

7.0 Design Out Crime Officer (DOCO) Report

The proposed scheme has been designed with safety, security, and crime prevention as central considerations. The lighting design complies with British Standard 5489, ensuring sufficient illumination throughout the site to deter opportunistic crime and enhance visibility in public spaces. Appropriate warning signage will be included as part of the Highways signage package, which will be submitted for planning approval.

To address concerns about rough sleeping and concealing items in crowded areas, the scheme features open and visible layouts. Boundaries have been designed with clear visibility in mind, using railings atop walls to prevent blind spots. Planting has been strategically positioned to act as a barrier, minimising opportunities for graffiti. Low-level stone walls and PAS68-rated bollards provide hostile vehicle mitigation while preserving the aesthetic of the site. Additionally, benches include intermediate armrests and raised planter walls have uneven coping to prevent their misuse. The absence of features such as statues or water elements further reduces risks associated with concealment or vandalism.

Masonic Street will feature PAS68-rated bollards and stone walls, designed to ISO 22343-1 standards. These measures will provide robust security against vehicle-based threats while balancing design considerations.

The use of bins have been minimised, with only one allowed per the Council's street-cleansing team's specifications, to reduce the risk of concealment. As the detailed design progresses, elements like external pipework and access control will be assessed to further mitigate opportunistic crime. The combination of these measures aligns with the aim of creating a safe, secure, and accessible public realm.

(See full report below)



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17th October 2024

ESA Ltd.

Dear Elliot

Re : Merthyr Interchange Link.

In respect of the above proposed development, I would have the following comments to make:

Public realm.

(i). Street lighting.

Street lighting should meet the British Standard 5489 and enhance and compliment CCTV.

Reason – To enhance CCTV and reduce crime and the fear of crime.

Response – David Hughes lighting design has specifically been put together around BS 5489 and is fully compliant.

(ii). CCTV.

The whole of the development must be protected by monitored CCTV. Moniques Building, main public and pedestrian routes and public open spaces must benefit from CCTV coverage.

Ideally there will be clear lines of sight between the CCTV cameras.

Prif Gwnstabl | Chief Constable Jeremy Vaughan

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Images produced must be admissible in a court of law and the General Data Protection Regulations must be complied with.

Signs stating CCTV is operating in the area must be prominently displayed.

Reason – To deter and detect crime. To comply with the General Data Protection Regulations (GDPR).

Response – Appropriate warning signage is included within the Highways signage package that will be issued for planning.

(iii). Landscape design.

Poor landscape design proposals can compromise the safety and security of people and properties. Hiding places can be created and visibility significantly reduced if trees and shrubs are poorly positioned, and species inappropriately chosen and maintained. This may increase the opportunity for crime and increase a person's sense of vulnerability, which ultimately will impact on the level of use within the city centre area.

Overgrown shrubs and other thick barriers that are near public areas must be avoided and given the problem with rough sleepers currently in city and town centres and the current threat in relation to terrorism I would suggest they are avoided altogether.

Clear sightlines must be maintained over long distances. Windows and doors must not be obscured by landscaping features and trees in public areas must not have any foliage below 2 metres from the ground.

Trees and other landscaping features must not be positioned where they could create hiding/entrapment spaces, obscure signage, lighting or CCTV, or provide a potential climbing aid into properties.

Planting schemes should consider growth rates, heights and spread. The positioning of thorny or spiny shrub species in front of vulnerable boundaries or buildings can help deter graffiti and potential intruders.

Landscaping should be utilised as a form of hostile vehicle mitigation.



Reason – To prevent rough sleeping and the cover for concealing items in public crowded places.

Response – The scheme has been put together with this at the forefront of thinking. As you can see from the visuals previously supplied the site is completely open from High Street through to Masonic Street and up to the train station steps. Where tall boundary walls have been required, we have ensured the top half is railing so there is clear visibility through and no blind spots are created. Planting has purposely been positioned in such a way to act as a barrier between the public realm and the walls to minimise opportunities for graffiti. We have used low level stone walls at the top of the site as anti-hostile vehicle prevention along with PAS68 rated bollards.

(iv). Street furniture and public art.

Poorly designed street furniture and clutter can lead to an increase in crime and fear of crime.

Well-designed street furniture and public art in streets and public spaces is vital in helping to create a safer, attractive and more urban environment that reinforces civic pride.

Such street art and furniture should also be considered in protecting crowded places as an alternative to barriers, from unlawful entry by vehicles whose drivers are intent on causing serious injury or worse to pedestrians.

Street furniture and public art should respond to the local context of landscape and buildings. Simple bold designs using good quality materials are more attractive and longer lasting. Innovative and contemporary designs should be encouraged where appropriate.

Attractive and innovative public art helps to create a more distinctive urban environment that reinforces civic pride.

Street furniture, such as bus shelters, public seating, phone boxes and signage must not obscure views of users, obstruct pedestrian movement or be positioned to encourage anti-social behaviour.

Seating should be of a design that prevents people from lying down and rough sleeping. The raised flowers should also be designed to prevent people sitting or lying down,





I am aware that skate boarding is an issue in many town and city centres and where possible design should deter this activity.

Reason – To prevent crime, protect crowded places and to prevent graffiti and anti-social behaviour.

Response – The benches selected for the scheme have intermediate arm rests specifically to prevent them being used for sleeping. Similarly, all raised planter walls have been designed with 'cock & hen' coping which is uneven stone which will prevent sleeping. There is no opportunity for skateboarding to take place on any walls or railing as everything has been designed with a 'pointed top'. There are no plans for any public art (i.e. statues/sculptures/water features).

(v). Maintenance and resources.

Where landscape proposals are close to buildings, public routes and access points to public spaces, a strong maintenance regime is required.

Pathways through open spaces must maintain clear sightlines and views without creating potential hiding/entrapment spaces, for example, through poor positioning or type of shrubs.

Landscape schemes are more successful when there is a suitable budget allocated to the proposal and there is an agreed local maintenance programme.

Poorly maintained environments demonstrate neglect and a lack of control or responsible ownership. This can increase the fear of crime. A neglected environment can act as a catalyst for vandalism and anti-social behaviour. For example, the appearance of graffiti, if not removed, will normally attract more of the same.

Maintenance of landscaped areas is vital.

Reason – To deter crime and reduce the fear of crime.

Response – The council and their stakeholders are responsible for ongoing maintenance and resource allocation. The materials being used in the design have been selected to minimise the need for onerous cleaning and maintenance.





(vi). Natural features.

