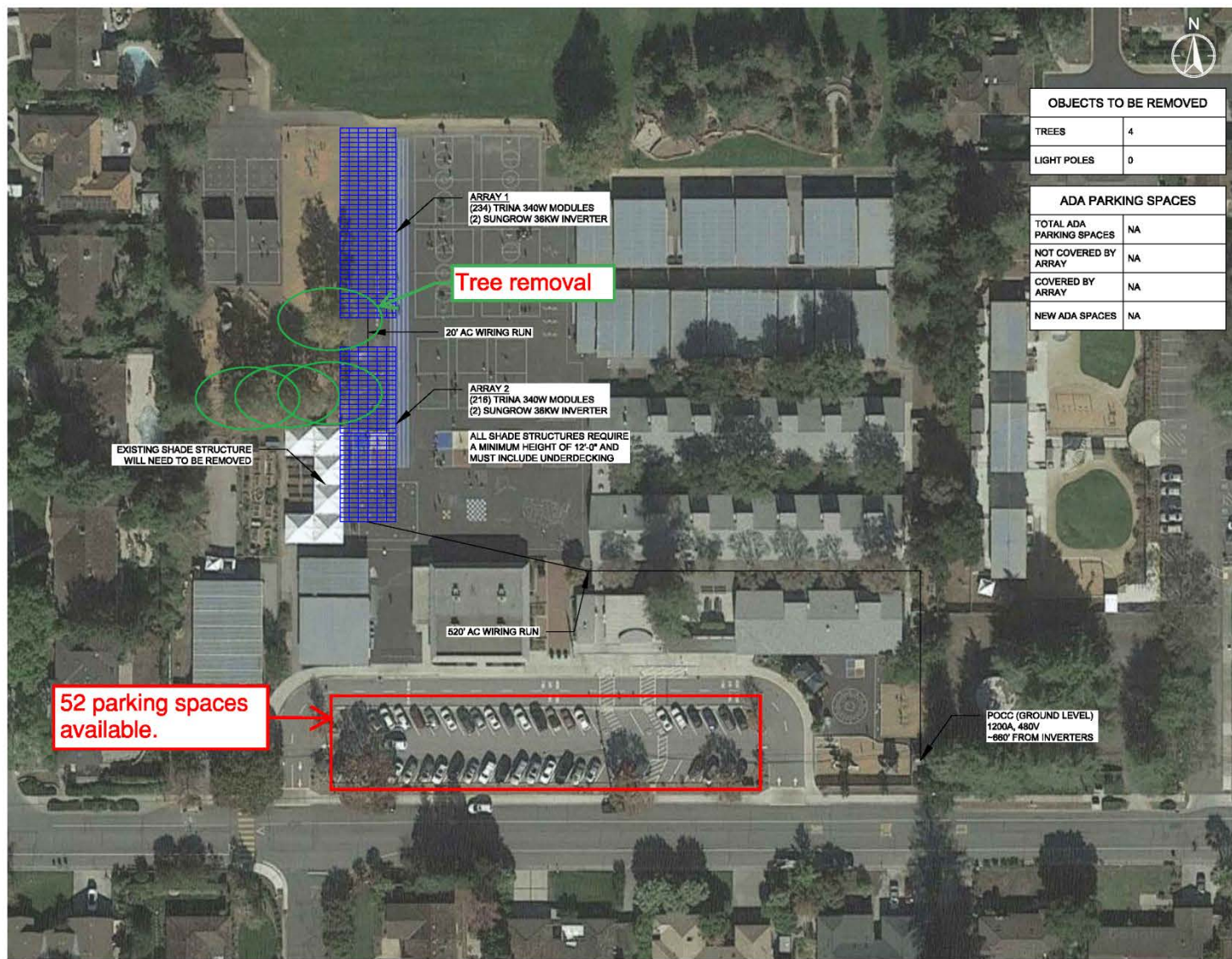
#### RACKING

TYPE	CARPORT
TILT	7°
AZIMUTH	270°

#### SHEET INFORMATION

DATE	5/10/2017
DESIGNER	CRG
SCALE	1/64" = 1'-0"
SHEET NO.	CL-1





#### OBJECTS TO BE REMOVED

TREES	4
LIGHT POLES	0

#### ADA PARKING SPACES

TOTAL ADA PARKING SPACES	NA
NOT COVERED BY ARRAY	NA
COVERED BY ARRAY	NA
NEW ADA SPACES	NA



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#### PROJECT DETAILS

PROJECT #	CA-17-0071
PORTFOLIO NAME	LOS ALTOS USD
SITE NAME	OAK ES
SITE ADDRESS	1501 OAK AVE LOS ALTOS, CA 94024
LATITUDE/LONGITUDE	37°21'27.25" N 122°04'17.78" W

#### SYSTEM DETAILS

DC SYSTEM SIZE	153.00 KW
AC SYSTEM SIZE	144.00 KW
CEC-AC SIZE	138.60 KW

#### PHOTOVOLTAIC MODULES

MANUFACTURER	TRINA SOLAR
MODEL	TSM-PD14 (II) 340W
TOTAL MODULES	450

#### INVERTERS

MANUFACTURER	SUNGROW
MODEL	SG38KU
TOTAL INVERTERS	4

#### RACKING

TYPE	SHADE STRUCTURE
TILT	7°
AZIMUTH	270°

#### SHEET INFORMATION

DATE	4/20/2017
DESIGNER	SV
SCALE	1/8" = 1'-0"
SHEET NO.	CL-1





#### OBJECTS TO BE REMOVED

TREES	8
LIGHT POLES	1

#### ADA PARKING SPACES

TOTAL ADA PARKING SPACES	3
NOT COVERED BY ARRAY	0
COVERED BY ARRAY	3
NEW ADA SPACES	0



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#### PROJECT DETAILS

PROJECT #	CA-17-0070
PORTFOLIO NAME	LOS ALTOS USD
SITE NAME	LOYOLA ES
SITE ADDRESS	770 BERRY AVE LOS ALTOS, CA 94024
LATITUDE/LONGITUDE	37°21'39.03" N 122°05'35.1" W

