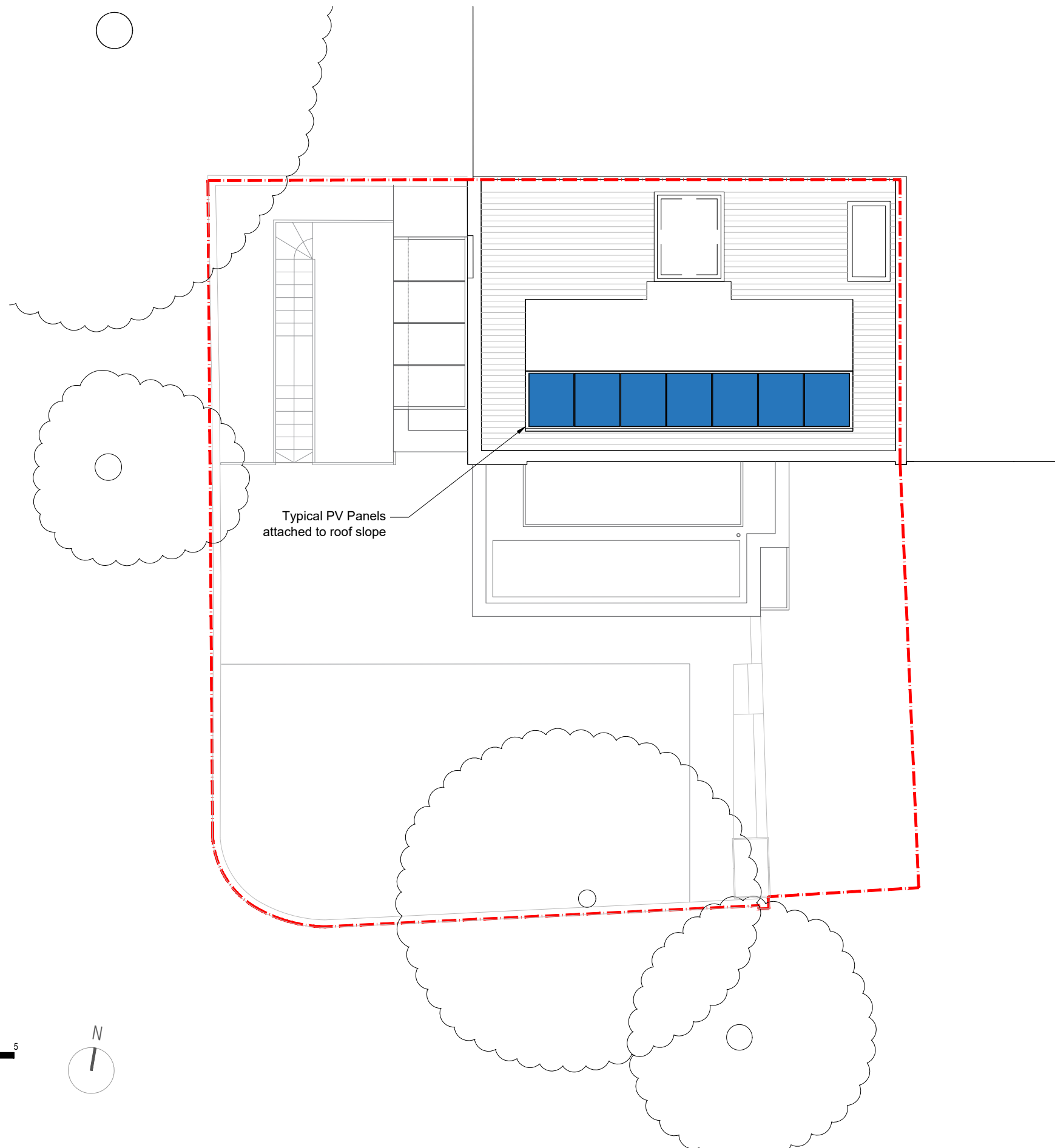


52 Eton Avenue, NW3 3HN

*Planning Application Ref: 2019/2442/P
Discharge of Condition 4 Photovoltaic Cells Design*



Prior to commencement, DETAILED PLANS SHOWING THE LOCATION AND EXTENT OF PHOTOVOLTAIC CELLS TO BE INSTALLED ON THE BUILDING SHALL HAVE BEEN SUBMITTED to and approved by the Local Planning Authority in writing. The measures shall include the installation of a meter to monitor the energy output from the approved renewable energy systems and how the system shall be maintained. The cells shall be installed in full accordance with the details approved by the Local Planning Authority and permanently retained and maintained thereafter.



