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Building Services Project Design
& Contract Management

Client

HART DISTRICT COUNCIL

Job Title

FLEET ASSEMBLY HALLS
REFURBISHMENT

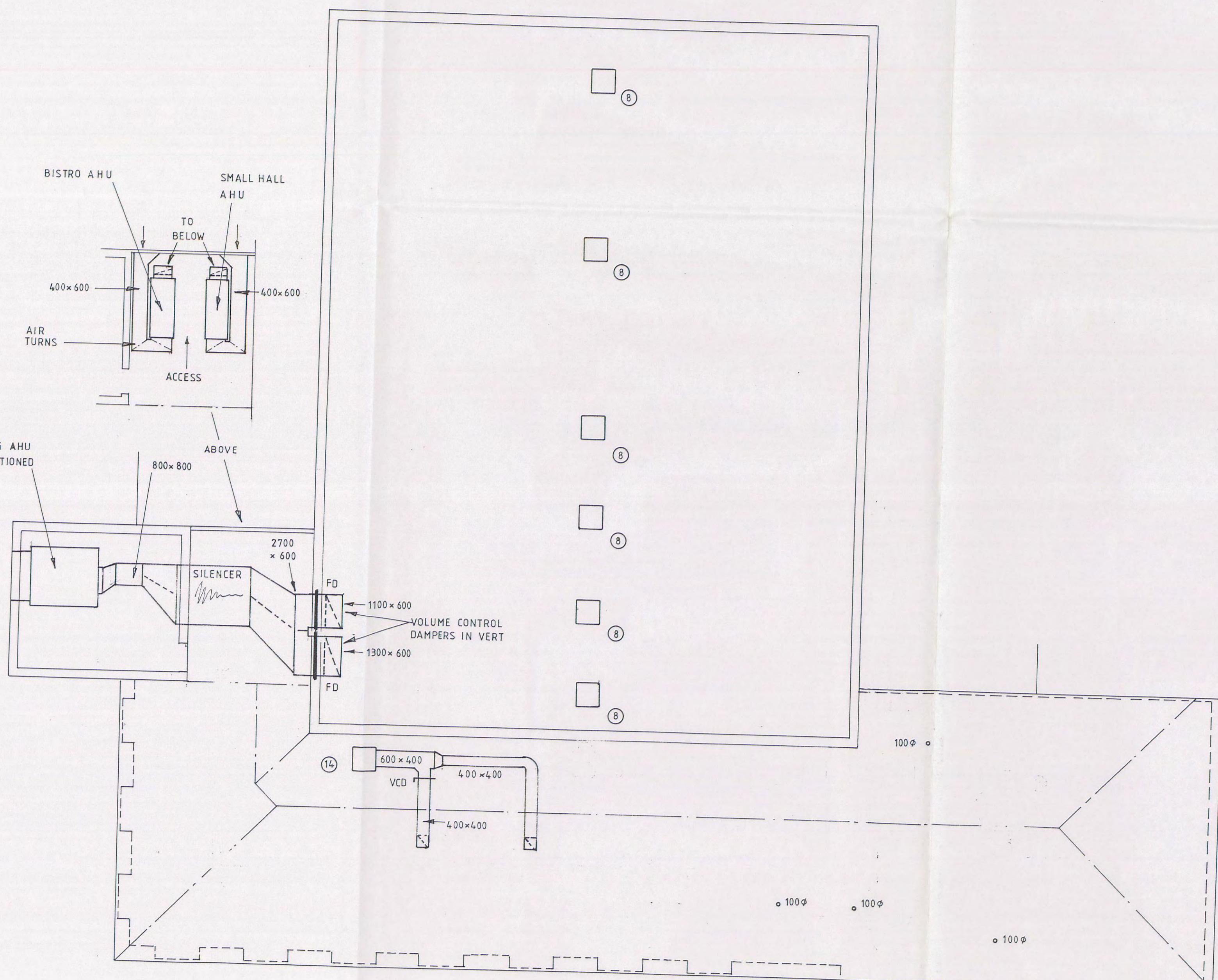
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Date 24-1-94 Drawn by MKH

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APPENDIX E:
GEOTECHNICAL REPORT



Ground Investigation Report

The Harlington, Fleet

Prepared For

Cooper & Withycombe

STRUCTURAL ENGINEERS AND BUILDING SURVEYORS



IMPACT
GEOTECHNICAL

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Report Approval

Report Author(s)	Signature	Date
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30/08/2019

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30/08/2019

Revision – Requested by	Nature of Revision	Date
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Trading Terms

Unless specifically stated within the tender/quotation or unless identified within the introduction to this report it is confirmed that this report has been compiled wholly in accord with Impact Geotechnical Ltd's terms of engagement. This report is provided for sole use by the Client and is confidential to them. No responsibility whatsoever for the contents of the report will be accepted to anyone other than the Client.

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Context

This report is written in the context of an agreed scope of work between Impact Geotechnical Ltd and the Client and should not be used in a different context. In light of additional information becoming available, improved practices and changes in legislation amendment or re-interpretation of the report in whole or part may be necessary after its original submission.

Professional Interpretation

The recommendations made and opinions expressed in the report are based on the conditions revealed by the site works together with an assessment of the data from the insitu and laboratory testing or in respect of the desktop reports. No responsibility can be accepted for conditions that have not been revealed by the research, site works and testing.

The Client is advised that the conditions observed on site by Impact Geotechnical Ltd at the time of any site survey may be subject to change. Certain indicators of the presence of hazardous substances may have been latent at the time of the most recent site reconnaissance and they may subsequently have become evident. It is not possible to assess areas which are inaccessible or where access is not granted and IGL accept no liability for risks subsequently identified therein.

The conceptual model, Risk assessment and sampling regime has been formulated in accordance with current UK guidance at time of production based upon the relevant information gained from Phase 1 and Phase 2 investigations. While the model and assessment offer opinions and interpretations of these guidelines, the comments made are for guidance only and no liability can be accepted for their accuracy. It is possible that aspects of Geo-environmental reports may need to be altered following consultation with the statutory regulatory bodies to suit planning requirements.

Intrusive Field Operations

The data collected through direct operations in the production of this report has been so obtained, unless directly otherwise stated, in accordance with current UK guidance, law or accepted industry practice, including but not limited to: BS.5930: 1990 Code of Practice for Site Investigations (Amendment 3: 2015), & BS.10175: 2011 + A1: 2013 Investigations into Potentially Contaminated Sites. Exact exploratory locations will depend upon access conditions, site use and plant capability, IGL do not accept liability for issues arising from material identified between or outside of the area of exploratory locations.

Laboratory Testing

Unless stated otherwise within the text, all geotechnical and material laboratory tests have been performed in accordance with the relevant British Standard Documents. Laboratory testing for contaminated land assessment is completed under the UKAS / MCERTS accreditation schemes, unless identified as otherwise in the report.

Human Health Risk Assessment Criteria

The Environment Agency has undertaken revision of the Soil Guideline Values (SGVs) which are partially complete. Where standards are available using the "new" approach, these have been utilised for correlative purposes. Where standards have not yet been revised, guidance following the "old" approach has been utilised. Please note that upon release of the remaining guidelines, the standards contained within this report may be subject to change. In addition, the second edition of the LQM CIEH guidance has now been released and will be utilised in favour of previously published guideline values.

Third Parties

The findings and opinions conveyed in this report are based on information obtained from a variety of sources, including that from previous Site investigations and chemical testing laboratories. IGL has assumed that such information is correct. IGL cannot and does not guarantee the authenticity or reliability of the information it has relied upon and can accept no responsibility for inaccuracies with the data supplied by other parties.

The accuracy of the historical map extracts supplied can not be guaranteed and it should be noted that different conditions may have existed between mapping sheet editions. Therefore, there can be no certainty that all areas of contamination have been identified during the Phase 1 investigation.

Definitions

Reference to the word "contamination" in this report does not relate to the statutory definition of contaminated land under 1990 Environmental Protection Act unless otherwise stated. The definition used in this report is: "Land that contains substances that, when present in sufficient quantities or concentrations, are likely to cause harm, directly or indirectly, to man, to the environment, or on occasion to other targets" (NATO CCMS, 1985).

1.0 INTRODUCTION

Impact Geotechnical Ltd (IGL) were instructed by Cooper and Withycombe (the Client) (Q19.134, dated: July 2019), to carry out a Ground Investigation at The Harlington, 236 Fleet Road, Fleet, GU51 4BY (hereafter referred to as the “site”).

This report relates to the potential structural alterations and/or construction of new extensions the existing building. The purpose of the investigation was to establish preliminary information for the client, in order to determine the most cost-effective approach to the proposed construction works.

The investigation incorporated the excavation of four hand excavated trial pits to expose the foundation details to various sections of the building and the construction of three window sample boreholes to a maximum depth of 5.00mbgl in order to provide stratigraphy and geotechnical parameters.

The aims of this report are to provide an outline Ground Model of the proposed development area, and to inform the detailed design of temporary and permanent works associated with the planned construction.

2.0 SITE LAYOUT

The existing site is comprised of ‘The Harlington’ building, which is theatre/ entertainment venue. The building is centred on an approximate national grid reference of SU 80641 54034.

The building comprises of central section which forms a concert venue, with several extensions of varying age and construction. A basement structure is located in the northeast corner. Fleet library is also attached to the southwest corner of the building.

The building is surrounded in hardstanding in all directions, with car parking facilities located to the west and east, with Harlington Way to the north. South of the site leads to the main Fleet Road, which is the main town high street.

The site is generally flat, however a gradual slope towards the south is noted.

3.0 PHYSICAL SETTING

3.1 Geology

The Geology of Britain Viewer (BGS, 2019) indicates the site is underlain by the Camberley Sand Formation, however superficial deposits of the Surrey Hills Gravel Member are found locally.

Surrey Hills Gravel Member – Comprising of Sand and Gravel, with the gravel portion comprised of flint, lower greensand and sparse quartz and quartzite.

Camberley Sand Formation – The Camberley Sand Formation comprises a fairly uniform sequence of yellow brown, sparsely to moderately glauconitic silty fine-grained Sand and sandy Silt, with some ironstone concretions and white sandstone. Sporadic flint gravel or gravel beds occur near the base of the unit and thin beds of pale grey Clay occur intermittently throughout.

4.0 FIELDWORKS

The following intrusive works were carried out over the over two days; Friday 2nd and Monday 5th August 2019 supervised by an Engineering Geologist from IGL. The SI was undertaken in accordance with the scope of works agreed with our Client and in relation to statutory guidance including BS5930: 1999 Code of Practice for Site Investigations (Amendment 3: 2015) and BS10175: 2011+A1: 2013 Investigation of Potentially Contaminated Sites: Code of Practice.

- Prior to any excavations taking place a Cable Avoidance Tool (CAT) was used to check for the position of any underlying electrical services. In addition, starter pits were excavated to 1.00 meters below ground level (mbgl) to clear test locations prior to any further drilling commencing.
- Four hand excavated trial pits (TP1-TP4) were excavated against various building elevations to expose the structural foundation details. Once exposed, detailed hand sketches were completed, together with photographic evidence and representative soils samples taken.
- Three windowless sample boreholes (WS1-WS3) were constructed to a maximum depth of 5.45mbgl using a tracked windowless sample rig. The recovered soils from each borehole and groundwater conditions were logged, with representative samples recovered to allow subsequent testing.
- Upon completion, exploratory holes were backfilled using arising materials and the surface finish reinstated to match existing.

The site layout plan indicating the position of the test location is provided in Appendix A, with photographs taken during the investigation in Appendix C.

5.0 GROUND CONDITIONS

5.1 Soils

The following table summarises the strata conditions encountered during the intrusive works:

Stratum	Depth Range Encountered	Detail Description
Surface Cover	GL – max.0.15m	Tarmac in WS1, TP2 and TP3 to 0.08-0.10mbgl. Within TP4/WS3 brick pavers over sharp Sand to 0.15mbgl. The surface cover in TP1 and WS2 was described as Made Ground composed of dark brown gravelly silty Sand to 0.45-0.50mbgl.
Made Ground	0.08-0.15 to 1.40m	Within WS1, a brownish grey very sandy Gravel was encountered below the tarmac surface to a maximum depth of 0.50mbgl. Within TP2 and TP3, 'Type 1' fill was recorded to a depth of 0.22m (TP2) and 0.55mbgl (TP3) Below this TP2 a thin concrete slab was encountered to 0.30mbgl, laid over a 100mm diameter plastic drainage pipe. Pea shingle surrounded the pipe, to a maximum depth of 0.70mbgl. Below this a black silty/ clayey Sand was encountered to a maximum excavated depth of 1.40mbgl.



		<p>Within WS2, re-worked soils described as a brown mottled orangish brown, locally reddish brown slightly gravelly Sand was encountered between 0.50-0.90mbgl.</p> <p>Within TP4/ WS3, below the brick pavers/ sharp Sand, 'Type 1' fill was encountered to 0.33mbgl, overlying a dark brown slightly gravelly silty/ clayey Sand to a maximum depth of 1.10mbgl.</p>
Camberley Sand Formation (CSF)	0.50-1.10m to 2.50-2.60m	Described as a medium dense brown mottled orangish brown, locally reddish brown / greenish grey, slightly gravelly silty, locally clayey fine to medium Sand. The gravel portion as described as sub-angular to sub-rounded flint.
Camberley Sand Formation (CSF)	2.50-2.60 to 5.45m	Medium dense becoming dense yellowish brown mottled orangish brown and greenish grey, glauconitic silty fine to medium Sand.

Please refer to the stratigraphic logs contained within Appendix B for a more detailed description.

5.2 Groundwater

No groundwater was encountered during the drilling of either of the exploratory boreholes.

5.3 Visual and Olfactory Observations of Contamination

With the exception of anthropogenic materials encountered within the Made Ground soils, no visual or olfactory evidence of soil or groundwater contamination was noted during the investigation works.

5.4 Existing Foundations

The construction form of the existing foundations was explored within TP1-TP4. The table below summarises the findings of these investigations.

Trial Pit Ref:	Foundation Type	Depth to top of concrete (mm)	Base depth & (Thickness) (mm)	Projection (mm)	Founding Soil
TP1 A-A'	Concrete Strip	450	1150 (700)	150	Mottled Sand (CSF)
TP2 A-A'	Basement wall	500	Proven to 1400 (900)	50	n/a
TP3 A-A'	Concrete Strip	460	1400 (940)	80	Mottled Sand (CSF)
TP3 B-B'	Concrete Strip	460	1400 (940)	150	Mottled Sand (CSF)
TP4 A-A'	Concrete Pad	240	1140 (900)	580 (A'A) x 550	Mottled Sand (CSF)

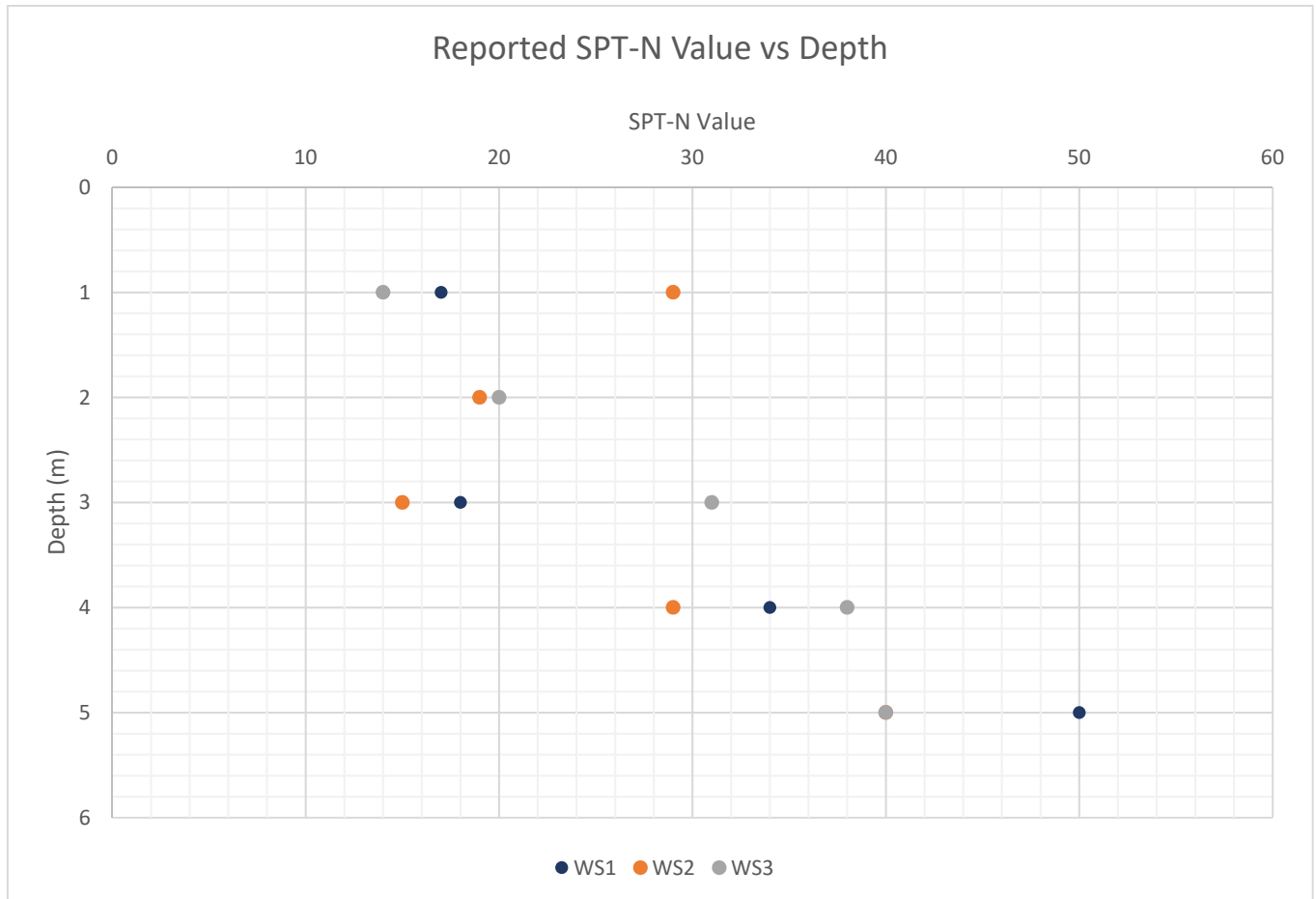
6.0 Insitu Testing

6.1 Standard Penetration Testing

Standard Penetration testing was completed throughout the drilling of WS1-WS3 at 1.00m centres to 5.00mbgl. This form of testing is completed using a 63.5kg drop hammer weight, over a 750mm drop, measuring the blow

counts for six, 75mm increments. The first two values are recorded as seating blows, with the remaining four values, added together to provide an 'N-value'.

The graph below summarises the results of this testing, by conversion to equivalent SPT-N values.



Testing through the upper Camberley Sand Formation to 2.50-2.60mbgl, provided SPT N-values of N=14-29, which are indicative of generally medium dense soils.

Below 2.50-2.60mbgl, SPT N-values are seen to largely increase, with value of N=15-50 recorded, which are indicative of medium dense becoming dense/ very dense soils.

7.0 LABORATORY TESTING

7.1 Geotechnical Testing

7.1.1 Particle Size Distribution (PSD)

In total, three disturbed samples of the underlying soils were submitted for Particle Size Distribution (PSD) testing by wet sieve; classification testing to determine the percentage, range and grain sizes of soil types. The table below provides a summary of the testing:



Sample Ref:	Grain Size Percentage			
	Gravel (%)	Sand (%)	Silt (%)	Clay (%)
TP1 1.20m	8	70	22	
TP3 1.40m	15	68	17	
WS3 1.50m	0	71	27	
WS1 2.00m	0	84	16	
WS3 3.00m	0	89	11	

Results of testing confirm that of the logging engineers' descriptions, indicating the soils to be primarily a Sand, gravelly at shallow depths, and becoming less silty/clayey with depth.

7.1.2 Sulphate and pH Analysis

Five samples between depths of 1.00-1.45m and 3.00-3.45mbgl were submitted for determination of pH and Water-Soluble Sulphate concentration.

Water soluble sulphate concentrations were found to range from 14mg/l to 73mg/l, with pH levels ranging from 5.2 to 7.2.

Full laboratory test results can be found in Appendix D.

8.0 DISCUSSION OF GROUND CONDITIONS

8.1 Soil Engineering Properties

The purpose of this investigation was to provide a summary of the foundation construction to the existing building(s) as well as the underlying soil conditions, in relation to potential structural alterations and/or construction of new extensions to the existing building as well as the possible replacement of the current structure. The information gained by this investigation will provide the client with preliminary information, in order to determine the most cost-effective approach to the proposed construction works.

Stratigraphic records indicate a variable depth of Made Ground (below an initial surface of Tarmacdam or brick pavers in WS1, TP2, TP3 and TP4/WS3), ranging between maximum depths of 0.50-1.40mbgl. In general, this was described as either 'Type 1' fill material, or a re-worked dark brown or brown silty/ clayey Sand.

The initial natural soils were described as a medium dense brown mottled orangish brown, locally reddish brown / greenish grey, slightly gravelly silty, locally clayey fine to medium Sand. This material was encountered to a maximum depth of 2.50-2.60mbgl and is considered representative of the Camberley Sand Formation.

The exposed foundations to the existing building(s) were observed to be founded within this material. Traditional concrete strip foundations were observed in TP1 and TP2, sited at a depth of 1.15-1.40mbgl, with concrete pad foundations in TP4, sited a depth of 1.14mbgl. The full depth of the foundation details in TP2 could not be established; we understand that there is a basement structure within this area, and as such foundations are likely to be in the region of 3.00-4.00mbgl.

On review of the insitu strength testing completed within this material in WS1-WS3, this material is considered medium density, with SPT N-values of N=14-29 recorded.

The soils conditions at depth below 2.50-2.60mbgl were recorded as a yellow brown mottled orangish brown and greenish grey, glauconitic silty fine to medium Sand. This material was encountered to a maximum drilled depth of 5.45mbgl in all locations and is also considered representative of the Camberley Sand Formation.

Further insitu testing within this material suggests a medium dense, becoming dense/ very dense consistency, with SPT N-values of N=15-50 recorded.

No groundwater was encountered within any of the exploratory holes during the investigation.

8.2 Shallow Foundations

The Made Ground soils encountered across the site would not be considered suitable as a bearing stratum; soils of this origin are frequently present in a weak and variable condition such that unacceptable settlement would be anticipated even under light loading intensities.

The soils at the existing foundation depths of 1.14-1.40mbgl are described as a medium dense brown mottled orangish brown, locally reddish brown / greenish grey, slightly gravelly silty, locally clayey fine to medium Sand. On the basis of insitu testing completed within this material a safe bearing capacity of 125-150kN/m² is considered achievable at this depth.

For new foundations, we would suggest that foundation depths should match that of existing foundations (1.20m>). The upper portion of the Camberley Sand Formation was noted to be locally clayey and as such excavations should be checked during the construction phase for any variability in soil conditions. If encountered, any soft spots encountered should be removed and replaced with suitable fill material foundation extended to a greater depth, or bridged, where possible.

8.3 Floor Slabs

The floor slab design will depend on the final foundation designs and is dependent on the underlying materials, including bearing capacity and the presence of any cohesive or Made Ground Soils.

Where Made Ground thicknesses extend beyond 600mm, it is recommended that a suspended floor is utilised for any new structure, unless a subbase can be designed, and constructed to a suitable degree of compaction, beneath the new floor slab. This should be designed by a structural engineer; the completion of integrity testing of the subbase should be considered, prior to forming the new concrete slab.