Natural features and their ecology are important to support and sustain wildlife. Natural vegetation also absorbs pollutants that keep the air we breathe cleaner.

Mature natural features give a sense of distinction and continuity with their surroundings. Existing trees and vegetation provide an immediate impact to a new development and are effective in defining spaces. The appropriate use of native and ornamental species of vegetation can also positively enhance the environment of a development.

In all situations, development proposals should seek to retain and incorporate existing trees, hedges and appropriate vegetation where appropriate.

Reason – To enhance the environment.

Response – There is no opportunity to retain exiting natural features as the public realm will replace three buildings with no existing natural features present. We have put together a soft landscaping scheme that utilises native species and maximises the bio-diversity of the site.

(vii). Vehicle access, pedestrian access and control.

External barriers that meet the security standard IWA 12 ISO 22343-1 should be installed to prevent vehicle access into pedestrian areas and crowded places.

Bollards must only be 1.2 metres (not 1.5 metres) apart to prevent vehicles driving between them.

Vehicle access into crowded pedestrian areas must be controlled

Measures should if possible be put in place that reduce the speed of vehicles approaching the site or its defences e.g. bends or chicanes.

Slowing traffic in advance of vehicle security barriers has several benefits. It gives drivers the ability to better comprehend what is expected of them at a barrier system. It also provides the guard force with more time to assess approaching vehicles and their occupants and affords more scope to react appropriately.



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There must be clear pedestrian accessibility to allow ingress and egress from crowded places.

Reason – To mitigate against vehicle attacks.

Response – The bottom boundary of the site along High Street will be protected from vehicle incursion by a separate Council scheme to pedestrianise High Street, this will be in place prior to the opening of the public realm. The top boundary of the site along Masonic Street will be protected from vehicle incursion via a combination of stone boundary walls and PAS68 rated bollards. These will be designed and installed in compliance with IWA 12 ISO 22343-1. This is in direct conflict with the Active Travel Guidance which states an ideal bollard spacing of 1.5m.

(viii). Bins.

Bins are discouraged within crowded areas e.g. café quarters, shopping centres etc.

Reason – To prevent bins being used to conceal items like bombs.

Response – One bin has been allowed as per the request of the Council's street cleansing team, this matches the specification of other bins in the immediately surrounding

Moniques Building.

In respect of the Moniques Building I would have the following comments to make.

(i). External pipe work.

Pipe work on the outside of the building, should be protected against climbing.

Reason – To prevent persons gaining access to upper floors and the roof.

Response – Noted, we will keep this in mind for when we tackle the detailed design of moniques. At the present time we have not designed Moniques in enough detail to determine if/where any external pipework will be.



(ii). Access control.

Access from public areas into private areas must be controlled. Rooms where valuable property or information is stored should also be protected by access control and must be kept locked when unoccupied.

Access control must meet Secured by Design (SBD) standards and specifications.

Reason – To prevent opportunist crime.

Response – Noted, we will keep this in mind for when we tackle the detailed design of moniques. At the present time we have not designed Moniques in enough detail to determine access control requirements.

(iii). Door security.

All external doors fitted should, where possible, meet the minimum standards specified by SBD i.e. LPS 1175 SR2, PAS 24 2016 or equivalent. If this not possible the doors and windows should be manufactured and installed to SBD standards and specifications.

Fire doors must have no external furniture fitted and be alarmed.

All glass in door panels or panels adjacent to doors should be laminated (7.4mm) with appropriate fixings.

Doors in recesses of more than 600 mms should be avoided.

Consideration should be given to shuttering external doors not protected by monitored CCTV the shuttering meeting SBD Standards i.e. LPS 1175 SR2. Internal shutters are an option.

Reason – To prevent burglary.

Response – Noted, we will keep this in mind for when we tackle the detailed design of moniques. At the present time we have not designed Moniques in enough detail to determine door security requirements. CCTV of the Moniques building will be controlled by the ownership.





(iv). Window security.

All vulnerable windows i.e. ground floor windows should meet the Secured by Design Standards i.e. LPS 1175 SR2, PAS 24 2016 or equivalent and have laminated glass fitted.

Consideration should be given to shuttering ground floor windows, the shuttering again meeting Secured by Design Standards i.e. LPS 1175 SR2 or equivalent. Internal shutters are again an option.

Reason – To prevent burglary.

Response – Noted, we will keep this in mind for when we tackle the detailed design of moniques. At the present time we have not designed Moniques in enough detail to determine window security requirements.

(v). Alarm system.

The building must be alarmed with the alarm linked to a central monitoring station. Any alarm wires should be protected. All rooms where valuable property/ information is stored should be protected by the alarm system.

Personal attack alarms linked to the alarm system should be installed in areas where staff are likely to be vulnerable.

Reason - To deter and detect intruders. To protect staff.

Response – Noted, we will keep this in mind for when we tackle the detailed design of moniques. At the present time we have not designed Moniques in enough detail to determine security alarm requirements.

(vi). Covered areas.

Covered areas, such as the covered colonnade area should ideally be avoided in town and city centres, as such areas are often areas where people gather and often cause anti – social behaviour. Alternatively, they are areas where rough sleepers sleep.



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If covered areas are to remain, they must be protected by gates and railings at least 2 metres high that meet the loss prevention standard (LPS) 1175 SR1.

Any padlocks or chains securing the gates must be Sold Secure approved and security rated. Padlocks must be close or closed shackled.

Reason – To prevent anti – social behaviour and rough sleeping.

Response – The covered colonnade is protected by circa 2m high gates with integral locks. There is no access from the public realm into the covered area when the gates are shut. During detailed design we will ensure the gates are designed to meet the SR1 security rating as advised.

Further detailed information can be found by visiting the Secured by Design website www.securedbydesign.com.

If you or the developer wish discussing any of the points raised in this report please do not hesitate to contact me.

Yours Sincerely

Mike Harvey
Designing out Crime Officer

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South Wales Police welcome's receiving correspondence in Welsh and English. Any correspondence received in Welsh will be answered in Welsh and corresponding in Welsh will not lead to a delay in responding.

Prif Gwnstabl | Chief Constable Jeremy Vaughan

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8.0 Ecology Technical Note

The ecology report was commissioned to assess the potential ecological impacts of the proposed development and to ensure compliance with relevant wildlife legislation and planning policies. The primary aim was to evaluate the presence of protected species and habitats within the site, with particular attention given to the potential for bats due to their legal protection and reliance on built structures and trees for roosting. Following a thorough survey, no evidence of bats was found within the site, and no further mitigation measures for this species are required.

