

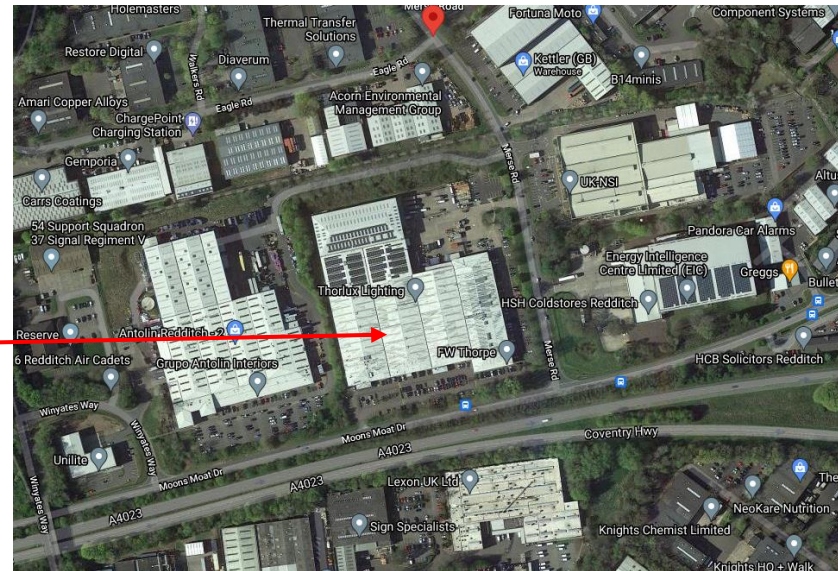
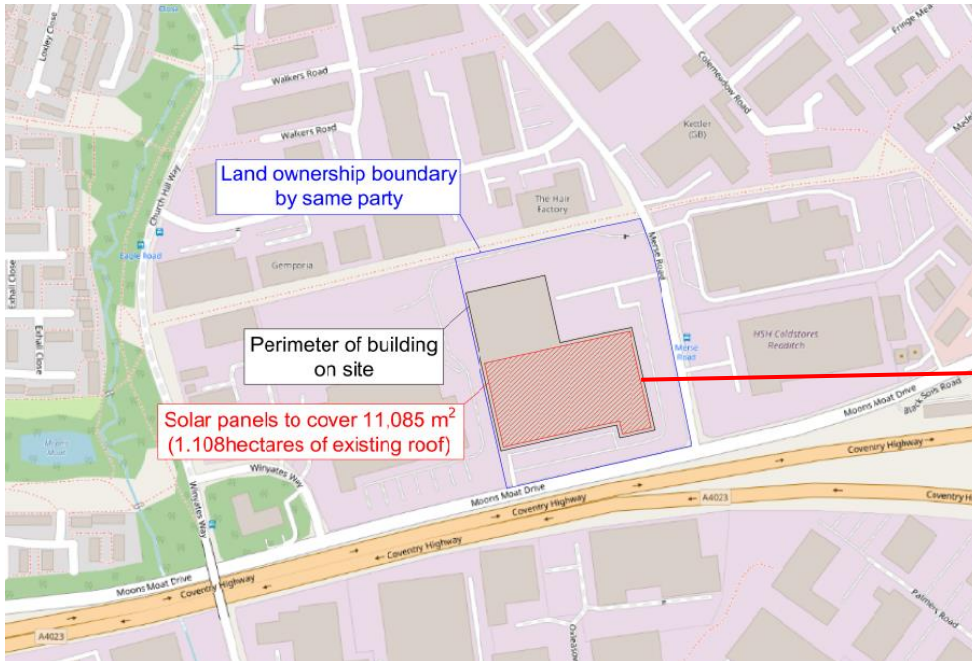
22/00027/FUL

Thorlux Lighting, Moons Moat North Industrial Estate
Merse Road, Redditch, B98 9HL

