



Network Rail

DESIGN FEASIBILITY STUDY

Chinley Station





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DESIGN FEASIBILITY STUDY

Chinley Station

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1. INTRODUCTION

1.1. SCOPE OF REPORT

- 1.1.1. WSP have been appointed by Network Rail to prepare a Design Feasibility Study for Chinley Station, Derbyshire. This report will follow the design stages set down in the “Guidance for Rail Investment Process” (GRIP) – focusing upon GRIP Stage 2 Feasibility options that could be viably progressed to GRIP Stage 3 (Outline design).

A primary objective of this report will be its focus upon potential improvements in accessibility afforded by each design option reviewed.

- 1.1.2. Chinley Station is situated on the London North Western (LNW) route and is managed by Northern (Arriva). The station has the Engineers Line Reference (ELR) TTA1 169m 0862yds. The station is unmanned and has one island platform between the 2 No. running lines. The platform and railway lines have an east-west orientations. The railway line is not electrified in the vicinity of Chinley Station. Ref. **Appendix A** - General Arrangement drawings detailing the current station.

The station is accessed via Station Road and a nearby car park is also provided to the south-east. At present, a stepped footbridge is located to the island platform of the station which provides pedestrian access from the public footpath off Station Road. Step free access is not available at Chinley Station.

As a result of the above, the existing access arrangements are not inclusive of all users, including those with mobility impairments. The report will identify potential design options that would facilitate access for such user groups.

A number of design options have been considered in this Feasibility Report to determine whether the access arrangements at Chinley Station can be made more inclusive. The viability of these options have been considered from the perspectives of structural design, inclusive access and impacts to the operational rail infrastructure.

A measured survey has been undertaken to determine the existing layout and access arrangements at Chinley Station. Measurements were manually recorded during a site visit by WSP on 18/10/18 and comprised a basic tape/offset technique to verify primary dimensions required for design feasibility purposes. A full Topographical survey should be undertaken to confirm these measurements for design options progressed to GRIP 3 stage.

The existing General Arrangement is shown in **Appendix A**.

- 1.1.3. This report includes approximate costs associated with each of the design options reviewed at feasibility stage (GRIP 2). All costs are indicative only and serve to allow a high-level budgetary comparison between each option presented.

Detailed cost analysis would be required to verify the presented figures for any design option(s) progressed to GRIP 3 Stage and onward.

1.2. REPORT STRUCTURE

- 1.2.1. The structure of this report will guide the reader through the following stages of feasibility design options review and appraisal, with an overview provided upon each options considered, before presenting recommendation for those options the client may wish to consider to progress into the GRIP 3 (Single option selection) process.

The report Chapter will address the following content by chapter;

- **Chapter 2 Station details & access** - discusses the existing situation at Chinley Station and the access arrangements;
- **Chapter 3 Design option appraisal** - provides a review of each design option, including options discounted at pre-feasibility with a narrative of reasoning for such decisions against key factors including; Cost, Engineering impact, Accessibility improvements;
- **Chapter 4 Recommendations** - Presents a series of recommendations for the next steps in progressing each design option; and
- **Chapter 5 Summary** - Concludes the Design Feasibility Study for Chinley Station and presents the most viable options reviewed for Client consideration.

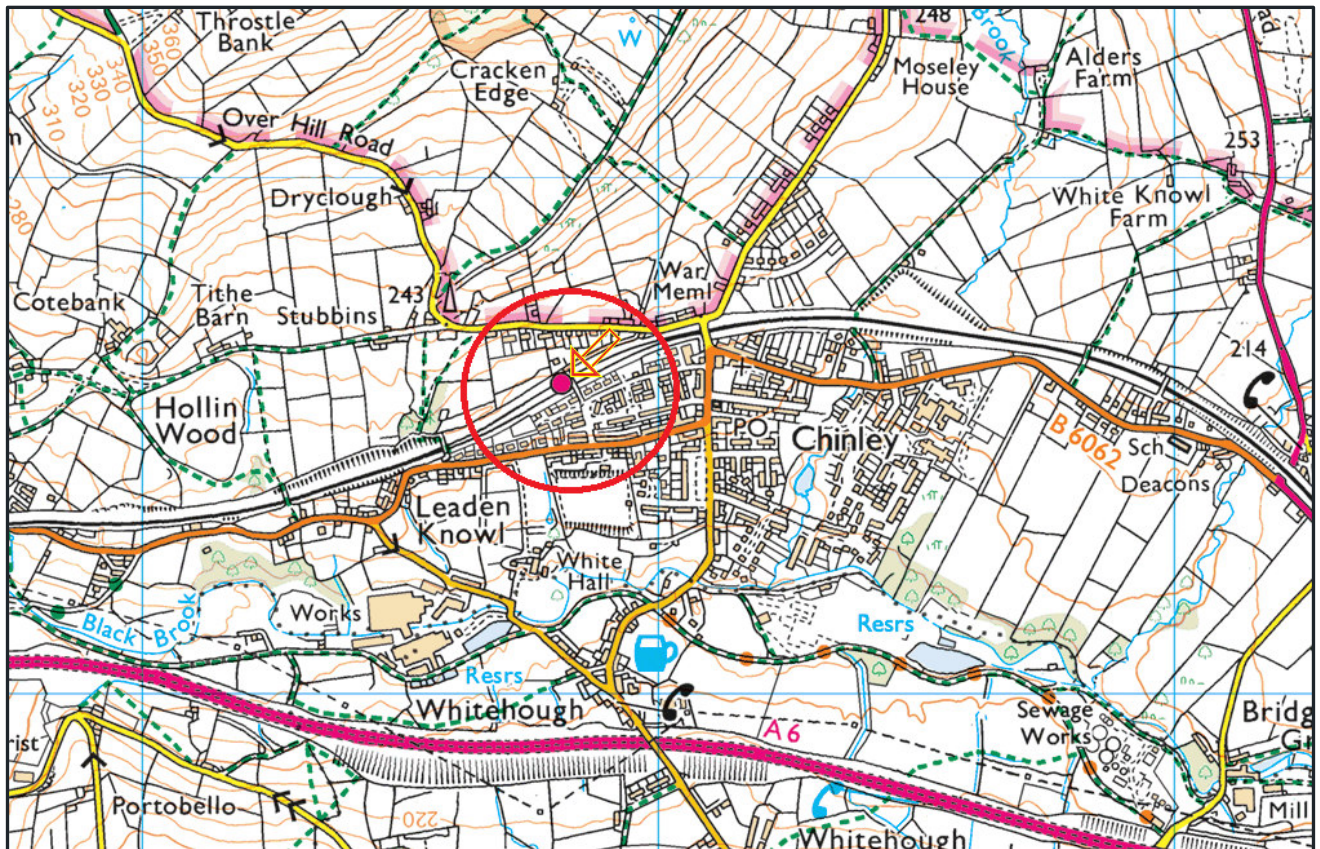
2. STATION DETAILS AND ACCESS

2.1. CHINLEY STATION

2.1.1. Chinley Station is situated at 169m 40ch (169m 0880yds) on the Chinley North Junction to Reddish Junction (TTA1) line. The 2no. running lines at Chinley Station are orientated in an east –west direction and are not electrified.

The station is located in a predominantly residential area within the village of Chinley, Derbyshire. Chinley is within the Peak District National Park. Chinley has a resident population of 2,796 (2011 census figures) and the station location to the north-west is within a 1km radius of the majority of residential properties – see Figure 2-1 Map extract for details.