#### SYSTEM DETAILS

DC SYSTEM SIZE	148.88 KW
AC SYSTEM SIZE	132.90 KW
CEC-AC SIZE	133.06 KW

#### PHOTOVOLTAIC MODULES

MANUFACTURER	TRINA SOLAR
MODEL	TSM-PD14 (II) 340W
TOTAL MODULES	432

#### INVERTERS

MANUFACTURER	SUNGROW
MODEL	SG38KU / SG60KU-M
TOTAL INVERTERS	2 / 1

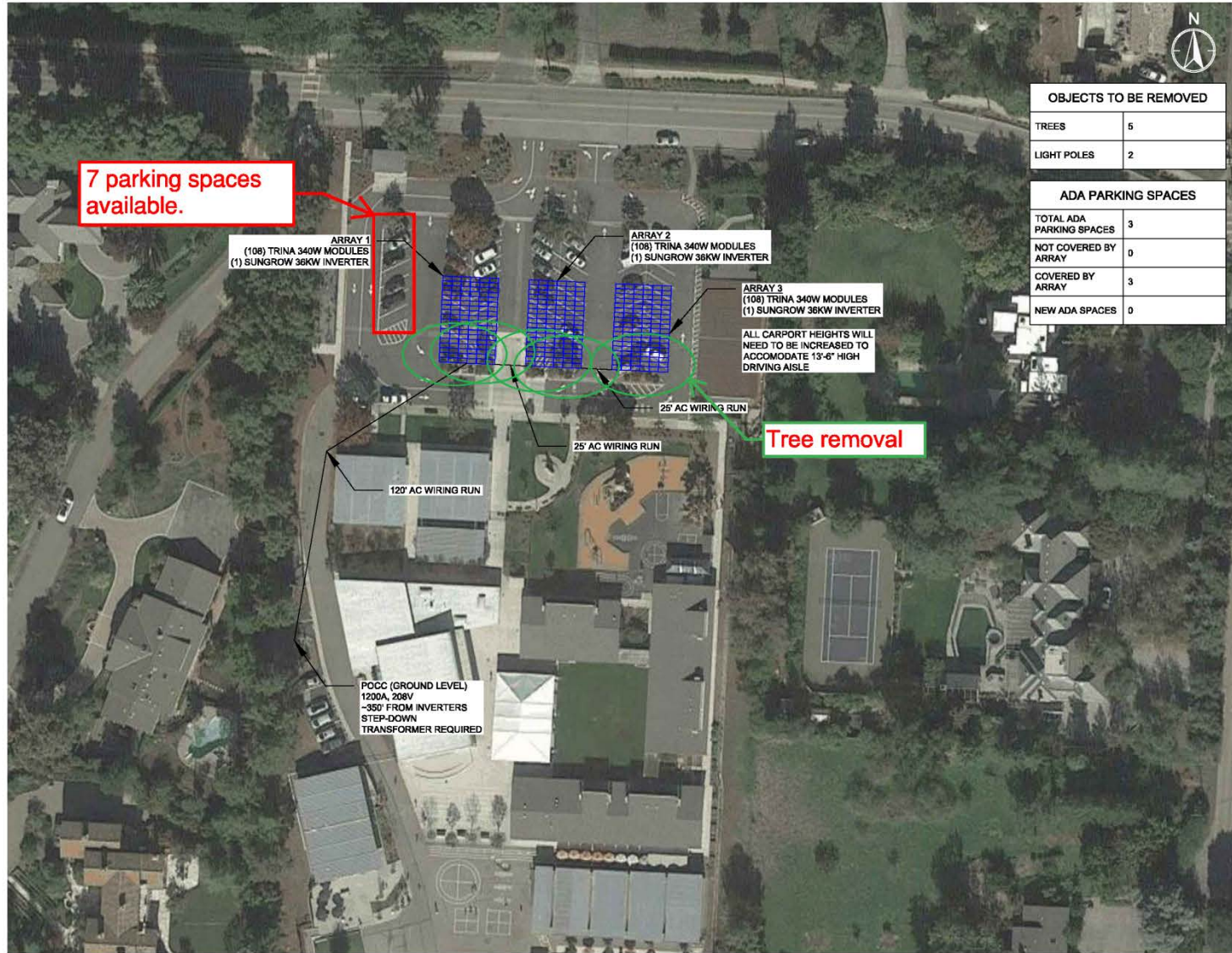
#### RACKING

TYPE	CARPORT
TILT	7°
AZIMUTH	180°

#### SHEET INFORMATION

DATE	4/21/2017
DESIGNER	SV
SCALE	1/8" = 1'-0"
SHEET NO.	CL-1





#### OBJECTS TO BE REMOVED

TREES	5
LIGHT POLES	2

#### ADA PARKING SPACES

TOTAL ADA PARKING SPACES	3
NOT COVERED BY ARRAY	0
COVERED BY ARRAY	3
NEW ADA SPACES	0



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#### PROJECT DETAILS

PROJECT #	CA-17-0089
PORTFOLIO NAME	LOS ALTOS USD
SITE NAME	GARDNER BULLIS ES
SITE ADDRESS	25880 FREMONT RD LOS ALTOS, CA 94022
LATITUDE/LONGITUDE	37°22'53.70" N 122°07'48.41" W