8.4 Excavations and Groundwater

It is likely that excavations of less than 1.20mbgl will require support to their faces due to the variable/ granular nature of the Made Ground. Should excavations be taken below this, adequate support should be provided in order to satisfy statutory safety regulations.

Groundwater was not encountered during the investigation, however groundwater levels are dependent upon seasonal variations and levels may change after periods of heavy rain or prolonged drought.

If groundwater is identified within any of the excavations during the construction phase, then it should be dealt with appropriately and removed using good engineering practices.

The design of any temporary retaining structures to support excavation faces should be made assuming the following moderately conservative parameters:

Material	Effective angle of friction (ϕ')	Effective Cohesion; c' (kPa)	Bulk Density kN/m^3
Made Ground	28-30	0	17-18
Camberley Sand Formation	30-32	0	18-19

8.5 Aggressive Chemical Environment to Concrete

Sulphate concentrations were found to range from 14mg/l to 73mg/l, with pH levels ranging from 5.2 to 7.2, suggesting that a design class of DS-1 and a sub class of AC-3z should be adopted for buried concrete structures within these soils, (Reference made to current BRE SD1 Guidelines) based on the soils tested.

APPENDICES

Appendix A – Site Investigation Plan

Appendix B – Stratigraphic Logs

Appendix C – Photographs

Appendix D – Laboratory Certificates



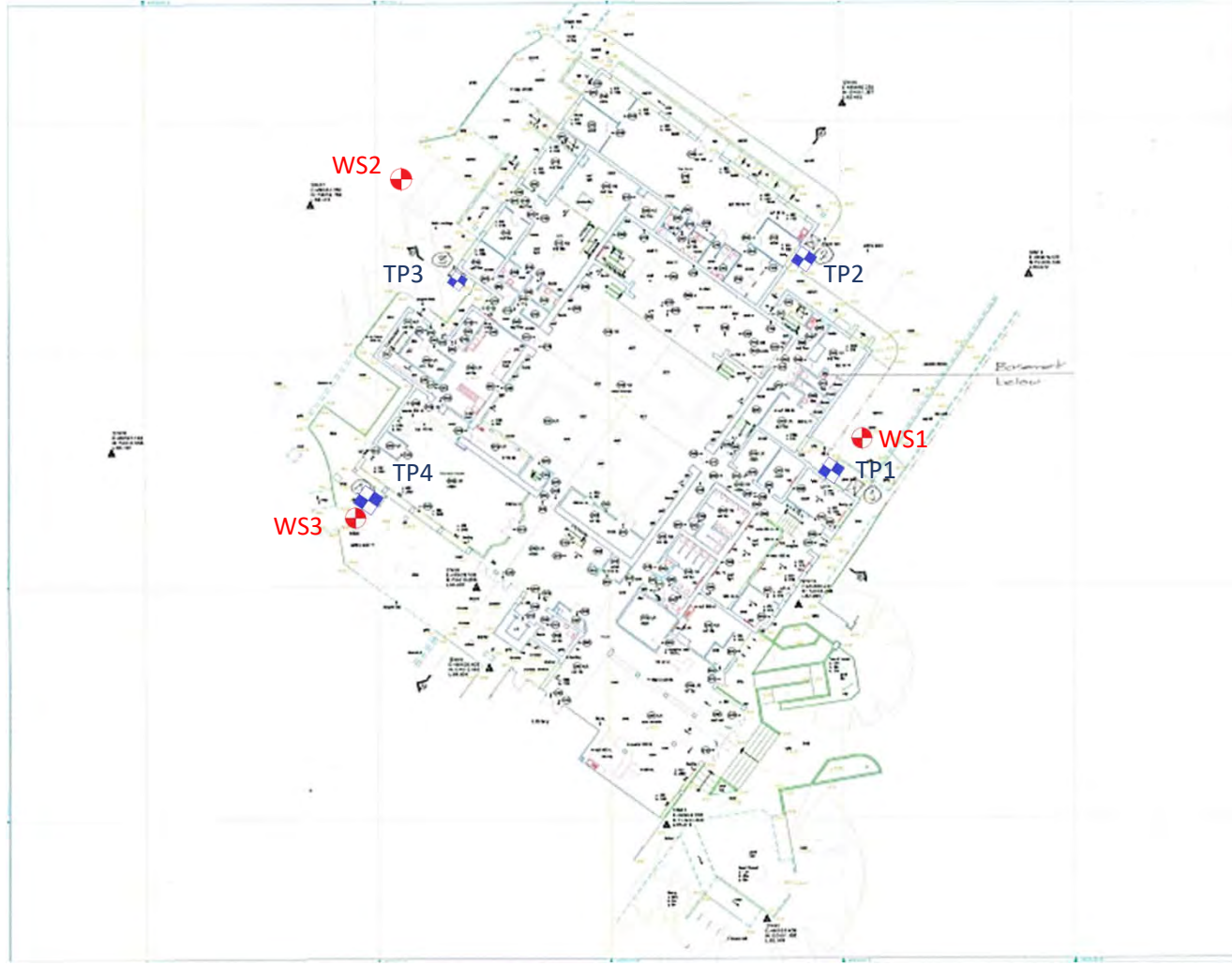
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APPENDIX A

Site Investigation Plan



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 3. Where applicable this drawing is to be read in conjunction with other consultants drawings.
 4. This drawing is the copyright of Impact Geotechnical Ltd.

Drawing Title:
Site Investigation Plan

Site Name:
The Harlington, Fleet

Project Reference:
P19.114

Revision: 0
 Drawn by: SG
 Scale: Not to Scale



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APPENDIX B

Stratigraphic Logs



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Project Name: The Harlington, Fleet	Project No P19.114	Co-ords n/a	Hole Type WLS
Location: Fleet, Hampshire		Level n/a	Scale NTS
Client: Cooper & Withycombe		Date(s) 02/08/2019	Logged By SG

Well	Sample and Insitu Testing			Results	Depth (m)	Level (m AOD)	Legend	Stratum Description
	Water Strikes	Depth(s)	Type					
					0.10			(MADE GROUND) Tarmacadam
					0.50			(MADE GROUND) Brownish grey very sandy fine to coarse, sub-angular to sub-rounded Gravel Sand is medium to coarse, Gravel is concrete. Top 100-150mm cemented.
		0.60	D					
		1.00	D					
		1.00	SPT	N=17 (2,2/4,4,4,5)				
		1.00-1.45	D					
		1.50	D					
		2.00	D					
		2.00	SPT	N=20 (2,4/4,5,5,6)				
		2.00-2.45	D					
	2.50	D			2.50			
	3.00	D						
	3.00	SPT	N=18 (2,4/4,4,5,5)					
	3.0-3.45	D						
	3.50	D						
	4.00	D						
	4.00	SPT	N=34 (2,4/7,7,10,10)					
	4.00-4.45	D						
	4.50	D						
	5.00	D						
	5.00	SPT	N=50 (5,7/9,12,14,17)					
	5.00-5.45	D						
					5.45			
								End of borehole at 5.45mbgl

Remarks
Hand excavated pit to 1.00mbgl. No groundwater encountered. SPT's completed at 1.00m centres. End of windowless sample at 5.45mbgl. Backfilled with arisings on completion.



Project Name: The Harlington, Fleet	Project No P19.114	Co-ords n/a	Hole Type WLS
Location: Fleet, Hampshire		Level n/a	Scale NTS
Client: Cooper & Withycombe		Date(s) 05/08/2019	Logged By SG

Well	Sample and Insitu Testing			Results	Depth (m)	Level (m AOD)	Legend	Stratum Description
	Water Strikes	Depth(s)	Type					
		0.80	D	N=29 (2,4/5,6,9,9)	0.50			(MADE GROUND) Grass over dark brown gravelly silty fine to medium Sand. Gravel is fine to coarse, sub-angular to sub-rounded flint, brick and concrete. Occasional cobbles of concrete.
		1.00 1.00 1.00-1.45	D SPT D		0.90			Brown mottled orange brown, locally reddish brown slightly gravelly fine to medium Sand. Gravel is fine to coarse, sub-angular to sub-rounded flint. (Re-worked)
		2.00 2.00 2.00-2.45	D SPT D	N=19 (2,3/5,4,5,5)	2.60			Medium dense brown mottled orangish brown and pale brown, locally reddish brown/ greenish grey slightly gravelly silty, locally clayey fine to medium SAND. Gravel is fine to coarse, sub-angular to sub-rounded flint. (CAMBERLEY SAND FORMATION)
		2.50	D					
		3.00 3.00 3.0-3.45	D SPT D	N=15 (2,3/3,3,4,5)	5.45			Medium dense becoming dense, yellowish brown mottled orangish brown and greenish grey glauconitic, silty fine to medium SAND. (CAMBERLEY SAND FORMATION)
		3.50	D					
		4.00 4.00 4.00-4.45	D SPT D	N=29 (2,3/5,7,7,10)				
		4.50	D					
		5.00 5.00 5.00-5.45	D SPT D	N=40 (4,7/8,9,11,12)				

Remarks
Hand excavated pit to 1.00mbgl. No groundwater encountered. SPT's completed at 1.00m centres. End of windowless sample at 5.45mbgl. Backfilled with arisings on completion.


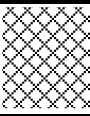
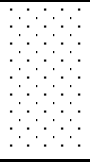


Project Name: The Harlington, Fleet	Project No P19.114	Co-ords n/a	Hole Type WLS
Location: Fleet, Hampshire		Level n/a	Scale NTS
Client: Cooper & Withycombe		Date(s) 05/08/2019	Logged By SG

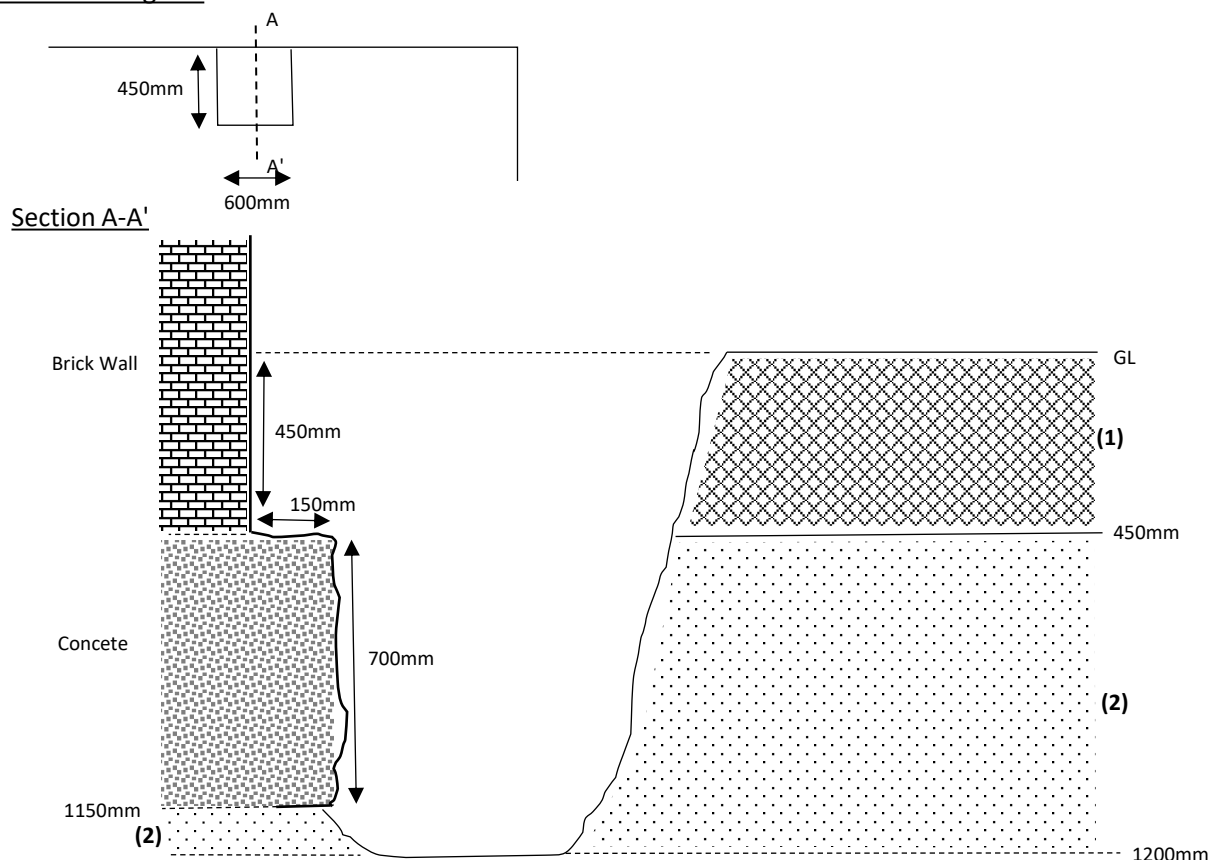
Well	Sample and Insitu Testing			Results	Depth (m)	Level (m AOD)	Legend	Stratum Description
	Water Strikes	Depth(s)	Type					
Well					0.15		//////	Brick pavers ove sharpe sand.
					0.33		XXXXXX	(MADE GROUND) Pinkish brown sandy fine to coarse, angular to sub-rounded Gravel of Limestone ('TYPE 1') Fill
					1.10		XXXXXX	(MADE GRO UND) Dark brown slightly gravelly silty/clayey fine to medium Sand. Gravel is fine to coarse, sub-angular to sub-rounded flint and brick.
		1.00 1.20 1.20-1.65	D SPT D	N=14 (2,4/4,3,3,4)				
								Medium dense brown mottled orangish brown and pale brown, locally reddish brown/ greenish grey slightly gravelly silty, locally clayey fine to medium SAND. Gravel is fine to coarse, sub-angular to sub-rounded flint. (CAMBERLEY SAND FORMATION)
		2.00 2.00 2.00-2.45	D SPT D	N=20 (2,3/3,5,6,6)				
		2.50	D			2.50		
		3.00 3.00 3.0-3.45	D SPT D	N=31 (4,5/7,7,8,9)				Medium dense becoming dense, yellowish brown mottled orangish brown and greenish grey glauconitic, silty fine to medium SAND. (CAMBERLEY SAND FORMATION)
		3.50	D					
		4.00 4.00 4.00-4.45	D SPT D	N=38 (3,5/7,9,10,12)				
	4.50	D						
	5.00 5.00 5.00-5.45	D SPT D	N=40 (4,5/9,9,11,11)					
					5.45			End of borehole at 5.45mbgl

Remarks
Hand excavated pit to 1.20mbgl. No groundwater encountered. SPT's completed at 1.00m centres. End of windowless sample at 5.45mbgl. Backfilled with arisings on completion.

Project Name: The Harlington, Fleet	Project No P19.114	Co-ords n/a	Hole Type HDTP
Location: Fleet, Hampshire		Level n/a	Scale NTS
Client: Cooper & Withycombe		Date(s) 02/08/2019	Logged By SG

Well	Sample and Insitu Testing			Results	Depth (m)	Level (m AOD)	Legend	Stratum Description
	Water Strikes	Depth(s)	Type					
		0.50	D		0.45			(1) (MADE GROUND) Dark brown silty gravelly fine to coarse Sand. Gravel is fine to coarse, angular to sub-rounded flint, brick and occasional concrete.
		1.20	D		1.20			(2) Brown mottled orangish brown and pale brown, locally reddish brown/ greenish grey slightly gravelly silty, locally clayey fine to medium SAND. Gravel is fine to coarse, sub-angular to sub-rounded flint. (CAMBERLEY SAND FORMATION)

TP1 Section Diagram



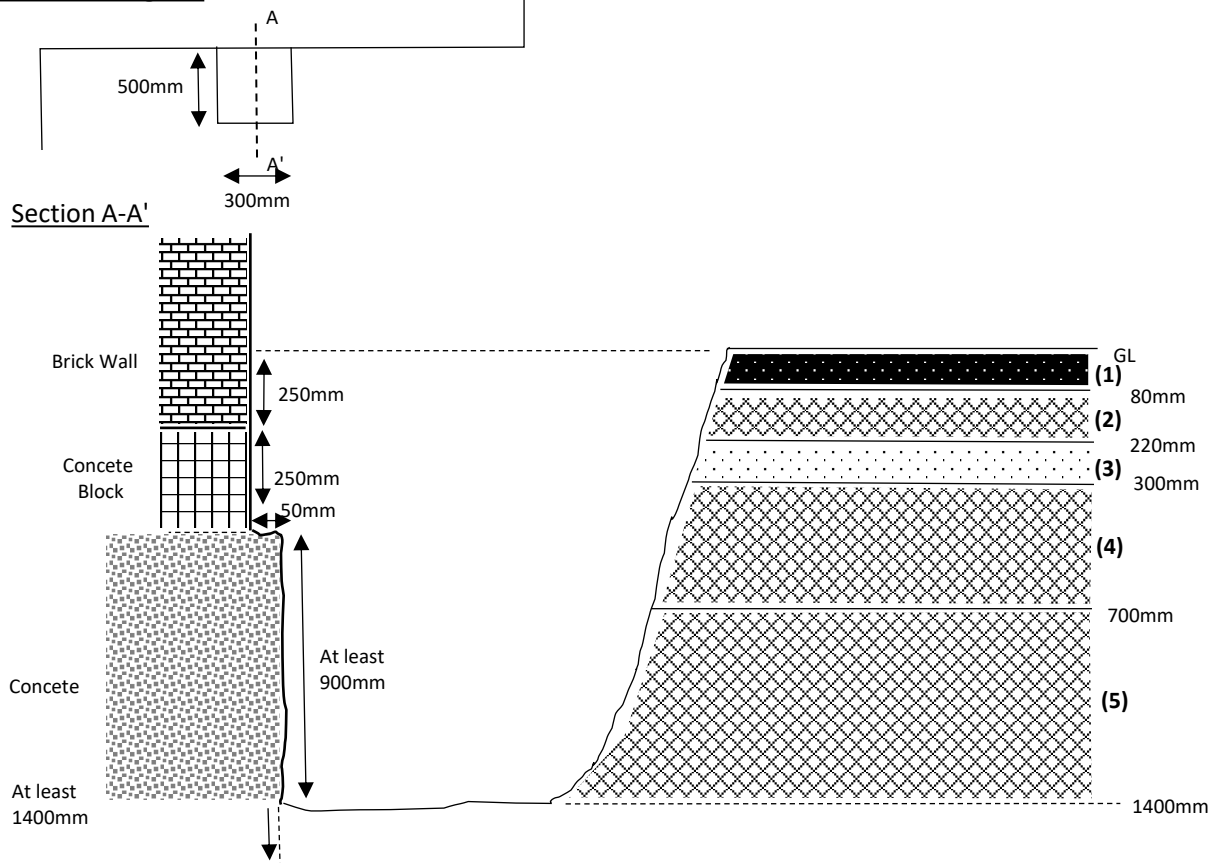
Remarks

Hand excavated pit to 1.20mbgl to expose existing foundation construction. No groundwater encountered. Backfilled with arisings and previous surface conditions reinstated.

Project Name: The Harlington, Fleet	Project No P19.114	Co-ords n/a	Hole Type HDTP
Location: Fleet, Hampshire		Level n/a	Scale NTS
Client: Cooper & Withycombe		Date(s) 02/08/2019	Logged By SG

Well	Sample and Insitu Testing			Results	Depth (m)	Level (m AOD)	Legend	Stratum Description
	Water Strikes	Depth(s)	Type					
		1.00	D		0.08 0.22 0.30 0.70 1.40		<div style="display: flex; flex-direction: column; gap: 5px;"> <div style="border: 1px solid black; padding: 2px;">(1) Tarmacadam</div> <div style="border: 1px solid black; padding: 2px;">(2) (MADE GROUND) Pinkish brown sandy fine to coarse, angular to sub-rounded Gravel of Limestone. ('TYPE 1') Fill.</div> <div style="border: 1px solid black; padding: 2px;">(3) Light grey Concrete.</div> <div style="border: 1px solid black; padding: 2px;">(4) 10mm Pea Shingle around 100mm diameter Pipe (450mm from wall)</div> <div style="border: 1px solid black; padding: 2px;">(5) (MADE GROUND) Loose black silty/clayey fine to medium Sand. (Re-worked)</div> </div>	





TP2 Section Diagram



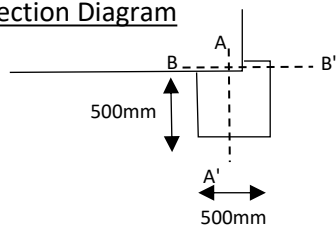
Remarks

Hand excavated pit to 1.40m bgl to expose existing foundation construction. Full depth of foundation could not be established. No groundwater encountered. Backfilled with arisings and previous surface conditions reinstated.

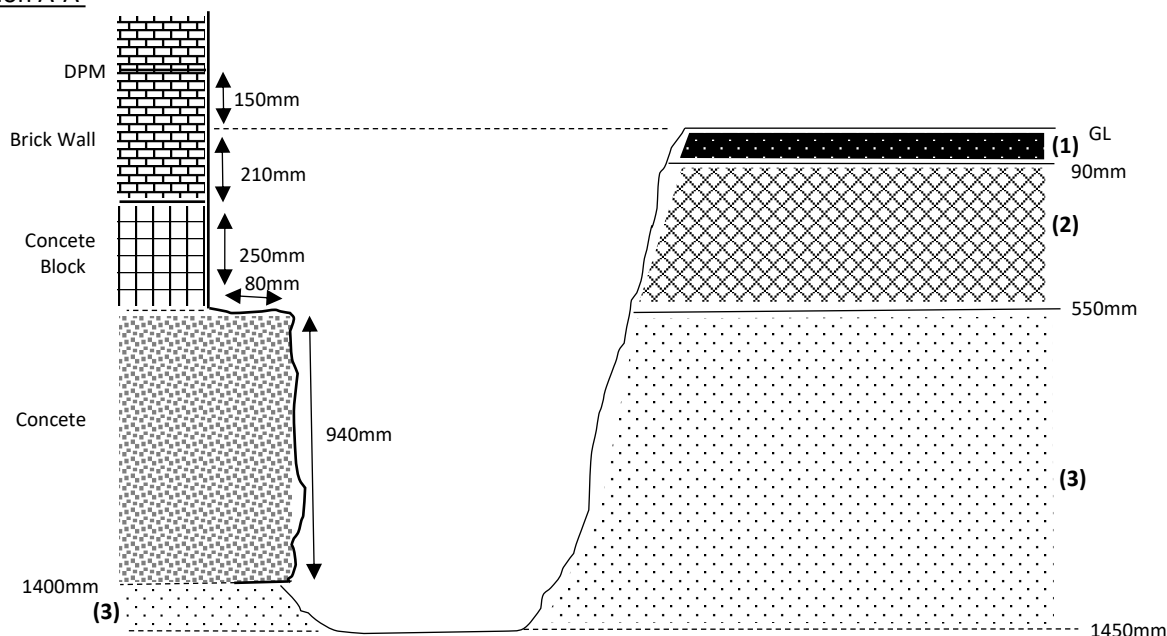
Project Name: The Harlington, Fleet	Project No P19.114	Co-ords n/a	Hole Type HDTP
Location: Fleet, Hampshire		Level n/a	Scale NTS
Client: Cooper & Withycombe		Date(s) 05/08/2019	Logged By SG

Well	Sample and Insitu Testing			Results	Depth (m)	Level (m AOD)	Legend	Stratum Description
	Water Strikes	Depth(s)	Type					
					0.09			(1) Tarmacadam
					0.55			(2) (MADE GROUND) Pinkish brown sandy fine to coarse, angular to sub-rounded Gravel of Limestone. ('TYPE 1') Fill.
		0.80	D		1.40			(3) Brown mottled orangish brown and pale brown, locally reddish brown/ greenish grey slightly gravelly silty, locally clayey fine to medium SAND. Gravel is fine to coarse, sub-angular to sub-rounded flint. (CAMBERLEY SAND FORMATION)
					1.45			

TP3 Section Diagram





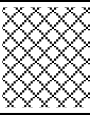
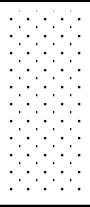
Section A-A'



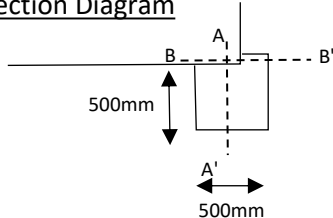
Remarks

Hand excavated pit to 1.45mbgl to expose existing foundation construction. No groundwater encountered. Backfilled with arisings and previous surface conditions reinstated.

