


SPECIFICATION OF WORKS
FOR
ROOF COVERING REPLACEMENT
AT
NEWQUAY LIBRARY
MARCUS HILL
NEWQUAY
TR7 1BD

FOR NEWQUAY TOWN COUNCIL



Prepared By: James M Barron MRICS	Date: 9 October 2024	Rev: A 21 October 2024
Checked By: 	Job Ref: 4447	



- Chartered Building Surveyors
- Project Managers
- Property Inspections
- Architectural Design

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1.0 CONTRACT PRELIMINARIES

Pricing of this Specification

Every item in Section 1 (Preliminaries and Conditions of Contract) and the Schedule of Work of this specification which the Contractor considers to have a monetary value shall be priced individually. Costs relating items which have not been priced will be deemed to have been included elsewhere.

The Contractor shall note that the items of work contained in the Schedule of Work have been described in reasonable detail but the Contractor shall consider them in conjunction with the drawings and Preambles and the actual work involved on site and shall allow in his prices for everything necessary for carrying out the Works in the best manner whether specifically mentioned or not and in compliance with the Trade Preamble Notes, where included.

The Contractor is advised to make his own assessment of the actual quantities required.

No alterations or qualifications of any kind are to be made by the Contractor to the text of this specification without the written agreement of the Contract Administrator (CA).

Definition of 'Employer'

The term 'Employer' in the said conditions shall mean:

Newquay Town Council, Municipal Offices, Marcus Hill, Newquay, Cornwall
TR7 1AF

Definition of 'Contract Administrator'

The term 'Contract Administrator' in the said conditions shall mean:

To Be Confirmed By Employer

Definition of 'Contractor'

The term 'Contractor' in the said Conditions shall mean the individual or firm or company undertaking the works and shall include the legal representatives of such individuals or of the persons comprising such firm or company and the permitted assigns of such individual or firm or company.

Location & Particulars of the Site

The site comprises the roof coverings at Newquay Library.



Drawings & Information

The Contractor is referred to the following drawing numbers:

4447 – Roofing drawings

Conditions of Tendering & Acceptance

Tenders received will be examined by the Contract Administrator. Tendering will be in accordance with the NJCC Code of Procedure for Single Stage Selective Tendering January 1996 or the NJCC Code of Procedure for Two Stage Selective Tendering January 1996. Any errors disclosed by such examination of Single Stage Selective Tenders will generally be considered under (**Alternative 2**) of the Code of Procedure for Single Stage Selective Tendering, unless otherwise directed by the employer.

The Client does not bind itself to accept the lowest or any tender.

Form of Contract

Form, Type and Condition of Contract

The Conditions of Contract will be those contained in the JCT Agreement for Minor Building Works MW 2016 including all latest amendments issued by the Joint Contracts Tribunal, insofar as they are not inconsistent with the amendments set out below and the Contractor is to allow for all costs or expenses which he considers necessary for complying therewith:



Recitals

1 st	Delete: “the Architect”. NOTE: The term “the Architect” shall be deemed to have been deleted throughout.
2 nd	Delete: “the work schedules”.
3 rd	No amendment
4 th	No amendment
5 th	No amendment
6 th	No amendment
7 th	No amendment

Article 1:

Contractor’s obligations	No amendment.
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Article 2:

Contract sum	Add: Complete the Article to include the Contract Sum in words and figures.
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Article 3:

The Contract Administrator	Delete: “the Architect”. (Line one). Add: To Be Advised By Employer
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Article 4:

Principal Designer	To Be Advised By Employer
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Article 5:

Principal Contractor	The principal contractor will perform the role under the CDM Regulations
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Article 6:

Disputes	No amendment.
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Article 7

Arbitration No amendment

Article 8

Legal proceedings No amendment

Contract Particulars

Fourth Recital Base date to be 7 days before the date of tender return

2.2 *Commencement and completion*

Add: "The works shall be commenced within 4 weeks of order and completed within a 10 week contract period".

2.8 *Damages for non-completion*

Add: "£500.00 Per week".

2.10 *Defects liability*

Delete: "3 months". (Line two).

Add: "six months". (To replace that deleted).

3 Control of the Works

4 Payment

4.2 The employer is not a contractor

4.3 95%

4.4 97.5%

4.8.1 *Final certificate*

Delete: "three months". (Line one).

Add: "one month". (Line one to replace that deleted).

4.11 *Contribution, levy and tax changes*

Add: "Nil".

Fifth Recital Delete as necessary

Sixth Recital Framework agreement is not applicable

Seventh Recital Supplementary provisions - delete complete



Article 7 No amendments

1.1 CDM period to be 4 weeks minimum, where applicable

5 Injury, damage and insurance

5.3.2 *Injury or damage to property*
Insert: “£10,000,000.00”. (After “insurance cover referred to above to be not less than:”).