#### SYSTEM DETAILS

DC SYSTEM SIZE	110.16 KW
AC SYSTEM SIZE	108.90 KW
CEC-AC SIZE	99.80 KW

#### PHOTOVOLTAIC MODULES

MANUFACTURER	TRINA SOLAR
MODEL	TSM-PD14 (II) 340W
TOTAL MODULES	324

#### INVERTERS

MANUFACTURER	SUNGROW
MODEL	SG38KU
TOTAL INVERTERS	3

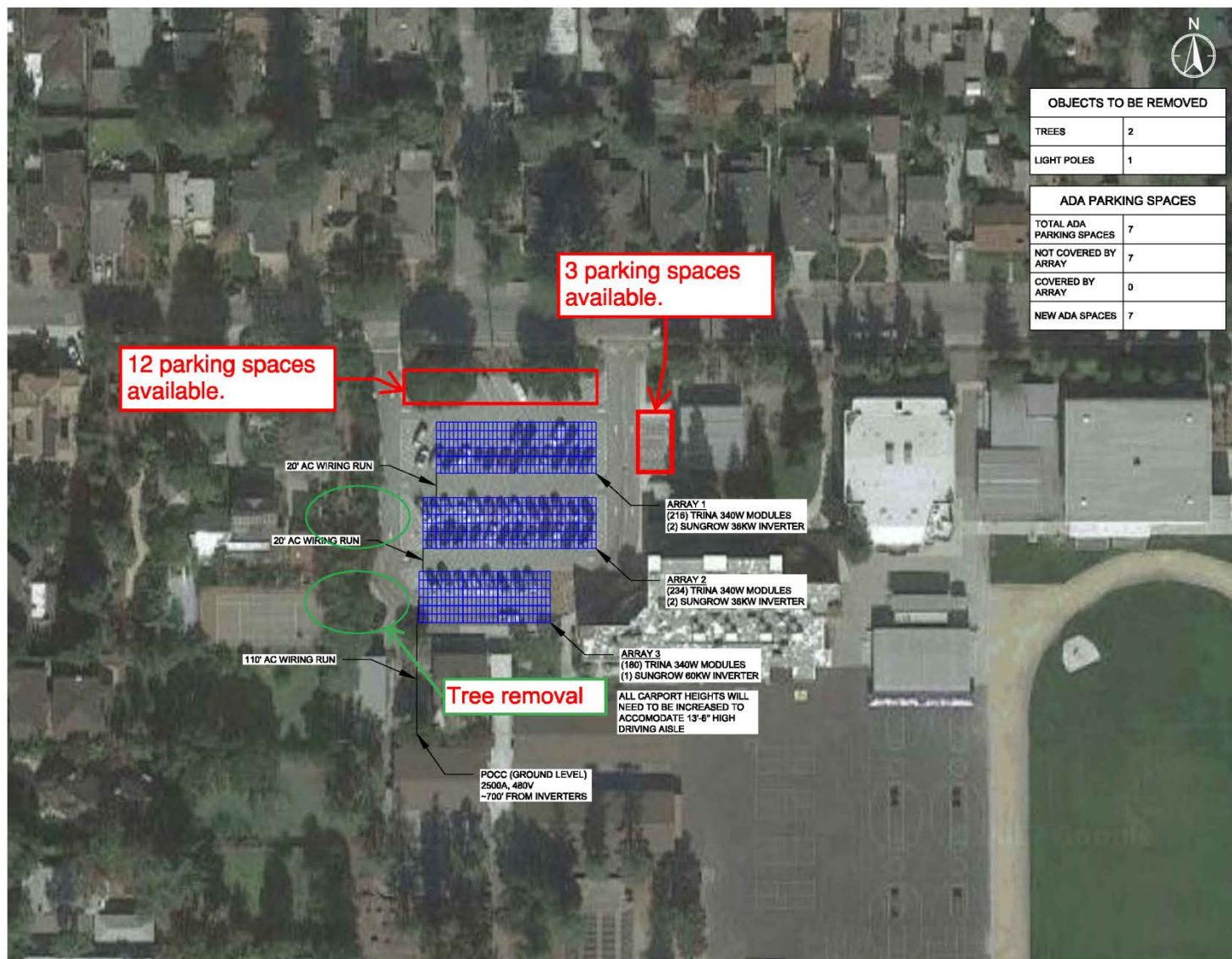
#### RACKING

TYPE	CARPORT
TILT	7°
AZIMUTH	93°

#### SHEET INFORMATION

DATE	4/19/2017
DESIGNER	SV
SCALE	1/64" = 1'-0"
SHEET NO.	CL-1





#### OBJECTS TO BE REMOVED

TREES	2
LIGHT POLES	1

#### ADA PARKING SPACES

TOTAL ADA PARKING SPACES	7
NOT COVERED BY ARRAY	7
COVERED BY ARRAY	0
NEW ADA SPACES	7



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#### PROJECT DETAILS

PROJECT #	CA-17-0075
PORTFOLIO NAME	LOS ALTOS USD
SITE NAME	EGAN JHS
SITE ADDRESS	100 WEST PORTOLA AVE LOS ALTOS, CA 94022
LATITUDE/LONGITUDE	37°23'44.82" N 122°07'00.75" W