Roof Plan
01



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f	03 12 19	revised to planning officer's comments	ak/jg
d	26 11 19	revised to planning officer's comments	ak/jg
c	06 11 19	revised to planning officer's comments	ak/jg
b	08 08 19	revised to include facade refurbishment	xxx
a	05 07 19	revised to planning comments	xxx

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London NW3 3HN

Project

Roof Plan
as proposed

Title

aa-1814

Job number

feb 2020

Date

AA_1814_S_P-0105

Drawing no

JP

Drawn

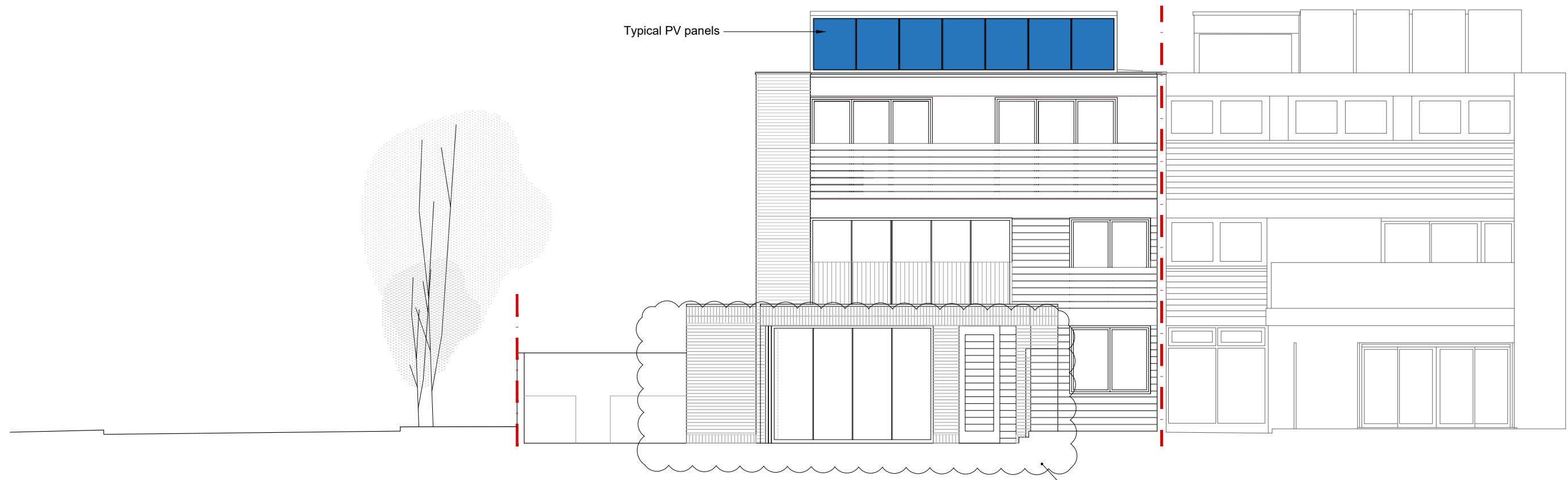
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1:100_@A3