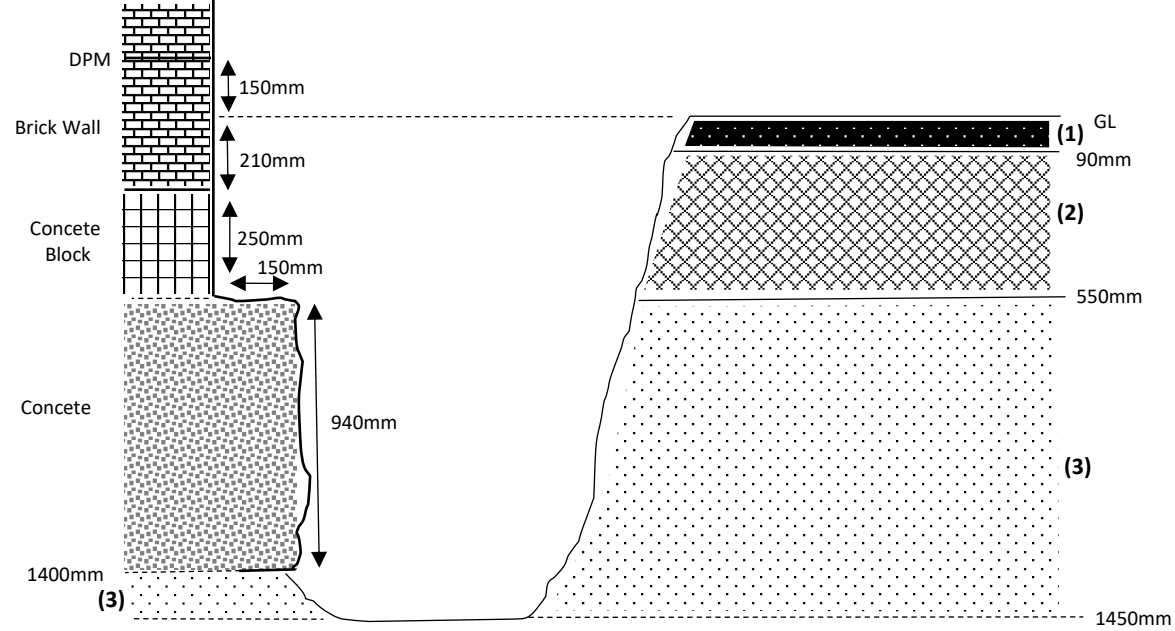
Project Name: The Harlington, Fleet	Project No P19.114	Co-ords n/a	Hole Type HDTP
Location: Fleet, Hampshire		Level n/a	Scale NTS
Client: Cooper & Withycombe		Date(s) 05/08/2019	Logged By SG

Well	Sample and Insitu Testing			Results	Depth (m)	Level (m AOD)	Legend	Stratum Description
	Water Strikes	Depth(s)	Type					
					0.09			(1) Tarmacadam
					0.55			(2) (MADE GROUND) Pinkish brown sandy fine to coarse, angular to sub-rounded Gravel of Limestone. ('TYPE 1') Fill.
		0.80	D					(3) Brown mottled orangish brown and pale brown, locally reddish brown/ greenish grey slightly gravelly silty, locally clayey fine to medium SAND. Gravel is fine to coarse, sub-angular to sub-rounded flint. (CAMBERLEY SAND FORMATION)
		1.40	D			1.45		

TP3 Section Diagram




Section B-B'

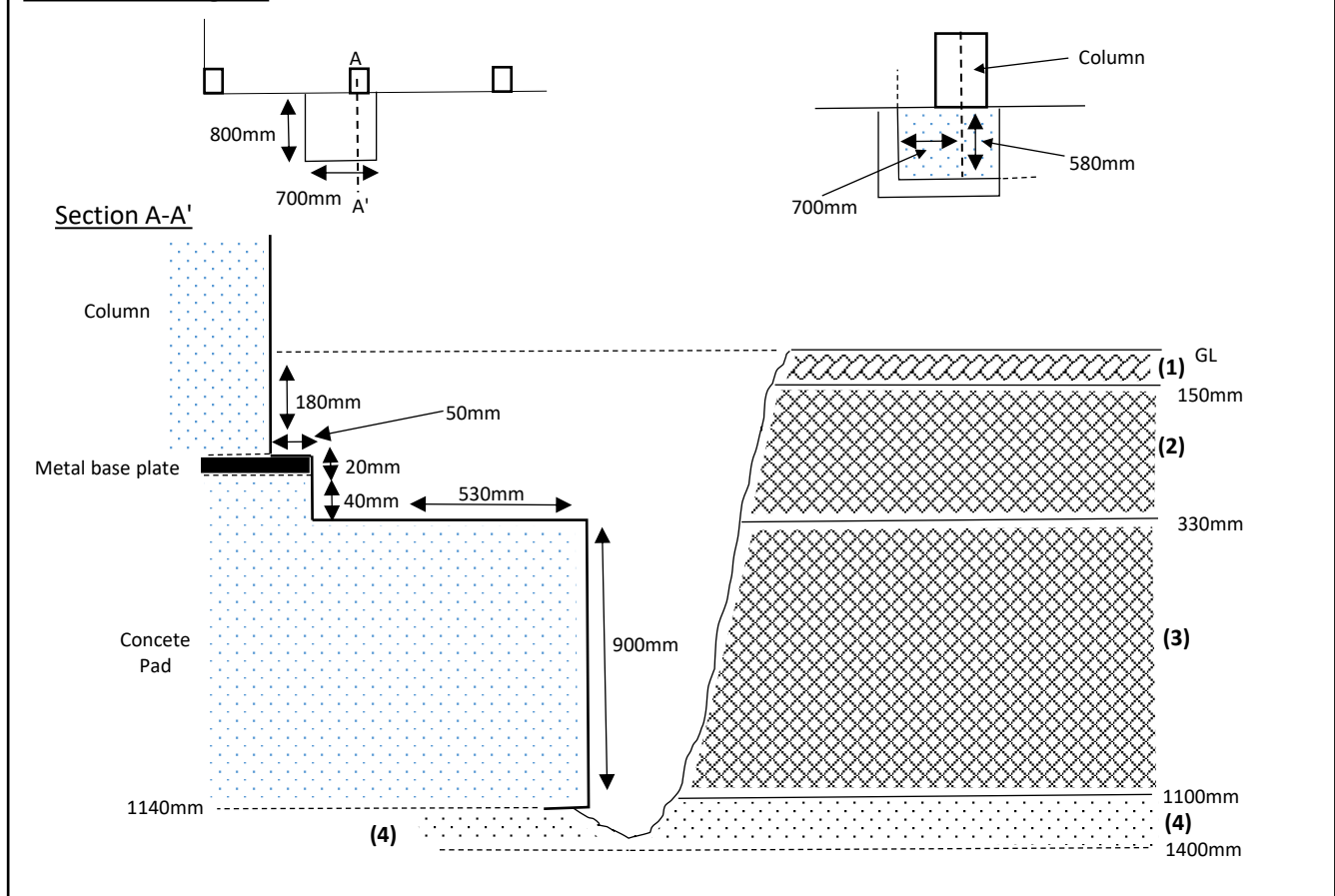


Remarks
 Hand excavated pit to 1.45mbgl to expose existing foundation construction. No groundwater encountered. Backfilled with arisings and previous surface conditions reinstated.

Project Name: The Harlington, Fleet	Project No P19.114	Co-ords n/a	Hole Type HDTP
Location: Fleet, Hampshire		Level n/a	Scale NTS
Client: Cooper & Withycombe		Date(s) 05/08/2019	Logged By SG

Well	Sample and Insitu Testing			Results	Depth (m)	Level (m AOD)	Legend	Stratum Description
	Water Strikes	Depth(s)	Type					
					0.15			(1) Brick pavoirs over sharpe sand.
					0.33			(2) (MADE GROUND) Pinkish brown sandy fine to coarse, angular to sub-rounded Gravel of Limestone ('TYPE 1') Fill
		0.60	D		1.10			(3) Dark brown slightly gravelly silty/clayey fine to medium Sand. Gravel is fine to coarse, sub-angular to sub-rounded flint and brick.
		1.20	D		1.40			(4) Brown mottled orangish brown and pale brown, locally reddish brown/ greenish grey slightly gravelly silty, locally clayey fine to medium SAND. Gravel is fine to coarse, sub-angular to sub-rounded flint. (CAMBERLEY SAND FORMATION)

TP4 Section Diagram



Remarks

Hand excavated pit to 1.40m bgl to expose existing foundation construction. No groundwater encountered. Backfilled with arisings and previous surface conditions reinstated. WS3 completed through base of trial pit to 5.45m bgl - see WS3 log for full details.

APPENDIX C

Photographs



IMPACT
GEOTECHNICAL

1.



2.



3.



4.



Investigation Photographs

Project Ref: P19.114

Site Name: The Harlington, Fleet

1. WS1 location
2. WS1 1.00-2.00mbgl
3. WS1 2.00-3.00mbgl
4. WS1 3.00-4.00mbgl



5.



6.



7.



8.



Investigation Photographs

Project Ref: P19.114

Site Name: The Harlington, Fleet

- 5. WS1 4.00-5.00mbgl
- 6. TP1
- 7. TP1 location
- 8. TP1 – showing concrete projection



9.



10.



11.



12.



Investigation Photographs

Project Ref: P19.114

Site Name: The Harlington, Fleet

9. TP1
10. TP2
11. TP2
12. WS2



13.



14.



15.



16.



Investigation Photographs

Project Ref: P19.114

Site Name: The Harlington, Fleet

- 13. WS2 GL-1.0mbgl
- 14. WS2 1.00-2.00mbgl
- 15. WS2 2.00-3.00mbgl
- 16. WS2 3.00-4.00mbgl



17.



18.



19.



20.



Investigation Photographs

Project Ref: P19.114

Site Name: The Harlington, Fleet

- 17. WS2 4.00-5.00mbgl
- 18. WS2 location
- 19. TP3
- 20. TP3



21.



22.



23.



24.



Investigation Photographs

Project Ref: P19.114

Site Name: The Harlington, Fleet

- 21. TP3
- 22. TP4
- 23. TP4
- 24. TP4



25.



26.



27.



28.



Investigation Photographs

Project Ref: P19.114

Site Name: The Harlington, Fleet

- 25. TP4
- 26. TP4 column connection
- 27. WS3
- 28. WS3 1.20-2.00mbgl



29.



30.



31.



32.



Investigation Photographs

Project Ref: P19.114

Site Name: The Harlington, Fleet

- 29. WS3 2.00-3.00mbgl
- 30. WS3 3.00-4.00mbgl
- 31. WS3 4.00-5.00mbgl
- 32. TP1 and WS1 reinstatement



33.



34.



35.



Investigation Photographs

Project Ref: P19.114

Site Name: The Harlington, Fleet

- 33. TP2 reinstatement
- 34. TP3 reinstatement
- 35. TP4/ WS3 reinstatement



APPENDIX D

Laboratory Certificates



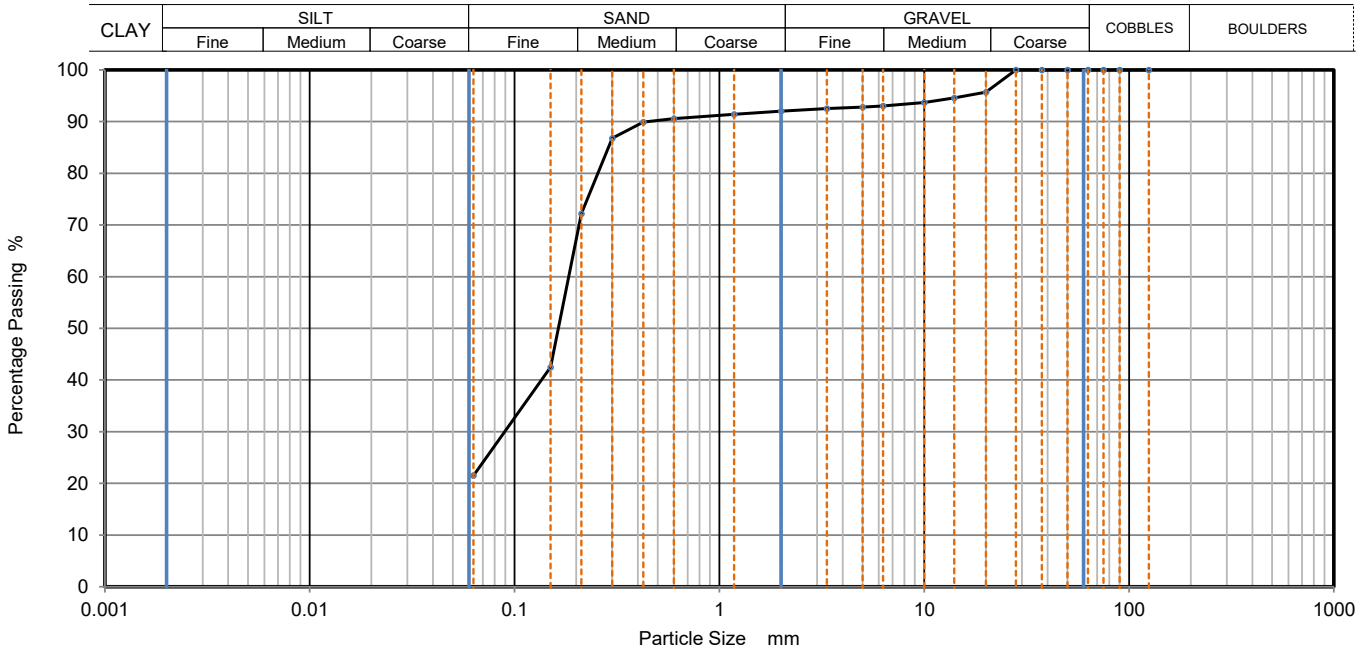
IMPACT
GEOTECHNICAL



PARTICLE SIZE DISTRIBUTION

Job Ref	26971
Borehole/Pit No.	TP1
Sample No.	-
Depth Top	1.20 m
Depth Base	- m
Sample Type	D
Samples received	05/08/2019
Schedules received	08/08/2019
Project started	08/08/2019
Date tested	21/08/2019

Site Name	The Harlington, Fleet		
Project No.	P19-114	Client	Impact Geotechnical
Soil Description	Orangish brown slightly mottled reddish brown and bluish grey gravelly very clayey SAND (gravel is fmc and sub-angular to sub-rounded)		
Test Method	BS1377:Part 2: 1990, clause 9.0		



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	96		
14	95		
10	94		
6.3	93		
5	93		
3.35	93		
2	92		
1.18	91		
0.6	91		
0.425	90		
0.3	87		
0.212	72		
0.15	43		
0.063	22		

Sample Proportions	% dry mass
Very coarse	0.0
Gravel	8.0
Sand	70.5
Fines <0.063mm	21.5

Grading Analysis	
D100	mm
D60	mm
D30	mm
D10	mm
Uniformity Coefficient	
Curvature Coefficient	

Remarks
Preparation and testing in accordance with BS1377 unless noted below



K4 Soils Laboratory
 Unit 8, Olds Close, Watford, Herts, WD18 9RU
 Email: james@k4soils.com
 Tel: 01923 711288

Checked and Approved

Initials: J.P
 Date: 22/08/2019

2519

Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)

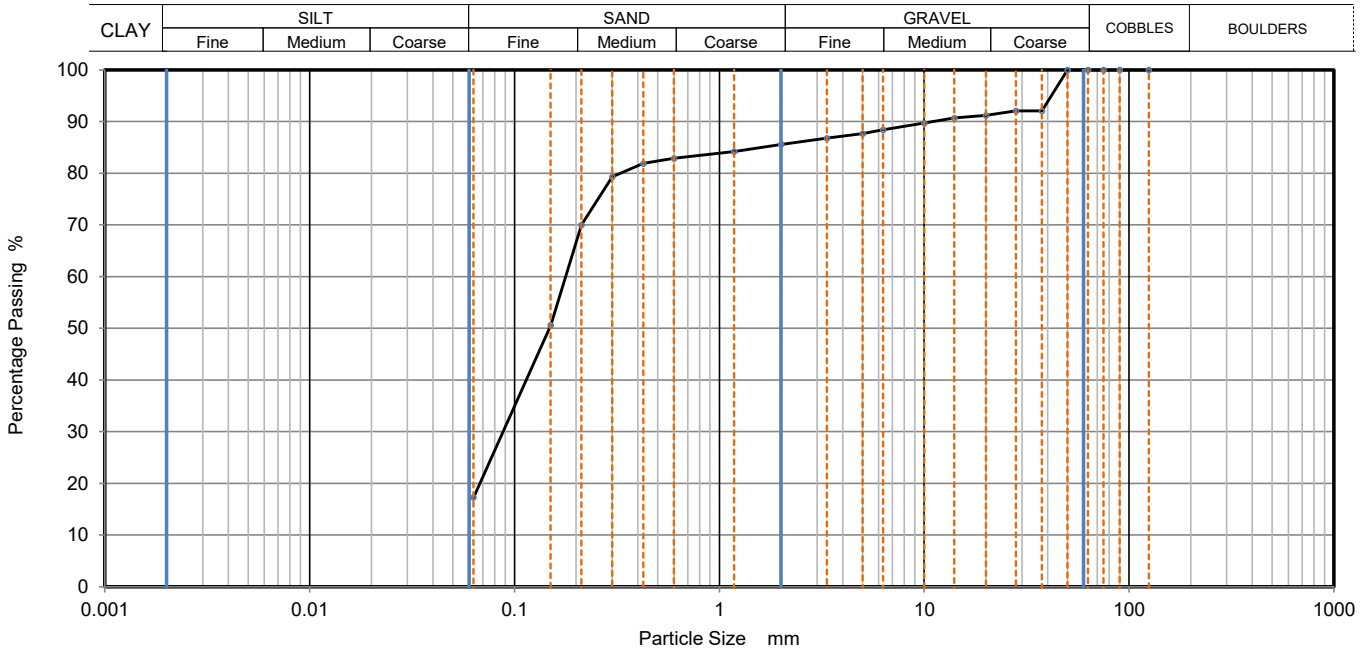
MSF-5-R3



PARTICLE SIZE DISTRIBUTION

Job Ref	26971
Borehole/Pit No.	TP3
Sample No.	-
Depth Top	1.40 m
Depth Base	- m
Sample Type	D
Samples received	05/08/2019
Schedules received	08/08/2019
Project started	08/08/2019
Date tested	21/08/2019

Site Name	The Harlington, Fleet		
Project No.	P19-114	Client	Impact Geotechnical
Soil Description	Orangish brown slightly mottled grey gravelly clayey SAND (gravel is fmc and sub-angular to sub-rounded)		
Test Method	BS1377:Part 2: 1990, clause 9.0		



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	92		
28	92		
20	91		
14	91		
10	90		
6.3	88		
5	88		
3.35	87		
2	86		
1.18	84		
0.6	83		
0.425	82		
0.3	79		
0.212	70		
0.15	51		
0.063	17		

Sample Proportions	% dry mass
Very coarse	0.0
Gravel	14.4
Sand	68.2
Fines <0.063mm	17.3

Grading Analysis	
D100	mm
D60	mm
D30	mm
D10	mm
Uniformity Coefficient	
Curvature Coefficient	

Remarks
Preparation and testing in accordance with BS1377 unless noted below



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Checked and Approved

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Date: 22/08/2019

2519

Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)

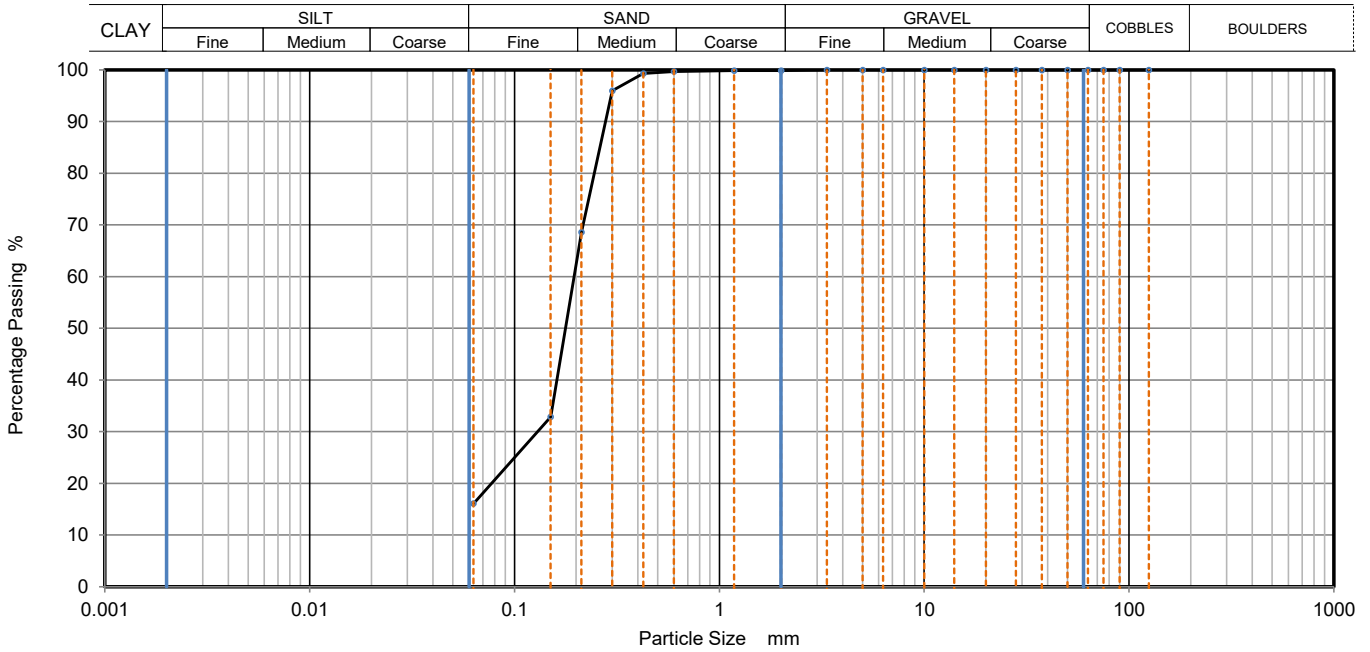
MSF-5-R3



PARTICLE SIZE DISTRIBUTION

Job Ref	26971
Borehole/Pit No.	WS1
Sample No.	-
Depth Top	2.00 m
Depth Base	- m
Sample Type	D
Samples received	05/08/2019
Schedules received	08/08/2019
Project started	08/08/2019
Date tested	21/08/2019

