Llywodraeth Cymru
Welsh Government

# Public Procurement of Steel

## A Report into the Future Welsh Public Sector Steel Requirements and the Capacity and Capability of the Steel Sector

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Mae'r ddogfen yma hefyd ar gael yn Gymraeg / This document is also available in Welsh.

## Introduction

The challenges facing the steel sector in Wales and the UK has highlighted the opportunity for further exploring all those levers which may be available to support indigenous and local suppliers against a backdrop of worldwide, economic pressures.

The strategic importance of the steel sector to Wales as a major employer and supplier of steel products is well documented and reiterated across the political arena, businesses, employees and the general public.

As a result of the particular challenges facing Tata the Welsh Government formed a Tata Steel Task force in January, chaired initially by the Minister for Economy Science and Transport and now by the Cabinet Secretary for Economy and Infrastructure, with representatives of industry, trade unions and local authorities as well as Health and Education to develop plans to limit the impact of the potential job losses announced by Tata and to support the industry in the face of these pressures. The Steel Task Force comprised four work streams:

- Training and skills;
- business support and supply chains;
- health; and
- procurement.

This report sets out the current position and progress achieved with regard to work commissioned through the procurement work stream. Specifically, the work commissioned has focussed on:

- analysing the Wales Infrastructure Investment Plan (WIIP) to establish forecast future steel requirements;
- establishing high level information on the capacity and capability of the steel sector to fulfil these requirements; and
- identifying opportunities to help ensure that the steel sector has the best opportunity to win sub-contracts to supply steel in public projects.

The contents of this report has been informed through a combination of public sector and market research and drawing on contributions from members of the Welsh Government's steel procurement work stream, as well as UK Steel, British Constructional Steelwork Association (BCSA), Scottish Government and UK Government.

The Welsh Government participates in and complements the work of the Steel Council Procurement and Commercial Group to ensure that there is alignment of action plans.

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**The Procurement Work Stream**

The Welsh Government's Procurement work stream is led by Value Wales and comprises membership and input from:

- Welsh Government officials from relevant areas covering the Wales Infrastructure Investment Plan; Transport; Advanced Materials and Manufacturing; Steel; and Construction Sector;
- Steel Industry representatives; and
- Unions.

Early deliverables achieved through the work stream include mainstreaming consideration of steel requirements in to the Welsh Government Grants process and 21st Century Schools business case processes; compilation of strategic public sector framework agreements which provide steel suppliers with the opportunity of establishing supply chain opportunities; and revision of Community Benefits guidance to signpost to steel standards.

Through the work stream, it has been agreed that there are some further, key deliverables that could help open up public sector infrastructure and construction project supply chain opportunities for steel suppliers:

- Analysis of future steel requirements;
- Assessment of the capability and capacity of the steel sector in Wales and the UK;
- Break down public sector construction procurement processes; and
- Consider opportunities to utilise legislation to develop specific policy positions to support the Welsh and UK steel sectors.

This report provides the outcome of research that has been undertaken in order to address these deliverables.

**Analysis of the Wales Infrastructure Investment Plan**

The Wales Infrastructure Investment Plan (WIIP) was first published in 2012 and signalled a more strategic and focused approach for infrastructure development in Wales. The Plan was shaped around seven investment priorities and supported the pervious Government's focus on growth and jobs.

The Project Pipeline, which has been published twice yearly, has provided a clear picture of infrastructure investment in Wales to help to inform strategic investment decisions across both the public and private sector. The advance publication of this information is designed to provide business with clarity and confidence to plan in readiness to compete for the major projects contained within the WIIP.

In order to support the objectives of the Steel Procurement work stream, the transport, health and schools' elements of the WIIP, as published in February 2016, have been analysed in order to estimate the future steel requirements (in terms of both type and volume) associated with delivery of these future projects.

In analysing the future steel demand, data was collated from NHS Wales Shared Service Partnership Special Estates Service for planned Health projects, from Welsh Government Transport for all planned Highways and Infrastructure projects and Welsh Government Education for 21st Century Schools Projects

The outcome of this work is attached at Appendix 1. The Welsh Government Procurement work stream has agreed that once this information is compiled, its publication will provide steel producers and suppliers with a good understanding of the future forecast demand and enable the steel sector to plan with confidence and to engage early in the process of delivering the projects.