Figure 2-1 - OS Extract: 1/25,000 – Chinley Station



Surrounding the station, green open space and the gardens of residential properties are located to the north. Residential properties and the station car park are located to the south approaches to the station. Land boundaries are a combination of palisades fencing north and south (in part) and garden fences serving properties (predominantly to the south).

The north approaches to the Network Rail land boundary have a number of semi-mature trees, whilst the south side is generally of low-level vegetation.

- 2.1.2. The station is managed by Northern and is located on the Hope Valley Line. Two TransPennine services previously stopped at Chinley Station twice a day, however the station was removed from the timetable in May 2018.

The station is unmanned and tickets are not available for purchase due to the absence of ticketing offices and machines. The rail services and frequencies from the station are summarised in **Table 1**.

Table 1 - Chinley Station Services and Frequency

Operator	Route	Stations Served	Frequency
Northern	Manchester to Sheffield (The Hope Valley Line)	Manchester Piccadilly, Ashburys, Belle Vue, Ryder Brow, Reddish North, Brinnington, Bredbury, Romley, Marple, Strines, New Mills Central, Chinley, Edale, Hope, Bamford, Hathersage, Grindleford Dore and Totley, Sheffield	Monday to Friday One train per hour in each direction
			Saturday One train per hour in each direction
			Sunday One train per hour in each direction

Source: www.northernrailway.co.uk

- 2.1.3. Notice boards are provided at the south end of the station footpath and on the approaches to the footbridge. The boards provide timetable information and service updates from Northern.

A notice board with information provided by the Chinley and Buxworth Transport Group is situated on the island platform. Limited facilities are provided on the platforms at Chinley Station.

There are no toilet facilities or baby changing facilities within the curtilage of the station. A sheltered seating area is provided on the island platform and lighting columns are provided at regular intervals.

2.2. EXISTING ACCESS ARRANGEMENTS

- 2.2.1. Chinley Station is accessed via Station Road, to the south of the platforms. Pedestrian access is provided via a footpath which connects to the south end of the station footbridge. The footpath is approximately 2.5 metres wide and street lighting is provided. A centrally-located bollard is provided at the south end of the footpath, which restricts the available width of the path for pedestrians and prevents vehicular access.

The kerb adjacent to the footpath is not dropped and therefore access may be difficult for those with in wheelchairs or with children in pushchairs. Dropped kerbs are provided along the north of side of Station Road to the east and west of the station footpath.

A car park is provided to the east of the station which has 20 parking spaces. There are three disabled bays and there are currently no provisions for cycle parking.

The car park is free for passengers using Chinley Station and is open 24 hours a day. There is no direct access from the car park to the station itself. Instead, passengers are required to exit the car park and walk westbound along the north side of Station Road for approximately 50 metres. The aforementioned station footpath can then be used to enter the station.

- 2.2.2. The island platform at Chinley Station is accessed via a stepped footbridge. The steel construction footbridge (TTA1/112A) is 1980mm wide and the total length of the bridge deck is 15010mm.

Each flight of stairs has 24 rises and one 1140mm landing. The majority of the risers on each flight of steps are open. Each rise is 160mm. Handrails are provided on both sides of the steps and tactile (corduroy) paving is provided at the top and bottom of each flight.

The footbridge is lit and colour contrast is provided on the step noses, extending along the full width of each tread. This is essential for those who have visual impairments as it differentiates between each step. The stepped access is shown in **Figure 3**. Photos of the existing structure and the station are contained in **Appendix B**.

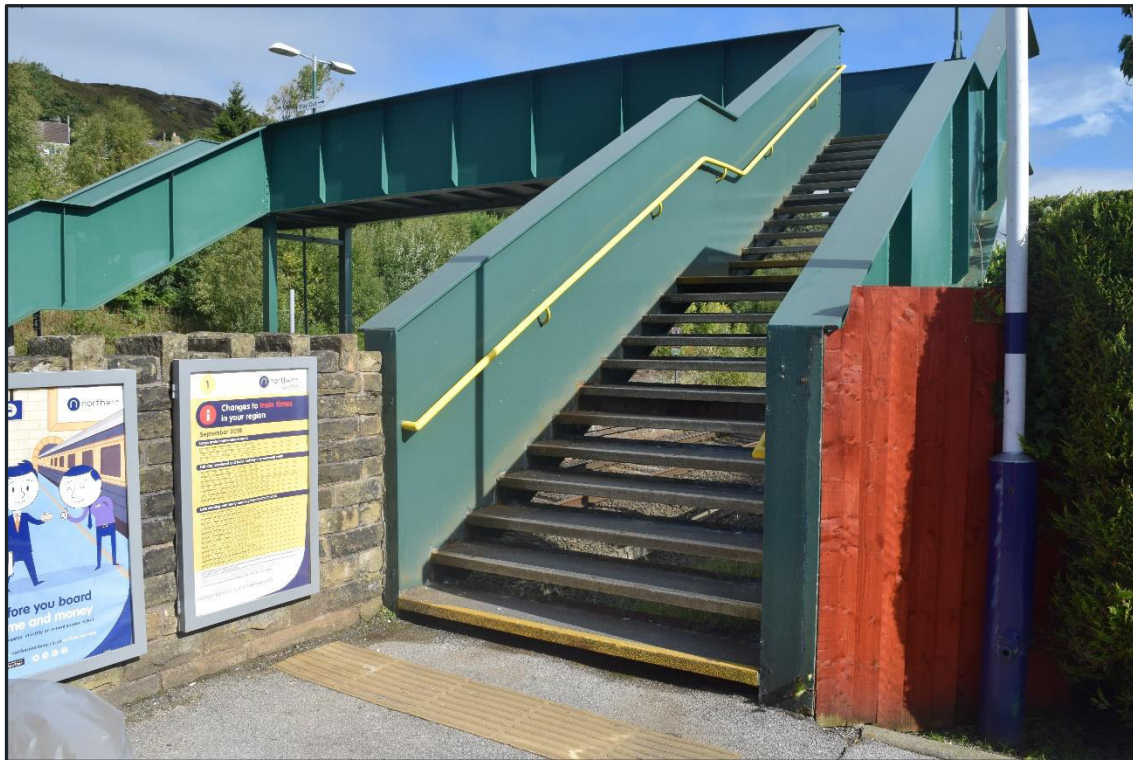


Figure 3 - Stepped Footbridge at Chinley Station (South approach)

- 2.2.3. As a consequence of the stepped footbridge, the existing access arrangements are not inclusive of those who cannot negotiate the steps.

Due the station being unmanned, assistance is not available/provided at the station and there are currently no alternative access arrangements available for those who require step free access. This includes passengers in wheelchairs or mobility scooters, as well as those with children in pushchairs.

3. DESIGN OPTIONS APPRAISAL

3.1. INTRODUCTION

- 3.1.1. As demonstrated in Chapter 2, the existing access arrangements at Chinley Station are not inclusive of all users. The lack of step free access to the station's platform prevents some user groups from using train services at Chinley Station.
- 3.1.2. This report considers a range of options on how Chinley Station can be made more accessible for all users. While several options have been discounted as they are not deemed viable, four design options are presented in this report for further assessment under GRIP 2 (Feasibility)
- 3.1.3. Given that the aim of the study is to establish whether a more inclusive access arrangement can be provided at Chinley Station, each option has taken account of the guidance provided in the following documents:
 - Design Manual for Roads and Bridges;
 - Department for Transport (DfT) – Inclusive Mobility (2005); and
 - DfT and Transport Scotland – Design Standards for Accessible Stations.

