



Comhairle Cathrach  
& Contae **Luimnigh**

**Limerick City**  
& County Council



**CLANDILLON**  
CIVIL CONSULTING

# LEES CROSS JUNCTION IMPROVEMENT SCHEME

## Part 8 Planning Report

LCJU-CCC-PR-ZZ-RP-C-0001



Client: Limerick City and County  
Council  
Date: 17/08/2023

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**Issue and revision record**

Date	Rev	Change Description	Author	Checker	Approver
08/08/23	P00	First Issue	LT	AP	SC
17/08/23	P01	Part 8 Planning	LT/AP	AP	SC
30/08/23	P02	Part 8 Planning	LT	AP	SC

**Detailed Change Log**

Rev	Change Description
P00	First issue
P01	Part 8 Submission
P02	Part 8 Submission – Site Notices Added

## 1. Introduction

Limerick City and County Council (LCCC) appointed Clandillon Civil Consulting (CCC) to provide technical consultancy services to develop the existing preliminary design for Lees Cross Junction Improvement scheme through Part 8 planning.

Lees Cross is a five-arm junction, located in Ballynashig, approximately 4.5km south of Ballingary, in Co. Limerick. The junction is on the border between the Newcastle West and Adare-Rathkeale Municipal Districts. The main route through the junction is the R520 – R518 carriageway, connecting Newcastle West town with the N20 and Kilmallock town. The speed limit on this section of road is 80 km/h. This carriageway intersects with the R518 from the north-west, the L1210 from the north, and the L-1211 from the south.

The road is approximately 6m wide, varying on each arm. There are no footpaths on any of the arms. The road lining along these sections consists of solid and broken white lines for centre lines. There are yellow dashed lines at the regional road edges.

The scope of the service is to formalise each arm of the junction, so that priority is clear, and to improve the sightlines at the junction in accordance with TII DN-GEO-03060 (Geometric Design of Junctions), in so far as is possible.

The proposed design seeks to separate the existing five arm junction into two staggered T-junctions.



## 2. Site Location

The works are located at the junction between the R520, R518, L-1210 and L-1211, located in Ballynashig, approximately 4.5km south of Ballingary, in Co. Limerick, as shown in **Figure 1** and **Figure 2**.

Figure 1: Scheme Location

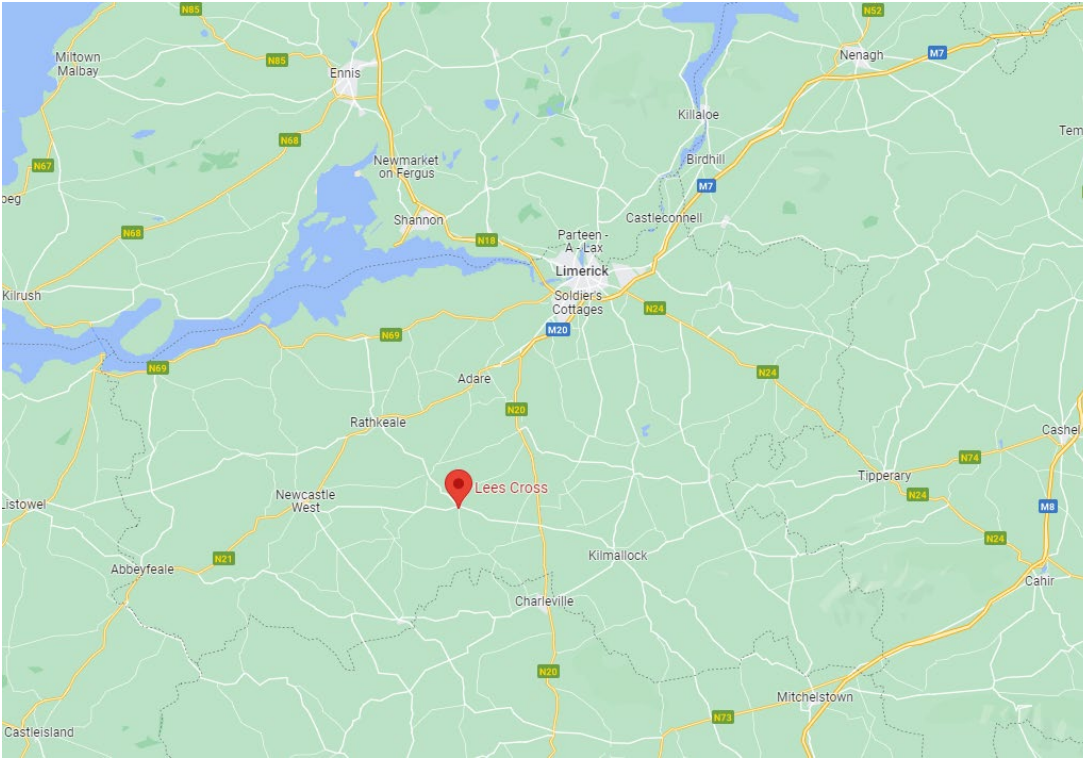


Figure 2: Scheme Location



## 2.1 Existing Road Environment and Geometry

The existing road environment consists of a five-arm junction with existing buildings and encroaching vegetation which provides limited visibility for vehicles joining the R518-R520 route, as shown in **Figure 3**.

*Figure 3: Existing Lees Cross Junction*



### 2.1.1 R520 – R518

The R520-R518 (main route through the junction) is characterised by agricultural lands both in the south and north with frequent direct accesses to houses and private properties as shown in **Figure 4 and 5**.

Along this section, the speed limit is 80 km/h and the carriageway is approximately 5.5m wide (one 2.75m lane in each direction) with a 200mm hard strip on each side and no footpath. On the west side of the junction (R520, Newcastle West direction), the road follows a straight alignment, and the longitudinal profile is rising with an approximate gradient ranging from 0.5% to 1.8% and few vertical curves with K values ranging from 10 to 50. On the east side of the junction (R518, Kilmallock direction), the road follows a straight alignment, and the longitudinal profile is lowering with an approximate gradient ranging from 0.8% to 2.5% and few vertical curves with K values ranging from 20 to 75. At the junction, the road itself is on a 48m value radius horizontal curve.

The road lining along this section of the R520-R518 consists of one solid white centre line, preventing overtaking, with a dashed white line at the junction for access to and from the other roads. There are also yellow dashed lines on the R520-R518.



Figure 4: R520 view west side from the junction



Figure 5: R518 view east side from the junction





### 2.1.2 L-1211 (Castletown Road)

The L-1211 is a local road that gives access to several agricultural activities and a number of private dwellings as shown in **Figure 6 and 7**. The speed limit is 80 km/h. The operational speed is lower at times, particularly with the simultaneous passage of two cars in opposite directions where drivers must slow down due to the narrow road cross section.

Along the first section of the road (immediately after Lees Cross Junction), the road width is a maximum of 6.5m but is 4.5m in places. There are no footpaths and hard strips on either side. The road is following an almost straight alignment and the profile is rising in altitude with a 1.9% gradient followed by a crest curve with K value of approximately 25. There is a central solid white line for the first 25m of the road.

*Figure 6: L-1211 view from the junction*



*Figure 7: L-1211 view immediately after the junction*





### 2.1.3 L-1210 (Granagh Road)

The L-1210 is a local road that gives access to private dwellings and agricultural activities as shown in **Figures 8 and 9**. The speed limit is 80 km/h.

Along the first section of the road (immediately after Lees Cross Junction), the road width is a maximum of 6.5m but is 5.0m in places. There are no footpaths and hard strips. From the junction, the road is following an almost straight alignment followed by a left-hand curve with 350m radius. The profile is lowering in altitude with a 5.5% gradient for the first 20m after the junction followed by shallower gradients (approximately 3.5%). Crest and sag curves follow one another with K values ranging from 5 to 21. The road lining along this section of the L-1210 consists of one solid white line for the centre line, preventing overtaking.

Figure 8: L-1210 view from the junction



Figure 9: L-1210 view immediately after the junction



### 2.1.4 R-518 (Ballingarry Road)

The R-518 is a regional road that gives access to private dwellings and agricultural activities. The speed limit is 80 km/h. It joins the L-1210 Granagh Road before the junction with the R520-R518 as shown in **Figure 10**.

Along the first section of the road (immediately after Lees Cross Junction), the road width varies between 5.0 and 5.5m (2.5-2.75m per lane) with a hard strip of 200 to 400mm width on each side. There are no footpaths. From the junction, the road is following an almost straight alignment for the first 45m, followed by a left-hand curve with 200m radius. The profile is initially lowering in altitude with an average gradient of 3.0%, followed by a sag curve with K value 13. The profile is then rising in altitude with a 2.5% gradient, followed by a crest curve with K value 25 and a 1 to 1.5% gradient.

The road lining along this section of the R518 consists of one solid white line for the centre line, preventing overtaking. There are also yellow dashed lines at the road edge as shown in **Figure 11**.

Figure 10: R-518 view from the junction





Figure 11: R-518 view immediately after the junction



## 3. Description of the Proposed Development

### 3.1 Objectives

Several issues have been identified with the current junction layout. The sightlines onto the R518/R520 main carriageway from the R518 Ballingarry Road, the L-1210 Granagh Road and the L-1211 are insufficient. The existing junction layout lacks definition, especially to the north, between the R518 Ballingarry Road and the L-1210 Granagh Road. It is not clear to road users approaching the junction where the priority lies, particularly for those travelling south on the R518 where the road joins the L-1210 immediately prior to the R520-R518 junction.

The proposed design seeks to separate the existing five arm junction into two staggered T-junctions. The scope of the service is to formalise each arm of the junction, so that priority is clear, and to improve the sightlines at the junction in accordance with TII DN-GEO-03060 (Geometric Design of Junctions), in so far as is possible.

### 3.2 Proposed Development

The overall length of proposed works is approximately 170m along the existing L-1211, 165m along the existing L-1210, 115m along the existing R-518 (Ballingarry Road). The existing R520 – R518 route will be maintained with the addition of some verge widening to improve the existing visibility.

Figure 12: New proposed layout



The existing junction will be realigned and turned into two staggered T-junctions providing improved sight lines, a clear junction scheme and safer accesses for residents, as shown in **Figure 12**. Refer to **drawing LCJU-CCC-GA-ZZ-DR-C-0001** in **Appendix A** for the general arrangement drawing.

The existing L-1211 will be closed to through traffic and become a cul-de-sac with access to the existing private dwelling and farmyard. A new realigned road will be located approximately 90m to the south-east of the existing.