Scale

P-g

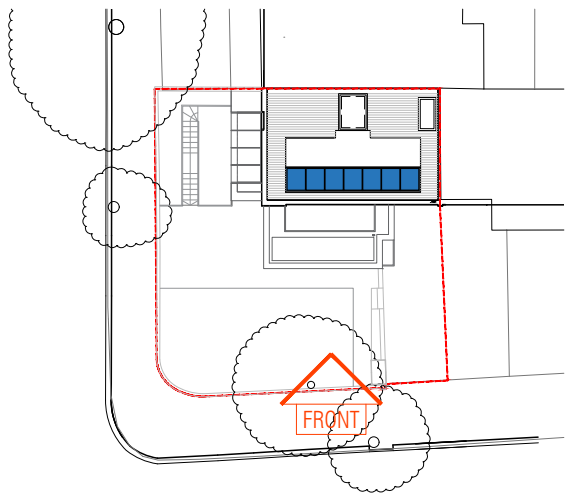
Revision



Front Elevation (South)
01



refer to approved
planning permission
REF:
2019/0532/P
July 2019



Key Plan (nts)
02

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Project

Front (South) Elevation

As Proposed

Title

aa-1814

Job number

feb 2020

Date

AA_1814_S_P-0201

Drawing no

JP

Drawn

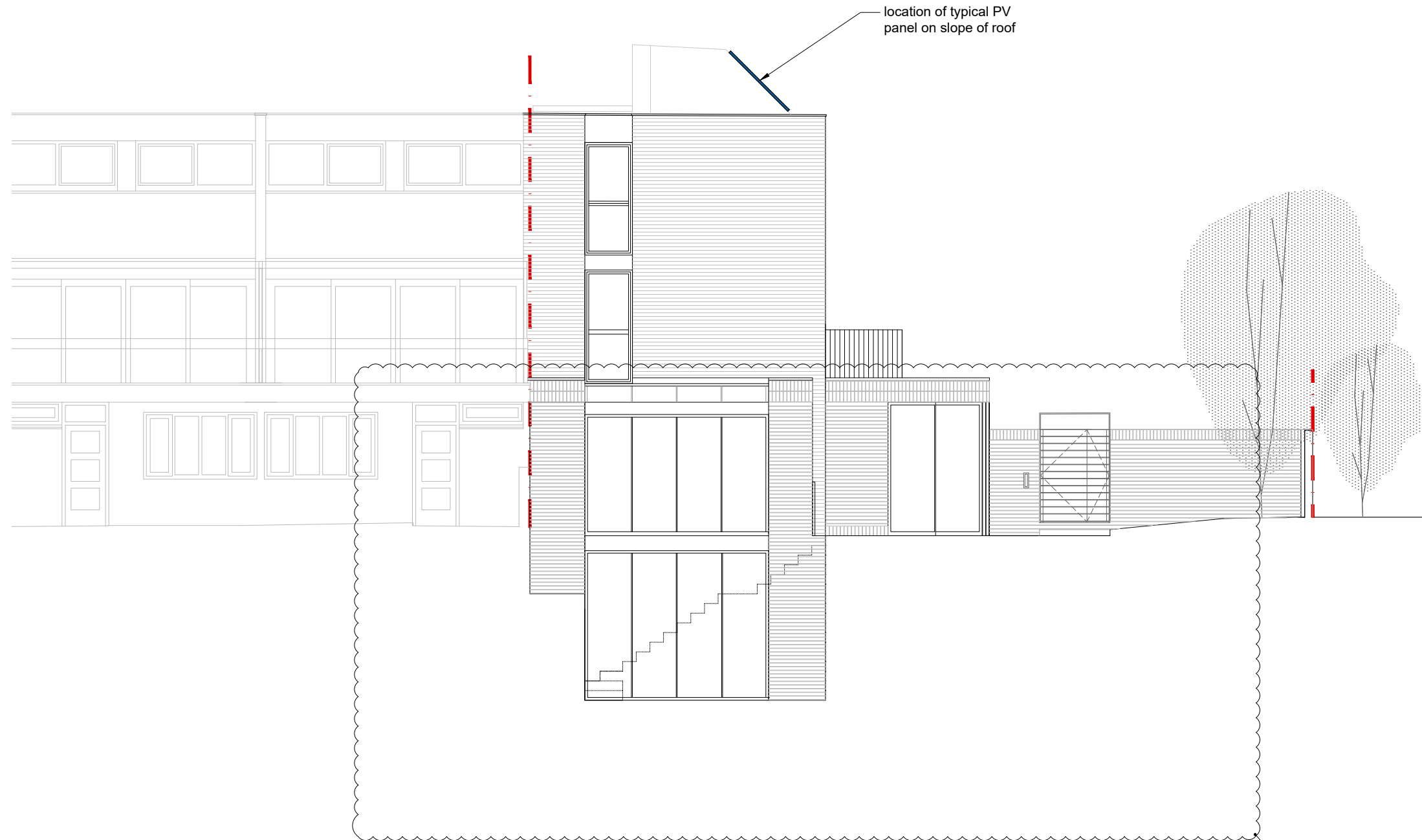
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Scale

P-g

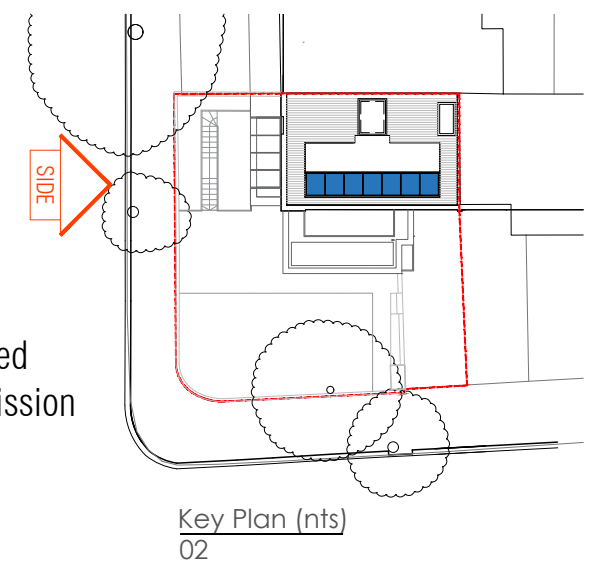
Revision



Side Elevation (West)
01



refer to approved
planning permission
REF:
2019/0532/P
July 2019



Key Plan (nts)
02

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b	08 08 19	Revised to include facade refurbishment	ch'd
a	08 07 19	Revised to planning comments	ch'd

