

Portfolio Holder for Environment and Sustainability

Meeting Venue

Meeting date
Monday, 5 September 2016

Meeting time

For further information please contact
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County Hall
Llandrindod Wells
Powys
LD1 5LG

26th August, 2016

AGENDA

1.	FOOTBRIDGE ON FOOTPATH LL10A, LLANDRINDOD WELLS
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CYNGOR SIR POWYS COUNTY COUNCIL.
PORTFOLIO HOLDER DELEGATED DECISION
by
COUNTY COUNCILLOR W JOHN T POWELL
(PORTFOLIO HOLDER FOR ENVIRONMENT AND SUSTAINABILITY)
AND
COUNTY COUNCILLOR WYNNE T JONES
(PORTFOLIO HOLDER FOR FINANCE)
AND
COUNTY COUNCILLOR JOHN H BRUNT
(PORTFOLIO HOLDER FOR HIGHWAYS)
August 2016

REPORT AUTHOR: Countryside Access Officer (Operational)
Definitive Map and Commons Registration Officer

SUBJECT: Footbridge on Footpath LL10A, Llandrindod Wells

REPORT FOR: **Decision**

1 Summary

- 1.1 This report is further to the previous Delegated Decision made by Portfolio Holders, dated 24th November 2015. That decision approved the demolition of the footbridge spanning the railway line, over which ran Footpath LL10(A) in Llandrindod Wells. The footpath runs between Alexandra Court and the playing fields / Rock Park. A copy of the previous report, which outlines the history and background to this issue, is attached in Appendix 1.
- 1.2 Following the decision made by Portfolio Holders in November 2015, Network Rail were instructed to remove the structure. The works were undertaken in March 2016.
- 1.3 After the decision to demolish the existing structure was made, there has been correspondence from some residents, Kirsty Williams AM and Chris Davies MP. Kirsty Williams forwarded copies of correspondence she had received, from concerned residents who did not wish to see the structure removed. Appendix 2 includes a summary of the correspondence forwarded to Countryside Services on the matter.
- 1.4 Kirsty Williams has stated that there is strong public feeling over the matter, however, Countryside Services have directly received comments from less than ten members of the public. Also included in Appendix 2 is an email from two interested parties, who have

requested that Portfolio Holders take their view into account when making a decision over the future of any structure at this location.

- 1.5 Gwynedd County Council Engineers were commissioned to undertake an Options Report looking into the possible options for replacement of the footbridge. This included cost estimates for the options and possible restrictions. The Options Report in full can be found in Appendix 3.
- 1.6 The options explored included the following 1) replacement with a like-for-like structure meeting current safety standards, 2) a footbridge fully accessible for all, 3) a footbridge that could also be used by cyclists, and 4) an option for a footbridge that could be upgraded in the future to meet Equalities Act standards. The engineer's recommendation, along with costings and reasoning's, are included within the report in Appendix 3.
- 1.7 All of the options outlined within the engineer's report are outside the scope of the Countryside Services budget. Additional funding would have to be identified from outside the Service to construct any of the replacement options.
- 1.8 Portfolio Holders are reminded that QC advice was obtained on this matter (Appendices 4 and 5.) The QC (George Laurence) is of the opinion that the bridge is not maintainable at public expense. Although, Powys County Council have the power to repair and replace the structure if they wish, there is no duty to do so.
- 1.9 Portfolio Holders are now requested to make a decision over the future of a structure in this location.

2 Proposal

- 2.1 That Portfolio Holders make a decision over whether to provide a replacement structure at this location at the present time.

3 One Powys Plan

- 3.1 As there are alternative routes to the open space and Rock Park areas, a decision over replacing the footbridge is not considered to have an impact on any of the objectives outlined in the One Powys Plan.

4 Options Considered/Available

- 4.1 Portfolio members are requested to make a decision over whether to provide a replacement structure. A summary of the replacement bridge options are shown in the table overleaf.

Table 1. Summary of Replacement Options and Costs

Bridge Type	Design, Contracts, Surveys and Fees	Construction Costs	Total Cost
1. Similar to previous structure but meeting modern design requirements	£28,500	£250,000	£278,500
2. Full DDA compliant structure	£28,500	£781,500	£810,000
3. Similar to previous but with option to adapt for future DDA provision	£28,500	£290,500	£319,000
4. Full DDA Compliant plus cycle provision	£28,500	£914,000	£942,500

4.2 **Option One** is to provide a similar replacement structure over the railway line, meeting modern design requirements. This would comprise a flat span over the railway, between columns built on railway property where the original supports were. There would be steps on the approach to the span over the railway. The proposed bridge would be wider than the original, as the extra width provides better compliance with current standards at little extra construction cost. The estimated cost of this option is £278,500.

4.3 **Option Two** provides a fully DDA compliant solution. The main span over the railway would be supported on columns outside the railway boundary, providing ease of construction with no need to gain consent to construct on railway property land. In addition the main span would be slightly arched; this achieves the clearance over the railway but starts to reduce the height of the bridge, so slightly reducing the length of approach ramps. To maintain a shallow gradient of no more than 1 in 20 this solution requires long lengths of approach ramps, from the public open space they will be a dominant feature looking east. These have the potential to be unsightly and would be a significant addition to the bridge. The recommended width of the bridge and ramps is 2.0m to allow easy passing of two wheelchairs. To save on construction costs it is recommended that the lower length of the approach ramp be constructed on an earth embankment rather than steel spans. This embankment could be top soiled and landscaped in a manner to suit

the use of the adjacent land (grass/bushes/trees). The estimated cost of this option is £810,000.

- 4.4 **Option Three** would provide a bridge similar in alignment and accessibility to the original (Option One), but with a larger width and landings included in the design to allow for future installation of shallow approach ramps. This option would be more expensive to construct compared to Option One, due to the additional landings and greater width. With provision for future upgrade to make it DDA compliant, construction may be justified as an interim measure, with the installation of ramps being possible in the future when further funding may be obtained. The estimated cost of this option is £319,000.
- 4.5 **Option Four** provides a fully DDA compliant solution with additional provision to suit use for cyclists. This may make it viable to tap into other funding pools and so provide an easier mechanism by which the reinstatement of the bridge can be achieved. Cycle provision would however increase the cost of the bridge as the parapets for cycle routes have to be 1.5m high (300mm more than pedestrian) and the bridge needs to be wider, a minimum of 2.5m wide, where there is combined use by cyclists and pedestrians. Other than these changes the alignment, profile and access for construction are all the same as Option Two. The estimated cost for this option is £942,500.
- 4.6 The estimated costs for Options One, Two, Three and Four are outside the scope of the Countryside Services budget. If the decision was made to replace this structure, appropriate funding would have to be identified.
- 4.7 If the decision is taken to provide a replacement structure, it will take a significant length of time to secure appropriate funding, undertake detailed surveys, commission engineering specifications, go through the procurement process and complete construction. The footpath would remain inaccessible beyond the current closure, which expires in September 2016.
- 4.8 **Option Five** is that Portfolio Holders decide not to provide a replacement structure at this location at the present time.
- 4.9 QC advice maintains that the previous structure was not maintainable at public expense and therefore Powys County Council has no duty to replace the structure. The advice also suggests that if there is no structure at that location, the public right of way over the former footbridge ceases to exist. As such, the current closure may not need to be extended in September 2016, if the footbridge were not to be replaced. The QC advice in full is attached in Appendices 4 and 5.
- 4.10 QC advice can only be tested through the courts; there is a risk that if the footbridge is not replaced, a formal challenge may be made.

5. Preferred Choice and Reasons

- 5.1 Option Five is the preferred choice.
- 5.2 The Alexandra Road Footbridge was not maintainable at public expense. Powys County Council had a power but not a duty to maintain the structure. Given the significant costs involved with providing a replacement structure, it is not deemed an appropriate use of public resources to replace the structure at this time. If resources were to become available in the future, this decision could be revisited.
- 5.3 This footpath provides a means of access between the residential area of Llandrindod to the east of the railway line and the playing fields. (Please see Appendix 6) There are two alternative routes which allow access between the Alexandra Court area and the playing fields / Rock Park. The eastern end of footpath LL10(A) starts at the junction of Temple Avenue, Montpellier Park and Alexandra Court. The first alternative route, via footpaths CF12 and CF13, starts 135 metres away at the corner of Montpellier Park. The second alternative route, via Park Lane and footpath LL10, starts 298 metres away. Both of these routes can be accessed from Alexandra Court along surfaced pavements.
- 5.4 Both alternative routes are considered to be physically at least as accessible as the footbridge, if not more so, in terms of the surfacing, gradient and number of steps. The old footbridge had a steel deck that could become slippery when wet, was narrow (0.9 metres wide) and had a two stage, steep flight of steps at one end. The alternative routes are both significantly wider than this, with tarmac and / or aggregate surfacing. One alternative route has no steps. The other route (footpath LL12) has a short flight of steps; the treads are much deeper and the steps are on a gentler gradient than those on the footbridge.

6 Sustainability and Environmental Issues/Equalities/Crime and Disorder,/Welsh Language/Other Policies etc

- 6.1 Given the alternative routes available (as outlined in 5.3 and 5.4), it is felt that the decision not to replace the structure would not present significant issues in terms of equalities.
- 6.2 If the decision is taken to provide a replacement structure, consideration must be given to how the new structure meets the requirements of the Equalities Act. Powys County Council would need to evaluate the situation and conclude if it is, or is not, reasonable to install a fully accessible structure at the location and be able to fully explain its reasoning as to how it made its decision (the justification). Some could argue that if the authority decides to replace the structure, not installing a fully accessible structure would be unreasonable. Conversely, others could argue the opposite, citing the significant differences in cost as a reasonable justification.

- 6.3 If a replacement structure were to be provided, there would be sustainability issues as Powys County Council would be liable for all future maintenance of the structure.
- 6.4 The proposal is not considered to impact on the Crime and Disorder, Welsh Language or other Policies.
- 6.5 The work of Countryside Services, with regards to public rights of way, is outlined in the Powys Rights of Way Improvement Plan 2007-2017. Due to scarce resources and high demand, works on public rights of way have to be prioritised. The current policy is called the Priority Community Area Approach, which specifies that works within an Area officer's patch are targeted in the community with the highest demand. (There are some works which fall outside of this prioritisation, such as health & safety concerns and grant-funded works for example.) Llandrindod Wells is not currently a priority community, so footpath LL10(A) should not receive higher attention for works as there are no longer any health & safety concerns.

7 Children and Young People's Impact Statement - Safeguarding and Wellbeing

- 7.1 Footpath LL10(A) allows access from Alexandra Court to the playing fields and Rock Park on the other side of the railway line. This is an open space available for play and outdoor recreation, recently a community orchard has been planted there too. As there are two alternative routes to this open space, the wellbeing of children and young people will not be significantly impacted by a decision not to replace the footbridge.

8 Local Member(s)

- 8.1 Cllr T. Turner - Option 1 is my preferred choice and I ask that the council explore all funding opportunities to provide a replacement structure. Local residents would very disappointed if Option 5 was taken up.

9 Other Front Line Services

- 9.1 Development Control – The Gwynedd engineers report outlines that some of the potential replacement options may require planning permission. Powys County Council's Development Control team have advised that under Part 13 of the GPDO regarding development by Highway Authorities, none of the replacement bridge options would require planning permission as the works could be undertaken under permitted development rights.

10 Support Services (Legal, Finance, Corporate Property, HR, ICT, Business Services)

- 10.1 Professional Lead – Legal agrees with the recommendation set out in this report taking into account all matters as well as Powys CC legal position/obligations as outlined in the QC's advice attached to this report.
- 10.2 Finance -The Capital and Financial Planning Accountant confirms that the replacement bridge is not in the capital programme.

11 Local Service Board/Partnerships/Stakeholders etc

- 11.1 n/a

12 Corporate Communications

- 12.1 The report is of public interest and requires a proactive news release and use of appropriate social media to publicise the decision.

13 Statutory Officers

- 13.1 Strategic Director Resources (Section 151 Officer) - The comments that funding for a replacement isn't in the overall capital programme has been confirmed by the Capital and Financial Planning Accountant. The legal comments confirm the council does not have responsibility to fund a replacement.
- 13.2 Solicitor to the Council (Monitoring Officer) - I note the legal comments and the external QC advice obtained and have nothing to add.

14 Members' Interests

- 14.1 The Monitoring Officer is not aware of any specific interests that may arise in relation to this report. If the Portfolio Holders have an interest they should declare, complete the relevant notification form and refer the matter to Cabinet for decision.

15 Future Status of the Report

- 15.1 Members are invited to consider the future status of this report and whether it can be made available to the press and public either immediately following the meeting or at some specified point in the future.

Recommendation:	Reason for Recommendation:
That the decision be taken not to provide a replacement structure over the railway line near Alexandra Court in Llandrindod Wells.	Powys County Council does not have a duty to provide or maintain a structure at this location. Due to the significant replacement costs and the fact that there are alternative routes available, the structure should not be replaced.

Relevant Policy (ies):	Powys ROWIP 2007-2017		
Within Policy:	Y	Within Budget:	Y

Relevant Local Member(s):	Cllr T Turner
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Person(s) To Implement Decision:	Nina Davies
Date By When Decision To Be Implemented:	September 2016

Contact Officer Name:	Tel:	Fax:	Email:
Nina Davies	01597 827683		nina.davies@powys.gov.uk

Background Papers used to prepare Report:

- Appendix 1** Portfolio Holder Delegated Decision Report 24th Nov 2015 Alexandra Road Footbridge
- Appendix 2** **2a** Summary of Correspondence **2b** Email from Interested Parties
- Appendix 3** YGC Alexandra Road Footbridge Replacement Options Report
- Appendix 4** **Appendices 4a and b** QC advice May 2015 and accompanying plan –**CONFIDENTIAL AND LEGALLY PRIVILEGED**
- Appendix 5** Updated QC Advice June 2015 – **CONFIDENTIAL AND LEGALLY PRIVILEGED**
- Appendix 6** Location plan – footbridge and alternative routes

CABINET REPORT TEMPLATE VERSION 3

CYNGOR SIR POWYS COUNTY COUNCIL.

PORTFOLIO HOLDER DELEGATED DECISION

by

**COUNTY COUNCILLOR W JOHN T POWELL
(PORTFOLIO HOLDER FOR ENVIRONMENT AND SUSTAINABILITY)**

AND

**COUNTY COUNCILLOR WYNNE T JONES
(PORTFOLIO HOLDER FOR FINANCE)**

AND

**COUNTY COUNCILLOR JOHN H BRUNT
(PORTFOLIO HOLDER FOR HIGHWAYS)**

24TH NOVEMBER 2015

REPORT AUTHOR: Nina Davies, Countryside Access Officer (Operational)
Sian Barnes, Definitive Map and Commons Registration
Officer

SUBJECT: Footbridge on Footpath LL10A

REPORT FOR: Decision

1 Summary

- 1.1 The purpose of this report is to agree a way forward with regards to the future of a footbridge spanning the railway line, over which runs Footpath LL10(A) in Llandrindod Wells. The footbridge – and footpath – run between Alexandra Court and the playing fields / Rock Park.
- 1.2 In the 1960's, Radnorshire County Council was given permission by the British Railways Board to construct a bridge over the Heart of Wales railway line at O.S. grid ref: SO 058606 in Llandrindod Wells.
- 1.3 The bridge carried a private footpath. It is believed that the reason for this is that access was needed between the Llandrindod Wells County Secondary School and its playing fields. However, this is not specified in the easement and agreement giving permission for the bridge to be built.
- 1.4 The bridge file holds correspondence highlighting discussions over the bridge and its maintenance dating back to 1996. No conclusion was ever reached as to which department would, or should be responsible for the structure; numerous council departments were considered, including Education, Highways and Property Services. Corporate Property has confirmed that the council has not undertaken any work on the bridge since 1999, but earlier records were not available.