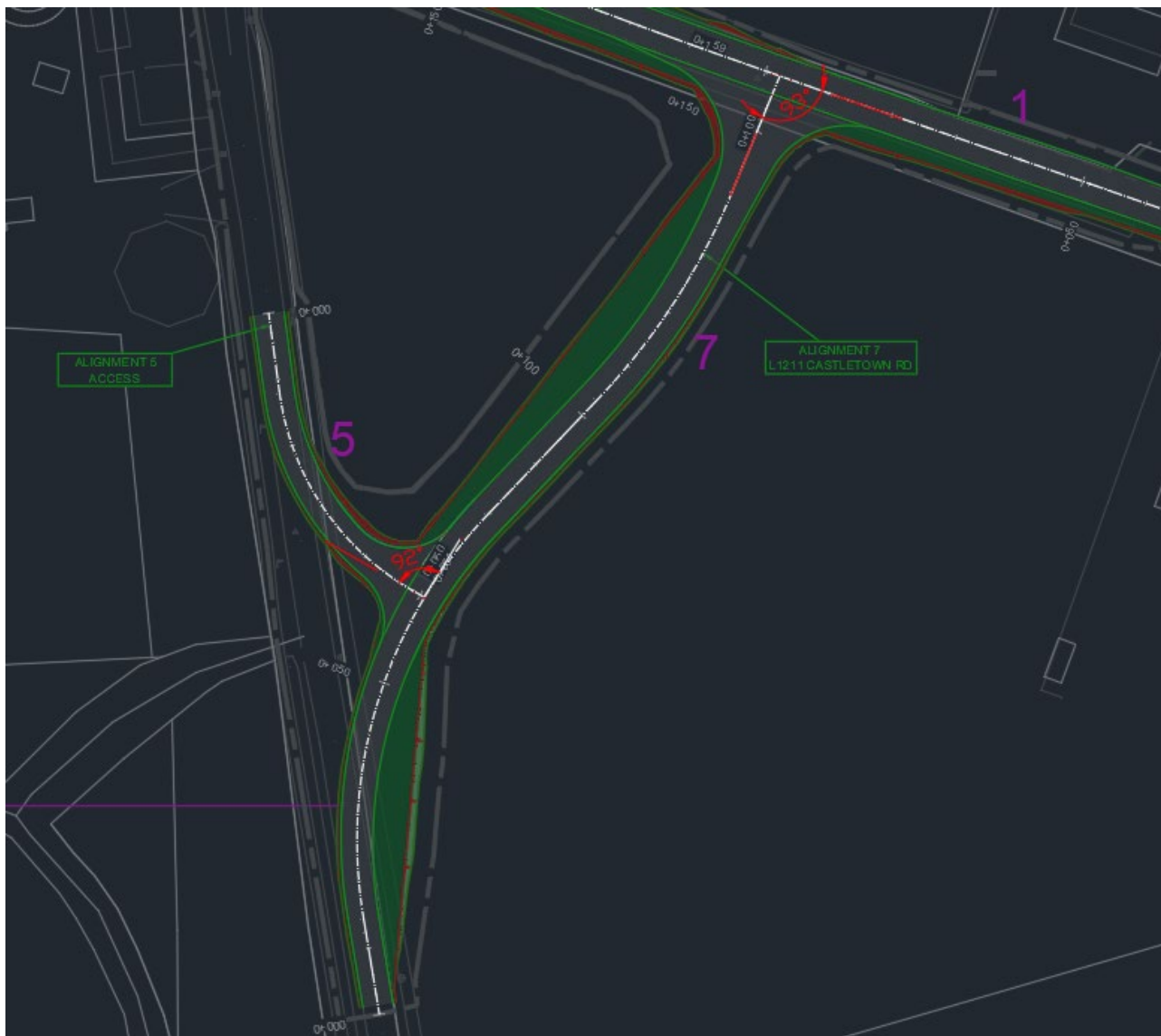
Access to the R520-R518 from the L-1210 Granagh Road will be moved slightly west with an improved angle of approach. Access from the R-518 Ballingarry Road to the R520-R518 will be closed and a new junction will be created to the L-1210 instead, leading to only one approach road to the R520-R518 from the north side.

All the new junctions will have improved angles of approach to the major road. The proposed alignment at each road is discussed in more detail below.

### 3.2.1 New road layout L-1211

The proposed re-alignment of the L-1211 Castletown Road (Alignment 7) starts approximately 170m south of the junction with the R520-R518. The preliminary design shows a 70m radius right-hand curve followed by a 100m radius left-hand curve as shown in **Figure 13**. Refer to **drawing LCJU-CCC-CW-ZZ-DR-C-0004** in **Appendix A** for the road geometry plan and profile.

Figure 13: New layout L-1211



The proposed road alignment follows the existing ground profile as closely as possible, with a series of low level gradients and crest and sag vertical curves.

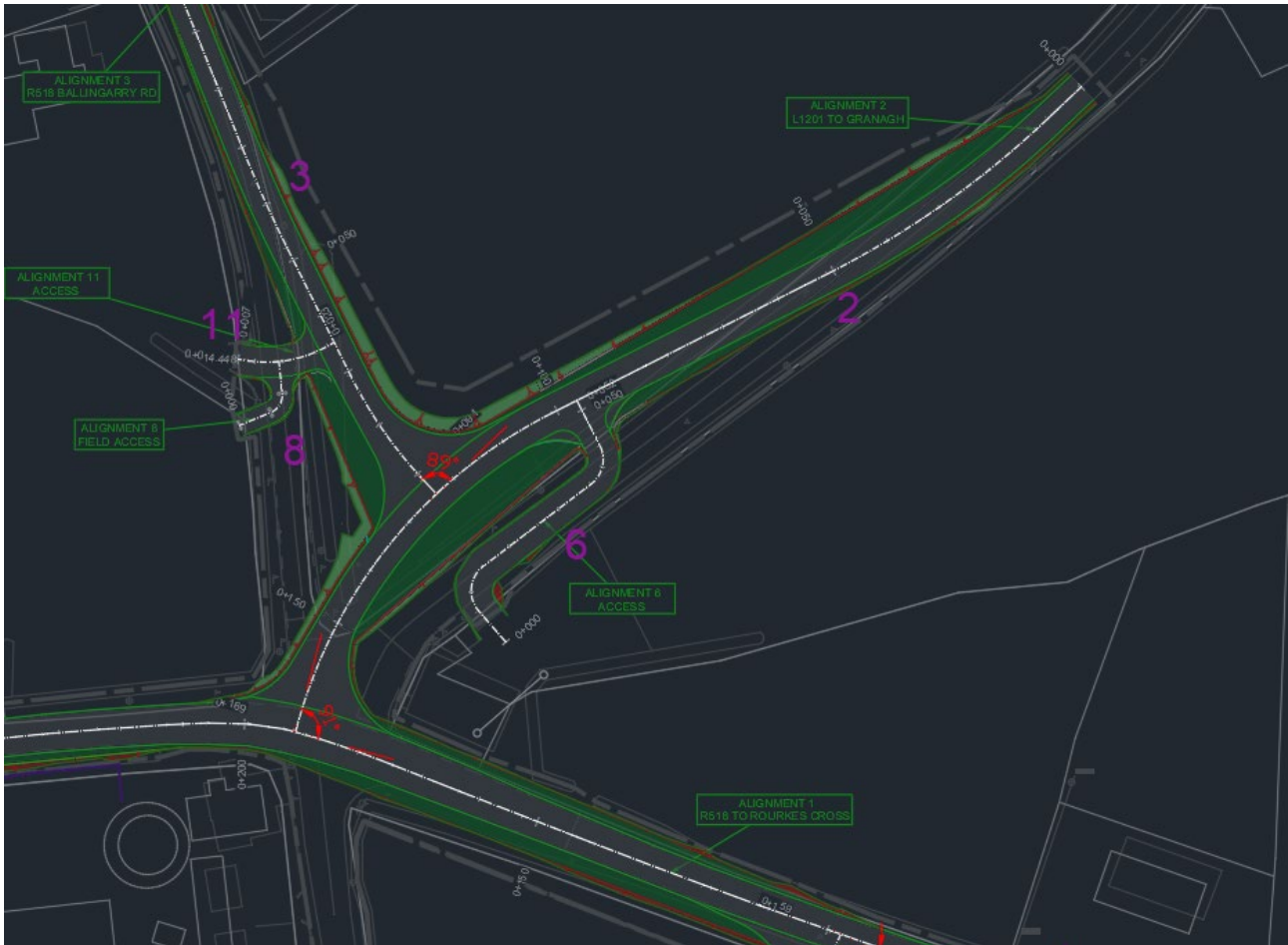
The existing L-1211 will become a cul-de-sac and there will be a new arm (Alignment 5) to give access to the existing properties to the realigned L-1211. Refer to **drawing LCJU-CCC-CW-ZZ-DR-C-0005** in **Appendix A** for the road geometry plan and profile. In this preliminary design, the new arm is characterized horizontally by a 40m radius curve and vertically by shallow gradients and two crest vertical curves.



### 3.2.2 New road layout L-1210

The proposed L-1210 Granagh Road (Alignment 2) commences 160m from the existing junction as shown in **Figure 14**. The preliminary alignment follows a right-hand curve of 150m radius and a left-hand curve of 80m radius. Refer to **drawing LCJU-CCC-CW-ZZ-DR-C-0002** in **Appendix A** for the road geometry plan and profile.

Figure 14: New layout L-1210



The proposed road alignment is rising in altitude, with a slight incline gradient and two vertical curves. A new arm is proposed to give access to a property on the old L-1211 (Alignment 6). Refer to **drawing LCJU-CCC-CW-ZZ-DR-C-0006** in **Appendix A** for the road geometry plan and profile. This new arm will utilise some of the existing L-1210 carriageway. In the preliminary design, two 5m radius horizontal curves are introduced.

### 3.2.3 New road layout R-518

The proposed R-518 Ballingarry Road (Alignment 3) commences 120m from the existing junction as shown in **Figure 15**. The preliminary alignment follows an almost straight alignment, with two left-hand curves of 225m and 70m radius. It terminates at chainage 0+094 with the new junction to the L-1210. Refer to **drawing LCJU-CCC-CW-ZZ-DR-C-0003** in **Appendix A** for the road geometry plan and profile.

The profile is initially lowering in elevation, followed by a sag curve and the profile then rises to meet the L-1210 alignment.

Figure 15: New layout R-518



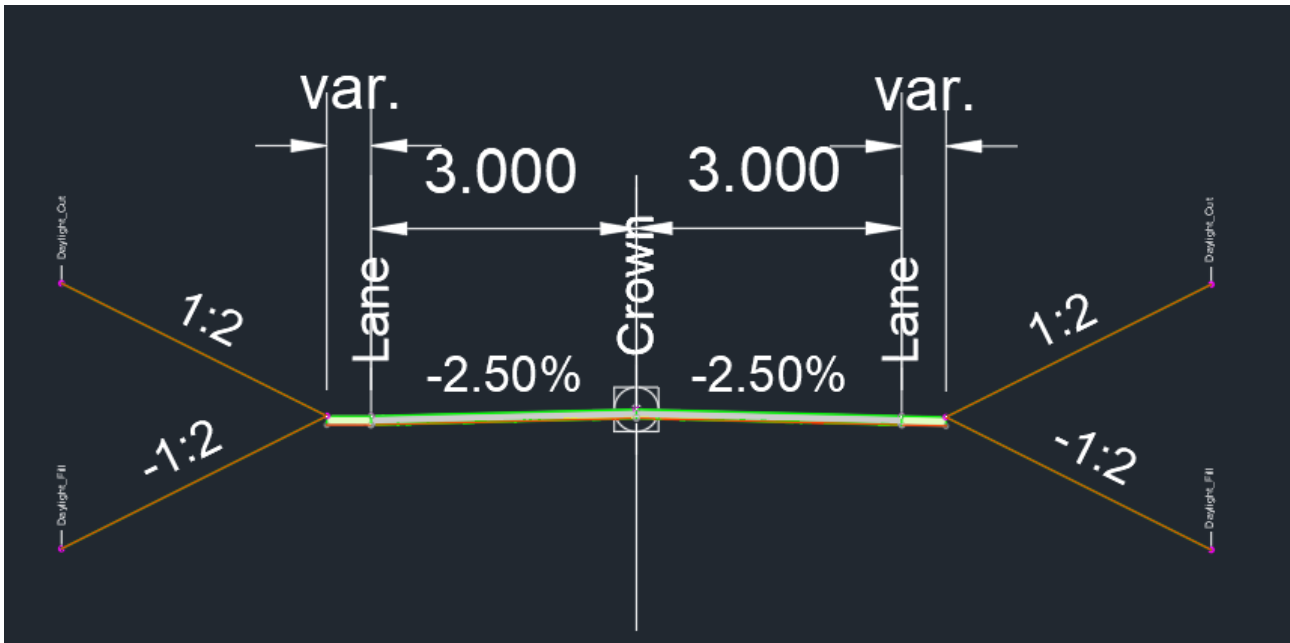
Two new arms are proposed to provide access to a property and field off the existing R-518 (Alignment 11 and 8). Refer to **drawings LCJU-CCC-CW-ZZ-DR-C-0007 and 0008** respectively in **Appendix A** for the road geometry plans and profiles. In this preliminary design, Alignment 11 is characterized horizontally by a 20m radius. The vertical profile is initially following the existing road and then merges with the realigned R-518. Alignment 8 has a 3m radius curve. The vertical profile follows the existing road and merges with Alignment 11.