3.2. DISCOUNTED OPTIONS

- 3.2.1. In the process of establishing options for the improvement of the access arrangements at Chinley Station, two options have been discounted at early, pre-feasibility review. It is not recommended that these options are progressed further – the options discounted and rationale for discounting are as follows;

(A) UNDERPASS OR SUBWAY

- 3.2.2. The first discounted option is an underpass or subway. Such an option would be provided as a link between the existing footpath approaches to the South of the station, passing under the running line, before returning to grade at the island platform.
- 3.2.3. Extensive works would be required to provide a 'cut and cover' construction to facilitate this option. Costs are considered to be high and potential for service disruption would be significant.

Site investigation works would be required to determine whether the ground conditions beneath track level could accommodate a subway with regards to the transfer of imparted live loads (rail traffic) and dead loads (self-weight and permanent way).

Any design would also need to factor appropriate drainage to ensure standing water did not accumulate within the subway – the adjacent topography and presence of numerous minor watercourses in the locality would suggest this to be a significant risk.
- 3.2.4. In terms of accessibility, a step free underpass or subway would be more inclusive than the existing access arrangements.

However, due to the land constraints at the station, is unlikely that a step free subway or underpass could be provided. A change in level would be required to go beneath the railway line and it is not considered possible to construct a suitable ramp to serve this.

(B) AT-GRADE PEDESTRIAN CROSSING

- 3.2.5. The second option which has been discounted is a level access pedestrian crossing between the south approaches and adjacent running line, connecting to the east end of the island platform. Historically, such crossing points are user operated and may include red/green lights to alert users to approaching trains.
- 3.2.6. Whilst there is sufficient space to provide an at-grade crossing at the station carpark, significant issues would present at the interface with the island platform. A small ramp would be required at track level to get from the '10 foot' area to the platform.
- 3.2.7. Level crossings are recognised as posing a significant safety risk to the public. In 'Improving safety and accessibility at level crossings for disabled pedestrians' (2011), the RSSB state that pedestrians are at a greater risk than road users at level crossings.

Pedestrians with disabilities may find it difficult to use level crossings for the following reasons:

- Pedestrians are required to negotiate changes in gradient and exposure to the railway track. This can cause problems for some users with sensory, physical or cognitive impairments;
- Visually impaired pedestrians may not know that they are approaching a level crossing;
- Pedestrians with hearing impairments may not be able to hear announcements or warning noises when a train is approaching; and
- 'Flangeways' are required at level crossings in order to create an open passage through the crossing surface for when train wheels pass. These gaps are difficult to negotiate for wheelchairs users or those with mobility impairments.

In addition to the above factors we are cognisant to Network Rail's strategy towards the removal and replacement of many level and at-grade pedestrian crossing points across the national network.

It is unlikely that the introduction of such a design would be endorsed, but is presented to demonstrate the option selection process applied.

- 3.2.8. While the above list is not exhaustive, it is clear that there are many issues which affect the accessibility of level crossings. The safety issues associated with the provision of a level crossing alone provide sufficient justification as to why this option should be discounted.

3.3. POSSIBLE OPTIONS

OPTION 1 – DO NOTHING

- 3.3.1. A 'do nothing' approach involves retaining the existing access arrangements at Chinley Station. There are no additional costs associated with this option, as the existing footbridge would be retained for the remainder of its design life. Ref - General Arrangement **Appendix A**.
- 3.3.2. It is noted that some features of the existing footbridge are beneficial for inclusive accessibility, such as the colour contrast on the step noses and the handrails on both sides of the steps. However, the existing access arrangements are not considered inclusive of all users, some of the reasons for which are as follows:
- The footbridge has stepped access. This excludes those in wheelchairs and pedestrians with mobility impairments. Pedestrians with children in pushchairs and prams may also find a stepped footbridge difficult to negotiate;
 - There are open risers on the majority of the steps. People with mobility impairments often pull their feet up the face of a closed riser when using the steps;
 - The path which provides pedestrian access to the station does not have a continuous dropped kerb at its access point from Station Road;
 - There is no direct access from the car park of the station to the footbridge or island platform. The double yellow line parking restrictions on Station Road prevent drop off and pickups at the closest point to the station.
- 3.3.3. **Costs: This option incurs no costs**, however it is considered the least inclusive and would not improve upon the existing access arrangements at Chinley Station.

OPTION 2 – RETROFIT THE EXISTING FOOTBRIDGE

- 3.3.4. Some of the issues associated with the existing footbridge can be addressed through retrofitting the existing footbridge. Issues that could be addressed through retrofitting the existing structure are as follows:
- Infill the open risers on both flights of steps; and
 - Liaise with the Local Highway Authority to provide a more continuous dropped kerb and tactile paving on the access to the station footpath from Station Road.
- 3.3.5. Due to space constraints, ramps cannot be retrofitted to the existing footbridge. Given that the stepped access will be retained within this option, the footbridge would continue to exclude some user groups.
- 3.3.6. Some features of the existing footbridge are deemed acceptable from the perspective of inclusive access, therefore no changes are required for the following:
- The handrails are a contrasting colour to the footbridge and would therefore be more noticeable to those with visual impairments;
 - The footbridge and the footpath which provides access from Station Road is lit;
 - Colour contrast is provided on the step noses, extending along the full width of each tread;
 - Tactile paving is provided at the top and base of each flight of stairs; and
 - A shelter is provided on the platform.
- 3.3.7. **Costs:** The approximate cost of this option is likely to be **in the order of £25K**.

OPTION 3 – INSTALL LIFTS ON THE EXISTING FOOTBRIDGE

- 3.3.8. Inclusive Mobility (2005) states that lifts should be provided in preference to very long ramps. There is sufficient space to provide lifts on the existing footbridge. A lift could be located at both ends of the footbridge, which would provide step-free access for all users.

Works will be required to extend and support the additional walkway width required at the south end of the footbridge and additional walls or fencing would be required to maintain lineside security.

A proposed general arrangement for the provision of lifts on the footbridge is shown in **Appendix C**.

- 3.3.9. The station is currently unmanned, therefore there may be limitations of providing lifts as the only means of step free access.

The lifts should be appropriately monitored and fitted with a communication system to ensure that there are no safety risks for station users in the event of an emergency. An emergency call system within the lift would be essential, as well as warning outside of the lift if it is out of order.

- 3.3.10. While the available space at Chinley Station can accommodate lifts on the existing footbridge, site investigation works should be carried out to determine the foundations of the footbridge and platform.

- 3.3.11. There are many factors to consider in the provision of a lift, all of which ensure that it is inclusive for everyone who wishes to use it to access the platform at Chinley Station.

The internal dimensions of a lift should ideally be large enough for a wheelchair user to enter the lift, turn around and exit facing forwards. Inclusive Mobility (2005) acknowledges that this is often difficult to achieve due to space constraints.

The depth of the lift should be a minimum of 15000mm, which is large enough for a wheelchair to turn around and for other pedestrians to also use the lift.

Handrails should be provided on the non-opening sides of the lift cabin, at a height between 900mm and 1000mm. The handrails should contrast in colour to the walls of the lift. The clear width of the doorway to the lift should be 900mm, which allows sufficient room for wheelchair users.