The Scottish Government's calculations and benchmarks have helpfully given a sound basis for estimating the steel requirements for schools and hospital schemes in Wales.

There are caveats relating to the data (similar to those of the Scottish Government) in as much as:

- Some building and civil engineering projects have yet to be designed and therefore there is uncertainty over the build type that will be chosen;
- Some projects are subject to approvals and other potential changes which may or may not occur;

- Timing can be uncertain for funding/planning/regulatory/commitment that may be needed to take project forward;
- Some estimated figures are more certain but calculations are based on best informed estimates. The market may be in a better position to estimate the required tonnages; and
- Some steel requirements are difficult to calculate in weight so cost values have been submitted as a guide.

# Capacity and Capability of the Steel Sector

This section provides a high-level overview of suppliers' and producers' perspectives as to whether the services and availability of the products they need for their infrastructure projects are to their best knowledge available from UK steel sources. The planned research to be undertaken by UK Steel will further inform a more detailed understanding of steel sector capability.

Analysis of the WIIP illustrates that the Welsh public sector will have requirements for the following types of steel:

- Structural steelwork;
- Sheet pile;
- Reinforcement;
- Track (rail) and
- Piles, masts.

Discussion with BCSA and manufacturing companies including Tata, British Steel and Celsa indicates that the UK steel sector has the necessary capabilities to supply the majority if not all of the types of steel that will be required to support delivery of the WIIP projects.

A 'simple' search of the Sell2Wales portal of steel companies showed a total of 92 companies. The companies registered on the site included:

- 46 Structural Steel and Fabrications Companies;
- 2 Stainless Steel fabricators;
- 2 Reinforcing Bar /Mesh Companies;
- 4 Steel Bridge Manufacturers/Refurbishment contractors;
- 8 Agricultural Building and small steel frame fabricators;
- 2 Steel Stockists; and
- specialist steel companies providing welding services to the gas and oil industry and equipment and security products

This list is far from a full and comprehensive list of steel operators in Wales and this may be because registration on the Sell2Wales portal may not be attractive to steel fabricators as the public sector rarely procures large quantities of fabricated or finished steel products directly. It is recommended that Welsh Government actively promote the importance and benefits to steel suppliers of registering on Sell2Wales. This will provide a direct route for steel suppliers to track government and public sector construction and infrastructure projects and identify the successful main contractor so they can promote their businesses with them and establish the steel supply chain opportunities.

# BSCA and UK Steel(EEF)

The British Constructional Steel Association has over 500 members and also undertakes and manages, through its subsidiary, a Steel Construction Certification Scheme.

The Steel Construction Certification Scheme (SCCS) is the Certification Body specifically for companies engaged in the design, manufacture and installation of structural steelwork and its associated products and services. SCCS is a wholly owned subsidiary of the British Constructional Steelwork Association Ltd (BCSA). The objective of the Scheme is to secure high standards of excellence and quality across all processes, procedures and practices in the steelwork industry through independent certification to specific standards. It generally undertakes assessment of quality managements systems, environmental managements systems and occupational health and safety processes as well as CE marking certification.

BCSA maintains a directory of certificated approved steelwork contractors and suggests that one way of ensuring steel is obtained from UK or EU sources (or that steel is of the appropriate quality) would be to insist that public contracting authorities specify the SCCS in all tender processes. Some clients do specify this as a requirement for their projects. However, on review of the certificated listing, only a handful of companies from Wales were registered. Investigation with steel frame suppliers who were providing steel frames for 21st Century Schools programmes, indicated that they felt that they would not get any added value directly from being a member and that their business in the steel frame construction for schools is unaffected by not being a member (this may be because clients do not currently specify the standard).

The EEF provides a directory of UK suppliers (including Acenta, Celsa Steel, Cogent Power and Tata Steel who are all based in Wales), from whom the steel products required to support delivery of the WIIP may be sourced. In addition, Liberty Steel, located in Newport, has the capability to supply product which will be required in Welsh public sector infrastructure and construction projects.

It is further suggested by representatives of the steel sector that UK steel suppliers have capacity to increase their production of the types of steel that will be required for delivery of the WIIP projects.