Site Name	The Harlington, Fleet		
Project No.	P19-114	Client	Impact Geotechnical
Soil Description	Orangish brown slightly mottled grey silty clayey SAND		
Test Method	BS1377:Part 2: 1990, clause 9.0		



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	100		
2	100		
1.18	100		
0.6	100		
0.425	99		
0.3	96		
0.212	69		
0.15	33		
0.063	16		

Sample Proportions	% dry mass
Very coarse	0.0
Gravel	0.1
Sand	83.9
Fines <0.063mm	16.1

Grading Analysis	
D100	mm
D60	mm
D30	mm
D10	mm
Uniformity Coefficient	
Curvature Coefficient	

Remarks
Preparation and testing in accordance with BS1377 unless noted below



K4 Soils Laboratory
 Unit 8, Olds Close, Watford, Herts, WD18 9RU
 Email: james@k4soils.com
 Tel: 01923 711288

Checked and Approved

Initials: J.P
 Date: 22/08/2019

2519

Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)

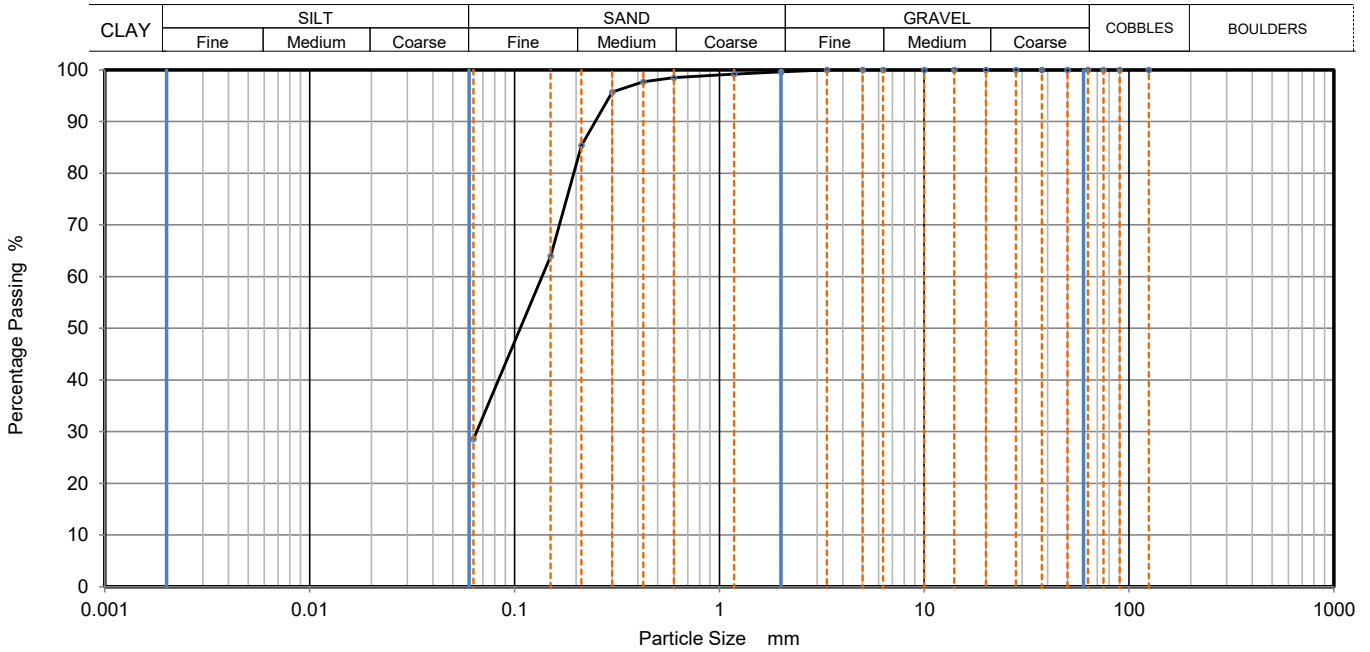
MSF-5-R3



PARTICLE SIZE DISTRIBUTION

Job Ref	26971
Borehole/Pit No.	WS3
Sample No.	-
Depth Top	1.50 m
Depth Base	- m
Sample Type	D
Samples received	05/08/2019
Schedules received	08/08/2019
Project started	08/08/2019
Date tested	21/08/2019

Site Name	The Harlington, Fleet		
Project No.	P19-114	Client	Impact Geotechnical
Soil Description	Orangish brown mottled bluish grey silty clayey SAND		
Test Method	BS1377:Part 2: 1990, clause 9.0		



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	100		
2	100		
1.18	99		
0.6	99		
0.425	98		
0.3	96		
0.212	85		
0.15	64		
0.063	29		

Sample Proportions	% dry mass
Very coarse	0.0
Gravel	0.4
Sand	71.0
Fines <0.063mm	28.6

Grading Analysis	
D100	mm
D60	mm
D30	mm
D10	mm
Uniformity Coefficient	
Curvature Coefficient	

Remarks
Preparation and testing in accordance with BS1377 unless noted below



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 Unit 8, Olds Close, Watford, Herts, WD18 9RU
 Email: james@k4soils.com
 Tel: 01923 711288

Checked and Approved

Initials: J.P
 Date: 22/08/2019

2519

Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)

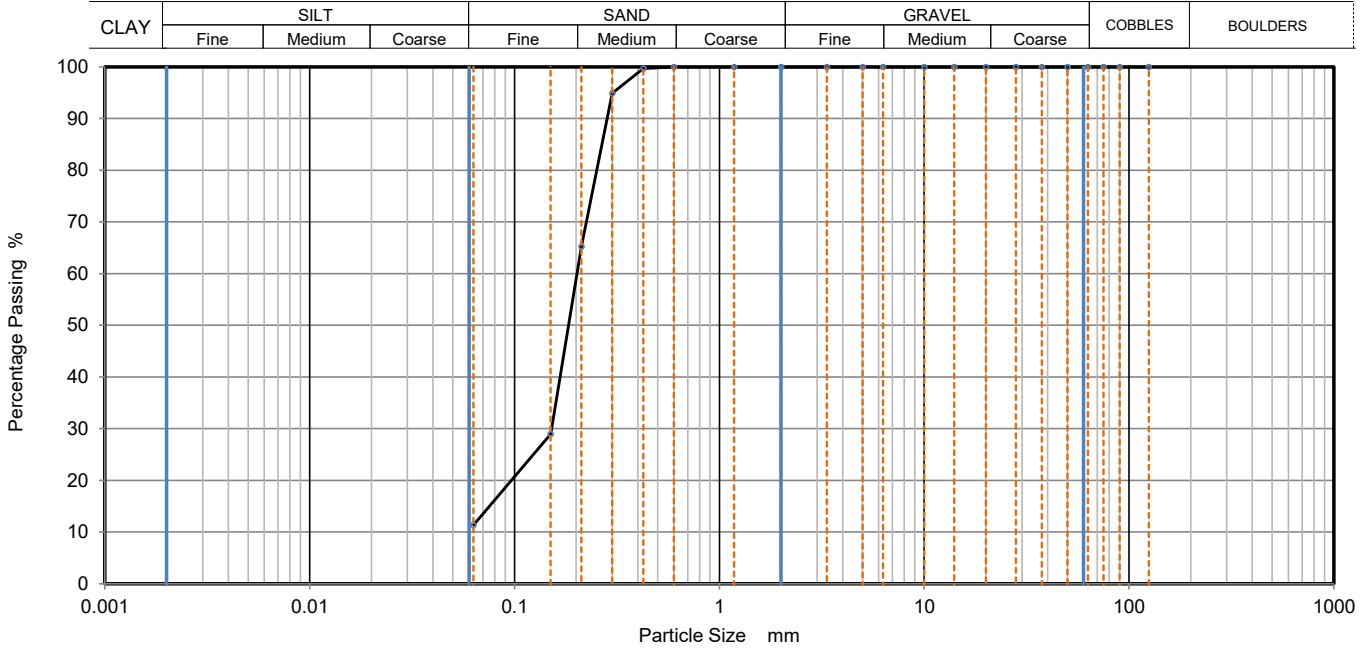
MSF-5-R3



PARTICLE SIZE DISTRIBUTION

Job Ref	26971
Borehole/Pit No.	WS3
Sample No.	-
Depth Top	3.00 m
Depth Base	- m
Sample Type	D
Samples received	05/08/2019
Schedules received	08/08/2019
Project started	08/08/2019
Date tested	21/08/2019

Site Name	The Harlington, Fleet		
Project No.	P19-114	Client	Impact Geotechnical
Soil Description	Yellowish brown clayey SAND		
Test Method	BS1377:Part 2: 1990, clause 9.0		



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	100		
2	100		
1.18	100		
0.6	100		
0.425	100		
0.3	95		
0.212	65		
0.15	29		
0.063	11		

Sample Proportions	% dry mass
Very coarse	0.0
Gravel	0.0
Sand	88.6
Fines <0.063mm	11.4

Grading Analysis	
D100	mm
D60	mm
D30	mm
D10	mm
Uniformity Coefficient	
Curvature Coefficient	

Remarks
Preparation and testing in accordance with BS1377 unless noted below



K4 Soils Laboratory
 Unit 8, Olds Close, Watford, Herts, WD18 9RU
 Email: james@k4soils.com
 Tel: 01923 711288

Checked and Approved

Initials: J.P
 Date: 22/08/2019

2519

Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)

MSF-5-R3



Shaun Gilbrook
Impact Geotechnical Ltd
26 Anmore Road
Denmead
Hants
PO7 6NP

DETS Ltd
Unit 1
Rose Lane Industrial Estate
Rose Lane
Lenham Heath
Kent
ME17 2JN
t: 01622 850410

DETS Report No: 19-11367

Site Reference: The Harlington, Fleet

Project / Job Ref: P19.114

Order No: None Supplied

Sample Receipt Date: 08/08/2019

Sample Scheduled Date: 08/08/2019

Report Issue Number: 1

Reporting Date: 14/08/2019

Authorised by:

A handwritten signature in black ink, appearing to read "Dave Ashworth".

Dave Ashworth
Technical Manager

Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.



DETS Ltd
 Unit 1, Rose Lane Industrial Estate
 Rose Lane
 Lenham Heath
 Maidstone
 Kent ME17 2JN
 Tel : 01622 850410



Soil Analysis Certificate						
DETS Report No: 19-11367	Date Sampled	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Impact Geotechnical Ltd	Time Sampled	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Site Reference: The Harlington, Fleet	TP / BH No	WS1	WS1	WS2	WS3	WS3
Project / Job Ref: P19.114	Additional Refs	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Order No: None Supplied	Depth (m)	1.00 - 1.45	3.00 - 3.45	2.00 - 2.45	1.20 - 1.65	2.00 - 2.45
Reporting Date: 14/08/2019	DETS Sample No	426588	426589	426591	426592	426593

Determinand	Unit	RL	Accreditation					
pH	pH Units	N/a	MCERTS	5.2	6.4	7.2	7.0	5.5
W/S Sulphate as SO ₄ (2:1)	mg/l	< 10	MCERTS	73	27	27	14	14
W/S Sulphate as SO ₄ (2:1)	g/l	< 0.01	MCERTS	0.07	0.03	0.03	0.01	0.01

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C
 Subcontracted analysis (S)



DETS Ltd
Unit 1, Rose Lane Industrial Estate
Rose Lane
Lenham Heath
Maidstone
Kent ME17 2JN
Tel : 01622 850410



Soil Analysis Certificate - Sample Descriptions	
DETS Report No: 19-11367	
Impact Geotechnical Ltd	
Site Reference: The Harlington, Fleet	
Project / Job Ref: P19.114	
Order No: None Supplied	
Reporting Date: 14/08/2019	

DETS Sample No	TP / BH No	Additional Refs	Depth (m)	Moisture Content (%)	Sample Matrix Description
^ 426588	WS1	None Supplied	1.00 - 1.45	7.1	Brown sandy clay with stones
^ 426589	WS1	None Supplied	3.00 - 3.45	8.1	Brown sandy clay
^ 426591	WS2	None Supplied	2.00 - 2.45	12.3	Brown loamy sand
^ 426592	WS3	None Supplied	1.20 - 1.65	11.8	Brown sandy clay
^ 426593	WS3	None Supplied	2.00 - 2.45	11.4	Brown sandy clay

Moisture content is part of procedure E003 & is not an accredited test

Insufficient Sample ^{I/S}

Unsuitable Sample ^{U/S}

^ no sampling date provided: unable to confirm if samples are within acceptable holding times

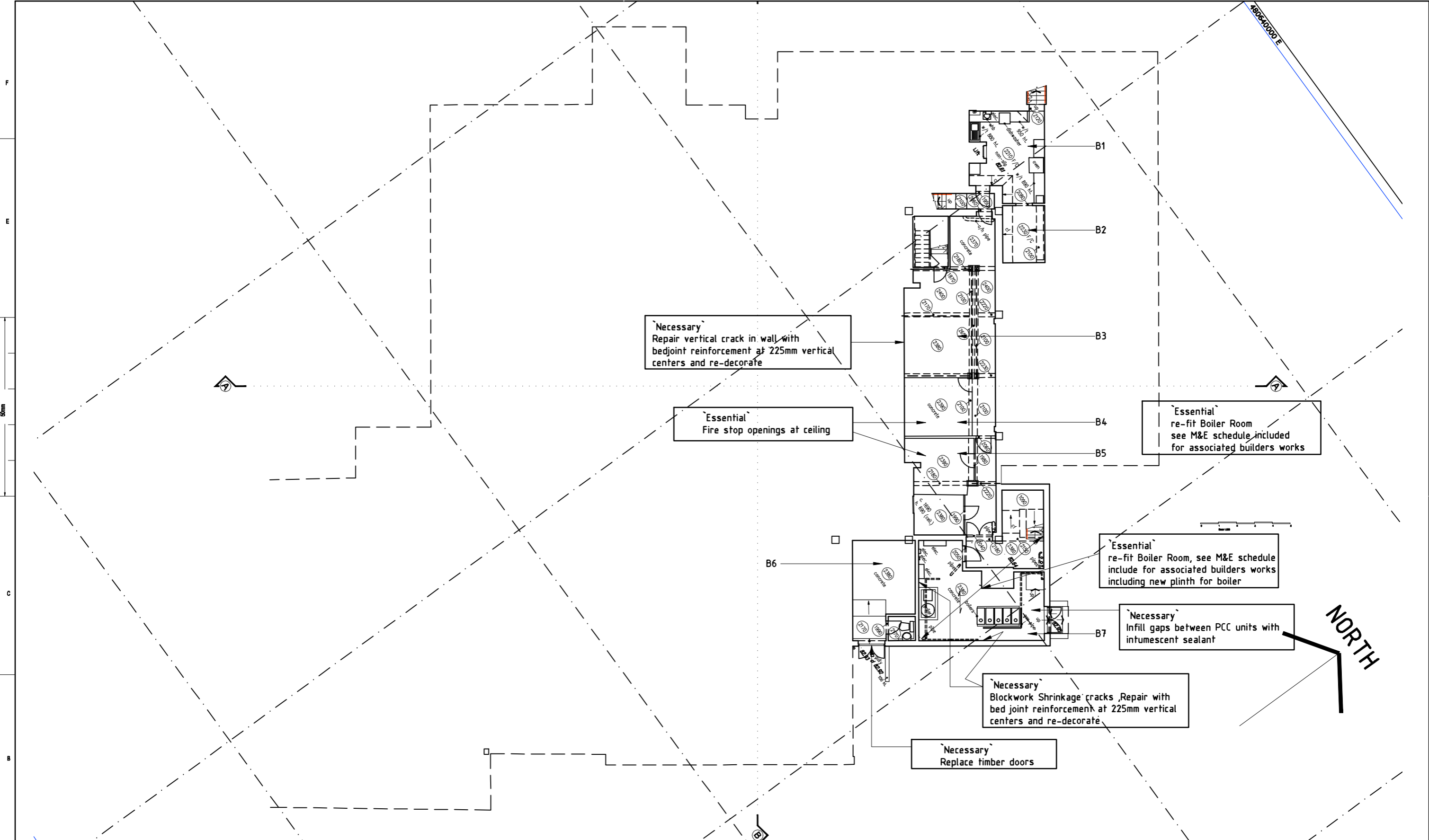
Soil Analysis Certificate - Methodology & Miscellaneous Information	
DETS Report No: 19-11367	
Impact Geotechnical Ltd	
Site Reference: The Harlington, Fleet	
Project / Job Ref: P19.114	
Order No: None Supplied	
Reporting Date: 14/08/2019	

Matrix	Analysed On	Determinand	Brief Method Description	Method No
Soil	D	Boron - Water Soluble	Determination of water soluble boron in soil by 2:1 hot water extract followed by ICP-OES	E012
Soil	AR	BTEX	Determination of BTEX by headspace GC-MS	E001
Soil	D	Cations	Determination of cations in soil by aqua-regia digestion followed by ICP-OES	E002
Soil	D	Chloride - Water Soluble (2:1)	Determination of chloride by extraction with water & analysed by ion chromatography	E009
Soil	AR	Chromium - Hexavalent	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry	E016
Soil	AR	Cyanide - Complex	Determination of complex cyanide by distillation followed by colorimetry	E015
Soil	AR	Cyanide - Free	Determination of free cyanide by distillation followed by colorimetry	E015
Soil	AR	Cyanide - Total	Determination of total cyanide by distillation followed by colorimetry	E015
Soil	D	Cyclohexane Extractable Matter (CEM)	Gravimetrically determined through extraction with cyclohexane	E011
Soil	AR	Diesel Range Organics (C10 - C24)	Determination of hexane/acetone extractable hydrocarbons by GC-FID	E004
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of saturated calcium sulphate followed by electrometric measurement	E022
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of water followed by electrometric measurement	E023
Soil	D	Elemental Sulphur	Determination of elemental sulphur by solvent extraction followed by GC-MS	E020
Soil	AR	EPH (C10 - C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH Product ID	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH TEXAS (C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID for C8 to C40. C6 to C8 by headspace GC-MS	E004
Soil	D	Fluoride - Water Soluble	Determination of Fluoride by extraction with water & analysed by ion chromatography	E009
Soil	D	FOC (Fraction Organic Carbon)	Determination of fraction of organic carbon by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	D	Loss on Ignition @ 450oC	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace	E019
Soil	D	Magnesium - Water Soluble	Determination of water soluble magnesium by extraction with water followed by ICP-OES	E025
Soil	D	Metals	Determination of metals by aqua-regia digestion followed by ICP-OES	E002
Soil	AR	Mineral Oil (C10 - C40)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge	E004
Soil	AR	Moisture Content	Moisture content: determined gravimetrically	E003
Soil	D	Nitrate - Water Soluble (2:1)	Determination of nitrate by extraction with water & analysed by ion chromatography	E009
Soil	D	Organic Matter	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	PAH - Speciated (EPA 16)	Determination of PAH compounds by extraction in acetone and hexane followed by GC-MS with the use of surrogate and internal standards	E005
Soil	AR	PCB - 7 Congeners	Determination of PCB by extraction with acetone and hexane followed by GC-MS	E008
Soil	D	Petroleum Ether Extract (PEE)	Gravimetrically determined through extraction with petroleum ether	E011
Soil	AR	pH	Determination of pH by addition of water followed by electrometric measurement	E007
Soil	AR	Phenols - Total (monohydric)	Determination of phenols by distillation followed by colorimetry	E021
Soil	D	Phosphate - Water Soluble (2:1)	Determination of phosphate by extraction with water & analysed by ion chromatography	E009
Soil	D	Sulphate (as SO4) - Total	Determination of total sulphate by extraction with 10% HCl followed by ICP-OES	E013
Soil	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of sulphate by extraction with water & analysed by ion chromatography	E009
Soil	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of water soluble sulphate by extraction with water followed by ICP-OES	E014
Soil	AR	Sulphide	Determination of sulphide by distillation followed by colorimetry	E018
Soil	D	Sulphur - Total	Determination of total sulphur by extraction with aqua-regia followed by ICP-OES	E024
Soil	AR	SVOC	Determination of semi-volatile organic compounds by extraction in acetone and hexane followed by GC-MS	E006
Soil	AR	Thiocyanate (as SCN)	Determination of thiocyanate by extraction in caustic soda followed by acidification followed by addition of ferric nitrate followed by colorimetry	E017
Soil	D	Toluene Extractable Matter (TEM)	Gravimetrically determined through extraction with toluene	E011
Soil	D	Total Organic Carbon (TOC)	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	TPH CWG (ali: C5- C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C34, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C35. C5 to C8 by headspace GC-MS	E004
Soil	AR	TPH LQM (ali: C5-C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C35, C35-C44, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35, C35-C44)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C44. C5 to C8 by headspace GC-MS	E004
Soil	AR	VOCs	Determination of volatile organic compounds by headspace GC-MS	E001
Soil	AR	VPH (C6-C8 & C8-C10)	Determination of hydrocarbons C6-C8 by headspace GC-MS & C8-C10 by GC-FID	E001

D Dried
AR As Received

APPENDIX F:
OUTLINE DRAWINGS FOR
IMPROVEMENT WORKS:

- ESSENTIAL AND NECESSARY
- DESIRABLE



NOTES

1.0 GENERAL:

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1.3 ANY DISCREPANCIES NOTED BETWEEN DRAWN INFORMATION ARE TO BE REPORTED PROMPTLY TO THE CONTRACT ADMINISTRATOR.