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Project

Side (West) Elevation
as proposed

Title

aa-1814

Job number

feb 2020

Date

AA_1814_S_P-0202

Drawing no

JP

Drawn

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Scale

P-g

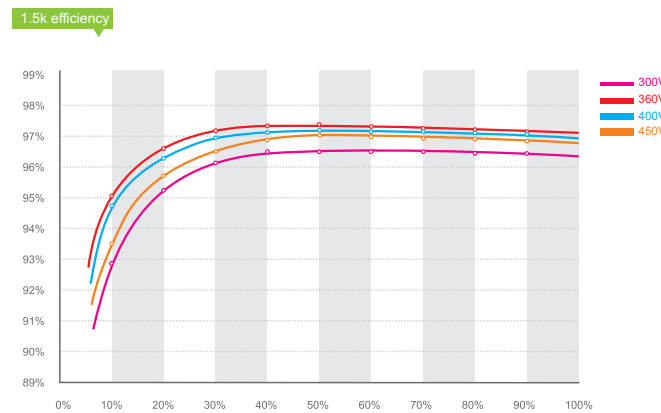
Revision

Prior to commencement, detailed plans showing the location and extent of photovoltaic cells to be installed on the building shall have been submitted to and approved by the Local Planning Authority in writing. The measures shall include the INSTALLATION OF A METER TO MONITOR THE ENERGY OUTPUT FROM THE APPROVED RENEWABLE ENERGY SYSTEMS and how the system shall be maintained. The cells shall be installed in full accordance with the details approved by the Local Planning Authority and permanently retained and maintained thereafter.



Leading - edge Technology

- ▶ Maximum efficiency of 97% and wide input voltage range
- ▶ Internal DC switch
- ▶ Transformerless GT topology
- ▶ Compact design
- ▶ Ethernet / RF technology / Wi-Fi
- ▶ Sound control
- ▶ Easy installation
- ▶ Comprehensive Growatt warranty program



GROWATT NEW ENERGY TECHNOLOGY Co.,LTD

A: No.28 Guanghui Road, Longteng Community, Shiyan, Baoan District, Shenzhen, P.R.China.

T: + 86 755 2747 1900 F: + 86 755 2749 1460 E: info@ginverter.com

Datasheet

	Growatt 1000S	Growatt 1500S
Input Data		
Max. DC power	1300W	1900W
Max. DC voltage	450V	450V
Start voltage	80V	80V
PV voltage range	70V - 450V	70V - 450V
MPPT work voltage range/ nominal voltage	70V-450V/180V	70V-450V/250V
Full load dc voltage range	110V - 400V	175V - 400V
Number of MPP trackers /strings per MPP tracker	1 / 1	1 / 1
Max. input current /per string	10A/10A	10A/10A
Output (AC)		
Rated AC output power	1000W	1600W
Max. AC power	1000W	1650W
Max. output current	4.6A	7.5A
AC nominal voltage; range	220V,230V,240V; 180Vac-280Vac	220V,230V,240V; 180Vac-280Vac
AC grid frequency ;range	50Hz, 60Hz; ±5Hz	50Hz, 60Hz; ±5Hz
Power factor	1	1
THDI	<3%	<3%
AC connection	Single phase	Single phase
Efficiency		
Max. efficiency	97%	97%
Euro-eta	95.5%	96.5%
MPPT efficiency	99.5%	99.5%
Protection Devices		
DC reverse polarity protection	yes	yes
DC switch rating for each MPPT	yes	yes
Output over current protection	yes	yes
Output overvoltage protection-varistor	yes	yes
Ground fault monitoring	yes	yes
Grid monitoring	yes	yes
Integrated all-pole sensitive leakage current monitoring unit	yes	yes
General Data		
Dimensions (W / H / D) in mm	271*267*127mm	271*267*127mm
Weight	5Kg	5Kg
Operating temperature range	-25 °C ... +60 °C	-25 °C ... +60 °C
Noise emission (typical)	≤25 dB(A)	≤25 dB(A)
Self-Consumption night	< 0.5 W	< 0.5 W
Topology	Transformerless	Transformerless
Cooling concept	Natural	Natural
Environmental Protection Rating	IP 65	IP 65
Altitude	2000m(6560ft) without derating	2000m(6560ft) without derating
Relative Humidity	0~100%	0~100%
Features		
DC connection	H4/MC4(opt)	H4/MC4(opt)
AC connection	Connector	Connector
Display	LCD	LCD
Interfaces: RS232/Wi-Fi/Ethernet /RF	yes / opt / opt / opt	yes / opt / opt / opt
Warranty: 5 years / 10 years	yes / opt	yes / opt
Certificates and Approvals		