- 1.5 Corporate Property commissioned an Engineer's report in September 2010, (Appendix 1). The report highlighted erosion to the bridge structure. Recommendations for repair were made within the report, as it was assumed at that time that Powys County Council would be responsible for maintaining the bridge, but no repair work was carried out.
- 1.6 An application for a Definitive Map Modification Order was received in 2006 and completed in 2013; this resulted in a public right of way being recorded over the Alexandra Road Footbridge (Footpath LL10A).
- 1.7 The footbridge was inspected by one of the Council's structural engineers in July 2014. Due to verbal concerns raised following this, Countryside Officers took the decision to close the bridge to the public. A temporary Traffic Regulation Order (TRO) to close the bridge and stop public access across it has been in place since August 2014. The closure runs out in March 2016 and cannot be extended.
- 1.8 A written Structural Inspection Report was received in October 2014 (Appendix 2). The report highlighted significant concerns regarding erosion to the bridge. It was stated that any required repairs were likely to be extensive and it was anticipated that it would be cheaper to replace the whole steel footbridge. However, as the footbridge is not to modern access standards, a significantly larger structure would be required to meet Equality Act requirements.
- 1.9 The recommendation of the 2014 engineer report was that *"In view of the poor condition of this footbridge, its critical high risk location, and the lack of knowledge of the existing load capacity, it should remain closed and either be made good, replaced with a new structure or removed."*
- 1.10 *"The Footbridge is currently closed, but will be continuing to deteriorate, and could collapse onto the railway. If the footbridge cannot be repaired or replaced in the near future the Steel structure of the footbridge should be removed."*
- 1.11 Counsel advice on land ownership was requested whilst the application for a Definitive Map Modification Order was being processed; this cast doubt over the assumption that Powys County Council would be responsible for maintaining the footbridge.
- 1.12 Given that, George Laurence QC was asked for advice on the matter (14th May 2015, Appendices 3 and 4.) He is of the opinion that the bridge is not maintainable at public expense. Although, PCC have the power to repair and replace the structure if they wish, there is no duty to do so.

- 1.13 Mr Laurence highlighted the fact that Network Rail could repair, replace or demolish the bridge and then re-charge the costs to Powys County Council.
- 1.14 A meeting was held with Network Rail on 23rd September 2015 to discuss the future of the bridge. Network Rail have provided costs for the demolition of the bridge and line possession of £53,911.11 (Appendix 5), which includes environmental and other surveys. The surveys may identify additional work that is not included in these costs.
- 1.15 The demolition could be completed by Network Rail before the temporary closure expires in March 2016.
- 1.16 On 15th October 2015, Countryside Services were made aware of vandalism to the barriers preventing access to the bridge. The crime reference number is DRL/0510/20/10/2015/01/c. On inspection Countryside Officers found that the steel chains holding the barriers in place had been cut and the barriers moved to allow access to the bridge. There was evidence of the bridge being used. Officers bought core-strengthened chains and made the bridge secure.

2 Proposal

- 2.1 That the decision be made to instruct Network Rail to remove the bridge over the railway line before March 2016, in line with the quote they have provided of £53,911.11.

3 One Powys Plan

- 3.1 Responding to potential safety hazards on public rights of way (as a highway) is part of the Council's statutory duties; one of the primary duties of a Highway Authority is to maintain safe passage for users of the highway network. That is not specifically provided for in the One Powys Plan, but remains a legal statutory duty of the Council. Engineer advice states that the bridge is not safe for use. Therefore it is the council's responsibility to act on that advice by restricting access to the bridge and taking appropriate action with regard to its future.

4 Options Considered/Available

- 4.1 Option One would involve repairing the footbridge and re-opening it. The 2014 Engineer report stated that "*The required repairs are likely to be extensive and we anticipate that it will be cheaper to replace the whole steel footbridge retaining the existing concrete foundations than to repair it. However the footbridge is not to modern access standards, we have not looked at what would be required to replace this bridge to modern standards, but would expect a significantly larger structure to be required due to the need for a low incline ramp (which would also require additional foundations).*"
- 4.2 Option Two would be to leave the footbridge closed under a Traffic Regulation Order for the foreseeable future. However, when the temporary closure runs out in March 2016 it would be necessary to

open the bridge to public access for a short time before another closure could be implemented. In the meantime, the bridge would be continuing to deteriorate. It is known that attempts have been made to forcibly access the bridge, as noted in point 1.16 above. There is a risk that further such attempts will be made. This poses a risk to both those making the attempts and to other members of the public, who, on removal of the relevant signage and / or barriers, may not then be aware that the footbridge is still considered to be dangerous.

- 4.3 Option Three involves the demolition of the bridge, as an interim safety measure whilst discussions as to the future of the bridge are ongoing. Network Rail have provided quote for costs of £53,911.11. Only Network Rail can undertake the removal of the bridge as it is on railway land and over a live track. The current closure of the bridge runs out in March 2016 and it cannot be extended without opening the bridge to the public for a period. Due to the significant health and safety concerns raised by the engineer, it is felt unwise to open the bridge to the public, even for a short timeframe. Given that, it seems prudent to arrange for the demolition to occur before March 2016.

5. Preferred Choice and Reasons

- 5.1 Option Three is the preferred choice. Engineer advice is that repair would be more expensive than replacement and that the bridge is deteriorating and should be removed if it is not to be repaired. Therefore, Option Three would allow for the removal of a dangerous structure over the railway, before the temporary closure comes to an end. The recent vandalism to the barriers restricting access lends support for the demolition proceeding, at the earliest possible opportunity.
- 5.2 When the barriers were vandalised and removed, evidence was found that someone may have taken a child's buggy or pram over the bridge. The Police also raised concerns that children may access the bridge. Its urban location means that it is easily accessible by a large number of people, including children; the fact that it spans a railway line makes it particularly dangerous.
- 5.2 A Virement Form has been completed outlining a transfer from Specific Reserves (Transport) for the funding required to pay Network Rail the £53,911.11 to remove the bridge over the railway.

6 Sustainability and Environmental Issues/Equalities/Crime and Disorder,/Welsh Language/Other Policies etc

- 6.1 This footpath provides a means of access between the residential area of Llandrindod to the east of the railway line and the playing fields. (Please see Appendix 6) There are two alternative routes which allow access between the Alexandra Court area and the playing fields / Rock Park. The eastern end of footpath LL10(A) starts at the junction of Temple Avenue, Montpellier Park and Alexandra Court. The first alternative route, via footpaths CF12 and CF13, starts 135 metres

away at the corner of Montpellier Park. The second alternative route, via Park Lane and footpath LL10, starts 298 metres away. Both of these routes can be accessed from Alexandra Court along surfaced pavements.

- 6.2 Both alternative routes are considered to be physically at least as accessible as the footbridge, if not more so, in terms of the surfacing, gradient and number of steps. The current footbridge has a steel deck that can become slippery when wet, is narrow (0.9 metres wide) and has a two stage, steep flight of steps at one end. The alternative routes are both significantly wider than this, with tarmac and / or aggregate surfacing. One alternative route has no steps. The other route (footpath LL12) has a short flight of steps; the treads are much deeper and the steps are on a gentler gradient than those on the footbridge. Given that, it is not felt that demolition of the footbridge would present significant issues in terms of equalities or sustainability.
- 6.2 The proposal is not considered to impact on the Crime and Disorder, Welsh Language or other Policies, other than that removal of the footbridge may reduce the potential for vandalism.

7 Children and Young People's Impact Statement - Safeguarding and Wellbeing

- 7.1 Removing the dangerous structure would help to protect children and young people who may be tempted to ignore the barriers and signs to access the bridge. The Police raised concerns that the bridge may be accessed by children.

8 Local Member(s)

- 8.1 Cllr T. Turner – As the local member effected I have to disagree very strongly with the councils preferred option of demolishing. I should like to fight to have the bridge repaired and opened.

9 Other Front Line Services

- 9.1 No known implications for other front line services. Despite closure for more than 12 months, no concerns have been raised from other Services.
- 9.2 Development Management have advised that Network Rail will need to submit a Demolition Notification and post site notices before undertaking the removal of the footbridge. The matter will need to be taken to the Planning, Taxi Licensing and Rights of Way Committee. Network Rail will be advised accordingly.

10 Support Services (Legal, Finance, Corporate Property, HR, ICT, Business Services)

9.1 Legal - The Professional Lead – Legal supports the recommendation outlined in this report.

9.2 Finance – given the current economic climate affecting the Council’s revenue funding, it would seem appropriate that the recommended option be funded from Specific Reserves (Transport).

11 Local Service Board/Partnerships/Stakeholders etc

11.1 N/A

12 Corporate Communications

12.1 A Communications strategy and press release will be implemented upon member decision.

13 Statutory Officers

13.1 Strategic Director Resources (Section 151 Officer) - The Strategic Director Resources (S151 Officer) notes and supports the comments made by finance.

13.2 The Solicitor to the Council (Monitor Officer) has commented as follows: “I note the legal comment and have nothing to add to the report.”

14 Members’ Interests

The Monitoring Officer is not aware of any specific interests that may arise in relation to this report. If the Portfolio Holder(s) have an interest he/ they should declare, complete the relevant notification form and refer the matter to Cabinet for decision.

15 Future Status of the Report

Members are invited to consider the future status of this report and whether it can be made available to the press and public either immediately following the meeting or at some specified point in the future.

The view of the Monitoring Officer is that:

Recommendation:	Reason for Recommendation:
Instruct Network Rail to remove the bridge over the railway as soon as possible and in any case by March 2016 at the latest.	Health and safety. To protect members of the public, especially children and young people.
That the virement of £53,911.11 from Specific Reserves (Transport) be agreed to fund the works required.	

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Relevant Policy (ies):			
Within Policy:	Y	Within Budget:	N

Relevant Local Member(s):	Cllr T Turner
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Person(s) To Implement Decision:	Sian Barnes & Nina Davies
Date By When Decision To Be Implemented:	February 2016

Contact Officer Name:	Tel:	Fax:	Email:
Sian Barnes	01597 827595	01597 827555	sian.barnes@powys.gov.uk

Background Papers used to prepare Report:

Appendix 1	Engineers Report Sept 2010
Appendix 2	Engineers Report Oct 2014
Appendices 3a and b	QC advice May 2015 and accompanying plan – CONFIDENTIAL AND LEGALLY PRIVILEGED
Appendix 4	Updated QC Advice June 2015 – CONFIDENTIAL AND LEGALLY PRIVILEGED
Appendix 5	Network Rail demolition costs - CONFIDENTIAL AND COMMERCIALY SENSITIVE
Appendix 6	Location plan – footbridge and alternative route

CABINET REPORT TEMPLATE VERSION 3

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**Appendix 2a. Summary of Comments forwarded from Kirsty Williams AM,
regarding Alexandra Road Footbridge in Llandrindod Wells**

Would like to see the bridge reopened as a lot of dog walkers used it, now they come past our house to go to the field via the Rock Park, their dogs leaving mess on the pavement. It is a good vantage point for the steam trains when they come through, which was no doubt a health and safety risk with the bridge in such poor condition. The council did have obligations under the previous agreement with BR.

Before it closed I used it just about every day to access Rock Park. It is both an inconvenience and an annoyance to us as local residents.

The footbridge of the railway line would seem to constitute an integral, if not essential, part of the footpath. To the best of my knowledge the bridge has not received any maintenance in the 15 years I have resided here. Until its closure last year it has been a well-used and safe way for residents and visitors to access the playing fields and recreational land that borders the railway line. Since its closure there has been a marked increase in children playing ball games in Alexandra Road, as well as an increase in the incidence of dog fouling on the road and pavement. The 'rough estimate' given is approximately 20 or 30 times the cost suggested by Network Rail's structural report; I conclude that PCC are looking to justify a decision to not honour the agreement between Radnorshire Council and BR.

This reinforces a local perception that Radnorshire is underfunded in comparison to Brecknock or Montgomery, with detriment to the local area. PCC may spend more money to demolish the existing structure than Network Rail suggest it would cost to repair.

The access across the railway is much missed by local residents. Surely the local council have broken the terms of their agreement to maintain the bridge in perpetuity. There seems to be an enormous discrepancy in the estimated costs of repair between Network Rail and the Council's estimates.

This bridge is badly missed. Surely if Network Rail can find vast sums of money for the many huge rail projects underway, a small amount of regular maintenance should not be a problem – we have iconic Victorian steel structures like the Forth bridge which is still in remarkable condition because of regular, ultimately cost saving attention. We should do more make do and mend that can be carried out by local firms to a high standard.

The footbridge is a genuine amenity making our life more pleasurable. It is an asset to the neighbourhood because it enables everyone to get direct access

to the playing field, including walkers and people taking their dogs for exercise.

The bridge made a very pleasant circular route through the Park. I have enjoyed the scenery and bird watching from this vantage. A community orchard has begun to be planted in the field just beyond the bridge, so this route would be convenient for this also.

Closing the bridge is another removal of Llandrindod's public facilities. For a little town with no way of existing or growing without tourism these actions are disastrous.

The bridge is well-used by all sorts of walkers – elderly people, dog walkers, children taking a short cut on the way home from school, people accessing the Rock Park, young footballers, picnickers, tourists on the Town Council self-guided walk leaflets.

The bridge is a great community asset. We and our children used the bridge to go over to the field, to play, cycle and walk dogs. It encouraged young people to get out of the house and run about.

The bridge was built by PCC so that the school children could get access to the playing field without a 10min walk down the road, the Railway company had nothing to do with its construction and did not contribute to its cost in any way, so the council cannot pass on any responsibility for its repair to the Railway.

About 3 years ago the County Council made an order with all the necessary Notices that a Footpath be set up from Montpellier Park over the bridge and into the School Field, so what is the legal position? Can the Council just ignore this footpath, or if they wished to rescind it would Notices have to be issued and displayed giving notice and/or Public Enquiry?

This bridge was used by dozens of people with and without dogs each day. Residents from the old peoples' flats, families with children etc. It was much more pleasant and safer for shoppers in the town centre to go home via the footpath behind the Commodore Hotel into the Rock Park or down the main entrance into the Rock Park, walk across the School Field, over the bridge and down to the Ridgebourne area; safer than crossing roads.

This bridge and its direct access to the Rock Park field was a major factor in our decision to move to Montpellier Park. We have 5 children who have used the bridge daily for 12 years. 2 dogs walked 3 times a day. The closure of the bridge, apart from the major inconvenience, has caused a huge increase in the amount of dog muck in the road. We have met many visitors to the town ascending into such a beautiful park, watched the sunset, and people flock to

stand on the bridge to watch the special steam trains go past. So many people in the neighbourhood want the bridge reopened, from OAPs at Alexandra Court to the young kids from the local nursery that used to be brought across it to play in the field as part of their daily exercise.

Appendix 2b. Email received from [REDACTED]

From: [REDACTED]
Sent: 16 July 2016 21:00
To: Sian Barnes (CSP - Countryside Services) < [REDACTED] >
Cc: Tom Turner (CSP - County Councillor) < [REDACTED] > Mark Stafford-Tolley (CSP - Countryside Services) < [REDACTED] >
Subject: Right of Way LL10(A), Montpellier Park LLandrindod

Dear Sian

As you are aware the right-of-way numbered LL10(A) is currently subject to a Traffic Regulation Order in force until 18th September 2016 or earlier at the point where it crosses the railway, due to the removal of the footbridge by Powys on or around 29th March this year. We understand you have received a feasibility report on the matter from Gwynedd County Engineers. We would strongly support the provision of a replacement footbridge as until its temporary closure the Right-of-Way was well used, and in addition to affording access to the playing field/public open space and the Rock Park, the route now leads to the community orchard. As the report has not been made public yet we do not know its contents, but would comment that although it is desirable wherever possible to provide step-free access, the remainder of the right-of-way is a muddy field which the Council additionally appears to have discontinued mowing, so wheelchair access by that route is in effect impossible, if that is an option that the report considers. Any attempt to extinguish the right-of-way would be strongly opposed by users and result in an expensive and protracted public enquiry.

We would ask that you pass these comments to the relevant Portfolio Councillors.

Regards

[REDACTED]

[REDACTED] Llandrindod [REDACTED]

[REDACTED]



ALEXANDRA ROAD FOOTBRIDGE

REPLACEMENT OPTIONS REPORT

CPF5467



Document Control Sheet

Document Author:	Jonathan Chapman
Project Manager:	Jonathan Chapman

Revision History

Date	Version No.	Summary of Changes
10/05/2016	0.01	First Issue - Draft
09/06/16	0.02	Second Issue – Cost Estimate & Embeded Photographs included
14/06/16	0.03	Minor revision to 'Public Open Space' description following Clients Comments 13/06

Approvals

Approved by	Signature	Date	Version
O.R. Jones		10/05/2016	0.01
O.R. Jones		09/06/2016	0.02

Distribution

Name	Title	Date	Version
Nina Davies	Countryside Services (Powys)	14/6/2016	0.03

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Summary

YGC were commissioned by Powys Council to consider possible options for the replacement of the footbridge in Llandrindod Wells known as Alexandra Road Footbridge. This report summarises the possible options, cost estimates for the options and the possible restrictions on the construction of compliant options.