### 3.2.4 General Arrangement

The road has been designed in accordance with TII publications DN-GEO-03060 “Geometric Design of Junctions (priority junctions, direct accesses, roundabouts, grade separated and compact grade separated junctions)” and DN-GEO-03031 “Rural Road Link Design”. Given the junction is an existing junction with inherent issues and there are limitations on land, given the number of properties immediately adjacent to the roads, there will be a number of relaxations and departures from TII standards. These will be reviewed and agreed with Limerick City and County Council during the next stage of the project.

A typical road cross section is shown in the image below.

Figure 16: Typical cross section



Visibility has been checked across all the junctions in accordance with DN-GEO-03060. The design speed is 80 kph for the regional and local roads as per the existing. For the roads giving access to properties, 50 kph has been considered. Refer to **drawing LCJU-CCC-GA-ZZ-DR-C-0002** in **Appendix A** for the visibility achieved at each junction.

Verge widening is proposed on the various realigned roads of the junction to ensure sufficient visibility is achieved. Hedges will be required to be set back accordingly.

On the main R520-R518 route, while there are no proposed changes to the road carriageway itself, verge widening is proposed which will require set back of the existing hedges shown in Figures 17 and 18. This is to improve the existing visibility at the junction. Refer to **drawing LCJU-CCC-CW-ZZ-DR-C-0001** (Alignment 1) in **Appendix A** for the road geometry plan and profile.

Figure 17: West side view to R-520 before junction onto L-1210





Figure 18: East side view to R-518 before junction onto L-1210



The preliminary design plan and profiles are shown in **Appendix A**. These will be subject to further analysis and detailed design in the next stage of the project.

### 3.2.5 Vehicle Tracking

Vehicle tracking has been reviewed on the re-aligned roads. The proposed preliminary layout caters for heavy goods vehicles at the junction and approach roads. The minor roads to property and farm entrances cater for Fire Trucks and Tractors.

### 3.2.6 Road Safety Audit

A Stage 1 and 2 Road Safety Audit will be carried out at detail design stage, and Stage 3 Road Safety Audit prior to road opening. A preliminary safety audit has been carried out by Limerick City and County Council.

## 3.3 Pavement

The existing road pavement will be assessed during the next stage of the project to assess the structural capacity of the existing pavement and inform the requirement for pavement remedial works on the existing sections of road that are to remain in place.

The proposed realigned roads will require new full depth pavement construction. A number of the existing sections of road on the R520, L-1210 and L-1211 will become redundant once the realigned roads are constructed. The final treatment for those will be assessed in the next stage of the project and agreed with Limerick City and County Council.

### 3.4 Signs and Road Markings

The new layout will require warning signage, regulatory signage and road markings in line with the Traffic Signs Manual. There will also be some directional signs to sign-post the new road layout destinations. An indicative layout is shown on **drawings LCJI-CCC-SN-ZZ-DR-C-0001 and 002** in **Appendix A**. The final layout will be agreed with Limerick City and County Council at detailed design stage.

### 3.5 Drainage

The existing road is drained over-the-edge to ditches in places but there are also sections where the road drains over-the-edge with no evidence of any ditch in place so likely drains into the ground.

An indicative layout is shown on **drawing LCJI-CCC-DD-ZZ-DR-C-0001** in **Appendix A**. It is expected that this will consist of over-the-edge drainage to ditches at the base of embankments in places, interceptor ditches at the toe of the road embankment to catch over-land flow. There will also be filter drains and grassed surface water channels out-falling to carrier pipe systems which will ultimately outfall to a soakaway. Nature based drainage solutions will be employed as much as possible. A full drainage design shall be developed at detail design stage and agreed with Limerick City and County Council.

### 3.6 Boundary Treatment

There are several existing boundaries that will be disturbed to facilitate the works. An indicative layout is shown on **drawings LCJI-CCC-FN-ZZ-DR-C-0001 and 002** in **Appendix A**. The details of the new boundary treatment to be erected will be reviewed and agreed with Limerick City and County Council and with landowners during the next stage of the project.

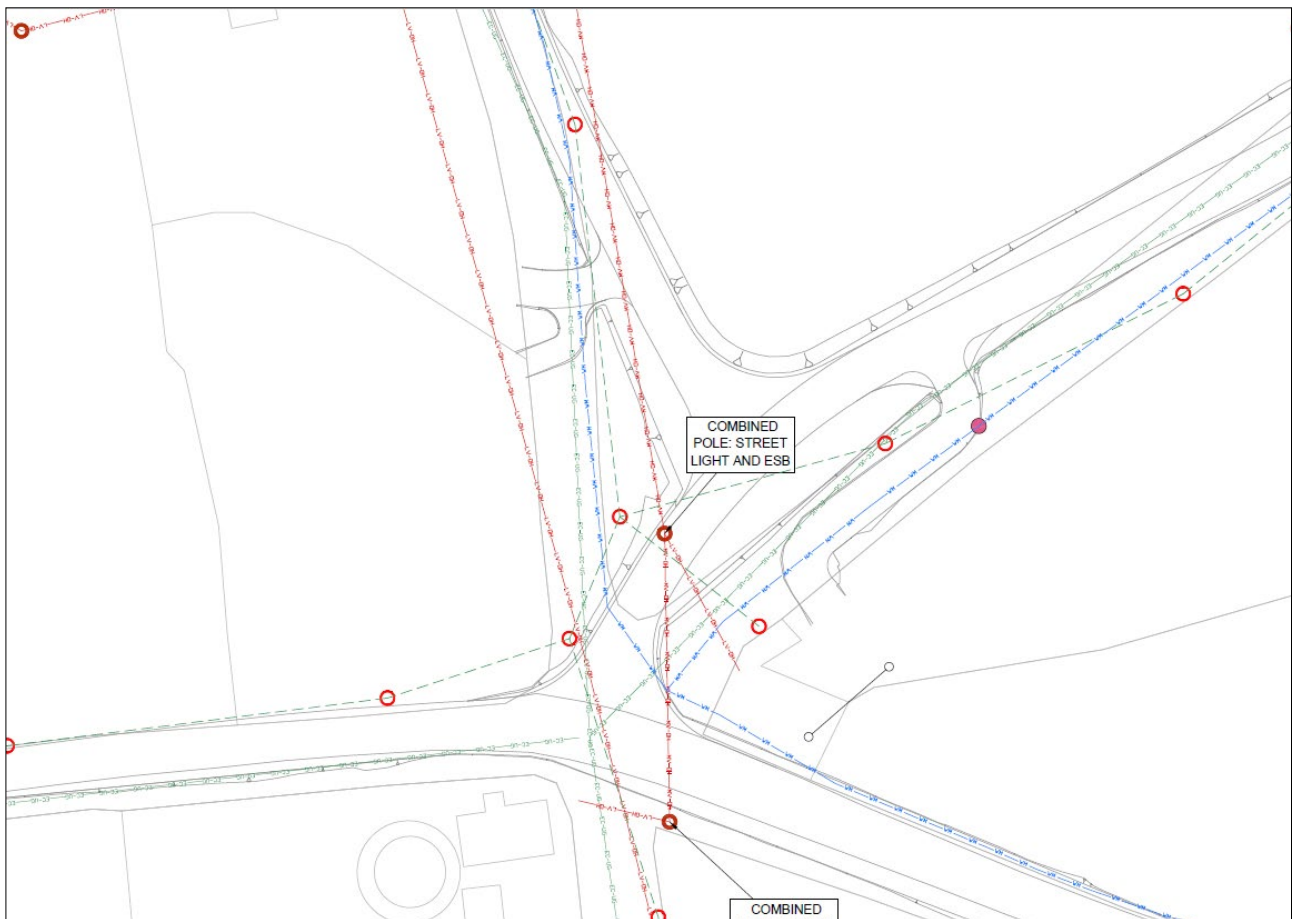
### 3.7 Utilities

Existing utility information has been gathered from service providers for the area as shown in **Figure 22**. This is a non-exhaustive list and will require further investigation during the next phase of the project with the local service providers, along with ground penetrating radar surveys and slit trenches to establish the full extent of services.

There is a medium voltage (MV) overhead line crossing from the south side of the R518 across to the east verge of the R518 Ballingarry Road. There is also a low voltage (LV) overhead line crossing from the R518 to the west side of the Ballingarry Road. There are telecom lines running on the north verge of the R520 which cross over to the south side of the L-1210. Underground EIR services travel along the south verge of the R520 crossing through the junction to the north side of the L-1210. There is also underground EIR ducts and cables running on the west side of the L-1211 and an overhead telecom line on the east verge. There is a watermain on the east verge of the Ballingarry road, crossing to the north verge of the R518.

Works will be required to relocate an electrical pole situated between the R518 Ballingarry Road and the L-1210 which will clash with the proposed new road layout. The watermain on the R518 Ballingarry Road will cross the proposed new road realignment and so will need to be assessed for road loading and be protected in place or diverted. The EIR duct bank on the L-1210 will cross the proposed realigned road and will need to be assessed for road loading and protecting in place or diverted to the verge. The works to existing utilities will be discussed further with service providers during the next phase of the project to establish the full extent of works required.

Figure 19: Existing Services crossing the existing road junction with the proposed road in the background



LEGEND	
	Eir Telecoms Underground
	Telecoms Overhead
	Telecom Pole
	ESB Medium Voltage overhead
	ESB Low Voltage Overhead
	ESB Pole
	Watermain
	Sluce valve

## 4. Environmental Considerations

Appropriate Assessment (AA) and Environmental Impact Assessment (EIA) screening reports have been undertaken. These have concluded as follows;

The AA screening report (contained in **Appendix B**) concluded that “...Based on the available information gathered during field and desk surveys, it is the professional opinion of the author that the likelihood of significant impacts arising from the proposed development on all European Designated Sites can be ruled out on the basis of a lack of connectivity. Therefore, it is the conclusion of this report that the proposed development will not have a significant effect on any European Designated Sites and progression to a stage II appropriate assessment is not required....”.

The EIA screening report (contained in **Appendix C**) concluded that “...The proposed development does not fall into a category or exceed thresholds under the Planning Acts that trigger the mandatory requirement for an EIA, and therefore a statutory EIA is not required...” and that “... Having carried out the EIA screening assessment of the proposed scheme and considering the type of the proposed development and the nature of the receiving environment in addition to the nature, size and location of the proposed development, significant impacts on aspects such as biodiversity, air quality and climate, noise and vibration, land and soil, water, landscape, and visual and cultural heritage are not expected and can be ruled out. However, while there are positive impacts associated with the junction re-alignments via the improvements in safety for road users and the local population, the impacts associated with the land take required to facilitate the junction re-alignments may have a negative impact on the localised population, though only temporary. Moreover, material impacts will be impacted through land take, though landowners will be consulted throughout the design process. This report has discussed possible positive and negative impacts of the proposed development, however, it is not anticipated that any of these are likely to have a significant impact on the environment. It is also noted that the potential for impacts on nearby Natura sites have been assessed by means of an Appropriate Assessment Screening Report can be excluded and the proposed development is therefore not subject to Appropriate Assessment and the preparation of a Natura Impact Statement. Accordingly, based on the aforesaid EIA screening set out in this report, it is concluded that there is not a real likelihood of significant effects on the environment arising from the scheme and therefore the preparation of an Environmental Impact Assessment Report (EIAR) is not required....”.





