Dorset Council North Quay Building

Carbon Impact Review

Dorset Council

20 March 2023

Delivering a better world

Quality information

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Revision History

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1. Summary

- NPPF paragraph 152 seeks to encourage, not enforce, re-use of existing buildings and to also support transition to a low carbon future.
- The existing building cannot be re-let in its current form without significant works to improve its energy efficiency.
- A study of embodied / operational carbon impact which compares refurbishment of the existing building against a new build option has shown that over a 60 year period, the new build development would have less impact overall due to more efficient energy usage throughout its lifecycle.
- A public consultation event run by Dorset Council in January / February 2021 showed that :
    - there is good public support for redevelopment of the site. (Out of 341 responses only 5 commented that the current building should not be demolished (1.46%))
    - respondents noted that the proposed development would be sympathetic to Weymouth's heritage
    - development would make a key area of the town more appealing and attractive
- Redevelopment of the site would:
    - enable greater housing density than refurbishment and provide additional much needed housing for Weymouth.
    - underpin regeneration of Weymouth and support Weymouth Town Council Masterplan ambitions to provide mixed use development, high quality housing and employment and potential to create an active waterfront.
- Planning policy supports that redevelopment of the site is appropriate in the Conservation Area and in the context of Adopted Local Plan Policy Wey7.
- Funding through central government has been made available via the Brownfield Land Release Fund to demolish the building, at which point the escalating cost to Dorset Council to hold this structure, which currently exceeds £100,000 per year, will be removed.

2. Conclusion

- NPPF Paragraph 152 seeks to encourage, not enforce, re-use of existing buildings. The Architype carbon analysis highlights that over an expected 60 year lifespan of the building, the most effective approach for the site to minimise embodied carbon is to redevelop it with buildings that are highly energy efficient.
- Redevelopment of the site will assist in Dorset Council achieving priorities listed in the Weymouth Town Centre Masterplan, meet policy requirements of the Local Plan and reflects public opinion gathered in the Public Consultation of the future of the site undertaken in 2021.
- Based on the above points, and from the references to other documents attached to this report, demolition of the existing council office building located in North Quay, Weymouth, is appropriate. To do so will accord with Dorset Council's requirement to act responsibly in consideration of climate change and in achieving its long term regeneration ambitions.

3. Detail to support the Summary

3.1 Background to refusal of previous application

The previous planning application WP/19/00445/FUL was refused due not adhering to NPPF paragraph 148. This paragraph relates to use of Green Belt :
148. *When considering any planning application, local planning authorities should ensure that substantial weight is given to any harm to the Green Belt.*

It is assumed that this is an erroneous reference and should in fact refer to paragraph 152.
152. *The planning system should support the transition to a low carbon future in a changing climate, taking full account of flood risk and coastal change. It should help to: shape places in ways that contribute to radical reductions in greenhouse gas emissions, minimise vulnerability and improve resilience; encourage the reuse of existing resources, including the conversion of existing buildings; and support renewable and low carbon energy and associated infrastructure.*

This advises to **encourage re-use of existing resources** and is not a statement that existing resources have to be re-used.
In the same committee meeting (5th September 2019) that the application was refused, other applications that included for demolition on sites prior to construction, were not refused on the same principles that North Quay was. This reinforces that the policy does not require retention of every building.

Relevant applications including demolition which were approved are :

- WP/18/00914/FUL Demolition of existing flats & erection of 18no. Houses & 13no. Flats in two blocks and
- WD/D/16/00378 Full planning permission for the erection of 99 open market dwellings & affordable dwellings etc, which required demolition of the existing village hall

3.2 Carbon Impact Analysis

Architype were appointed to consider the carbon impact over 60 years of refurbishing the existing council building to provide 55 flats (providing circa 85 bedrooms) against the originally proposed outline proposal for a mixed use development scheme to provide retail and housing to provide 135 bedrooms.(As prepared by Ben Pentreath & Associates.)
Architype utilised ECCOlab* software to calculate embodied for three scenarios:

1. “Business as usual” i.e. no change to existing building
2. Refurbishment of the existing building to provide 55 flats
3. Redevelopment of the site to provide a mixed use development.