- 3.3.12. Outside of the lift door, there should be sufficient space for a wheelchair user to manoeuvre into place without obstructing other pedestrians. A landing of 1500mm x 1500mm is therefore preferable. If the landing area has a different surface colour to the surrounding area then it will be more inclusive of visually impaired pedestrians, as it will help them locate the lift. It is acknowledged that at the top of the footbridge, it may be difficult to achieve such landing sizes.

- 3.3.13. The stopping accuracy of the lift should have a maximum vertical distance of 100mm and any horizontal gap should be less than 20mm. The stopping accuracies of a lift are important as they ensure that the change in level is not difficult to navigate for a wheelchair or ambulant user.

- 3.3.14. If the lift has centre opening doors, the control panel should be located on the right hand side when entering the cabin. The control panel should be on the flank wall of the lift rather than the front wall. The control panels should include instructions in braille and in relief.

The buttons should contrast with their surrounding area, such as through colour or lighting. This will make the controls easier to identify for those with visual impairments.

3.3.15. Where lifts are provided, they should be automatic and have audible tones for when the doors open and close. Lifts should be clearly signposted from the pedestrian route into the station and recognisable through their design and location. These factors will aid to ensure that the lift remains accessible for those with visual or hearing impairments.

3.3.16. The position of the lift shafts will need to observe minimum gauging and clearances with respect to the kinematic envelope of passing traffic, any proposals to electrify the line and most crucially with respect to signal sighting.

The lift shafts will be steel-framed construction, typically with a brick clad facing to improve aesthetics. As such they can obscure signalling infrastructure located to both the station platform and lineside approaches.

3.3.17. Lifts can provide a focus for anti-social behaviour and any proposed design will need to factor in potential lighting, CCTV and other associated measures to discourage such activities. As a rural location it is likely that this will serve to significantly reduce likely occurrences and it is noted that the station has an active local support group who tend to the public areas.

3.3.18. This option will require additional power supply to be provided to operate the lifts and associated infrastructure (lighting, CCTV etc.). The current capacity of power supply at Chinley station is not known and would require specialist M&E inputs to progress this design option.

3.3.19. The construction of lifts represents a significant undertaking to the operational railway, however modular design and construction techniques can see impacts managed.

Site investigation will be required with particular focus to the geotechnical capabilities of both the south approaches and made ground forming the island platform. Chinley is located within an area of known hard rock sub-strata which may serve to increase costs in providing the necessary lift pits.

3.3.20. Costs: The design & build cost associated with this option would be approximately £450k.

In reviewing this option, it must also be noted that all lifts would require annual maintenance and servicing costs to be factored into the whole life costs. Such costs would be obtained from the supplying lift manufacturer and are outwith of the scope of WSP reporting.

OPTION 4 – RAMPED ACCESS FOOTBRIDGE

- 3.3.21. Option Four is the provision of a new footbridge which has ramped access. In order to accommodate the ramps, the footbridge would be located to the east of the existing structure and could be accessed from the station car park.
- A proposed general arrangement for the provision of the ramped option is shown in **Appendix D**.
- 3.3.22. Inclusive Mobility (2005) defines a ramp as a structure which has a gradient of more than 1 in 20. This is the preferred gradient for ramps and 1 in 12 is the absolute maximum which is acceptable. It is noted that there is a relationship between the length of the ramp and the gradient which users can manage. The longer the ramp, the lower the gradient that should be provided.
- 3.3.23. The existing access arrangements at Chinley Station comprise a footbridge with stepped access. Within the Option 4 proposals it is recommended that the stepped footbridge is retained. Inclusive Mobility (2005) states long ramps are not always preferable for some users, as some would prefer to use an inclusively designed staircase than a much longer ramp. As a result, the retrofitting proposals for the existing footbridge from Option 1 should also be incorporated into Option 4.
- 3.3.24. The specifications for inclusive ramps, in accordance with Inclusive Mobility (2005), are summarised as follows:
- A gradient of 1 in 20 (5%) should be provided;
 - If more than one flight is needed, rest places should be provided. Landings should be 1500mm long and the full width of the ramp;
 - The minimum surface width of a ramp should be 1200mm, however two-way movement would require more space (such as 1800mm – 2000mm);
 - Handrails should be provided on both sides of a ramp, with a minimum clear width rail to rail of 1000mm;
 - The handrail should be colour contrasted to the ramp for the benefit of partially sighted users;
 - Transitions between level and inclined parts of a ramp should be rounded to ensure that wheelchair users do not get caught by foot supports;
 - No individual flight of a ramp should have a length of more than 19 metres or a rise of more than 500mm;
 - Hazard warning tactile surfacing should be used at the foot of ramps; and
 - The surfacing of the ramp should be slip resistant and non-reflective.
- 3.3.25. Based on the requirements regarding the length of a ramp and the going of each flight, a landing of 1500mm will be required every 10m. On this basis, the proposed new ramped footbridge will be required to be 225m long (including landings and resting stops). This has been designed to be no more than 50m between half and quarter landings. A preliminary design layout for a ramped footbridge at Chinley Station is contained in **Appendix D**.
- 3.3.26. The required height clearances should be kept as a minimum like for like to the existing bridge (approximately 4m above platform level or 5m above track level). Due to the limited accuracy of the site survey (completed through the use of an EDM and taped offset) it has not been possible to accurately confirm the clearance dimensions to the proposed ramped structure.

- 3.3.27. The CAD drawing produced for a ramped footbridge at Chinley Station suggests that minimum clearance to the running rail would be 3280mm compared to an existing clearance to the running line of 4520mm.

Detailed design would need to verify required minimum clearances required to accommodate the kinematic envelope of passing traffic, OHLE (where any proposals exist to electrify the line in future) and to ascertain the impacts upon signal sighting.

- 3.3.28. Any ramp design would likely be of modular steel construction. As such the substructure would comprise slender steel stanchions and piers. It is noted that whilst this represents a relatively “open” construction, signal sighting can be adversely impacted – particular where the structure is viewed from an acute angle, whereby the substructure could obscure lineside signalling infrastructure.
- 3.3.29. If a ramped footbridge is provided and is accessed from the station car park, several parking spaces may require removal to accommodate the new access. There are several residential dwellings to the north and south of the station, therefore the design of the footbridge must minimise overlook onto neighbouring properties.

3.3.30. The approximate design & construction costs associated with this option is £1.35M

Whole life costs may be perceived as reasonable, with maintenance costs typically associated with the cyclic inspection, re-painting and re-surfacing (anti-slip treatment) of the structure. It is anticipated that Network Rail will be aware of such costs given the number of such assets they currently maintain and operate.

4. RECOMMENDATIONS AND NEXT STEPS

- 4.1.1. This chapter sets out a series of recommendations based on the findings of the Design Feasibility Study.

