

# Swansea Bay City Deal

## Construction impact assessment summary report



<b>Date</b>	April 2023
<b>Version</b>	V6.0

## **Construction Impact Assessment Summary Report**

### **1.0 Introduction**

The purpose of the combined risk/issues assessment and impact assessment is to highlight and quantify the specific risks/issues currently being experienced throughout the construction industry. SBCD Programme Board and Joint Committee have requested that all programmes and projects assess their current status and ongoing monitoring with regards the potential impact these construction challenges will have on the successful delivery of the portfolio and the constituent programmes and projects.

### **2.0 Returns**

As of 12<sup>th</sup> April 2023 following multiple discussions and requests for completion of the SBCD construction impact assessment, below is the status of returns.

<b>Programme/Project</b>	<b>Status of Return</b>
Swansea Waterfront	Complete
Swansea Campuses	Complete – Not updated this month
SILCG	Nil return
Skills and Talent	Nil return – not currently a direct issue
Yr Egin Phase 2	Nil return – current review of delivery strategy and strategic alignment will complete within next few months once strategy complete and approved.
Pentre Awel	Complete – Not updated this month
PDM	Complete
Digital infrastructure	Nil return – on-going BC updates will complete within next few months once BC updates complete.
HaPs	Nil return

### **3.0 Construction impact assessment (CIA) Requirements**

The CIA has been developed with 9 key questions listed below, whilst providing projects the opportunity to highlight specific risks or issues under question 10:

		<b>Identify as Risk or Issue</b>
	<b><u>People</u></b>	
1	Decreased available labour and/or suitable subcontractors and suppliers	
2	main contractor delivery/management team - skills and capacity issues in terms of project delivery	
	<b><u>Materials</u></b>	
3	Lack of availability of construction materials	
4	Quality of materials (due to lack of stock of preferred option)	
	<b><u>Finance</u></b>	
5	Rising construction costs results in exceeding/increasing programme / project budget	

6	Contractor / subcontractor / supplier going bankrupt/experiencing financial difficulty	
	<b>Timelines</b>	
7	Delays in project programme due to traditional infrastructure project factors such as ground/weather/construction site issues etc.	
8	delay in obtaining relevant construction related / operational approvals	
	<b>Policy/political</b>	
9	revised industry/governmental statutory & mandatory requirements - including technological/policy/political advancements since initial planning phases	
	<b>Other</b>	
10	Please highlight any other risks/issues in relation to construction not highlighted above	

These questions are scored across 8 fields of potential impact of low/medium/high (probability x impact). The fields of impact are:

Scope and key objectives	Targets	Timescales	Reputation if project fails to deliver	Stakeholders/ partnerships commitment	Project costs	Procurement	Staff resourcing
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Once completed the author must then identify mitigations that are/will be put in place along with any resource requirements in enacting these mitigations.

#### **4.0 Summary of Risks identified in returns**

Risks	Impact Field	Scope	Targets	Time	Reputation	Stakeholder/ Partnerships	Proj. Costs	Procurement	Resources
<b>Red</b>		<b>1</b>	<b>8</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>
<b>Amber</b>		<b>11</b>	<b>19</b>	<b>19</b>	<b>21</b>	<b>15</b>	<b>21</b>	<b>16</b>	<b>3</b>
<b>Green</b>		<b>26</b>	<b>20</b>	<b>12</b>	<b>17</b>	<b>23</b>	<b>13</b>	<b>22</b>	<b>35</b>

#### **5.0 Quantification of impact**

Once known the impact of these risks becoming issues will likely result in a change, the CIA has been developed so that all quantification links to the 5 categories of change derived in the SBCD change procedures, namely:

- Financial/costs
- Timescales
- Quality
- Programme and/or project benefits are impacted
- Portfolio benefits are impacted

#### **6.0 Assessment of Increasing Construction Costs Paper**

**6.1** In late 2022 the POMO set out to identify and forecast the impact of increasing construction cost on the SBCD.

**6.2** The result was the creation of a Paper titled Assessment of increasing construction costs.

**6.3** The current version (V6) was presented to programme board in November 2022, outlining a potential £31m funding gap across the SBCD portfolio.