5.4A & 5.4B *Insurance of the Works by Contractor - Fire etc.*
& 5.4C TO BE CONFIRMED PRIOR TO START BY EMPLOYER AND CONTRACTOR

5.4A 1 & 2 Percentage to cover Professional Fees 15%

7 Settlement of disputes

Notification of Disputes – Paragraph 6 – no amendments

7.2 *Adjudication*
No amendment

Schedule 1 *Arbitration*
No amendment

List of Sub-Contractors

The Contractor shall inform prior to appointment his proposed Sub-Contractors working on this project.

Programme of Works

The Contractor shall submit to the Contract Administrator for his information, at, or before the pre-contract meeting, a detailed programme showing clearly when he proposes to start and complete the various sections of the Works. This programme to be on a weekly basis.

Attendance at Meetings

The Contractor shall at the request of the Contract Administrator, attend such meetings as may be held by the Contract Administrator to discuss the progress of the works to be carried out in accordance with the terms and conditions of this contract.



Temporary works and facilities

The Contractor shall provide and maintain all necessary temporary lighting, hoardings, fencing, guard rails, warning notices etc. for the safety of work people, the occupants of the premises, and the public.

The Contractor shall provide and maintain all necessary temporary office, storage, sanitary or other accommodation as may be required by the Contractor.

The Contractor will be responsible for protecting and safeguarding all work and materials delivered to the site.

Scaffolding

The Contractor shall provide and maintain all necessary scaffolding for the proper and safe execution of the work, and shall comply with all Health and Safety at Work Legislation.

Dayworks

Where work cannot be otherwise measured and valued, the Contractor shall be allowed daywork rates.

No work shall be carried out on a daywork basis unless authorised by the Contract Administrator following a request from the Contractor.

The Contractor shall provide the following all-inclusive Daywork Rates

Carpenter/Joiner	£.....per hour
Labourer	£.....per hour
Roofer	£.....per hour
Foreman/Manager	£.....per hour

Plant will be valued on an invoice plus percentage basis. The Contractor shall identify below his percentage:

.....%

Materials will be valued on an invoice plus percentage basis. The Contractor shall identify below his fixed percentage figure:

.....%

Prevention of Corruption

The Client to cancel the contract and to recover from the Contractor the amount



of any loss resulting from such cancellation, if the Contractor shall have offered or given or agreed to give any person any gift or consideration of any kind as an inducement or reward for doing or for having done or any action in relation to the obtaining or execution of the contract or for showing favour or disfavour of any person in relation to the contract or if any of the like acts shall have been done by any person employed by the Contractor (whether with or without the knowledge of the Contractor) or if in relation to any contract with the Client the Contractor or any person employed by him or acting on his behalf shall have committed any offence under the Prevention of Corruption Acts.

SITE REQUIREMENTS

Working Area

The Contractor will restrict the working area to the immediate area of the section of work being executed at that time.

The works shall be carried out so as to cause the minimum inconvenience and disturbance to all occupants and adequate precautions shall be taken to prevent excessive dust including watering down at frequent intervals.

The Contractor is to keep clean at all times all adjacent roads and footpaths and make good any damage to any work disturbed.

The Contractor shall ensure that neither his own vehicles nor those of his sub-Contractors are parked on adjacent roads to the detriment of local residents or businesses.

Deliveries

The Contractor shall ensure that all deliveries of materials are well supervised and scheduled and that minimum disruption to public vehicular and pedestrian traffic occurs.

Materials and Skips

The Contractor shall ensure that all materials are stored in agreed designated areas and that materials stored are well maintained.

Control of Dust on Occupied Properties

The Contractor shall use the best available means to minimise dust.

Fire - Contracts for Maintenance, Adaptation or Extension to Existing Buildings

Before any work of maintenance, adaptation or extension to existing buildings



is carried out, the Contractor is to discuss his proposals with the CA and to ensure that the extent of any fire hazards in the work are known fully. The Contractor's workmen are required to confirm strictly with all "No Smoke" rules applicable in specific areas of the site. Fire escape routes are to be kept unobstructed. When work necessitates the use of naked flames in roof space, service voids and other similar locations having a high probability of fire, a portable fire extinguisher is to be readily available. Comply with Hot Working Permit procedures and keep adequate records.

Burning on Site

Burning on site of materials arising from the work will not be permitted.

Moisture/Water

Prevent the work from becoming wet or damp where this may cause damage. Dry out the works thoroughly.

MANAGEMENT OF THE WORKS

Supervision

Accept responsibility for co-ordination, supervision and administration of the works, including all sub-contracts.

Maintenance of Existing Services

Where properties are occupied the Contractor is to maintain at all times mains services to the area of the property occupied.

Standards in Occupied Properties

The Contractor shall ensure that those under his control respect the fact that properties being worked in will be occupied.

Insurance

Before starting work on site submit documentary evidence for the insurance required by the Conditions of Contract.