The conclusion from the report as to the 'best' option has to be made by Powys, as all options carry some degree of balance be it in cost or design compliance. This is primarily as the height of the bridge above the adjacent land requires 125m of approach ramp.

The report recommended option (Option 3) is one of compromise which incorporates a replacement bridge with improved geometry over the railway, but maintaining stepped approaches as the previous bridge, but with provision of landings where DDA compliant ramps can be incorporated in the future when funding can be committed to the scheme. This option has an estimated cost of £290,500.

Site Location

The location of the proposed bridge is to follow the line of the original Alexandra Road Footbridge. This bridge is located in a suburban area of the town of Llandrindod running from the end of a residential road over the single track Heart of Wales Railway line to an area of public open space (recreational land). (Refer to Appendix A for Drawing of Original Structure.)



Bridge Location

The original bridge at the location is typical of 1960s railway lattice construction incorporating lightweight sections, pedestrian height (1.1m high) parapets of open mesh and very slender supports close to the railway track. Access onto the main span to the East is via a seep ramp and to the West over two flights of steep stairs.

The public open space to the west accessed by the footbridge is also accessible from the North through Rock Park using steep tracks and/or stepped access, or from the South along a non

metaled surfaced track of moderate slope. In both instances the bridge is reached across at least 100m of grass field.

To the North of the bridge the public open space is classed as ‘Village Green’ and as such has restrictions over its use and could not be used for the construction of approaches for a new bridge.



View to ‘Village Green’ from West end of bridge.

A previous study of users of the original bridge has identified that the desire line from the West end is for users to walk to the North along the boundary fence with the railway, the new bridge should follow this desire line in the exit of any ramps or stairs.

Design Requirements for Footbridges

Publicly owned footbridges are generally designed in accordance with structural Eurocodes and to the requirements of the Design Manual for Roads and Bridges (DMRB). In addition the requirements of stakeholders and user groups should be considered; specifically Network Rail, DDA compliance and Sustrans in this situation.

Primary Design Standards/codes are:

- DMRB BD 29/04 Design Criteria for Footbridges
- DMRB TD19/06 Requirements for Road Restraint Systems
- BS EN 1990 Basis of Structural Design
- BS EN 1991-2 Traffic Loads on Bridges
- BS EN 1993 Design of Steel Structures
- Sustrans Design Manual Chapter 8 - Bridges and other structures (draft)

Network Rail Requirements

Initial correspondence with network rail has been undertaken to determine if any departure can be gained from their requirements for bridge parapets, and to determine fundamental geometry. They have responded that all new footbridges must comply with future line electrification standards and so require a 1.8m high solid infill parapet over the line.

They have also commented: *“With regards to the foot bridge supporting columns, these must be design as to fall outside Network Rail operational boundary otherwise legal easement agreements will be entered into in order to acquire take up of land within the company’s ownership.”* The precedent set by the original bridge having lineside supports would potentially allow a legal easement to be agreed to reinstate supports at these locations, however there is a risk this may take a time to agree and could put short term delivery in jeopardy.

In discussions they have also confirmed clearance over the line should be 5.1m. the original bridge was 5.15m so to allow for construction tolerance and track maintenance the proposed clearance is to be maintained as 5.15m.

Design Standard Requirements

The critical design standards for footbridges which affect the geometry are:

- Design live loading of 5kN/m^2 - This is a feasible loading as the public open space could be used for an event which would fully loads the bridge when over and people leave in one mass.
- Vibration limitations – the vertical and horizontal limitations provided in design codes need to be met as the location of the bridge in a suburban area may be subject to forced vibration by groups of users. To ensure vibration is within design limits the bridge requires sufficient strength and mass.
- Width between parapets is dependent on usage, as a minimum should be 1.5m. (A wider bridge is better for passing of users and 2.0m is a recommended minimum for cycle use.) A narrower bridge similar to the existing could only be produced if access for wheelchair/mobility scooter users is not possible.
- Ramp gradients should be less than 1in12, but the length of ramps have to be kept short between landings (just 2m at 1in12), hence for a bridge crossings the upper level of ramp is usually used (1in20) with ramp lengths between landings kept to a reasonable length. (For buildings this length is defined as 10m, but this is not feasible on large bridge structure where ramps become dominant.)
- Landings should be 1.8m minimum in length.

Bridge Construction Types

The original bridge span was 10.5m, this is the minimum the bridge can span over the railway and as such the bridge construction type is limited to materials which can span this sort of distance. The original steel truss bridge construction type is very appropriate for this sort of span, making efficient use of the steel elements and having a minimum distance from the underside of the deck to the walking surface. Alternative materials such as timber and concrete are more typical to bridges where the walking surface sits on top of the beams and so it is higher above the railway and requires more approach structure to get to the height.

With modern material sections, more appealing trusses can be produced, Vierendeel trusses, which have vertical members rather than diagonals. These are also better to prevent climbing of the truss which is also the bridge parapet.



Vierendeel Truss bridge. Green members provide structural strength as well as forming parapet.

Other alternative types of construction would include ‘statement’ structures such as cable stayed, bowstring arch or suspension bridges. But all these structure types would be more expensive to manufacture and benefit from a viewing point orthogonal to the bridge. In this situation with the bridge crossing a straight section of railway track there is limited locations to view the bridge and statement structures are not considered appropriate.



Longer Span ‘Feature Bridges’ using a Light weight triangular truss (Left) or Bowstring Arch Truss(Right).



Various styles of ‘Feature Bridge’, Generally dependent on balancing two spans around a support with a cable tower.

Modern composite materials (glass-fibre reinforced polymers) GRP provide a further option for the bridge which are virtually maintenance free. Their initial costs are still high due to the specialist nature of the construction, however whole life costs are more favourable; the bridge over a railway (picture below) cost as a scheme £650k and would provide a comparable solution to the original bridge structure (i.e. not DDA compliant). For a DDA compliance with ramps of GRP the costs would be in the order of three times this bridge (approx. £1.8million) and so is not considered further.



GRP Bridge constructed over railway line in slight cutting.

Inspection & Maintenance

Critical costs to be considered in a scheme are the costs for future Inspection and Maintenance. Modern paint systems applied to paintwork can provide up to 60years to major maintenance. With minor maintenance needed after 25 years. As these specialist paint systems are more expensive it may be beneficial only to apply them to the span over the railway. Using a more conventional paint system on the other sections of the bridge where access is easier.

Inspection of bridges is typically carried out every 2 years in accordance with standards, and every 6th year the Principal Inspection needs access to all areas, close enough to touch. As the bridge is on/over railway land, permission and costs would be needed to access the bridge for inspection. By locating the supports for the bridge off network rail land, the cost to undertake inspections can be reduced as only the soffit of the main span would need to be accessed every 6 years.

The provision of a composite bridge would reduce maintenance liabilities even further with limited maintenance needs for the 120year design life. (As the materials are relatively new these low maintenance characteristics for such a long time are not yet substantiated.)

Environmental Considerations & Permissions

The location of the bridge is suburban and adjacent to a tree lined/overgrown bank. No environmental assessments were carried out for this report although it is suspected that there would be little risk of the presence of protected species it would be prudent to undertake an assessment before committing to construction work.

Nesting birds may be present in the overgrown bank which would need to be cleared for any works. This would therefore push the work to be carried out, outside nesting season (March to September). Alternatively work could be carried out at risk, under a watching brief to check for birds as work progresses.

It is unlikely that environmental consent would be required for the works.



Location of Bridge crossing showing vegetation adjacent to support location

The existence of the original bridge at the site means that a replacement can be erected on the same line and of reasonable similarity without the need for planning consent (the bridge is a direct replacement). However if the bridge is significantly changed in visual appearance i.e. a statement structure, or with the addition of significant approach ramp structures there would be a need to gain planning consent.

Planning is likely to be consented to, for the addition of approach ramps, as they provide improved access, however the planning process may take up to three months from submission of the application and should be factored into any delivery programme considering significant change to the structure.

Options Proposed

Having discounted the provision of a statement structure or GRP alternative; and as the need for minimum height over the railway dictates a truss type structure the options available are based purely on accessibility, width and usage limitations.

Four options have been identified

- Option 1 – **Similar to Existing** 1.5m Wide 1.2 high Parapets
- Option 2 – **Full DDA Compliant** 2.0m Wide 1.2 high Parapets
- Option 3 – **Similar to Existing but with Future DDA Compliance Provision** 2m wide 1.2m Parapets
- Option 4 – **DDA Compliant and Cycle Route** 2.5m wide 1.4m high Parapets

(NB in all options the Parapet on the bridge over the railway has to be 1.8m high with solid infill over the track.)

Option 1

The structurally most basic of options is to construct a bridge similar to the original. This would comprise a flat span over the railway between columns built on railway property where the original supports were, with steps on the approaches to the span over the railway.

The proposed bridge would be wider than the original 1500 of 890 between parapets as the extra width provides better compliance with current standards at little extra construction cost.

This option carries risk in the obtaining of permission from Network Rail to reconstruct the columns on their property, and will incur slight additional cost for the requirement of Network Rail line blockades and supervisory staff during the construction.

(Refer to Appendix B for plan and elevation of Option.)

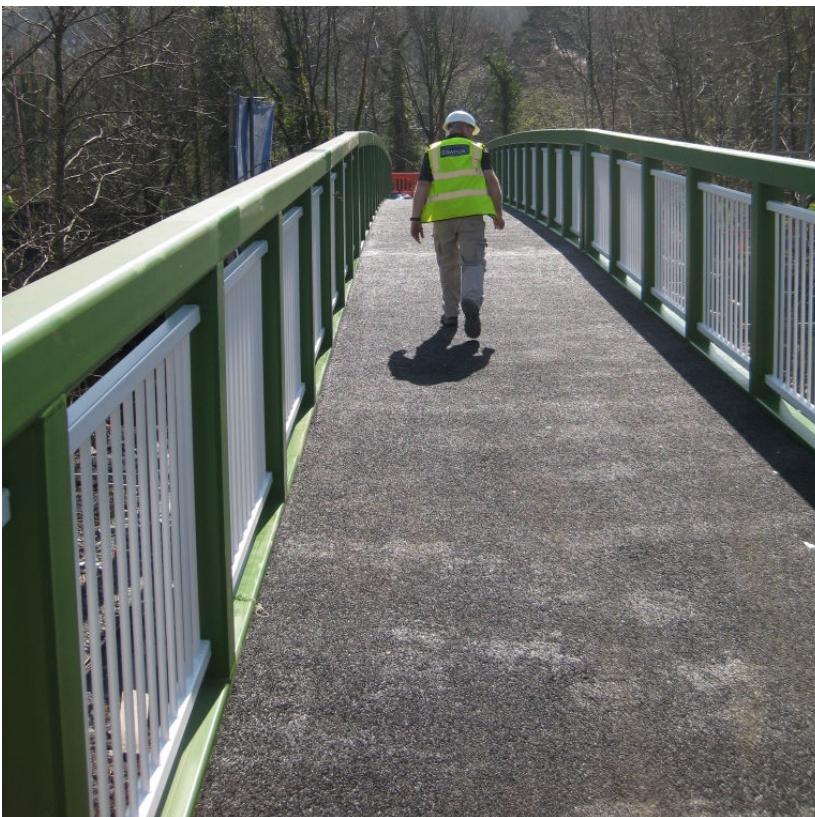
Option 2

This option provides a fully DDA compliant solution which without other limitations should be adopted if at all possible.

The main span over the railway is supported on columns outside the railway boundary providing ease of construction with no need to gain consent to construct on railway property land. In addition the main span can be slightly arched; this achieves the clearance over the railway but starts to reduce the height of the bridge, so slightly reducing the length of approach ramps.

To maintain a shallow gradient of no more than 1in20 this solution requires long lengths of approach ramps, from the public open space they will be a dominant feature looking East. These have potential to be unsightly and as a significant addition to the bridge, planning consent will be required.

The recommended width of the bridge and ramps is 2.0m to allow easy passing of two wheelchairs.



Truss Bridge with 2m width providing sufficient space for passing users.

To save on construction costs it is recommended that the lower length of the approach ramp be constructed by placing an earth embankment rather than steel spans. This embankment can be topsoiled and landscaped in a manner to suit the use of the adjacent land (grass/bushes/trees).

(Refer to Appendix B for plan and elevation of Option.)

Option 3

It is anticipated that as public funds are limited, and use of the original bridge and other routes to the public open space is generally by more able bodied people there may be difficulties in funding the fully DDA compliant option (Option 2). This option provides a bridge similar in alignment and accessibility to the original (Option 1), but with a larger width and landings included in the design to allow for future installation of shallow approach ramps.

This option would be more expensive to construct compared to Option 1 due to the additional landings and greater width, but is unlikely to require planning consent as it would be constructed primarily on the line of the original. With provision for future upgrade to make it DDA compliant, construction could be justified as an interim measure to promptly replace the original bridge with the installation of ramps being possible in the future when further funding can be obtained.

(Refer to Appendix B for plan of proposal, this is similar to Option 2 but without approach ramps included.)

Option 4

This option provides a fully DDA compliant solution with additional provision to suit use for cyclists. Should the installation of a new bridge on this route be considered holistically within the area of Llandrindod it may be that it could be developed into a cycle route for a 'safe route to school' or a local leisure network. This may make it viable to tap into other funding pools and so provide an easier mechanism by which the reinstatement of the bridge can be made.

Cycle provision would however increase the cost of the bridge as the parapets for cycle routes have to be 1.5m high (300mm more than pedestrian) and the bridge needs to be wider, a minimum of 2.5m wide, where there is combined use by cyclists and pedestrians. Other than these changes the alignment and profile, planning requirements and access for construction are all the same as Option 2.

(Refer to Option 2 for details of proposal but with wider ramps and bridge. Ramps will take up 1.0m more space.)

Fabrication, Construction and Erection

Steel structures of the proposed truss type are fabricated off site by specialists; the span lengths are no greater than 20m so for this location they can be fabricated as a complete length and brought to site and lifted into place.

Painting of steelwork elements is also carried out off site by specialists to achieve a high quality paint system in environmentally controlled conditions which should optimise design life. This also reduces the time on site during construction.

Network Rail Requirements

Working adjacent to the railway line on site will require agreement with Network rail. This is required if the works would affect the track, i.e. if a crane could topple onto the track or if working

directly lineside. When working within their boundary, or where risks could occur to their infrastructure they require supervision by their staff, which incurs a cost hence keeping this nature of work to a minimum is beneficial. It is therefore recommended that the main span over the railway be supported outside the rail boundary allowing foundations for the columns to be constructed without the need for Network Rail supervision costs. (Options 2-4)

Actual work over the railway track, lifting the bridge into position will need to be undertaken with a full blockade of the track. This would generally be possible overnight for short periods or for slightly longer periods at weekends. The original bridge was removed over the Easter weekend to provide a good length of time to demolish the structure. The erection of the new bridge should be quicker as it will be designed to be installed quickly and so any weekend blockade should be possible for the works. (Current train times suggest no passenger trains run between 19:30 Sat until 13:30 Sun giving a 18hr working window.)

Access Restrictions to Public Open Space & Road above Bridge

The access to construct a new bridge from the West of the railway is restricted by access widths to the public open space. In addition the field and newly planted community orchard would need to be crossed to get to the site. This therefore precludes access by large construction plant to deliver the bridge and approach spans, and to locate a crane on the land here closest to the bridge.

Access will be needed to the West to construct foundations for the bridge columns, and construction of the earth approach ramp. These works could be carried out reasonably with medium sized plant, although there will be additional costs to reinstate the access routes over the public open space on completion.

Access to the East of the railway can be gained along Temple Avenue and onto the un-adopted highway leading to Alexandra Court. This access would be needed to construct foundations for supports for the East elements of the bridge. In addition this location has been considered to site a large crane to lift the bridge elements into position, for both the East and West sides of the railway.