JAP60S01

260-280 1000V Cypress Series
MULTICRYSTALLINE SILICON SOLAR MODULE

Key Features

- 5BB design reduces cell series resistance and stress between cell interconnectors to improve module reliability and conversion efficiency
- High output, up to 17.12% module conversion efficiency
- Certified with 1000V DC IEC standard
- Anti-soiling surface reduces power loss from dirt and dust
- Outstanding performance in low-light irradiance environments
- Excellent mechanical load resistance: Certified to withstand high wind loads (2400Pa) and heavy snow loads (5400Pa)
- Strong salt and ammonia resistance certified by TÜV NORD

Reliable Quality

- Positive power tolerance: 0~+5W
- Modules binned by current to improve system performance
- Potential Induced Degradation (PID) Resistant in accordance to IEC62804

Comprehensive Certificates

- IEC 61215, IEC 61730, UL1703, CEC Listed, MCS and CE
- ISO 9001: 2008: Quality management systems
- ISO 14001: 2004: Environmental management systems
- BS OHSAS 18001: 2007: Occupational health and safety management systems
- Environmental policy: The first solar company in China to complete Intertek's carbon footprint evaluation program and receive green leaf mark verification for our products

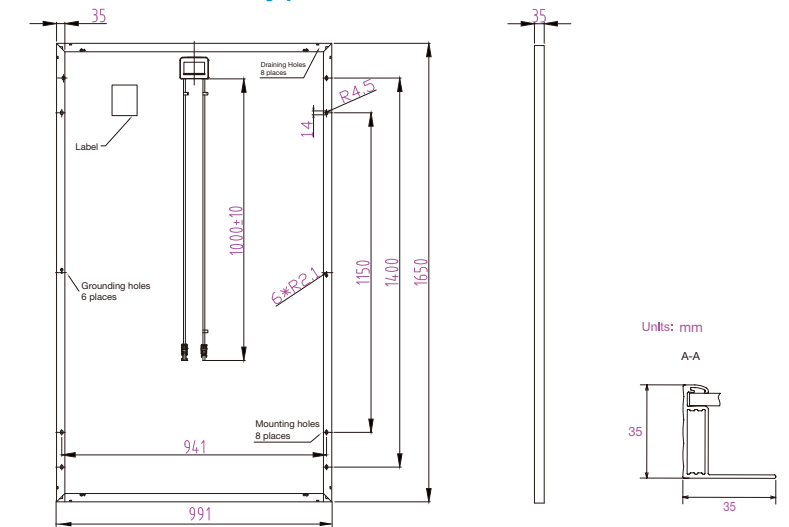
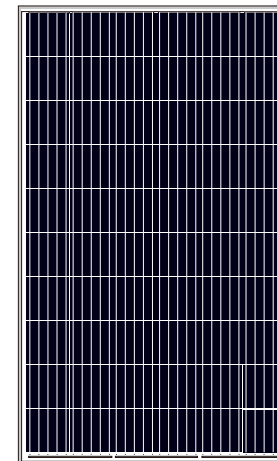


Specifications subject to technical changes and tests. JA Solar reserves the right of final interpretation.

JAP60S01

260-280/SC
1000V Cypress Series

MECHANICAL DIAGRAMS



SPECIFICATIONS

Cell	Poly 156.75×156.75mm
Weight	18.2kg±3%
Dimensions	1650×991×35mm
Cable Cross Section Size	4mm ²
No. of Cells	60 (6×10)
Junction Box	IP67, 3 diodes
Connector	MC4 Compatible
Packaging Configuration	30 Per Pallet

OPERATING CONDITIONS

Maximum System Voltage	1000V DC (IEC)
Operating Temperature	-40°C~+85°C
Maximum Series Fuse	20A
Maximum Static Load, Front Maximum Static Load, Back	5400Pa 2400Pa
NOCT	45±2°C
Application Class	Class A