(See full report below)

Project:	Merthyr Tydfil Lower High Street		
Our Reference:	UK-WSP-70122512-RED-74-XX-RP-L-0001		
Prepared by:	Megan Watts (Ecologist)		
Checked by:	Janine Burnham (Principal Ecologist)	Approved by:	Janine Burnham (Principal Ecologist)
Date Issued:	27 th September 2024	Classification:	Public
Subject:	Internal Inspection Report		

Introduction

Redstart was commissioned by Merthyr Tydfil County Borough Council (MTCBC) to carry out internal inspections of buildings within the site of proposed redevelopment to identify if bats are roosting within the buildings. The buildings are located within a site of the proposed redevelopment of Merthyr Rails Station and surrounding areas on High Street, Merthyr (approximate Central Grid Reference (CGR): SO 04960 05970).

Proposed works include re-development of the area to improve access between the rail and bus station and improving public space and buildings within the area. Proposed works include demolition of the structures (see Figure 1).

For the purposes of this report the area of proposed demolition site will be referred to as “the Site.” The Site is split into three previous commercial properties which will be referred to by their previous shop names “Monique’s”, “Peacocks” and “Red Cross” (see Figure 1 for locations).

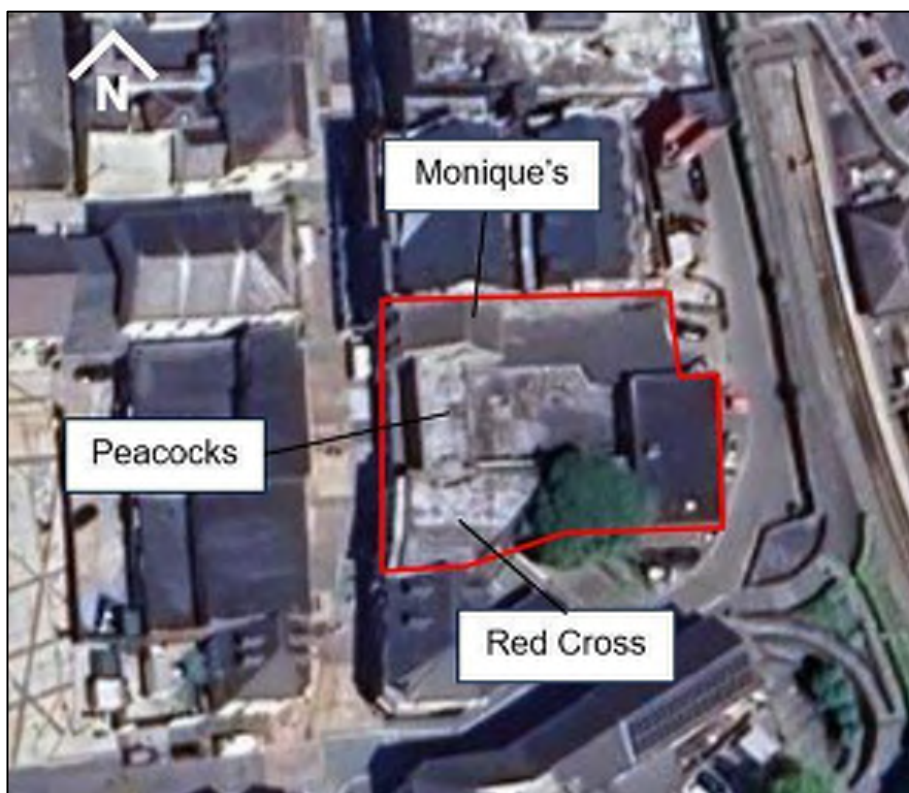


Figure 1: Location of buildings surveyed for proposed demolition highlighted in red. Adapted from Google Earth (Google Earth, 2024).

Methodology

Redstart ecologists, Richard Poole (Principal Ecologist) and Megan Watts (Ecologist) undertook an internal inspection of the three buildings on 16 September 2024. Surveyors thoroughly searched the internal property for signs of bats including live bats, dead bats, droppings and distinct smell as per Bat Conservation Trust (BCT) survey guidelines (Collins, 2023).

Six static bat detectors were deployed across the Site on the day of the survey to record bat calls and help identify whether bats were using access/egress points previously noted at the three commercial properties (Redstart, 2023). Locations and the types of detectors used are listed in Table 1. The static detectors were in position for 7 nights and collected on 23 September 2024 and the data recorded was analysed using sound analysis software by Megan Watts.

Full spectrum sound files from Anabat Swifts were analysed in Anabat Insight using the Bat-Classify Auto ID program. All data was manually checked for bat calls.

Zero-crossing sound files from Anabat Express were analysed in AnalookW. All recorded sonograms were manually checked.

Table 1: Locations and types of static detectors deployed on the Site.

Number	Location	Detector type
1	First floor Red Cross back of property	Anabat Express – zero-crossing
2	First floor Red Cross front of property	Anabat Express – zero-crossing
3	First floor Peacocks	Anabat Express – zero-crossing
4	Ground floor Peacocks	Anabat Express – zero-crossing
5	First floor Monique's	Anabat Swift – full spectrum
6	Attic of Monique's back of property	Anabat Swift – full spectrum

Limitations

Any ecological survey can only identify what was present on site at the time it was conducted, and habitat use by species can change over time. The length of time survey data remains valid will depend on a case-by-case basis, but typically if a development or proposed works do not commence within 2 years of the date of the survey, an update may be required (CIEEM,2019).

Potential roosting locations were present within the buildings that were not accessible to surveyors for inspection. However, tactical deployment of static detectors ensured that any bats present within the structure would be recorded.

Results

Internal Inspection

Access and egress points were noted across the Site from the front (High Street side) and back of the properties, including a broken window that was not previously noted (Redstart, 2023). Access/egress points included, open windows, broken windows and gaps in the roof line (Monique's).

No signs of bats were identified in any of the properties across the Site at the time of survey.

Static Detector Deployment

Six static detectors were deployed across the Site. No bat calls were recorded during the deployment period on any of the static detectors.

Discussion and Recommendations

As no evidence of bat use or presence and no bat calls were recorded at the Site it is considered that bats were not using Site for roosting at the time of survey.

Bats are mobile animals and as there were PRFs there is potential for bats to use the Site on an ad hoc basis when transitioning between roost sites or in unexpected adverse weather. Therefore, prior to demolition an additional inspection of the Site is required to confirm no bats are present at the time of demolition. This inspection should be undertaken no earlier than 24 hours prior to demolition.

