		£	p
	APPENDIX A **MASTER SPECIFICATION & SCHEDULE OF WORKS** **For** **STERTE COURT SPRINKLERS**		
	total collection		

		£	p
	SECTION 1 - ASBESTOS IDENTIFICATION & REMOVAL WORKS		
	SUB SECTION GENERAL NOTES: **i. At the time of tender document issue a refurbishment type asbestos survey has not been completed.** **ii. A management type survey with some material sample testing is included for indicative purposes (Refer to Appendix A).** **iii. Prior to any works commencing the contractor shall ensure that a refurbishment type survey has been conducted and the report issued.** **iv. Where asbestos surveys are commissioned within flats there may be limited opening up of the structure. The contractor shall take note of the caveats, restrictions and inaccessible areas as listed within the asbestos survey report.** **v. It is intended to undertake refurbishment type surveys to a proportion of the flats until the results demonstrate as far as reasonably practicable that there is consistency in the range of ACMs in the property type and there is an accurate picture of asbestos presence (in accordance with HSG264: 2012).** **vi. The contractor shall allow for undertaking further additional visual survey of each area, especially areas which have not been surveyed, by a competent person prior to any works in order to identify any variances.** **vii. Contractor to provide a Plan of Works and submit to the CA prior to commencement.** **viii. All asbestos removal works are to be undertaken in accordance with The Control of Asbestos Regulations 2012 (CAR: 2012) and HSE Equipment/Method Sheets and Essential Task Sheets.** **ix. The contractor shall be responsible for defining works requiring licensed removal, non-licensed work and notifiable non-licensed work.** **x. The contractor shall be responsible for making all notifications required to the HSE including allowance in the programme for notice periods.** **xi. Where asbestos is to remain in-situ the contractor is to install asbestos containing material labels to each area / item of asbestos material.** **xii. Allow to make safe any areas of asbestos material that are to remain in-situ and are likely to be affected by other removal works to ensure safe removal of all items and materials.** **xiii. The contractor shall be responsible for assessing all quantities of asbestos removal required. Where quantities are stated within the asbestos report the contractor shall use these at their own risk.** **xiv. Allow for all enabling or facilitating works i.e. asbestos removal enclosures required in order to complete the works.** **xv. Provide clean air certification to the CA on completion by UKAS accredited testing company.** **xvi. All asbestos containing material shall be transported and disposed of in the correct manner at a licensed disposal site.**		
	total collection		

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1.1	**Provide Refurbishment Type Asbestos Survey Shall Mean:** *Preamble:* *C20* *Location:* *All areas to be worked on under this contract where asbestos suspected* a) Prior to commencement contractor to provide all necessary access / safety equipment to ensure safe working. b) Commission refurbishment type asbestos survey to all areas affected by the works. c) Where samples are required that may affect the weather-tightness of the building envelope, allow costs to maintain weather-tightness following collection of the sample. d) Asbestos survey to be carried out by a UKAS accredited company. e) Asbestos surveying company to undertake risk assessment and produce plan of work in accordance with CAR: 2012. Principal Contractor to be responsible for assessing risk assessment / plan of work and confirming compliance with CAR: 2012.		
1.2	**Undertake Localised Asbestos Removal to Ceilings to Communal Area and within Flats Shall Mean:** *Preamble:* *C20* *Location:* *Existing ceilings within communal circulation areas affected by the proposed sprinkler system and other building services works* a) For tendering purposes, it is to be assumed that all ceilings within communal circulation areas contain chrysotile asbestos. **b)** The contractor shall allow for localised asbestos removal to make safe ceiling areas to enable installation of the AOV system smoke detectors, cabling etc. to be installed **(allow provisional quantity of 10sq.m per floor)** c) Allow to make good and extend all disturbed finishes affected by the works.		
	total collection		

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	SECTION 2 – SPRINKLER INSTALLATION		

GENERAL NOTES

This schedule of works is to be read in conjunction with all drawings, the Preliminaries located in Section A, Specification Preamble located in Section B

A. The work items in this schedule may refer to specification and drawing references. The relevant specification clauses and drawings are deemed to apply whether there is specific reference or not.

