

 **CONSTRUCTING
EXCELLENCE**
South West

Plymouth
Community Homes 

 **mi-space**



Occupied residential tower blocks in Plymouth in a post Grenfell era

 **CONSTRUCTING
EXCELLENCE**
South West

CE SOUTH WEST
AWARDS 2021

**WINNER OF
WINNERS**

 **CONSTRUCTING
EXCELLENCE**
South West

CE SOUTH WEST
AWARDS 2021

WINNER

VALUE AWARD

 **CONSTRUCTING
EXCELLENCE**
South West

CE SOUTH WEST
AWARDS 2021

WINNER

HEALTH, SAFETY AND WELLBEING AWARD

 **CONSTRUCTING
EXCELLENCE**
South West

CE SOUTH WEST
AWARDS 2021

**HIGHLY
COMMENDED**

BUILDING PROJECT OF THE YEAR



AJ Eaton has worked in the social housing sector for 25 years, working on both the client and now contractor side. AJ is the Divisional Director at the multi award winning Mi-Space who are part of the Midas Group. Mi-Space have established a reputation for delivering clients visions and values and delivered the largest Passivhaus development in the UK. They are also the leading provider of existing property decarbonisation undertaking ERDF, SHDF and BEIS WHR funded programmes. AJ lives in Devon with his family and enjoys sailing and cycling, recently leading a team to raise over £60,000 for the Prostate Cancer Charity through a sponsored bike ride.



JOHN CLARK - Chief Executive of Plymouth's largest Housing Association with c16,000 homes and 200 retail units. John has over 25 years experience in social housing, regeneration and community involvement, where previous roles have included Director of Housing at the Royal Borough of Greenwich and Chief Executive of Housing and Regeneration companies and charities in Leeds, Sheffield and the North East of England.

John is currently Regional Chair of the NHF SW and a member of Homes for the SW, One Plymouth and Plymouth City Centre Regeneration Board.



Michael Smith (Mike) - An Architect, Director and Practice BIM Manager at Bailey Partnership, Mike has a strong technical background and wealth of knowledge in Building Information Modelling. In recent years these capabilities have led him to be involved in many high profile recladding projects, supporting Building Safety Fund Applications and making people feel safe in their homes.

Play video of drone footage



John Clark
Chief Executive
Plymouth Community Homes

Grenfell Tower, May 2017



14 June 04:00 BST



05:27 BST



06:12 BST



"The best possible mark of respect we can pay to victims and survivors is to make sure we do everything we can as a country to ensure a tragedy like this never happens again"



The tragedy of Grenfell is what started this project.

The impact it had on PCH included...

- Lots of local & national media interest
- Resident communication
- Extensive interaction with Government/Local Authority/BRE/DCL G/Fire Service
- Immediate review of Fire Risk Assessments
- Submission of cladding to BRE
- Citywide Fire Safety Group implemented by PCC
- Reputation/Trust
- Procurement

THE FT.COM/COLOUR

DAILY Mirror FIGHTING FOR YOU
Friday, June 23, 2017 70P

FREE £10 phone bet WITH PADDYPOWER YOU BEAUTY! AT ROYAL ASCOT SEE PAGE 100

ROYAL ASCOT SMART CAR
GREAT racing pullout INSIDE

HIGH-RISE INFERNO WARNING

Thousands more living in tower deathtraps

DANGER
DANGER

LYNHER HOUSE

Fears 600 buildings have lethal Grenfell-style panels

BY BEN ROBERTSON
UP to 600 high-rise flat blocks may have similar cladding to Grenfell Tower. A resident in North London said it was 'really scary'. Labour's Harriet Harman called the fire 'chilling'. FULL STORY: PAGES A6 & 7

BLAZE AT NIGHT
TV first in Grenfell
Tower tragedy

ITV REPORT 24 June 2017 at 10:44am

No evacuation at Mount Wise towers in Plymouth



Cladding on Mount Wise towers being removed. Credit: ITV News

Residents of the Mount Wise tower blocks in Plymouth - which were found to have combustible cladding - will not be evacuated from their homes, the company in charge of the towers has confirmed.

On Friday night 650 households on the Chalcots Estate in North London were evacuated to allow 'urgent fire safety works' to take place.