General Note

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- 2) For redecoration replacement ceiling tiles and flooring refer to schedule but assume all are to be replaced as part of a necessary works.
- 3) For details of proposed M & E works refer to M & E section of the report. Allow for builders work in connection including forming and infilling openings

Essential work-
these that pose a risk to health and safety or compromise building operation

Necessary Works-
Work required to bring building up to Current/Standards/regulation

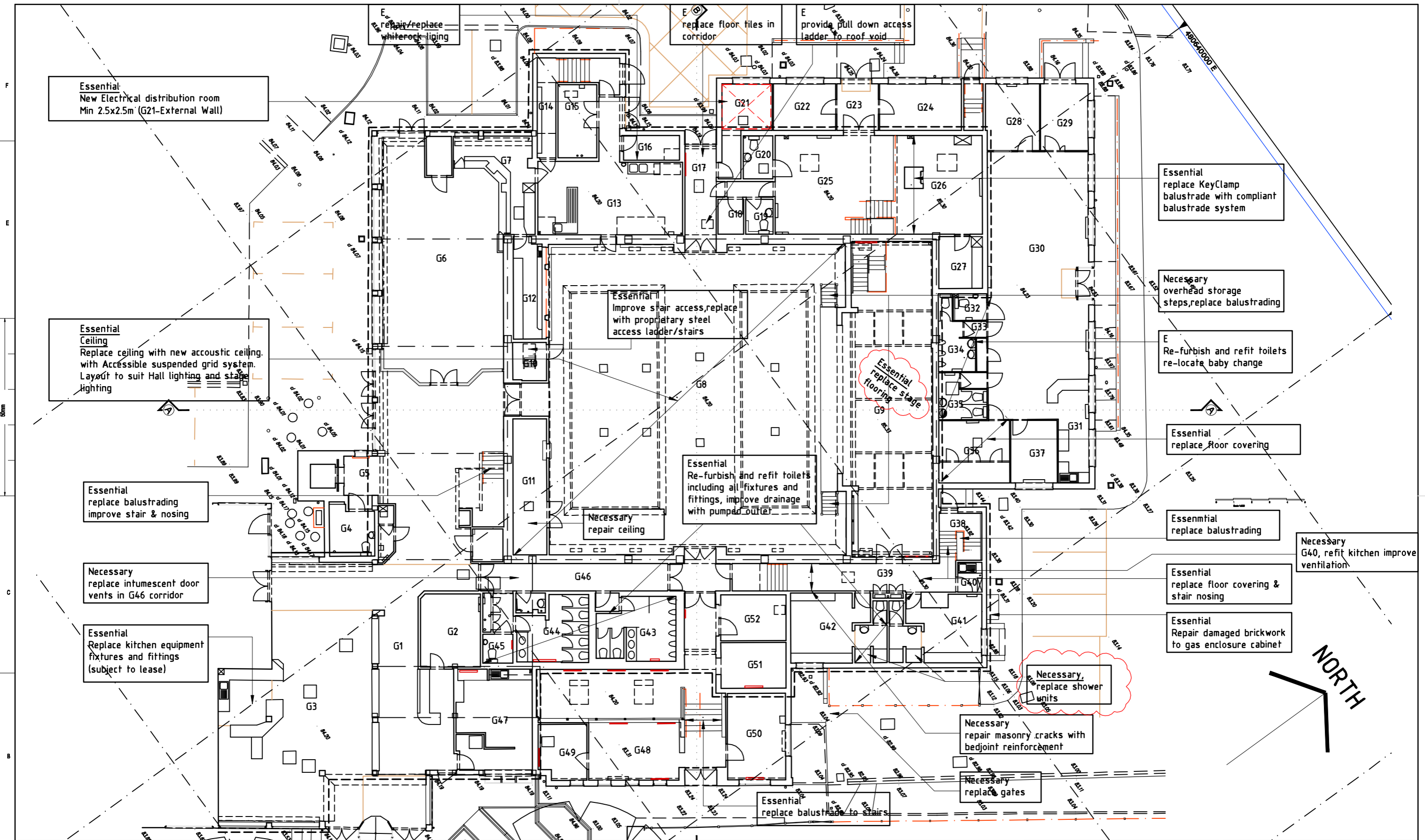
REV	DESCRIPTION	DRAWN	DATE
B	Updated notes amended	bfs	feb 2020
A		bfs	Jan 2020
DRAWN BY BFS CHECKED BY AP APPROVED BY			
DATE Aug 2019 DATE Aug 2019 DATE			
BASE DRAWING SCALE 1:200 @ A3		SCHEDULE SHEETS	

CLIENT
Fleet Town Council

PROJECT
The Harlington, Fleet Road, Fleet, Hampshire

TITLE
BASEMENT FLOOR PLAN
Proposed Essential & Necessary Improvement Works

<p>Cooper & Withycombe CONSULTING ENGINEERS</p> <p>Norwich House 14-16 North Street Guildford Surrey, GU1 4AF</p> <p>tel 01483 457373 fax 01483 566116</p>		
ARCHITECT	DWG STATUS	
PROJECT No 19-1962	DRAWING No 40	REV B
	PRELIMINARY	CONSTRUCTION
	TENDER	RECORD



NOTES

1.0 GENERAL:

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General Note

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- 3) For details of proposed M & E works refer to M & E section of the report. Allow for builders work in connection including forming and infilling openings

Essential work-
these that pose a risk to health and safety or compromise building operation

Necessary Works-
Work required to bring building up to Current/Standards/regulation, replacement of finishes to public facing rooms throughout

REV	DESCRIPTION	DRAWN	DATE
C	additional notes	bfs	feb2020
B	Electrical Cupboard re-located	bfs	feb2020
A	notes amended	bfs	jan2020

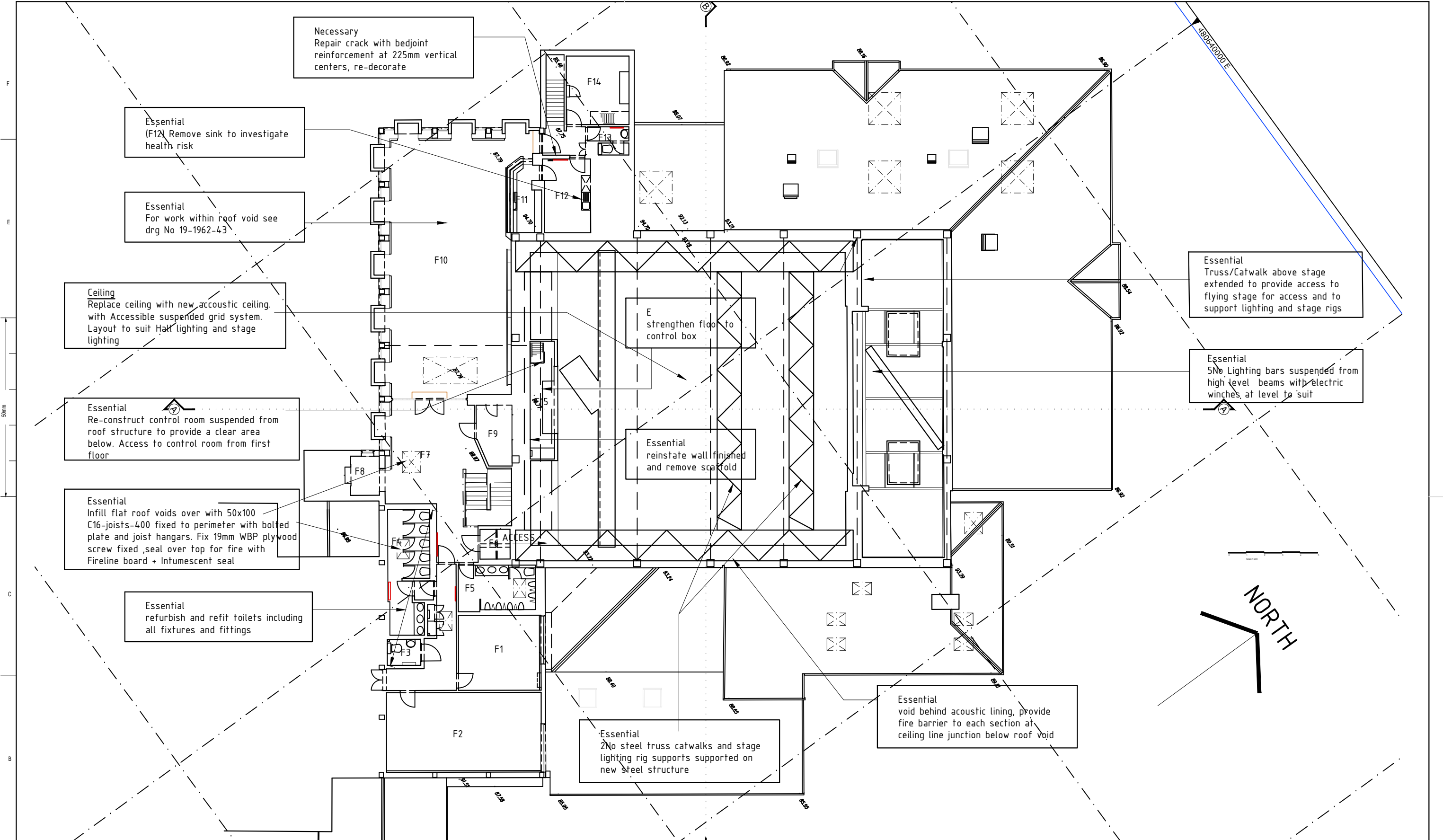
DRAWN BY	BFS	CHECKED BY	AP	APPROVED BY	
DATE	Aug 2019	DATE	Aug 2019	DATE	
BASE DRAWING SCALE		SCHEDULE SHEETS			
1:200 @ A3					

CLIENT
Fleet Town Council

PROJECT
The Harlington, Fleet Road, Fleet, Hampshire

TITLE
GROUND FLOOR & SITE PLAN
Proposed Essential & Necessary Improvement Works

Cooper & Withycombe CONSULTING ENGINEERS Norwich House 14-16 North Street Guildford Surrey, GU1 4AF Tel: 01483 457373 Fax: 01483 586116		
ARCHITECT	DWG. STATUS	
PROJECT No	DRAWING No.	REV
19-1962	41	C
		PRELIMINARY
		TENDER
		CONSTRUCTION
		RECORD



NOTES

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- 2) For redecoration replacement ceiling tiles and flooring refer to schedule but assume all are to be replaced as part of a necessary works.
- 3) For details of proposed M & E works refer to M & E section of the report. Allow for builders work in connection including forming and infilling openings

Essential work-
these that pose a risk to health and safety or compromise building operation

Necessary Works-
Work required to bring building up to Current/Standards/regulation

REV	DESCRIPTION	DRAWN	DATE
A	notes amended	bfs	jan2020

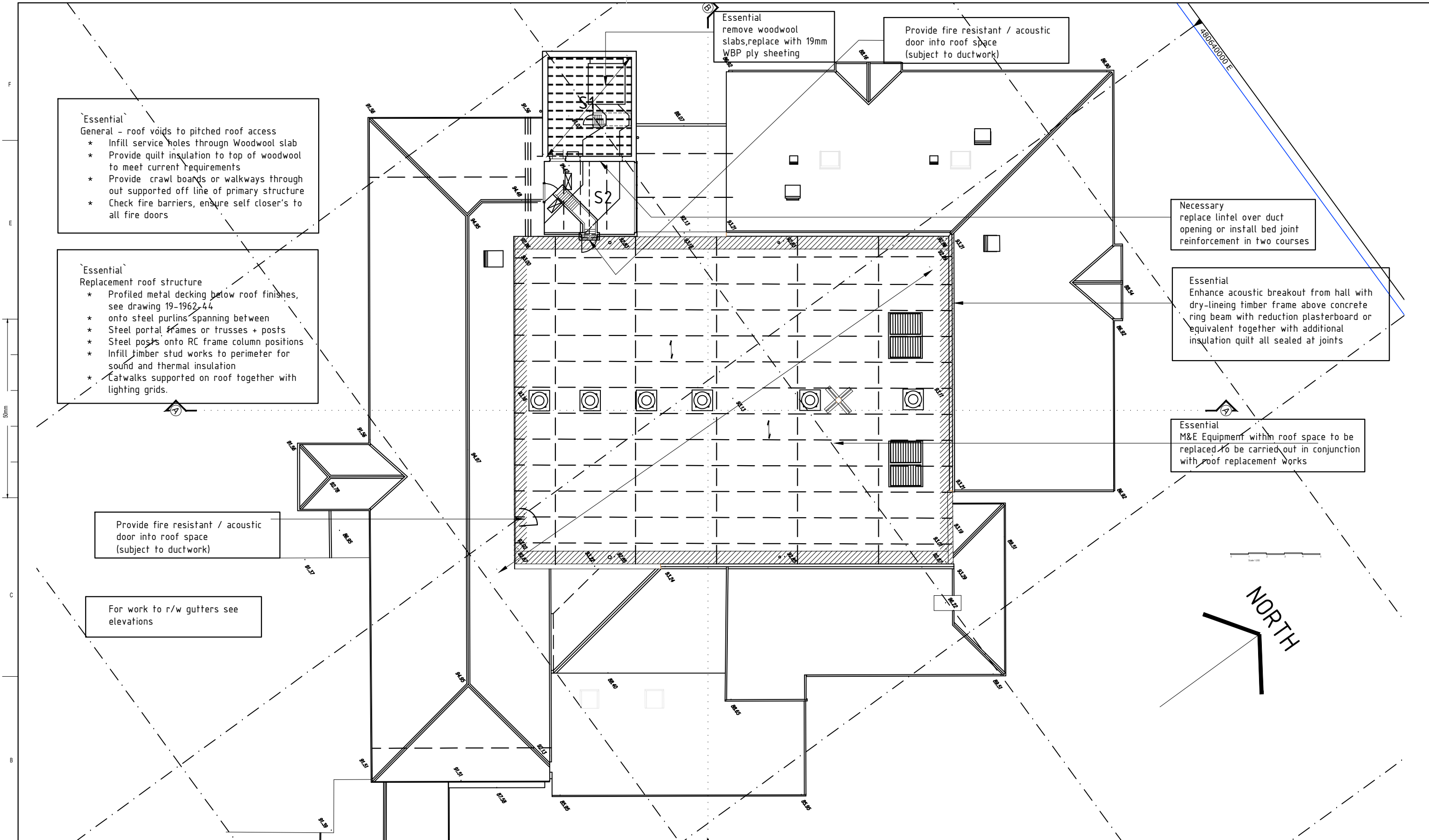
DRAWN BY	BIS	CHECKED BY	AP	APPROVED BY	
DATE	Aug 2019	DATE	Aug 2019	DATE	
BASE DRAWING SCALE		SCHEDULE SHEETS			
1: 200 @ A3					

CLIENT
Fleet Town Council

PROJECT
The Harlington, Fleet Road, Fleet, Hampshire

TITLE
**FIRST FLOOR PLAN
Proposed Essential & Necessary Improvement Works**

<p>Cooper & Withycombe CONSULTING ENGINEERS</p> <p>Norwich House tel 01483 457373 14-15 North Street Fax 01483 568116 Guildford Surrey, GU1 4AF</p>			
ARCHITECT	DWG STATUS		
	PRELIMINARY	●	
PROJECT No	DRAWING No	REV	
19-1962	42	A	
TENDER	CONSTRUCTION	RECORD	



Essential
General - roof voids to pitched roof access
 * Infill service holes through Woodwool slab
 * Provide quilt insulation to top of woodwool to meet current requirements
 * Provide crawl boards or walkways through out supported off line of primary structure
 * Check fire barriers, ensure self closer's to all fire doors

Essential
Replacement roof structure
 * Profiled metal decking below roof finishes, see drawing 19-1962-44
 * onto steel purlins spanning between
 * Steel portal frames or trusses + posts
 * Steel posts onto RC frame column positions
 * Infill timber stud works to perimeter for sound and thermal insulation
 * Catwalks supported on roof together with lighting grids.

Provide fire resistant / acoustic door into roof space (subject to ductwork)

For work to r/w gutters see elevations

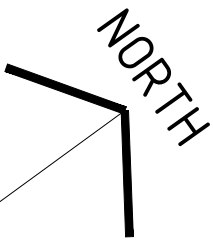
Essential
 remove woodwool slabs, replace with 19mm WBP ply sheeting

Provide fire resistant / acoustic door into roof space (subject to ductwork)

Necessary replace lintel over duct opening or install bed joint reinforcement in two courses

Essential
 Enhance acoustic breakout from hall with dry-lining timber frame above concrete ring beam with reduction plasterboard or equivalent together with additional insulation quilt all sealed at joints

Essential
 M&E Equipment within roof space to be replaced to be carried out in conjunction with roof replacement works



NOTES
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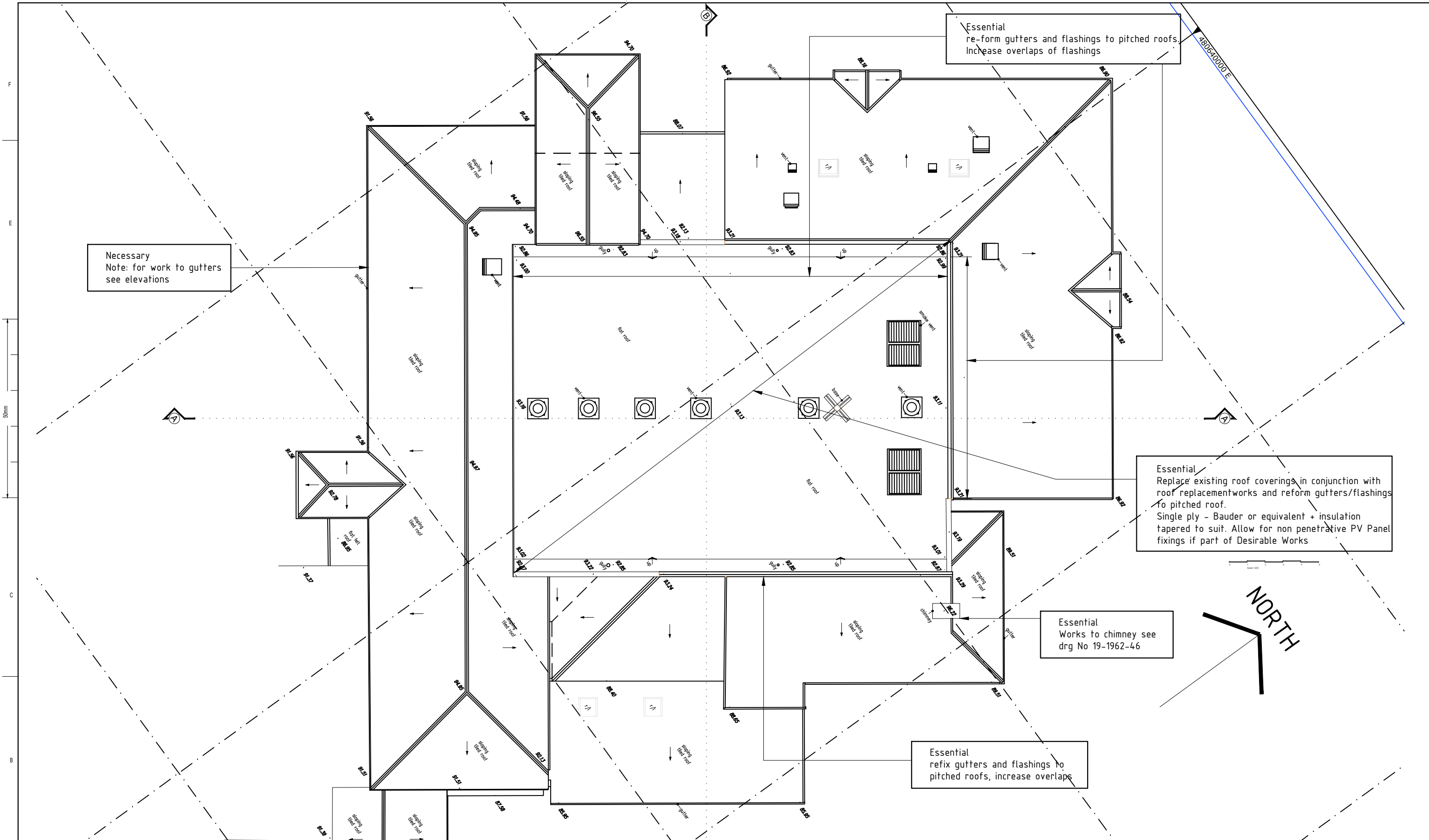
General Note
 1) This drawing to be read in conjunction with the Building and structural schedule of conditions which provide further detail descriptions of the work required
 2) For redecoration replacement ceiling tiles and flooring refer to schedule but assume all are to be replaced as part of a necessary works.
 3) For details of proposed M & E works refer to M & E section of the report. Allow for builders work in connection including forming and infilling openings

Essential work-
 These that pose a risk to health and safety or compromise building operation
Necessary Works-
 Work required to bring building up to Current/Standards/regulation

REV	DESCRIPTION	DRAWN	DATE
A	notes added	bfs	jan2020
DRAWN BY	CHECKED BY	APPROVED BY	
BFS	AP		
DATE	DATE	DATE	
Aug 2019	Aug 2019		
BASE DRAWING SCALE		SCHEDULE SHEETS	
1: 200 @ A3			

CLIENT	Fleet Town Council
PROJECT	The Harlington, Fleet Road, Fleet, Hampshire
TITLE	SECOND FLOOR PLAN Proposed Essential & Necessary Improvement Works

Cooper & Withycombe CONSULTING ENGINEERS	
Nonwich House 14-15 North Street Guildford Surrey, GU1 4AF	tel 01483 457373 Fax 01483 566116
ARCHITECT	DWG STATUS
PROJECT No	PRELIMINARY
DRAWING No.	TENDER
REV	CONSTRUCTION
RECORD	
19-1962	43
A	



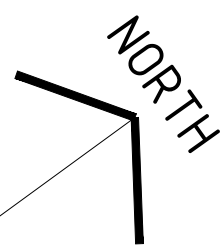
Necessary Note: for work to gutters see elevations

Essential re-form gutters and flashings to pitched roofs, Increase overlaps of flashings

Essential Replace existing roof coverings in conjunction with roof replacement works and reform gutters/flashings to pitched roof. Single ply - Bauder or equivalent + insulation tapered to suit. Allow for non penetrative PV Panel fixings if part of Desirable Works

Essential Works to chimney see drg No 19-1962-46

Essential refix gutters and flashings to pitched roofs, increase overlaps



NOTES

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Essential work-
These that pose a risk to health and safety or compromise building operation

Necessary Works-
Work required to bring building up to Current/Standards/regulation

REV	DESCRIPTION	DRAWN	DATE
A	notes amended	bfs	jan2020
DRAWN BY BFS CHECKED BY AP APPROVED BY			
DATE Aug 2019 DATE Aug 2019 DATE			
BASE DRAWING SCALE 1: 200 @ A3		SCHEDULE SHEETS	

CLIENT
Fleet Town Council

PROJECT
The Harlington, Fleet Road, Fleet, Hampshire

TITLE
**ROOF PLAN
Proposed Essential & Necessary Improvement Works**

Cooper & Withycombe
CONSULTING ENGINEERS

Norwich House
14-15 North Street
Guildford
Surrey, GU1 4AF

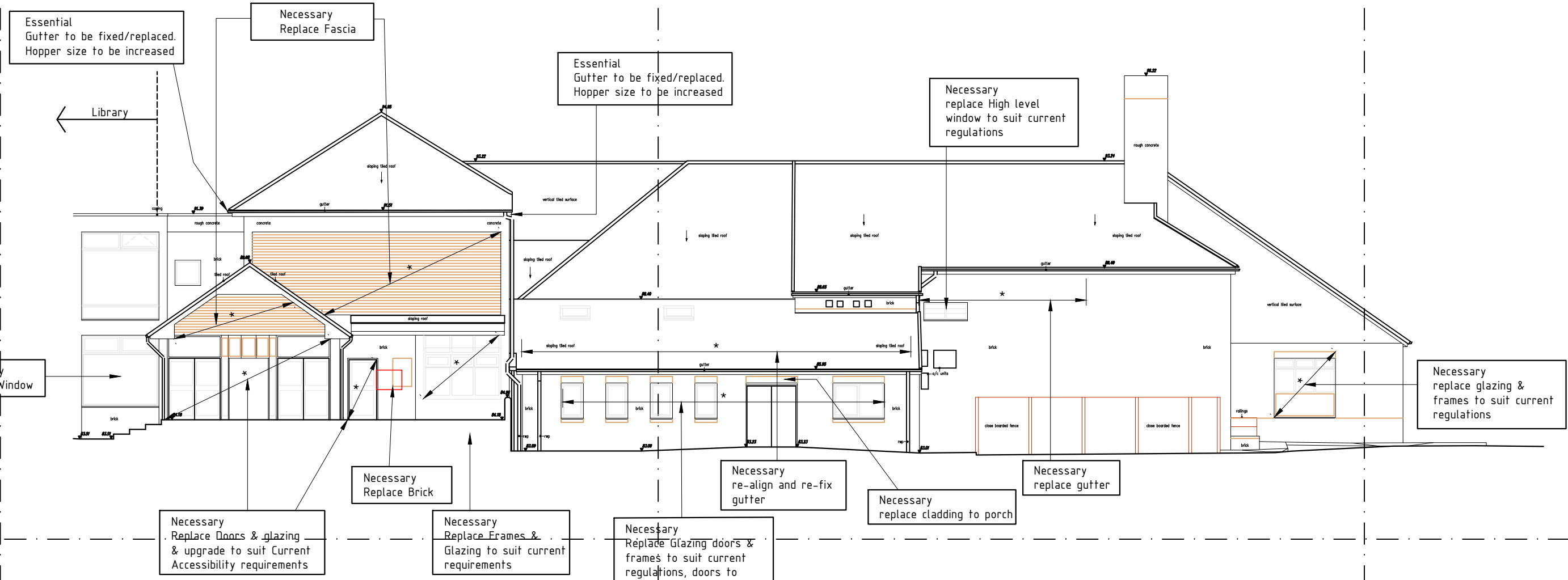
tel 01483 457373
Fax 01483 566116

ARCHITECT

PROJECT No **19-1962** DRAWING No **44** REV **A**

DWG STATUS	PRELIMINARY
TENDER	
CONSTRUCTION	
RECORD	

F
E
50mm
C
B
A



Existing Front Elevation (South-East)