Insurance Claims

If any event occurs which may give rise to any claim or proceeding in respect of loss or damage to the works or injury or damage to persons or property arising out of the works, forthwith give notice in writing to the Employer, the CA and the Insurers. Indemnify the Employer against any loss which may be caused by



failure to give such notice.

Health and Safety

The tenderer shall respond to the Pre-Construction Health and Safety information pack (where applicable), included with the tender documents, if applicable.

It is the Client's intention that written award of contract and appointment as Principal Contractor will occur simultaneously with the contract documents being signed by both parties. Acceptance of tender will be deemed to be acceptance of the contract conditions by both parties.

The Contractor will not be permitted to commence the construction phase until he has developed the Construction Health and Safety Plan.



2.0 SPECIFICATION OF WORKS

1.0 PROJECT GENERALLY

2.0 SCHEDULE OF WORKS

3.0 PHOTOGRAPHS



1.0 PROJECT GENERALLY	COSTS
<p>1.01 Scope of Works</p> <p>The works comprise replacement roof coverings at Newquay Library. Work includes stripping existing roof coverings and replacing with new vapour control layers, insulation and waterproofing layers with all ancillary works.</p> <p>1.02 Drawings</p> <p>4447 – roofing drawings</p> <p>1.03 Contingency Sum</p> <p>The contractor is to allow a contingency sum of £7,500.00 to be expended at the discretion of the contract administrator.</p> <p>1.04 Site Visit</p> <p>See Newquay Town Council ITT Document.</p> <p>1.05 Construction, (Design and Management) Regulations 2015</p> <p>The contractor appointed to carry out the work will perform the role of Principal Contractor under CDM 2015.</p> <p>Due to the project duration, F10 notification is not required.</p> <p>Newquay Town Council will appoint a Principal Designer under CDM 2015.</p> <p>Prepare a proportionate construction phase health and safety plan including a traffic management plan.</p> <p>Compile a health and safety file in conjunction with the Contract Administrator and present to the Employer upon completion.</p> <p>The contractor is to note that there are overhead cables sitting over roof 1 from the main Town Council building to the Library. These must be maintained and not disturbed during the works.</p> <p>1.06 Existing Health and Safety File</p> <p>Not applicable.</p>	<p>£7,500.00</p>



<p>1.07 Programme of Works</p> <p>The contractor is to provide a programme for discussion prior to commencement.</p> <p>1.08 Progress Reports</p> <p>Prepare weekly progress reports for the contract administrator.</p> <p>1.09 Existing Uses</p> <p>The building is a town library facility. Opening hours are Monday to Saturday, 9.30am to 5pm. The property will remain in full use and occupation.</p> <p>1.10 Foreman</p> <p>Appoint a foreman who will act as a point of contact for the contract administrator.</p> <p>1.11 Protection of Surfaces</p> <p>Temporary protection will be required to protect the existing buildings, furniture and belongings during the works. Ensure that all works are made watertight at the end of each working session.</p> <p>1.12 Damage to Property</p> <p>Make good any damage caused at the contractor's expense.</p> <p>1.13 Scaffolding</p> <p>The main contractor shall provide all necessary scaffolding and comply with Health & Safety Regulations. Keep any scaffolding maintained and keep records.</p> <p>All access scaffolding to the building perimeter is to be erected in a safe manner and maintained throughout the project. Ensure that all building access doors are uninterrupted during working and out of hours. All scaffold access ladders are to be removed or overboarded at the end of each working session. All low level scaffold poles are to be protected with visibility tape and foam.</p> <p>If scaffold is erected over library access doors incorporate a crash deck within the scaffold to prevent any debris falling over the door areas.</p>	
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Net the scaffold around the working platform and keep well maintained.

Note that there is soft ground at the rear of the building. Protect and reinstate all grass/turf on removal of the scaffold.

1.14 Security

The main contractor shall ensure that the works are made adequately secure and protected during the works, including outside working hours.

1.15 Power/Water and Welfare Facilities

The contractor will have use of the building's water and power supplies for construction purposes.

The Employer will assist the contractor in identifying a suitable location for a site welfare and compound area in the town council car park.

Include for a welfare facility to be positioned close to the building.

Include for sanitary facilities or make alternative suitable provision.

Include for all secure storage as necessary for roofing materials, insulation etc. and debris storage.

Keep the site compound area clean and well maintained.

Take a photographic schedule of areas where the compound is to be established and make good any damage to the compound area surfaces when removed.

1.16 Dust and Dirt Emissions

The works shall be kept clean and tidy and all rubbish removed from the site.

1.17 Materials and Workmanship

The materials shall be clean and free from damage and in accordance with the relevant British Standards.



1.18 Working Hours

The working hours shall normally be limited to between 8.00am and 5.00pm Monday to Friday. Weekend working will be permitted by agreement with the contract administrator.