The largest span proposed for a new footbridge (20m over the railway) has an estimated weight of 18.5tonnes, using this weight and the reach needed from the East side to the furthest access ramp to the West of 50m, a 800te crane would be required. Although these cranes are large, their manoeuvrability is good and could easily be located adjacent to the East of the bridge. Closure of the access to Alexander Court and Temple Avenue would be needed for the duration of the lift with appropriate provision made for access by residents and emergency vehicles. (Refer to Appendix D for crane details.)



Similar crane size lifting 27m span bridge into place.

A search of statutory undertakers equipment has identified buried services of Dwr Cymru, British Telecom, Streetlighting Electric and Wales and West Gas. These services appear to skirt the envisaged location for the crane and should not interfere with its use. Agreement with the apparatus owners would be needed to check the condition for positioning a crane above. A streetlighting column is likely to need taking down for the bridge lift and reinstating on completion. Appendix C provides details of Statutory Undertakers equipment.



Lighting column to be removed during the works.

Programme for Construction

A typical programme for construction is envisaged to take 12 weeks. Typical activities (which can coincide to some extent) would be:

- Fabrication of bridge steel elements off site 8 weeks
- Painting of Bridge Elements off Site 2 weeks
- Construction of Support Foundations/Wall 4 Weeks
- Construction of Approach Ramp to north 2 Weeks
- Erection of Bridge Elements 2No Consecutive Weekends
- Final site demobilisation 1 Week

Advance Works

At present a basic topographic survey of the original bridge line has been undertaken. Prior to detail design a full survey covering the whole bridge area (including ramps would be required). This survey will allow accurate quantification of excavation and fill requirements and depths for foundations.

The proposals in this report have assumed that the bridge will be supported on spread concrete foundations. This is likely to be the case as footbridge loads are not significant and ground conditions appear to be good. To remove the risk during construction and to more efficiently design the foundation it is recommended that geotechnical investigation comprising boreholes and trial pits are carried out on both sides of the railway. Costs for these works are in the order of £2000 and would help direct the detail design.

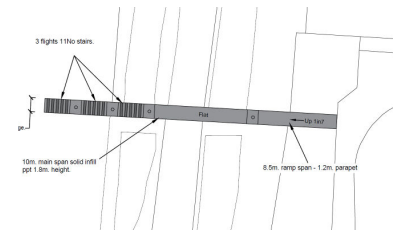
For a tenderer to economically price a scheme the less risk they have to take on the better. As the location of the crane can be critical to the crane size the exact location and type of services in the carriageway/verges are best known. It is recommended that the apparatus owners are brought to site as early as possible in the design stage to locate their apparatus and confirm condition and any restrictions they may have.

Cost Estimate for Works

Costs for the various options have been indicated below. Fabrication, painting, erection and construction costs have been established for the various options based on recent costs for similar works on other projects. In addition to these costs there are design and advance costs similar for all proposals.

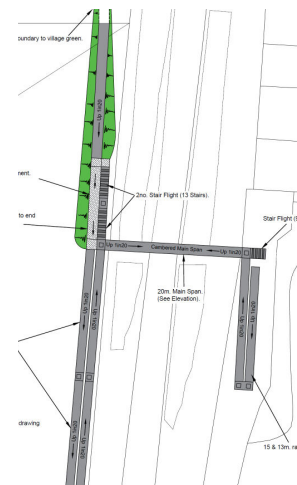
Detail Design & Contract Documentation Fees	£	25,000
Topographic Survey	£	1,500
Advance Geotechnical Works.	£	3,000
Site supervision	£	5,000
Network Rail Agreements	£	10,000
Sub-Total	£	28,500

Option 1 - Similar to Existing				
	Element	Width	Parapet Ht.	Cost £k
1No	Ramp Span 8.5m	1.5	1.2	37.5
1No	Main Span 10m	1.5	1.8	43.5
3No	Stair Flight	1.5	1.2	61.5
4No	Columns & Foundations	1.5x2.0	1.2	44.5
1No	Crainage	-	-	14.5
1No	Site Preliminaries	-	-	10
1No	Network Rail Supervision	-	-	10
Sub Total				221.5



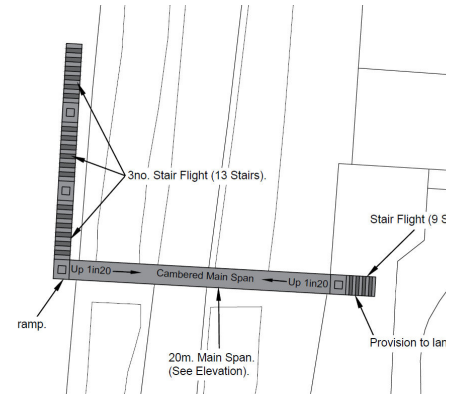
**Scheme Total
£250,000**

Option 2 - Full DDA Compliant				
	Element	Width	Parapet Ht.	Cost £k
1No	Ramp Span 13m	2	1.2	50.5
1No	Ramp Span 15m	2	1.2	61.5
1No	Main Span 20m	2	1.2 to 1.95	96.5
4No	Ramp Span 18m	2	1.2	296
2No	Stair Flight	2	1.2	43.5
8No	Columns & Foundations	2.0x2.0	1.2	98
1No	Crainage	-	-	44
1No	Earth Ramp & End Wall	-	-	25
1No	Site Preliminaries	-	-	30
1No	Network Rail Supervision	-	-	8
Sub Total				753



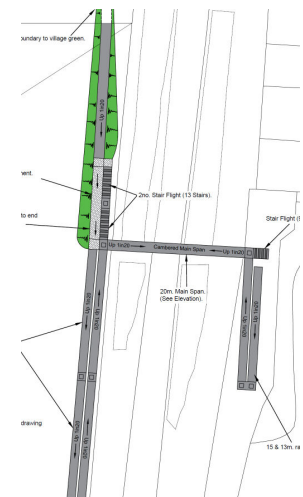
**Scheme Total
£781,500**

Option 3 - Similar to existing - With DDA future provision				
	Element	Width	Parapet Ht.	Cost £k
-	Ramp Span 13m	-	-	-
-	Ramp Span 15m	-	-	-
1No	Main Span 20m	2	1.2 to 1.95	96.5
-	Ramp Span 18m	-	-	-
4No	Stair Flight	2	1.2	87
4No	Columns & Foundations	2.0x2.0	1.2	46
1No	Crainage	-	-	14.5
-	Earth Ramp & End Wall	-	-	-
1No	Site Preliminaries	-	-	15
1No	Network Rail Supervision	-	-	3
Sub Total				262



**Scheme Total
£290,500**

Option 4 - Full DDA Compliant Cycle Route				
	Element	Width	Parapet Ht.	Cost £k
1No	Ramp Span 13m	2.5	1.4	67.5
1No	Ramp Span 15m	2.5	1.4	77.5
1No	Main Span 20m	2.5	1.4 to 1.95	102.5
4No	Ramp Span 18m	2.5	1.4	371.5
2No	Stair Flight	2	1.4	47.5
8No	Columns & Foundations	2.5x2.0	1.4	110
1No	Crainage	-	-	44
1No	Earth Ramp & End Wall	-	-	25
1No	Site Preliminaries	-	-	30
1No	Network Rail Supervision	-	-	10
Sub Total				885.5



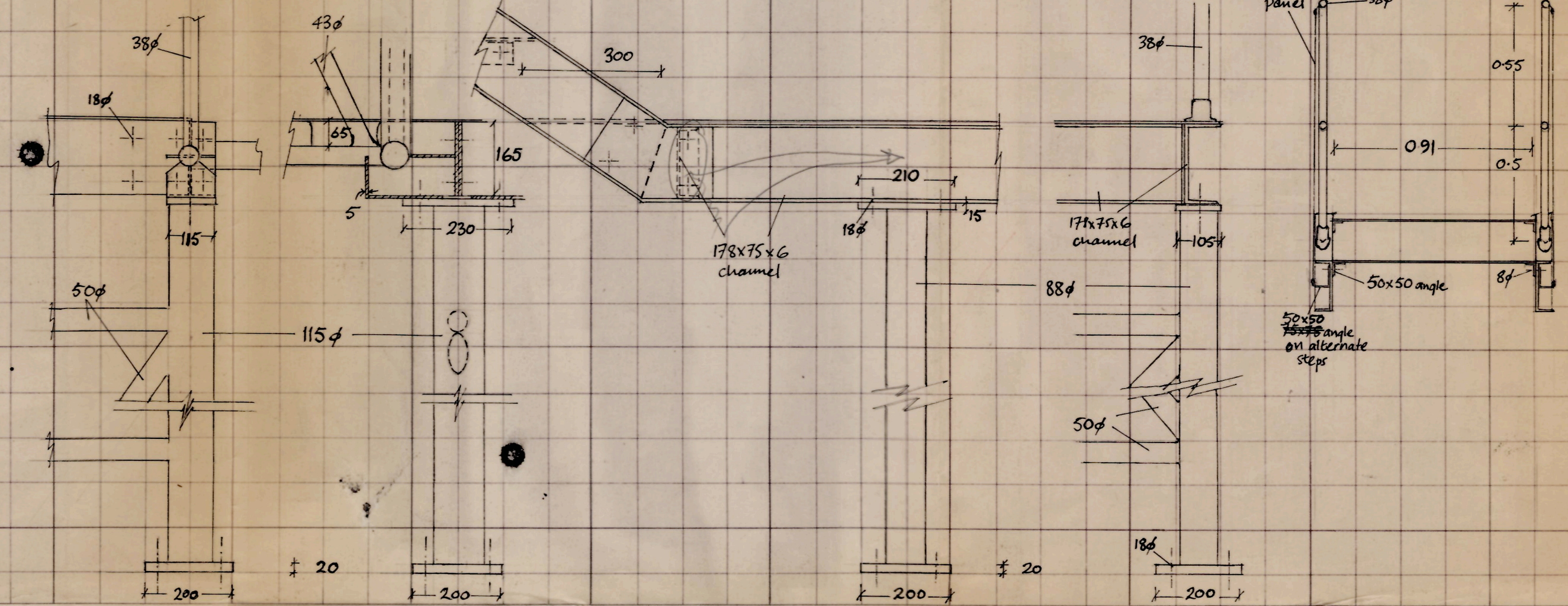
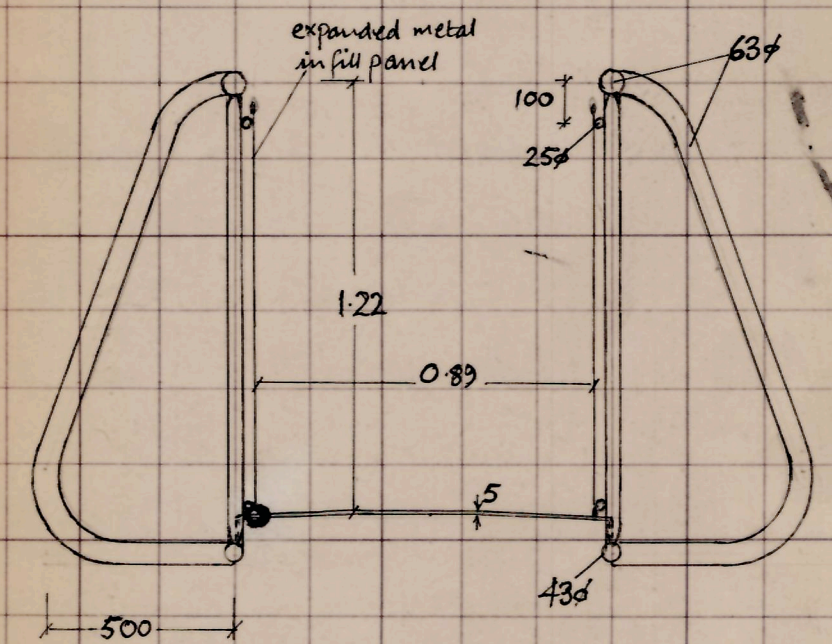
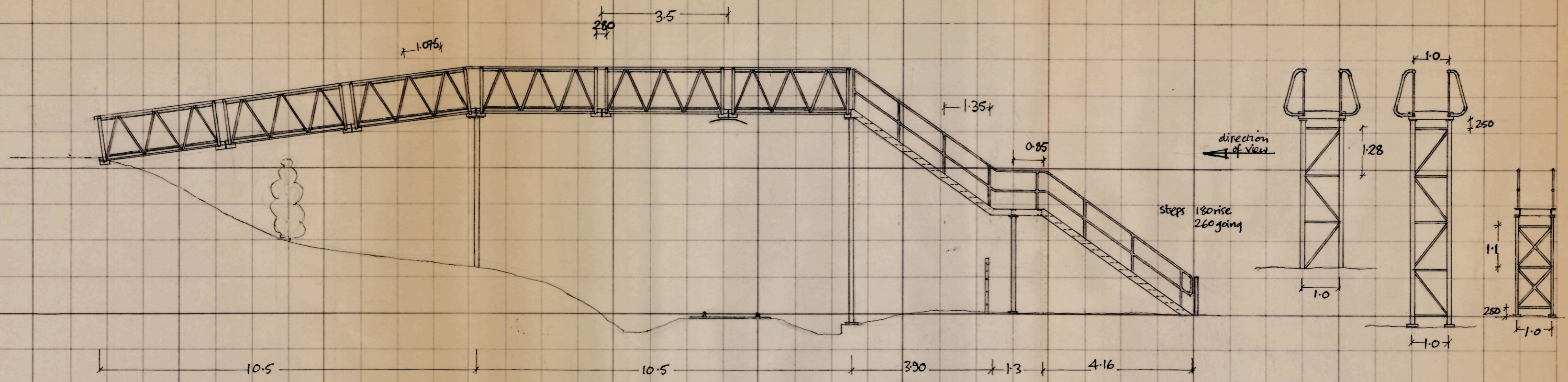
**Scheme Total
£914,000**

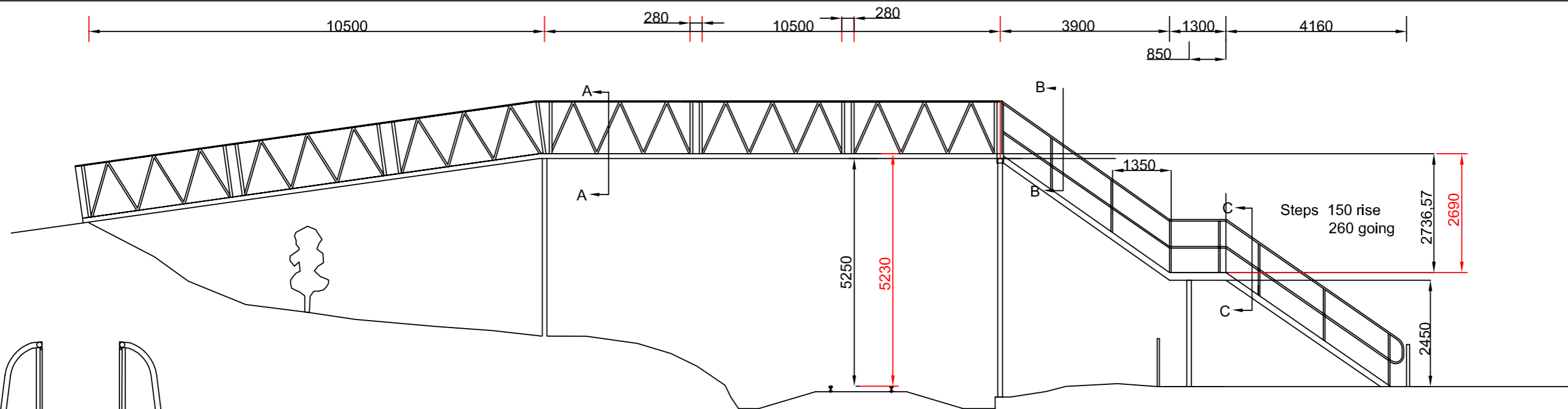
Conclusion

The reinstatement of a new bridge at the site of the original Alexandra Road Footbridge can be achieved in various ways. The cost of installation of a fully DDA compliant solution, which would need substantial approach ramps, may not present best use of funds. A replacement structure similar to the original but meeting current design loading standards would be the cheapest option but is not recommended as no consideration is given to future use by mobility impaired users. Hence, if funds are not available for a fully DDA compliant solution, it is recommended a bridge is installed which is wider than the original with provision for future extension to incorporate ramps to make it DDA compliant (Option 3).