ELECTRICAL PARAMETERS AT STC

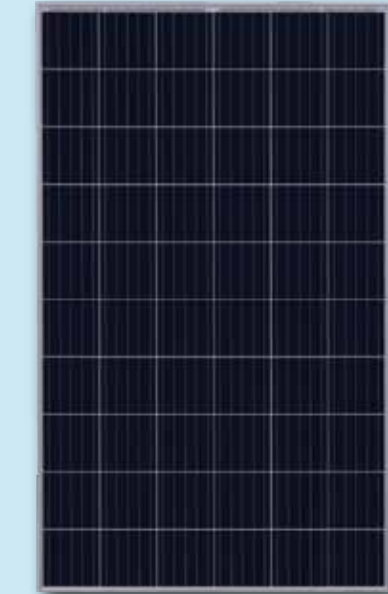
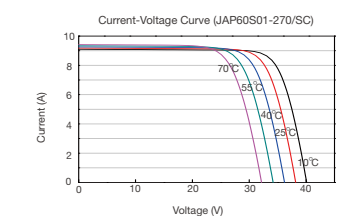
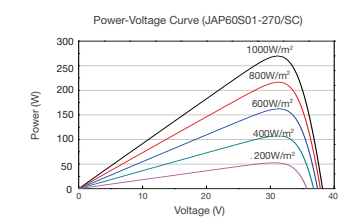
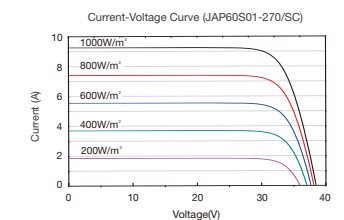
TYPE	JAP60S01 -260/SC	JAP60S01 -265/SC	JAP60S01 -270/SC	JAP60S01 -275/SC	JAP60S01 -280/SC
Rated Maximum Power (Pmax) [W]	260	265	270	275	280
Open Circuit Voltage (Voc) [V]	37.74	37.95	38.17	38.38	38.65
Maximum Power Voltage (Vmp) [V]	30.71	30.92	31.13	31.34	31.61
Short Circuit Current (Isc) [A]	9.04	9.11	9.18	9.29	9.37
Maximum Power Current (Imp) [A]	8.47	8.57	8.67	8.77	8.86
Module Efficiency [%]	15.90	16.21	16.51	16.82	17.12
Power Tolerance	-0~+5W				
Temperature Coefficient of Isc (α _{Isc})	+0.058%/°C				
Temperature Coefficient of Voc (β _{Voc})	-0.330%/°C				
Temperature Coefficient of Pmax (γ _{Pmp})	-0.410%/°C				
STC	Irradiance 1000W/m ² , cell temperature 25°C, AM 1.5G				

ELECTRICAL PARAMETERS AT NOCT

TYPE	JAP60S01 -260/SC	JAP60S01 -265/SC	JAP60S01 -270/SC	JAP60S01 -275/SC	JAP60S01 -280/SC
Rated Max Power (Pmax) [W]	192	196	200	204	207
Open Circuit Voltage (Voc) [V]	35.70	35.94	36.25	36.56	36.85
Max Power Voltage (Vmp) [V]	28.87	29.09	29.29	29.48	29.69
Short Circuit Current (Isc) [A]	7.20	7.23	7.27	7.33	7.40
Max Power Current (Imp) [A]	6.66	6.74	6.82	6.90	6.98
NOCT	Irradiance 800W/m ² , ambient temperature 20°C, wind speed 1m/s, AM 1.5G				

Electrical data in this catalog do not refer to a single module and they are not part of the offer. They only serve for comparison among different module types.

CHARACTERISTICS



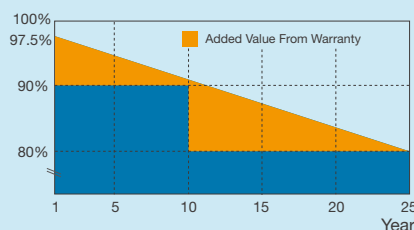
JA Solar Holdings Co., Ltd.