<p>2.0 SCHEDULE OF WORKS</p> <p>2.01 Newquay Town Council Bituminous Membrane Pre-Tender Qualification Criteria</p> <p>When preparing your tender, ensure that all aspects of Newquay Town Council's standard pre-tender qualification criteria for bituminous membranes are allowed for in your costs.</p> <p>SEE PAGE 25</p>	
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2.02 Roofing Materials and Suppliers

The contractor is to propose in their tender their preferred roofing material supplier for this project.

This specification allows tendering contractors to seek suitable supply quotations from a supplier of their choice.

Undertake sufficient supplier design and specification to present a fixed price tender cost.

It is anticipated that there will be post-contract award detailed design and specification work between the appointed contractor and their preferred supplier. This may include, but is not limited to, detailed cut to falls insulation schemes and specifications, all to be agreed.

Post-contract award, present all relevant detail design specifications and drawings from suppliers to the Employer for final approval.

This specification will set out the performance standards and scope of works that are required. Contractors will be able to satisfy those standards and scope using suppliers of their choice.

2.03 Guarantee

Upon completion of all works, present to the contractor a suppliers materials and workmanship guarantee.

The guarantee is to be made out in the name of 'Newquay Town Council'.

The guarantee is to be a full materials and workmanship guarantee for all works undertaken and is to be for a minimum period of 20 years without any exclusions. Ensure that the guarantee is an independent insurance backed product. Ensure that all works are carried out in full compliance with the supplier's and installer's guarantee requirements including all inspections and monitoring required by the materials supplier.

2.04 Building Regulations

The contractor is to make a Building Regulations application to the Local Authority or an approved inspector of their choice for this roofing work.



Including in your tender for all costs associated with the building regulations application from initial notice to a Building Regulations Completion Certificate.

Arrange for suitable inspections from the Local Authority/Independent Inspector throughout the process of the works to enable issue of a Building Regulations Completion Certificate. Liaise and work through all enquiries and provide all relevant documentation to the Building Control Officer from specialist suppliers as required.

Arrange for the roofing supplier to carry out all necessary insulation U value calculations for design of insulation and also all relevant condensation risk calculations for each roof area as required. Present to Building Control as required.

Forward a Building Regulation Completion Certificate to the Employer upon completion.

2.05 Insulation U Value Requirements

It is expected that the roofing specification presented by the contractor's preferred supplier will meet a roofing U value of 0.18 watts per metre squared K.

This will involve replacing existing insulation over all roof areas.

2.06 Existing Roof Installation

The roofs at Newquay Library can be divided into 3 main areas.

Refer to the enclosed project drawing which identifies the roof areas.

Previous testing carried out by Newquay Town Council has identified the roofs in each area as follows:

Roof Area One

Deck – screeded (suspected woodwall slab)
Bitumen VCL
50mm insulation (saturated 33% moisture)
2 layers mineral embedded bitumen membranes



Roof Area Two

Deck – screeded (suspected woodwall slab)
Bitumen VCL
80mm insulation (dry where tested 5.8% moisture)
2 layers mineral embedded bitumen membranes

Roof Area Three

Deck – screeded (suspected woodwall slab)
Bitumen VCL
50mm insulation (dry where tested 9% moisture)
2 layers mineral embedded bitumen membranes

2.07 Overall Scope of Works

Although previous core testing has found some areas of roof insulation to be dry, all roof areas over the library have insufficient insulation and badly degraded waterproofing layers.

The scope of work required is to strip all roof areas back to the deck and to overlay with a new insulation and felt waterproof membrane system to meet current roofing standards, Building Regulations and with a minimum 20 year materials and workmanship guarantee.

The scope of work includes fitting tapered insulation board where required across the roof areas to ensure that the roof drains properly to outlet positions, particularly the ponded (flat) area of roof two where the deck will have deflected allowing that roof to sit in water.

2.08 Roof Lights

Take out and dispose of the two roof lights within roof area one. Build up kerb upstands as necessary to ensure minimum 150mm upstand above new waterproofing layers. Supply and install new twin skin dome roof lights and securely fix. Waterproof to new roofing system in accordance with roofing suppliers approved details. Leave all in good condition.

2.09 Air Conditioning

Temporarily disconnect, remove and safely store the 2no. Toshiba air conditioning units and stands sat on roof one. Temporarily disconnect and make safe all cables and pipes.



<p>Thoroughly reinstate following roofing work and leave in good, working condition.</p>	
2.10 Window Upstands	
<p>There are window upstands meeting roof one and roof three.</p>	
<p>The upstand height is only around 75mm with lead dressed over the existing roofing felt under PVC sills.</p>	
<p>The existing windows are <u>not</u> to be disturbed.</p>	
<p>Refer to the project drawings.</p>	
<p>Incorporate into the roof system felt gutters against all window upstands to retain the 75mm upstand as existing. Felt gutters to be extended to drain to the nearest outlet position as shown on the drawing.</p>	
<p>Confirm drainage details with the roofing supplier to ensure these abutments are included within the roofing guarantee.</p>	
<p>Carefully dress back down existing leadwork.</p>	
<p>Include in your tender the provisional sum of £500.00 for repairs to lead flashing under the existing window abutments.</p>	£500.00
<p>NOTE – the drainage arrangements against these windows must be carefully reviewed with the Employer and the Surveyor prior to implementation of the work.</p>	
2.11 Adhesion Tests	
<p>Undertake all necessary adhesion tests of the roof deck by the preferred roofing contractor to ensure compliance with guarantee requirements. Temporarily waterproof and leave safe.</p>	
2.12 Fire Risk Areas	
<p>Undertake a survey of the roof areas to identify any areas of high fire risk. Only use torch-on materials in non-fire risk areas.</p>	