B. The work items in this schedule may refer to specification and drawing references. The relevant specification clauses and drawings are deemed to apply whether there is specific reference or not.

C. Any inconsistencies or contradictions between the specification, schedules or drawings are to be brought to the attention of the Contract Administrator immediately. No work should be carried out until instructions giving clarification are provided.

D. The Contractor is to be responsible for the programming, sequencing and integration of work to ensure proper execution of the works.

E. The Contractor is to allow for all making good required as a consequence of the work and removal of all waste and debris from site as work proceeds.

F. The contractor will be deemed to have included in each item for all work necessary to complete that item of work whether fully described within the item or not.

G. The Contractor is to allow for all necessary support, protection, plant, equipment and scaffold required for the proper execution of the works.

H. Where the Contractor is required to carry out design work or commission specialists, the completed designs / proposals are to be provided for approval by the CA before any placing of orders with suppliers.

I. The Contractor is to ensure that all works are carried out in accordance with current legislation, regulations and British Standards including but not limited to BS 9251, Building Regulations, IEE Electrical Regulations, and Construction (Design and Management) Regulations etc.

J. All works are to be carried out by persons qualified to do so. Electrical works are to be carried out by NICEIC Approved Installers to Part P of the Building Regulations and IEE 18th Edition wiring regulations (BS7671). **All design and installation works on sprinkler systems are to be undertaken by UKAS certified 3rd party approved designers/installers (i.e. FIRAS).**

total collection

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	K. Where required, the Contractor is responsible for liaison with all Statutory Authorities relating to the work. The Contractor is to liaise with the Local Authority Building Inspector and/or Approved Inspector in pursuit of Building Regulations Approval for the works. The Contractor is responsible to give notification for inspections at the appropriate stages of construction. L. The Contractor is to allow for a full clean of all the work and storage areas before handover of the completed works. M. Generally, where not stated, all insulation to be CFC/HCFC free with an ODP of zero and GWP of less than 5. All timber to be FSC certified with Chain of Custody Certification. N. The Contractor is to be responsible for the identification of all incoming services to the site and is to allow for the protection or relocation of all incoming statutory services as necessary to execute the works. The Contractor is to be responsible for all liaison with Statutory Authorities relating to services. O. The Contractor is to allow for temporary removal and reinstatement of services as required due to the consequence of the works. This shall include electric, water and gas services. P. <u>Where pipes and cables for pipework and/or fire alarm works pass through floors and compartment walls they must be fire stopped by a UKAS accredited third party approved installer, a completion certificate will be required prior to final inspection and handover.</u> Q. The contractor shall allow for the strip out and removal of all rubbish and packaging made redundant by or through the specified works. When removing this rubbish/waste the contractor shall ensure every effort is made to reduce, reuse, recycle and recover before considering disposal to landfill. **R. The contractor shall maintain a potable water supply during the roof tank replacement works. This may be achieved via the installation of a temporary tank (subject to load calculations) or via another method as suggested in the contractors proposals.**		
	total collection		