Additionally, during the initial demolition work internal features must be soft-stripped under ecological supervision to check for the refuge of bats and avoid any bat being disturbed, injured or killed.

In the unlikely event that bats are found during demolition works, all work at the location must cease until a European Protected Species (EPS) licence is obtained from NRW.

References

- Collins, J. (ed.) (2023) *Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th ed)*. The Bat Conservation Trust, London.
- Environment (Wales) Act, 2016.
- Google Earth (2024).
- Redstart (2022) Merthyr Tydfil Rail
- Wildlife and Countryside Act (1981) (as amended).

9.0 Road Safety Audit (RSA)

The purpose of the road safety audit process is to provide an effective, independent evaluation of the road safety implications of engineering interventions, ensuring the needs of all road users are considered. This Stage 1 Road Safety Audit has been conducted in compliance with the requirements of GG119. The audit highlights key aspects of the proposed design, including the positioning of the crossing, which directs users into the public realm area. Notably, impaired users following the outer handrail are expected to encounter tactiles before reaching the ramp. While the northern footway features a steep longitudinal gradient that becomes steeper towards the south, the designer has assessed the associated risk as low and retained the existing layout.

Additionally, the landscaping between the public realm and southern fences/walls reduces the risk of pedestrians or cyclists tripping or falling. Fence heights in the southern and northern bioretention areas vary, with the southern fence at approximately 1.5m and the northern fence and planter wall at 1.1m and 0.6m, respectively. Although these heights do not meet the Active Travel Design Guidance recommendation of 1.5m for cyclists, the design assumes the primary desire line for users will pass through the central public realm area rather than along the curved perimeter. It is noted that increasing fence and wall heights may compromise the overall aesthetic of the site.

Merthyr Tydfil Interchange Link

Road Safety Audit Stage 1 Designers Response

November 2024





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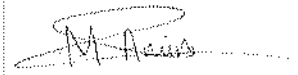
This report has been prepared by Redstart in favour of Merthyr Tydfil County Borough Council (“the Client”) and is for the sole use and benefit of the Client in accordance with the agreement between the Client and Redstart under which Redstart’s services were performed. Other than in respect of liability which cannot be excluded by law, Redstart accepts no liability to any other party in respect of the contents of this report. This report is confidential and may not be disclosed by the Client or relied on by any other party without the express prior written consent of Redstart.

Whilst care has been taken in the construction of this report, the conclusions and recommendations which it contains are based upon information provided by third parties (“Third Party Information”). Redstart has for the purposes of this report relied upon and assumed that the Third Party Information is accurate and complete and has not independently verified such information for the purposes of this report. Redstart makes no representation, warranty or undertaking (express or implied) in the context of the Third Party Information and no responsibility is taken or accepted by Redstart for the adequacy, completeness or accuracy of the report in the context of the Third Party Information on which it is based.

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Redstart understands and acknowledges the Authority’s legal obligations and responsibilities under the Freedom of Information Act 2000 (the “Act”) and fully appreciates that the Authority may be required under the terms of the Act to disclose any information which it holds. Redstart maintains that the report contains commercially sensitive information that could be prejudicial to the commercial interests of the parties. On this basis Redstart believes that the report should attract exemption from disclosure, at least in the first instance, under Sections 41 and/or 43 of the Act. Redstart accepts that the damage which it would suffer in the event of disclosure of certain of the confidential information would, to some extent, reduce with the passage of time and therefore proposes that any disclosure (pursuant to the Act) of the confidential information contained in the report should be restricted until after the expiry of 24 months from the date of the report.

Quality Management

Job No	70120884		
Project	Merthyr Tydfil Interchange Link		
Location	Masonic Street, Merthyr Tydfil		
Title	Road Safety Audit Stage 1 Designers Response		
Document Ref		Issue / Revision	P01
File reference	P:\Schemes_CGC\Business World Projects_2024\70120884_Merthyr Tydfil Lower High Street\5 Project Delivery\5.9 Discipline Relevant Information\5.9.5 Road Safety Audit\Stage 1 RSA\Designers Response\RSA 1 Designers Response.docx		
Date	November 2024		
Prepared by 1	Mohamed Hassan	Signature (for file)	
Prepared by 2		Signature (for file)	
Checked by	Christian Richardson	Signature (for file)	
Checked by 1		Signature (for file)	
Authorised by		Signature (for file)	

Revision Status / History

Rev	Date	Issue / Purpose/ Comment	Prepared	Checked	Authorised
P01	25/11/24	First Issue	MH	CCR	

Contents

1. Executive Summary	Error! Bookmark not defined.
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Figures

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Tables

Table 1.1 <caption>	Error! Bookmark not defined.
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Appendices

Appendix A
Appendix B

1. Introduction

1.1 Terms of Commission

Redstart has been commissioned to undertake a Stage 1 Road Safety Audit on the Merthyr Tydfil Interchange Link scheme. The scheme objective is establishment of a vibrant public realm that visually connects with the train station, improving pedestrian links between the forementioned train station and the town center.

The works include demolition of the former Peacocks building and renovation of the adjacent structures, Monique's and British Heart Foundation. This transformation seeks to breathe new life into these buildings, ensuring that they contribute to the activation of the street frontages along the new public realm and High Street.

Details of the information provided by the client for this audit are included in Appendix B.

The audit team have not been made aware of any strategic decisions.

The brief was provided by the design delivery team (Redstart) acting on behalf of Merthyr Tydfil County Borough Council (the Overseeing Organisation). The road safety audit team have been approved by the Overseeing Organisation.

Design Manual for Road and Bridges document GG119 defines a Road Safety Audit as the review of highway schemes at the completion of preliminary design, completion of detailed design, the completion of construction and as a post opening monitoring exercise. The aim is to identify relevant road safety matters and communicate these in the form of road safety audit problems and recommendations

The objective of the road safety audit process is to provide an effective, independent review of the road safety implications of engineering interventions for all road users and to suggest modifications that could improve road safety.

It is confirmed that this is a Stage 1 Road Safety Audit and that it has been undertaken in accordance with the requirements of GG119.

1.2 Site Visit Details

The site was visited by the audit team on 14th November 2024 between 15:00 and 16:00.

Traffic and pedestrian movements were low. The weather was sunny and the road condition dry.