2.13 Strip Roofs

Carefully strip out and dispose of all roofing felt and insulation materials back to the screeded deck. Cart away. Ensure roof surfaces are left watertight at the end of each working session.

Inspect the deck for any damage, repairing all items as deemed necessary. The deck must be checked to ensure its integrity is complete and any damaged areas must be replaced.

Include for roofing supplier specialist roof deck inspection as required by guarantee protocols.

2.14 Deck Primer

Supply and install deck primer to roofing supplier's specification.

2.15 Vapour Control Layers

Supply and install vapour control layer to roofing supplier's specification. Apply direct to the primed surface. Ensure a full torch bond is achieved. Ensure all side and end laps are appropriately lapped and that there is a minimum 5mm bitumen extrusion at joints. Ensure the vapour control layer achieves a fully watertight seal. Ensure the vapour control layer is installed minimum 100mm above insulation height to all roof details where practicable to meet roofing supplier's standards.

2.16 Insulation

Supply and install flat and tapered insulation boards in accordance with the roofing supplier's insulation scheme. Install with suitable adhesives and ensure fully bonded.

Note that tapered insulation boards will be required to the flat area of roof two where the existing roof is deflected and badly ponds.

Introduce flat and tapered insulation boards to allow the roof areas to drain to the outlet and hopper positions.

Note that insulation is to achieve a U value of 0.18 watts per metre squared K.

Supply and install treated timber hard edges at all non-supported edges i.e. internal and external gutters edges etc. Treated timber batten must be slightly thinner than the specified insulation in order



to allow for the build up of waterproofing membranes and rainwater run-off.

All exposed/open edges of insulation must be sealed with fully bonded night joints to ensure no water ingress.

2.17 Underlay

Supply and install roofing underlay onto insulation boards in accordance with roofing supplier's requirements. All laps and seams to be fully bonded to achieve a watertight seal.

Allow for the underlay to be inspected as required by roofing supplier's procedures.

2.18 Mineralised Cap Sheet

Supply and install a mineralised cap sheet, in accordance with roofing supplier's requirements.

2.19 Upstand Details

Install angle fillets to all upstand details where required.

2.20 Internal Gutters

Dress the vapour barrier to the sides and sole of the internal gutter including hard edges. Secure hard edges and fillets at the gutter edges. Hard edges to be encapsulated with vapour barrier prior to insulation being laid. Install specified insulation to the sole of the gutter and install the underlay and cap sheet to the internal gutter as described above. Underlay membrane laps should be increased to 150mm in the gutter area to provide additional security to this vulnerable roof area.

2.21 Perimeter Edges

Where applicable, raise water checks to maintain 50mm upstand from the finished roof level.

Dress the specified membranes to the water check detail and finish with a welted drip detail in accordance with current NFRC Standards and Good Roofing Practice.

Weltd drips should be reinforced with strips of 6mm hardboard or plywood securely fixed to the timber drip batten.



<p>Replace any existing GRP perimeter Trim as necessary.</p>	
2.22 Rainwater Outlets	
<p>Roof outlets to roof one are to be fully stripped to the original pipework to allow for the largest new pipework to be installed.</p>	
<p>Where possible, new internal outlets are to be sumped in order to aid water run-off.</p>	
<p>All existing rainwater outlets should be checked to ensure they are not blocked or leaking.</p>	
<p>Install new rainwater outlet to meet roofing supplier's requirements and install into the waterproofing system in accordance with roofing supplier's standard details.</p>	
2.23 Fascias and Soffits	
<p>Supply and install additional PVC fascia and soffit boards all as required to cloak the increase in roof height. Leave in good condition with all sealant and trims as necessary.</p>	
2.24 Cables	
<p>All loose laid cables are to be securely clipped to suitable surfaces in a neat and tidy manner. Redundant cables are to be stripped.</p>	
2.36 Clean Up	
<p>During the works and upon completion keep the site clean and tidy.</p>	



Bituminous membrane specification and associated documentation requirements for submittal.

The contractor shall make written application for acceptance prior to the tender phase, certifying that the proposed system and manufacturer thereof, will perform to the following requirements of Newquay Town Council.

Please see the specification parameters below that must be met. Newquay Town Council will not accept submittals of roofing systems that do not meet these criteria or the submitting contractor / manufacturer fails to submit ANY of the requested supporting documents.