The BCSA forecast (January 2016) indicates that there will be an overall UK requirement for 1,050,000 tonnes of constructional steelwork in 2019, an increase of 113,000 tonnes from 2015.

Through a combination of increasing shifts (including introduction of night shifts where possible), use of agency staff, and fully utilising current production facilities, the BCSA considers that a relatively significant increase in capacity could be achieved in the short term of between 205,000 and 406,000 tonnes. This would provide a UK constructional steelwork capacity of between 1,142,000 and 1,343,000 tonnes.

On the face of it, the UK steel sector is ideally placed to support the Welsh public sector's future steel requirements. There would appear to be many benefits for ensuring that main contractors involved in delivery of WIIP and Welsh public sector projects are encouraged to engage the UK steel sector:

- Supporting the Welsh Government's Community Benefits policy to promote use of local supply chains;
- Shorter delivery distances, resulting in reduced environmental impact;
- Speedier delivery enabling easier management of steel supply matters; and
- The quality of steel produced here is also highly valued. In Wales there is a strong manufacturer and installer loyalty to the UK steel industry.

However, interviews undertaken in compiling this report, suggest that there are some perceptions within the construction industry that UK steel is likely to be more expensive than imported steel. The steel industry is quick to point out that prices are set globally. However, installers and processers have indicated that they are currently finding it difficult to hold the priced tenders and quotations for long as prices are rising.

Some contractors, however, ascertain that not all products required for public sector procurement projects are available from UK sources and that some specialist requirements still need to be obtained from Belgium, the Netherland or Germany. An in depth study is required so that any void can be exploited by UK steel companies and this potential is now being researched and developed by the UK Steel Taskforce for future publication.

## Public sector construction procurement processes

The **UK Government** issued a Procurement Policy Note in October 2015.The PPN provides guidance on how to take account of steel throughout the procurement process and in line with the PCRs 2015. It focuses on:

• signalling the future pipeline of requirements on steel sourcing and best practice in pre-procurement market engagement;

• ensuring there is clear visibility of opportunities at sub-contractor level where the source of steel has not been defined by a Tier 1 contractor;

• assessing the health and sustainability of potential suppliers in the supply chain at selection stage, including compliance with relevant health and safety and employment legislation;

• ensuring that the price or cost calculations are based on an assessment of the whole life cost and not lowest purchase price; and

• taking account of appropriate social and environmental impacts at the award stage where they are linked to the subject of the contract.

Crown Commercial Services subsequently issued guidance in support of PPN 16/15 on the use of social clauses detailing template conditions that could be used at the key stages of the procurement process.

**The Scottish Government** also issued guidance to procurers in Scotland on how to incorporate social clauses in the key stages of procurement from business case, to award, to contract management and performance of the contract.

Investigation by Welsh Government has found that there may also be further opportunities to improve Welsh public sector supply chain opportunities for indigenous and UK steel suppliers in the face of competition from 'dumped' steel in Welsh contracts. Policing of such an approach may be difficult, though including such clauses could be a deterrent to Tier 1 contractors from using suppliers of dumped product.

## Legislation and Procurement Policy

The relevant legislation considered in the context of this report is the EU Public Procurement Directive 2014. The Wales Procurement Policy Statement has been reviewed to establish how this may support the Welsh public sector to assist engagement of the Welsh and UK steel sector.

## EU Public Procurement Directive

The EU Public Procurement Directive is the overarching legislation with which the Welsh public sector much comply with when undertaking public procurement.

The Directive is transposed into UK legislation through the Public Contracts Regulations 2015 (PRC2015).

The PCR 2015 provides greater clarity and scope to assess the most economically advantageous tender on a cost-effective basis that explicitly includes environmental and/or social criteria where they are linked to the subject matter of the contract and are transparent and non discriminatory.

Social criteria could include taking into account the benefits of employment and supply chain activity, including the protection of the health and safety of staff involved in the production process, the social integration of disadvantaged workers or members of vulnerable groups among the staff performing the contract, such as the long-term unemployed, or training in the skills needed to perform the contract, such as the hiring of apprentices.

The PCR 2015 also provides explicit scope to take account of economic, innovation-related, environmental, social or employment related considerations through conditions for contract performance.

