

**M54 to M6 Link Road**

**TR010054**

**Volume 8**

**8.21 Walking, Cycling and Horse-riding  
Routes at Junctions Technical Note**

Rule 17(1)

Planning Act 2008

Infrastructure Planning (Examination Procedure) Rules 2010

January 2021

Infrastructure Planning

Planning Act 2008

**The Infrastructure Planning  
(Examination Procedure) Rules 2010**

**M54 to M6 Link Road  
Development Consent Order 202[ ]**

---

**8.21 Walking, Cycling and Horse-riding Routes at Junctions Technical  
Note**

---

<b>Regulation Number</b>	Rule 17(1)
<b>Planning Inspectorate Scheme Reference</b>	TR010054
<b>Application Document Reference</b>	TR010054/APP/8.21
<b>Author</b>	M54 to M6 Link Road Project Team and Highways England

<b>Version</b>	<b>Date</b>	<b>Status of Version</b>
1	January 2021	Issue to the ExA for Deadline 4

## Table of contents

Chapter	Pages
<b>1 Introduction .....</b>	<b>1</b>
<b>2 M54 Junction 1 .....</b>	<b>1</b>
2.1 Proposal .....	1
2.2 Benefits / Impacts .....	2
2.3 Alternative Options .....	4
2.4 Summary .....	8
<b>3 M6 Junction 11 .....</b>	<b>10</b>
3.1 Proposal .....	10
3.2 Alternative Options .....	11
3.3 Summary .....	11
<b>4 Conclusion.....</b>	<b>12</b>

### List of Figures

Figure 1: Indicative Overbridge Structure with steps and approach ramps.....	6
Figure 2: Indicative Underpass Structure.....	7

### List of Tables

Table 1: M54 Junction 1 WCH Distances .....	2
Table 2: M54 Junction 1 Walking/Cycling Distances for various Options .....	8

### List of Appendices

Appendix A: NMU Diversion Route Lengths Calculation Drawings

# 1 Introduction

- 1.1.1 Highways England is developing a link road between Junction 1 of the M54 and Junction 11 of the M6. The M54 to M6 Link Road (herein referred to as ‘the Scheme’) aims to reduce congestion on local / regional routes, particularly the A460 and A449 and deliver improved transport links to encourage the development of the surrounding area, providing social and economic benefits for the West Midlands region.
- 1.1.2 This technical note has been prepared to detail the options considered for alternative routes for Walking, Cycling and Horse-riding (WCH) at the two major junctions on the Scheme; M54 Junction 1 and J6 Junction 11. This detail was requested by local stakeholders and the Examining Authority as part of the Issue Specific Hearing 2 - Traffic and Transport, on the 8<sup>th</sup> December 2020. This document addresses Action Point 13 in ‘Action Points from Issue Specific and Compulsory Acquisition Hearings held Tuesday 8, Wednesday 9 and Thursday 10 December 2020’ [EV-023]. This technical note also provides additional information to support responses to Examining Authority’s (ExA) Written Questions (WQ) 2.10.4 & 2.10.5 and provides a response to WQ 2.10.11. The Applicant’s responses to these WQs are provided in document 8.19 submitted at Deadline 4 on 8 January 2021.

## 2 M54 Junction 1

### 2.1 Proposal

- 2.1.1 The proposed works at M54 Junction 1 would result in the existing Cannock Road becoming a cul-de-sac. To the south of the junction of The Avenue / Cannock Road, the road would only serve 10 existing properties, with a turning head proposed at the end of the carriageway.
- 2.1.2 It is proposed to provide a new 3.0m shared cycle/footway alongside the local connector road through M54 Junction 1. This will commence at the A460 and run alongside the realigned road to the Featherstone Junction Western roundabout; it will cross over the southern side of the roundabout with an uncontrolled crossing of the exit slip road. It will remain on the southern side of the Featherstone Junction Overbridge to avoid the need for any crossings at the Featherstone Junction Eastern roundabout. The route will run alongside the connector road on the western side of the carriageway passing under the M54. An uncontrolled crossing of the M54 entry slip road is required at the M54 Southern roundabout for users to cross to the A460 and connect to existing routes along the South. In addition, the route is also anticipated to be fully lit and run adjacent to the carriageway, which will result in there being no isolated sections that are off-putting to users.

- 2.1.3 The Scheme will provide a shared cycle/footway as a replacement for the existing footway route (between the north and south sides of M54 Junction 1), offering an improvement of connectivity for cycle users. This will be an off-carriageway route suitable for use by all abilities of cyclists and offering safety benefits over on-carriageway facilities. An improvement to the cycle network in the vicinity of the Scheme could therefore mean cyclists can utilise the proposed route at M54 Junction 1 to continue further north. Furthermore, the reduction in traffic flows along the existing A460 provided by the Scheme offer a further extension to the north-south route.
- 2.1.4 On carriageway cycling facilities have been explored as it is noted that these facilities are preferable to faster moving commuter cyclists. These facilities would require the structure to be widened by an additional 3.0m to allow for a 1.5m cycle lane in either direction. However, on-carriageway facilities have been discounted at this location due to the complex nature of the junctions. On-carriageway features would require cyclists to mix with vehicles of up to 50mph across three roundabouts in close succession, where drivers would be focusing on navigating the junction and would increase the risk of collisions with cyclists. Cyclists would also be required to cross lanes to navigate through the junction which would be potentially dangerous. Cyclists can still use the carriageway if desired but this would not be recommended for all users.
- 2.1.5 Currently there is no provision for horse riders around M54 Junction 1 as there are no existing identifiable desire routes to the north and south of the M54. It is not proposed to incorporate any specific horse rider facilities as these would need to be away from the carriageway to reduce the risk of spooking horses and are not considered to be suitable at this location. In order to provide separate facilities for horse riders at M54 Junction 1 it would be necessary to provide a crossing facility away from the carriageway on a more direct route. Consideration has been given to alternative options to provide a more direct link between the north and south of the M54 carriageway, however these have been discounted. Refer to Section 2.3 for further details.