The safety concerns over tower blocks have grown from the Grenfell Tower fire in London ten days ago.

itv Live TV Shows Categories News

NEWS Top stories Your area Topics Sport Weather

ITV REPORT 6 November 2017 at 6:41am

Plymouth tower block evacuated for second time in a week



Credit: ITV West Country

Herald NEWS IN YOUR AREA ARGYLE SPORT WHAT'S ON

f t q u

News Plymouth News Politics

100 days on from Grenfell: How the tragedy has changed things in Plymouth

At least six tower blocks in Plymouth, housing hundreds of people, have been affected by the disaster

Herald NEWS IN YOUR AREA ARGYLE SPORT WHAT'S ON

f t

News Plymouth News Devonport

Long wait continues for Devonport residents four months on from Grenfell tragedy

The government is yet to confirm what materials can be used to replace the flammable cladding

Very next day – the tragedy was front page news both nationally and locally

ITV REPORT 28 June 2017 at 1:07pm

Flammable cladding on Plymouth tower blocks won't be removed until November



Plymouth Mount Wise towers' cladding 'like Grenfell'

23 June 2017 | Devon

f t Share



Plymouth Mount Wise towers' cladding 'like Grenfell'

23 June 2017 | Devon

f t Share



The Mount Wise towers are a major landmark for the Devonport area

Three high rise blocks in Plymouth are to have cladding removed after it emerged it is made of similar material to Grenfell Tower.

Tests on the Mount Wise Tower estate's blocks were carried out in the wake of the huge blaze in west London, which left at least 79 people dead.

A public meeting due to be held earlier was called off after it emerged that the cladding is to be removed.

Plymouth Community Homes (PCH) said it was taking immediate precautions.

More on the towers, and other Devon news

News Plymouth News Devonport

Why Devonport Tower evacuees make me proud to be Plymothian

Devonport's community spirit is alive and well in the face of evacuations

News Plymouth News Devonport

Devonport's tower blocks have failed a second fire safety test

Claims that tower blocks are safe to live in despite failed test

Headlines like the above were putting fear and terror into Mount Wise Towers residents



- Support from local fire service



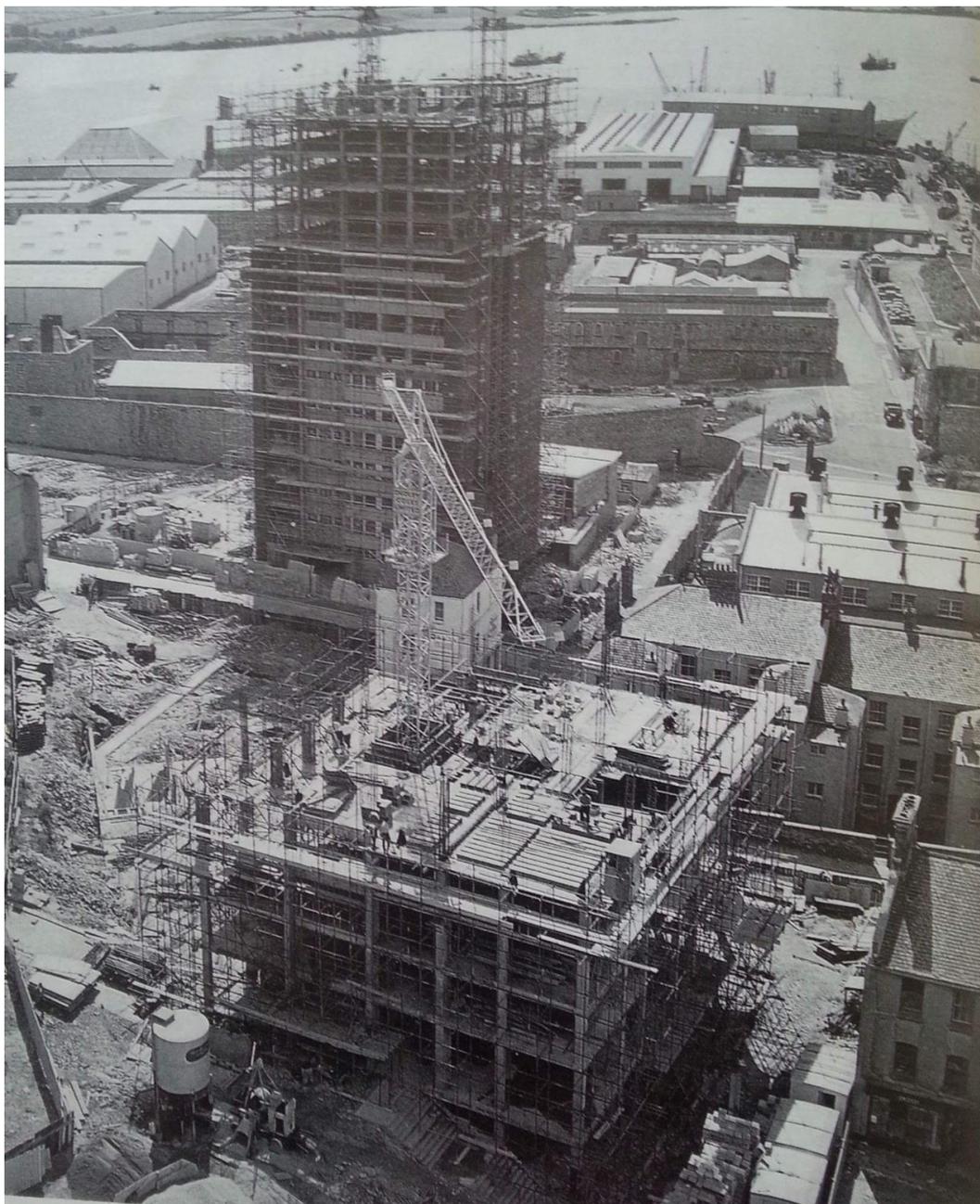
Residents were brought on the journey and we ensured they were part of the process which involved constant communication and planning, such as sprinkler demos/support/helping declutter their homes