4.2. DIVERSITY IMPACT ASSESSMENT

- 4.2.1. It is recommended that a Diversity Impact Assessment (DIA) is undertaken alongside the design process for improved access arrangements at Chinley Station. The final design option should not be chosen until a Diversity Impact Assessment is completed.
- 4.2.2. A DIA is the tool used by Network Rail to meet their Public Sector Equality Duty and duties within the Equality Act (2010). A DIA operates similar to a risk assessment process and considered the likely effects of a project on people with characteristics that are protected by the Equality Act. The Protected Characteristics within the Equality Act are:
- Disability;
 - Age;
 - Pregnancy / Maternity;
 - Race;
 - Religion or belief;
 - Gender;
 - Sexual orientation;
 - Marriage / civil partnership; and,
 - Gender reassignment.
- 4.2.3. As part of the DIA, a nine day pedestrian census should be undertaken for the footbridge to understand the existing usage levels and user groups. The census will record pedestrian movements across the footbridge between 06:00 and 00:00 for nine consecutive days, inclusive of two weekends. The pedestrian movements will be classified into categories including adults, accompanied children, unaccompanied children, wheelchair / mobility chair users and children in pushchairs and prams.
- 4.2.4. The DIA can be used to mitigate against potential negative impacts of the project, where possible. The DIA will consider how the design options can be made more inclusive and includes a period of public consultation with local and national stakeholders, who represent those with protected characteristics.

PUBLIC CONSULTATION

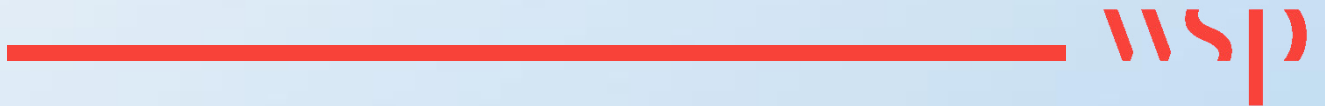
- 4.2.5. The public consultation within DIA is important to ensure that the design proposals are inclusive of those who use the station, or are currently excluded from doing so due to the access arrangements. The consultation should inform the decision making process and recommendations should be gathered and considered within the DIA. The consultation event could be held at a local facility or conducted via email and community surveys.

5. SUMMARY

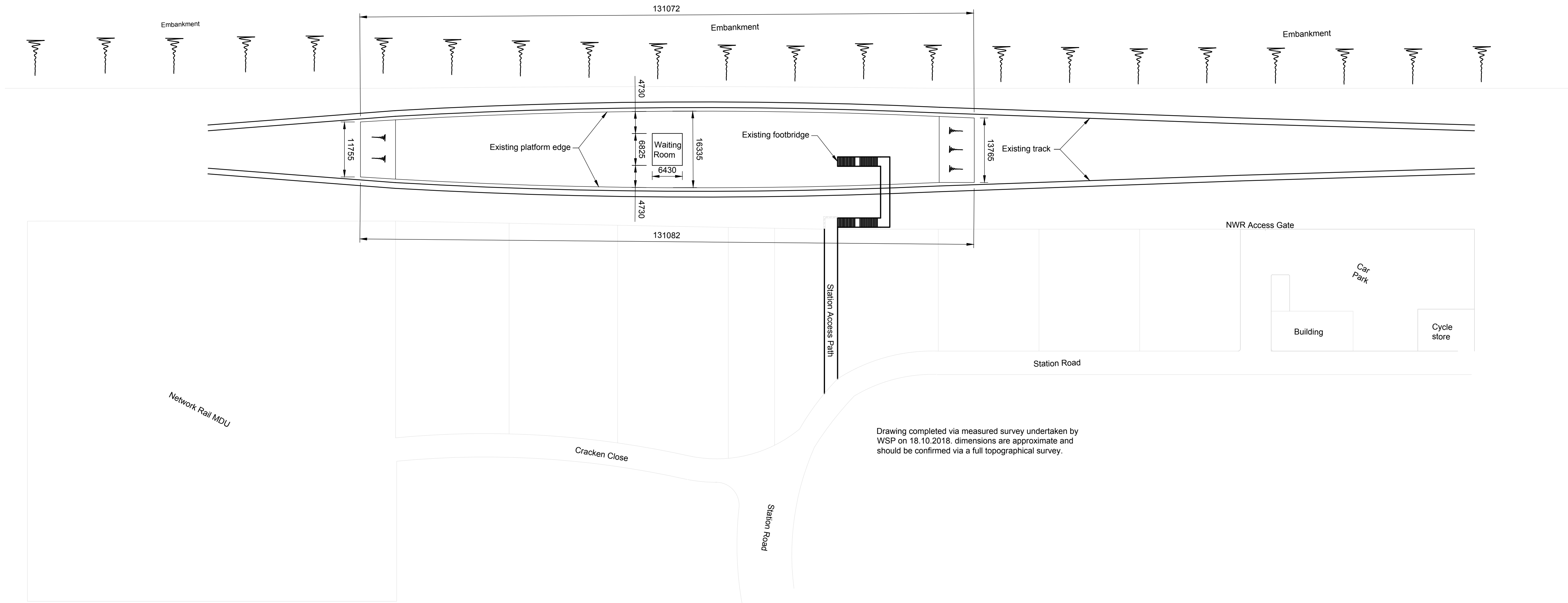
- 5.1.1. WSP have been appointed by Network Rail to prepare a Design Feasibility Study for inclusive access at Chinley Station. The station is located on the LNW route and is served by approximately two trains per hour.
- 5.1.2. The existing access arrangements at Chinley Station are not considered inclusive of all user groups. The footbridge which provides access from the station footpath to the island platform has stepped access only, which excludes certain users including those in wheelchairs and with other mobility impairments. Some features of the footbridge, such as the colour contrast handrails and tactile paving, are beneficial for inclusive access. Other features, such as the open risers, are not considered suitable and could be improved.
- 5.1.3. This Study has considered the feasibility of improving the access arrangements at Chinley Station. It is not considered viable to provide a level crossing or an underpass, due to the construction constraints and safety concerns. Four viable options have been presented, which range from a 'do nothing' approach to the provision of a new ramped footbridge.
- The most inclusive, accessible options are those which provide a step free alternative to the existing footbridge. Option 3 Lifts or Option 4 Ramps & bridge would facilitate this.
- 5.1.4. It is recommended that a Diversity Impact Assessment (DIA) is carried out if the inclusive access proposals at Chinley Station are progressed. The DIA should include public consultation to ensure that the needs of the local area are factored into the design proposals. The final design option should not be chosen until a DIA is completed.
- 5.1.5. On the basis of design and construction costs alone, Option 3 Lift provision at existing bridge represents the most viable option presented. It would be considered prudent to address the relatively low costs works identified under Option 2 concurrent to the lift construction to maximise benefits to user and minimise disruption to operational infrastructure.
- 5.1.6. As noted in 3.3.20 annualised maintenance and servicing costs will need to be understood and factored into the consideration of the above.