2. Road Safety Audit Team

2.1 Audit Team Leader:

Paul Sullivan IEng, MCIHT, MSoRSA.
Technical Associate

2.2 Audit Team Member:

Andrew Jones GMICE, MCIHT, MSoRSA.
Principal Engineer

2.3 Others Involved in the Audit:

N/A

3. Items Raised at Previous Road Safety Audits

The road safety audit team are not aware of any previous audits on this project.

4. Items Raised at This Road Safety Audit

Refer to Appendix A for the Problem Location Plan

4.1 Problem

Location: Proposed uncontrolled crossing

Summary: Substandard visibility creates risk of vehicle to pedestrian collisions

Vehicles parked immediately adjacent to the proposed uncontrolled crossing will obstruct visibility increasing the risk of vehicle to pedestrian collisions.

Recommendation

Ensure that no loading markings are provided in addition to the “no loading” signs to emphasise the restriction and provide a mechanism for enforcement.

Designers Comments

Agree, designer to incorporate in the next stage of the design process.

4.2 Problem

Location: Proposed uncontrolled crossing

Summary: Large vehicles mounting footways creating risk of collisions with pedestrians.

Masonic Street provides access to loading and parking areas. The carriageway is too narrow for vehicles to pass each other. Approaching vehicles may mount the footways to pass one another, which creates a hazard for pedestrians. Risk of vehicle to pedestrian collisions.

Recommendation

Protect the ends of the crossing position with street furniture to deter vehicles from mounting the footways.

Designers Comments

Agree, designer to incorporate in the next stage of the design process.

4.3 Problem

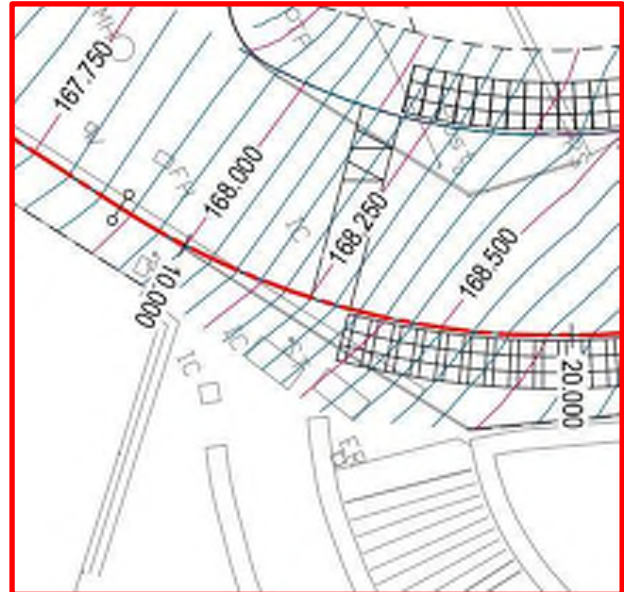
Location: Proposed uncontrolled crossing

Summary: Tripping hazard for visually impaired pedestrians.

Visually impaired pedestrians using the outer handrail on the existing steps will be directed towards the ramped part of the road hump on Masonic Street. Risk of pedestrians tripping at the road hump ramp.

Recommendation

Extend the road hump southwards.



Designers Comments

The crossing location has been positioned to direct users straight into the public realm area. Impaired users following the outer handrail will encounter the tactiles before they reach the ramp, also the longitudinal gradient on the northern footway is steep and gets steeper the further south you go. The designer thinks the risk is low and therefore retains the existing layout.

4.4 Problem

Location: Wall / fences

Summary: Risk of pedestrians / cyclists tripping / falling.

The overall height of combined walls and guardrails is unclear from the information provided. Insufficient height to the walls / guardrails increases the risk of pedestrians and cyclists falling over the top. Risk of pedestrians / cyclists falls.

Recommendation

Ensure that walls and fences are of adequate height to contain pedestrians and cyclists.

Designers Comments

There is a landscaping area between the public realm and the southern wall/ fences, which reduces the risk of pedestrians/cyclists tripping/falling over fences/walls. The Southern bioretention area has a fence which is approximately 1.5m high. The northern bioretention area houses a fence which is approximately 1.1m high and the adjacent planter wall is approx. 0.6m high. These heights do not comply with the Active Travel Design Guidance for cyclists which is 1.5m high, however the desire line for cyclists and pedestrians will be through the middle of the

public realm area and not around the curved perimeter. Increasing the height of fences / walls could compromise on the finished look of the site.

Client to confirm requirements.

4.5 Problem

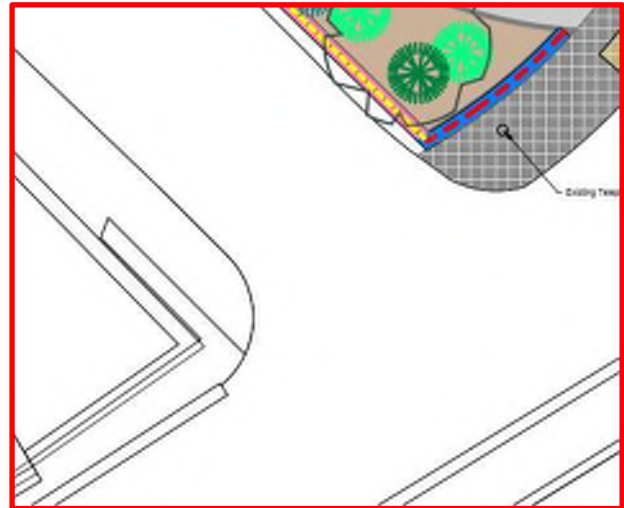
Location: Turning head near uncontrolled crossing

Summary: Trips and falls.

There are no drop kerbs at the connecting footways across the turning head near the crossing. Drop kerbs improves connectivity for mobility impaired users, where failure to provide these facilities increases the risk of pedestrians falls and/or wheelchair users being trapped in the carriageway.

Recommendation

Provide drop kerbs to aid pedestrian movements across the turning head.



Designers Comments

Drop kerbs will be provided when we get to detail design stages.

5. Audit Team Statement

We certify that this road safety audit has been carried out in accordance with GG 119.