## 2.2 Benefits / Impacts

- 2.2.1 Table 1 provides further information on the distances involved for an NMU both in the existing and proposed situations in response to the ExA's WQ 2.10.11. These routes have been identified on drawing HE514465-ACM-ENM-M54\_SW\_PR\_Z-SK-CH-1003 included in Appendix A.

**Table 1: M54 Junction 1 WCH Distances**

Start Point	Finish Point	Existing Scenario	Proposed Scenario	Impact	Approx. WCH Users
4/2	A/4	<u>Walking / Cycling</u> 340 m <u>Horse Riding</u> No identifiable route	<u>Walking / Cycling</u> 1215 m <u>Horse Riding</u> No identifiable route	<u>Walking / Cycling</u> +875m Major impact	Very Low <10 Properties

Start Point	Finish Point	Existing Scenario	Proposed Scenario	Impact	Approx. WCH Users
4/2	Junction of The Avenue with Cannock Road	<u>Walking / Cycling</u> 500 m <u>Horse Riding</u> No identifiable route	<u>Walking / Cycling</u> 1040 m <u>Horse Riding</u> No identifiable route	<u>Walking / Cycling</u> +540m Major impact	Moderate 830 Properties (60% of Featherstone)
4/2	4/10	<u>Walking / Cycling</u> 940 m <u>Horse Riding</u> No identifiable route	<u>Walking / Cycling</u> 1160 m <u>Horse Riding</u> No identifiable route	<u>Walking / Cycling</u> +220m Minor impact	Low / Moderate 550 Properties (40% of Featherstone)

- 2.2.2 It should be noted that based on the measurement points in Table 2, point 4/2 to A/4 is considered to affect a very small number of users. As the proposed works at M54 Junction 1 would result in the existing Cannock Road becoming a cul-de-sac, beyond the junction of The Avenue / Cannock Road the road would only serve 10 existing properties so the number of walking/cycling movements generated by those properties and land-uses that are accessed from the cul-de-sac will be very low. It is considered that the majority of walking and cycling trips will be generated by properties and land via The Avenue (point 4/10) or the Junction of The Avenue and Cannock Road.
- 2.2.3 Therefore, discounting the route from A/4, the route from the Junction of the Avenue with Cannock Road is considered the worst-case in terms of increasing distance for walkers/cyclists. Without the Scheme, the distance between Featherstone post office and Hilton Cross Strategic Employment Site is approximately 900m via the existing roundabout at M54 Junction 1. At an average walking speed of 3-4 mph this would take approximately between 11 minutes 11 seconds and 8 minutes and 30 seconds. This route requires the un-controlled crossing of two busy slip roads where vehicle speeds around the existing circulatory carriageway can be excessive, posing significant risk to non-motorised users, and potentially increasing the journey time. The risk of these crossings increasing journey time is likely to be higher for any NMUs travelling in peak periods.
- 2.2.4 Once the Scheme has been constructed the same route will be via the three new roundabouts at M54 Junction 1. This will increase the distance to approximately 1440m, an increase of 540m. At an average walking speed of 3-4 mph this would take approximately between 17 minutes and 54 seconds and 13 minutes and 30 seconds. This represents an increase in journey time on foot of between 6 minutes and 43 seconds and 5 minutes. It should be noted that the new route will still require un-controlled carriageway crossings, however traffic flows at Junction 1 would be reduced, with the junction predominantly used by local traffic and long distance (HGVs) traffic utilising the free flow link to the mainline of the Scheme. This is anticipated to improve the amenity and safety of this route.

- 2.2.5 A route via points 4/2 and 4/10 has been used for the purpose of assessment within the Environmental Statement and Transport Assessment. It is considered that this increase in journey time would result in a slight adverse effect on pedestrians but a slight beneficial effect on cyclists through the introduction of cycling facilities. In terms of journey length increase this would warrant a 'Minor impact' classification under LA 112 'Population and Human health' guidance manual (Table 3.12). However, the same document states any "rights of way for walkers, cyclists and horse-riders crossing roads at grade with >16,000 vehicles per day" should be considered to have 'very high' impact on walkers/cyclists. The existing slip roads at M54 Junction 1 that would need to be crossed in the existing scenario would each carry a one-way AADT flow of approximately 25,000 vehicles per day resulting in a very high impact on walker/cyclist movements at this location. With the construction of the Scheme, the slip roads required to be crossed around the three-roundabout arrangement would carry approximately 5,000 vehicles per day resulting in a medium impact (and significant improvement over the existing situation).
- 2.2.6 It is noted however that based on the measurement points identified in Table 1, both points A/4 and the Junction with The Avenue and Cannock Road would result in a journey increase of over 500m which would warrant a 'Major impact' under the Design Manual for Roads and Bridges LA 112. However overall, it is considered that the increase in journey distance is offset by the improvements provided by safer, easier crossings and additional facilities for cyclists.