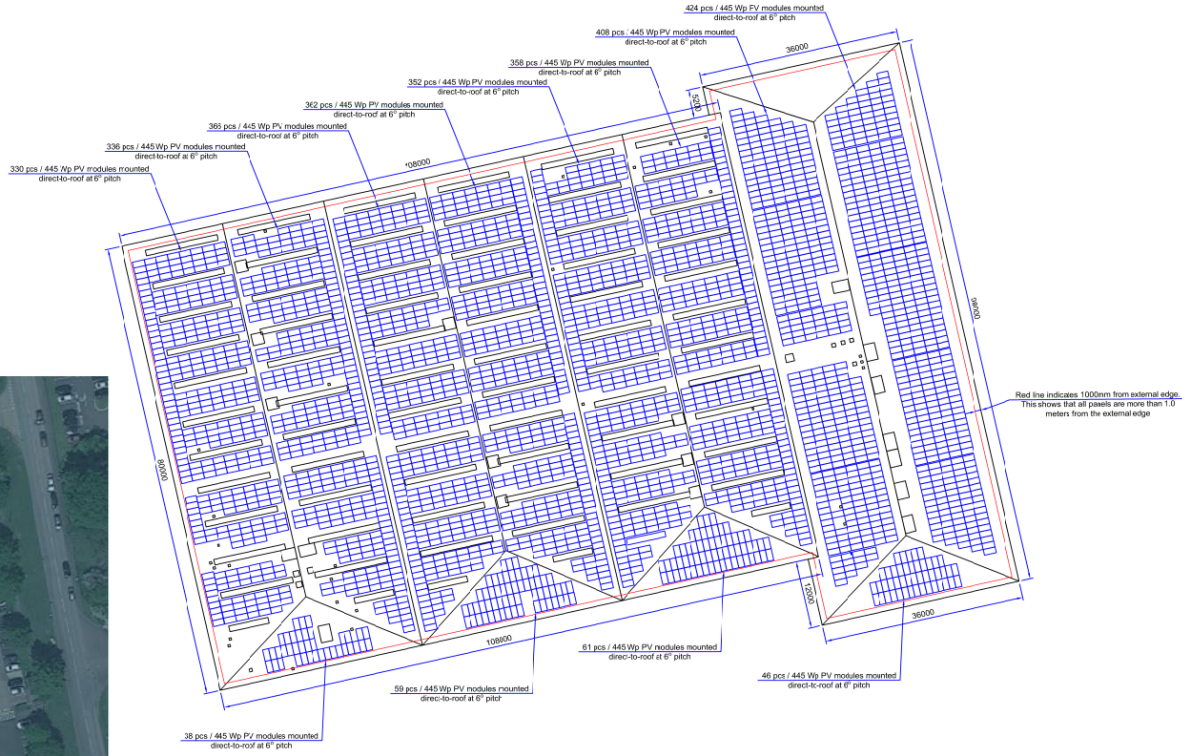
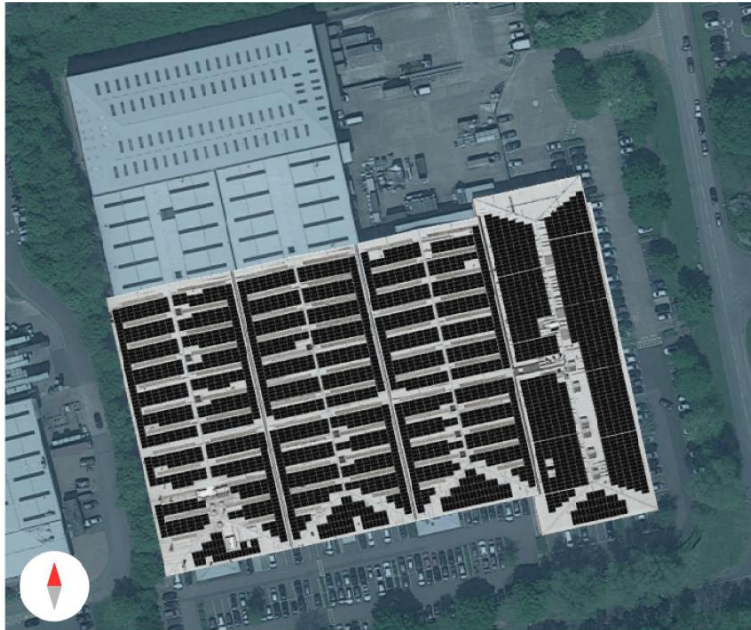
Installation of solar PV panels on the existing roof

Recommendation:
GRANT subject to conditions

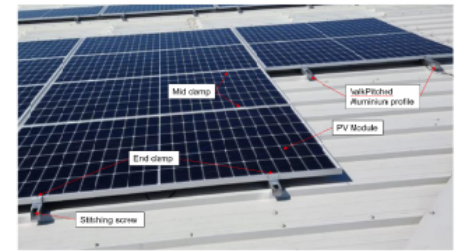
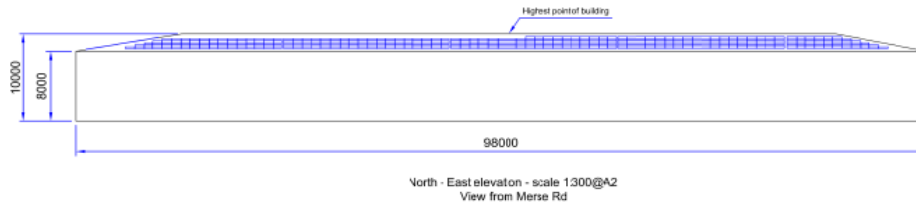
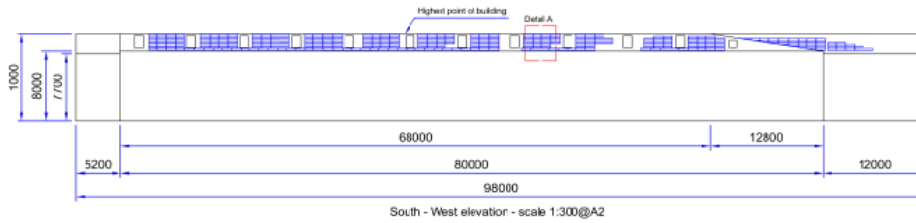
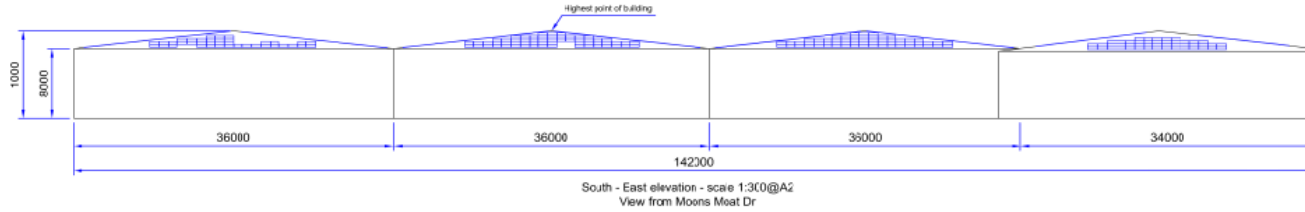
Site Location