#### **7.0 Assumptions made in forecasting the impact on the Portfolio.**

- 7.1** Current estimates (Aug 2022) have been provided by projects, these have been identified where current tender prices have been provided. Cost inflationary estimates have been used where projects are pretender.
- 7.2** Inflation rates have been applied to demonstrate projected estimation figures. Building Cost Information Service ([bcis.co.uk](http://bcis.co.uk)) indices were used to calculate projected estimations for future years (2023/24 – 3.2%, 2024/25 – 3.9%). These indices are industry specific and were deemed most appropriate to apply.
- 7.3** Inflationary rates are estimated and where Building Cost Information Service indices have been used these by their nature do not account for volatile or unexpected adjustments.
- 7.4** All forecasting within this report is only current on the day of writing, given the uncertainty and volatility previously discussed all future construction costs will vary from the forecast below and may potentially increase further prior to contract award or during delivery.
- 7.5** HAPS and Skills and Talent have been omitted from assessment due to the specific nature of their delivery.

#### **8.0 Portfolio Review/status**

- 8.1** Currently the portfolio is demonstrating a £31m increase in construction costs. These costs are then expected to be managed by Local Authorities and Lead partners, cost of which are outside the original budget allocations.
- 8.2** The current estimation (August/November 2022) has been derived using actual costs, current tender pricing and cost estimation. These are based on actual and anticipated delivery timelines i.e. build of infrastructure.
- 8.3** Future projections have been derived utilising Building Cost Information Service indices.
- 8.4** Future zones/phases in respect of the life science projects (Pentre Awel and Campuses) have been omitted as SBCD funding is not directly utilised to develop these and due to their nature, a reliable estimate is unobtainable at present.
- 8.5** The following tables describe the current situation (August-November 2022) and any mitigations with potential consequences

<u>Programme/Project</u>	<u>Construction Estimate (Per BC) (£)</u>	<u>Current Estimation (Aug 2022)(£)</u>	<u>Variance (£)</u>	<u>Development Position</u>
<b><u>SILGC</u></b>				
Bay Technology Centre	8,500,000	8,883,000	- 383,000	Delivered
SWITCH	15,000,000	17,564,046	- 2,564,046	Estimated
Advanced Manufacturing	17,200,000	21,595,189	- 4,395,189	Estimated
	<b>40,700,000</b>	<b>48,042,235</b>	<b>- 7,342,235</b>	
<b><u>Pentre Awel</u></b>	<b>79,000,000</b>	<b>86,000,000</b>	<b>- 7,000,000</b>	<b>Procured</b>
<b><u>Yr Egin</u></b>				
Phase 1	14,868,348	14,868,348	-	Delivered
Phase 2	10,301,653	12,956,872	- 2,655,219	Estimated
	<b>25,170,001</b>	<b>27,825,220</b>	<b>- 2,655,219</b>	
<b><u>Swansea Waterfront - Innovation Matrix/DLF &amp; Precinct</u></b>				
Innovation Matrix/DLF	13,232,099	15,984,542	- 2,752,443	Estimated
Innovation Precinct	17,424,458	21,092,933	- 3,668,475	Estimated
	<b>30,656,557</b>	<b>37,077,475</b>	<b>- 6,420,918</b>	
<b><u>Campuses</u></b>				
ILS Innovation Centre - Singleton	12,790,000	14,451,217	- 1,661,217	Estimated
ILS Innovation Centre - Morriston	2,210,000	2,497,300	- 287,300	Estimated
	<b>15,000,000</b>	<b>16,948,517</b>	<b>- 1,948,517</b>	
<b><u>PDM</u></b>				
Pembroke Dock Infrastructure	41,593,611	45,879,000	- 4,285,389	Estimated
	<b>41,593,611</b>	<b>45,879,000</b>	<b>- 4,285,389</b>	
<b><u>Digital Infrastructuionre</u></b>	<b>20,500,000</b>	<b>22,097,114</b>	<b>- 1,597,114</b>	<b>Estimated</b>
<b>Net Total</b>	<b>252,620,169</b>	<b>283,869,561</b>	<b>- 31,249,392</b>	
<b><u>Swansea Waterfront - Arena &amp; Digital Village</u></b>				
Digital Arena	95,045,842	89,203,265	5,842,577	Delivered
Digital Village	49,648,253	48,540,125	1,108,128	Procured
<b>Total</b>	<b>397,314,264</b>	<b>421,612,952</b>	<b>- 24,298,688</b>	