Q&A

Mike Smith

Director and Practice BIM Manager
Bailey Partnership



Historical photo of the original buildings being constructed in the mid 1960's

The three high rise tower blocks, Tavy (Blue), Tamar (Red) and Lynher (Green) buildings were originally built around 1964 and were part of Plymouth's Regeneration following the Second World War.

- Tavy House
- Tamar House
- Lynher House





Recladding of the buildings took place in 1998, 1999 and 2000 respectively to address weathering and thermal performance of the building.

It was at this point when the buildings were overclad in Aluminium Composite Panels (ACM) which we see today.

The windows were also replaced to UPVC at the same time which included the galvanised metal window surround.

Plymouth Community Homes (PCH) took ownership of the buildings in 2009 and maintain the 270 flats within the three buildings.

Limited information on the original building existed.



Landmarks of Plymouth City



Dominating the Skyline



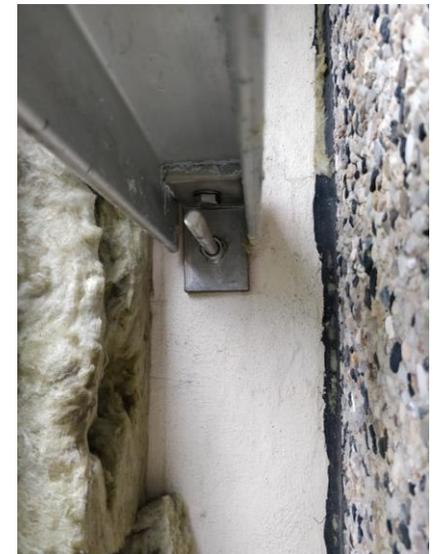
What does our building have?

Frantic reaction to take the cladding off.

Sprinkler / Cladding Project

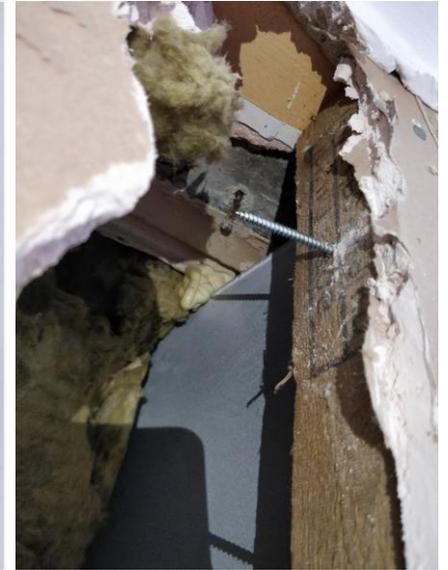
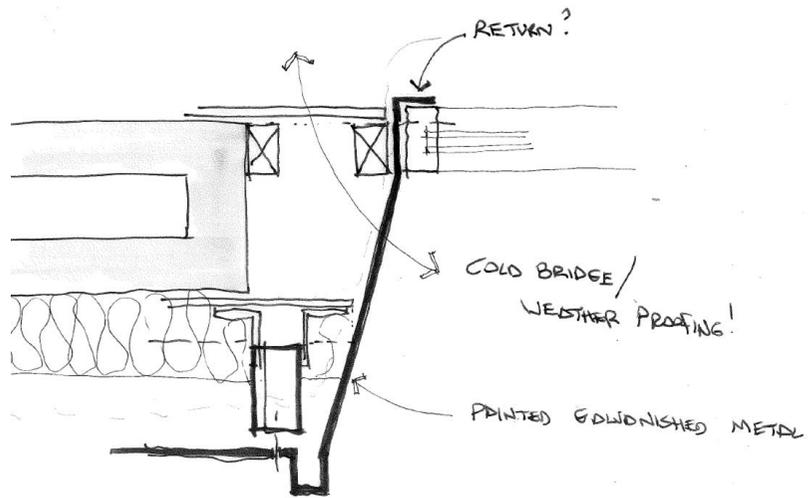
Media Frenzy....