It is important to consider how this can be delivered through procurement policy and process.

## Wales Procurement Policy Statement

The Wales Procurement Policy Statement provides clarity to the Welsh public sector of the principles by which it is expected that procurement will be undertaken.

The WPPS provides a clear direction on the inclusion of Community Benefits and requires a mandatory adoption of the policy into all procurements in Wales. The policy has had significant success for employment of Welsh citizens and in sourcing requirements from SMEs and businesses based in Wales and demonstrates that good public procurement can make an enormous difference to the social, economic and environmental well-being in Wales. Recent changes in European procurement regulations further legitimise these policies.

It would therefore seem sensible that the same legislation should also be applicable for the purpose of *sustaining* or safeguarding Welsh community's, jobs and business for SMEs but indications are that specifying Welsh or British Steel could be at odds with the fundamental principles of EU law.

# Procurement of Infrastructure Projects

Procurement of public sector infrastructure and construction projects follows clear processes as set out in the Public Contracts Regulations 2015. These approaches should be applied intelligently and flexibly in order to support delivery of value for money in its widest meaning.

Whilst these processes are fairly transparent and understood, it is important that public sector clients are conversant with the detail of these approaches in order to identify the ways in which steel suppliers are engaged in delivery of these projects.

Steel for public procurement requirements are rarely purchased directly by public sector clients but are more likely to be purchased through Tier 1 and Tier 2 suppliers in the supply chain largely by construction contractors steel installers and/or concrete contractors (rebar etc.). Up until recently, clients would not necessarily have asked questions about the source of steel products in the projects assuming (in some cases correctly) that it was being sourced from UK stockholders/producers and installers. There is evidence that this is changing and that some clients are taking consideration of Welsh and UK steel supply chain sourcing and undertaking checks in the procurement and development phases of the project. This changing behaviour has not yet become the case universally.

However, infrastructure projects can be procured using different contracting strategies and these are generally divided along the lines of "traditional" methods and more "collaborative" arrangements.

### Traditional Procurement

Traditional procurements are where projects are either predesigned with little or no input form the supply chain and priced on that basis or where the opposite applies

where contractor is required to design and build the scheme and bid a fixed price for the project at the outset. These processes are widely used by clients and the private sector. Public sector clients will have little transparency and influence over the choice of supply chain partners other than through contract terms and conditions and by specifying specific companies or standards which they also be reluctant to do as this may carry with it risk.

A more traditional process generally transfers more risk to contractors and once price is fixed the contractor (even if better quality products exist) will be reluctant to make changes which may increase costs when clients are not willing or able to fund them.

This methodology has been cited by the industry as a potential shortcoming of infrastructure projects as they can be subject to substitution of products or subcontractors once contracts have been won in order to maximise returns for the contractors. Some parts of the Welsh public sector have actively addressed these issues through strong contract management and collaborative supplier relationship management strategies.

However, some of these processes have worked very well for both partners and support delivery of Community Benefits by fully detailing the public sector client's requirements up front.

**Collaborative Procurement Models**

Contractors procured through collaborative models are often engaged before design has even commenced. The whole project is undertaken under the management of an integrated team consisting of client, designers, cost managers' contractors and key supply chain partners and therefore can increase the transparency of every aspect of the design and construction phases and crucially the local, national or international supply chain sources.

Because each element of design and cost is analysed and considered for buildability and value engineering, all contract packages and elements are transparent and open to challenge and therefore the client and team have more influence and control over the quality (and source) of the products to be utilised

This methodology is in line with techniques generally adapted from Supply Chain Management and one which is likely to become ever more pronounced as procurement policy for ethical procurement fair payment and other key social policy objectives are embedded into public procurement.

This collaborative approach is increasingly pursued by the Welsh Government, NHS Wales and a growing number of local authorities in Wales.

Evidence suggests that projects achieve far higher levels of Community Benefits when construction procurement arrangements are more collaborative than the traditional processes because all partners are working to achieve the additional value benefits of a project. There is also evidence that some traditional procurement approaches have achieved high levels of benefits in this area through specifying the

community benefits requirements in the tender documents and contract and closely contract monitoring their achievement.