NOTES

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Essential work-
These that pose a risk to health and safety or compromise building operation

Necessary Works-
Work required to bring building up to Current/Standards/regulation

REV	DESCRIPTION	DRAWN	DATE
A	Notes amended	bfs	jan2020
DRAWN BY	CHECKED BY	APPROVED BY	
BFS	AP		
DATE	DATE	DATE	
Aug 2019	Aug 2019		
BASE DRAWING SCALE		SCHEDULE SHEETS	
1: 150 @ A3			

CLIENT
Fleet Town Council

PROJECT
The Harlington, Fleet Road, Fleet, Hampshire

TITLE
FRONT ELEVATION (South-East)
Proposed Essential & Necessary Improvement Works

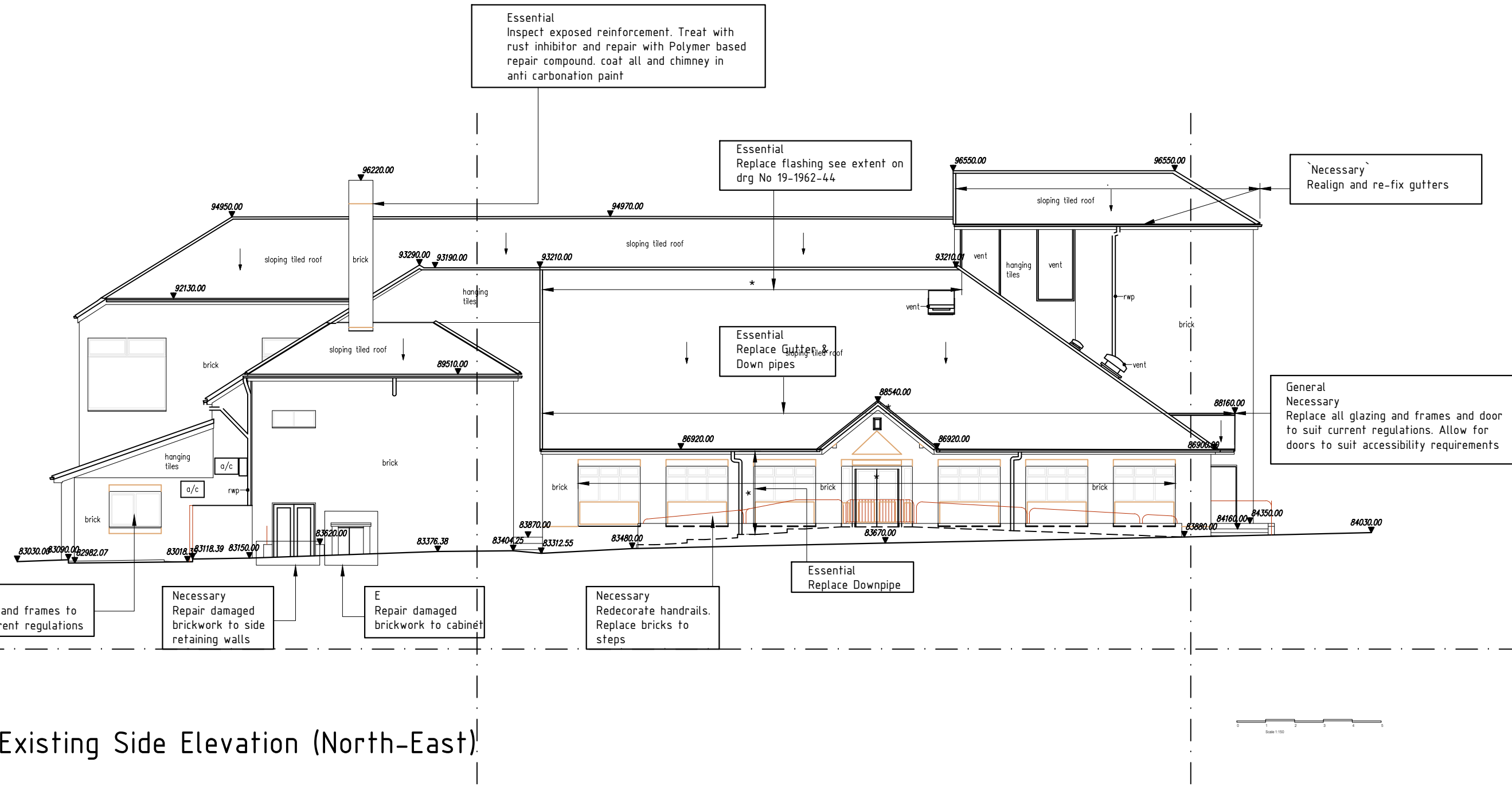
Cooper & Withycombe
CONSULTING ENGINEERS

Nonwich House
14-15 North Street
Guildford
Surrey, GU1 4AF

tel 01483 457373
Fax 01483 566116

ARCHITECT	DWG STATUS
PROJECT No 19-1962	PRELIMINARY
DRAWING No. 45	TENDER
REV A	CONSTRUCTION
	RECORD

F
E
50mm
C
B
A



Existing Side Elevation (North-East)

NOTES

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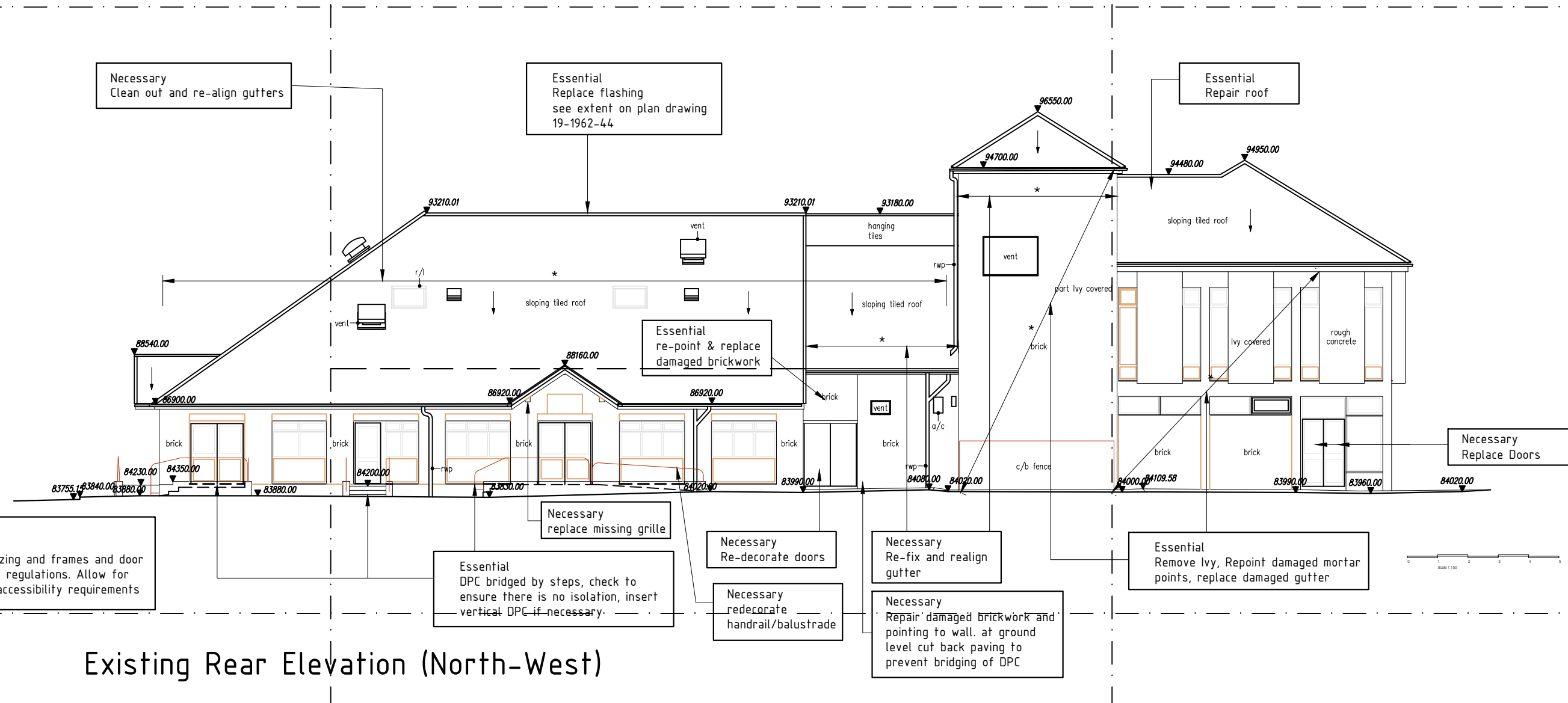
Essential work-
 These that pose a risk to health and safety or compromise building operation
Necessary Works-
 Work required to bring building up to Current/Standards/regulation

REV	DESCRIPTION	DRAWN	DATE
A	Notes amended	bfs	jan2020
DRAWN BY	CHECKED BY	APPROVED BY	
Bfs	AP		
DATE	DATE	DATE	
Aug 2019	Aug 2019		
BASE DRAWING SCALE		SCHEDULE SHEETS	
1: 150 @ A3			

CLIENT	Fleet Town Council
PROJECT	The Harlington, Fleet Road, Fleet, Hampshire
TITLE	SIDE ELEVATION (North-East) Proposed Essential & Necessary Improvement Works

Cooper & Withycombe CONSULTING ENGINEERS Norwich House 14-15 North Street Guildford Surrey, GU1 4AF tel 01483 457373 Fax 01483 566116	
ARCHITECT	DWG STATUS
PROJECT No	PRELIMINARY
DRAWING No.	TENDER
REV	CONSTRUCTION
	RECORD
19-1962	46
A	

F
E
50mm
C
B
A



Existing Rear Elevation (North-West)

NOTES

- 1.0 GENERAL:
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- 3) For details of proposed M & E works refer to M & E section of the report.

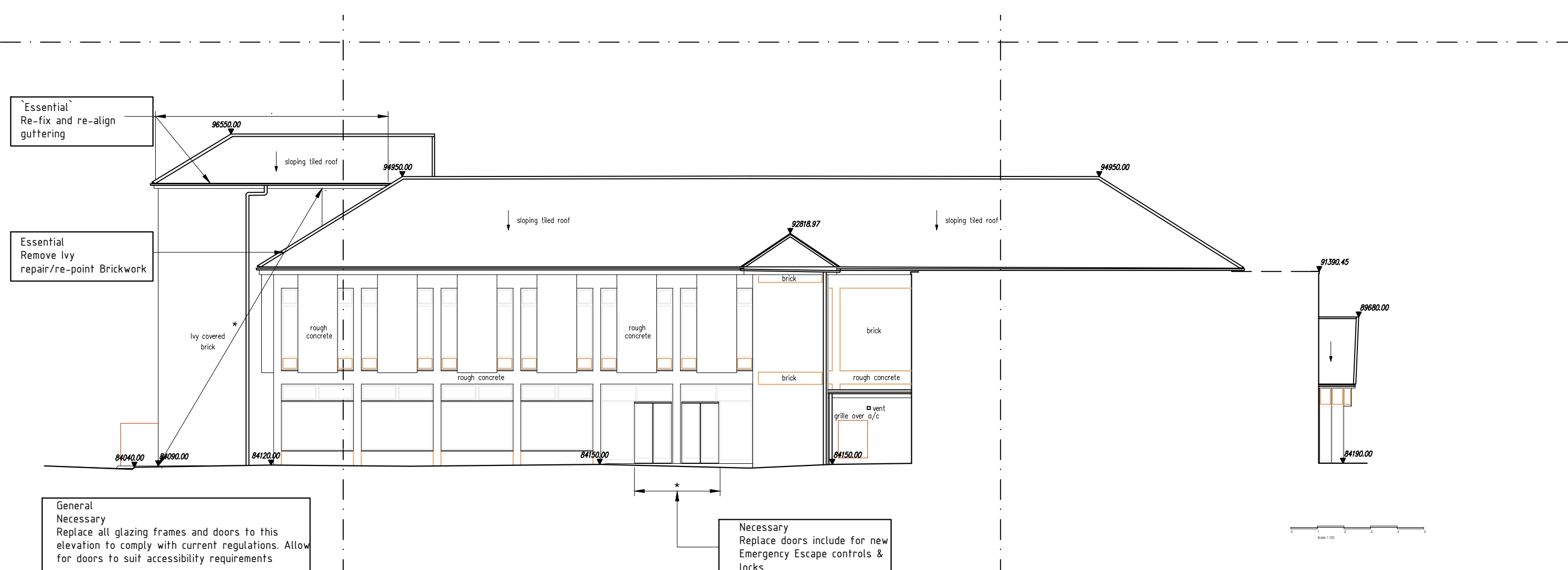
Essential work-
 These that pose a risk to health and safety or compromise building operation
Necessary Works-
 Work required to bring building up to Current/Standards/regulation

REV	DESCRIPTION	DRAWN	DATE
A	Notes amended	bfs	jan2020
DRAWN BY	CHECKED BY	APPROVED BY	
Bfs	AP		
DATE Aug 2019	DATE Aug 2019	DATE	
BASE DRAWING SCALE		SCHEDULE SHEETS	
1: 150 @ A3			

CLIENT	Fleet Town Council
PROJECT	The Harlington, Fleet Road, Fleet, Hampshire
TITLE	REAR ELEVATION (North-West) Proposed Essential & Necessary Improvement Works

Cooper & Withycombe CONSULTING ENGINEERS Norwich House 14-15 North Street Guildford Surrey, GU1 4AF tel 01483 457373 Fax 01483 566116	
ARCHITECT	DWG STATUS
PROJECT No	PRELIMINARY
DRAWING No.	TENDER
REV	CONSTRUCTION
	RECORD
19-1962	47
A	

F
E
50mm
C
B
A



Existing Side Elevation (South-West)

NOTES

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Essential work-
These that pose a risk to health and safety or compromise building operation

Necessary Works-
Work required to bring building up to Current/Standards/regulation

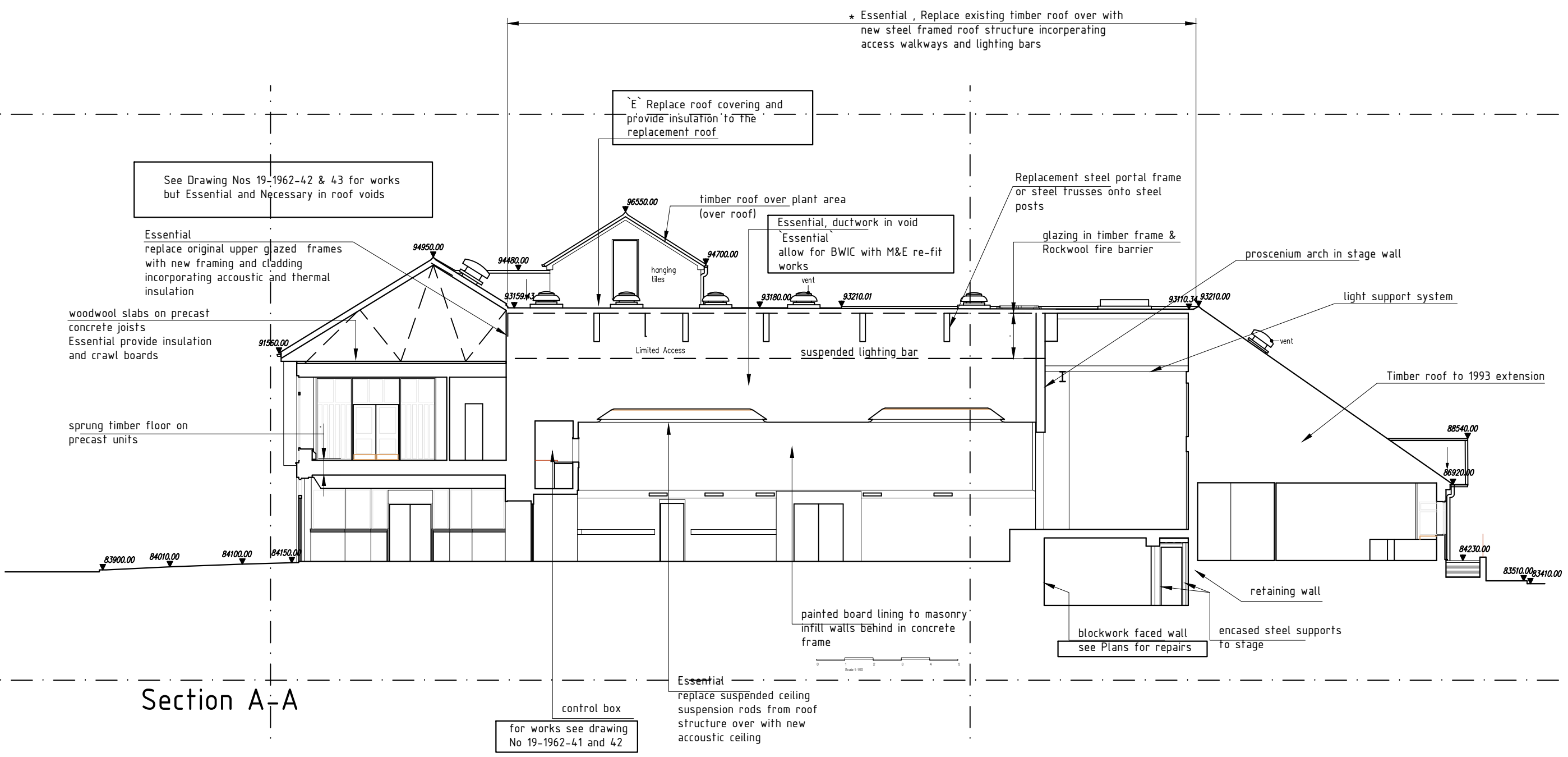
REV	DESCRIPTION	DRAWN	DATE
A	Notes amended	bfs	jan2020

DRAWN BY	BfS	CHECKED BY	AP	APPROVED BY	
DATE	Aug 2019	DATE	Aug 2019	DATE	
BASE DRAWING SCALE		SCHEDULE SHEETS			
1: 150 @ A3					

CLIENT	Fleet Town Council
PROJECT	The Harlington, Fleet Road, Fleet, Hampshire
TITLE	SIDE ELEVATION (South-West) Proposed Essential & Necessary Improvement Works

<p>Cooper & Withycombe CONSULTING ENGINEERS</p> <p>Norwich House 14-15 North Street Guildford Surrey, GU1 4AF</p> <p>tel 01483 457373 Fax 01483 566116</p>	
ARCHITECT	DWG STATUS
PROJECT No	PRELIMINARY
DRAWING No.	TENDER
REV	CONSTRUCTION
	RECORD
19-1962	48
A	

F
E
50mm
C
B
A



Section A-A

NOTES

1.0 GENERAL:

1.1 THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT PROJECT DRAWINGS TOGETHER WITH THE PROJECT SPECIFICATION.

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Essential work-
These that pose a risk to health and safety or compromise building operation

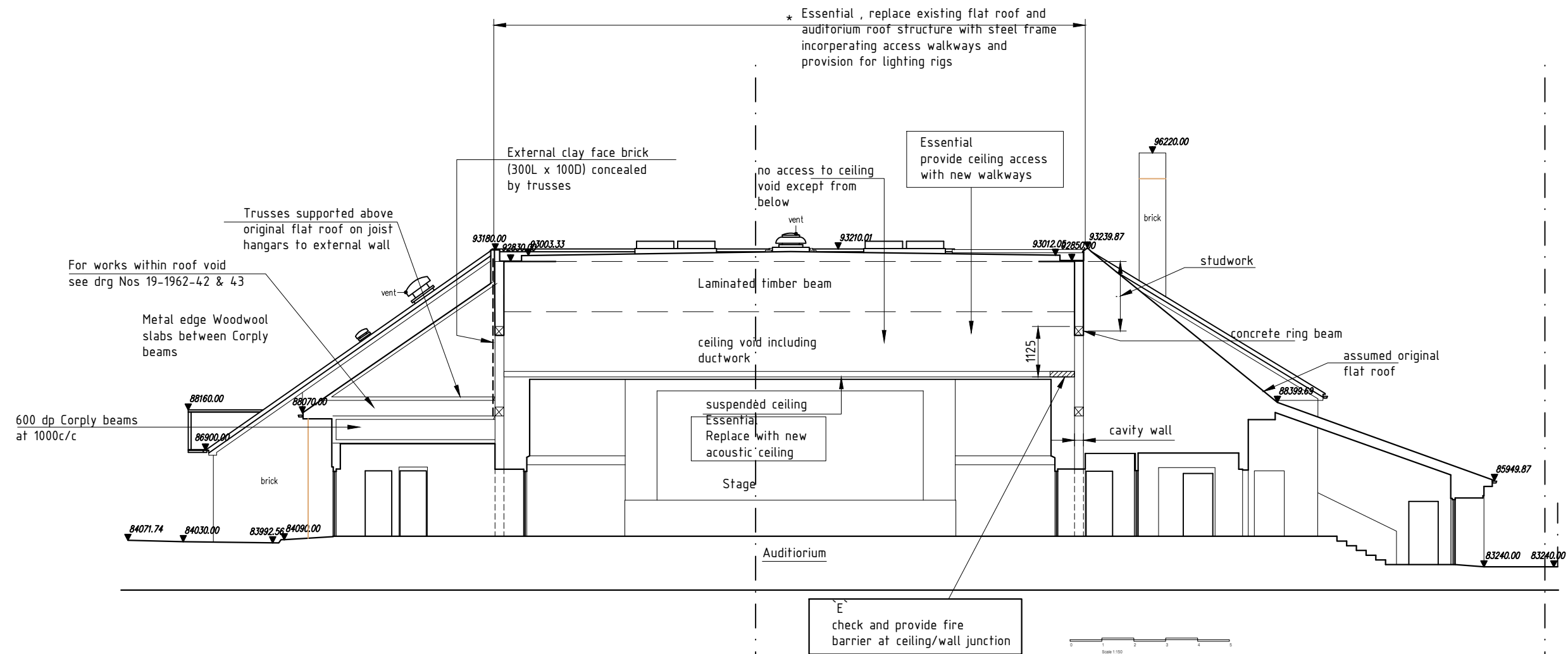
Necessary Works-
Work required to bring building up to Current/Standards/regulation

REV	DESCRIPTION	DRAWN	DATE
A	Notes amended	bfs	jan2020
DRAWN BY	CHECKED BY	APPROVED BY	
Bfs	AP		
DATE	DATE	DATE	
Aug 2019	Aug 2019		
BASE DRAWING SCALE		SCHEDULE SHEETS	
1: 150 @ A3			