1. GENERAL CONDITIONS

1.1 SUMMARY OF WORKS

- Torch applied modified bituminous membrane roofing system over prepared substrate and insulation system.
- System to include vented underlay and SBS modified cap sheet.
- Install flame-free self-adhesive membranes to high risk areas in accordance to NFRC safe2torch recommendations.
- All work carried out in strict accordance to HSE recommendations.
- All work carried out to follow current Government COVID 19 guidelines.
- Site to be left in a clean and tidy condition once work is completed.

1.2. DISCLOSURE OF MATERIALS AND SUBSTITUTIONS

The materials outlined herein are the type of materials that should be used in this project. Newquay Town Council will not accept products with inferior performance criteria, roofing system manufacturers that do not meet the following criteria or roofing contractors that do not have all the necessary requirements covered.

Product submissions must meet or exceed the specifications, and include the following:

1. Material product data sheets.
2. A certificate from an accredited testing laboratory clearly demonstrating that material submissions are equal to or superior to the performance requirements set out in this document, including but not limited to the following:

Modified roofing membrane(s) substantiating:

- a. Visible defects in accordance with EN 1850-1 (or equivalent)



- b. Dimensions, tolerance, and mass per unit area in accordance with EN 1848-1 (or equivalent)
- c. Watertightness in accordance with EN 1928:2000 (or equivalent)
- d. External fire performance in accordance with EN 13501-5 (or equivalent)
- e. Reaction to fire in accordance with EN 13501-1:2007+A1:2009 (or equivalent)
- f. Peel resistance of joints in accordance with EN 12316-1 (or equivalent)
- g. Shear resistance of joints in accordance with EN 12317-1 (or equivalent)
- h. Water vapour resistance in accordance with EN 1931 (or equivalent)
- i. Resistance to impact in accordance with EN 12691 (or equivalent)
- j. Resistance to static loading in accordance with EN 12730:2001 (or equivalent)
- k. Tensile strength in accordance with EN 12311-1 (or equivalent)
- l. Resistance to tearing (nail shank) in accordance with EN 12310-1 (or equivalent)
- m. Resistance to root penetration in accordance with EN 13948 (or equivalent)
- n. Dimensional stability in accordance with EN 1170-1 (or equivalent)
- o. Flexibility at low temperature in accordance with EN 1109 (or equivalent)
- p. Flow resistance at elevated temperature in accordance with EN 1110 (or equivalent)
- q. Artificial ageing by long term exposure to UV, elevated temperature and water in accordance with EN 1297 (or equivalent)
- r. Artificial ageing by long term exposure to elevated temperature in accordance with EN 1296(or equivalent)
- s. Adhesion on granules (if applicable) in accordance with EN 12039 (or equivalent)

Test results must be dated, notarised and be on testing laboratory stationery.

- 3. The manufacturer must also have current ISO 9001:2008 (or equivalent) certification for the manufacturing of the products to be utilised on this project.
- 4. A sample warranty by the manufacturer of the modified bitumen membrane roofing system. The manufacturer must be the organisation that guarantees the modified roofing membrane.



5. All products must be in accordance with the Health, Safety and Environmental Control (HSE) Regulations, e.g., No asbestos materials, no harmful solvent release materials, etc.

1.3. SUBMITTALS OF SUITABLE PRODUCTS

- A. Product Data: Provide manufacturer's technical product data sheets for each type of roofing product specified. Include data substantiating that materials comply with specified requirements.
- B. Samples: Submit two (2) samples of each product specified. 300mm x 300mm
- C. Manufacturer's Installation Instructions: Submit installation instructions and recommendations indicating special precautions required for installing the membranes.
- D. Manufacturer's Certificate: Certify that roof system furnished is approved by the British Board of Agreement and that it meets the requirements set out by BS 6229:2018 and BS 8217:2005 and meets national building regulation.
- E. Manufacturer's Certificate: Acceptance of the securement of the designed roof system is proper to meet or exceed the specific project wind uplift requirements in accordance with BS EN 1991-1-4:2005 + A1:2010 + National Annex. (or equivalent)
- F. Manufacturer's Certificate: Certify that modified membrane materials to be used on this project conform to requirements specified herein, are chemically and physically compatible with each other, and are suitable for inclusion within the total roof system specified herein.
- G. Manufacturer's Certificate: Submit a certified copy of the roofing manufacturer's ISO 9001:2008 compliance certificate. (or equivalent)
- H. Test Reports: Submit test reports, prepared by an independent testing agency, for all modified bituminous sheet roofing, indicating compliance with BS EN 13707, BS 8747 and MOAT 64:2001. (or equivalent)
- I. Submit a copy of an unexecuted manufacturer's guarantee for review.
- J. Provide approval letters from insulation manufacturer for use of their insulation within this particular roof system type.
- K. Provide a sample of insulation type.