Appendix A

Original Bridge Construction Details

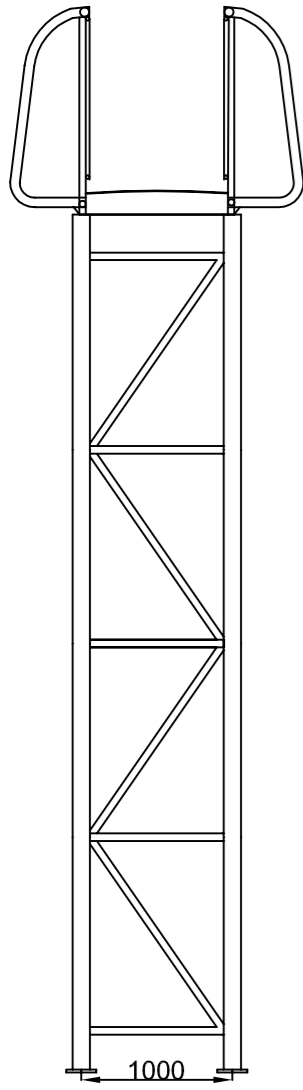




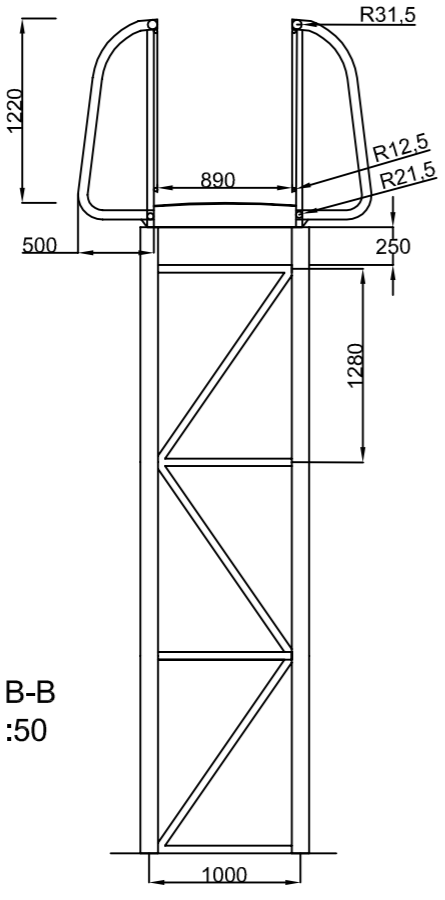
North East Elevation
Scale Approximately 1:100
See Note 2

Notes

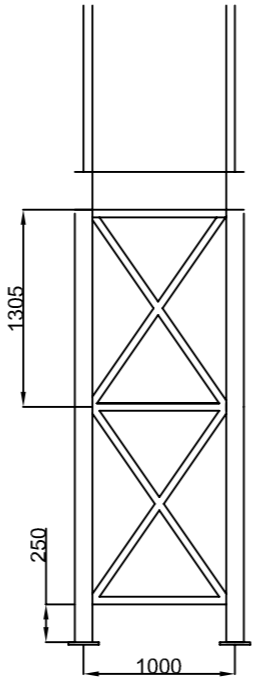
1. Dimensions shown in Red text are from site measurement using a theodolite.
2. All other dimensions are scaled from sketch - 'CB20028.DRG.Unknown' the status of this drawing is not known. This sketch appears to be a fairly close rendition of the footbridge but we were unable to check these dimensions on site and therefore cannot be sure of the accuracy of this drawing.



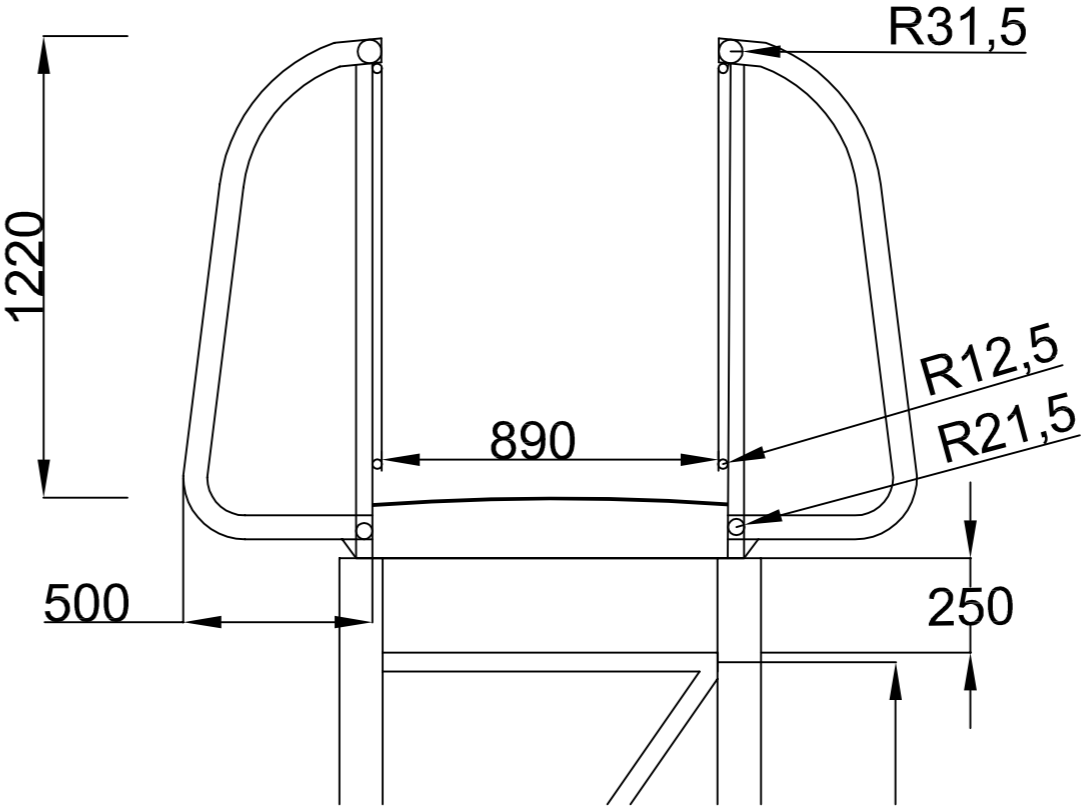
Section B-B
Scale approximately 1:50
see note 2



Section A-A
Scale approximately 1:50
see note 2



Section C-C
Scale approximately 1:50
see note 2



Section D-D
Scale approximately 1:20
see note 2

Engineering Design Services

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0845 607 6060 tls.helpdesk@powys.gov.uk
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Mid: County Hall, Spa Road East, Llandrindod Wells, Powys, LD1 5LG
South: Neuadd Brycheiniog, Cambrian Way, Brecon, Powys, LD3 7HR

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Rev	Date	Description	By	Chkd

Project
Alexander Road Footbridge

Drawing Title
Existing General Arrangement

By BJ/JJ	Checked AE	Scale at A3 Various <small>This drawing should not be scaled. All dimensions are in millimetres unless otherwise stated.</small>
Date 05/04/16	Project Number H2393	Drawing Number H2939/SK001
Drawing Filename : - Existing GA.dwg		Revision
Last saved : - 09/06/2016		

Appendix B

Option Sketches and Details



3 flights 11No stairs.

1.5m. Between ppts across bridge.



10m. main span solid infill
ppt 1.8m. height.

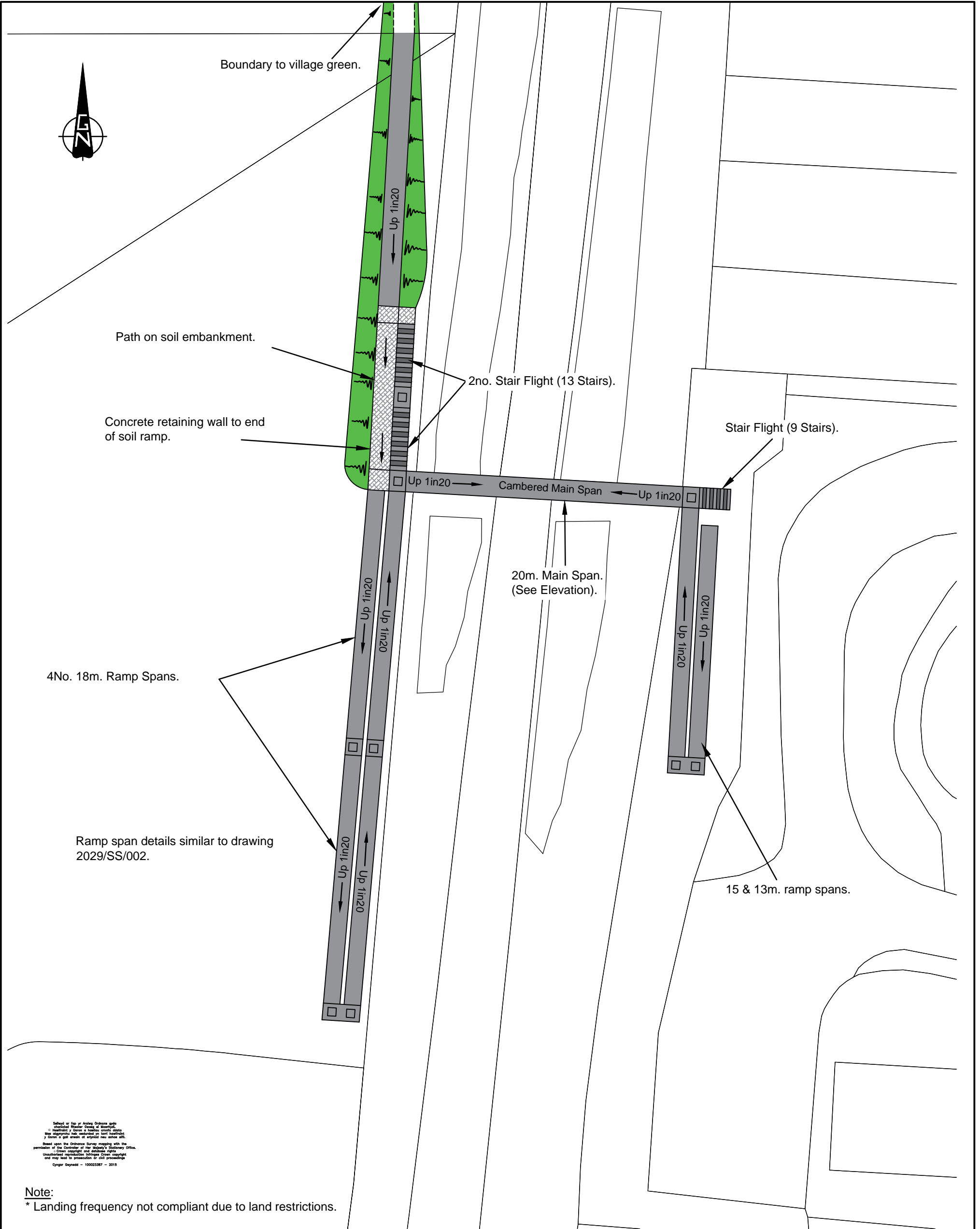
Flat

Up 1in7

8.5m. ramp span - 1.2m. parapet

Sefydliwr yr Awdor Orllewin gyda
chydoldeb Rhwystr Gwyddonol a Masnachol
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na hyspwrdd na hyspwrdd na hyspwrdd
y Cymru a Lloegr a gollir ar ymlyniad neu achos arall.
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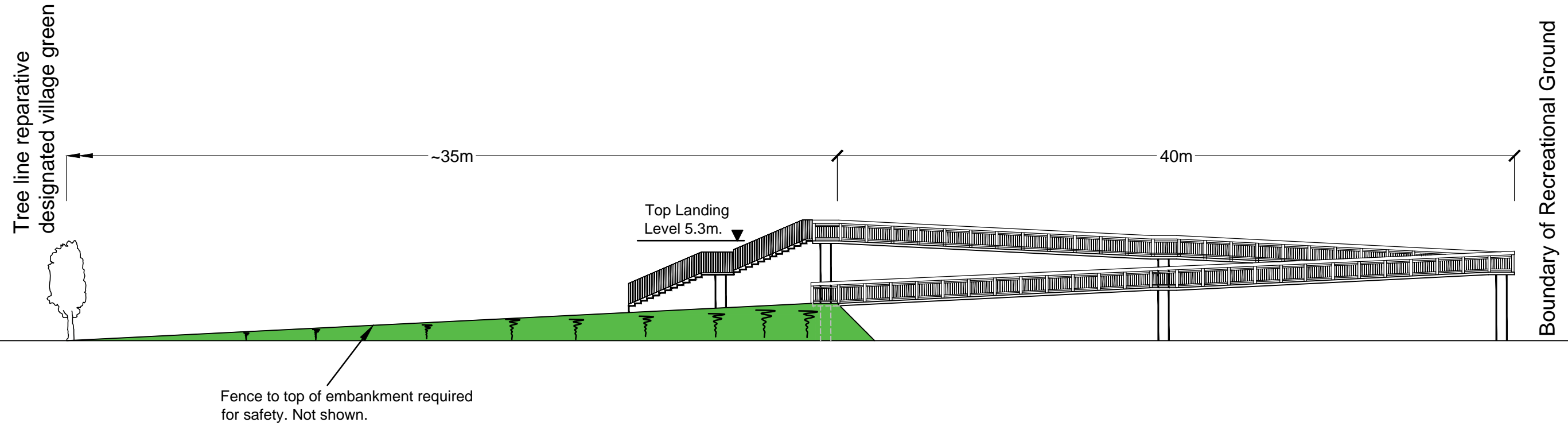
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	GWIRIWYD GAN : CHECKED BY : J.Chapman	DYDDIAD GWIRIWYD : DATE CHECKED : 10/05/16
TEITL LLUNIAD / DRAWING TITLE : Replacement Option Similar to Existing. Option 1.	Taflen Sheet 1 of 1	GRADDFEYDD : SCALES : 1:200
	Rhif Lluniad Drawing No. Page 41467/SK/1	
		 



Note:
* Landing frequency not compliant due to land restrictions.

CYNLLUN / SCHEME : Alexandra Road Footbridge	DARLUNWYD GAN : DRAWN BY : J.Humphreys	DYDDIAD DARLUNWYD : DATE DRAWN : 10/05/16
	GWIRIWYD GAN : CHECKED BY : J.Chapman	DYDDIAD GWIRIWYD : DATE CHECKED : 10/05/16
TEITL LLUNIAD / DRAWING TITLE : Replacement Option - DDA Compliant* Option 2.	Taflen Sheet 1 of 1	GRADDFEYDD : SCALES : 1:250
	Rhif Lluniad Drawing No. 5467/SK/2	CYWI REV





CYNLLUN / SCHEME :

Alexandra Road Footbridge.

TEITL LLUNIAD / DRAWING TITLE :

Raplacement Option - DDA Compliant*.
Option 2 - Elevation.