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## APPENDIX A - PART 8 DRAWINGS



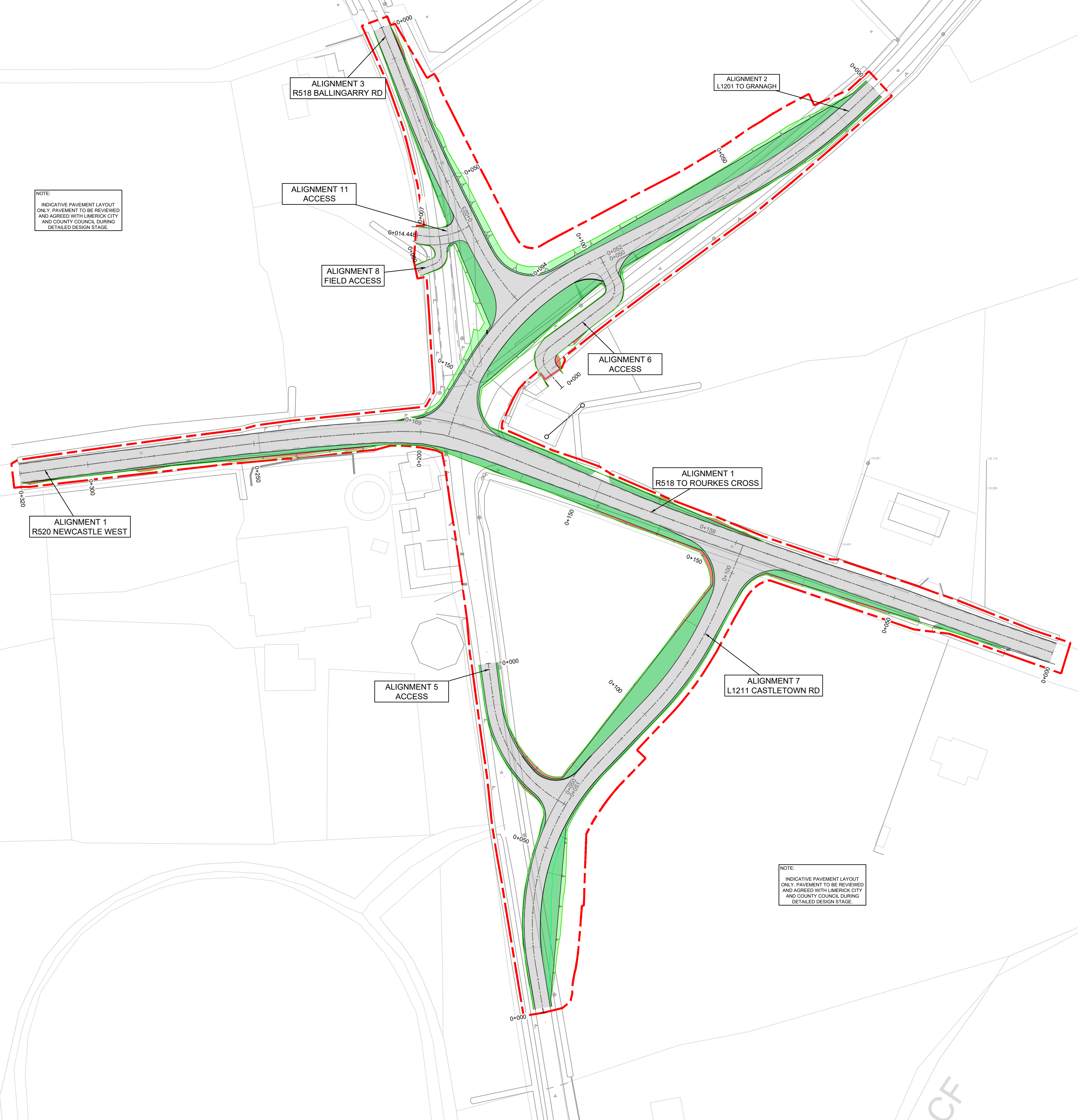
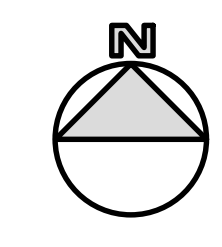
[www.c3.ie](http://www.c3.ie)

**Drawings:**

- LCJI-CCC-GA-ZZ-DR-C-0001 General Arrangement
- LCJI-CCC-GA-ZZ-DR-C-0002 Road Geometry Sightlines
- LCJI-CCC-CW-ZZ-DR-C-0001 Plan and Profile Alignment 1 – R518 to R520
- LCJI-CCC-CW-ZZ-DR-C-0002 Plan and Profile Alignment 2 – L1210 to Granagh
- LCJI-CCC-CW-ZZ-DR-C-0003 Plan and Profile Alignment 3 – R518 Ballingarry RD
- LCJI-CCC-CW-ZZ-DR-C-0004 Plan and Profile Alignment 7 – L1211 Castletown RD
- LCJI-CCC-CW-ZZ-DR-C-0005 Plan and Profile Alignment 5 – Private Access
- LCJI-CCC-CW-ZZ-DR-C-0006 Plan and Profile Alignment 6 – Private Access
- LCJI-CCC-CW-ZZ-DR-C-0007 Plan and Profile Alignment 11 – Private Access
- LCJI-CCC-CW-ZZ-DR-C-0008 Plan and Profile Alignment 8 – Private Access
- LCJI-CCC-LA-ZZ-DR-C-0001 Planning Extents
- LCJI-CCC-SN-ZZ-DR-C-0001 Indicative Signs and Road Markings Layout Sheet 1 of 2
- LCJI-CCC-SN-ZZ-DR-C-0002 Indicative Signs and Road Markings Layout Sheet 2 of 2
- LCJI-CCC-FN-ZZ-DR-C-0001 Indicative Boundary Treatment Layout Sheet 1 of 2
- LCJI-CCC-FN-ZZ-DR-C-0002 Indicative Boundary Treatment Layout Sheet 2 of 2
- LCJI-CCC-DD-ZZ-DR-C-0001 Indicative Drainage Layout



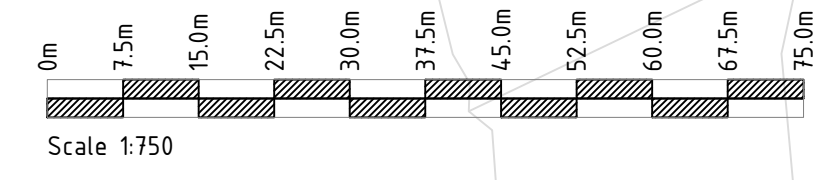
**PART 8 PLANNING**



NOTE:  
INDICATIVE PAVEMENT LAYOUT  
ONLY. PAVEMENT TO BE REVIEWED  
AND AGREED WITH LIMERICK CITY  
AND COUNTY COUNCIL DURING  
DETAILED DESIGN STAGE.

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INDICATIVE PAVEMENT LAYOUT  
ONLY. PAVEMENT TO BE REVIEWED  
AND AGREED WITH LIMERICK CITY  
AND COUNTY COUNCIL DURING  
DETAILED DESIGN STAGE.

**PLAN**  
Scale 1:750



**NOTES**

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3. Co-ordinate system used is Irish Transverse Mercator.

**LEGEND**

- PLANNING EXTENTS BOUNDARY
- GRASSED VERGE
- EARTHWORKS - FILL
- EARTHWORKS - CUT
- PROPOSED PAVEMENT

REV	DATE	DESCRIPTION	BY	CHK	APD
P04	15/08/2023	PART 8 PLANNING	ZM	LT	AP
P03	11/08/2023	PART 8 PLANNING	LT	LT	AP
P02	18/07/2023	PART 8 PLANNING	LT	LT	AP
P01	07/07/2023	PART 8 PLANNING	MV	LT	AP
P00	06/07/2023	PART 8 PLANNING	KK	AP	TM

CLIENT / CONSULTANT

**PROJECT**  
LEES CROSS JUNCTION  
IMPROVEMENT SCHEME

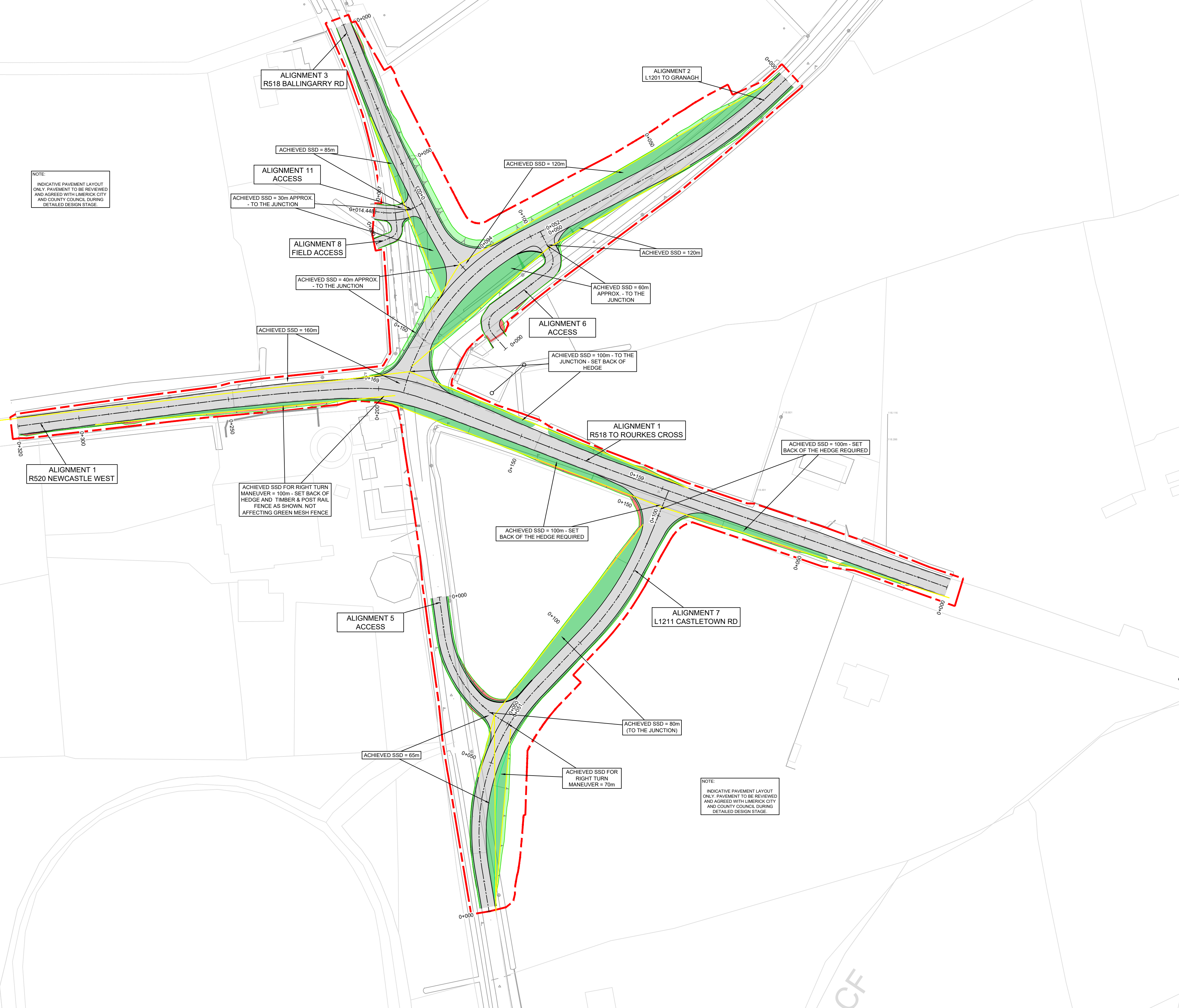
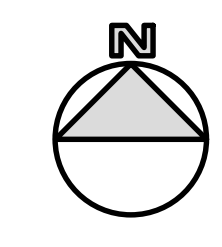
**DRAWING TITLE**  
GENERAL ARRANGEMENT

PURPOSE OF ISSUE	STATUS/SUBMITTAL	SHEET SIZE
Planning	P1 - Planning	A1
DATE	SCALE	
06/07/2023	1:750	

DRAWING NUMBER: **LCJU-CCC-GA-ZZ-DR-C-0001**      REVISION: **P04**



**PART 8 PLANNING**

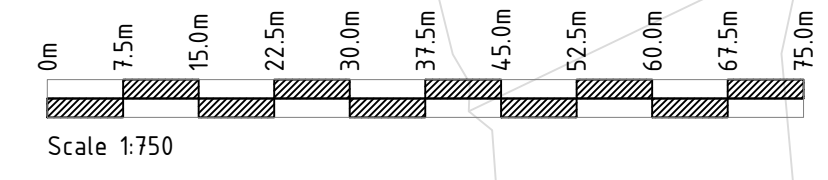


NOTE:  
INDICATIVE PAVEMENT LAYOUT ONLY. PAVEMENT TO BE REVIEWED AND AGREED WITH LIMERICK CITY AND COUNTY COUNCIL DURING DETAILED DESIGN STAGE.