Discussion with BCSA and other steel sector representatives welcome the increased adoption of collaborative models of procurement and consider that this has a positive impact on the quality, type and source of steel for individual projects. Even in these approaches it is important (for the steel industry) that the client intelligently ensures and pursues the sources of products down in the supply chain and that they are transparent from specification to delivery.

There is evidence that projects being managed directly by Welsh Government (Transport and Health) are taking this approach and challenging contractors and subcontractors about the source of steel supply and manufacture for their projects. However, this is not as yet universal across all of the Welsh public sector.

It is clear from this process that Welsh public sector clients will have had, hitherto, minimal direct contact and potentially, limited knowledge of the potential that is offered by the Welsh and UK steel sector. The reasons for this appear to be two-fold: the Welsh public sector typically procures construction and infrastructure contracts and not their constituent components, of which, steel would be one; and the Welsh and UK steel sectors have not always promoted to the Welsh public sector the products and value added services and innovation that they offer.

It is important to develop Welsh public sector client awareness of the levers that are available for ensuring that UK steel suppliers are engaged through the supply chain in delivery of infrastructure and construction projects. How this may be done is considered in the recommendations section of this report.

# Recommendations

1. Steel requirements for the Wales infrastructure Investment Plan (listed an Appendix 1) are published and updated at least annually, drawing on the information contained within the Wales Infrastructure Investment Plan.

2. That steel industry and supplier briefings with support from Business Wales are made mandatory for infrastructure projects with a value over £1m, well before projects are procured to give early warning to the industry of potential requirements.

3. That steel industry suppliers and manufacturers relevant to public sector projects are encouraged to register on the Sell2Wales portal to a) increase communication and links between public sector and the steel industry particularly so that steel supplier events can be notified seamlessly b) so that steel suppliers and fabricators can track the successfully awarded main contractors c) to give procurers (and government) a better understanding of the companies engaged in the industry. Where main contractors have not already established that they intend to use Welsh or UK suppliers for any steel requirement, the contractors should be required by the public sector to advertise sub-contract opportunities for this business on sell2wales.

4. That the Welsh Government directly, or via a delivery partner, develop workshops for public procurers on how steel should be specified and procured together with an overview of the industry in Wales and the UK to increase knowledge of the industry.

5. That Value Wales issue policy guidance to support the sourcing of steel in construction and infrastructure projects.

6. The steel industry promotes the use and qualities of UK steel directly with main contractors and clients. In doing so, it will be important to determine what is defined as being UK steel.

7. That clients are encouraged to utilise more collaborative procurement strategies which can lead to better engagement with local steel suppliers.

8. That Welsh Government, through the Procurement Task force, use available data to identify and understand supply voids in steel UK markets with ongoing dialogue with the steel sector to establish how these may be exploited.

**APPENDIX 1**

**WALES INFRASTRUCTURE INVESTMENT PLAN**

**STEEL REQUIREMENTS: POTENTIAL MARKET OPPORTUNITIES FOR PUBLIC SECTOR PROJECTS / PROGRAMMES 2016-21**

**Transport Wales**

**Transport Schemes South**

| Sector | Project | Steel requirements (products) | Estimated Date for Commencement | Steel requirements (tonnage) | Notes |
|---|---|---|---|---|---|
| | M4 Corridor Around Newport (ECI Major Road Infrastructure) | Structural steelwork<br>Sheet pile<br>Reinforcement<br>Other | Jan-2018 | 39,000 tonnes<br>6,500 tonnes<br>46,000 tonnes<br>1,500 tonnes | * Estimates of steel tonnage provided in absence of outline design on the schemes<br>Steel safety barrier/bridge parapets, traffic signs, lighting columns, road studs, fencing etc are not measured in tonnage therefore have been excluded |

