

KEY :

High Risk	Medium Risk	Low Risk
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Revision Control:		CDM Design Risk Management Record (Current vs High Cill option)						Project	Chalcots Estate															
Originator <u>Simon Enticknap</u> Date: <u>30 November 2021</u>		<table border="1"> <thead> <tr> <th colspan="3">Project Stage</th> </tr> </thead> <tbody> <tr> <td></td> <td>Construction</td> <td>X</td> </tr> <tr> <td></td> <td>Cleaning & Maintenance</td> <td>X</td> </tr> <tr> <td></td> <td>Use as a Workplace</td> <td>X</td> </tr> <tr> <td></td> <td>Demolition</td> <td></td> </tr> </tbody> </table>						Project Stage				Construction	X		Cleaning & Maintenance	X		Use as a Workplace	X		Demolition		Project No.	13702
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Checker <u>Bill Hillyard</u> Date: <u>9 December 2021</u>		Area	Replacement windows and overcladding of existing structure		Phase	Tender	Doc. Ref.	Risk Management																
		Date	30/11/2021		Page No	1																		
Ref.	Current Design Activity / Element	Current Risk(s)	Accept?	Design Action to Mitigate or Reduce Risk	Owner	Residual Risk	Accept?	Reference Documents																
R1	Contract Ambiguity The enquiry purports to be a design build (CDP=87%) but is in fact a hybrid, a mix traditional & design build.	The 'tender designer' takes no responsibility for his design and seeks to pass all responsibility to the contractor	N	Tenderers must acknowledge the ambiguity, confirm they accept full design responsibility and raise for assessment at tender stage in the quality section any/all design issues they have identified together with their proposed solutions to demonstrate their skills and knowledge on this complex and onerous project	d+b	Low risk	Y	See QC report																
R2	OVERHEATING ; CIBSE TM59 assessment fails by c.20% to meet minimum standard required to avoid overheating within a residential building	Residents suffer increased stress, anxiety, sleep deprivation and even early death in heat waves especially for vulnerable	N	Reduce extent of glass (and therefore the amount of solar heat gain) and increase extent of natural ventilation to ensure the thermal comfort of residents during the hottest periods of the day (in living space) and night (in bedrooms). (NB; we have discounted forced air ventilation and/or air condition as cost and environmentally prohibitive).	d+b	Low risk	Y	See ZED report																
R3	Risk of Injury during Construction	High risk + disruption to residents during window wall replacement works, fall risk, falling objects risk, residents suffer heat loss in cold spells, death	N	Remediate the existing window wall in-situ including c/w firestopping and additional insulation, make water/airtight and overlaid with rainscreen + insulation to make the existing window wall a 'back up wall' that stays in place providing protection and segregation for occupants throughout the construction process and maintains current thermal performance. As/when new windows are installed, remove existing glazing from inside, and line the opening with prefabricated prefinished window linings.	d+b	Low risk	Y	See d+b facades developed High Cill design option																
R4	Risk of Injury during external maintenance	fall risk, falling objects risk, equipment malfunction or failure, death	N	Remediate existing window operation to facilitate safe internal window cleaning (i.e., fully reversible windows) and installation of self-cleaning maintenance free cladding panels fully removing all risks and costs associated with external future maintenance.	d+b	Low risk	Y	See d+b facades developed High Cill design option																
R5	Excessive heat loss	Residents suffer increased stress, anxiety, sleep deprivation, energy costs, and even early death in cold spells especially for vulnerable	N	Reduce extent of glass (and therefore the amount of heat loss). (NB; we have discounted forced air ventilation and/or air conditioning as financial and environmental costs are prohibitive). Remediate existing window wall in-situ to make the existing window wall a 'back up wall' that stays in place providing protection, segregation and maintains current thermal performance for occupants.	d+b	Low risk	Y	See d+b facades developed High Cill design option																
R6	Excessive Heat gain during construction	Residents suffer increased stress, anxiety, sleep deprivation, energy costs, and even early death in heat waves especially for vulnerable	N	Remediate existing window wall in-situ to make the existing window wall a 'back up wall' that stays in place providing protection, segregation and maintains current thermal performance for occupants throughout the construction process and maintains current thermal performance.	d+b	Low risk	Y	See d+b facades developed High Cill design option																
R7	Capital cost	High Capital cost, high CDM risks	N	The current design has a high capital cost due to high risk and complex elements of the build, these risks can be developed, removed and/or reduced which in turn reduces capital cost.	d+b	Low risk	Y	See d+b facades developed High Cill design option																
R8	Past product performance reference	Past performance reference for products in the current design is not available, certainty of product performance and long-term performance is unknown	N	Remediate using products of proven past performance providing LBC certainty of outcome, direct reference can be taken by the oldest in use examples spanning +35years.	d+b	Low risk	Y	See past project examples and accompanying reference contact details																
R9	Insufficient ventilation	Regulations set a very low standard and do not reflect current or projected climate change for the 60 year façade and max ventilation should be provided	N	Add max natural ventilation		Low risk		See past project examples																
R10	Product warranty	Current design includes products with no or limited/short warranties, risk of LBC being left with no or limited future recourse in the event of product failure	N	Remediate using products with long-term and unambiguous warranties providing LBC certainty of outcome and long-term future recourse in the event of product failure.	d+b	Low risk	Y	See d+b facades developed High Cill design option																
R11	System CWCT testing	Current design has no CWCT testing certification, possibility the current design would fail	N	Remediate using a system with CWCT testing certification and proven past performance providing LBC certainty of outcome and referenceable long-term performance	d+b	Low risk	Y	See d+b facades developed High Cill design option + See past project examples and accompanying reference contact details																
R12	Disruption	Disruption to Access and egress, daily resident routines, lighting to residents homes, security to residents homes, Noise, local businesses, traffic, future and ongoing maintenance disruptions	N	Review and develop all facets of the refurbishment works to remove or minimise disruption wherever possible (including but not exhaustive of - site setup including access and traffic management/ construction works/ decommissioning of the site/ future and ongoing maintenance of the finished refurbished buildings)	d+b	Low risk	Y	See d+b facades developed High Cill design option																
R13	Living space impact	Alteration to existing internal layouts (i.e., radiators) will force some residents to have to change their current contents setup, temporary barriers within properties and externally to isolate residents from the works, all above can cause disruption, increased stress, financial stress, anxiety and sleep deprivation	N	Develop the design to maintain existing layouts (i.e. radiator positioning), review and develop all facets of the refurbishment works to remove or minimise disruption wherever possible (including but not exhaustive of - site setup including access and traffic management/ construction works/ decommissioning of the site/ future and ongoing maintenance of the finished refurbished buildings).	d+b	Low risk	Y	See d+b facades developed High Cill design option																