Audit Team Leader:

Paul Sullivan
Technical Associate
Redstart
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Signed: 

Date: 18/11/2024

Audit Team Member:

Andrew Jones
Principal Engineer
Redstart
Quest House,
Fortan Road
St. Mellons Business Park
Cardiff
CF3 0EY

Signed: 

Date: 18/11/2024

Appendix A – Problem Location Plan

Appendix B – Information Provided for the Road Safety Audit

Designer	Redstart / WSP
Design Standards	Not declared by Designer
Design Speed	Not Declared
Existing / Proposed Speed Limit	20 / 20
ATC Data	Information not provided to the Road Safety Audit Team
Forecast Traffic Flows	Information not provided to the Road Safety Audit Team
Pedestrian, cyclist desire lines	Information not provided to the Road Safety Audit Team
Environmental Constraints	Information not provided to the Road Safety Audit Team
Declared relevant factor that could affect the RSA (eg. near a school / special events etc)	Information not provided to the Road Safety Audit Team
Collision Data Analysis	The audit team have not been requested to undertake collision data analysis however a review of Crashmap has indicated that no collisions have occurred at this site over the last 5 years
Departure from Standard	The audit team have not been provided a list of departures

Drawings included in this Road Safety Audit

70120884-RED-61-XX-DR-C-0102 Longitudinal Section
70120884-RED-61-XX-DR-C-0103 Cross Section Location Plan
70120884-RED-61-XX-DR-C-0104 Cross Sections
70120884-RED-61-XX-DR-C-0105 Public Realm CS Location
70120884-RED-61-XX-DR-C-0106 Public Realm CS
70120884-RED-61-XX-DR-C-0107 15.5m Articulated vehicle
70120884-RED-61-XX-DR-C-0108 16.48m Articulated vehicle
70120884-RED-61-XX-DR-C-0109 10m Rigid vehicle
70120884-RED-61-XX-DR-C-0110 Large Refuse vehicle
70120884-RED-61-XX-DR-C-0111 Fire Tender vehicle
70120884-RED-61-XX-DR-C-0112 Standard Design vehicle
70120884-RED-61-XX-DR-C-0200 Site Clearance
70120884-RED-61-XX-DR-C-1200 TSRM
70120884-RED-61-XX-DR-C-2700 Proposed Utility works
70120884-RED-61-XX-DR-D-0501 P01 Drainage Layout
70120884-RED-61-XX-DR-E-0117 P02 Street Lighting
MIL-ESA-XX-XX-DR-A-950004_P06_Proposed Landscape Masterplan
MIL-RED-78-XX-SK-S-0001-North Bioretention
MIL-RED-78-XX-SK-S-0002-South Bioretention
MIL-RED-78-XX-SK-S-0003-Northeast Planter
MIL-RED-78-XX-SK-S-0004-Raised Planters

REDSTART

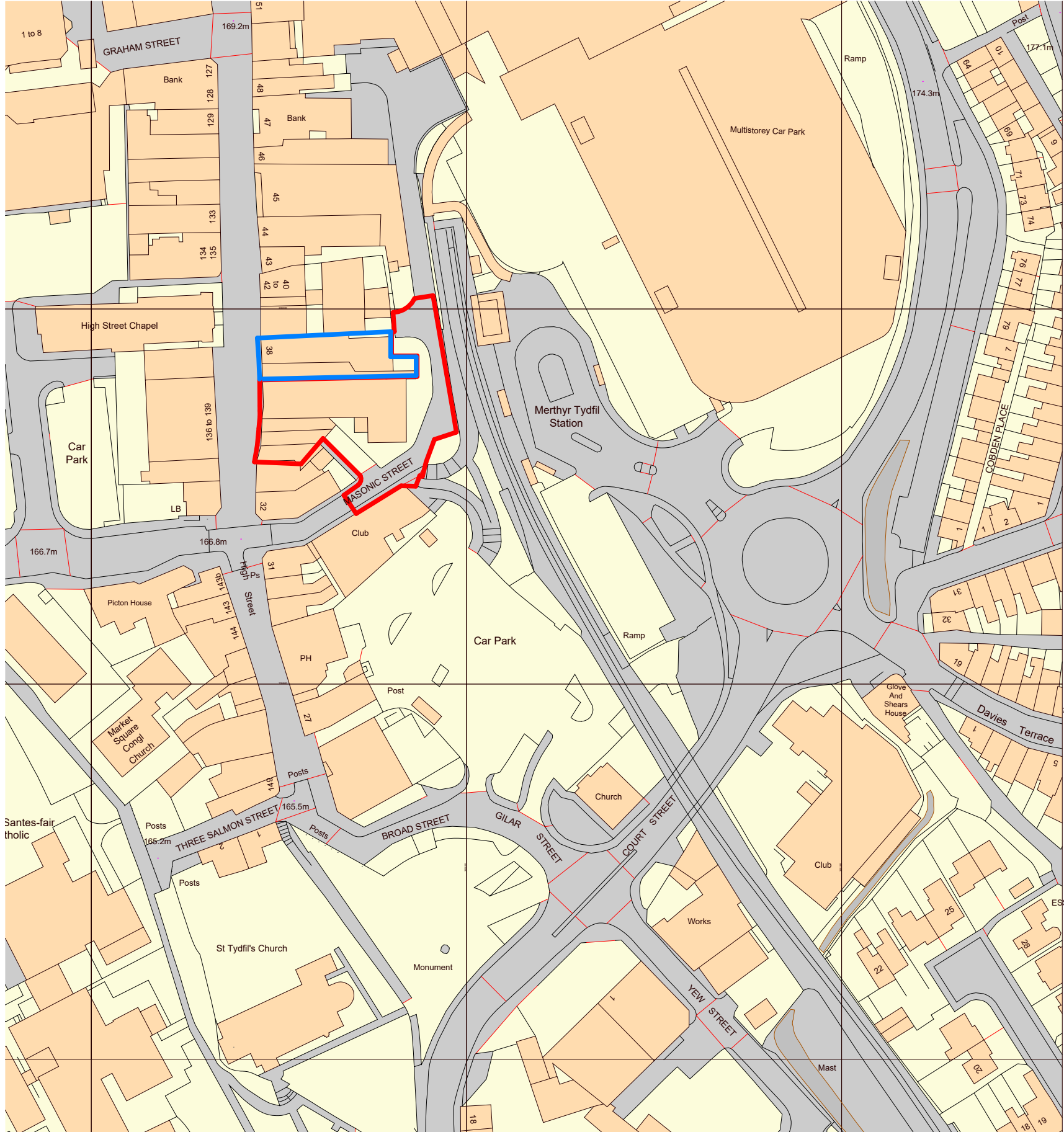
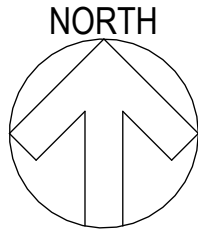
St David's House
Pascal Close
St Mellons
Cardiff
CF3 0LW

www.redstartwales.com



10.0 Architects Drawings

(See full Stage 3 drawing package below)



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- Graphical representations of equipment on this drawing have been co-ordinated, but are approximations only. Please refer to the Specifications and / or Details for actual sizes, or specific contractor construction information where only design intent is provided.
- This drawing is to be read in conjunction with all other relevant architectural drawings and specifications as well as the drawings and specifications of other design disciplines, including structural engineers and building services engineers.
- It is assumed that all works on this drawing will be carried out by a competent contractor, aware of their duties under CDM regulations 2015 and working to a construction phase plan developed by the Principle Contractor.