ACHIEVED SSD FOR RIGHT TURN MANEUVER = 100m - SET BACK OF HEDGE AND TIMBER & POST RAIL FENCE AS SHOWN, NOT AFFECTING GREEN MESH FENCE

NOTE:  
INDICATIVE PAVEMENT LAYOUT ONLY. PAVEMENT TO BE REVIEWED AND AGREED WITH LIMERICK CITY AND COUNTY COUNCIL DURING DETAILED DESIGN STAGE.

**PLAN**  
Scale 1:750



- NOTES**
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  - Co-ordinate system used is Irish Transverse Mercator.

- LEGEND**
- PLANNING EXTENTS BOUNDARY
  - GRASSED VERGE
  - EARTHWORKS - FILL
  - EARTHWORKS - CUT
  - PROPOSED PAVEMENT
  - VISIBILITY LINES

REV	DATE	DESCRIPTION	BY	CHK	APD
P02	15/08/2023	PART 8 PLANNING	ZM	LT	AP
P01	11/08/2023	PART 8 PLANNING	LT	LT	AP
P00	18/07/2023	PART 8 PLANNING	LT	AP	TM

CLIENT / CONSULTANT

**PROJECT**  
LEES CROSS JUNCTION IMPROVEMENT SCHEME

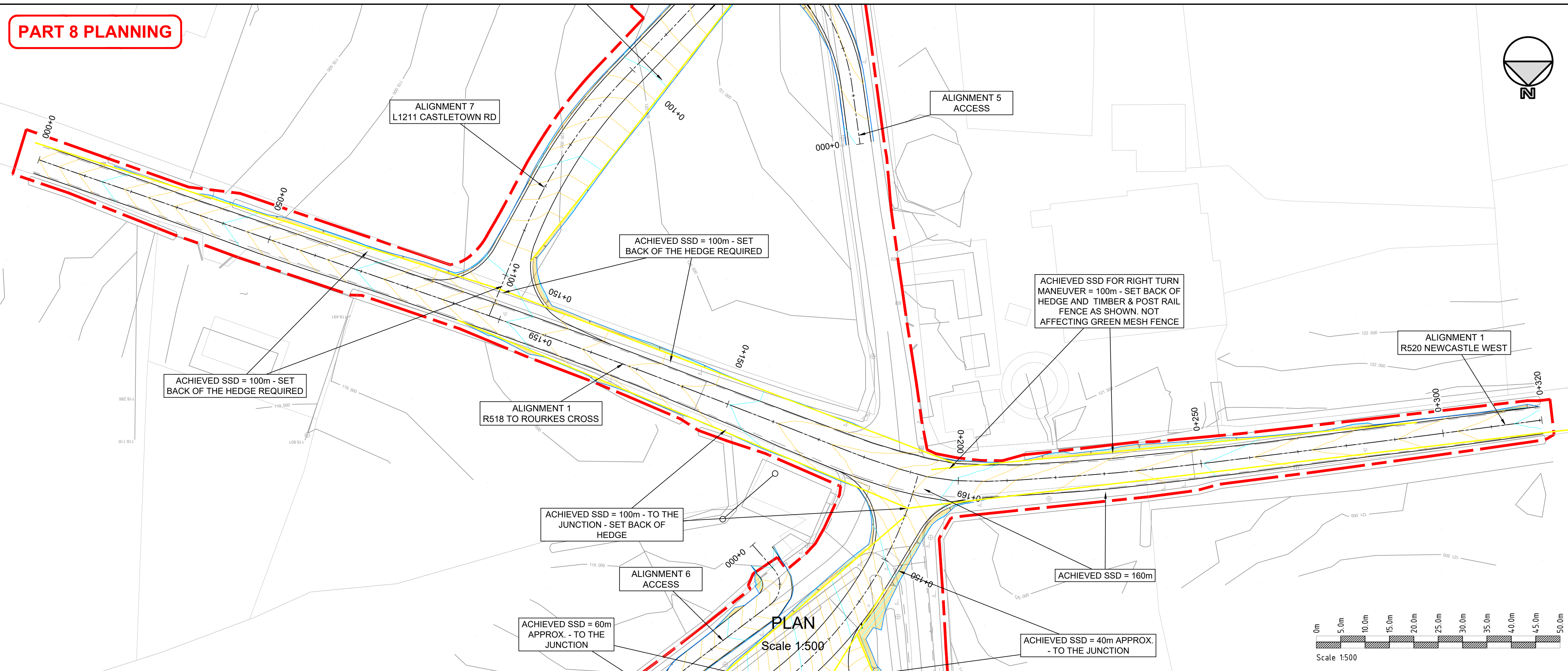
**DRAWING TITLE**  
ROAD GEOMETRY SIGHTLINES

PURPOSE OF ISSUE Planning	STATUS/STABILITY P1 - Planning	SHEET SIZE A1
DATE 18/07/2023	SCALE 1:750	REVISION

DRAWING NUMBER: LCJU-CCC-GA-ZZ-DR-C-0002  
P02

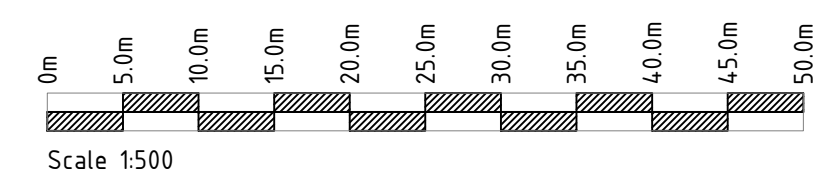


**PART 8 PLANNING**



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  - Co-ordinate system used is Irish Transverse Mercator.

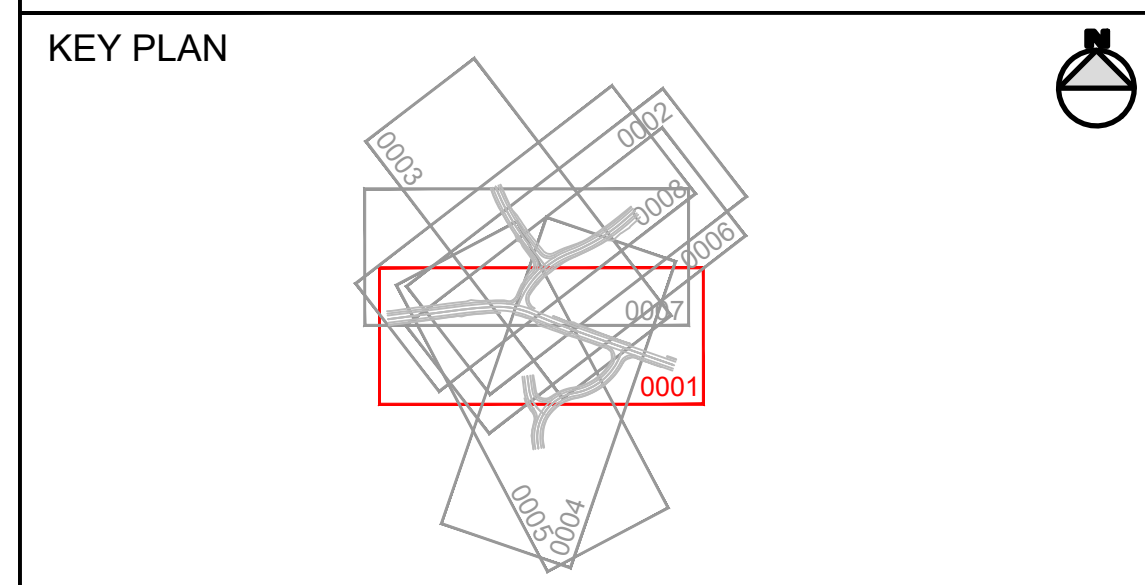
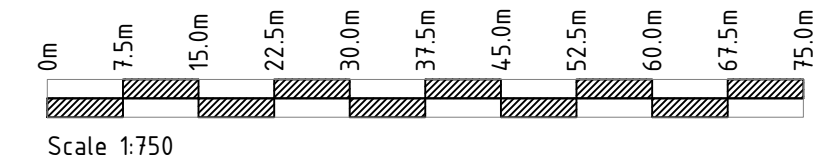
- LEGEND**
- PLANNING EXTENTS BOUNDARY
  - CENTRELINE
  - ROAD EDGE
  - GRASSED VERGE
  - CONTOURS - MINOR
  - CONTOURS - MAJOR
  - EARTHWORKS
  - VISIBILITY LINES
- PROFILE LEGEND:**
- EXISTING GROUND
  - PROPOSED FINISHED GROUND



	0+000	0+010	0+020	0+030	0+040	0+050	0+060	0+070	0+080	0+090	0+100	0+110	0+120	0+130	0+140	0+150	0+160	0+170	0+180	0+190	0+200	0+210	0+220	0+230	0+240	0+250	0+260	0+270	0+280	0+290	0+300	0+310	0+320	
CHAINAGE	0+000	0+010	0+020	0+030	0+040	0+050	0+060	0+070	0+080	0+090	0+100	0+110	0+120	0+130	0+140	0+150	0+160	0+170	0+180	0+190	0+200	0+210	0+220	0+230	0+240	0+250	0+260	0+270	0+280	0+290	0+300	0+310	0+320	
FINISHED LEVEL		117.927	118.130	118.313	118.500	118.692	118.857	119.021	119.181	119.337	119.480	119.610	119.721	119.818	119.905	119.986	120.090	120.177	120.244	120.342	120.515	120.673	120.766	120.854	120.921	120.997	121.090	121.177	121.239	121.294	121.375	121.458	121.550	
EXISTING GROUND LEVEL	117.699	117.927	118.130	118.313	118.500	118.692	118.857	119.021	119.181	119.337	119.480	119.610	119.721	119.818	119.905	119.986	120.090	120.177	120.244	120.342	120.515	120.673	120.766	120.854	120.921	120.997	121.090	121.177	121.239	121.294	121.375	121.458	121.550	
LEVEL DIFFERENCE		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
HORIZONTAL ALIGNMENT																																		
VERTICAL ALIGNMENT																																		

ALIGNMENT 1 - EXISTING ROAD  
SCALE: H 1:750, V 1:150

**PROFILE**  
Scale 1:750



REV	DATE	DESCRIPTION	BY	CHK	APD
P01	16/08/2023	PART 8 PLANNING	ZM	LT	AP
P00	06/07/2023	PART 8 PLANNING	MV	LT	AP



**PROJECT**  
LEE CROSS JUNCTION IMPROVEMENT SCHEME

**DRAWING TITLE**  
PLAN & PROFILE  
ALIGNMENT 1 - R518 to R520

PURPOSE OF ISSUE	STATUS/SUBMITTAL	SHEET SIZE
Planning	P1 - Planning	A1
DATE	SCALE	
06/07/2023	1:500	