As all three options vary in size (floor area / number of units etc), Architype considered the embodied carbon and operational impact based on kilograms of CO2e per square metre of built area over a period of 60 years. (kgCO2e/m2/60yrs)

The outcome of the report highlights that, although refurbishment of the existing building would result in less impact to embodied carbon compared to a new build on the site (781 for refurbishment vs 844 kgCO2e/m2/60yrs), the operational carbon impact i.e. the energy usage per year, would be less.

The conclusion to this is that, overall, a new build development would result in less carbon being expended over a 60 year period. (1684 versus 1747 kgCO2e/m2/60yrs resulting in 63 kgCO2e/m2/60yrs less)

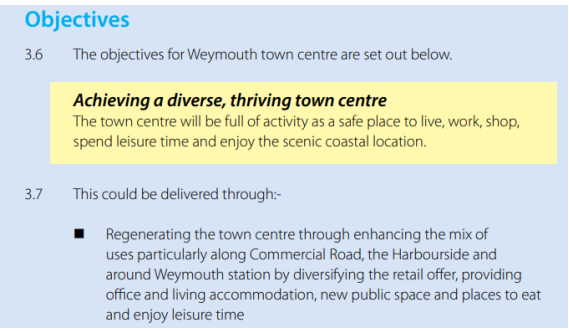
Lifecycle Carbon Impacts 60 years kg per m2		Business as Usual	Eco-Residential EnerPHit Refurbishment	New Eco Development_Timber Frame_PH
Embodied Carbon Impact *kgCO2e/m2*	Demolition of existing structure	0	0	33
	Total A - Construction	0	318	439
	Total B - Use 60 years	305	244	217
	Total C - End of Life	215	219	154
	Total Embodied, 60 years	**520**	**781**	**844**
Operational Carbon Impact kgCO2e/m2	Operational per year	38	16	14
	Total Operational, 60 years	**2260**	**966**	**840**
Total Lifecycle Carbon Impact *kgCO2e/m2/60yrs*		**2779**	**1747**	**1684**

If up to 60% of the foundations of the existing building are reutilised in any future scheme then, the embodied carbon would reduce by a further 21 kgCO2e/m2/60yrs to give an overall total of 1663 kgCO2e/m2/60yrs. This is 84 kgCO2e/m2/60yrs less than refurbishment overall. This reduction is demonstrated in the table below:

Lifecycle Carbon Impacts 60 years kg per m2		New Eco Development_Timber Frame_PH	New Eco Development_Timber Frame_PH Ex. foundations re-used 20%	New Eco Development_Timber Frame_PH Ex. foundations re-used 40%	New Eco Development_Timber Frame_PH Ex. foundations re-used 60%
Embodied Carbon Impact *kgCO2e/m2*	Demolition of existing structure	33	33	33	33
	Total A - Construction	439	434	430	424
	Total B - Use 60 years	217	217	217	217
	Total C - End of Life	154	152	150	148
	Total Embodied, 60 years	**844**	**836**	**830**	**823**
Operational Carbon Impact kgCO2e/m2	Operational per year	14	14	14	14
	Total Operational, 60 years	**840**	**840**	**840**	**840**
Total Lifecycle Carbon Impact *kgCO2e/m2/60yrs*		**1684**	**1676**	**1670**	**1663**

3.3 Weymouth Town Centre Masterplan

The Weymouth Town Centre Masterplan sets out the long term regeneration strategy for Weymouth Town Centre. The redundant council offices are in the harbourside area noted in the document and are specifically named within it, as per the extracts shown below.