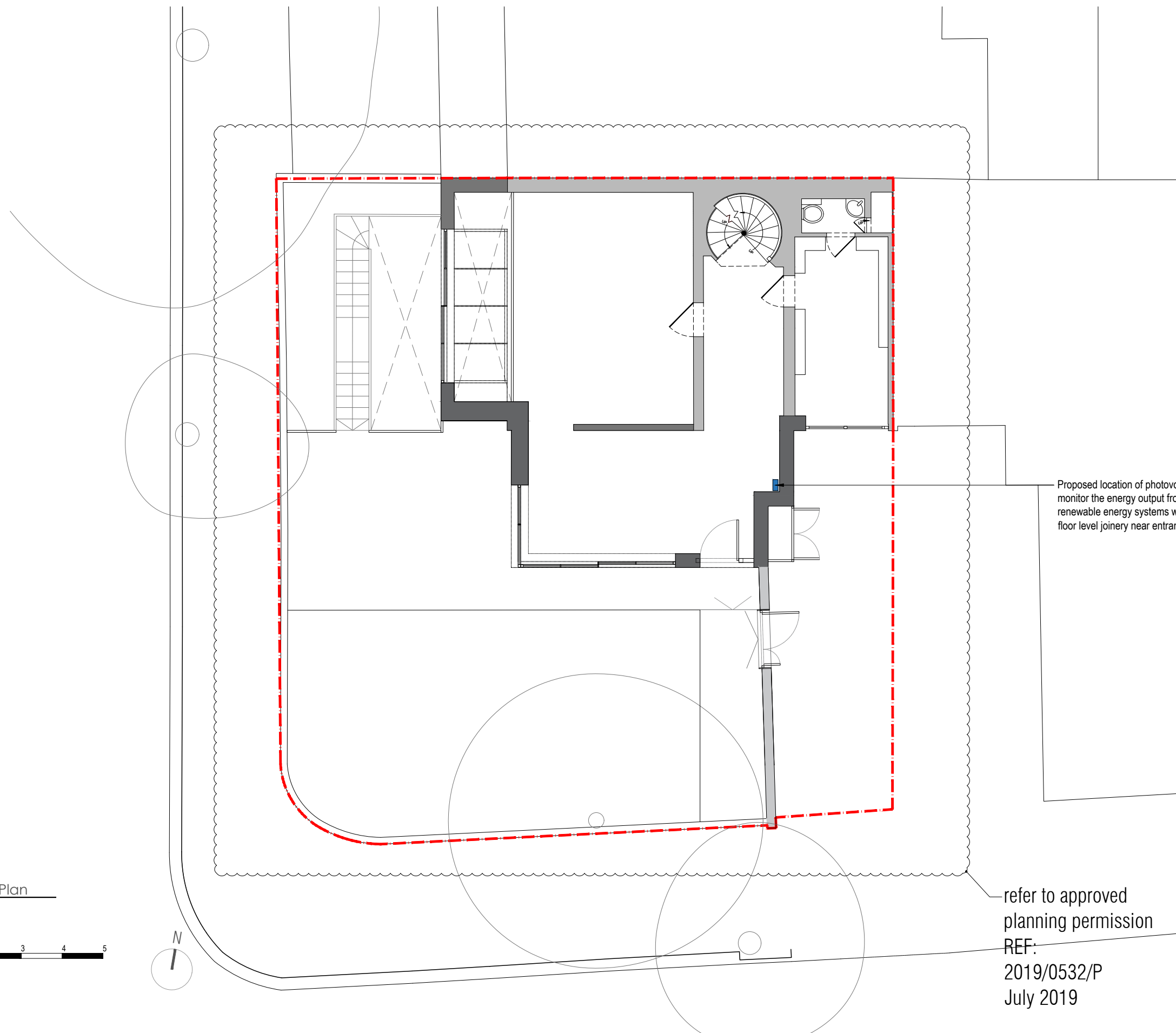
JA Solar Holdings Co.,Ltd is a world leading manufacturer of high-performance solar power products that convert sunlight into electricity for residential, commercial and utility-scale power generation. The company was founded in May 2005 and publicly listed on NASDAQ in February 2007. JA Solar has been the world's leading cell producer since 2010, and has firmly established itself as a tier 1 module supplier since 2012. Capitalizing on our strength in solar cell technology, we are committed to provide modules with unparalleled conversion efficiency, yield efficiency, and reliability to enable you to maximize your returns on PV projects. With its leading industry experience, continuous effort on R&D, customer-oriented service and solid financial status, JA Solar is your best choice of long-term trustworthy partner.

Address: Building No.8, Nuode Center, Automobile Museum East Road, Fengtai District, Beijing, China
Tel: +86 (10) 63611888
Fax: +86 (10) 63611999
Email: sales@jasolar.com market@jasolar.com

Superior Warranty

- 12-year product warranty
- 25-year linear power output warranty





Ground Floor Plan
01



Proposed location of photovoltaic meter to monitor the energy output from the approved renewable energy systems within ground floor level joinery near entrance.