## 2.3 Alternative Options

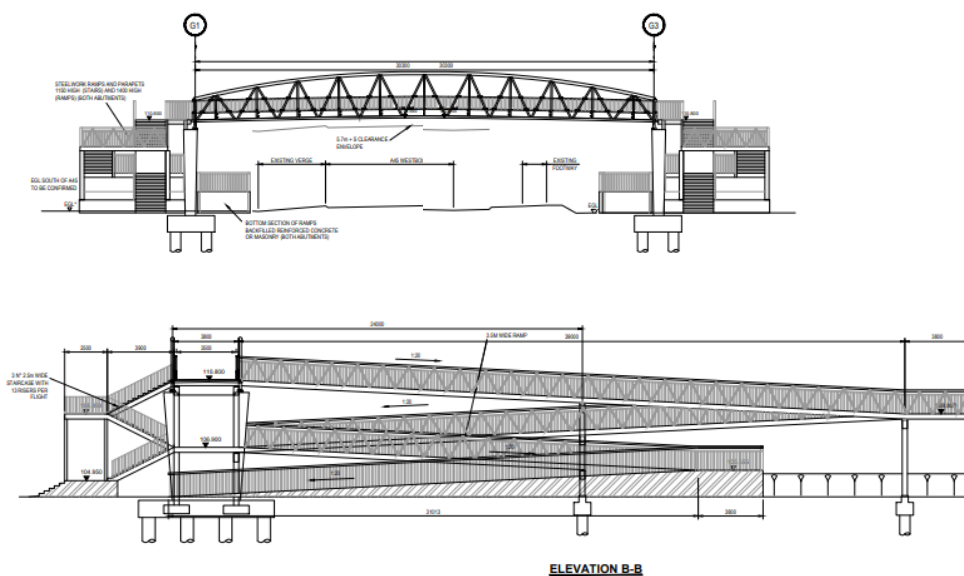
- 2.3.1 Consideration has been given to alternative options to provide a more direct link between the north and south of the M54 carriageway. These routes have been identified on drawing HE514465-ACM-ENM-M54\_SW\_PR\_Z-SK-CH-1003 included in Appendix A.
- 2.3.2 Currently M54 Junction 1 is a two-level design with the M54 passing over the A460. It is proposed to retain the existing two-level design with the free flow slip roads passing at the level of the existing A460 and the three roundabout design proposed to retain the A460 connectivity. A number of alternative options have been assessed as follows:

## **A - Crossing the M54 using the existing structures under the M54**

- 2.3.3 Crossing the new link road at grade has been discounted as it would require walkers/cyclists to cross the 70mph free flow slip roads which poses significant risks to users. Alternatively, two pedestrian structures could be provided on either side of the M54 to allow users to cross the carriageway safely. This option would require construction of two structures approximately 7m above existing ground level to allow sufficient clearance over the free flow slip roads which is considered to be fairly visually intrusive to the surrounding area. Furthermore, in order for these to be inclusive to all users including wheelchairs and push chairs they would require long zig-zag approach ramps at 1:20 gradient in accordance with inclusive design guidance (as indicated in Figure 1). This would result in a total distance of 140m for each approach ramp, therefore increasing the distance by approximately 280m for each road crossing resulting in a total increase of 560m over both structures.
- 2.3.4 It was previously reported in the Applicant's response to the First Round of Written Questions [REP1-036/8.10] that a gradient of 1:12 could be used for the approach ramps which would increase the distance by approximately 140m for each crossing resulting in a total increase of 300m. However, on more detailed review, due to the extensive height of the crossing, a slacker gradient would be recommended to be inclusive for all users.
- 2.3.5 Pedestrian bridges over the carriageway are undesirable for users as they are linked to antisocial behaviour due to their isolated nature and are not considered pleasant to use. The new pedestrian bridges and connecting routes would be away from the carriageway in its entirety and would not be overlooked by any adjacent properties, even though the route would be lit, it is anticipated that this route would be undesirable to certain vulnerable users especially at night due to concerns with personal security, leading to a high degree of social isolation and community severance.
- 2.3.6 It should be noted that the structure would also provide steps which would reduce the proposed distance. Using the stepped approach, this would only increase the distance by a total of approximately 50m. However, in accordance with inclusive design guidance the route suitable for all users (including cyclists and wheelchair users) has been assessed.
- 2.3.7 This demonstrates that once the approach ramps are taken into account then the increase in distance is greater than the current proposal. Overall, the reduction in length for walking users able to navigate steps is not anticipated to out-weigh the negligible reduction in route length for certain users, risks associated with isolated section of the network, increase in capital cost of the scheme and the visual impacts of the introduction of two new structures, therefore this option was discounted.