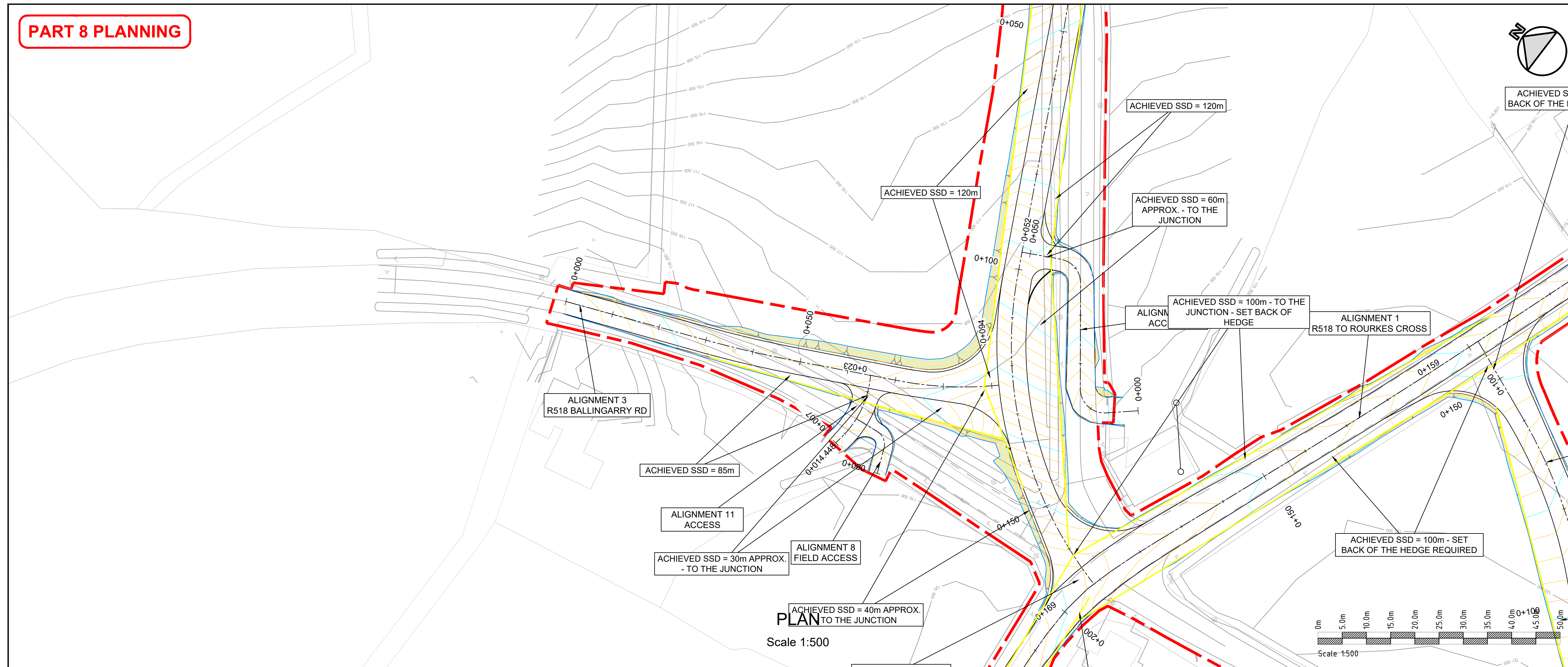
DRAWING NUMBER: LCJU-CCC-CW-ZZ-DR-C-0001  
REVISION: P01







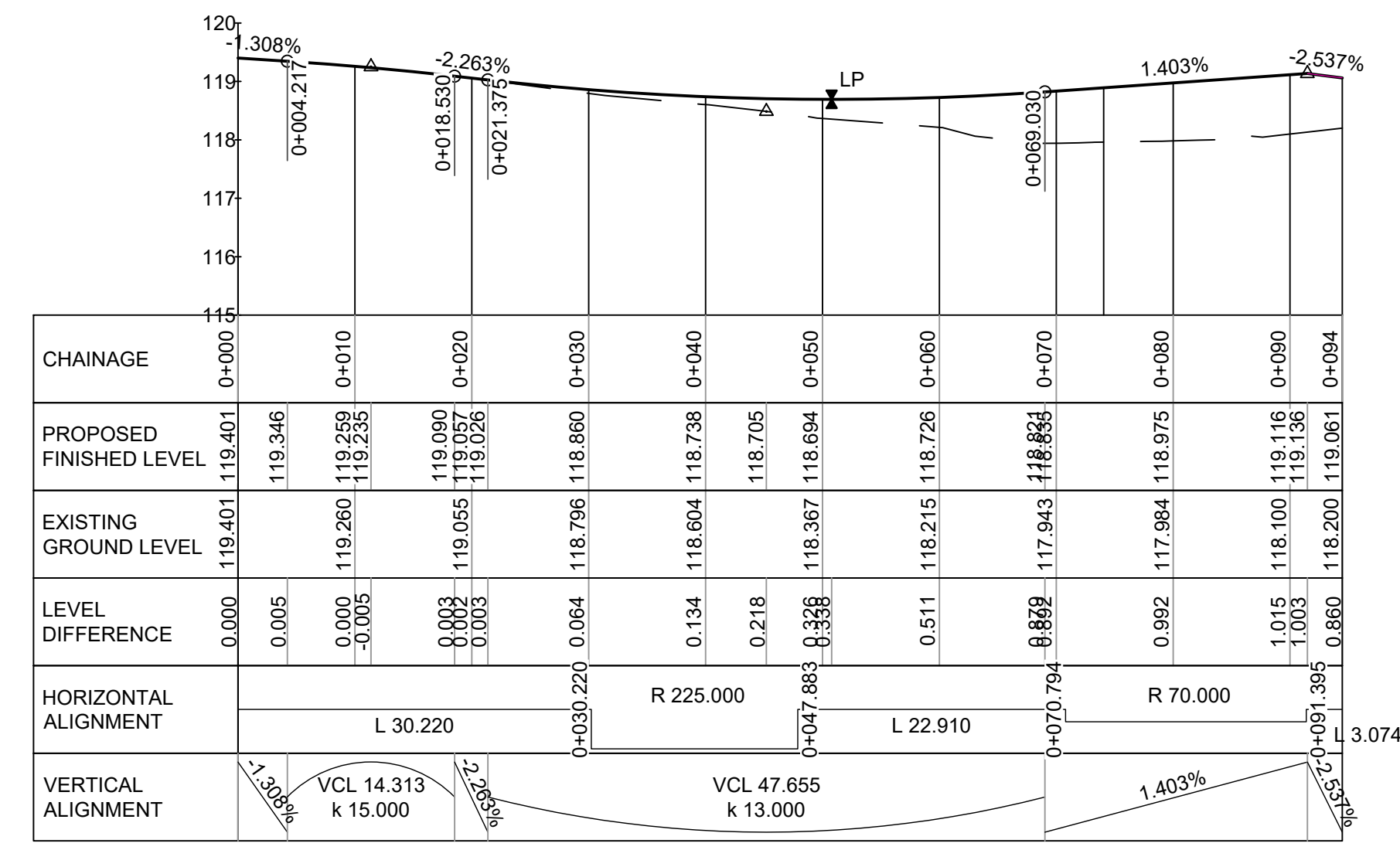
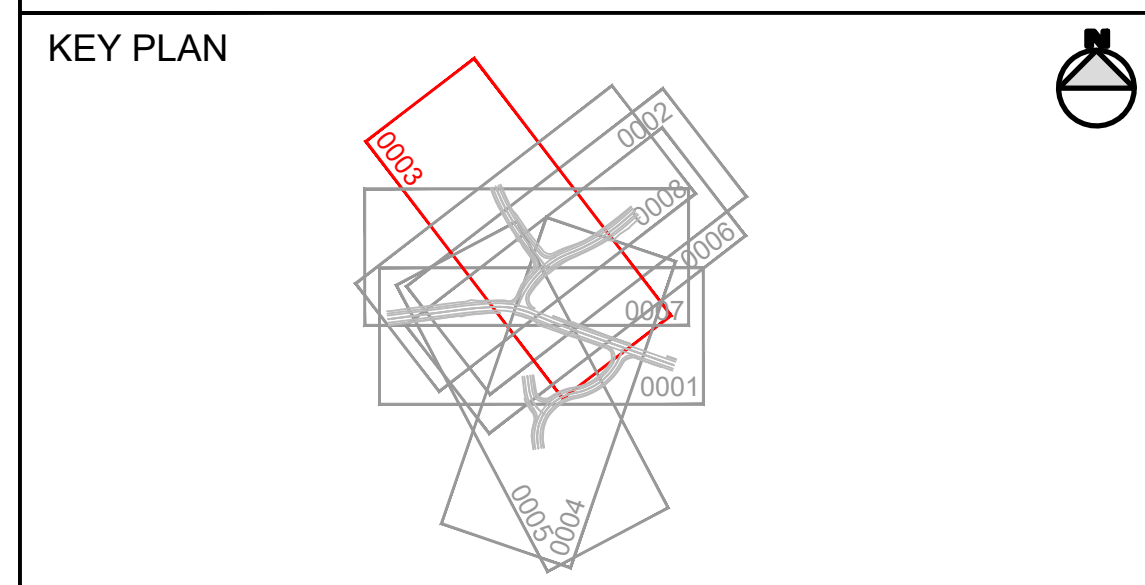
**PART 8 PLANNING**



**NOTES**

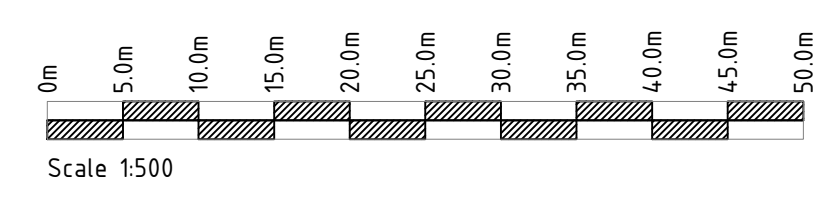
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- Co-ordinate system used is Irish Transverse Mercator.

- LEGEND**
- PLANNING EXTENTS BOUNDARY
  - - - CENTRELINE
  - ROAD EDGE
  - GRASSED VERGE
  - CONTOURS - MINOR
  - CONTOURS - MAJOR
  - EARTHWORKS
  - VISIBILITY LINES
- PROFILE LEGEND:**
- - - EXISTING GROUND
  - PROPOSED FINISHED GROUND



ALIGNMENT 3  
SCALE: H 1:500, V 1:100

**PROFILE**  
Scale 1:500



REV	DATE	DESCRIPTION	BY	CHK	APD
P01	16/08/2023	PART 8 PLANNING	ZM	LT	AP
P00	06/07/2023	PART 8 PLANNING	MV	LT	AP



**PROJECT**  
LEE CROSS JUNCTION IMPROVEMENT SCHEME

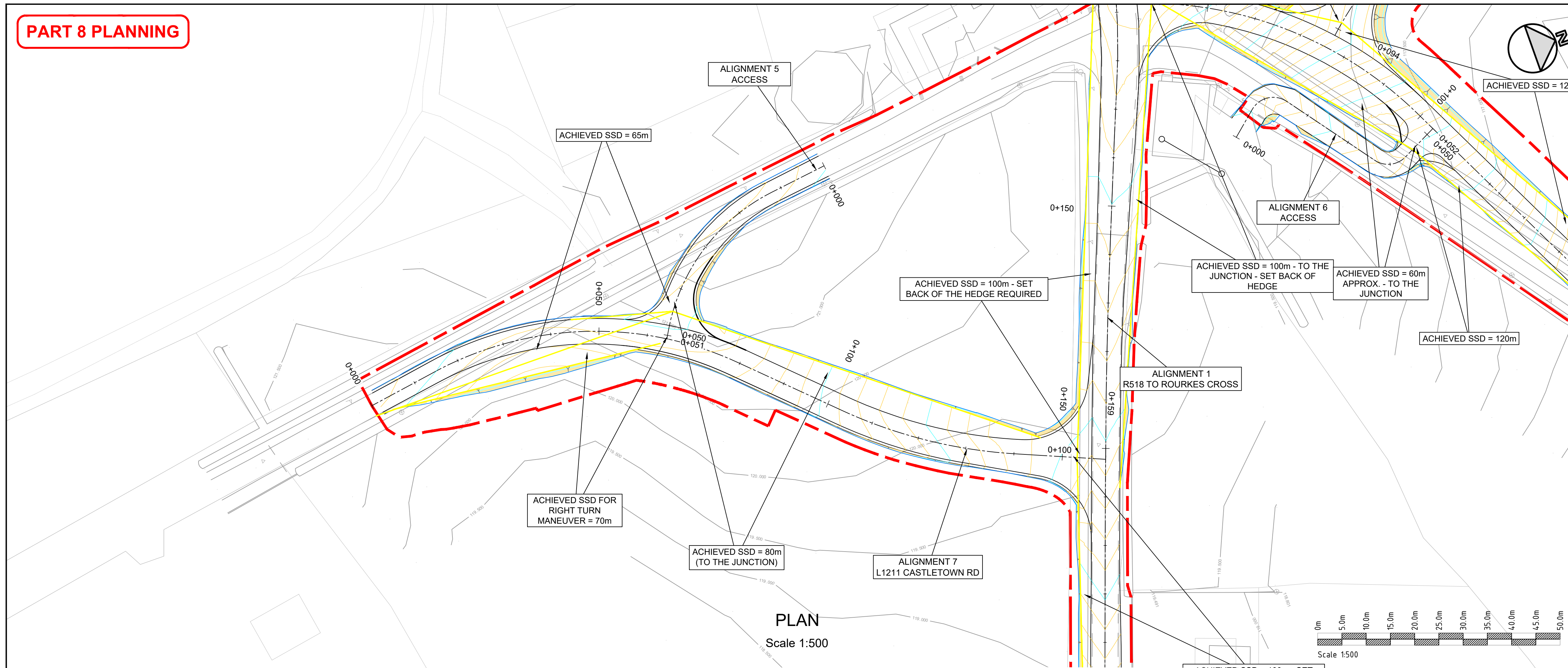
**DRAWING TITLE**  
PLAN & PROFILE  
ALIGNMENT 3 - R518 BALLINGARRY RD