The Safety of the Residences (270 Properties)





Photos undertaken illustrating the condition of the roof and specialist access teams undertaking inspections



Photographs illustrating the condition of the window surrounds externally and showing internal investigations undertaken to understand the construction and interface with the original building.

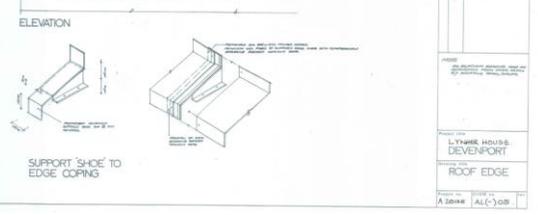
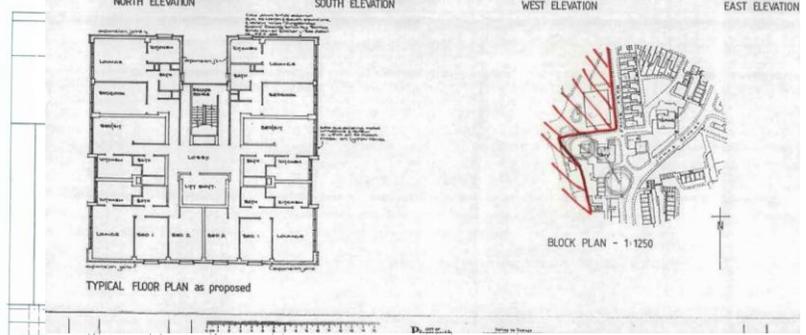
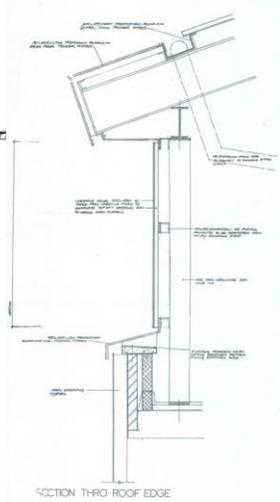
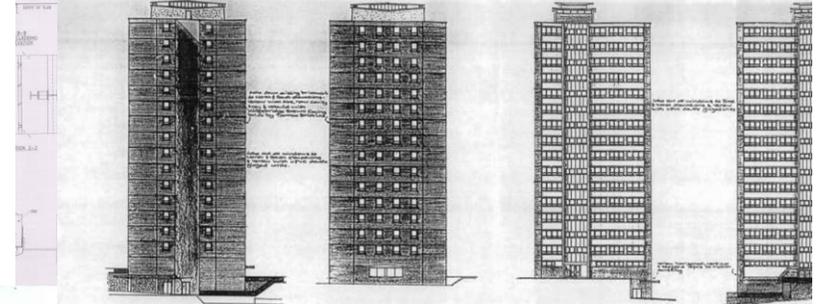
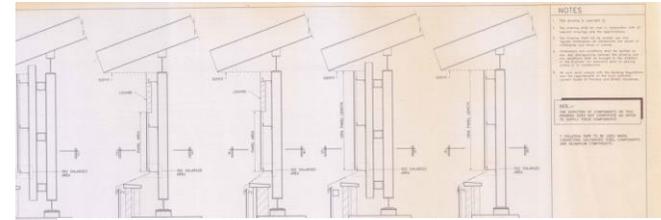
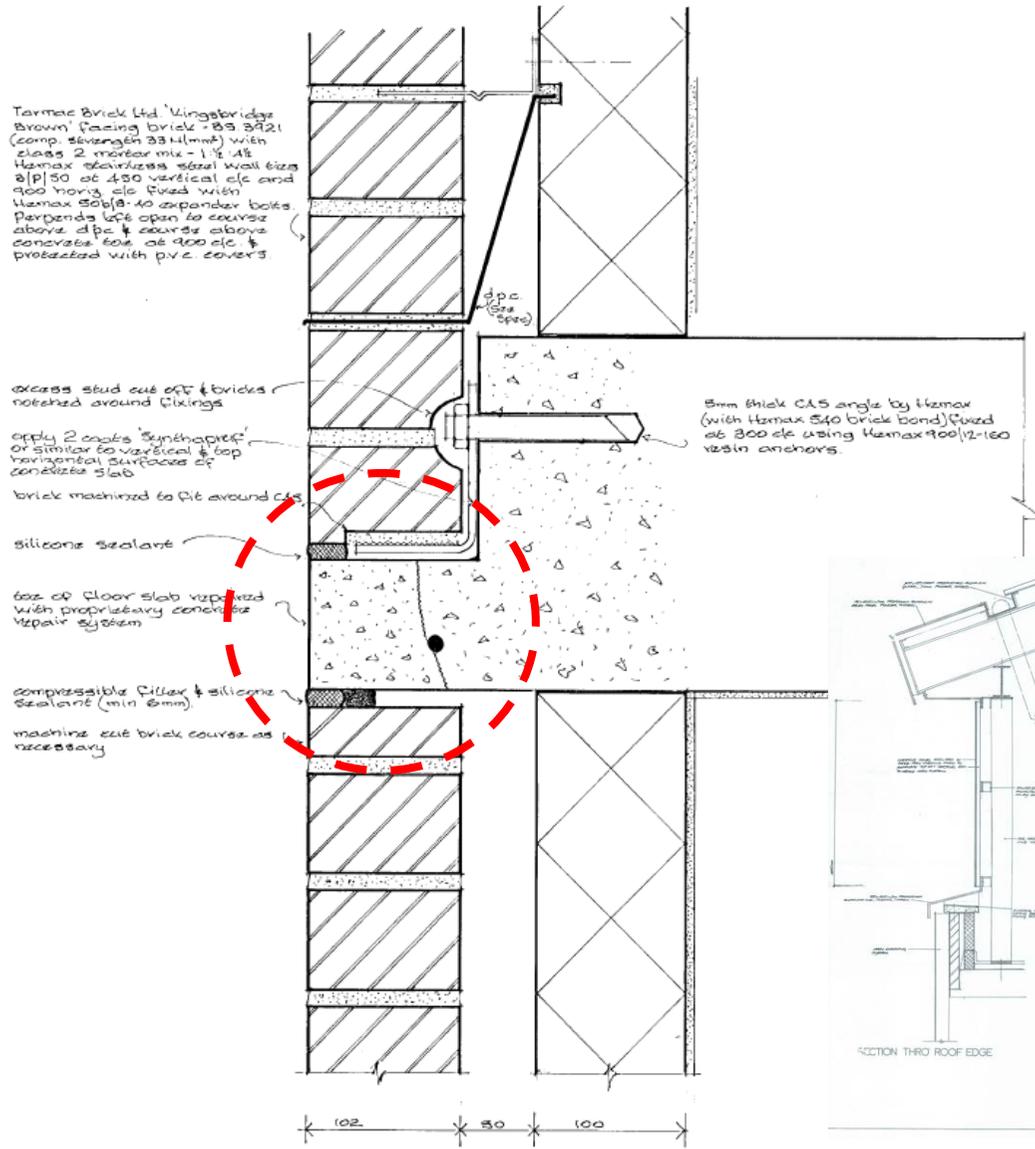