**Figure 1: Indicative Overbridge Structure with steps and approach ramps**



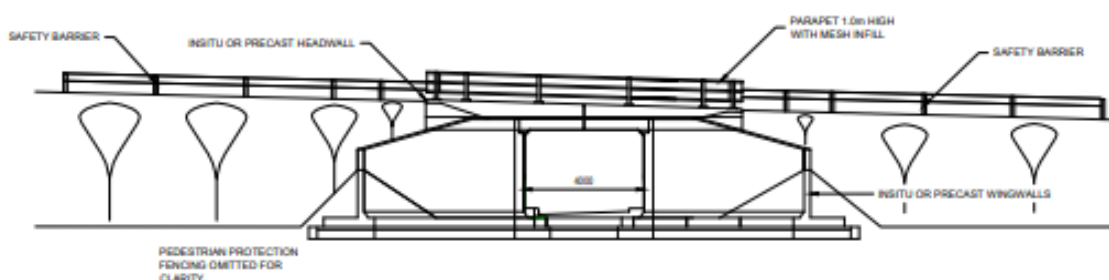
### **B - Crossing over both the M54 and free flow slip roads**

- 2.3.8 Similar to Option A, this option would require construction of a structure approximately 14m above existing ground level to allow sufficient clearance over the M54, which is considered to be significantly visually intrusive to the surrounding area. Furthermore, in order to provide compliant approach ramps for all users, this would result in a total distance of 280m for each approach ramp, therefore in a total increase of 560 m.
- 2.3.9 Approach ramps of this length are anticipated to be off putting to users, especially wheelchair users and cyclists therefore could increase the risk of social isolation and community severance either side of the M54.
- 2.3.10 This option has been discounted due to the visual intrusion to the surrounding area as well as requiring an exceptionally long approach ramps for all users to get up to the required level to pass over the M54.

### **C - Crossing underneath the M54 and free flow slip roads**

- 2.3.11 This option has been discounted as it would require an exceptionally long underpass, over 100m in length, which would be below existing ground level resulting in drainage issues as well as the high likelihood of antisocial behaviour.

**Figure 2: Indicative Underpass Structure**



#### **D - Crossing to the west of the existing junction**

- 2.3.12 At this location an underpass could be a feasible option due to the reduction in required length, however this option has been discounted because it would increase the route distance to a similar amount to the current design as well as being isolated from the network making it undesirable to users.

#### **E – Shortcut in current proposal through woodland**

- 2.3.13 An alternative route to the current proposal in the Cannock Road area was identified by the Applicant and assessed. As indicated on the plan, rather than users being required to head northwards to the realigned section of Cannock Road, a short-cut would be provided between the Junction of The Avenue and Cannock Road and The Featherstone Junction West roundabout. This would reduce the distance between these points from 440m to 150m, a reduction of 290 m. This would reduce the total increase in distance to 250m between point 4/2 and the Junction of The Avenue with Cannock Road. In terms of journey length increase, this would reduce the impact from 'Major impact' to 'Minor impact' classification under LA 112. However, this route would require a new footway / cycleway to be constructed through approximately 75m of established woodland resulting in the loss of around 400m<sup>2</sup> of woodland. In addition to the ecological and landscape impacts of the removals themselves, the affected trees are protected by a Tree Preservation Order. Furthermore, this route would need to be lit resulting in further impact to the surrounding woodland. It would also be isolated from the road network increasing the risk of antisocial behaviour and making it undesirable for users. For these reasons this option has been discounted.
- 2.3.14 In order to avoid the issue of woodland loss noted above, an alternative route E2 (as shown on HE514465-ACM-ENM-M54\_SW\_PR\_Z-SK-CH-1003) has been identified which runs alongside the proposed watercourse diversion. The watercourse diversion requires the removal of woodland to construct, therefore this alternative route could follow the same alignment without significant additional tree loss. This would reduce the distance between these points from 440m to 240m, a reduction of 200m, this would reduce the total increase in distance to 340m between point 4/2 and the Junction of The Avenue with Cannock Road. This route would also be isolated making it off putting to users and overall it is not anticipated that the reduction in length outweighs these risks.

## 2.4 Summary

- 2.4.1 Table 2 provides a comparison on the distances involved for a walker/cyclist navigating each option in the existing and proposed situations. For this assessment the finish point of the Junction of The Avenue with Cannock Road has been used as it was the worst-case scenario in the proposed option for the majority of users.
- 2.4.2 As noted in Section 2.3, Option B, C and D have been discounted for various other reasons therefore have removed from this assessment.

**Table 2: M54 Junction 1 Walking/Cycling Distances for various Options**

Option	Start Point	Finish Point	Existing Scenario	Proposed Scenario	Impact
Existing Scenario	4/2	Junction of The Avenue with Cannock Road	<u>Walking / Cycling</u> 500 m	N/A	<u>Walking / Cycling</u> Very high impact due to volume of traffic required to cross uncontrolled at Junction
Current Design	4/2	Junction of The Avenue with Cannock Road	<u>Walking / Cycling</u> 500 m	<u>Walking / Cycling</u> 1040 m	<u>Walking / Cycling</u> +540m Major impact
Option A	4/2	Junction of The Avenue with Cannock Road	<u>Walking / Cycling</u> 500 m	<u>Walking (all users) / Cycling</u> 1060 m <u>Walking (able to use stairs)</u> 550m	<u>Walking (all users) / Cycling</u> +560m Major impact <u>Walking (able to use stairs)</u> +50m Minor Impact
Option E1	4/2	Junction of The Avenue with Cannock Road	<u>Walking / Cycling</u> 500 m	<u>Walking / Cycling</u> 750 m	<u>Walking / Cycling</u> +250m Minor impact
Option E2	4/2	Junction of The Avenue with Cannock Road	<u>Walking / Cycling</u> 500 m	<u>Walking / Cycling</u> 1040 m	<u>Walking / Cycling</u> +340m Moderate impact

- 2.4.3 Based on the above assessment Option E1 and E2 are viable alternatives from a technical stand-point however as noted previously, Option E1 was discounted due to the impact on existing woodland, and the remote nature of Option E2 with its inherent risk of antisocial behaviour is anticipated to make this route undesirable to users, therefore has been discounted.