PURPOSE OF ISSUE	STATUS/SUBMITTAL	DATE	SCALE	SHEET SIZE
Planning	P1 - Planning	06/07/2023	1:500	A1

DRAWING NUMBER: LCJU-CCC-CW-ZZ-DR-C-0003  
REVISION: P01

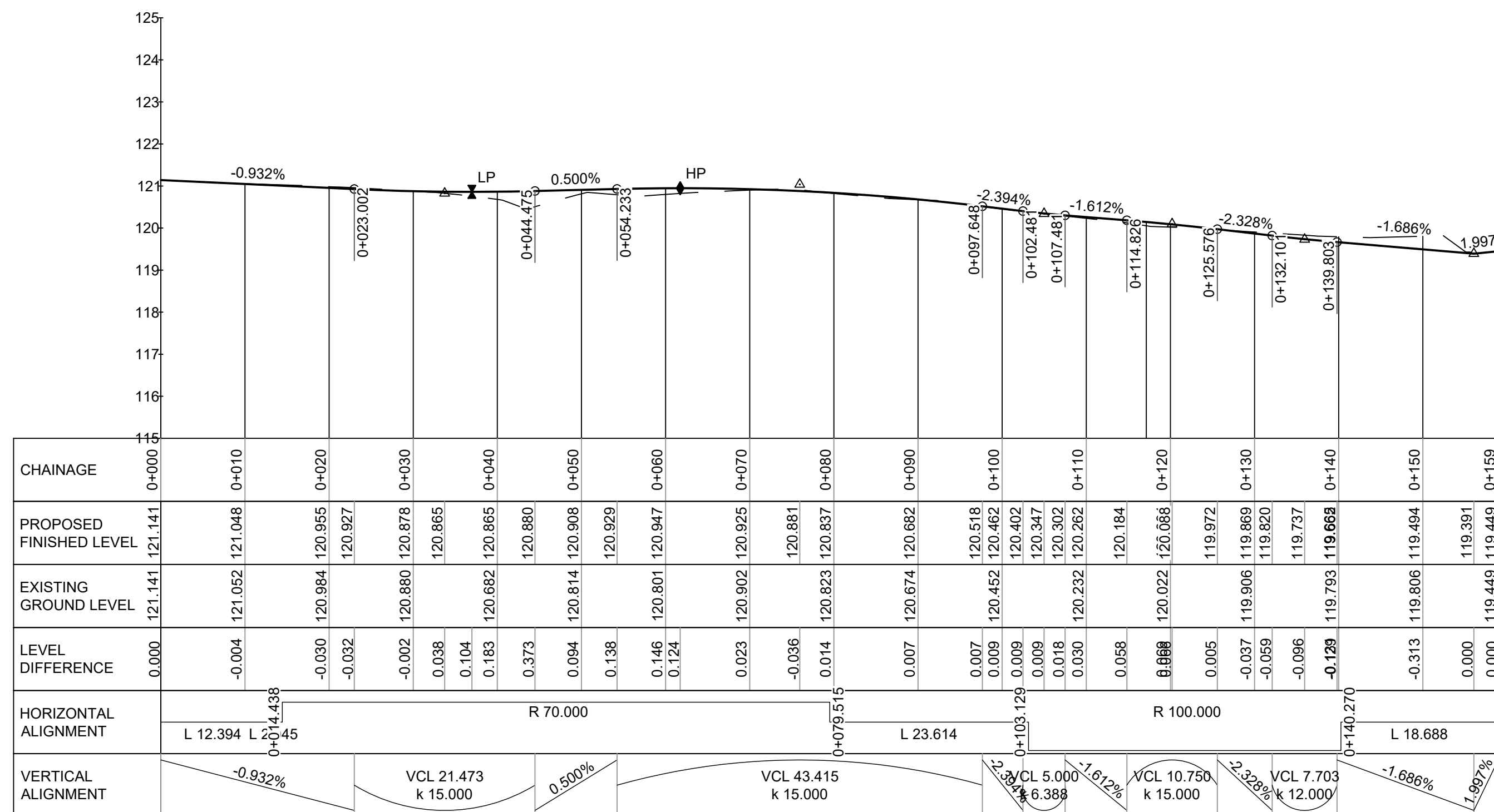
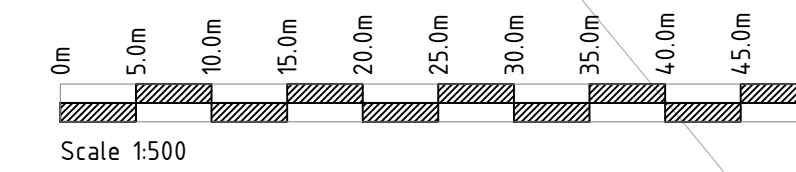


**PART 8 PLANNING**

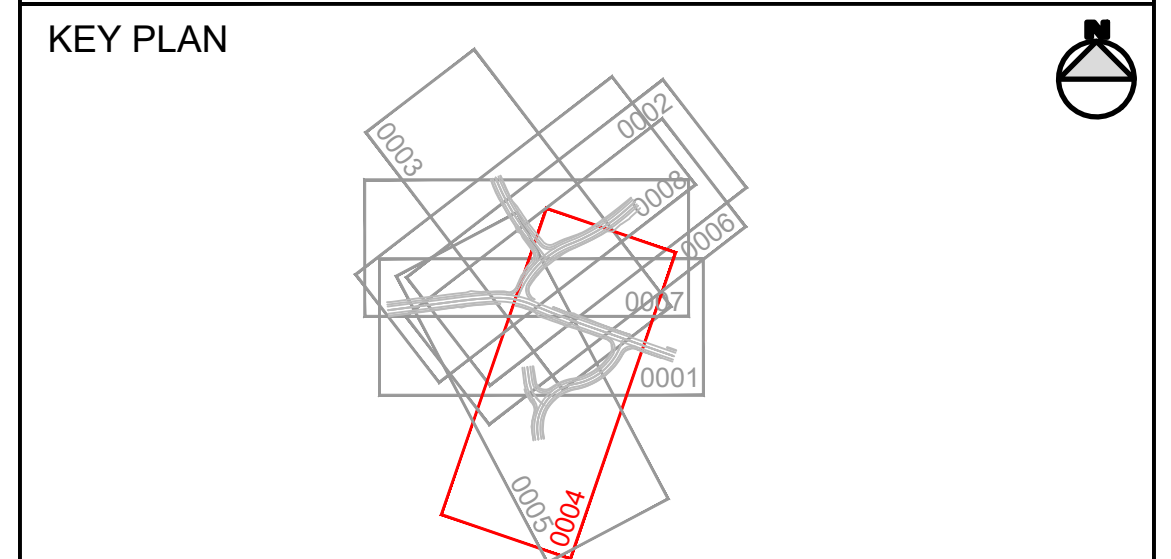
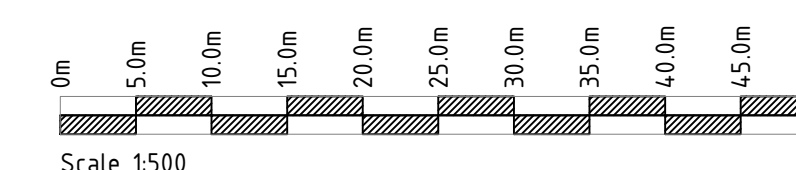


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- LEGEND**
- PLANNING EXTENTS BOUNDARY
  - CENTRELINE
  - ROAD EDGE
  - GRASSED VERGE
  - CONTOURS - MINOR
  - CONTOURS - MAJOR
  - EARTHWORKS
  - VISIBILITY LINES
- PROFILE LEGEND:**
- EXISTING GROUND
  - PROPOSED FINISHED GROUND



ALIGNMENT 7  
SCALE: H 1:500, V 1:100



REV	DATE	DESCRIPTION	BY	CHK	APD
P01	16/08/2023	PART 8 PLANNING	ZM	LT	AP
P00	06/07/2023	PART 8 PLANNING	MV	LT	AP

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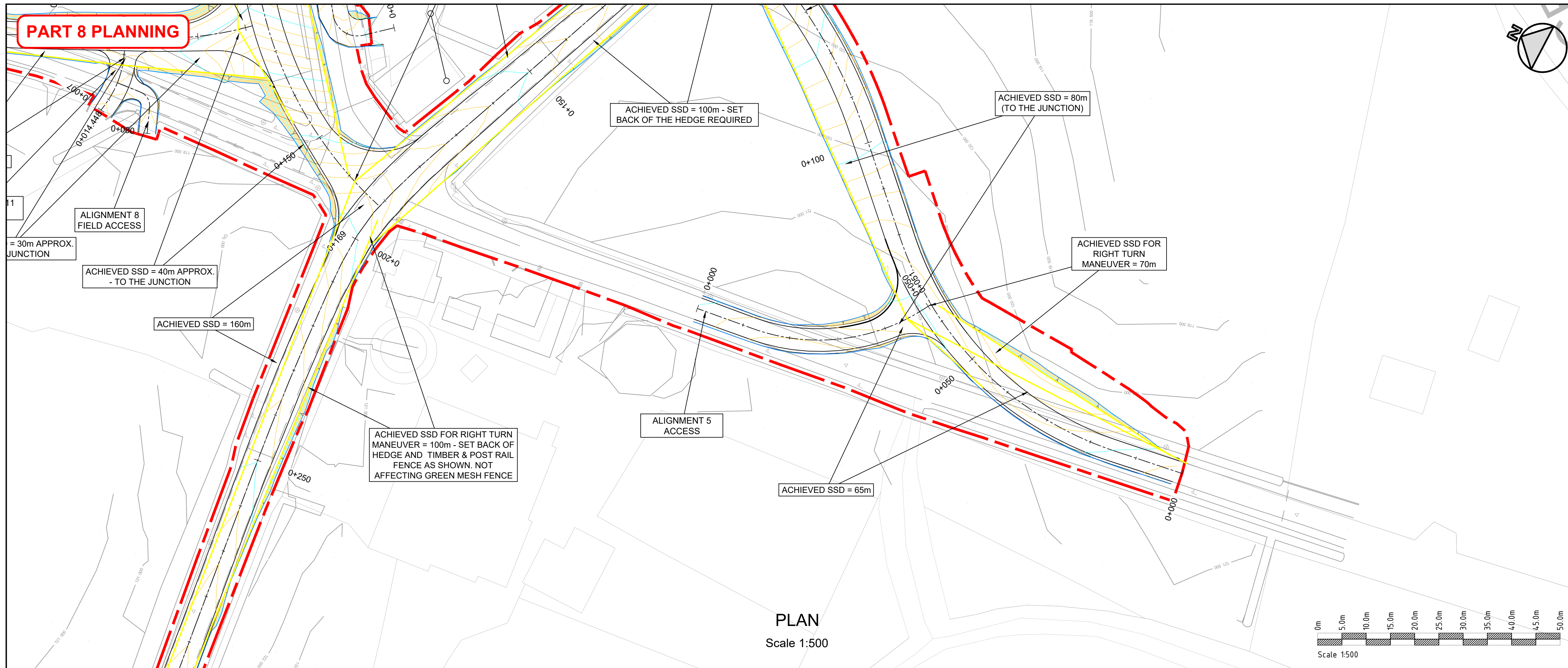
**PROJECT**  
LEE CROSS JUNCTION  
IMPROVEMENT SCHEME