DARLUNWYD GAN : J.Humphreys
DRAWN BY :

DYDDIAD DARLUNWYD : 11/05/16
DATE DRAWN :

GWIRIWWYD GAN : J.Chapman
CHECKED BY :

DYDDIAD GWIRIWWYD : 10/05/16
DATE CHECKED :

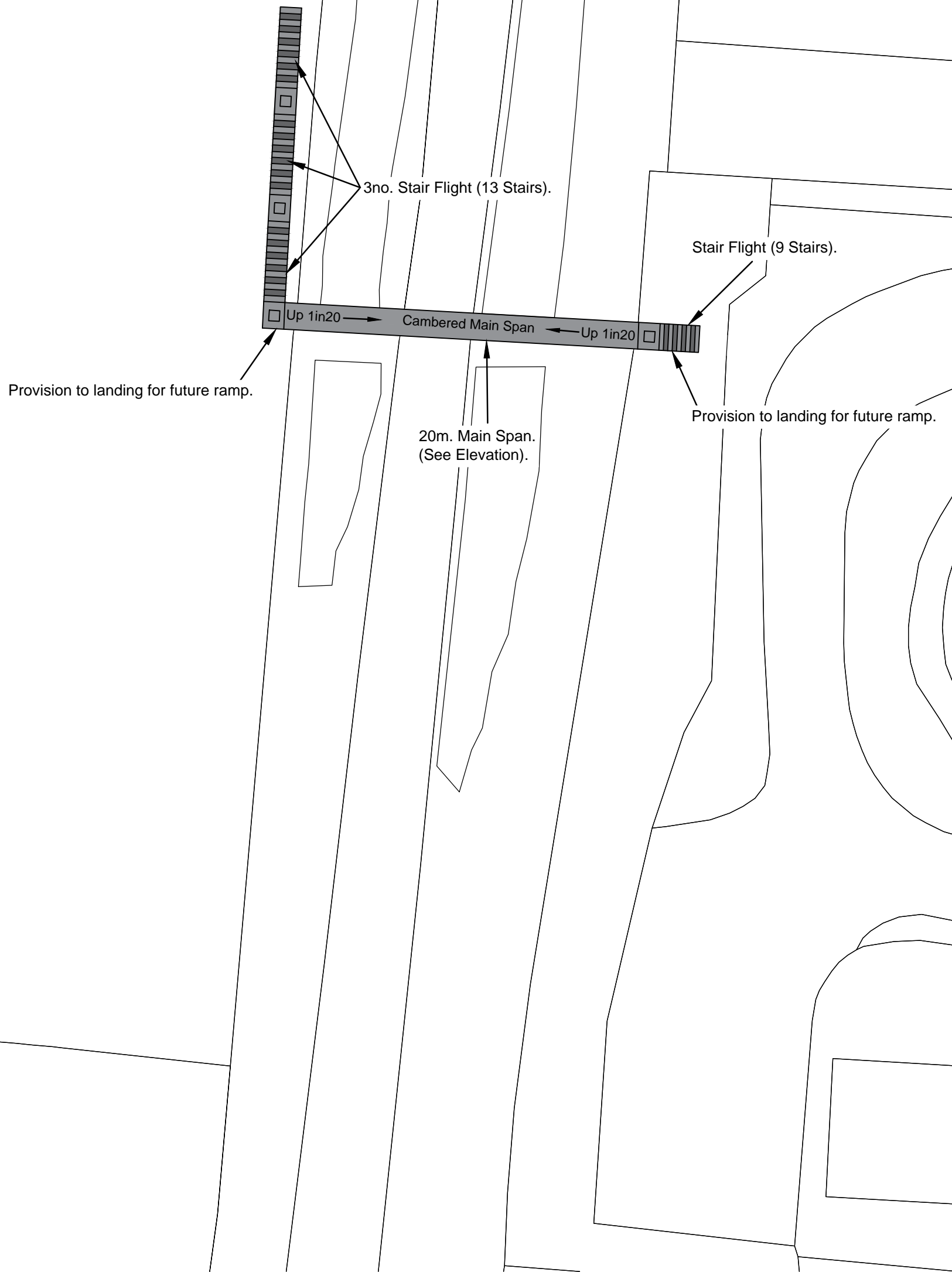
Taflen 1 of 1
Sheet

GRADDFEYDD : 1:250
SCALES :



Rhif Lluniad Drawing No. 5467/SK/2A

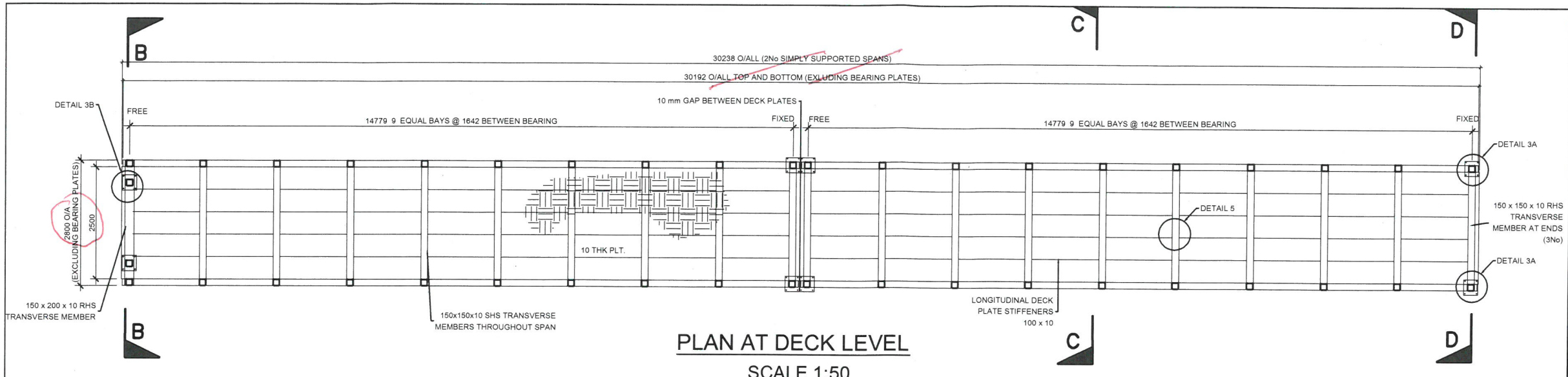
CYWI
REV



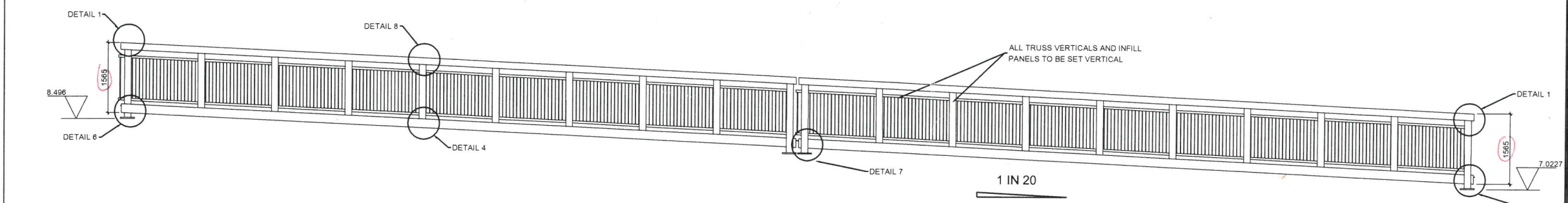


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 cyhoeddus Rheolwr Gwybodaeth a Menter
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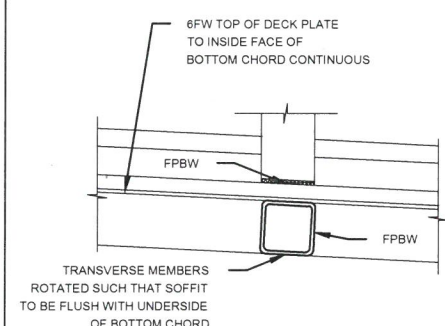
CYNLLUN / SCHEME : Alexandra Road Footbridge	DARLUNWYD GAN : J.Humphreys DRAWN BY :	DYDDIAD DARLUNWYD : 10/05/16 DATE DRAWN :	 YGC Adeiladwaith Structures	 CYNGOR GWYNEDD COUNCIL
	GWIRIWDYD GAN : J.Chapman CHECKED BY :	DYDDIAD GWIRIWDYD : 10/05/16 DATE CHECKED :		
TEITL LLUNIAD / DRAWING TITLE : Replacement Option - Similar to existing with provision for future DDA Compliance. Option 3.	Taflen 1 of 1 Sheet of	GRADDFEYDD : 1:250 SCALES :	CYWI REV	
	Rhif Lluniad Drawing No. Page 44 5467/SK/3			



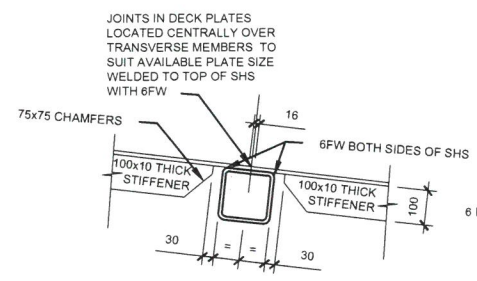
PLAN AT DECK LEVEL
SCALE 1:50



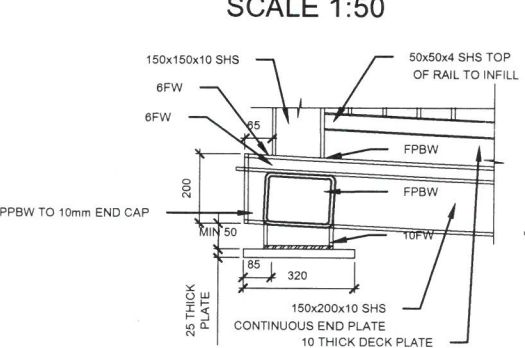
SIDE ELEVATION
SCALE 1:50



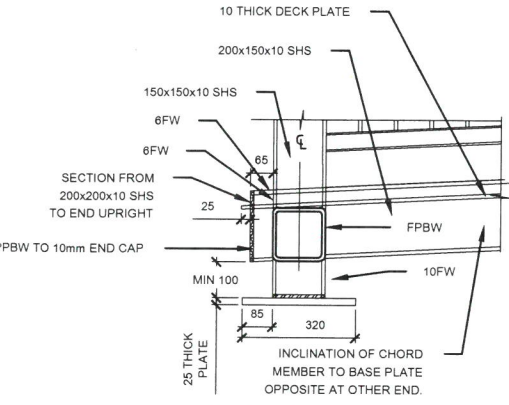
DETAIL 4
SCALE 1:10



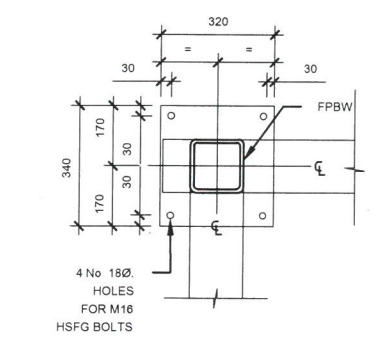
DETAIL 5
AT TRANSVERSE JOINT DECK SCALE 1:10



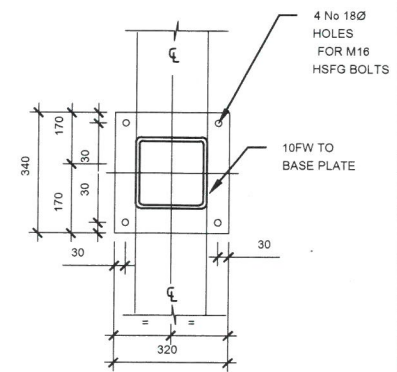
DETAIL 6
SCALE 1:10



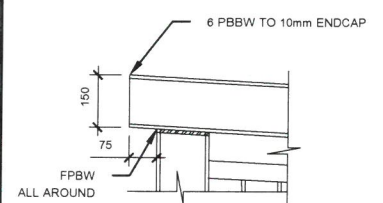
DETAIL 7
SCALE 1:10



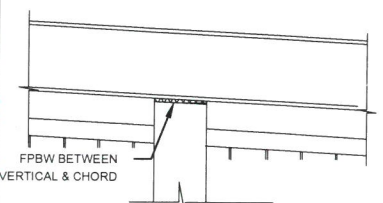
DETAIL 3A
AT 6No BEARING LOCATION SCALE 1:10



DETAIL 3B
AT 2No BEARING LOCATION SCALE 1:10

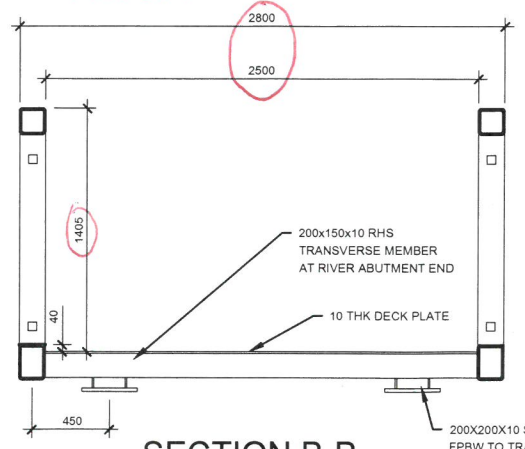


DETAIL 1
SCALE 1:10

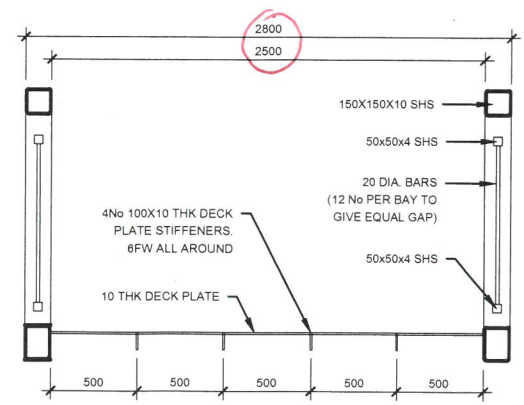


DETAIL 8
SCALE 1:10

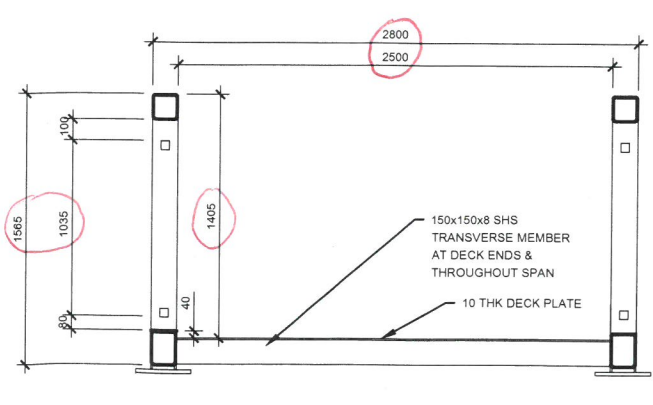
* Options Required For 2.0m Between Parapets AND 1.2m High Parapet.



SECTION B-B
SCALE 1:20



SECTION C-C
SCALE 1:20



SECTION D-D
SCALE 1:20

CLEIENT/CLIENT :

- NODIADAU/NOTES**
1. All dimensions in millimetres unless otherwise stated.
 2. All levels in metres above Ordnance Datum.
 3. All changes in metres.
 4. Span to be pre-cambered in manufacturer to suit dead weight deflection.
 5. Refer to drawing 2029/SS/001 for steelwork and deck notes

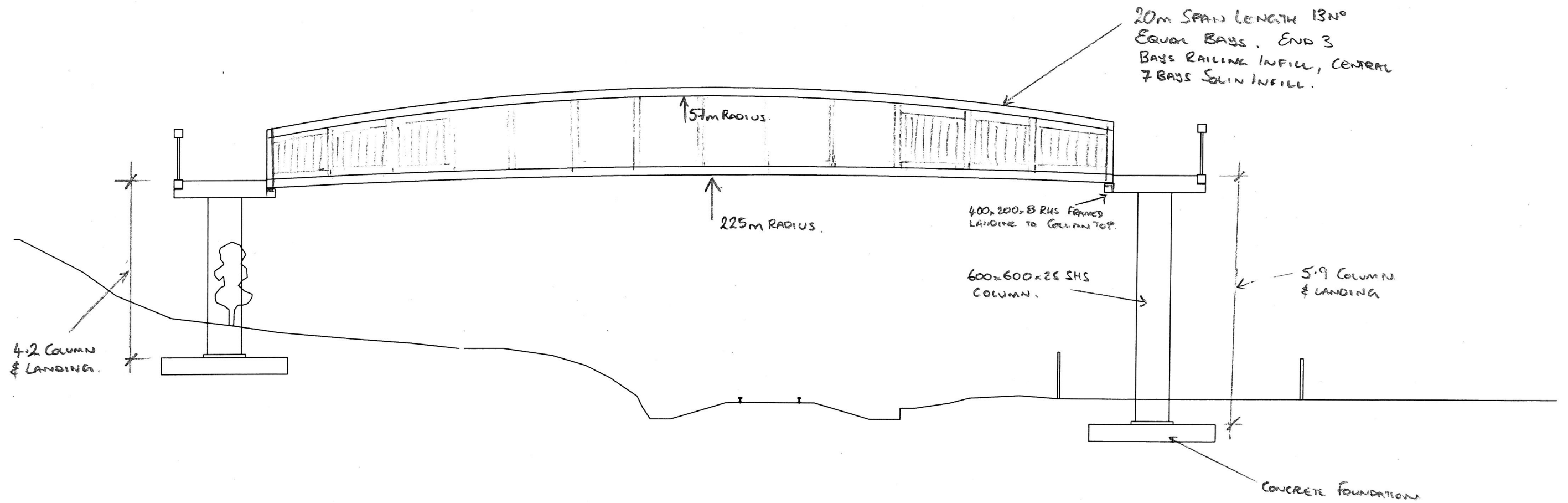
B	As Built Drawing	GRJ	02/03/2012	JJC
A	ADDITIONAL INFORMATION FOR CONSTRUCTION INCLUDING LEVEL AND NOMINAL GAP BETWEEN DECK PLATES	GRJ	16/07/2012	JJC
REV NO.	NEWIADAU MODIFICATIONS	GRJ	16/07/2012	JJC