refer to approved
planning permission
REF:
2019/0532/P
July 2019

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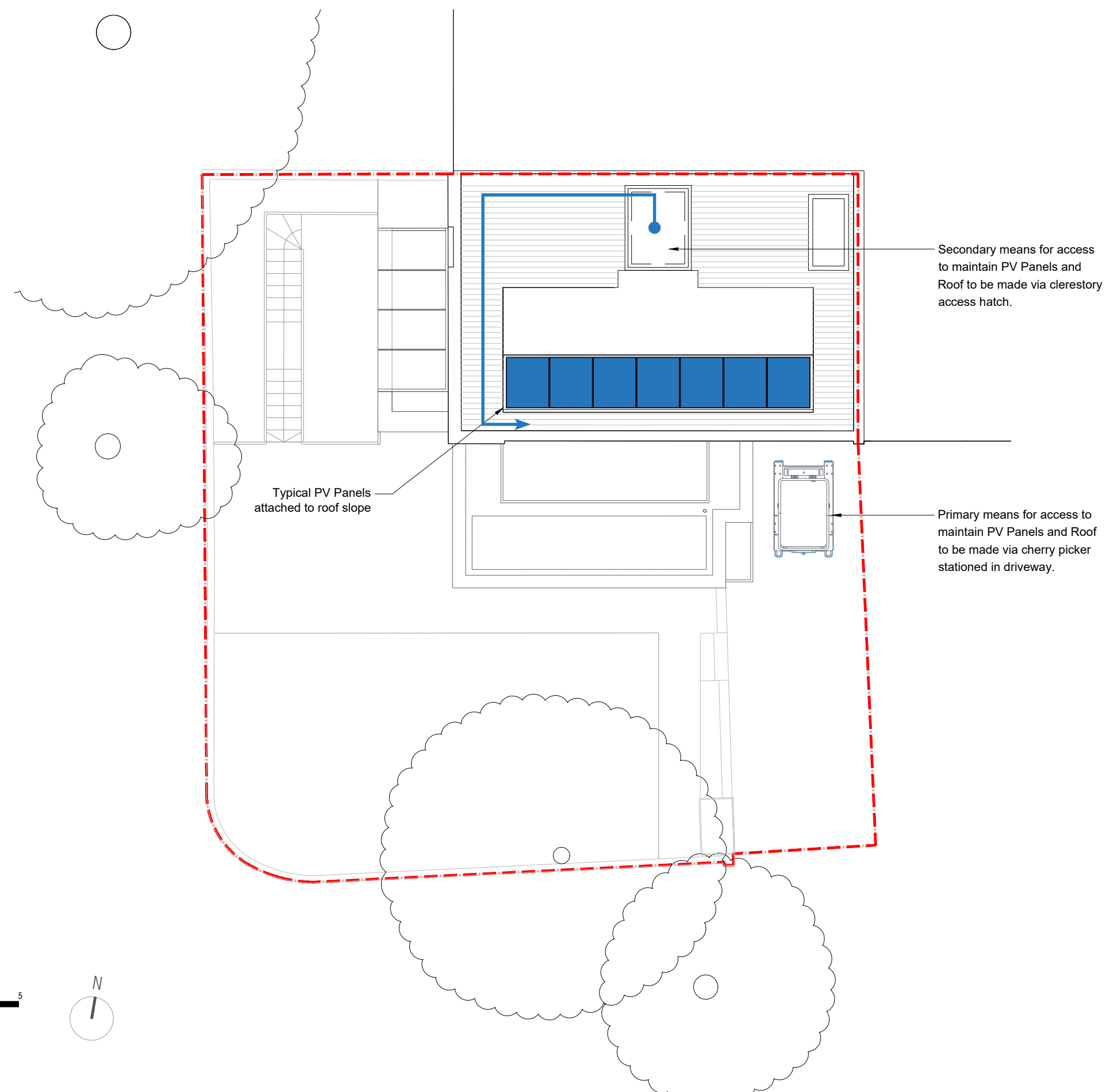
Project

Ground Floor Plan
as proposed

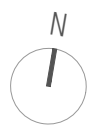
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aa-1814	JP	P-g
Job number	Drawn	Revision
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Date	1:50_@A1	
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Drawing no	Scale	

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Roof Plan
01



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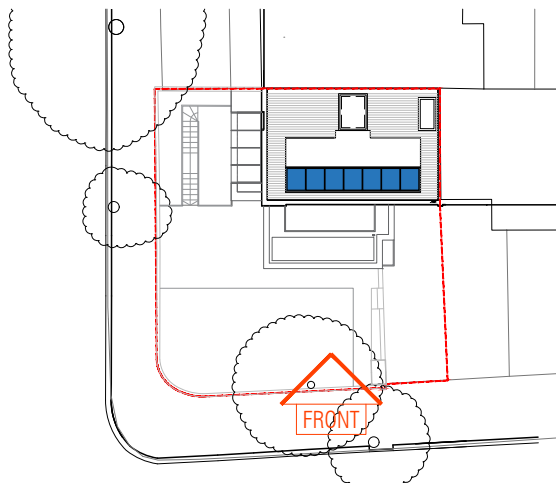
Roof Plan
as proposed

Title

aa-1814	JP	P-g
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Drawing no	Scale	



refer to approved
planning permission
REF:
2019/0532/P
July 2019



Key Plan (nts)
02

Front Elevation (South)
01



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Project

Front (South) Elevation

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Drawn

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Scale

P-g

Revision