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2.1.0	**DESIGN** The contractor (or engaged qualified sprinkler specialist) is to design new sprinkler systems to the Sterte Court Blocks. This design (as well as the install – see 3.0) is to be undertaken by a UKAS accredited 3rd Party approved designer/installer, details of accreditation are to be provided with the tender submission (Mandatory Requirements). The contractor is to price here for all design work. The design should be based on the following specification and design standards; • BS9251:2014 – Residential Sprinkler Code of Practice • BAFSA Technical Note 1 Design and Installation of Residential. Sprinkler Systems Revision 1: June 2008 The systems are to be designed as Residential Classification 3 System as defined in BS 9251:2014. **Ground Floor** Contractors are to include for protection to all areas of the ground floor. The electrical rooms do not need protection and for clarification these rooms have been shown in red hatching on the existing floor plans. Contractors are to design the system identifying a suitable location to position the new sprinkler holding tanks and pump sets to be designed and installed as part of this contract. The fire pump will be a self-contained unit, skid mounted incorporating all associated controls, devices and pipework all pre-wired and commissioned prior to delivery to site. The pump set will automatically operate a self-test cycle at pre-set intervals (there should also be a manual test option for annual testing and other tests etc.). If the test fails then an audible alarm will sound and will be indicated on the remote alarm panel (see 5.0). Tanks are to be sized to cater for a run time of 30 minutes; all calculations are to be provided prior to commencement on site. Contractors are to install a new connection to an incoming water main to feed these tanks. This connection should have a non-return valve installed as near to the main as possible in compliance with the legionella regulations. An isolation valve should also be installed. A sprinkler control valve unit comprising of isolation valve, non-return valve, flow switch, pressure gauge and drain valve will be installed on this level. The flow switch is to be wired back to a control panel for indication of sprinkler activation (see 5.0). All cold areas such as bin store plant rooms and areas that are exposed to freezing conditions will be trace heated and insulated with mineral wool sections and if external will be cladded with aluminium cladding. In communal areas where possible all pipework is to be concealed within existing boxing (see also 4.0). Drawings showing pipe routes and tank/pump locations are to be provided prior to commencement and contractors are to ensure existing boxing is utilised. All designs will be reviewed on site where the client is to sign off proposed routes.		
	total collection		

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	Flats (other floors) The distribution pipework would commence from the new tank / pumps and up within the riser/agreed location to each floor. From this point, contractors are to install a sprinkler control valve unit comprising of isolation valve, non-return valve, flow switch, pressure gauge and drain valve. Where contractor's designs identify pressures that may exceed 6bar, pressure relief valves are also to be included (this includes the ground floor). Protection should then be provided to all communal areas, including cut off sprinklers to stairwells. Th installer to allow for minimum of **two** flow switches per floor each serving 3 flats to each side of the building as agreed. The sprinkler pipework should then enter each dwelling where a lockable stop valve is to be installed externally to the flat and secured open this will allow the sprinkler system to be isolated to the individual flat if required for decorating or refurbishment requirements. Contractors are also to include for protection to any refuse chute rooms. All designs (including pipe work run drawings) are to be submitted for comments prior to commencement on site. Each block is to be installed with a fire brigade breaching inlet connection in case of total pump failure, so that the fire brigade can pump water directly into the sprinkler system if required. The installation pipework and fittings are to be priced using Blaze Master CPVC or equivalent which is an approved product for fire sprinkler installations and should be installed in accordance with the manufactures design guide by qualified operatives. All sprinkler heads will be designed and installed in accordance with the Manufacturers Technical Data Sheet, and in accordance with BS9251:2014. Pumps and tanks are contractor choice but should be approved and compliant to BS9251:2014. Tanks (and systems complete) are to be insulated, tested and commissioned in line with the Legionnaires' disease - the control of legionella bacteria in water systems Approved Code of Practice and guidance (L8).		
2.2.0	**INSTALL** The contractor is to price here for the install only of the new sprinkler systems following all design works. In pricing this item and submitting this tender the contractor will have read Appendix A3 – Prelims and Appendix B1 – Contract Conditions and Appendix A1 – Preambles reviewed the drawings and have undertaken site visits. All works for the install of the system are to be included and additional claims arising from having not reviewed the tender documents in detail and having not carried out sufficient site surveys will not be entertained.		
2.3.0	**BOXING IN / MAKING GOOD** It has been ascertained in 2.0 that pipework is to be hidden (where possible) in existing boxing in communal areas. In many areas this boxing has recently been made good and it is the contractor's responsibility to ensure that this boxing is carefully removed and reinstated in full accordance with The Regulatory Reform Fire Safety Order 2005 and all relevant Building Regulations.		
	total collection		