Appendix A

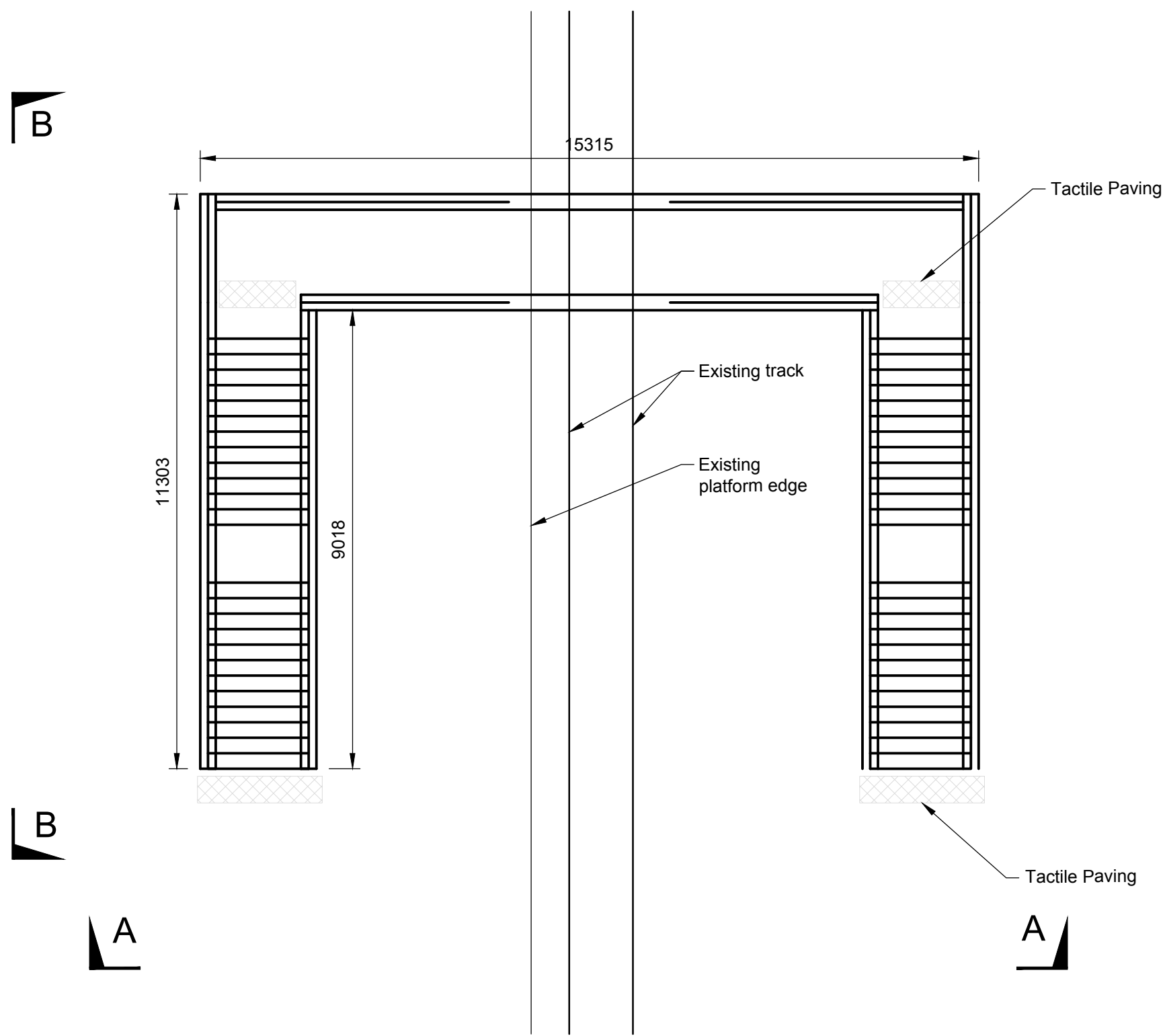
EXISTING FOOTBRIDGE ARRANGEMENT



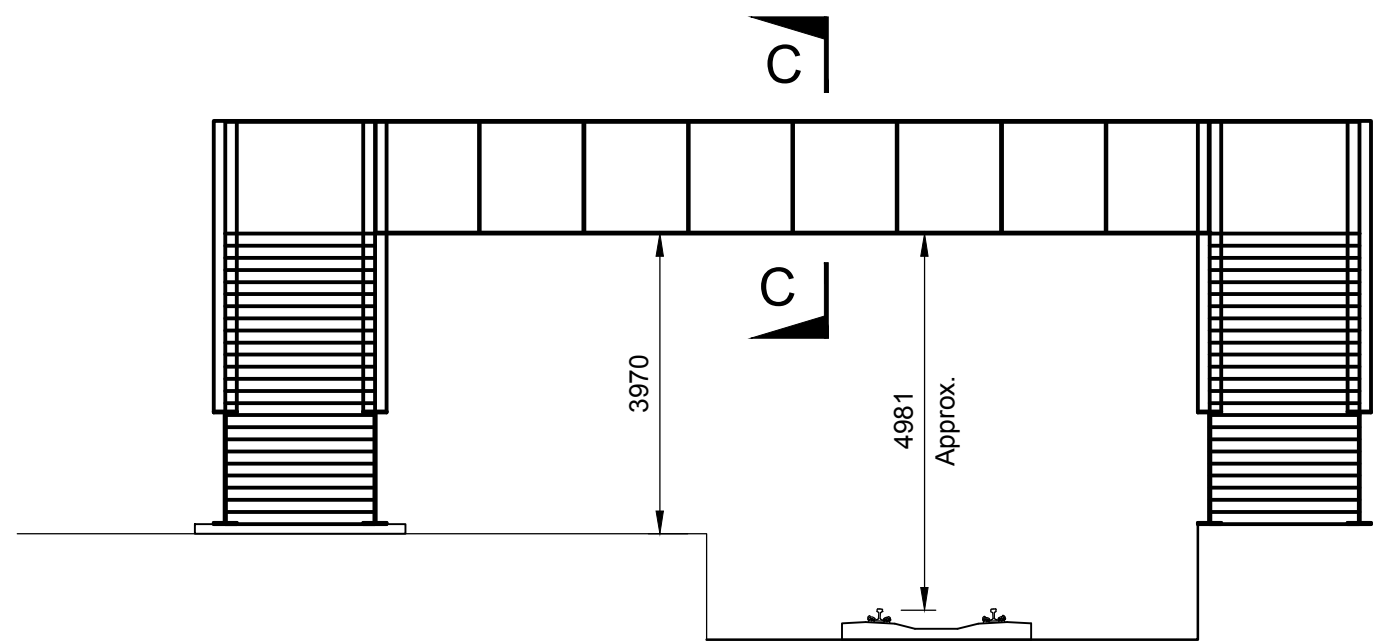
File name: C:\Users\JUK\Documents\STATION\CAD\70050771-WSP-LMW-001.DWG, printed on 13 November 2018 13:48:30, by: Tunon, Jack



