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# Polycarbonate Roof System

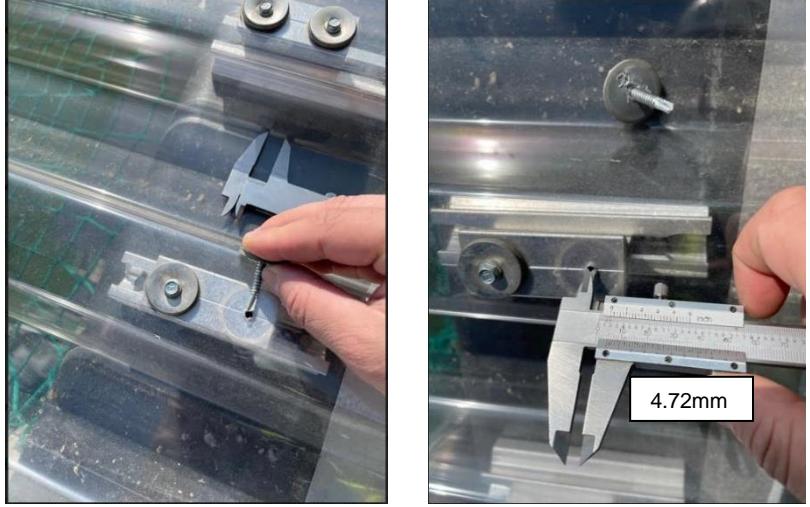
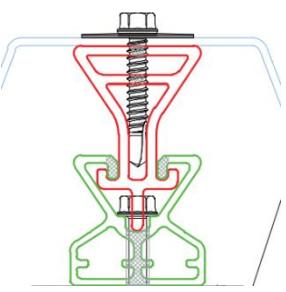
## Installation – Observation Report

### April 2021

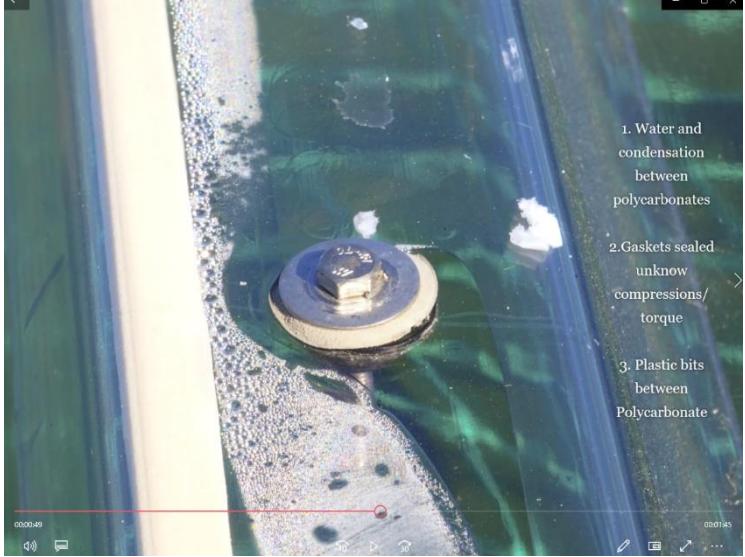
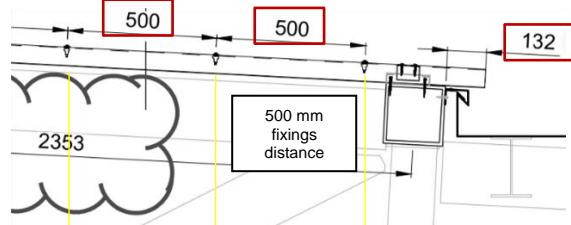
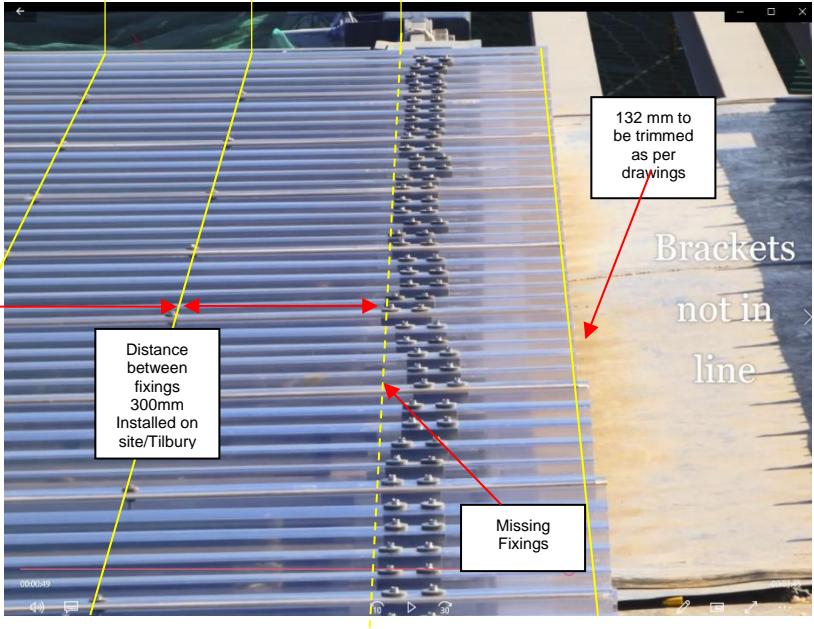