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	Due to the construction (and to limit disturbance to residents), all pipework and sprinklers within residents flats are to be surface mounted and will be required to be boxed in after full testing / commissioning. Within flats contractors are to price here to provide and install Versa 5 Pipe Concealment to all surface mounted pipework. Contractors are to price here for all making good elements in communal areas and within resident's flats. This is to include replacement of any damaged Superlux and isolated decorations complete. As noted in the preambles Appendix A1 where pipes and cables for pipework and/or fire alarm works pass through floors and compartment walls (necessary penetrations in the building fabric) they must be fire stopped by a UKAS accredited third party approved installer, a completion certificate will be required. Any intumescent sealants or fire stopping products are to be compatible with the CPVC pipe and the system the contractor has designed.		
2.4.0	**POTABLE WATER**		
2.4.1	**POTABLE WATER SYSTEMS AS EXISTING**		
2.4.1.1	The potable water systems as existing in both blocks are mains boosted. The following is to outline these systems as existing, but this information is not exhaustive, and contractors are expected to have visited the sites prior to gain full understanding before submitting tender returns. The pumps, pump the water up to the tanks in the roof plant room, this then distributes potable water throughout the block. Water supplies to resident's flats **MUST** be maintained during the tank replacement and in any event residents must not be left without water for more than 4 hours during works to make connections.		
2.4.1.2	The sprinkler system to include for the supply and installation of a new 8000 litre potable water tank to the roof and to use the existing 3000litre (approx.) tank to the GF plant room to give the min required 10000 litre volume can you please clarify the client's intention/ requirements please.		
2.4.2	**NEW POTABLE TANKS SPEC**		
2.4.2.1	Provide and plumb in New Potable Water Tank Tank External Dimensions (L x W x H to suit site location): Tank Internal Dimensions (L x W x H to suit site location): Nominal Capacity: Twin compartment tank . (i) 5,000 X 1,000 X 2,080 mm (ii) 4,930 X 930 X 1,990 mm GRP Hand Layup Pre-Insulated Tank {Nominal 25mm Thickness} and Heavy Duty Cover complete with 2 no. Manholes and screened vents Outlet 825074 3"" PVC Stub Flange Assembly 2 Level switch low 900376 LS7 PPS Level Switch c/w half inch NPT Threaded Flange - Low Level Switch 2 Level switch high 900377 LS7 PPS Level Switch c/w half inch NPT Threaded Flange - High Level Switch 2 Warning pipe 821201 3/4"" Screened Overflow - R30E 2 Drain 900132 1"" PVC Flanged Tank Connector (Male) 2 Inlet 900082 1"" Equilibrium Drop Arm Ball Valve + 8"" Plastic Float 2 Overflow 821250 2"" Screened Overflow - ZWILFA 2 Other 600365 Manhole Lift Off Kit 1no m10 x 820mm threaded bar + 4 no M10 S/S Nuts 2		
	total collection		

		£	p
	Tank is totally internally flanged (true type) 50mm clearance required on three sides and unlimited on one end and 750mm clear above the tank for installation 6,870 litres actual useable capacity."		
2.5.0	**CONTROL / INDICATOR PANEL** Contractors are to design, supply, install and commission an indicator control panel to which the newly installed flow switches on each of the levels can be connected to. The alarm panel is to provide visual and audible indication of which flow switch has been activated. The contractor is to provide an A3 size, printed and framed block plan indicating the zones and isolation point in the system which can be mounted next to the alarm control panel. The alarm control panel is to be located on the ground floor in a location that is agreed with the contract administrator and client. The contractor is to include for all wiring in association with the wiring of the flow switches and links to the fire alarm. All works undertaken are to be carried out by NICEIC Approved Installers to Part P of the Building Regulations and IEE 17th Edition wiring regulations (BS7671). On complete certification is to be provided to the Contract Administrator and Client. Any new penetrations for wiring works are to be made good / fire stopped – as 4.0 The control panel is to be linked to the ARC (Alarm Receiving Centre)- BCP Council(Poole) control room. Installing contractor to identify and allow for most suitable method of connection (Mobile or hard wired) Following all commissioning the contractor will include to educate the client team on the installed Alarm Panels and what the various alarm activations may mean. Contact / call out numbers for the alarm activations will be provided in regards to pump failure.		
2.6.0	**COMMISSIONING / TESTING** On completion of each pipework system, the system shall be re-charged with clean water and subjected to a hydraulic test of 1.5 times the working pressure or 12 bar, whichever is the lesser, for a period of 1 hour. Any component of equipment liable to be damaged by the application of these tests shall be isolated. Installations or sections thereof which will be embedded in the structure or concealed in permanently sealed ducts, trenches, roof spaces, etc., shall in addition to the above specified test be individually tested as they are laid and before embedded or concealed. If this is being undertaken consult CA prior to install. Ideally all installations and testing are to be undertaken prior to covering up. All pressure tests as specified above shall be carried out before the application of thermal insulation (see also 7.0). After erection and completion of each system it shall be tested to show that it complies with the Specification to the satisfaction of the Contract Administrator. The tests shall be performed in sections as may be decided by		
	total collection		