CYNLLUN/SCHEME :
PONT DROED DR.WILLIAMS BRIDGE REPLACEMENT

TEITL LLUINIAD/DRAWING TITLE :
LAND SPAN STEEL DETAILS

DARLUNWYD GAN : GRJ	DYDDIAD DARLUNWYD : 09/12/2011
GWRWYD GAN : JJC	DYDDIAD GWRWYD : 09/12/2011
Tafel 1 of 1	GRADDFEYDD : AS SHOWN
Sheet 1 of 1	SCALES : AS SHOWN
Rhif Luniad Drawing No. 2029/SS/002	REV B

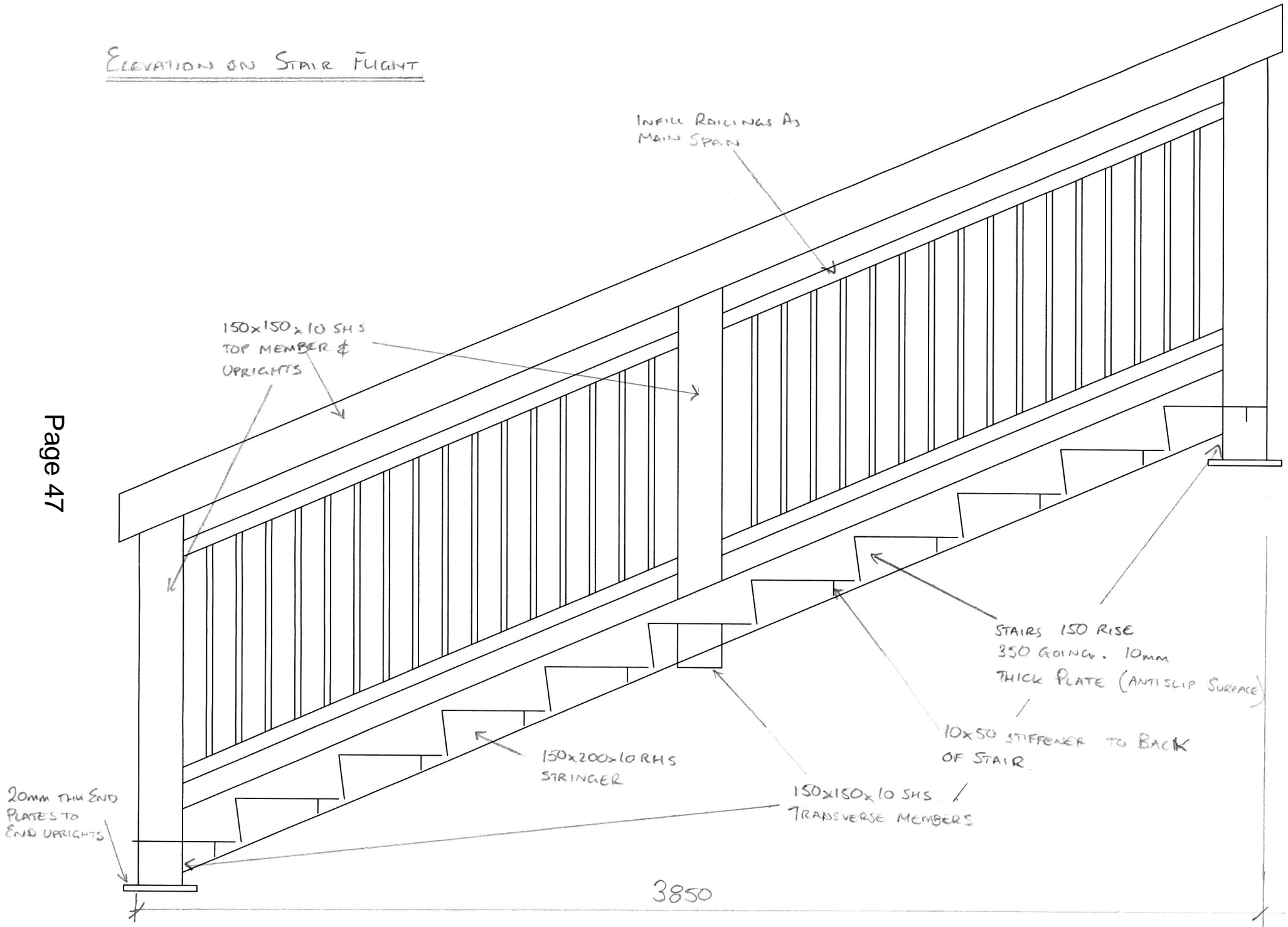


MAIN BRIDGE SPAN OVER RAILWAY (OPTION 2-3 & 4)

DETAILS SIMILAR TO THOSE SHOWN ON
DRAWING 2029/SS/001 BUT PARAPET
HEIGHT VARIES 1.2m → 1.9m AND SOLID
PANEL INFILL TO CENTRAL SPANS.

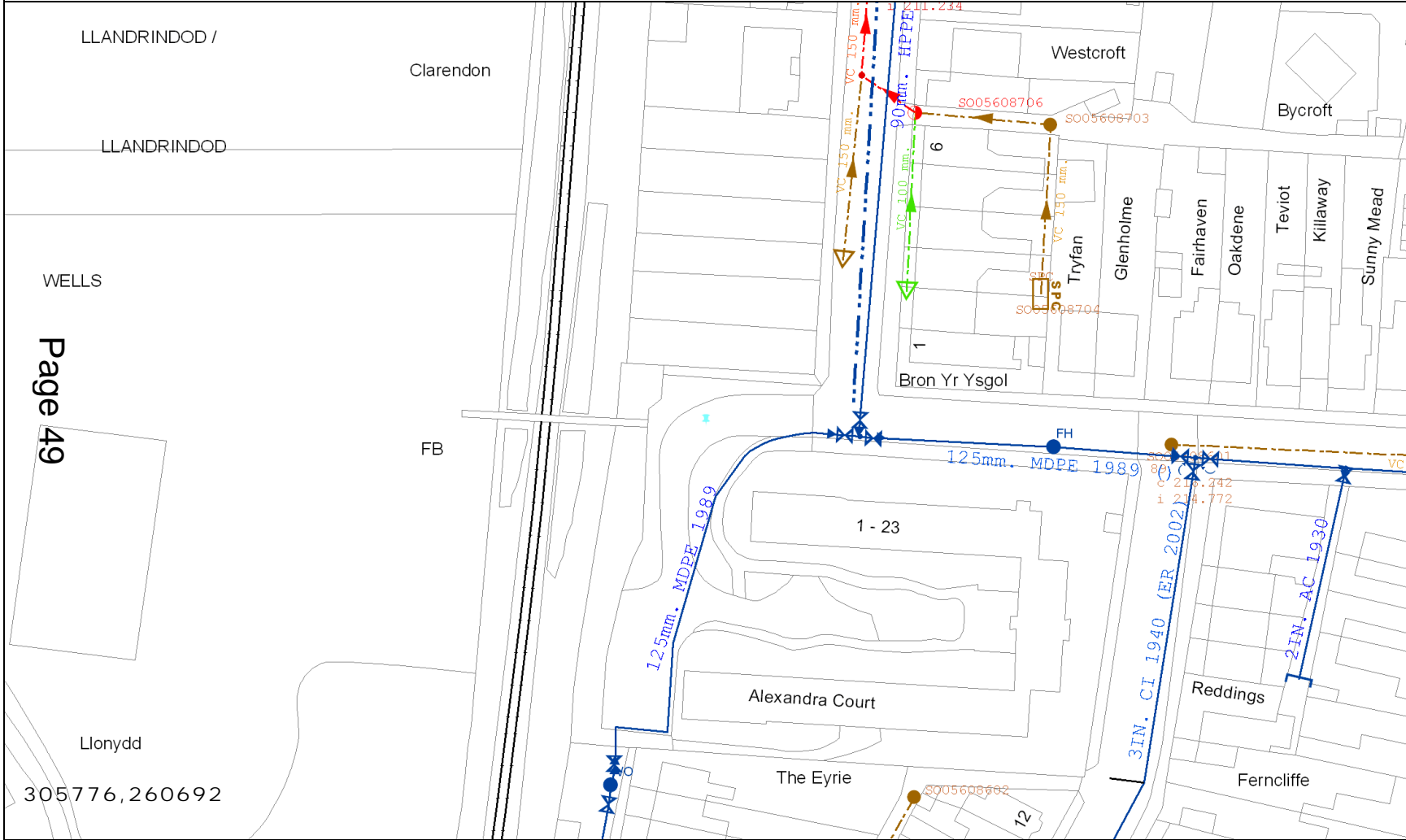
ELEVATION ON STAIR FLIGHT

Page 47



Appendix C

Statutory Undertaker Information



- LEGEND**
- Clean Water**
- Sluice Val
 - Air Val, SINGLE
 - Tap
 - Pressure Reducing Valve
 - Meter
 - BULK Meter
 - FH
 - Cap
 - Existing Main
 - NON COMPANY
- Sewerage External**
- Foul
 - Surface Water
 - Combined
 - Rising Main
 - Private
 - Treatment Works
 - Pumping Station
 - Special Purpose
 - Unknown End
 - Change, Combined Overflow
 - Outfall, FOUL
 - Lamp Hole, Foul
 - Private Sewer Transfer
 - Lateral Drain
 - Inspection Chamber

Page 49

305776,260692

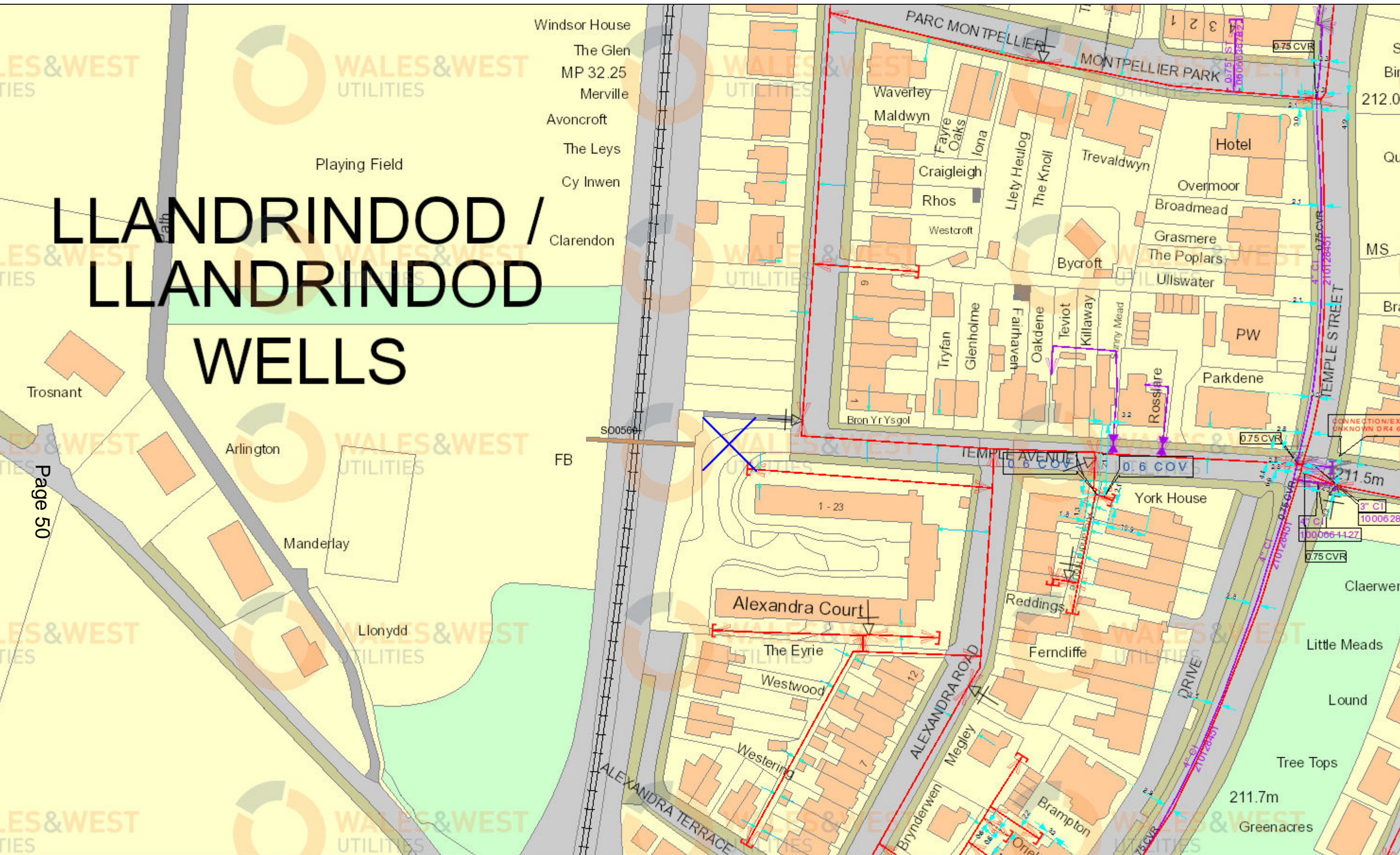
Dŵr Cymru Cyfyngedig ('the Company') gives this information as to the position of its underground apparatus by way of general guidance only and on the strict understanding that it is based on the best information available and no warranty as to its correctness is relied upon in the event of excavations or other works made in the vicinity of the Company's apparatus and any onus of locating the apparatus before carrying out any excavations rests entirely on you. The information which is supplied hereby by the Company, is done so in accordance with statutory requirements of sections 198 and 199 of the Water Industry Act 1991 based upon the best information available and in particular, but without prejudice to the generality of the foregoing, it should be noted that the records that are available to the Company may not disclose the existence of a drain sewer or disposal main laid before 1 September 1989, or if they do, the particulars thereof including their position underground may not be accurate. It must be understood that the furnishing of this information is entirely without prejudice to the provision of the New Roads and Street Works Act 1991 and the Company's right to be compensated for any damage to its apparatus.

EXACT LOCATION OF ALL APPARATUS TO BE DETERMINED ON SITE

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Whilst every reasonable effort has been taken to correctly record the pipe material of DCWW assets, there is a possibility that in some cases pipe material (other than Asbestos Cement or Pitch Fibre) may be found to be asbestos cement (AC) or Pitch Fibre (PF). It is therefore advisable that the possible presence of AC or PF pipes be anticipated and considered as part of any risk assessment prior to excavation.

LLANDRINDOD / LLANDRINDOD WELLS



Windsor House
The Glen
MP 32.25
Merville
Avoncroft
The Leys
Cy Inwen
Clarendon

Playing Field

Page 50

Scale	1: 1000@A3
User ID	robatwilliams@gwyned
Date	04/05/2016
Grid Ref.	Easting: 305769 Northing: 260696

Low Pressure	Design Pipes
Medium Pressure	Design Pipes
Intermediate Pressure	Design Pipes
High Pressure	Design Pipes
Abandoned	

Valve	Depth of Cover	Syphon	Diameter Change	Material Change
-------	----------------	--------	-----------------	-----------------

TITLE:

The plan shows those pipes owned by Wales & West Utilities (WU) in its role as a Licensed Gas Transporter (GT). The information shown on this plan is derived from historic information and may have involved re-scaling plans, and the accuracy of it cannot be guaranteed. Service pipes, valves, syphons, stub connections, etc. may not be shown but their presence should be anticipated. No warranties are therefore given in respect of it. WU its employees and contractors do not accept any liability for any inaccuracy or incompleteness in it.

You must use safe digging practices, in accordance with HS(G)47, to establish the actual position of mains, pipes, services and other apparatus on site before any mechanical plant is used. It is your responsibility to ensure that this information is provided to all persons (either direct labour or contractors) working for you or near gas apparatus. The information shown on this plan should not be used beyond 28 days from the date of issue of this plan as it is subject to updating.