Historical photos were found....



Not exactly the same





A wonderful box of original drawings

Building a Safer Future

Independent Review of Building Regulations and Fire Safety: **Interim Report**



Guidance

Aluminium composite material cladding

Information and advice for building owners, landlords and leaseholders where aluminium composite cladding is present on their building.

Changing legislation

2014 - PCH Lynton Tamar and Tavy Cladding
Component Life-Cycle Cost Comparison

2014 - PCH Lynton Tamar and Tavy Cladding - Opt 1
Order of Cost Estimate

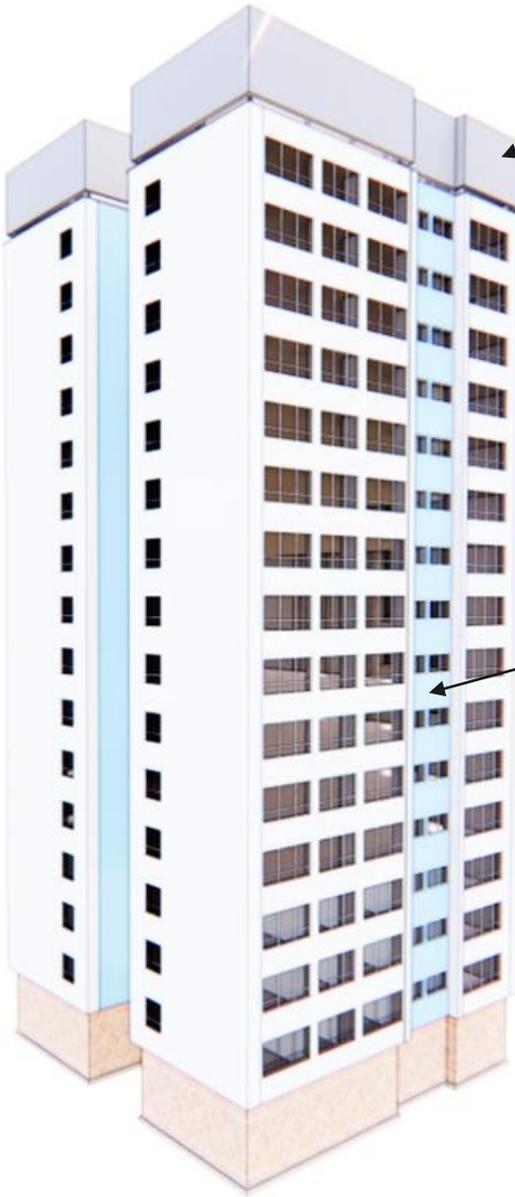
Item Code	Item Description	Unit	Qty	Unit Price	Total Price	Estimate	Estimate	Estimate	
11.1	Other materials	£	835,540	0.00	835,540	3%	25	15,837	
11.2	Non-Construction Design Fees - CA	£	28,898	1.00	28,898	1%	25	6,889	
11.3	Other Costs	£	8,102,128	1.00	8,102,128	80%	25	1,810,028	
12.1	Design Fee	general allowance for design development	£	8,102,128	75%	4,726,594	23%	4%	158,887
12.2	Construction Fee	general allowance for construction fees	£	8,102,128	75%	4,726,594	23%	4%	158,887
12.3	Client Fee	general allowance for client charges	£	8,102,128	75%	4,726,594	23%	4%	158,887