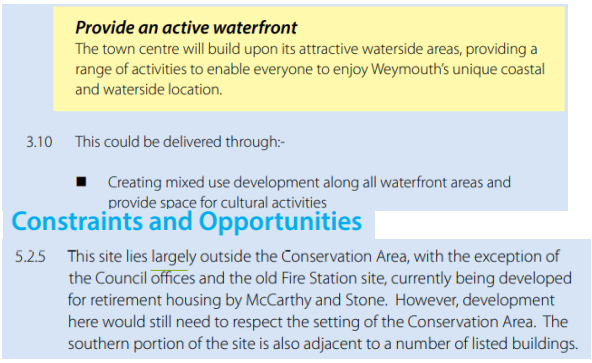
Objectives

3.6 The objectives for Weymouth town centre are set out below.

Achieving a diverse, thriving town centre
The town centre will be full of activity as a safe place to live, work, shop, spend leisure time and enjoy the scenic coastal location.

3.7 This could be delivered through:-

- Regenerating the town centre through enhancing the mix of uses particularly along Commercial Road, the Harbourside and around Weymouth station by diversifying the retail offer, providing office and living accommodation, new public space and places to eat and enjoy leisure time



Provide an active waterfront
The town centre will build upon its attractive waterside areas, providing a range of activities to enable everyone to enjoy Weymouth's unique coastal and waterside location.

3.10 This could be delivered through:-

- Creating mixed use development along all waterfront areas and provide space for cultural activities

Constraints and Opportunities

5.2.5 This site lies largely outside the Conservation Area, with the exception of the Council offices and the old Fire Station site, currently being developed for retirement housing by McCarthy and Stone. However, development here would still need to respect the setting of the Conservation Area. The southern portion of the site is also adjacent to a number of listed buildings.

Redevelopment of the site would assist in:

- Diversifying the retail offer, providing living accommodation (and office subject to agreement / planning in any future scheme?) and places to eat and enjoy leisure time.
- Creating mixed use development along the waterfront
- Better respect the setting of the Conservation area in which it is located. (see public consultation section)

3.4 Planning Policy

The West Dorset, Weymouth and Portland Local Plan 2011 -2031 (Adopted) 2015 sets out the main basis for making decisions on Planning Applications.
In the plan, Policy Wey7 covers the Weymouth Harbour area.

WEY7 WESTWEY ROAD AND NORTH QUAY AREA

i) The Westwey Road and North Quay area will be re-developed for mixed uses which may include residential, hotel, commercial and small scale retail development so as to create an active street and water front.

ii) A comprehensive scheme is required for North Quay which will complement the scale, rhythm and rich texture of the buildings in Trinity Road to the East and High West Street to the South so as to present an attractive frontage to the harbour and to respect the historic buildings of the old High Street. Redevelopment can proceed in phases provided it does not compromise the above objectives.

Notes of the planning committee meeting of 15th September 2019, where application WP/19/00445/FUL was considered , state that the Senior Planning Officer confirmed that the application was appropriate (and by extension met the requirements of Policy Wey 7) as per the extract below.

> The Senior Planning Officer outlined the relevant planning history and stated that this application should be viewed as the first step to realise redevelopment of the site. The policy background was clear that this was appropriate in the Conservation Area and in the context of Adopted Local Plan Policy Wey7.

3.5 Public Consultation

Dorset Council undertook a public consultation on the proposed North Quay council office and Hollywood Bowl development. The consultation ran from 26/01/21 to 28/02/21.

The aim of the engagement was to gather views from local residents, businesses and communities on the proposed developments. Before taking part in the survey, respondents were invited to read a document on the proposed developments, including artists' impressions, and to watch a short online presentation outlining the proposals.

There were 341 responses via an online questionnaire. Responses received can be broken down to the following groups:85% were from individuals (plus 5% visitors) and 10% from businesses, other organisations (or other). The findings of the survey concluded that redevelopment of the site was positive and needed to be progressed, as per the extracts below:

> **North Quay site:** Overall, the North Quay site proposal was popular; overwhelmingly respondents commented that the design was sympathetic to Weymouth's heritage and the old High Street and they liked the aesthetic. The development would make a key and important area of the town more appealing and attractive to people.