| Project:   |      |                      |                  |
|--|------|----------------------|------------------|
| Inspected : P.Mazur  | BGCL | Summary – April 2021 | Time Start: n/a  |
|  |      |                      | Time Finish: n/a |
| <u>Reference Documents:</u>  |      |                      |                  |
| C18050-KCR-RS-XX-TN-Y-0003-PDF_B.status – technical note incl. MARLON LONGLIFE CS WARRANTY (*1)<br>Marlon CS Long life Corrugated Polycarbonate Sheet Brochure (*2)<br>Marlon Technical Bulletin – TB137 (*3)<br>C18050-KCR-RS-RF-DR-Y-RF0200-C01-A.pdf – drawings (*4)<br>NBS Specification Clause: Marlon CS Longlife Single Skin (*5)<br>BGC-NONC-000031 – BGCL Non Conformance report 1.04.21 (*6) |      |                      |                  |
| A - To Clarify   |      | B - Unsatisfactory   |                  |
| C - Improvement required as identified   |      | Q – Quality Accepted |                  |

| Issue nr. | OBSERVATION and COMMENTS   | Rating    | ACTION REQUIRED   |
|-----------|--|-----------|---|
| 1         | <p>For the warranty to remain valid, the sheets must be installed in accordance with the manufacturers recommendations and these include, The warranty remains valid only if the sheet has been correctly stored, handled, installed and cleaned as recommended by Brett Martin: <sup>(*1)</sup></p> <ul style="list-style-type: none"> <li>full adherence to fixing recommendations with the avoidance of over tightening of screws; <sup>(*1)</sup></li> </ul> <p><i>fixings less or over Torque as on photos below.</i></p>     | A,B,<br>C | Kaicer to deliver evidence there all fixings has been torqued and gasket seals to the polycarbonate as per Marlons manufacturer guidance  |
| 2         | <p>For the warranty to remain valid, the sheets must be installed in accordance with the manufacturers recommendations and these include, The warranty remains valid only if the sheet has been correctly stored, handled, installed and cleaned as recommended by Brett Martin: <sup>(*1)</sup></p> <ul style="list-style-type: none"> <li>sheets must be stored under opaque cover at all times <sup>(*1)</sup></li> </ul> <p><i>polycarbonate sheets stored on the roof uncovered.</i></p>   | A,B,<br>C | <p>Polycarbonate sheets should not be exposed to weather before installation.</p> <p>Store Polycarbonate sheets indoors if possible or keep covered to prevent damage from rain or sun. Do not remove protective film until installed to protect against surface scratching. <sup>(*3)</sup></p> <p>Store Polycarbonate sheets on flat ground, on 75mm battens (free from nails) not more than 1.5m apart. Tie down stacks or individual Polycarbonate sheets to secure against wind - never put weights on rooflights</p> <p>Different profiles in the same stack must be separated with battens, located directly above each other. Do not stack Polycarbonate more than 1.5m high. <sup>(*3)</sup></p> |