2014 - PCH Lynton Tamar and Tavy Cladding - Opt 2
Order of Cost Estimate

Item Code	Item Description	Unit	Qty	Unit Price	Total Price	Estimate	Estimate	Estimate	
11.1	Other materials	£	835,540	0.00	835,540	3%	25	15,837	
11.2	Non-Construction Design Fees - CA	£	28,898	1.00	28,898	1%	25	6,889	
11.3	Other Costs	£	8,102,128	1.00	8,102,128	80%	25	1,810,028	
12.1	Design Fee	general allowance for design development	£	7,487,448	75%	3,743,724	23%	4%	158,887
12.2	Construction Fee	general allowance for construction fees	£	7,487,448	75%	3,743,724	23%	4%	158,887
12.3	Client Fee	general allowance for client charges	£	7,487,448	75%	3,743,724	23%	4%	158,887

2014 - PCH Lynton Tamar and Tavy Cladding - Opt 3
Order of Cost Estimate

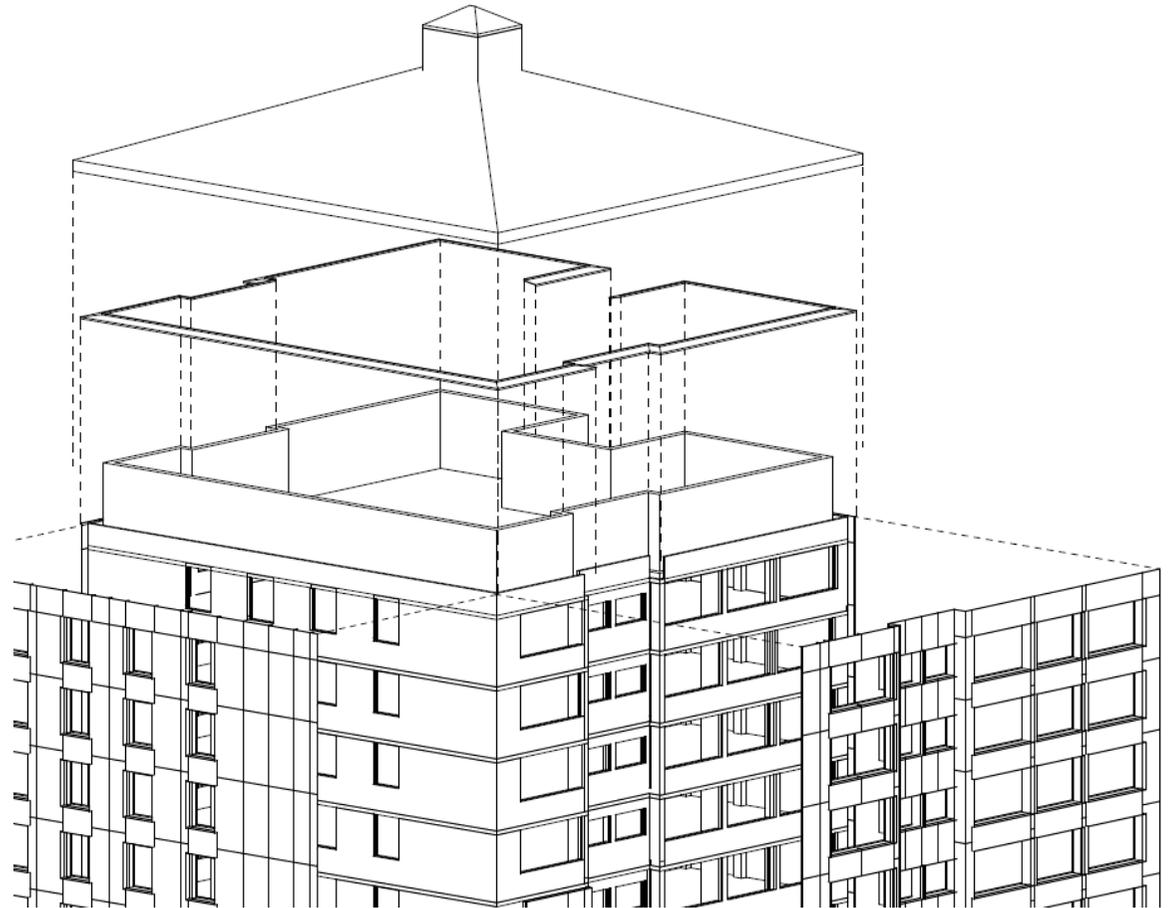
Item Code	Item Description	Unit	Qty	Unit Price	Total Price	Estimate	Estimate	Estimate	
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Removal of the existing pitched roof and introduction of a new 'parapet' to hide existing plant areas and new access gantry.