The plan also provides indications of gas pipes owned by other GTs, or otherwise privately owned, which may be present in this area. This information is not information of WU and WU is unable to verify this information or to confirm whether it is accurate or complete. It is supplied voluntarily to assist the user in determining whether to make contact with other GTs or others. The user must obtain such information from the other GT or person concerned. WU, its employees and contractors do not accept any liability for this information or any inaccuracy or incompleteness in it.

WALES & WEST UTILITIES

Wales and West Utilities Ltd., Wales and West House, Spooner Close, Celtic Springs, Coedkernew, Newport, NP10 8FZ

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Maps by email Plant Information Reply



IMPORTANT WARNING

Information regarding the location of BT apparatus is given for your assistance and is intended for general guidance only. No guarantee is given of its accuracy. It should not be relied upon in the event of excavations or other works being made near to BT apparatus which may exist at various depths and may deviate from the marked route.

DIAL BEFORE YOU DIG

FOR PROFESSIONAL ON SITE ASSISTANCE PRIOR TO COMMENCEMENT OF EXCAVATION WORKS

ADVANCE NOTICE REQUIRED
(Office hours: Monday-Friday 09.00 to 17.00)

Tel: 0800 9173993
E-mail: dbyd@openreach.co.uk
Website: www.dialbeforeyoudig.com

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KEY TO BT SYMBOLS

	UNDERGROUND PLANT		POLE
	OVERHEAD PLANT		CABINET
	JOINT BOX		BURIED JOINT
	DISTRIBUTION POINT		JOINTING POST
	MANHOLE		PROPOSED U/G
	DP BOUNDARY		PROPOSED O/H
	OTHER BT BOUNDARY		PROPOSED BOX

Other proposed plant is shown using dashed lines. BT symbols not listed above may be disregarded. Existing BT plant may not be recorded. Information valid at the time of preparation.

openreach
a BT Group business

BT Ref : ZDH05176H

Map Reference : (centre) S00577660692

Easting/Northing : (centre) 305776,260692

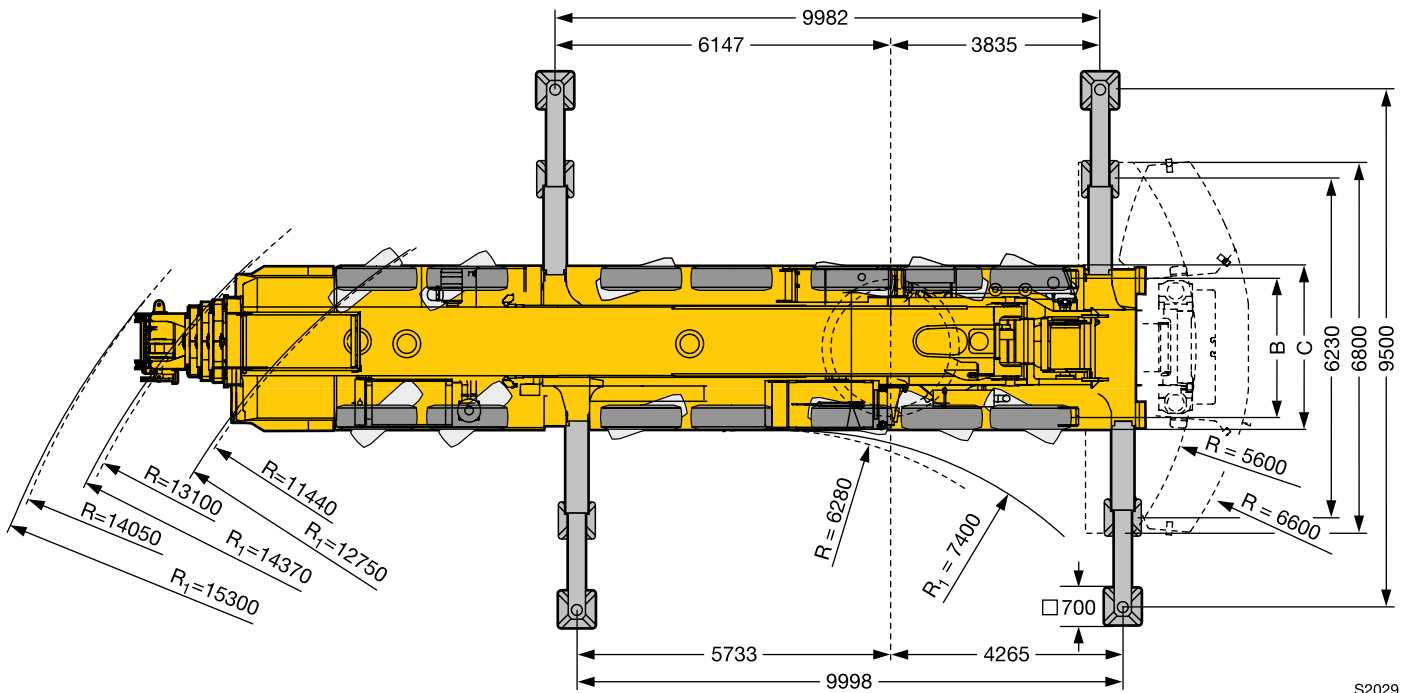
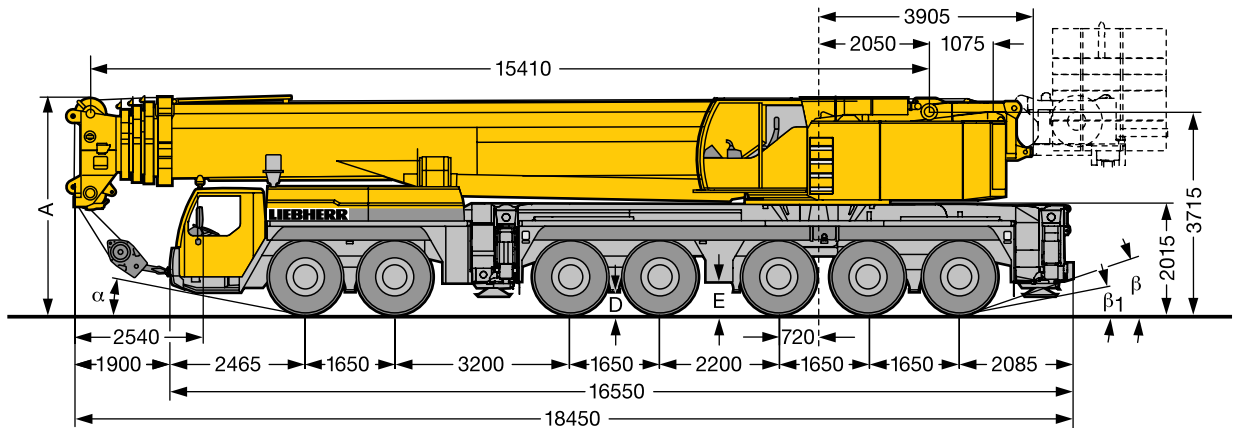
Issued : 04/05/2016 08:17:58

FOOTNOTE: WARNING IT IS ESSENTIAL THAT YOU CONTACT NATIONAL NETWORK HANDLING CENTRE BY EMAIL nnhc@openreach.co.uk BEFORE PROCEEDING WITH ANY WORK IN THE HATCHED AREA

Appendix D

Crane Geometry & Lifting Radii

Maße
Dimensions
Encombremet • Dimensioni
Dimensiones • Габариты крана



S2029

	Maße • Dimensions • Encombremet • Dimensioni • Dimensiones • Размеры mm									
	A	A	B	C	D	E	α	β	β_1	
		150/100 mm*								
14.00 R 25	4000	3850	2612	3000	330	400	11°	19°	11°	
16.00 R 25	4000	3900	2552	3000	380	450	11°	19°	11°	
20.5 R 25	4000	3900	2702	3230	380	450	11°	19°	11°	

* abgelenkt • lowered • abaissé • abbassato • suspensión abajo • шасси осажено

Crane Capacity Guide

Our crane capacity guide can be used to aid in selecting the crane capacity required for your lift.

The guide has been split into two sections: 0-20 & 21-40 tonnes

0-20 tonnes:

- 1/Locate the weight of load and crane operating radius
- 2/Where the columns intersect, read the capacity of crane required

l/m	7m	8m	9m	10m	12m	14m	16m	18m	20m	22m	24m	26m	28m	30m	32m	34m	36m	38m	40m	42m	44m	46m	48m	50m	52m	54m	
0.5t	20t	20t	20t	20t	20t	20t	20t	20t	20t	20t	25t	25t	35t	35t	50t	50t	70t	70t	80t	80t	80t	90t	120t	120t	120t	120t	120t
1t	20t	20t	20t	20t	20t	20t	20t	20t	25t	25t	35t	35t	50t	50t	60t	70t	70t	70t	80t	80t	90t	100t	120t	120t	120t	120t	120t
2t	20t	20t	20t	20t	20t	20t	25t	25t	35t	35t	50t	50t	60t	60t	70t	80t	80t	80t	90t	100t	100t	120t	120t	160t	160t	160t	160t
3t	20t	20t	20t	20t	20t	25t	35t	35t	50t	50t	60t	70t	70t	80t	80t	90t	90t	100t	100t	120t	120t	160t	160t	160t	160t	200t	200t
4t	20t	20t	20t	20t	25t	32t	35t	50t	50t	60t	70t	80t	80t	90t	90t	100t	100t	120t	120t	160t	160t	160t	160t	160t	200t	225t	225t
5t	20t	20t	25t	25t	35t	35t	50t	50t	60t	70t	80t	80t	90t	100t	100t	120t	120t	160t	160t	160t	160t	160t	200t	200t	225t	250t	300t
6t	25t	25t	25t	25t	35t	50t	50t	60t	70t	80t	90t	90t	100t	100t	120t	160t	160t	160t	160t	160t	160t	200t	225t	225t	225t	250t	300t
7t	25t	25t	25t	35t	50t	50t	60t	70t	80t	90t	100t	100t	120t	120t	160t	160t	160t	160t	160t	200t	200t	225t	225t	250t	250t	300t	300t
8t	25t	35t	35t	35t	50t	60t	60t	80t	90t	90t	100t	100t	120t	120t	160t	160t	160t	200t	200t	225t	225t	250t	250t	250t	300t	300t	800t
9t	35t	35t	35t	50t	50t	60t	70t	80t	90t	100t	120t	120t	160t	160t	160t	160t	200t	225t	225t	225t	250t	250t	250t	300t	300t	800t	800t
10t	35t	35t	35t	50t	60t	70t	80t	90t	100t	100t	120t	160t	160t	160t	160t	200t	225t	225t	225t	250t	250t	250t	300t	800t	800t	800t	800t
11t	35t	35t	50t	50t	60t	80t	90t	100t	100t	120t	160t	160t	160t	200t	225t	225t	250t	250t	250t	300t	300t	300t	800t	800t	800t	800t	800t
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15t	50t	50t	60t	70t	80t	100t	100t	120t	160t	160t	160t	200t	225t	225t	250t	250t	250t	300t	400t	400t	400t	400t	400t	800t	800t	800t	800t
16t	50t	50t	60t	70t	80t	100t	120t	120t	160t	160t	200t	200t	225t	250t	250t	250t	300t	400t	400t	400t	400t	400t	400t	800t	800t	800t	800t
17t	50t	60t	70t	70t	90t	100t	120t	160t	160t	160t	200t	225t	225t	250t	250t	300t	300t	400t	400t	400t	400t	400t	400t	800t	800t	800t	800t
18t	60t	70t	70t	80t	90t	100t	120t	160t	160t	200t	200t	225t	250t	250t	250t	300t	400t	400t	400t	400t	400t	400t	500t	800t	800t	800t	800t
19t	60t	70t	70t	80t	100t	120t	120t	160t	160t	200t	200t	225t	250t	250t	300t	400t	400t	400t	400t	400t	400t	400t	500t	800t	800t	800t	800t
20t	60t	70t	80t	80t	100t	120t	160t	160t	200t	200t	225t	225t	250t	250t	300t	400t	400t	400t	400t	400t	400t	400t	500t	800t	800t	800t	800t

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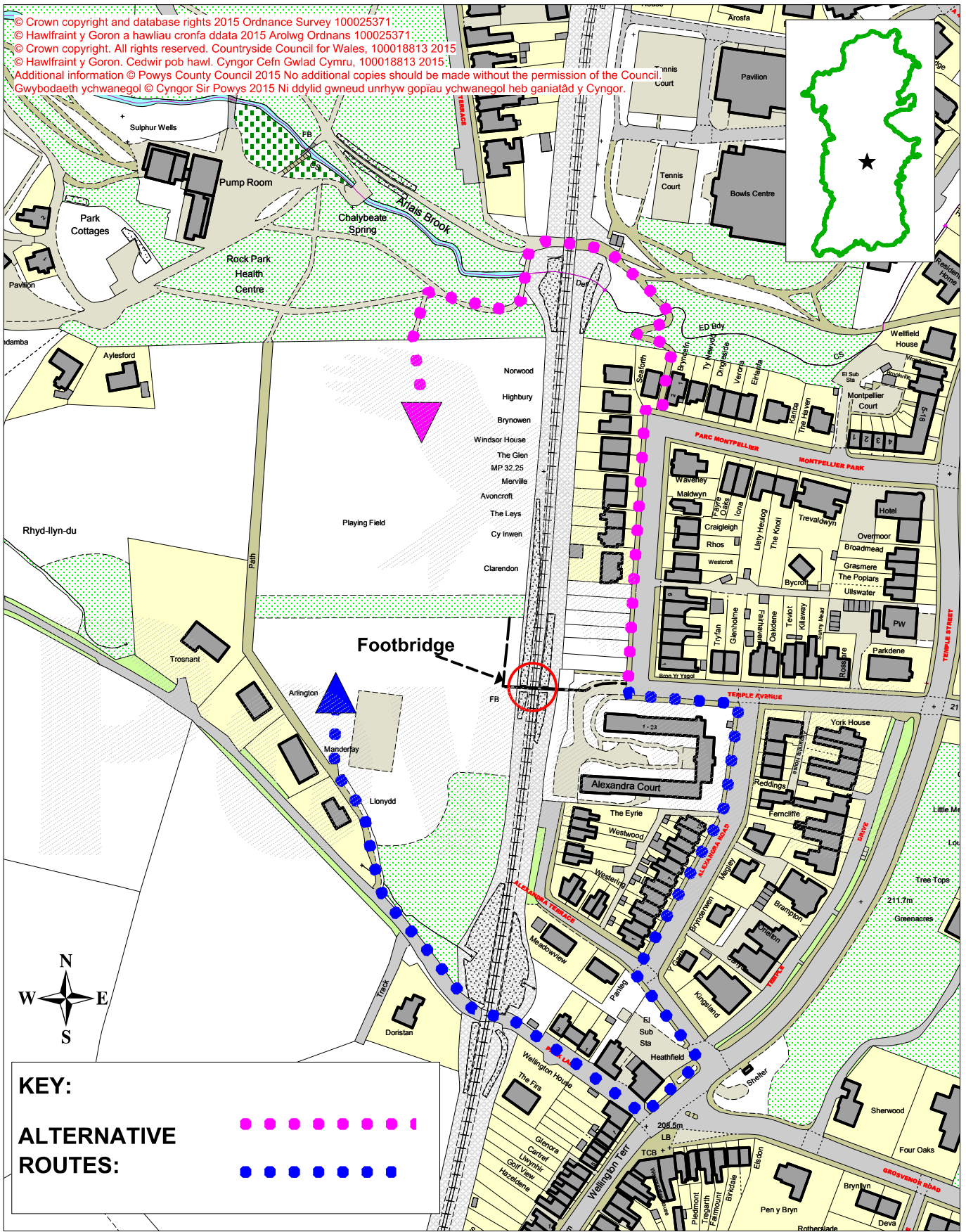
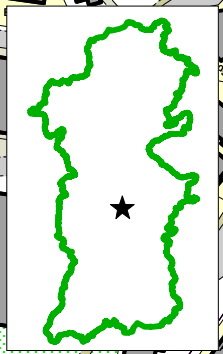
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By virtue of paragraph(s) 16 of Part 1 of Schedule 12A
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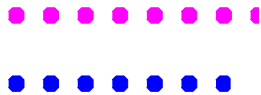
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