Proposed Site Plan



Proposed Elevations



ValkPitched example - not to scale

Hi-MO 4m

LR4-72HPH
430~460M

- Suitable for ground power plants and distributed projects
- Advanced module technology delivers superior module efficiency
- Excellent outdoor power generation performance
- High module quality ensures long-term reliability

- 12 Year Warranty for Solar and PV Mounting
- 25 Year Warranty for Solar Panel

Complete System and Product Certifications

- IEC 61730 Class A / IEC 61215
- ISO 9001 and ISO 14001
- CE, TUV, and other international certifications
- High-efficiency solar cells and advanced interdigitated back cell (IBC) technology for high power output

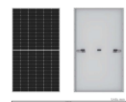
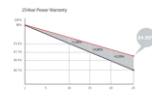
LONGi

Hi-MO 4m

LR4-72HPH 430~460M

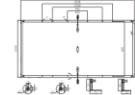
21.2% Efficiency 0~+5W Tolerant -2% Power Tolerance 0.55% Power Coefficient HALF-CELL Lower operating temperature

Additional Value



Mechanical Parameters

Dimensions (mm)	1820±0.5
Weight (kg)	21.2
Max. Power (W)	430-460
Module Efficiency (%)	21.2
Power Coefficient (%)	0.55
Temperature Tolerance (%)	0~+5
Operating Temperature (°C)	-40~+85



Electrical Characteristics - DC (V, A, W) at STC (1000W/m², 25°C)

	430W	450W	460W
Maximum Power (P _{max})	430	450	460
Maximum Power Voltage (V _{mp})	40.5	42.5	43.5
Maximum Power Current (I _{mp})	10.6	10.6	10.6
Open Circuit Voltage (V _{oc})	45.5	47.5	48.5
Short Circuit Current (I _{sc})	10.6	10.6	10.6
Temperature Coefficient (P _{max}) (%)	0.55	0.55	0.55
Temperature Coefficient (V _{oc}) (%)	-0.35	-0.35	-0.35
Temperature Coefficient (I _{sc}) (%)	0.05	0.05	0.05

Operating Parameters

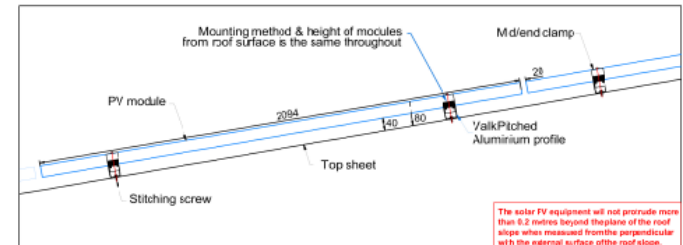
Maximum System Voltage (V _{max})	1500
Maximum System Current (I _{max})	10.6
Minimum System Voltage (V _{min})	0
Minimum System Current (I _{min})	0
Maximum Wind Speed (m/s)	24
Maximum Snow Load (kg/m²)	5

Mechanical Loading

Wind Load (kg/m²)	24
Snow Load (kg/m²)	5
Temperature Range (°C)	-40~+85

Temperature Ratings (TTC)

Operating Temperature (°C)	-40~+85
Storage Temperature (°C)	-40~+125
Transportation Temperature (°C)	-40~+85



The solar PV equipment will not protrude more than 5.2 inches beyond the plane of the roof slips when measured from the perpendicular with the external surface of the roof slope.

DETAIL A - scale 1:10 @A2

Site Photos



▲ Photo taking looking south along Merse Road towards site



▲ Photo taking looking west from Merse Road towards rear of site showing the existing solar panels on building



▲ Photo taking looking North towards site from Moons Moat Drive

Photo taking looking west towards site from junction of Merse Road and Moons Moat Drive ▼