Programme / Project	Shortfall	Mitigating Actions	Action status	Likely Impact of Mitigation
Campuses	£1,948,517	<ul style="list-style-type: none"> <li>Explore further funding opportunities</li> <li>Reduction of scope i.e. smaller footprint</li> </ul>	Potential Potential	Significant decrease on scope could affect available office space and associated income
Swansea Waterfront a) Digital District & Digital Village	£3m (est. between £2-3m)	<ul style="list-style-type: none"> <li>Fixed price contracts with tier 1 contractor</li> </ul>	Actual	Possible impact on the subcontractors working on this scheme, many of which will be local firms.
Swansea Waterfront b) Innovation Matrix and Precinct	£6,420,918	<ul style="list-style-type: none"> <li>Value engineer project delivery model.</li> <li>Assess viability of alternative funding sources.</li> <li>Reduce volume of infrastructure.</li> <li>Potential change of delivery mechanism for Innovation Precinct to better suit the economic/market environment as well as to take advantage of any partnership opportunities.</li> </ul>	Actual Actual Potential Potential	<ul style="list-style-type: none"> <li>Change to refurbishment (rather than new build) model for Innovation Precinct (likely).</li> <li>Potential reduction in current benefits projections</li> <li>Change in funding arrangements and amounts for both projects.</li> <li>Collaborative approach likely to be developed with key private/public sector partners.</li> </ul>
Yr Egin 2	£2,655,219	<ul style="list-style-type: none"> <li>Value engineer infrastructure</li> <li>Secure further funding</li> <li>Reduce volume of infrastructure</li> <li>Change phase 2 to align to current regional demands.</li> </ul>	Potential Potential Potential Potential	<ul style="list-style-type: none"> <li>Change of delivery model, potentially leading to lower capital spend.</li> <li>Potential change to overall project outcomes and benefits through reduced volume of infrastructure.</li> </ul>
Pentre Awel	£7m	<ul style="list-style-type: none"> <li>Value engineering exercise undertaken.</li> <li>Changes to materiality and some omissions undertaken.</li> <li>Reduction of building area by 750 sqm.</li> <li>Local authority to invest further capital into the project.</li> <li>Increased use of digital and remote delivery for education and training, health and research/innovation.</li> </ul>	Actual Actual Actual Actual Actual	<p>Manageable and appropriate changes to the building design and associated infrastructure.</p> <p>Within the City Deal demise:</p> <ul style="list-style-type: none"> <li>Reduced space to deliver education, skills and training activities</li> <li>Some reduction in business area. Mitigatable via Zone 3 business expansion centre</li> <li>Removed conferencing facility</li> </ul> <p>Research, health and innovation spaces have been maintained</p>