		£	p
	the Contract Administrator. A certificate of all hydraulic tests shall be forwarded to the Contract Administrator. showing:- • Test pressure and duration of test • Location and result of all tests Each certificate shall be signed by the Contractor. The Contractor shall give the Contract Administrator (and UKAS Accredited 3rd party if required) five clear working days' notice of his intention to carry out any test. The Contractor shall remedy all faults, and re-test to the satisfaction of the Employer's Agent. The Contractor shall include for the provision of all necessary instruments, plant, labour and materials for carrying out the required tests. All systems prior to testing and/or handover shall be thoroughly cleaned, both internally and externally. Upon completion of the installation the contractor will place the system in complete operational condition, subject to the approval of the Contract Administrator. All adjustments to the control systems will be made by the Contractor who will be responsible for balancing the systems. The settings that are put on controls and any adjustments that are made during commissioning of the controls the Contractor shall forward to the Contract Administrator along with one copy of the Commissioning Report submitted by the Commissioning Engineers and sign off certification from a UKAS accredited 3rd Party (see also 8.0).		
2.7.0	**INSULATION** On completion of the newly installed sprinkler systems including all testing / commissioning, the contractor is to review all pipe runs (in respect of heated and un-heated areas) and ensure that where required pipe runs are thermally insulated. All pipework lagging / insulation is to be compliant with BS 5970:2012, BS 5422:2009, the Building Regulations Part L (and generally) and Legionnaires' disease - the control of legionella bacteria in water systems Approved Code of Practice and guidance (L8). The contractor is to include for all works and on completion provide the CA and client with a statement on the methodology applied and where any insulation is location along with the type.		
2.8.0	**CERTIFICATION OF COMPLETION** The contractor is to employ a UKAS Accredited 3rd party from the offset to review works progress and <u>provide on completion</u> a certificate of conformity for all its work which is designing and installing in accordance with BS 9251:2014. Please note that this certification is to be provided from a UKAS Accredited 3rd party (i.e. FIRAS) in relation to each individual scheme following <u>actual</u> specific site inspections. For the avoidance of doubt, a certificate confirming that designers / installers are approved by a UKAS Accredited 3rd party <u>is not sufficient</u>.		
	total collection		

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	SECTION 3 – Provisional and Contingency		
3.0	**Provisional and Contingency** The contractor shall make allowance within their proposed construction programme for defined provisional sums listed below. All sums listed below are only to be expended on instruction from the CA. "		
3.1	**Allow £2,000.00 In** association with Unforeseen Asbestos:		
3.2	**Allow £1,500.00** In association Unforeseen Electrical Works		
3.3	**Allow £2,000.00** In association with Fire Strategy:		
3.4	**Allow sum of £2,000.00** as General Contingency Sum for Unforeseen Works:		
3.5	**Allow £5,000.00** in association with replacement of the existing water rising main.		
	total collection		

		£	p
	COLLECTION PAGE FOR STERTE COURT **– APPENDIX A** Page 1 Page 2 Page 3 Page 4 Page 5 Page 6 Page 7 Page 8 Page 9 Page 10 Page 11		
	total collection		