New external cladding (EWI or Rainscreen cladding)

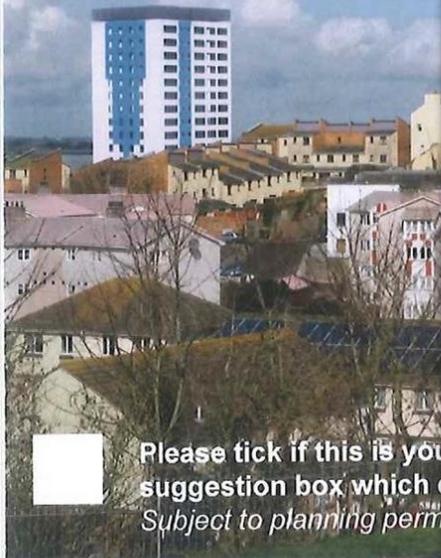
Modern colours to respect the original themes, but respond to the 'vertical' elements of the building



Plymouth City Council Engagement

Understanding of Maintenance Requirements

OPTION A



Please tick if this is your preferred option and put me in the suggestion box which can be found on the ground floor.
Subject to planning permission being granted

OPTION A

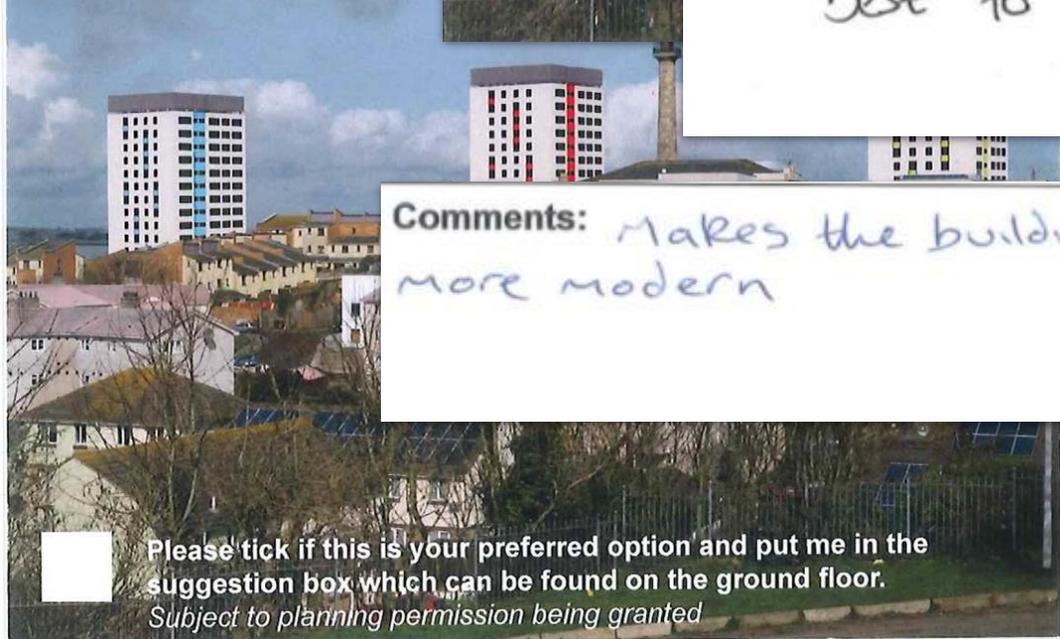


Please tick if this is your preferred option and put me in the suggestion box which can be found on the ground floor.
Subject to planning permission being granted

Comments:

Many have commented about the buildings being an "eye-sore" so I think its best to update the design.

