

**CONGLETON TOWN COUNCIL**

**COMMITTEE REPORTS AND UPDATES**

<b>COMMITTEE:</b>	Environment Committee								
<b>MEETING DATE AND TIME</b>	21 <sup>st</sup> September 2023 7.00pm	<b>LOCATION</b>	Town Hall						
<b>REPORT FROM</b>	Streetscape Development Manager – Ruth Burgess								
<b>AGENDA ITEM REPORT TITLE</b>	<b>11 Update on Decarbonisation of the Town hall</b>								
<b>Update</b>	<p>Our Town Hall Manager has been working on many aspects in how we can reduce our carbon footprint of the Town Hall Building bearing in mind it is a Listed Grade Two Building, below is a table showing what has been looked into , completed and working on:</p> <p>Taken for THAS Committee 20<sup>th</sup> October 2022</p> <table border="1"> <tr> <td><b>Short Term</b></td> <td> <ul style="list-style-type: none"> <li>Improve understanding and use of the space heating control system – led to other works</li> <li>LED lighting to replace T8 fluorescent lamps – ongoing replacing as broken – all fire exits and emergency lighting replaced to LED</li> <li>PIR sensors throughout in appropriate areas</li> <li>Replacement of existing PL CFL luminaires with LED – throughout with PIR/DALI controls (as appropriate)</li> <li>Improvements to chiller/cooling systems</li> <li>Insulation to space and domestic hot water heat distribution pipework</li> </ul> </td> </tr> <tr> <td><b>Medium Term</b></td> <td> <ul style="list-style-type: none"> <li>Reducing air infiltration - external doors, and internal walls in parts of building (e.g. first/second floor offices)</li> <li>Reducing air infiltration – windows – getting a quote for secondary glazing w/c 24/4</li> <li>Replace existing heat destratification in the main hall</li> </ul> </td> </tr> <tr> <td><b>Longer term &amp; deep retro-fit</b></td> <td> <ul style="list-style-type: none"> <li>Reduction in air infiltration / air flow through main stair well</li> <li>Cavity wall insulation in newer offices at rear of building</li> <li>Potential to replace existing fan coil units with low temperature units in main hall</li> <li>Air to water source heat pump for DHW heating at rear of building (currently 2 electric calorifiers)</li> <li>Air to water source heating for main hall - to be investigated more</li> <li>Internal wall insulation in first/second floor offices of main building</li> <li>Secondary glazing units - ideally throughout, priority areas would be offices</li> </ul> </td> </tr> </table>			<b>Short Term</b>	<ul style="list-style-type: none"> <li>Improve understanding and use of the space heating control system – led to other works</li> <li>LED lighting to replace T8 fluorescent lamps – ongoing replacing as broken – all fire exits and emergency lighting replaced to LED</li> <li>PIR sensors throughout in appropriate areas</li> <li>Replacement of existing PL CFL luminaires with LED – throughout with PIR/DALI controls (as appropriate)</li> <li>Improvements to chiller/cooling systems</li> <li>Insulation to space and domestic hot water heat distribution pipework</li> </ul>	<b>Medium Term</b>	<ul style="list-style-type: none"> <li>Reducing air infiltration - external doors, and internal walls in parts of building (e.g. first/second floor offices)</li> <li>Reducing air infiltration – windows – getting a quote for secondary glazing w/c 24/4</li> <li>Replace existing heat destratification in the main hall</li> </ul>	<b>Longer term &amp; deep retro-fit</b>	<ul style="list-style-type: none"> <li>Reduction in air infiltration / air flow through main stair well</li> <li>Cavity wall insulation in newer offices at rear of building</li> <li>Potential to replace existing fan coil units with low temperature units in main hall</li> <li>Air to water source heat pump for DHW heating at rear of building (currently 2 electric calorifiers)</li> <li>Air to water source heating for main hall - to be investigated more</li> <li>Internal wall insulation in first/second floor offices of main building</li> <li>Secondary glazing units - ideally throughout, priority areas would be offices</li> </ul>
<b>Short Term</b>	<ul style="list-style-type: none"> <li>Improve understanding and use of the space heating control system – led to other works</li> <li>LED lighting to replace T8 fluorescent lamps – ongoing replacing as broken – all fire exits and emergency lighting replaced to LED</li> <li>PIR sensors throughout in appropriate areas</li> <li>Replacement of existing PL CFL luminaires with LED – throughout with PIR/DALI controls (as appropriate)</li> <li>Improvements to chiller/cooling systems</li> <li>Insulation to space and domestic hot water heat distribution pipework</li> </ul>								
<b>Medium Term</b>	<ul style="list-style-type: none"> <li>Reducing air infiltration - external doors, and internal walls in parts of building (e.g. first/second floor offices)</li> <li>Reducing air infiltration – windows – getting a quote for secondary glazing w/c 24/4</li> <li>Replace existing heat destratification in the main hall</li> </ul>								
<b>Longer term &amp; deep retro-fit</b>	<ul style="list-style-type: none"> <li>Reduction in air infiltration / air flow through main stair well</li> <li>Cavity wall insulation in newer offices at rear of building</li> <li>Potential to replace existing fan coil units with low temperature units in main hall</li> <li>Air to water source heat pump for DHW heating at rear of building (currently 2 electric calorifiers)</li> <li>Air to water source heating for main hall - to be investigated more</li> <li>Internal wall insulation in first/second floor offices of main building</li> <li>Secondary glazing units - ideally throughout, priority areas would be offices</li> </ul>								

	<ul style="list-style-type: none"> <li>Any potential to retro fit roof insulation in between sarking/felt and external slates</li> </ul>
	<ul style="list-style-type: none"> <li>Roof insulation over offices in main building</li> </ul>
	<ul style="list-style-type: none"> <li>Internal roof insulation - Bridestones Suite</li> </ul>
	<ul style="list-style-type: none"> <li>Solar glass to replace external plexi-glass over circular windows in main hall</li> </ul>
	<ul style="list-style-type: none"> <li>Any opportunities for solar PV on invisible parts of the roof</li> </ul>

**Taken from THAS Committee 9<sup>th</sup> March 2023**

1. Hot water heaters - provides hot water for the commercial kitchen and main hall toilets. New timers have been installed to match the demand of users – based on current demands this has been reduced to 3 hours a day (from 24 hours a day). Projected savings:

Annual savings in kWh of electricity	approximately 70,000 kWh pa
Annual commercial saving	approximately £185 pa
Annual carbon footprint reduction range	between 13,700 and 15,000 Kg pa
Payback period	between 3.5 and 2.5 years

2. Space temperature sensor in the main hall

This sensor was incorrectly placed above a radiator, providing instruction to the heating system to shut down. This resulted in the heating being switched to manual permanently to bypass the temperature sensor to heat the building. This work is in preparation for the next phase of updating the heating control software and re-commissioning the heating controls.

3. Insulating heating and hot water pipework

The Streetscape team insulated exposed pipework throughout the Town Hall to improve general efficiency and reduce heat losses.

Cost to implement	£ 86.10 (may increase due to the need for additional insulation)
Annual carbon footprint reduction range	Difficult to estimate as no baseline is available

**Financial Considerations**

**Environmental Considerations**

**Equality Considerations**

**Decision Requested**

To receive the report.