Key	
—	Site Boundary
—	Outline Planning Application for Moniques re-build

P03	Issued for Stage 3	05/12/24
P02	Issued to Client	14/11/24
P01	Stage 2 Issue	07/06/24
Rev	Description (Chk'd / App'd)	Date

Status

S2 - For information and reference

Classification

Client

Merthyr Tydfil County Borough Council

Project

Merthyr Interchange Link

Drawing

Site Location Plan

Scale @ A3	Drawn	Checked	Approved
As indicated	CJ	EB	MT
Project No.		Date	
70121420		30/05/24	

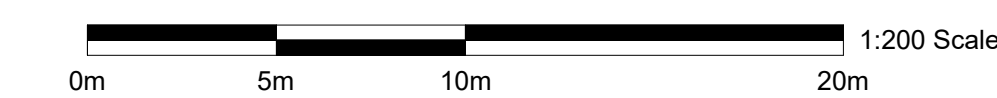
Drawing Identifier

project	origin	zone	level	form	dis.	number	revision
MIL	-	ESA	-	XX	-	DR - A	-050010_P03

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WSP (Real Estate & Infrastructure) Limited, Reg No. 12475960

0m 25m 50m 100m 1:1250 Scale



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	WARNING RISK Indicates a Residual Risk as a warning
	COMPULSORY RISK Indicates a Residual Risk requiring a compulsory action
	PROHIBITIVE RISK Indicates a Residual Risk requiring a prohibitive action
	INFORMATION RISK Indicates a Residual Risk for information

Key	
	Site Boundary
	Outline Planning Application for Moniques re-build
	Area for Site Cabins and Material Storage
	Road to be Resurfaced

The Contractor is to ensure access through Masonic Street is maintained. Re-surfacing works to be undertaken at agreed out of hours time/date with all key stakeholders.

Classification

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	Railings Type A Approx Length = 21.2m Approx Height = 1.5m
	Railings Type B Approx Length = 52m Approx Height = 600mm
	Railings Type C Approx Length = 14.65m Approx Height = 1750-2000mm
	Drop Stems Wall With Natural Stone Capping Units Approx Length = 38.1m Average Height = 500mm
	Brick Wall Approx Length = 37.8m Approx Height = 3m
	Perforated Screen Approx Length = 73.3m Approx Height = 1.2m

To be read in conjunction with:

- MIL-ESA-XX-XX-SPN-000001 - Architectural Specification
- MIL-ESA-XX-XX-DR-210042 - Walk Scoping - Longitudinal Sections
- MIL-ESA-XX-XX-DR-940001 - Soil Landscaping Layout
- MIL-ESA-XX-XX-DR-940002 - Planting Specification and Guidance
- MIL-ESA-XX-XX-DR-95923 - Public Realm Hard Landscaping Layout
- MIL-ESA-XX-XX-DR-95910 - Street Furniture - Bench Seating
- MIL-ESA-XX-XX-DR-95911 - Street Furniture - Anti Vehicle Bollards
- MIL-ESA-XX-XX-DR-95912 - Street Furniture - Tree Guard & Pits
- MIL-ESA-XX-XX-DR-95915 - Railing Layout

Refer to relevant drawings by Civil's, Structures, Drainage and Street Lighting consultants.

	S-21	12 x 19 3/8 Masonry Wall Last System PPHW1 - Steel Reinforcing Wall 10mm Drilled Stone 20mm Concrete Block 10mm Drilled Stone
	S-22	12 x 19 3/8 Masonry Wall Last System PPHW2 - Rotated Painted Wall 10mm Concrete Block 10mm Reinforced Concrete 10mm Concrete Block 10mm Drilled Stone
	S-23	48 x 48 3/4 Masonry Retaining Wall Systems PHH Rotating Painted Wall 10mm Concrete Block 10mm Reinforced Concrete 10mm Concrete Block 10mm Drilled Stone
	S-24	12 x 19 3/8 Masonry Wall Last System PPHW1 - Segmental Wall 10mm Concrete Block 10mm Reinforced Concrete 10mm Concrete Block 10mm Drilled Stone
	S-25	12 x 19 3/8 Masonry Wall Last System PPHW2 - Boundary Wall with Siding 10mm Drilled Stone 14mm Block or Flat 10mm Drilled Stone
	S-26	12 x 19 3/8 Masonry Wall Last System HCPH1 - Boundary Wall 10mm Brick 10mm Filler Grout 10mm Drilled Stone

	Brigste Sealing PH. 40, 50, 50, 50 Product: Brigste Linear Fastenig Bracket Colour: FSC Infected Timber Seal Powder Coated Iron Bal. 605 Size: 300mm x 4, 700mm in a 40mm x 1 To be hung down was using MS_CSA.XX.XX.CRA-600010	
	Protective Bolts (PH. 38, 70, 40, 60) Product: Protective Bolts Protective Bolt (by Materials) (Sx) Colour: Jet Air Side 5005 Size: 100mm x 100mm x 100mm To be hung down was using MS_CSA.XX.XX.CRA-600011	
	Two Gated PH. 40, 40, 40, 40 Product: Universal Two Gated by Universal Urban List Colour: RAL 9005 Satin Black Powder Coat Size: 100mm x 100mm x 100mm	
	Two Grids PH. 40, 40, 40, 40 Product: 40x40x200 Two Grids by Universal Urban List Colour: Powder Coated RAL 9005 Size: 100mm x 100mm	
	Bin & Recycling PH. 40, 40, 40, 40 Product: 40x40x200 Bin & Recycling by Universal List Colour: RAL 9005 Satin Black Powder Coat Size: 100mm x 100mm x 100mm To be built with a pre-cast concrete base.	
	Discontinued Pole Sign Product: TIC Colour: RAL 9005 Satin Black Powder Coat Location and size to be developed at Stage 4 in conjunction with key information	