> **Any other comments:** The most common comment was positive about the proposals and the need to progress them. Issues that become more prominent in this part of the report were that of looking at the developments as part of a wider strategy for the town (regeneration of sites, local economy and jobs) and concerns around the construction itself.

Respondents also commented that the proposed designs are sympathetic to the area and reflect Weymouth's historical heritage, as per the extract below.

> **Q What do you like about the proposals for the North Quay site?**
>
> There were 330 responses to this question. Overwhelmingly, a key factor for respondents was that the design of the site is sympathetic to the area and a nod to Weymouth's historical heritage and old High Street, and it is also aesthetically pleasing. The development would make a key and important area of the town more appealing and attractive to people.

Of the 341 online respondents, only 5 (1.46%) noted that the building should not be demolished.

Should not demolish the current building (re-purpose, environment)	5

3.6 Energy performance and sequential test

The Achitype carbon assessment has been developed in accordance with 'Royal Institution of Chartered Surveyors (RICS) standards and guidance "Whole life carbon assessment for the built environment"'.

Paragraph "3.2.2 Building Physical Characteristics" of this document notes that both retrofit and new build projects assessed are considered to commence their development on a cleared, flat site for consistency purposes. Any demolition required to clear the site for new build, or to progress a retrofit, has emissions for such calculated under "demolition" (shown in the first line of the table on Page 4 of this document).

The building is currently in a poor state of repair and hazardous to enter. To continue with "Business as usual", with no works undertaken on it, is not an option. It was purpose built for use as Council offices, and it is unlikely that even with minimal repairs to make it safe and useable, any tenant could be found to rent such a large, old-fashioned building. Even assuming a tenant could be found, current minimum requirements set by the Department for Business, Energy and Industrial Strategy in "The Non Domestic Private Rented Property Minimum Standard" require (from 1st April 2023) that any building should have an energy performance certificate (EPC) rating of E or above. These regulations are currently under review and it is highly likely that from 2027 there will be a requirement for buildings to have an EPC rating of C and from 2030 an EPC rating of B.

With gas fired boiler heating, the building will not achieve anywhere near to these required standards without significant works to provide new LED lighting, electric heating and upgraded insulation throughout.

In addition, to be able to let the building, an NICEIC EICR (Electrical Installation Condition Report) would need to be undertaken prior to any letting. This would likely require significant upgrades to the electrical system currently installed.

In considering a sequential test for the future of the site:

- business as usual is not possible without significant works being undertaken which in itself would require carbon to be expended. If this work were undertaken, the end result would be a building that would likely be impossible to let in its current form.
- conversion to residential accommodation is possible but, as per the findings of the Architype report, would result in greater carbon emissions per kgCO2e/m2/60yrs over its lifespan than a new build
- demolition of the current building and replacement with a new build based on high energy efficiency construction, when considered over the 60 year lifespan of the building, would result in the least carbon emissions overall.

On the basis of the above points, and in consideration of the details referenced from other reports and guidance throughout this document, demolition and new build is the best option to minimise future carbon emissions. If the foundations of the existing building are utilized in any future new build, then even less kgCO2e/m2/60yrs will be emitted.

4. References

*ECCOlab is a web based tool that enables life cycle assessment of projects from the early stages of design to completed buildings enabling informed design decision making from the outset of the project throughout the project's development to assessment of the completed building.
The modelling, analysis and reporting is based on the following recognised industry standards: BS EN 15978:2011 - Sustainability of construction works, BS ISO 15686-5 - Standardised Method of Life Cycle Costing, PAS 2050:2011 and BCIS NRM.

Weymouth Town Council Masterplan

Masterplan
Supplementary Plan

Local Plan

West Dorset,
Weymouth & Portla

Planning Committee Minutes 15/09/19

Public minutes
05092019 1400 West

Architype Carbon report

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Report_Foundations.p

Dept. Business Energy and Industrial Strategy NEER Guidance

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