SILCG	£7,342,235	<ul style="list-style-type: none"> <li>Review accordingly and see what can be delivered at current rates within the previously agreed budget potentially doing less for more (cost).</li> <li>Look to obtain further funding.</li> <li>For SWITCH, the overall budget for the project is £20M split into £15M build and £5M for specialist equipment. If projected build costs are &gt;£15M then there is a £1M buffer available from the specialist equipment budget to utilise to offset cost increases</li> </ul>	<p>Potential</p> <p>Potential</p> <p>Potential</p>	<p>Nil response in relation to previously highlighted AMPF shortfall of circa £4.395m</p> <p>Nil response in relation to BTC shortfall £383k</p> <p>Less funds available for specialist equipment (SWITCH)</p>
Digital Infrastructure	£1,597,114	<ul style="list-style-type: none"> <li>Continue to monitor the situation and engage with fibre and mobile industry to better understand the situation.</li> <li>Continue to work with the private sector, encouraging and facilitating their investment in our region. Helping to ensure the private sector goes as far as possible with their investment.</li> <li>Seek to secure more public funding towards the regions needs and ambitions for fibre and mobile infrastructure.</li> <li>If necessary, reduce our delivery scope to fit the budget i.e. less infrastructure deployed for the funding we have available.</li> </ul> <p>Still relatively confident we will deliver on the key investment objectives of the programme.</p>	<p>Actual</p> <p>Actual</p> <p>Actual</p> <p>Actual</p>	To be confirmed

PDM	£4,285,389	<ul style="list-style-type: none"> <li>• Competitive tenders and further review of Best and Final with additional scrutiny.</li> <li>• Innovation in designs to deliver outcomes and outputs at less cost which has removed an additional £10m from the current estimate above. I.E without this the forecast would have been circa £55m.</li> <li>• Innovative trading and phasing within overall programme to deliver the individual phased outputs and outcomes.</li> <li>• Additional funding sought with WEFO and secured partial help.</li> </ul>	<p>Actual</p> <p>Actual</p> <p>Actual</p> <p>Actual</p>	<p>The 4 bullet points get us to the Outputs as defined within the Final business case and on track to get to the outcomes.</p> <p>The potential Shortfall is still circa £4.3m as above and we are reviewing future phases over 2023 to see where we can apply more of the points to potentially close this gap.</p>
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## **9 Conclusion/recommendations**

### **9.1 Areas of High concern**

There are currently 3 areas of high concern, these being:

- Scope
- Time
- Proj. costs

All of these areas will be continually monitored and over time as any issues arise along with associated change requirements, change notifications and change requests will be submitted to the PoMO and reported/escalated accordingly to stakeholders as per the SBCD change procedures.

### **9.2 Areas of Medium concern**

There are currently 3 areas of medium concern, these being:

- Delivery of targets
- Potential reputational damage
- Proj. costs

9.3 As projects and programmes develop, all areas of concern will continually be monitored through the construction impact assessment, in order to ensure that all change is reported, recorded, escalated and approved appropriately, any mitigations required are implemented and the overall success of outcomes, outputs and impacts are not affected.

9.4 The funding gap identified is based on inflationary pressures and rising construction costs with a current estimated funding gap of £31.2m. This gap is based from the anticipated or actual difference in costs from approved outline business case to date (Aug-2022).

9.5 Gleeds Autumn review recommends that “As the challenging backdrop persists, it remains important to make projects attractive to the supply chain to obtain the best prices. Mitigation measures seen include:

- Proactive negotiation with preferred main contractor/subcontractors/suppliers to work through risks and issues
- De-risking of projects as much as possible through surveys and enabling packages
- Phasing/splitting of large projects to reduce risk via shorter programme length
- Early orders to secure materials/products to protect the programme and to obtain cost certainty
- Booking of key resources/teams to secure the best for the project
- Use of fluctuation clauses, prime cost (PC) sums, provisional sums, index linking of material supply costs, etc.
- Increased understanding of pipeline and financial standing
- Consideration of alternatives in case of sourcing difficulties
- Being open to different suppliers to ensure competition.

9.6 While value management is always important, it is particularly so at a time when budgets are under pressure. Regular reviews should be undertaken to look for opportunities and to ensure the best use of available resources.