**Transport Schemes Mid and North**

| Sector | Project | Steel requirements (products) | Estimated Date for Commencement | Steel requirements (tonnage) | Notes |
|---|---|---|---|---|---|
| Transport | A483/A489 Newtown Bypass | Reinforcement<br>Structural steel<br>Safety barriers / parapets<br>Traffic signs<br>Lighting columns<br>Bridge bearings / expansion joints | Under construction | Reinforcement = 2170t<br>Structural steel = 1210t | * Estimates of steel tonnage provided in absence of outline design on the schemes<br>Steel safety barrier/bridge parapets, traffic signs, lighting columns, road studs, fencing etc. are not measured in tonnage therefore have been excluded<br>Reinforcement would normally be Type 2 High Yield Deformed Bars<br>Structural Steel would normally be Grade 355 |
| | A487 Dyfi Bridge | Reinforcement<br>Structural steel<br>Safety barriers / parapets<br>Traffic signs<br>Lighting columns<br>Bridge bearings / expansion joints | late 2016/early 2017 subject to no PI | Reinforcement = 530t<br>Structural steel = 1315t | |
| | A487 Caernarfon and Bontnewydd Bypass | Reinforcement<br>Structural steel<br>Safety barriers / parapets<br>Traffic signs<br>Lighting columns<br>Bridge bearings / expansion joints | Summer/autumn 2017 | Reinforcement = 2500t<br>Structural steel = 1550t | |
| | A55 Aber to Tai'r Meibion | Reinforcement<br>Safety barriers / parapets<br>Traffic signs<br>Lighting columns | Autumn 2017 | Reinforcement = 100t* | |
| | A55 Junctions 15 and 16 | Reinforcement<br>Structural steel<br>Safety barriers / parapets<br>Traffic signs | Summer/Autumn 2019 | Reinforcement = 300t*<br>Structural steel = 150t* | |

| | | | | | |
|---|---|---|---|---|---|
| | | Lighting columns | | | |
| | A494/A55/A548<br>Deeside Corridor | Reinforcement<br>Structural steel<br>Safety barriers / parapets<br>Traffic signs<br>Lighting columns<br>Bridge bearings /<br>expansion joints | 2020/2021 | Reinforcement = 5000t*<br>Structural steel = 2500t* | |

**Funded Rail and Metro Schemes**

| Sector | Project | Description | Estimated Date For commencement | Steel requirements (products) | Steel requirements (tonnage) | Notes |
|---|---|---|---|---|---|---|
| Funded Rail and Metro Schemes | North – South Journey time reduction | Track dualling | Almost complete | Track | 1,230 | |
| | Ebbw frequency | Track Dualling, Station works to 2 stations, bridge replacement | Ongoing. Track mostly laid, station and bridge works in the year ahead. | Track, bridge deck | 1036.3 | |
| | Ebbw extension and Ebbw Vale Town station | New single track, new station | Complete | Track, materials for station | 300 | |
| | Access for All | New DDA and electrification compliant footbridges at Radyr, Chrik, Llandaff, Machynellyth, Ystrad Mynach | Some complete and some almost complete | Foot bridges, ramps and parapits | N/A | |
| | NSIP+ | Station refurbishments and footbridges at Pontypridd and Port Talbot. Significant steel structure at Port Talbot. | Complete | Foot bridges, ramps and parapets | 424 | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | Pye Corner | New station and some additional track | Complete | Materials for single platform station, Parapets | 84 | |
| | CP5/6 AfAs | New DDA and electrification compliant footbridges at Taffs Well, Trefforest, Cadoxton, Cathays, Flint, Pengham and llanelli, | Between 2017 and 2019 (DfT funded delivery) | Foot bridges, ramps and parapets | 494 | |
| | WSIP Port Talbot | | | | 424 | |
| | | | | | | |
| | Line 1 | Electrification (either light rail or heavy rail) | INDICATIVE 2019-2023 | Piles, masts | 4,539 | |
| | Line 1 | Electrification (either light rail or heavy rail) | INDICATIVE 2019-2023 | Bridge beams, parapets | N/A | |
| | Line 1 | Track dualling | INDICATIVE 2019-2023 | Track | 590 | |
| | Line 2 | Electrification (either light rail or heavy rail) | INDICATIVE 2019-2023 | Piles, masts | 5,956 | |
| | Line 2 | Electrification (either light rail or heavy rail) | INDICATIVE 2019-2023 | Bridge beams, parapets | N/A | |
| | Line 2 | Track dualling | INDICATIVE | Track | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | 2019-2023 | | 781 | |
| | Line 3 | Track dualling | INDICATIVE 2019-2023 | Track | 300 | |
| | Line 4 | Track dualling | INDICATIVE 2019-2023 | Track | 256 | |
| | Line 5 | Electrification (heavy rail) | INDICATIVE 2019-2023 | Piles, masts | 714 | |
| | Extension | Light rail | INDICATIVE 2019-2023 | Piles, masts, track | 598 | |
| | LR corridor | Light rail | INDICATIVE 2019-2023 | Piles, masts, track | 4,451 | |
| | On-street running | Light rail | INDICATIVE 2019-2023 | Piles, masts, track | 648 | |
| | HR spur 1 | Heavy Rail | INDICATIVE 2019-2023 | Track | 250 | |
| | Bus Station | | INDICATIVE 2019-2023 | Steel framed structure | 120 | |
| | Footbridge | | INDICATIVE 2019-2023 | New footbridge | 90 | |
| | HR spur 2 | | INDICATIVE 2019-2023 | New spur | 193 | |