#### SYSTEM DETAILS

DC SYSTEM SIZE	214.20 KW
AC SYSTEM SIZE	204.00 KW
CEC-AC SIZE	194.05 KW

#### PHOTOVOLTAIC MODULES

MANUFACTURER	TRINA SOLAR
MODEL	TSM-PD14 (II) 340W
TOTAL MODULES	630

#### INVERTERS

MANUFACTURER	SUNGROW
MODEL	SG38KU / SG60KU-M
TOTAL INVERTERS	4 / 1

#### RACKING

TYPE	CARPORT
TILT	7°
AZIMUTH	180°

#### SHEET INFORMATION

DATE	5/5/2017
DESIGNER	SV
SCALE	1/8" = 1'-0"
SHEET NO.	CL-1





#### OBJECTS TO BE REMOVED

TREES	5
LIGHT POLES	4

#### ADA PARKING SPACES

TOTAL ADA PARKING SPACES	4
NOT COVERED BY ARRAY	0
COVERED BY ARRAY	4
NEW ADA SPACES	0



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#### PROJECT DETAILS

PROJECT #	CA-17-0088
PORTFOLIO NAME	LOS ALTOS USD
SITE NAME	COVINGTON ES
SITE ADDRESS	201 COVINGTON RD LOS ALTOS, CA 94024
LATITUDE/LONGITUDE	37°22'17.82" N 122°08'25.48" W