- 2.4.4 When comparing the two remaining options, Option A and the current design, this demonstrates that once the approach ramps are taken into account for Option A, the increase in distance is greater than the current proposal. Whilst this distance is less for certain users who can negotiate steps, the reduction in length for certain users is not anticipated to out-weigh the risks associated with isolated sections of the network, increase in capital cost of the scheme and the visual impacts of the introduction of two new structures.
- 2.4.5 In summary, consideration has been given to alternative options to provide a more direct link between the north and south of the M54 carriageway. However, the proposed layout is considered to be the best solution at this location.
- 2.4.6 The proposed solution offers significant improvements over the existing junction by reducing the volume of traffic that users are required to cross. Whilst an increase in route distance is undesirable, it is considered that this is outweighed by the safety benefit of reduced vehicle numbers at crossings. This is anticipated to significantly reduce the risk of collisions between walkers/cyclists and vehicles at the junction and improve overall connectivity. Furthermore, the existing junction provides no facilities for cyclists, however the proposed layout offers a significant improvement for cyclists, therefore is considered to improve overall connectivity.

## 3 M6 Junction 11

### 3.1 Proposal

- 3.1.1 The proposed works at M6 Junction 11 would replace the existing junction arrangement with a new larger circulatory carriageway with new structures to the north and south of the existing structures over the M6.
- 3.1.2 It is proposed to upgrade the current WCH provision at M6 Junction 11 to allow for a shared cycle/footway across the junction. It is proposed to provide a new 3.0m wide shared cycle/footway around the northern side of the junction to connect into the existing provision along the A460 to the north and a 2.0m wide footway around the southern side of the junction to connect the Public Rights Of Way (PRoW) on the south western side of the junction.
- 3.1.3 The existing junction does not provide any controlled crossing facilities for WCH. The proposed route across the M6 Junction 11 utilises signalised crossings built into the signal phases of the Junction to avoid the need for users to cross any arm uncontrolled. This is anticipated to significantly reduce the risk of collisions between WCHs and vehicles at the junction and improve overall connectivity. The route is also anticipated to be fully lit and run adjacent to the carriageway which will result in no isolated sections that are off-putting to users.
- 3.1.4 The Scheme will provide a shared cycle/footway as a replacement for the existing footway, offering an improvement of connectivity for cycle users. This will be an off-carriageway route suitable for use by all abilities of cyclists and offering safety benefits over on-carriageway facilities. An improvement to the cycle network in the vicinity of the Scheme could therefore utilise the proposed route at M6 Junction 11 to continue further north. Furthermore, the reduction in traffic flows along the existing A460 (between M54 Junction 1 and M6 Junction 11) provided by the Scheme offers a further extension to the north-south route.
- 3.1.5 On-carriageway cycling facilities have been explored as it is noted that these facilities are preferable to faster moving commuter cyclists. These would require the structure to be widened by an additional 1.5m to accommodate a cycle lane. However, on-carriageway facilities have been discounted at this location due to the complex nature of the junction. On-carriageway features would require cyclists to mix with vehicles around the roundabout where drivers would be focusing on navigating the junction and increases the risk of collisions with cyclists. Cyclists would also be required to cross lanes to navigate through the junction which would be potentially dangerous. Cyclists can still use the carriageway if desired however this would not be recommended for all users.

- 3.1.6 Currently there is no provision for horse riders around M6 Junction 11. It is not proposed to incorporate any specific horse rider facilities as these would need to be away from the carriageway to reduce the risk of spooking horses and are not considered to be suitable at this location. In order to provide separate facilities for horse riders at M6 Junction 11 it would be necessary to provide a crossing facility away from the carriageway. Consideration has been given to alternative options to provide a crossing of the M6 away from the junction however these have been discounted. Refer to Section 3.2 for further details.

## 3.2 Alternative Options

- 3.2.1 Consideration has been given to alternative options at M6 Junction 11 to provide a crossing away from the carriageway. One potentially viable alternative solution has been identified as indicated on drawing HE514465-ACM-ENM-M54\_SW\_PR\_Z-SK-CH-1004 included in Appendix A.

### **A – New Structure over M6 to North or South of Junction**

- 3.2.2 The only potentially viable alternative identified includes a new structure over the M6 to the North or South of the junction, specifically for pedestrians and cyclists. This alignment would be significantly further away from the desire line and may not be suitable due to the relatively low numbers using the junction as a crossing point. It is therefore anticipated that users may still try to cross the roundabout, possibly resulting in accidents. In addition, an off-carriageway route would be very rural and isolated and most likely be poorly used, especially at night. This could in turn lead to isolation of surrounding areas. It is therefore considered that provision alongside the carriageway is preferable.