**HEALTH**

| Sector | Project | Description | Estimated Date For commencement | Steel requirements (products) | Steel requirements (tonnage) | Notes |
|---|---|---|---|---|---|---|
| Health | Hywel Dda Health Board – Cardigan, New Health and Social Care Centre | The Health Board's planned new facility will replace Cardigan Hospital and nearby Primary Care/GP facilities. | Currently at Full Business Case | Structural Steel Frame Rebar steelwork associated with Mechanical and electrical | Structural frame c50T, secondary steelwork approx: 5T, rebar frame approx. 128T, Rebar subs c124T. Plus additional studwork M&E unmeasured | |
| | Aneurin Bevan Health Board – Specialist Critical Care Centre (SCCC) | This major new hospital combines emergency, critical care and specialist services in the Gwent area onto one site in Torfaen. This will involve a substantial reconfiguration and remodelling of existing services and the subsequent retention of Neville Hall and Royal Gwent Hospitals as Local General Hospitals. | Currently at Full Business Case | Structural Steel Frame Rebar steelwork associated with Mechanical and electrical | Rebar 850T, Delta beams 1,600T, Steel members 920T, M&E/studwork/metal cladding etc estimate at 330T | |
| Health | WIIP Programme | Any other schemes indicated on the WIIP programme include refurbishment, asbestos removal or schemes which are nearing completion or have been completed | | | | |

**SCHOOLS – CONSTRUCTION PROGRAMME Wales (base on Scottish Government Estimates of usage for schools projects (see below**

**Update on high level cost and tonnage information for structural steel work on hub projects** (Scottish Futures Trust have analysed a range of education (school buildings) and healthcare (including community health centres) projects and the following average information can be derived from the programme)

| Heading | Average |
|---|---|
| Prime cost of project | £23,119,597 |
| Prime cost of steelwork | £1,275,838 |
| Tonnage of steelwork | 803 |
| GIFA (Gross Internal Floor Area) | 11,151 |
| | |
| Cost of steel per m2 | £116 |
| Tonnage of steelwork per m2 | 0.08 |
| Tonnage of steel work per £ value of prime cost | 0.00003 |
| Cost of steelwork as % of prime cost | 6% |

**Wales School Programme**

Applying the above general information to the value of schools projects that are in construction and development phases, as extracted from Wales Infrastructure Investment Plan the following can be assumed:

Extract value of completed projects £219m

**Value of projects at construction and procurement stages:** £645m
**Estimated value of steel work associated with the programme:** £39m
**Value of Projects in the pipeline** £536m

**Estimated Value of steel work in the pipeline** £32m

**Timescale to deliver the above programme of works:**

*Analysis is based on total project costs of schemes in the Programme. It is not representative of a pure construction cost, but rather construction plus land purchase, external works, fixtures and fittings etc. Therefore, this figure is likely to be overstated. These figures represent 6% applied against the value of schemes approved in the Programme, therefore it is extremely approximate.
All schools are assumed to have used steel. However, not all schools are new build, some may have been refurbished/remodelled. Steel may not be a necessary building material in these cases.

**Steel required for a typical secondary school** - In terms of type of steel required this will be a combination of structural steelwork, to construct a steel frame for the building and some rebars for reinforced/pre-stressed concrete – the rebar for floors & supporting beams will be (for most part) 12mm high tensile.