1.4. ROOFING SYSTEM / ROOFING CONTRACTOR QUALIFICATIONS

- A. Installer's Field Supervision: Maintain a full-time Supervisor/Foreman on job site during all phases of roofing work and at any time roofing work is in progress. Maintain proper supervision of workers.



Maintain a copy of the specifications in the possession of the Supervisor/Foremen and on the roof at all times.

- B. Immediately correct roof leakage during construction. If the Contractor does not respond within twenty-four (24) hours, the Owner has the right to hire a qualified contractor and back charge the original contractor.
- C. Source Limitations: Obtain all components of roof system from a single manufacturer (with the exception of insulation). Secondary products that are required shall be recommended and approved in writing by the roofing system Manufacturer.
 - 1. Upon request of Newquay Town Council, submit Manufacturer's written approval of secondary components in list form, signed by an authorised agent of the Manufacturer.

1.5. DELIVERY, STORAGE AND HANDLING

- A. Products should be delivered to site with seals and labels intact, in manufacturer's original containers, dry and undamaged.
- B. Store and handle roofing sheets in a dry, well-ventilated, weather-tight place to ensure no possibility of significant moisture exposure. Store rolls of felt and other sheet materials on pallets or another raised surface. Stand all roll materials on end. Cover roll goods with a tarpaulin or other breathable material.
- C. It is the responsibility of the contractor to secure all material and equipment on the job site. If any material or equipment is stored on the roof, the contractor must make sure that the integrity of the substrate is not compromised at any time.

Damage to the substrate caused by the contractor will be the sole responsibility of the contractor and will be repaired or replaced at his/her expense.

1.6. MANUFACTURER'S / CONTRACTORS REQUIREMENTS

- A. When the project is in progress, the roofing system manufacturer will provide the following:
 - 1. Keep Newquay Town Council informed as to the progress and quality of the work as observed.
 - 2. Provide quality assurance inspections a minimum of weekly reports to the Newquay Town Council.
 - 3. Report to Newquay Town Council in writing any failure or refusal of the Contractor to correct unacceptable practices called to the Contractor's attention.
 - 4. Confirm after completion that manufacturer has observed no application procedures in conflict with the specifications other than those that may have been previously reported and corrected.



5. All materials specified must be provided by the chosen Manufacturer and no generic items or contractor sourced materials will be allowed.

1.7. PROJECT CONDITIONS

- A. Proceed with roofing work only when existing and forecasted weather conditions will permit unit of work to be installed in accordance with manufacturer's recommendations and warranty requirements.
- B. Do not apply roofing insulation or membrane to damp deck surface.
- C. Do not expose materials vulnerable to water or UV damage in quantities greater than can be weatherproofed during same day.

1.8. SEQUENCING AND SCHEDULING

- A. Sequence installation of modified bituminous membrane with related units of work if specified in other sections to ensure that roof assemblies including roof accessories, flashing, trim and joint sealers are protected against damaging effects of weather, corrosion and adjacent construction activity.
- B. Fully complete all modified bituminous membrane roofing field assembly work each day, including any/all associated detailing.

2. PRODUCTS, PRODUCT PERFORMANCE REQUIREMENTS, PRODUCT SPECIFICATION REQUIREMENTS, TESTING DATA AND SUPPORTING DOCUMENTATION

2.1 ACCEPTABLE MANUFACTURERS

- A. This specification is based on the performance characteristics of the system chosen by Newquay Town Council. Any proposed alternate systems, specified or not, must meet or exceed the following listed characteristics and be submitted for approval.
- B. Any item or materials submitted, as a substitution to the specified standards must comply in all respects as to the quality and performance as stipulated.

Newquay Town Council or its representative shall be the sole judge as to whether an item submitted as a substitute is truly equal. Should the Contractor choose to submit a substitute product, he/she shall assume all monetary or other risk involved, should Newquay Town Council or its chosen representative find the substitution unacceptable. The manufacturer / Contractor must supply all requested information for this submittal to be accepted.

- C. Provide primary products, including each type of membrane, from a single source roof manufacturer. Provide secondary products (insulation, mechanical fasteners, outlets, vent stacks etc.) only as recommended by the roof manufacturer of primary products for use with the roof system specified.



2.2 DESCRIPTION

A. Modified bituminous roofing work including but not limited to:

1. One layer of underlay adhered by low temperature melting point stripes or patches, directly to the torch receivable insulation boards.
2. One layer of SBS modified mineral surfaced torch applied cap sheet.
3. One additional layer of SBS modified fully bonded base sheet to all upstands and details
4. Base sheet modified membrane: a 4mm SBS modified roofing membrane with a min. 180 gsm polyester reinforcement with fibreglass filaments.
5. Cap sheet modified membrane: a min. 4.2mm thick SBS modified roofing membrane with a min. 200gsm polyester reinforcement with fibreglass filaments. Finished with a mineral surface. Cold temperature flexibility of -25 °C.
10. The proposed roofing system must conform to EN13501-5 – External Fire Exposure to Roofs and have achieved a rating of Broof(t4). Sampling requirements must be that of the system as specified and show that a full range of insulation thicknesses have been tested and confirm to the above requirement.