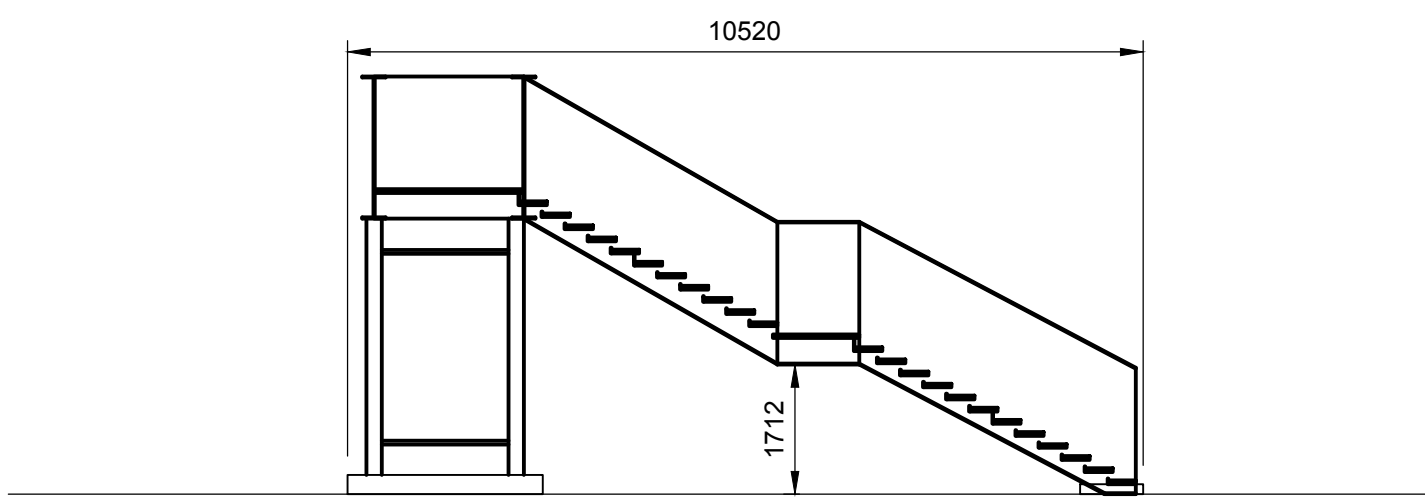
Location Plan
Scale 1:500



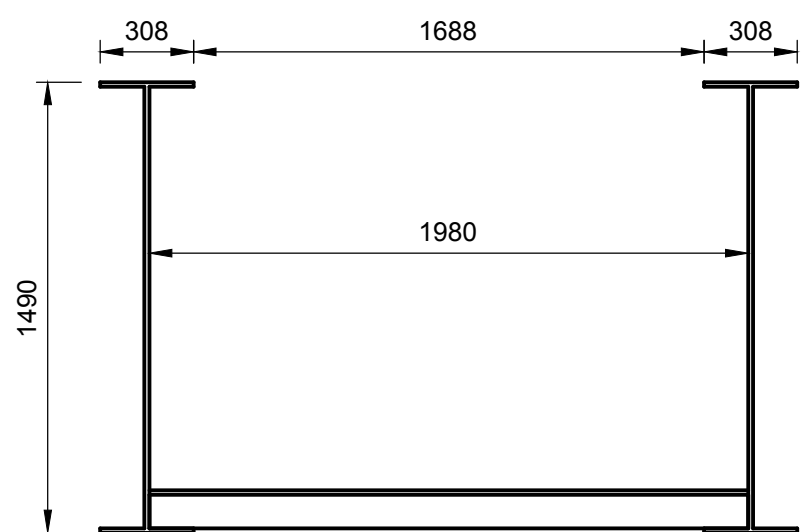
Plan
Scale 1:100



Front Elevation A-A
Scale 1:100



Side Elevation B-B
Scale 1:100



Section C-C
Scale 1:25

DO NOT SCALE

Notes:

- All dimensions are in millimetres unless noted otherwise.
- All levels are in metres unless noted otherwise.

PO1	13/11/2018	JT	FIRST ISSUE	MWB	MWB
REV	DATE	BY	DESCRIPTION	CHK	APP

DRAWING STATUS: S2 - FOR INFORMATION



One Queens Drive, Birmingham, B5 4PJ, UK
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wsp.com

CLIENT: Network Rail

ARCHITECT: -

SITE/PROJECT: Chinley Station

TITLE: Existing General Arrangement

SCALE @ A1: As shown	CHECKED: MWB	APPROVED: MWB
PROJECT NO: 70050771	DESIGNED: JMc	DRAWN: JT
	DATE: November 18	

DRAWING NO: 70050771-WSP-LMW-001	REV: P01
----------------------------------	----------

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Appendix B

PHOTOGRAPHS





Photograph 1 – Access to Chinley Station Car Park



Photograph 2 – Access to Station Footpath, with parking restrictions and dropped kerbs



Photograph 3 – Station Footpath at Chinley Station



Photograph 4 – Existing Footbridge at Chinley Station



Photograph 5 – Island Platform at Chinley Station, looking west



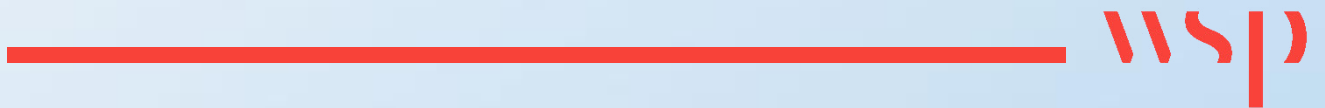
Photograph 6 – View from footbridge onto island platform