OPTION B



Please tick if this is your preferred option and put me in the suggestion box which can be found on the ground floor.
Subject to planning permission being granted

Comments:

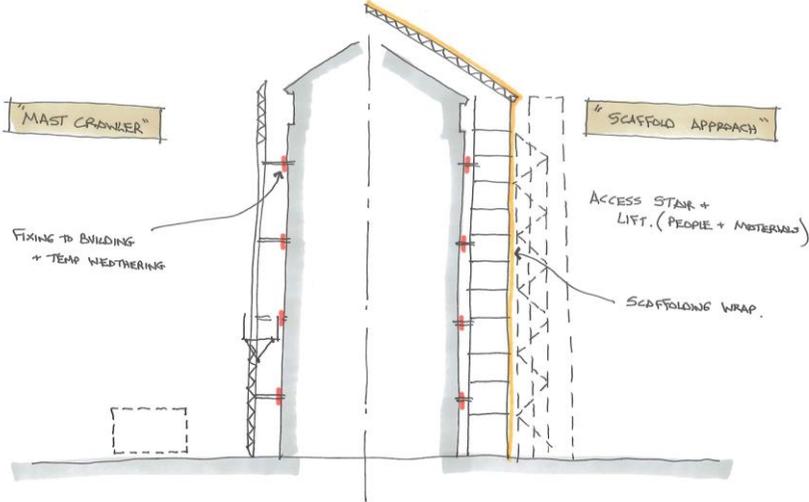
Makes the building look more modern











Scaffolding + Netting (Triple Stitched!)



Q&A

AJ Eaton
Divisional Director
Mi-space

Challenges



- Exposed
- Close to sea
- Access issues

Access to Towers



- Historical photo shows access to be much easier compared to today's access
- Specialist crane required as space around buildings so limited
- Road closures

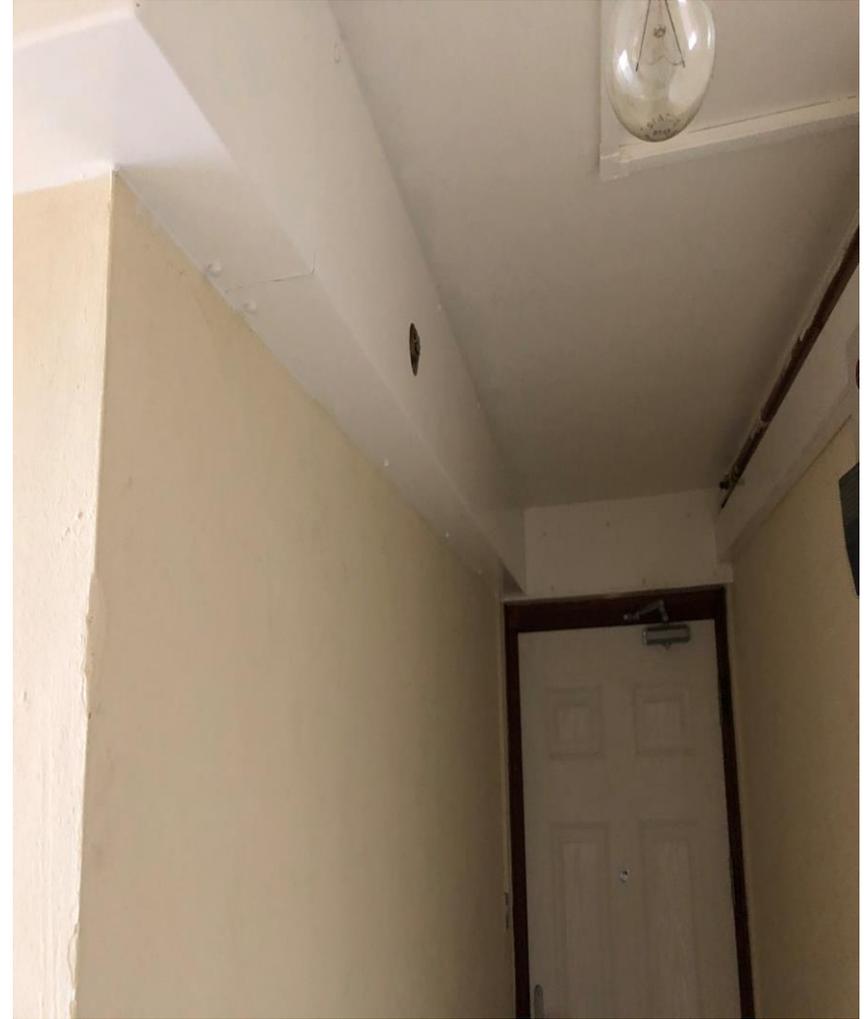


Taking the rooves off



- Roof construction was not what we anticipated
- Crash deck
- Removal of existing roof
- BMU steel frame
- Temporary waterproofing

Sprinkler System Installation



- Developing the solution
- Consider safety in peoples homes



Penetration through fire compartments

WORK IN PROGRESS



COMPLETED



WORK IN PROGRESS



COMPLETED



Finished sprinkler system

Q&A

...A lasting legacy to the Plymouth skyline