## 3.3 Summary

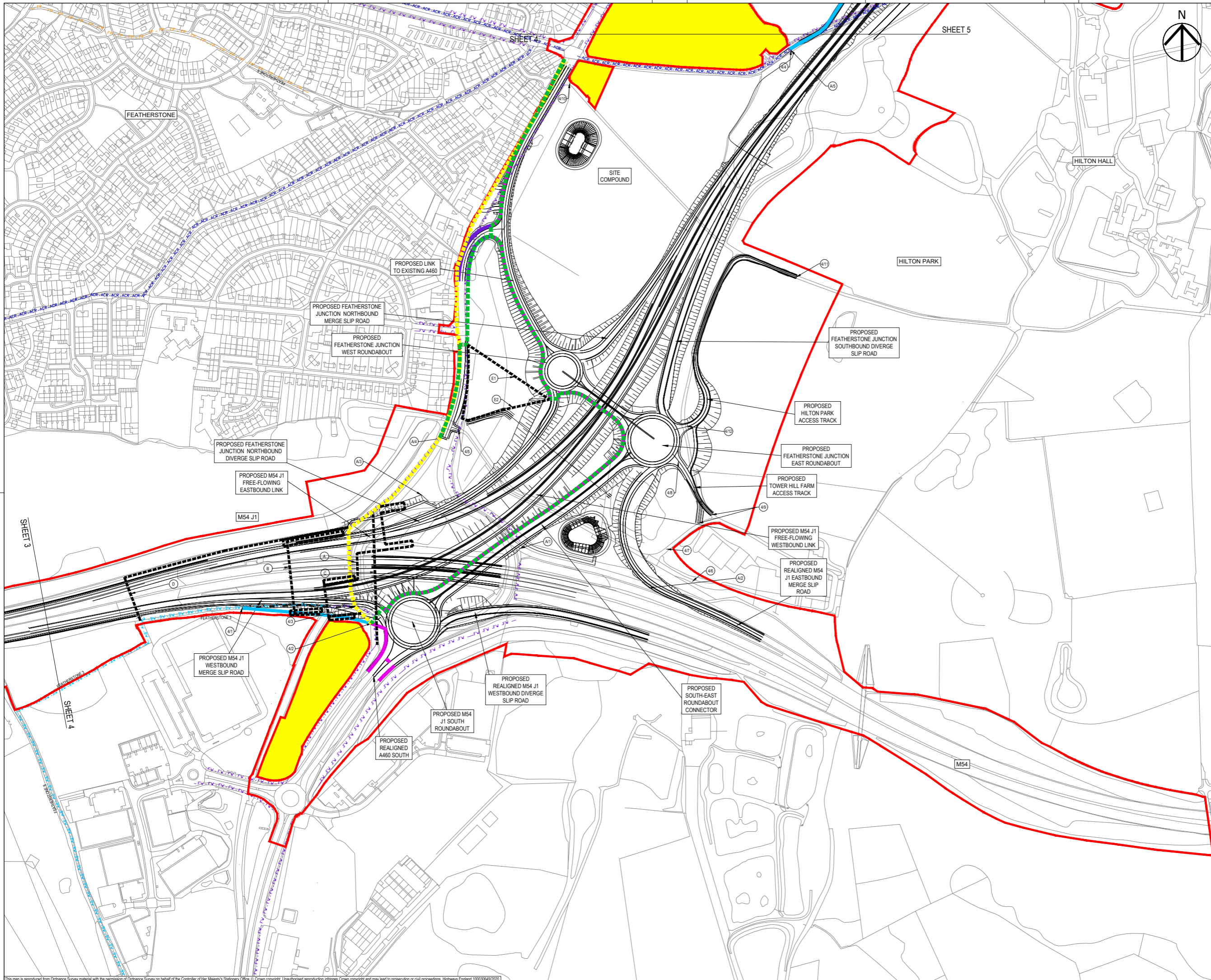
- 3.3.1 The proposed solution offers significant improvement over the existing junction by providing signalised crossings built into the signal phases of the Junction to avoid the need for users to cross any arm uncontrolled. This is anticipated to significantly reduce the risk of collisions between walkers/cyclists and vehicles at the junction and improve overall connectivity. Furthermore the proposed layout offers a significant improvement for cyclists through the junction where there are no current facilities therefore is considered to improve overall connectivity.
- 3.3.2 Consideration has been given to alternative options at M6 Junction 11 to provide a crossing away from the carriageway however this is anticipated to be undesirable to users due to its remote nature and distance from the desire line.
- 3.3.3 Overall, the proposed layout is considered to be the best solution at this location.

## 4 Conclusion

- 4.1.1 This technical note outlines the current provision and options considered for alternative routes for WCH at the two major junctions on the Scheme; M54 Junction 1 and M6 Junction 11.
- 4.1.2 These proposals have been discussed with Staffordshire County Council (SCC) as the local Highways Authority who have not raised any objection to date with the current proposals. SCC welcomed the improvement to cycle facilities at both junctions and has not indicated the requirement for any changes to the proposals or suggested there are historical issues that are to be addressed as part of the Scheme.
- 4.1.3 As detailed in the Outline Traffic Management Plan [AS-116/7.5 and revised version submitted at Deadline 4], Public Rights of Way will be maintained throughout the construction period. Some of the PRoW will require minor diversions, these will be suitable and appropriate where implemented.
- 4.1.4 At M54 Junction 1, the current provision would result in an increase to journey length. However, the route offers safety benefits through the reduction in conflicting traffic flows users are required to cross, therefore the route is not anticipated to result in any increase in severance for local communities. Consideration has been given to alternative options to provide a more direct link between the north and south of the M54 carriageway. However, the current proposed layout is considered to be the best solution at this location.
- 4.1.5 At M6 Junction 11, the current provision would provide an improvement for connectivity when compared to the existing provision at the junction reducing the severance of local communities.
- 4.1.6 It is therefore considered that the Scheme is designed in accordance with NPSNN Paragraph 3.17; *“There is a direct role for the national road network to play in helping pedestrians and cyclists. The Government expects applicants to use reasonable endeavours to address the needs of cyclists and pedestrians in the design of new schemes. The Government also expects applicants to identify opportunities to invest in infrastructure in locations where the national road network severs communities and acts as a barrier to cycling and walking, by correcting historic problems, retrofitting the latest solutions and ensuring that it is easy and safe for cyclists to use junctions.”*
- In designing the scheme we have used reasonable endeavours to meet the needs of pedestrians, cyclists and horse riders and the current proposals are considered to be the optimal solution at each location as set out within this technical note.
  - The Scheme is not anticipated to sever communities or act as a barrier. It is considered that both junctions have been identified as historic issues and act as a barrier to local communities due to the high traffic flows and lack of facilities, which the Scheme aims to address.