	P191 Pavements Parking (NES Spec P, 28, 31, 40, 75) Product: Textured Rain Board Sarking Colour: Buff Flat	
	P192 Solid Asotet Parking (NES Spec P, 28, 31, 40, 75) Product: Universal Kerf 156410 Colour: Buff	
	P193 Solid Asotet Parking (NES Spec P, 28, 31, 40, 75) Product: Universal Kerf 156410 Colour: Buff	
	P194 Tactile Parking Pave (NES Spec P, 28, 31, 40, 75) Product: Tactilemex City Pave V15 Colour: Buff	
	P195 Tactile Parking Pave (NES Spec P, 28, 31, 40, 75) Product: Tactilemex City Pave V15 Colour: Buff	
	P196 Tactile Parking Pave (NES Spec P, 28, 31, 40, 75) Product: Tactilemex City Pave V15 Colour: Buff	
	P197 Tactile Parking Pave (NES Spec P, 28, 31, 40, 75) Product: Tactilemex City Pave V15 Colour: Buff	
	P198 Tactile Parking Pave (NES Spec P, 28, 31, 40, 75) Product: Tactilemex City Pave V15 Colour: Buff	
	P199 Tactile Parking Pave (NES Spec P, 28, 31, 40, 75) Product: Tactilemex City Pave V15 Colour: Buff	

--- --	Rolling Type A (Cls. 25, 14, 41, 86) Product: Cylindrical Railings by Alpha Rod Ltd Colour: Black Size: 1100mm (H)	
--- --	Rolling Type B (Cls. 25, 14, 41, 86) Product: Cylindrical Railings by Alpha Rod Ltd Colour: Black Size: 1000mm (H)	
--- --	Rolling Type C (Cls. 25, 14, 41, 86) Product: Rectangular Railings by Alpha Rod Ltd Colour: Black Size: 1700x2000mm (H)	

Rev	Description	(Chk'd / App'd)	Date
Status			
S2 - For information and reference			
Classification			

Project

Merthyr Interchange Link

Proposed Landscape Masterplan

Scale @ A0	Drawn	Checked	Approved
As indicated	CJ	EB	MT
Project No.	Date		
70121420	28/05/24		
Drawing Identifier	zone	level	revision
MIL - ESA - XX - XX - DR - A - 950004			P07

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Note:

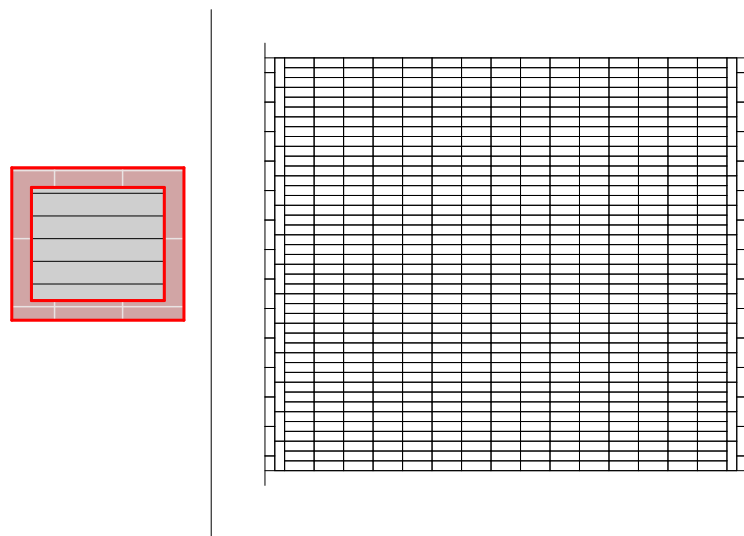
To be read in conjunction with:
MIL-ESA-XX-XX-SPN-00001 - Architectural Specification
MIL-ESA-XX-XX-DR-A-55010 - Street Furniture - Bench Seating
MIL-ESA-XX-XX-DR-A-55011 - Street Furniture - Anti Vehicle Bollards
MIL-ESA-XX-XX-DR-A-55012 - Street Furniture - Tree Guard & Pits
MIL-ESA-XX-XX-DR-A-55015 - Railing Layout

Refer to relevant drawings by Civil's, Structures, Drainage and Street Lighting consultants.

Paving Key:

	PP01 Permeable Paving (NBS Spec PR_33_31_95_71) Product TerraBound Resin Bound Surfacing Colour: Buff Red	
	PP02 Solid Jointed Paving (NBS Spec PR_25_93_60_10) Product Wienerberger Aquada Red 18x410 Colour: Red Size: 195 x 65 x 80mm Layout: Double Stack Herringbone	
	EB01 Edge Brick (NBS Spec Pr_20_93_52_15) Product Wienerberger Terca BN 1/2 Single Bullnose Brick Colour: Charcoal Size: 102.5 x 65 x 215mm Location: Edge curb brick to new ground level planters	
	PV01 Tactile Paving Flags (NBS Spec Pr_25_93_60_10) Product Tobemore Tactile Blister Flags Colour: Buff Size: 400 x 400 x 50mm Location: Pedestrian Road Crossing	
	PV02 Paving Blocks (NBS Spec Pr_25_93_60_17) Product Tobemore City Pave VSS Colour: Mid Gray Size: 300 x 150 Layout: Stretcher Location: Pedestrian Pavement to Roadside	
	PV03 Tarmac (NBS Spec Pr_33_31_95_05) Product TBC by Civils and Highways Colour: Black Location: New substation and surrounding area	

Paving Pattern Key:



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HEALTH & SAFETY SYMBOL KEY

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Indicates a Residual Risk as a warning
- COMPULSORY RISK**
Indicates a Residual Risk requiring a compulsory action
- PROHIBITIVE RISK**
Indicates a Residual Risk requiring a prohibitive action
- INFORMATION RISK**
Indicates a Residual Risk for information

P05	Issued for Stage 3	05/12/24
P04	Issued for Information	06/11/24
P03	Issued to Client for Review	14/08/24
P02	Issued for information and coordination	09/08/24
P01	First Issue for Coordination	07/08/24

Rev	Description	(Chkd / App'd)	Date
Status			
S2 - For information and reference			
Classification			
Client			
Merthyr Tydfil County Borough Council			

Project	Merthyr Interchange Link
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Public Realm Hard Landscaping Layout

Scale @ A1	Drawn	Checked	Approved
As indicated	SA	EB	MT
Project No.	Date		
70121420	07/08/24		

Drawing Identifier	project	origin	zone	level	form	discip.	number	revision
MIL - ESA - XX - XX - DR - A - 950023								P05

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