|   |  |  |
|---|--|--|
| <p><b>3</b> For the warranty to remain valid, the sheets must be installed in accordance with the manufacturers recommendations, and these include, The warranty remains valid only if the sheet has been correctly stored, handled, installed and cleaned as recommended by Brett Martin: (*1)</p> <ul style="list-style-type: none"> <li>• cutting, drilling and handling as advised by Brett Martin Ltd, 5.5mm diameter fasteners fitted with large washers with bonded seals, located in the center of the top flange of the purlin. Drill 10mm diameter oversized holes using a sharp drill bit to produce a clean cut hole. (*1)</li> </ul> | <p><b>Holes not predrilled</b></p>  | <p><b>A,B,<br/>C</b> Holes must be oversized to allow for thermal movement. Holes for fixings should be drilled 6mm greater in diameter than the fixing shank for sheet lengths up to 2m and an additional 3mm per additional meter length of sheet. E.g. for a 4m long sheet, holes should be over drilled by 12mm. Failure to accommodate for thermal movement will cause buckling of the sheet. (*2)</p> <p><b>Stainless steel 5.5mm diameter fasteners fitted with a large diameter (29/32mm) washer with bonded seal, located in the centre of the top flange of the Ashgrid bar, zed spacer or equivalent, typically poppy red colour. Drill oversize 10mm diameter holes using a sharp drill bit to produce a clean cut hole. There should be at least five main fasteners per purlin, fitted in the trough, max. 200mm apart; usually this necessitates one fixing per trough. Do not over tighten fasteners. Do not use lightweight washers. *see below for typical references (*3)</b></p> |
| <p><b>4</b> For the warranty to remain valid, the sheets must be installed in accordance with the manufacturers recommendations, and these include, The warranty remains valid only if the sheet has been correctly stored, handled, installed and cleaned as recommended by Brett Martin: (*1)</p> <ul style="list-style-type: none"> <li>• The warranty remains valid only if the sheet has been correctly stored, handled, installed and cleaned as recommended by Brett Martin</li> </ul> <p><b>Polycarbonate sheet slanted installed not flat to</b></p>   |                                     | <p><b>A,<br/>B,C</b> Each fixings to be check by Kaicer to be sure polycarbonate installed flat to AC491 as per drawings *.RF0200 and Manufacturer guidance</p>   |

|   |  |         |  |
|---|--|---------|--|
| 5 |  | A, B, C |  |
| 6 | <p><i>Rusty Bits under Polycarbonate</i></p>   | A, B, C | Kaicer to clean of Rust  |
| 7 | <p><i>For the warranty to remain valid, the sheets must be installed in accordance with the manufacturers recommendations, and these include, The warranty remains valid only if the sheet has been correctly stored, handled, installed and cleaned as recommended by Brett Martin: (*1)</i></p> <p><i>Plastic bits between polycarbonate and gasket Washer over torque</i></p> | A, B, C | Fasteners must not be over tightened as this will prevent thermal movement of the Marlon CS Longlife sheet with changes in temperature. (*3) |

|          |  |                |   |
|----------|--|----------------|---|
| <b>8</b> | <p>For the warranty to remain valid, the sheets must be installed in accordance with the manufacturers recommendations, and these include, The warranty remains valid only if the sheet has been correctly stored, handled, installed and cleaned as recommended by Brett Martin: (1)</p> <p><b>Water ingress and condensate between polycarbonate</b></p>  | <b>A, B, C</b> | <p>Water should not ingress , Kaicer to advise why water was found in Polycarbonate</p> |
| <b>8</b> | <p>Fixings and polycarbonate not installed as per drawings C18050-KCR-RS-RF-DR-Y-<br/>RF0200-C01-A ( uploaded from Acconex lastest revision )</p> <p><b>Kaicer not installed fixings as per drawings, polycarb to trim, fixings not in line</b></p>                   | <b>A,B , C</b> | <p><b>Kaicer to TBC</b></p>   |

Name: Peter Mazur

Date: 30.04.2021

Position:

BGCL – Facades Manager

*Pete Mazur*