## Appendix A: NMU Diversion Route Lengths Calculation Drawings





- NOTES**
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DOCUMENTATION.
  - DO NOT SCALE FROM THIS DRAWING. USE ONLY PRINTED DIMENSIONS.
  - ALL DIMENSIONS IN MILLIMETRES. ALL CHAINAGES, LEVELS AND COORDINATES ARE IN METRES UNLESS DEFINED OTHERWISE.
  - THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE PROJECT HEALTH & SAFETY FILE FOR ANY IDENTIFIED POTENTIAL RISKS.
- KEY**
- LIMITS OF LAND TO BE ACQUIRED OR USED PERMANENTLY OR TEMPORARILY (THE ORDER LIMITS)
  - LAND NOT INCLUDED WITHIN THE ORDER LIMITS
  - EXISTING RIGHT OF WAY TO BE REMOVED
  - PROPOSED RIGHT OF WAY (BRIDLEWAY)
  - PROPOSED RIGHT OF WAY (FOOTPATH)
  - PROPOSED FOOTWAY
  - PROPOSED SHARED FOOTWAY / CYCLEWAY
  - EXISTING ADVISORY CYCLE ROUTE
  - EXISTING CYCLEWAY
  - EXISTING CYCLIST DISMOUNT
  - EXISTING CYCLE LANE
  - EXISTING PROW - FOOTPATH
  - EXISTING PROW - BRIDLEWAY
  - EXISTING FOOTWAY
  - EXISTING FOOTWAY/CYCLEWAY
  - EXISTING ROUTE
  - PROPOSED ROUTE
  - ALTERNATIVE ROUTE



FIRST DRAFT	AM	21/12/20	P00
First Issue	AM	08/01/21	P01
Revision Details	By	Date	Suffix
	Check		

Purpose of issue  
**SUITABLE FOR INFORMATION**

Client  
Highways England  
Floor 5  
Two Colmore Square  
38 Colmore Circus  
Birmingham  
B4 6BN



Development Consent Order Number  
**TR010054**

Project Title  
**M54 to M6 Link Road**

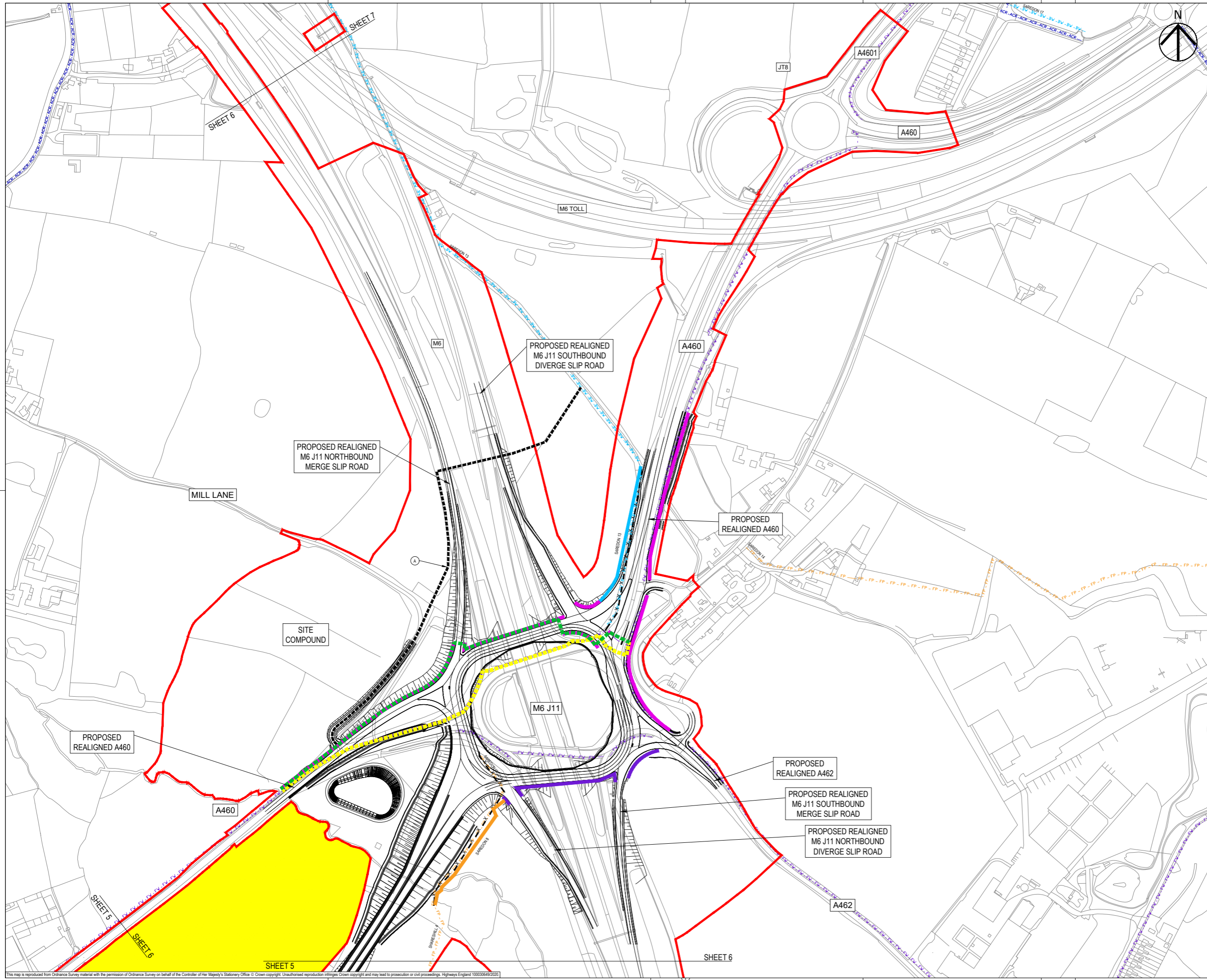
Development Consent Order Drawing Number  
**TR010054/APP/2.5**