CLIENT	Fleet Town Council
PROJECT	The Harlington, Fleet Road, Fleet, Hampshire
TITLE	SECTION A-A Proposed Essential & Necessary Improvement Works

<p>Cooper & Withycombe CONSULTING ENGINEERS</p> <p>Norwich House 14-15 North Street Guildford Surrey, GU1 4AF</p> <p>tel 01483 457373 Fax 01483 566116</p>	
ARCHITECT	DWG STATUS
PROJECT No	PRELIMINARY
DRAWING No.	TENDER
REV	CONSTRUCTION
	RECORD
19-1962	49
A	

F
E
50mm
C
B
A



Section B-B

NOTES

1.0 GENERAL:

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 - 3) For details of proposed M & E works refer to M & E section of the report. Allow for builders work in connection including forming and infilling openings

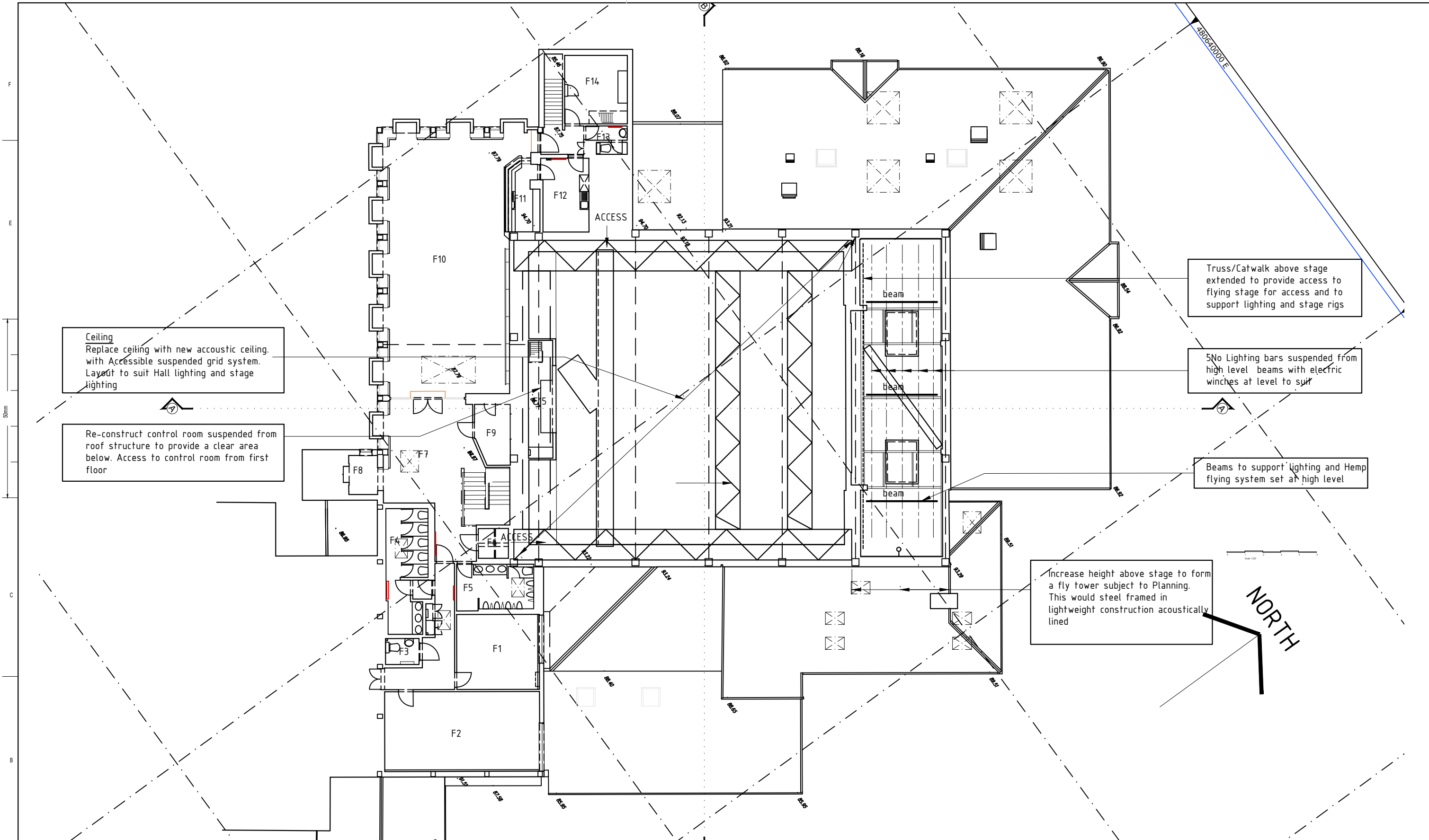
Essential work-
These that pose a risk to health and safety or compromise building operation

Necessary Works-
Work required to bring building up to Current/Standards/regulation

REV	DESCRIPTION	DRAWN	DATE
A	Notes amended	bfs	jan2020
DRAWN BY	CHECKED BY	APPROVED BY	
BfS	AP		
DATE	DATE	DATE	
Aug 2019	Aug 2019		
BASE DRAWING SCALE		SCHEDULE SHEETS	
1: 150 @ A3			

CLIENT	Fleet Town Council
PROJECT	The Harlington, Fleet Road, Fleet, Hampshire
TITLE	SECTION B-B Proposed Essential & Necessary Improvement Works

Cooper & Withycombe CONSULTING ENGINEERS	
Nonwich House 14-15 North Street Guildford Surrey, GU1 4AF	tel 01483 457373 Fax 01483 566116
ARCHITECT	DWG STATUS
PROJECT No	PRELIMINARY
DRAWING No.	TENDER
REV	CONSTRUCTION
RECORD	
19-1962	50
A	



Ceiling
 Replace ceiling with new acoustic ceiling with Accessible suspended grid system. Layout to suit Hall lighting and stage lighting

Re-construct control room suspended from roof structure to provide a clear area below. Access to control room from first floor

Truss/Catwalk above stage extended to provide access to flying stage for access and to support lighting and stage rigs

5 No Lighting bars suspended from high level beams with electric winches at level to suit

Beams to support lighting and Hemp flying system set at high level

Increase height above stage to form a fly tower subject to Planning. This would steel framed in lightweight construction acoustically lined

NORTH

- NOTES**
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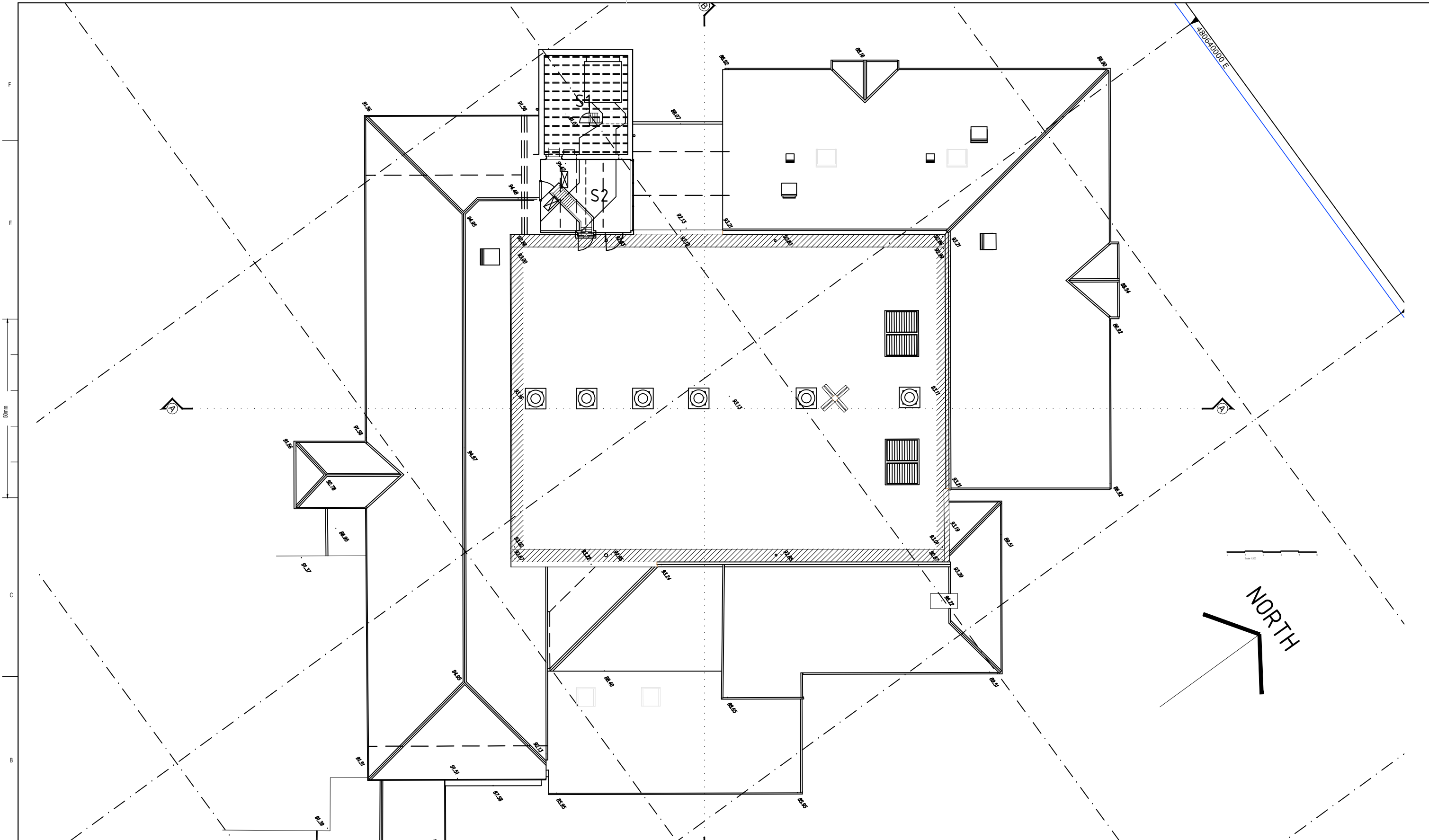
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Desirable works - Identified to provide a benefit to the building operation/use and upgrading of building facilities

REV	DESCRIPTION	DRAWN	DATE
A	notes amended	bfs	jan2020
DRAWN BY: bfs		CHECKED BY: AP	
DATE: Aug 2019		DATE: Aug 2019	
APPROVED BY:		DATE:	
BASE DRAWING SCALE: 1:200 @ A3		SCHEDULE SHEETS:	

CLIENT	Fleet Town Council
PROJECT	The Harlington, Fleet Road, Fleet, Hampshire
TITLE	FIRST FLOOR PLAN Desirable Improvements

Cooper & Withycombe CONSULTING ENGINEERS	
Nonich House 14-15 North Street Guildford Surrey, GU1 4AF	
tel 01483 457373 Fax 01483 566116	
ARCHITECT	DWG STATUS
PROJECT No	PRELIMINARY
DRAWING No.	TENDER
REV	CONSTRUCTION
	RECORD
19-1962	62
A	



NOTES

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General Note

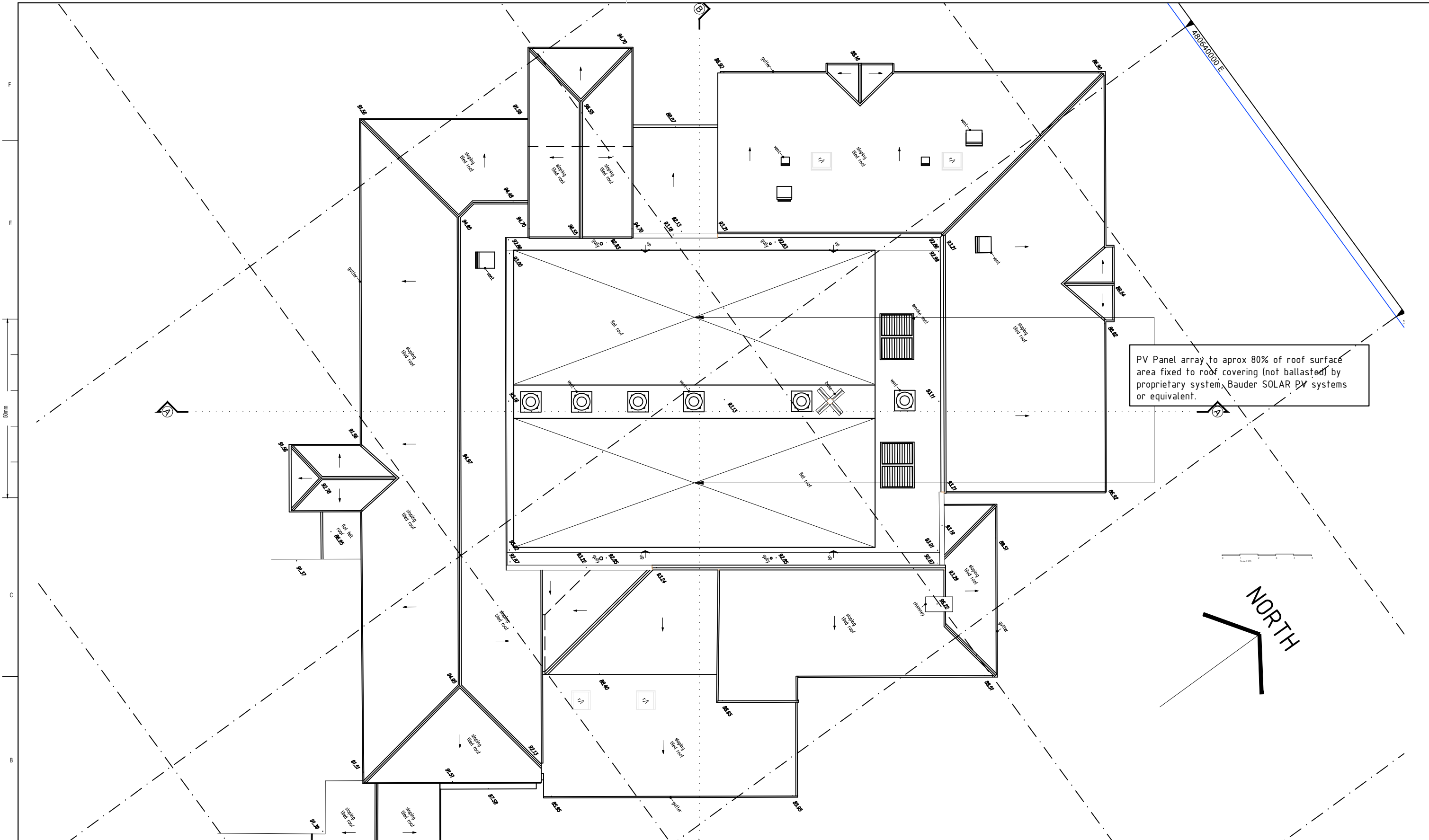
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Desirable works - Identified to provide a benefit to the building operation/use and upgrading of building facilities

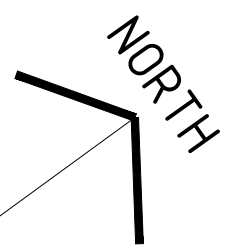
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DATE	DATE	DATE	
Aug 2019	Aug 2019		
BASE DRAWING SCALE		SCHEDULE SHEETS	
1: 200 @ A3			

CLIENT	Fleet Town Council
PROJECT	The Harlington, Fleet Road, Fleet, Hampshire
TITLE	SECOND FLOOR PLAN Desirable Improvements

Cooper & Withycombe CONSULTING ENGINEERS		tel 01483 457373 fax 01483 568116	
Nonich House 14-15 North Street Guildford Surrey, GU1 4AF			
ARCHITECT	DWG STATUS	PROJECT No	DRAWING No.
	PRELIMINARY	19-1962	63
	TENDER	REV	A
	CONSTRUCTION		
	RECORD		



PV Panel array to aprox 80% of roof surface area fixed to roof covering (not ballasted) by proprietary system, Bauder SOLAR PV systems or equivalent.



NOTES

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General Note

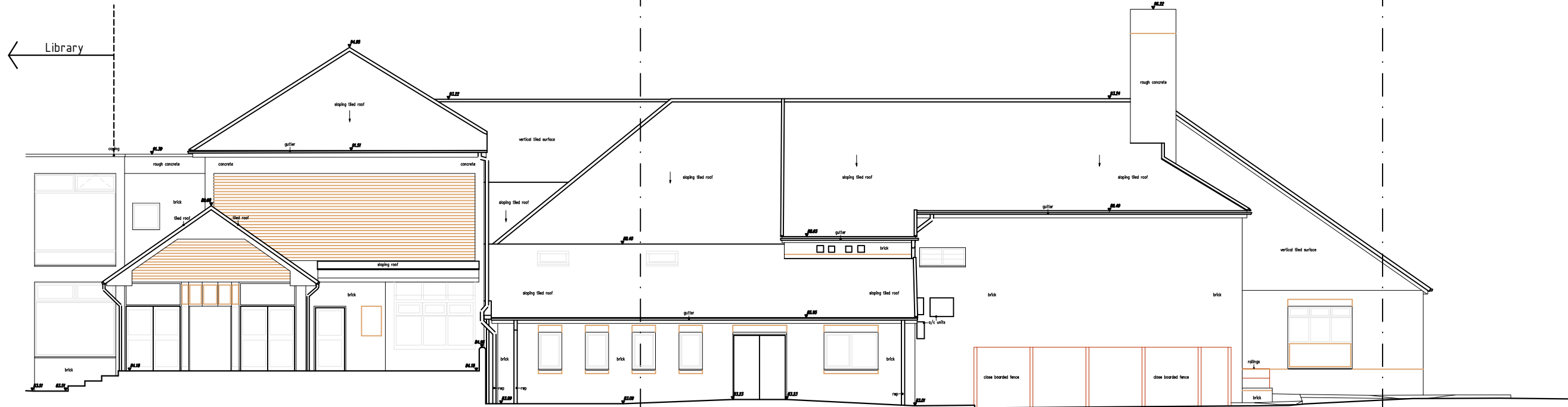
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Desirable works - Identified to provide a benefit to the building operation/use and upgrading of building facilities

REV	DESCRIPTION	DRAWN	DATE
A	notes amended	bfs	jan2020
DRAWN BY BFS		CHECKED BY AP	APPROVED BY
DATE Aug 2019		DATE Aug 2019	DATE
BASE DRAWING SCALE 1: 200 @ A3		SCHEDULE SHEETS	

CLIENT	Fleet Town Council
PROJECT	The Harlington, Fleet Road, Fleet, Hampshire
TITLE	ROOF PLAN Desirable Improvements

Cooper & Withycombe CONSULTING ENGINEERS		tel 01483 457373 fax 01483 566116	
Norwich House 14-15 North Street Guildford Surrey, GU1 4AF		ARCHITECT	
PROJECT No	DRAWING No.	REV	DWG STATUS
19-1962	64	A	PRELIMINARY
			TENDER
			CONSTRUCTION
			RECORD



Existing Front Elevation (South-East)



NOTES

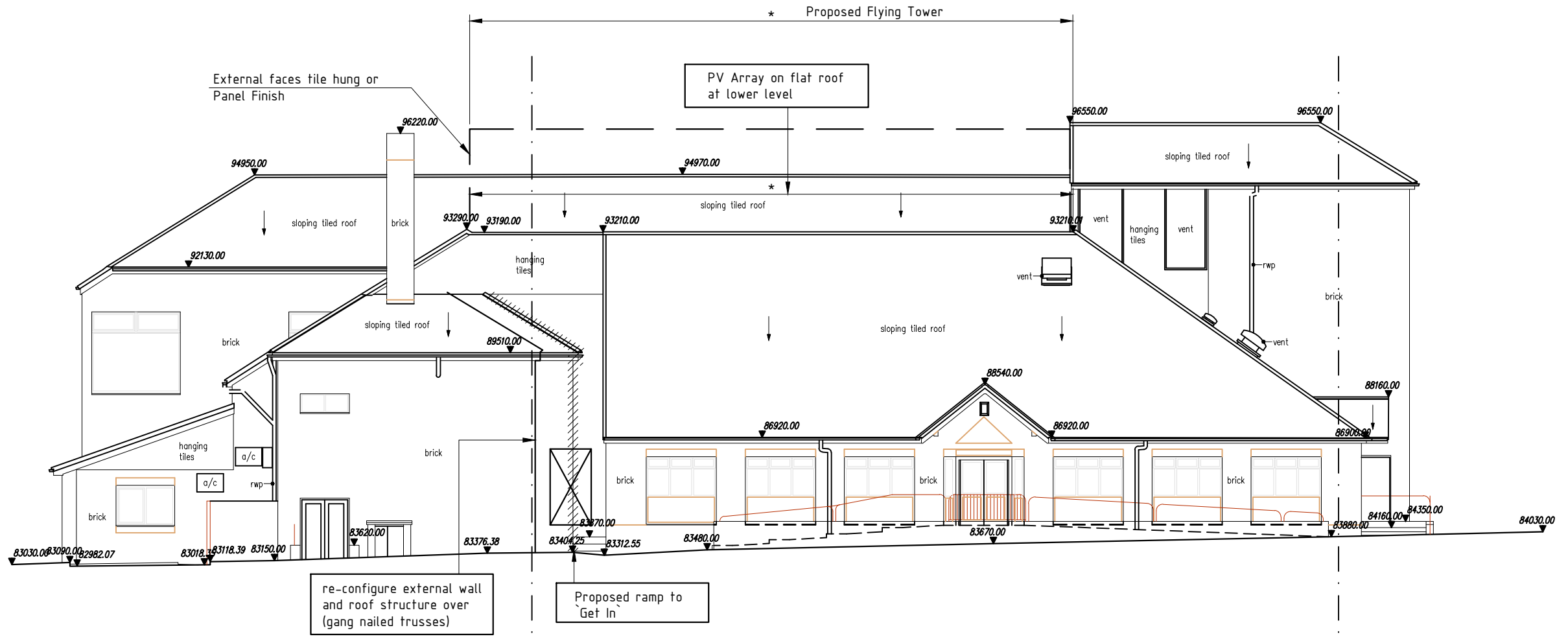
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- 2.0 STEELWORK
- 2.1 EXCEPT FOR HOLLOW SECTIONS ALL STEELWORK TO BE S275 GRADE HOLLOW SECTIONS TO BE S355 GRADE
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A Notes amended		bfs	jan2020
REV	DESCRIPTION	DRAWN	DATE
DRAWN BY	BfS	CHECKED BY	AP
DATE	Aug 2019	DATE	Aug 2019
BASE DRAWING SCALE		SCHEDULE SHEETS	
1: 150 @ A3			

CLIENT	Fleet Town Council
PROJECT	The Harlington, Fleet Road, Fleet, Hampshire
TITLE	FRONT ELEVATION (South-East) Option for Extension

Cooper & Withycombe CONSULTING ENGINEERS Norwich House 14-15 North Street Guildford Surrey, GU1 4AF		tel 01483 457373 Fax 01483 566116	
		ARCHITECT	DWG STATUS
PROJECT No	DRAWING No.	REV	TENDER
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Existing Side Elevation (North-East)

NOTES

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Desirable works - Identified to provide a benefit to the building operation/use and upgrading of building facilities