#### SYSTEM DETAILS

DC SYSTEM SIZE	214.20 KW
AC SYSTEM SIZE	204.00 KW
CEC-AC SIZE	194.05 KW

#### PHOTOVOLTAIC MODULES

MANUFACTURER	TRINA SOLAR
MODEL	TSM-PD14 (II) 340W
TOTAL MODULES	630

#### INVERTERS

MANUFACTURER	SUNGROW
MODEL	SG38KU / SG60KU-M
TOTAL INVERTERS	4 / 1

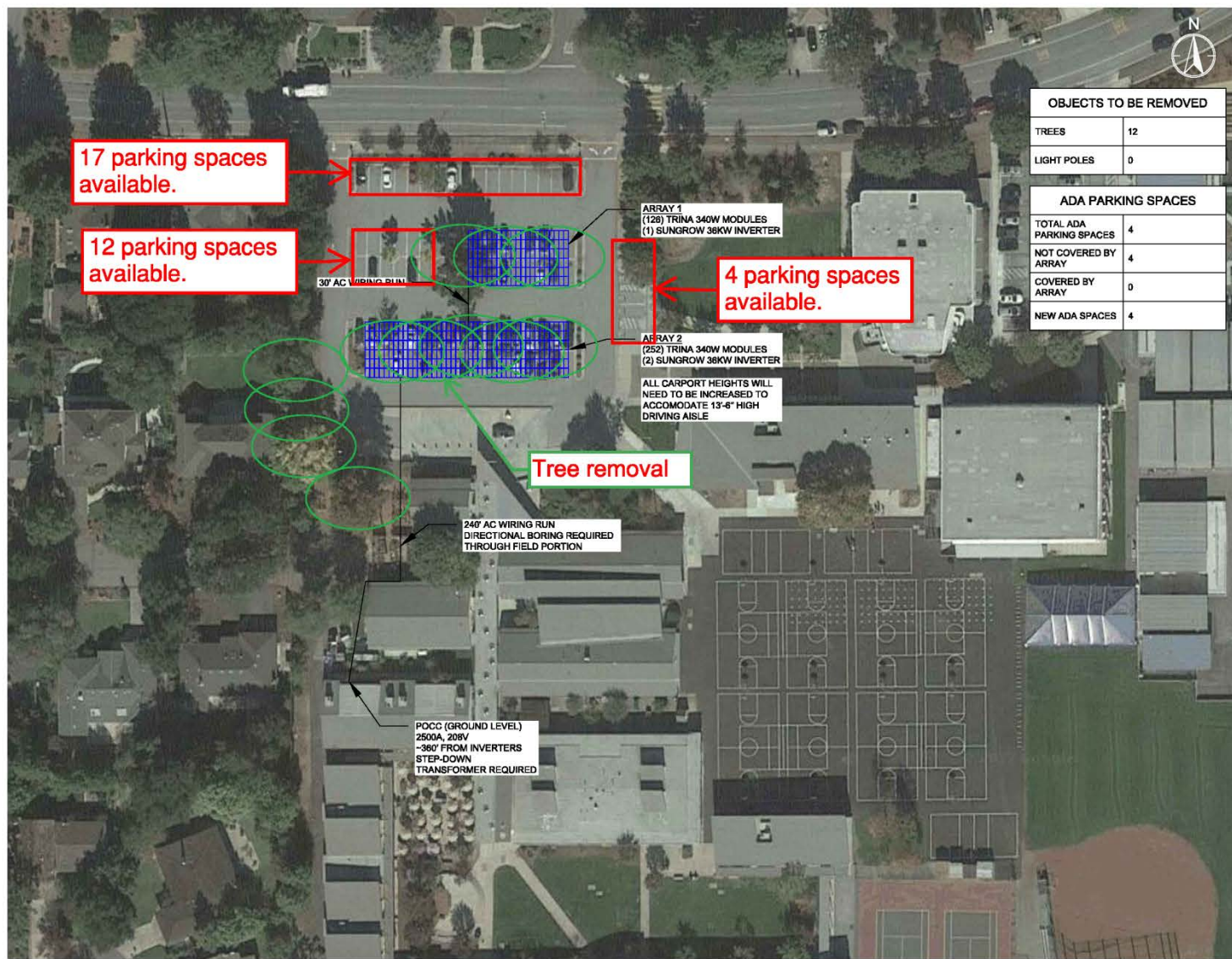
#### RACKING

TYPE	CARPORT
TILT	7°
AZIMUTH	180°

#### SHEET INFORMATION

DATE	4/19/2017
DESIGNER	SV
SCALE	1/8" = 1'-0"
SHEET NO.	CL-1





#### OBJECTS TO BE REMOVED

TREES	12
LIGHT POLES	0

#### ADA PARKING SPACES

TOTAL ADA PARKING SPACES	4
NOT COVERED BY ARRAY	4
COVERED BY ARRAY	0
NEW ADA SPACES	4



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#### PROJECT DETAILS

PROJECT #	CA-17-0074
PORTFOLIO NAME	LOS ALTOS USD
SITE NAME	BLACH JHS
SITE ADDRESS	1120 COVINGTON RD LOS ALTOS, CA 94024
LATITUDE/LONGITUDE	37°2'15.24" N 122°04'58.28" W

#### SYSTEM DETAILS

DC SYSTEM SIZE	128.52 KW
AC SYSTEM SIZE	108.90 KW
CEC-AC SIZE	116.43 KW

#### PHOTOVOLTAIC MODULES

MANUFACTURER	TRINA SOLAR
MODEL	TSM-PD14 (II) 340W
TOTAL MODULES	378

#### INVERTERS

MANUFACTURER	SUNGROW
MODEL	SG38KU
TOTAL INVERTERS	3

#### RACKING

TYPE	CARPORT
TILT	7°
AZIMUTH	180°

#### SHEET INFORMATION

DATE	4/21/2017
DESIGNER	SV
SCALE	1/8" = 1'-0"
SHEET NO.	CL-1