Drawing Title  
**NMU DIVERSIONS  
ROUTE LENGTHS  
CALCULATIONS  
M54 JUNCTION 1**

Designed	Draw	Checked	Approved	Date
---	AM	AM	RR	08/01/21
Internal Project No.	Suitability			
60536736	S2			
Scale @ A1	Zone			
	Non-Motorised Users			

THIS DOCUMENT HAS BEEN PREPARED PURSUANT TO AND SUBJECT TO THE TERMS OF AECOM'S APPOINTMENT BY ITS CLIENT. AECOM ACCEPTS NO LIABILITY FOR ANY USE OF THIS DOCUMENT OTHER THAN BY ITS ORIGINAL CLIENT OR FOLLOWING AECOM'S EXPRESS AGREEMENT TO SUCH USE, AND ONLY FOR THE PURPOSES FOR WHICH IT WAS PREPARED AND PROVIDED.

Drawing Number	Highways England PIN	Originator	I Volume	Rev
HE514465	-ACM	-ENM-		P01
M54_SW_PR_Z		-SK-CH-1003		
Location	I Type	I Role	I Number	



- NOTES**
1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DOCUMENTATION.
  2. DO NOT SCALE FROM THIS DRAWING. USE ONLY PRINTED DIMENSIONS.
  3. ALL DIMENSIONS IN MILLIMETRES. ALL CHAINAGES, LEVELS AND COORDINATES ARE IN METRES UNLESS DEFINED OTHERWISE.
  4. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE PROJECT HEALTH & SAFETY FILE FOR ANY IDENTIFIED POTENTIAL RISKS.
- KEY**
- LIMITS OF LAND TO BE ACQUIRED OR USED PERMANENTLY OR TEMPORARILY (THE ORDER LIMITS)
  - LAND NOT INCLUDED WITHIN THE ORDER LIMITS
  - x - x - EXISTING RIGHT OF WAY TO BE REMOVED
  - PROPOSED RIGHT OF WAY (BRIDLEWAY)
  - PROPOSED RIGHT OF WAY (FOOTPATH)
  - PROPOSED FOOTWAY
  - PROPOSED SHARED FOOTWAY / CYCLEWAY
  - ACR-ACR- EXISTING ADVISORY CYCLE ROUTE
  - CW-CW- EXISTING CYCLEWAY
  - CD-CD- EXISTING CYCLIST DISMOUNT
  - CL-CL- EXISTING CYCLE LANE
  - FP-FP- EXISTING PROW - FOOTPATH
  - BW-BW- EXISTING PROW - BRIDLEWAY
  - FW-FW- EXISTING FOOTWAY
  - FW-CW- EXISTING FOOTWAY/CYCLEWAY
  - EXISTING ROUTE
  - PROPOSED ROUTE
  - ALTERNATIVE ROUTE

Draft	AM	06/01/21	P00
First Issue	AM	08/01/21	P01
Revision Details	By	Date	Suffix
	Check		

Purpose of issue  
**SUITABLE FOR INFORMATION**

Client  
Highways England  
Floor 5  
Two Colmore Square  
38 Colmore Circus  
Birmingham  
B4 6BN



Development Consent Order Number  
**TR010054**

Project Title  
**M54 to M6 Link Road**

Development Consent Order Drawing Number  
**TR010054/APP/2.5**

Drawing Title  
**NMU DIVERSIONS  
ROUTE LENGTHS  
CALCULATIONS  
M6 JUNCTION 11**

Designed	Draw	Checked	Approved	Date
---	AM	AM	RR	08/01/21
Internal Project No.	Suitability			
60536736	S2			
Scale @ A1	Zone			
	Non-Motorised Users			

THIS DOCUMENT HAS BEEN PREPARED PURSUANT TO AND SUBJECT TO THE TERMS OF AECOM'S APPOINTMENT BY ITS CLIENT. AECOM ACCEPTS NO LIABILITY FOR ANY USE OF THIS DOCUMENT OTHER THAN BY ITS ORIGINAL CLIENT OR FOLLOWING AECOM'S EXPRESS AGREEMENT TO SUCH USE, AND ONLY FOR THE PURPOSES FOR WHICH IT WAS PREPARED AND PROVIDED.

Drawing Number	Highways England PIN	Originator	Volume	Rev
HE514465	-ACM	-ENM-		P01
M54_SW_PR_Z		-SK-CH-1004		
Location	Type	Role	Number	