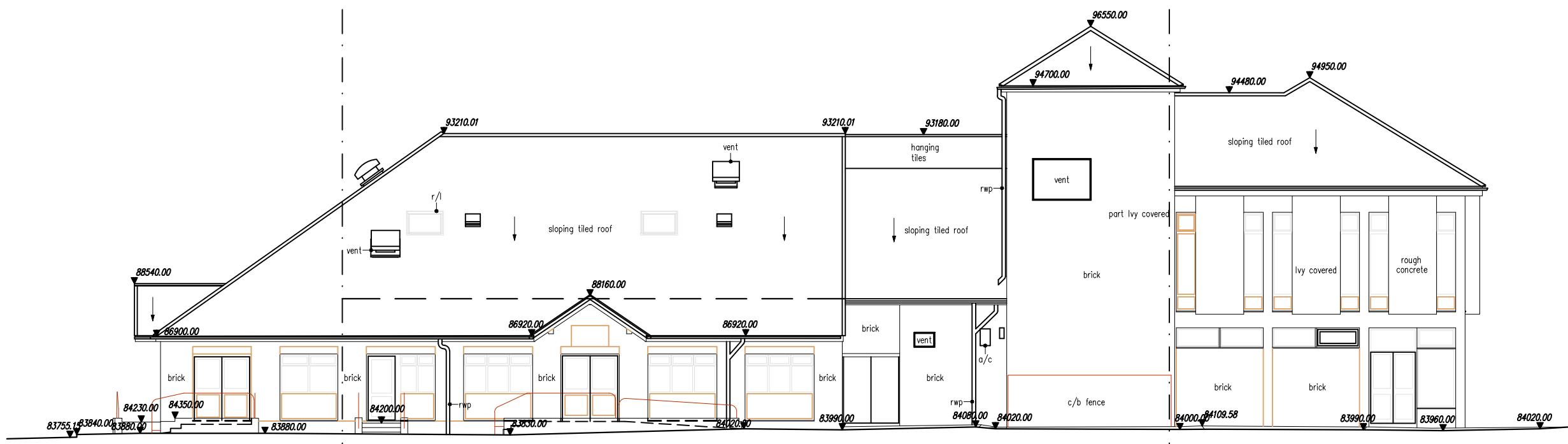
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A	Notes amended	bfs	jan2020

DRAWN BY	BFS	CHECKED BY	AP	APPROVED BY	
DATE	Aug 2019	DATE	Aug 2019	DATE	
BASE DRAWING SCALE		SCHEDULE SHEETS			
1: 150 @ A3					

CLIENT	Fleet Town Council
PROJECT	The Harlington, Fleet Road, Fleet, Hampshire
TITLE	SIDE ELEVATION (North-East) Desirable Improvements

Cooper & Withycombe CONSULTING ENGINEERS	
Nonich House 14-15 North Street Guildford Surrey, GU1 4AF	tel 01483 457373 Fax 01483 566116
ARCHITECT	DWG STATUS
PROJECT No	PRELIMINARY
DRAWING No.	TENDER
REV	CONSTRUCTION
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19-1962	66
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Existing Rear Elevation (North-West)

NOTES

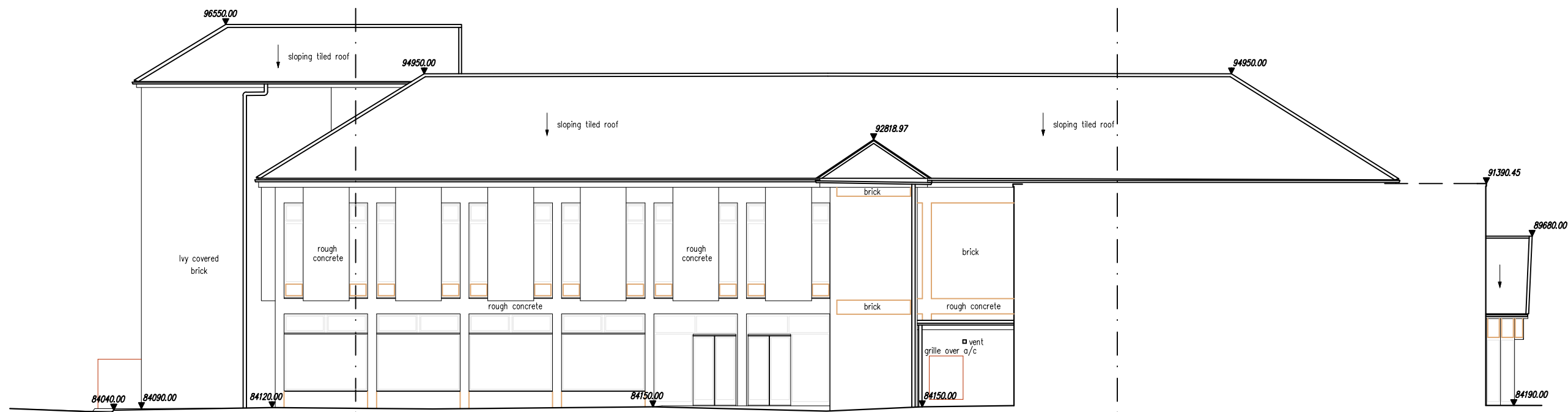
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A Notes amended		bfs	jan2020
REV	DESCRIPTION	DRAWN	DATE
DRAWN BY	BfS	CHECKED BY	AP
DATE	Aug 2019	DATE	Aug 2019
BASE DRAWING SCALE		SCHEDULE SHEETS	
1: 150 @ A3			

CLIENT	Fleet Town Council
PROJECT	The Harlington, Fleet Road, Fleet, Hampshire
TITLE	REAR ELEVATION (North-West) Option for Extension

Cooper & Withycombe CONSULTING ENGINEERS Norwich House 14-15 North Street Guildford Surrey, GU1 4AF tel 01483 457373 Fax 01483 566116		
ARCHITECT	PROJECT No	DWG STATUS
	19-1962	PRELIMINARY
DRAWING No.	REV	TENDER
67	A	CONSTRUCTION
		RECORD

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Existing Side Elevation (South-West)

NOTES

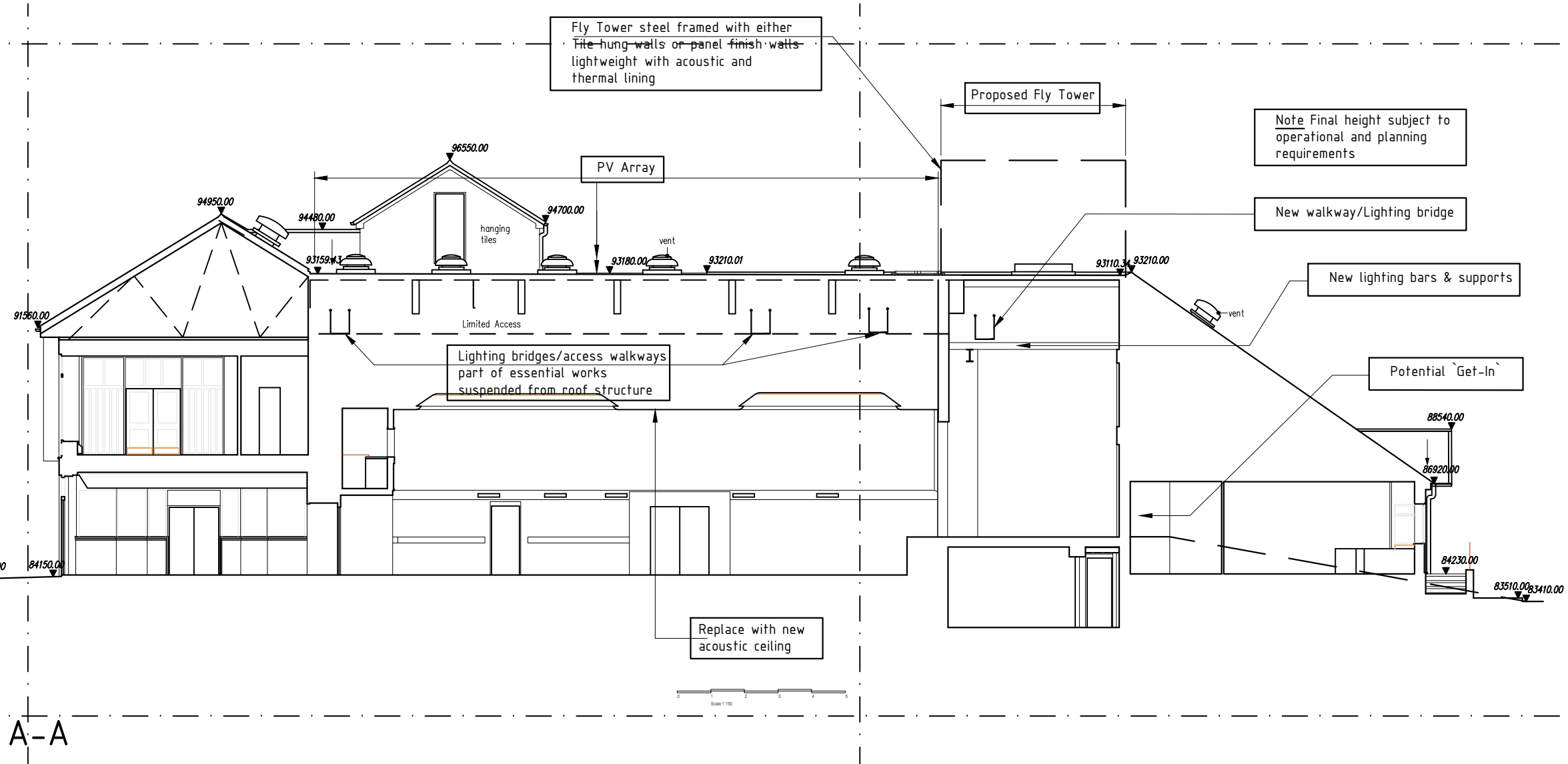
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1: 150 @ A3			

CLIENT	Fleet Town Council
PROJECT	The Harlington, Fleet Road, Fleet, Hampshire
TITLE	SIDE ELEVATION (South-West) Option for Extension

Cooper & Withycombe CONSULTING ENGINEERS		Nonwich House 14-15 North Street Guildford Surrey, GU1 4AF		tel 01483 457373 Fax 01483 566116	
ARCHITECT	PROJECT No	DRAWING No.	REV	DWG STATUS	
	19-1962	68	A	PRELIMINARY	●
				TENDER	
				CONSTRUCTION	
				RECORD	

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Section A-A

- NOTES**
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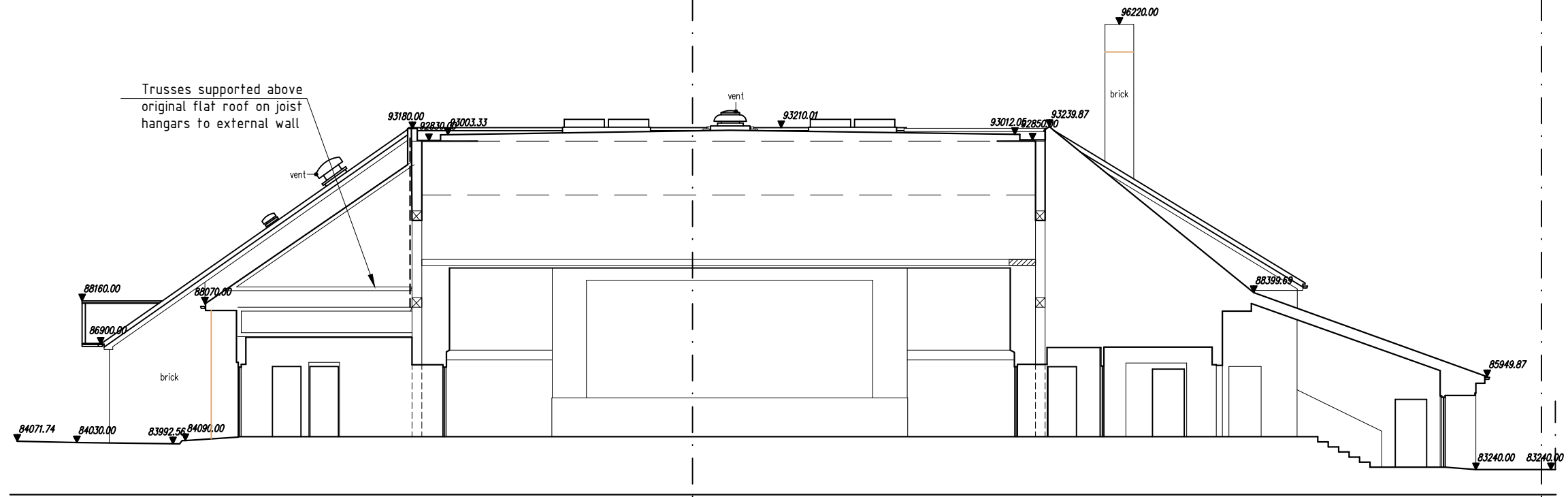
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Bfs	AP		
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1: 150 @ A3			

CLIENT	Fleet Town Council
PROJECT	The Harlington, Fleet Road, Fleet, Hampshire
TITLE	SECTION A-A Desirable Improvements

Cooper & Withycombe CONSULTING ENGINEERS	
Nonich House 14-15 North Street Guildford Surrey, GU1 4AF	tel 01483 457373 Fax 01483 566116
ARCHITECT	DWG STATUS
PROJECT No	PRELIMINARY
19-1962	TENDER
DRAWING No.	CONSTRUCTION
69	RECORD
REV	A



Section B-B

NOTES

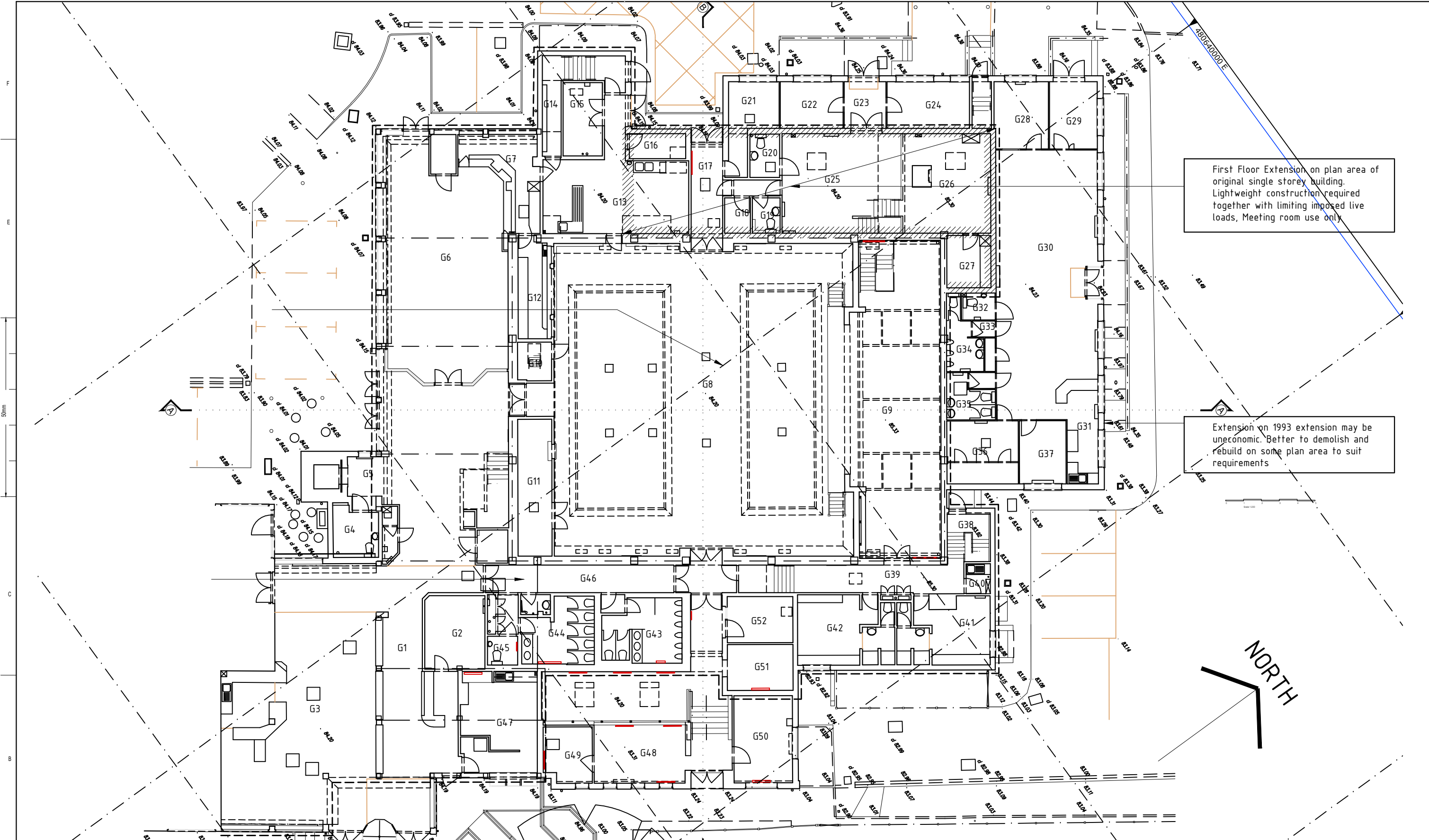
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DRAWN BY	CHECKED BY	APPROVED BY	
DATE Aug 2019	DATE Aug 2019	DATE	
BASE DRAWING SCALE		SCHEDULE SHEETS	
1: 150 @ A3			

CLIENT	Fleet Town Council
PROJECT	The Harlington, Fleet Road, Fleet, Hampshire
TITLE	SECTION B-B Option for Extension

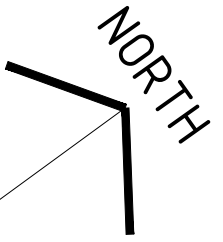
Cooper & Withycombe CONSULTING ENGINEERS Norwich House 14-15 North Street Guildford Surrey, GU1 4AF tel 01483 457373 Fax 01483 568116			
ARCHITECT	PROJECT No	DRAWING No	REV
	19-1962	70	A
DWG. STATUS	PRELIMINARY	TENDER	CONSTRUCTION
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First Floor Extension on plan area of original single storey building. Lightweight construction required together with limiting imposed live loads, Meeting room use only

Extension on 1993 extension may be uneconomic. Better to demolish and rebuild on some plan area to suit requirements



NOTES

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Note
This is a Preliminary Outline indication of Options for extension within the building area. No consultations have yet been undertaken with the Local Planning Authority

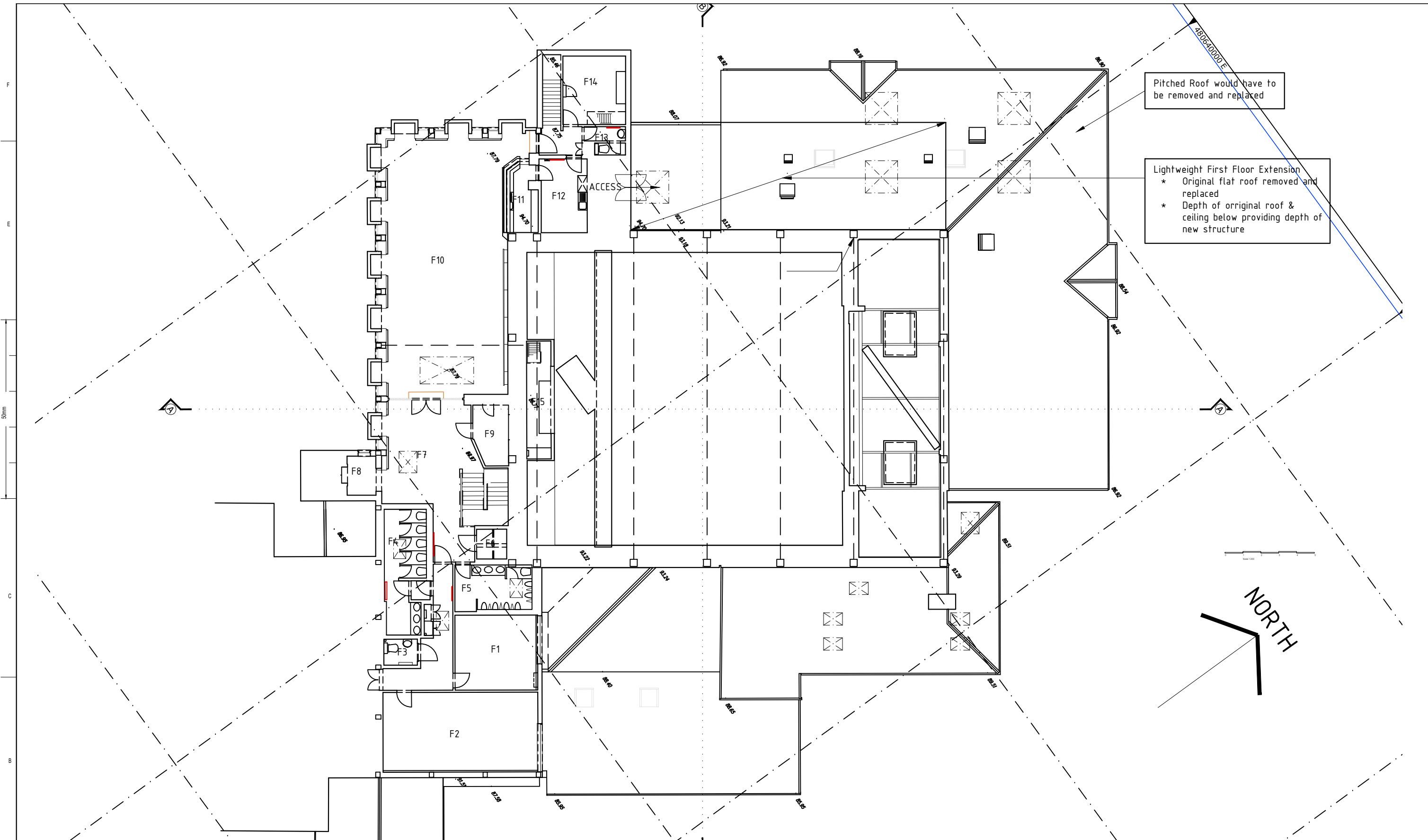
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A	notes amended	bfs	jan2020
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Bfs	AP		
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1: 200 @ A3			

CLIENT
Fleet Town Council

PROJECT
The Harlington, Fleet Road, Fleet, Hampshire

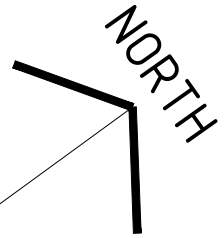
TITLE
GROUND FLOOR & SITE PLAN
Option for Extension

<p>Cooper & Withycombe CONSULTING ENGINEERS</p> <p>Norwich House tel 01483 457373 14-15 North Street Fax 01483 568116 Guildford Surrey, GU1 4AF</p>			
ARCHITECT	DWG STATUS		
	PRELIMINARY	●	
PROJECT No	DRAWING No	REV	
19-1962	81	A	
		CONSTRUCTION	
		RECORD	



Pitched Roof would have to be removed and replaced

Lightweight First Floor Extension
 * Original flat roof removed and replaced
 * Depth of original roof & ceiling below providing depth of new structure



NOTES

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BASE DRAWING SCALE 1:200 @ A3		SCHEDULE SHEETS	

CLIENT
 Fleet Town Council

PROJECT
 The Harlington, Fleet Road, Fleet, Hampshire

TITLE
 FIRST FLOOR PLAN
 Options for Extension

Cooper & Withycombe CONSULTING ENGINEERS Norwich House 14-15 North Street Guildford Surrey, GU1 4AF tel 01483 457373 Fax 01483 568116		
ARCHITECT	DWG. STATUS	
PROJECT No	DRAWING No.	REV
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		PRELIMINARY
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		CONSTRUCTION
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