Photograph 7 –Open risers on Chinley Station footbridge

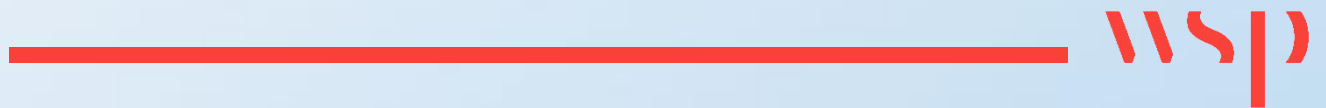
Appendix C

OPTION 3 DESIGN PROPOSALS - LIFT ACCESS

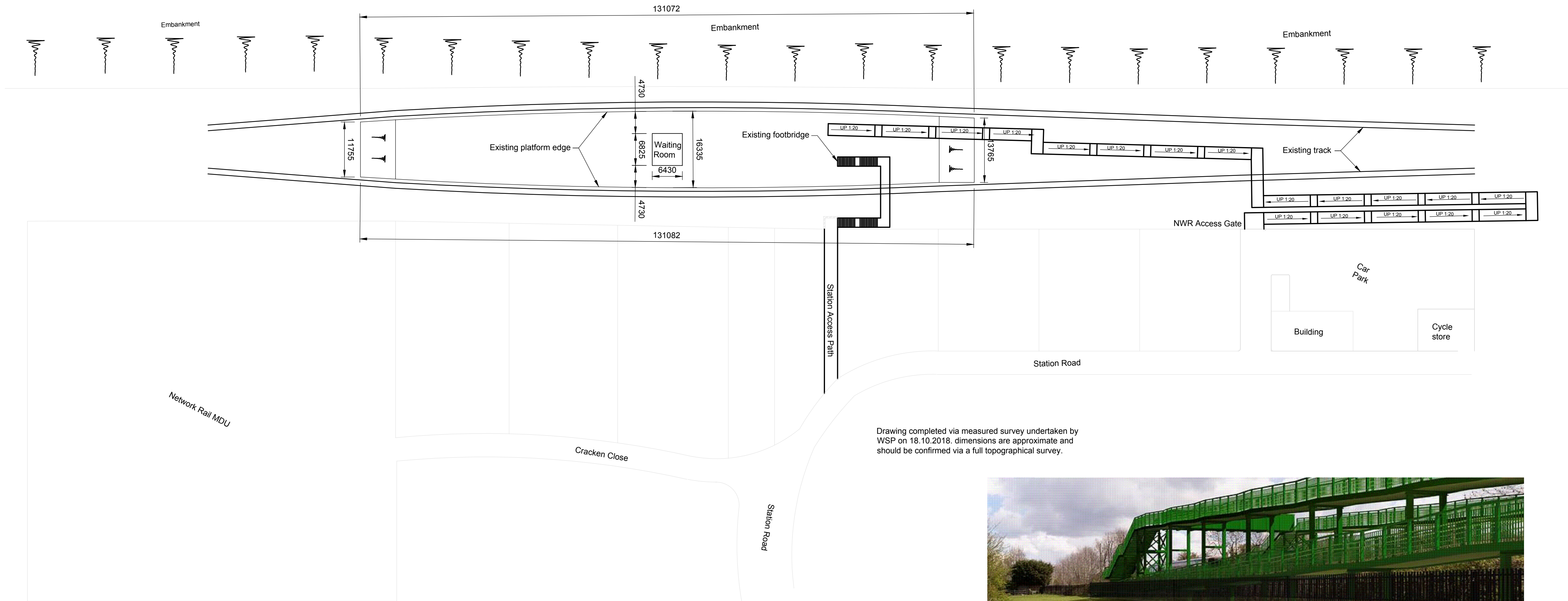


Appendix D

OPTION 4 DESIGN PROPOSALS - RAMPED FOOTBRIDGE



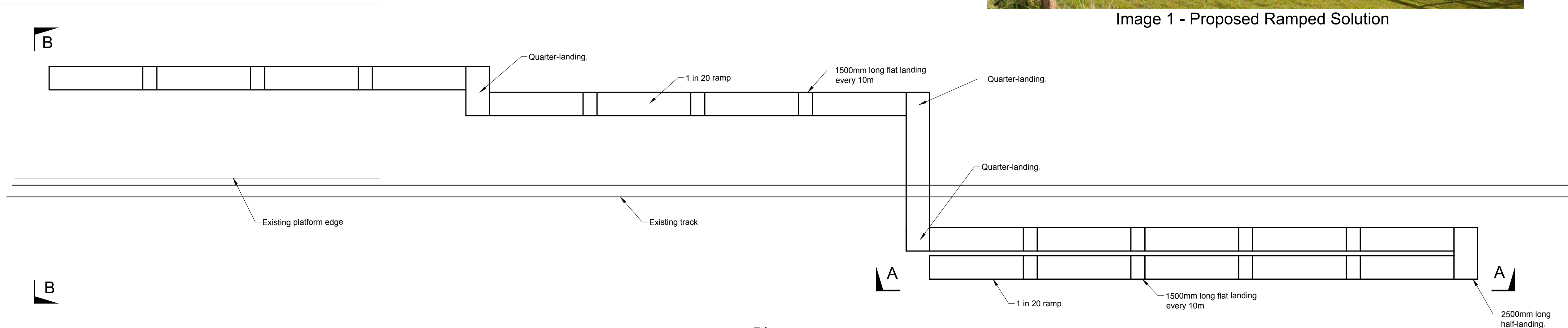
File name: C:\Users\JACK\OneDrive\CHINLEY STATION\CAD\70050771-WSP-LMW-003.DWG, printed on 13 November 2018 13:51:37 by Tunon, Jack



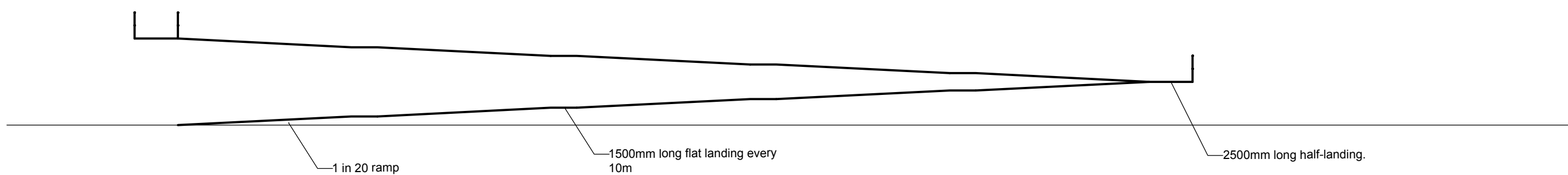
Location Plan
Scale 1:500



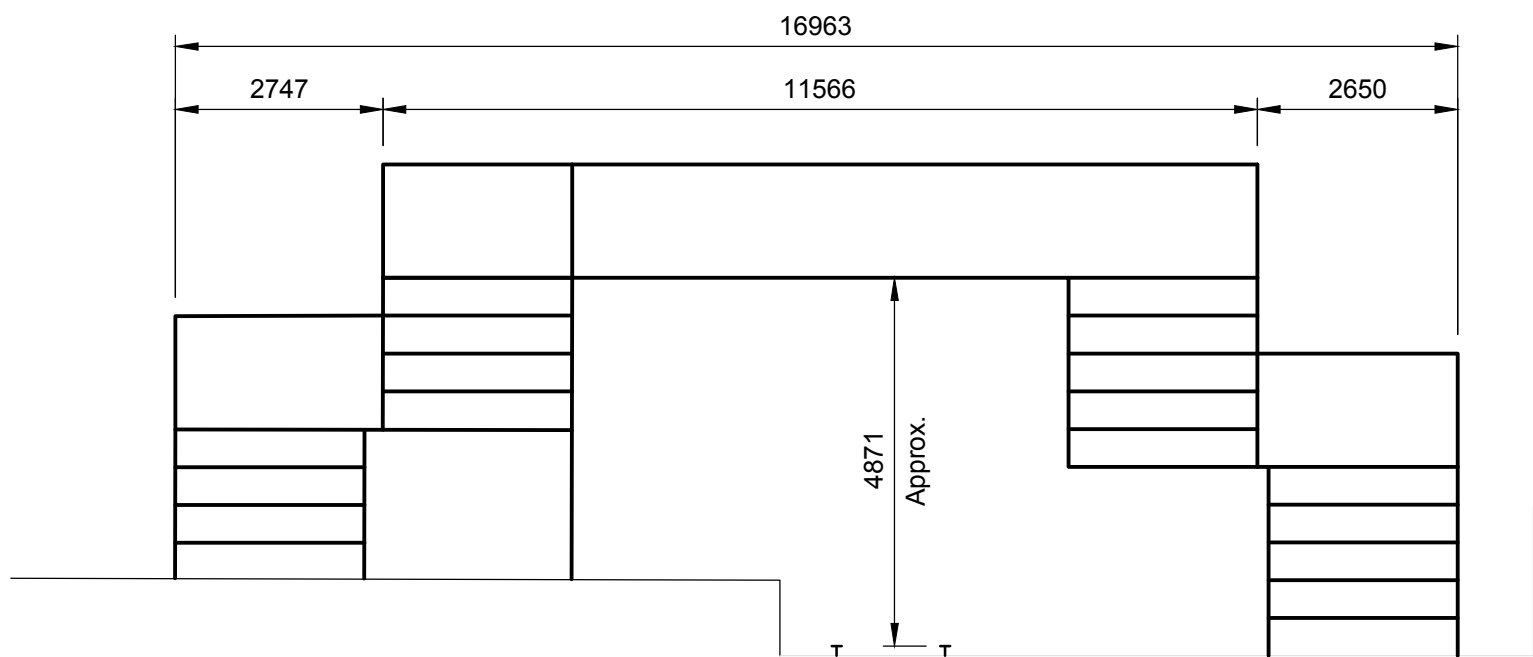
Image 1 - Proposed Ramped Solution



Plan
Scale 1:250



Elevation A-A
Scale 1:250



Elevation B-B
Scale 1:100

DO NOT SCALE

Notes:

- All dimensions are in millimetres unless noted otherwise.
- All levels are in metres unless noted otherwise.

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CLIENT: Network Rail

ARCHITECT: -

SITE/PROJECT: Chinley Station

TITLE: Option 4 - Ramp Design
General Arrangement

SCALE @ A1: As shown
CHECKED: MWB
APPROVED: MWB

PROJECT NO: 70050771
DESIGNED: JMc
DRAWN: JT
DATE: November 18

DRAWING NO: 70050771-WSP-LMW-003
REV: P01

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