2.3 ROOFING MEMBRANE REQUIREMENTS

A. **BASE SHEET**

Thickness (EN 1849-1)	4mm
Tensile Strength (EN 12311-1)	850/650 N/50mm
Elongation at break (EN 12311-1)	40/40 %
Resistance to tearing (EN 12310-1)	200/200 N
Dimensional Stability (EN 1107-1)	0.3 %
Flexibility at low temperature (EN 1109)	-15°C
Shear resistance of joint (EN 12317-1)	750/550 N/50mm
Flow resistance at elevated temperature (EN 1110)	100 °C



B. MODIFIED MEMBRANE CAP SHEET

Thickness (EN 1849-1)	4.2mm
Tensile Strength (EN 12311-1)	1000/800 N/50mm
Elongation at break (EN 12311-1)	40/40 %
Resistance to tearing (EN 12310-1)	450/450 N
Dimensional Stability (EN 1107-1)	0.3 %
Flexibility at low temperature (EN 1109)	-25°C
Flexibility after ageing (EN 1296 + EN 1109)	-20 °C
Shear resistance of joint (EN 12317-1)	250/120 N/50mm
Peel resistance of joint (EN 12317-1)	≥100 N/50mm
Resistance to impact (EN 12691 Method A)	1000 mm
Resistance to static loading (EN 12730)	20 kg
Flow resistance at elevated temperature (EN 1110)	100 °C
External fire performance (EN 13501-5) (as system)	Broof (t4)

C. MODIFIED SELF-ADHESIVE BASE SHEET

Thickness (EN 1849-1)	3mm
Tensile Strength (EN 12311-1)	450/400 N/50mm
Elongation at break (EN 12311-1)	40/40 %
Resistance to tearing (EN 12310-1)	130/130 N
Dimensional Stability (EN 1107-1)	0.3 %
Flexibility at low temperature (EN 1109)	-25°C
Shear resistance of joint (EN 12317-1)	350/300 N/50mm
Resistance to impact (EN 12691 Method A)	800 mm
Flow resistance at elevated temperature (EN 1110)	100 °C



D. SELF ADHESIVE CAP SHEET

Thickness (EN 1849-1)	4mm
Tensile Strength (EN 12311-1)	700/500 N/50mm
Elongation at break (EN 12311-1)	40/45 %
Resistance to tearing (EN 12310-1)	200/200 N
Dimensional Stability (EN 1107-1)	0.3 %
Flexibility at low temperature (EN 1109)	-25°C
Flexibility after ageing (EN 1296 + EN 1109)	-20 °C
Shear resistance of joint (EN 12317-1)	600/400 N/50mm
Resistance to impact (EN 12691 Method A)	1250 mm
Resistance to static loading (EN 12730)	15 kg
Flow resistance at elevated temperature (EN 1110)	100 °C
External fire performance (EN 13501-5) (as system)	Broof (t4)

2.4 SURFACINGS

- A. MINERAL SURFACE MEMBRANES: Mineral surface shall be PCNT622 as supplied by Carrieres Des Lacs (France).

Roofing Manufacturer must supply proof that this surfacing is used in production.

2.5 RELATED MATERIALS

- A Polyurethane sealant: Low modulus joint sealant, formulated to ensure a bubble free cure even in high temperature and humid conditions. Must have a 50% joint movement accommodation factor and excellent adhesion to glass, aluminium, steel, polycarbonate, and GRP.

1. Elongation (ASM D412/EN-ISO-527-3)	700%
3. Hardness, Shore A (ASTM D2240/DIN 53505/ISO R868)	27
4. Adhesion to concrete (ASTM D4541)	20 kg/cm ²
5. Service temperature	-40°C to 80°C



6. QUV Accelerated Weathering Test (ASTM G53) Passes
(2000hrs)

- B. Lead replacement membrane: Synthetic lead-alternative flashing membrane.
- C. GRP Edge Trim: Glass reinforced polyester roof edge trim available in black, grey and white. Must be min. 2mm thick and suitable to terminate modified bituminous membranes.
- D. Termination Bars: Extruded aluminium termination bar. Minimum 2mm thick and available in mill finish and black.
- E. Roof Drainage Outlets, soils vent pipes and associated items: Must be manufactured from stainless steel, with integrated reinforced modified bitumen sealing flange min. 300mm diameter.



3.0 PHOTOGRAPHS



P1 – AC Units on roof one



P2 – Outlet corner roof one



P3 – Roof one



P4 – Roof one outlet



P5 – Roof one



P6 – Roof one PVC frame upstand



P7 – Part roof two



P8 – Internal gutter roof three



P12 – Flat roof one, part roof two



P16 – Pitched part roof two



P18 – Window upstand roof three



P19 – Window upstand roof three



4.0 Roof Drawing