**DRAWING TITLE**  
PLAN & PROFILE  
ALIGNMENT 7 - L1211 CASTLETOWN RD

PURPOSE OF ISSUE	STATUS/SUBMITTAL	SHEET SIZE
Planning	P1 - Planning	A1
DATE	SCALE	
06/07/2023	1:500	
DRAWING NUMBER	REVISION	
LCJU-CCC-CW-ZZ-DR-C-0004	P01	

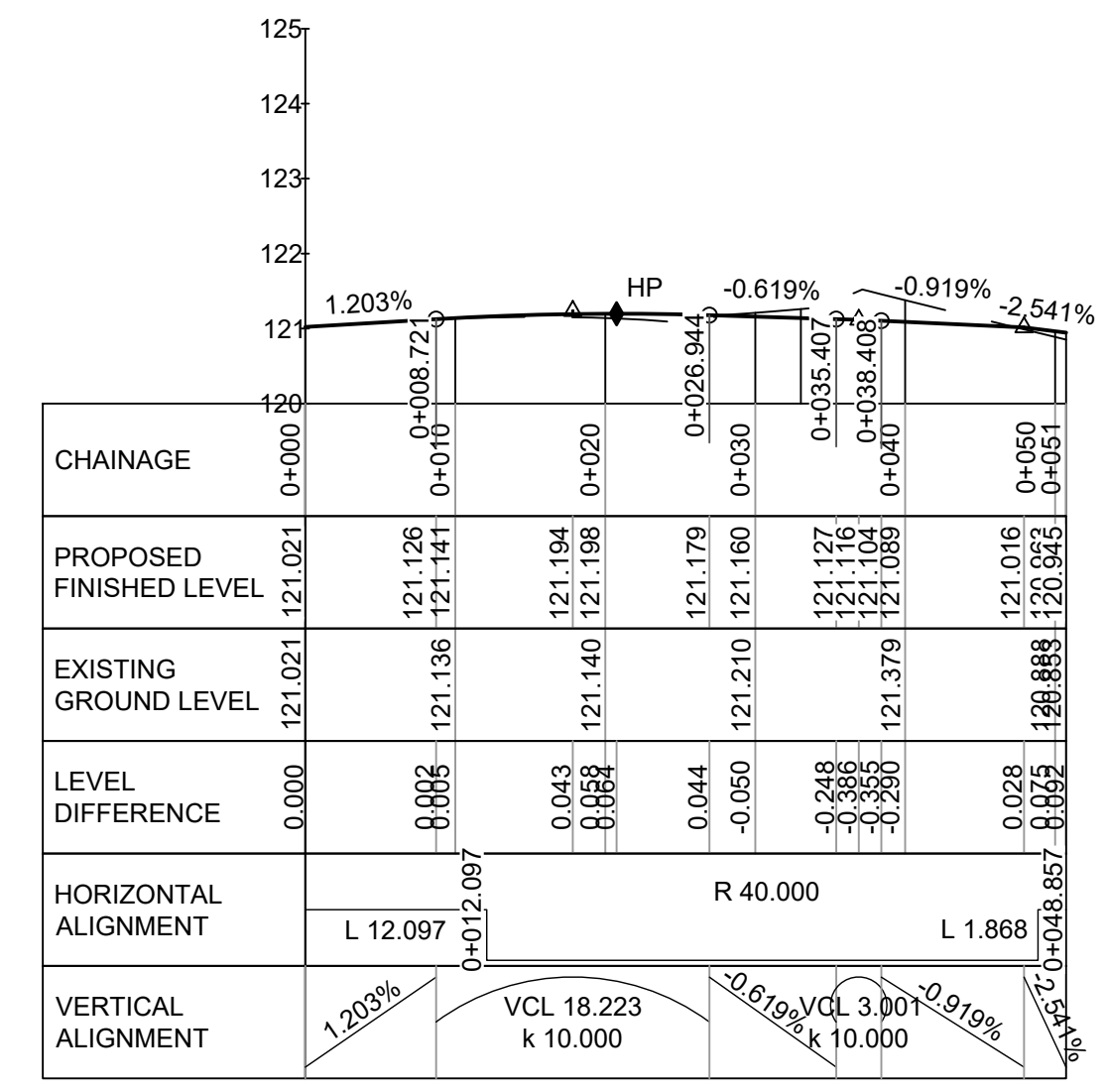
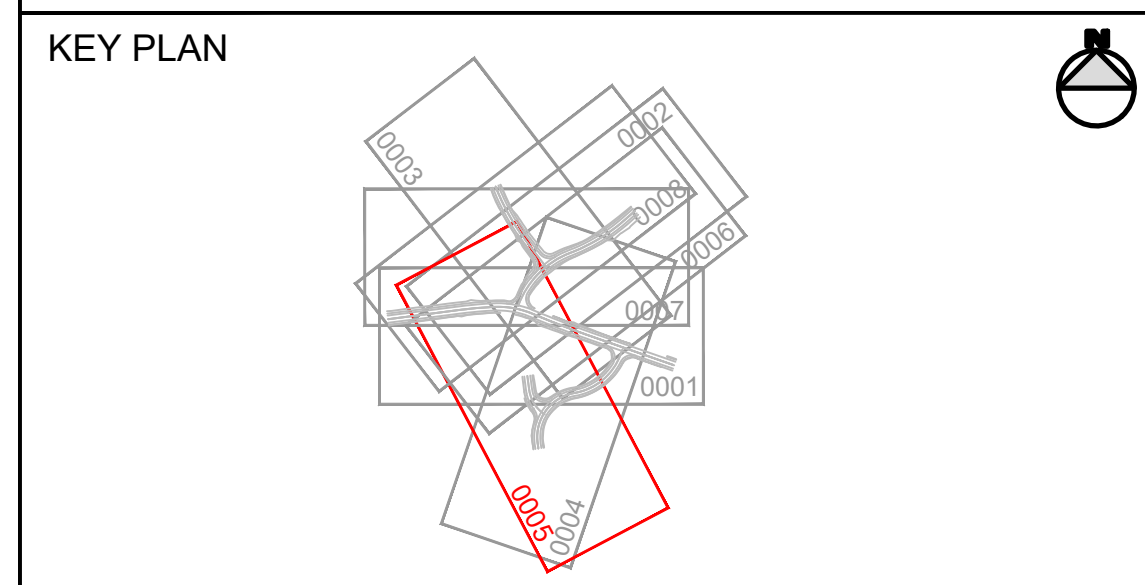


**PART 8 PLANNING**



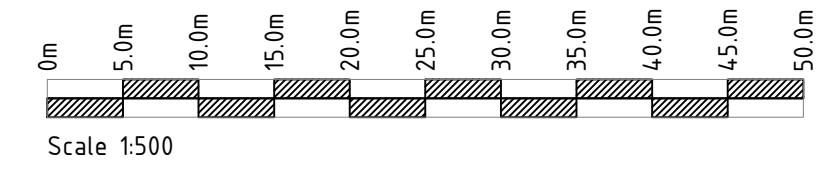
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- LEGEND**
- PLANNING EXTENTS BOUNDARY
  - CENTRELINE
  - ROAD EDGE
  - GRASSED VERGE
  - CONTOURS - MINOR
  - CONTOURS - MAJOR
  - EARTHWORKS
  - VISIBILITY LINES
- PROFILE LEGEND:**
- EXISTING GROUND
  - PROPOSED FINISHED GROUND



ALIGNMENT 5  
SCALE: H 1:500, V 1:100

**PROFILE**  
Scale 1:500



REV	DATE	DESCRIPTION	BY	CHK	APD
P01	16/08/2023	PART 8 PLANNING	ZM	LT	AP
P00	06/07/2023	PART 8 PLANNING	MV	LT	AP

CLIENT / CONSULTANT

**PROJECT**  
LEE CROSS JUNCTION  
IMPROVEMENT SCHEME

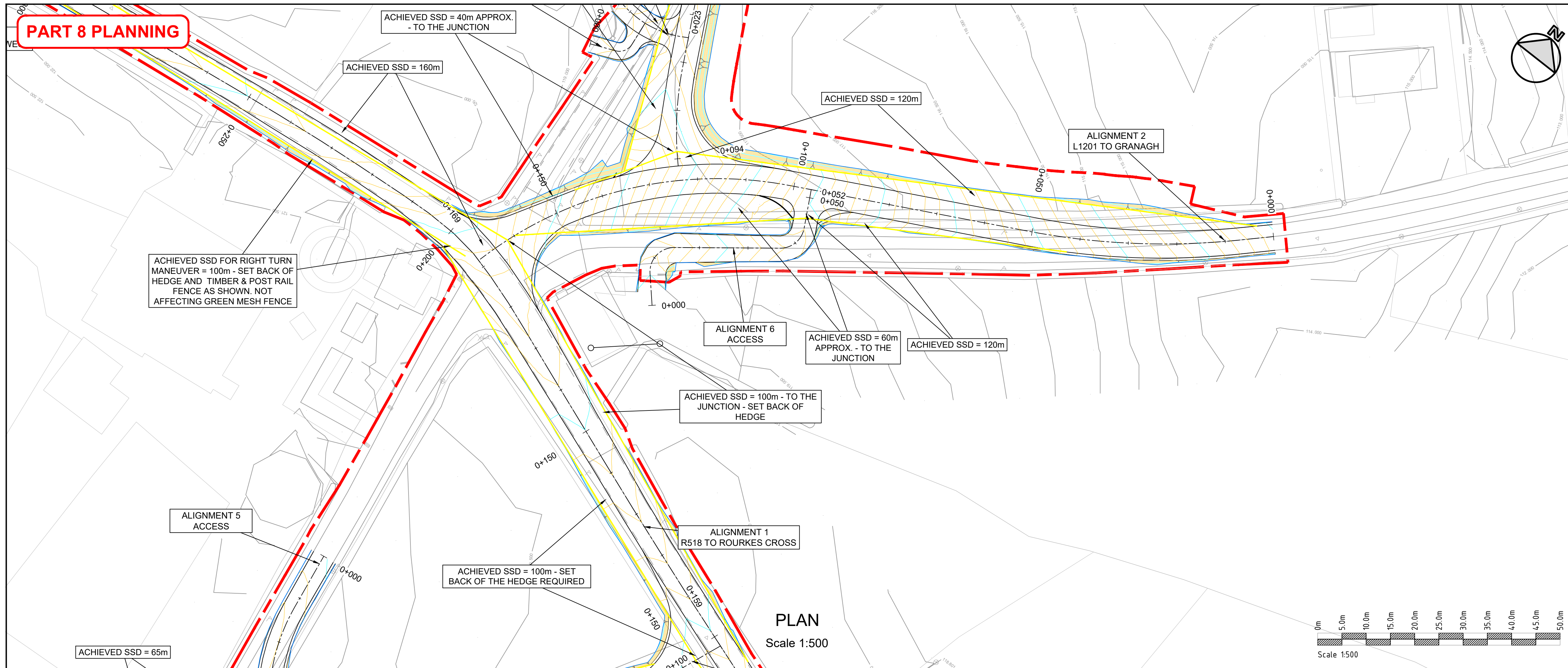
**DRAWING TITLE**  
PLAN & PROFILE  
ALIGNMENT 5 - PRIVATE ACCESS

PURPOSE OF ISSUE	STATUS/STABILITY	SHEET SIZE
Planning	P1 - Planning	A1
DATE	SCALE	
06/07/2023	1:500	

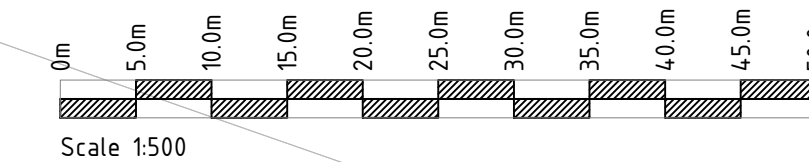
DRAWING NUMBER: LCJU-CCC-CW-ZZ-DR-C-0005  
REVISION: P01



**PART 8 PLANNING**



**PLAN**  
Scale 1:500



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3. Co-ordinate system used is Irish Transverse Mercator.

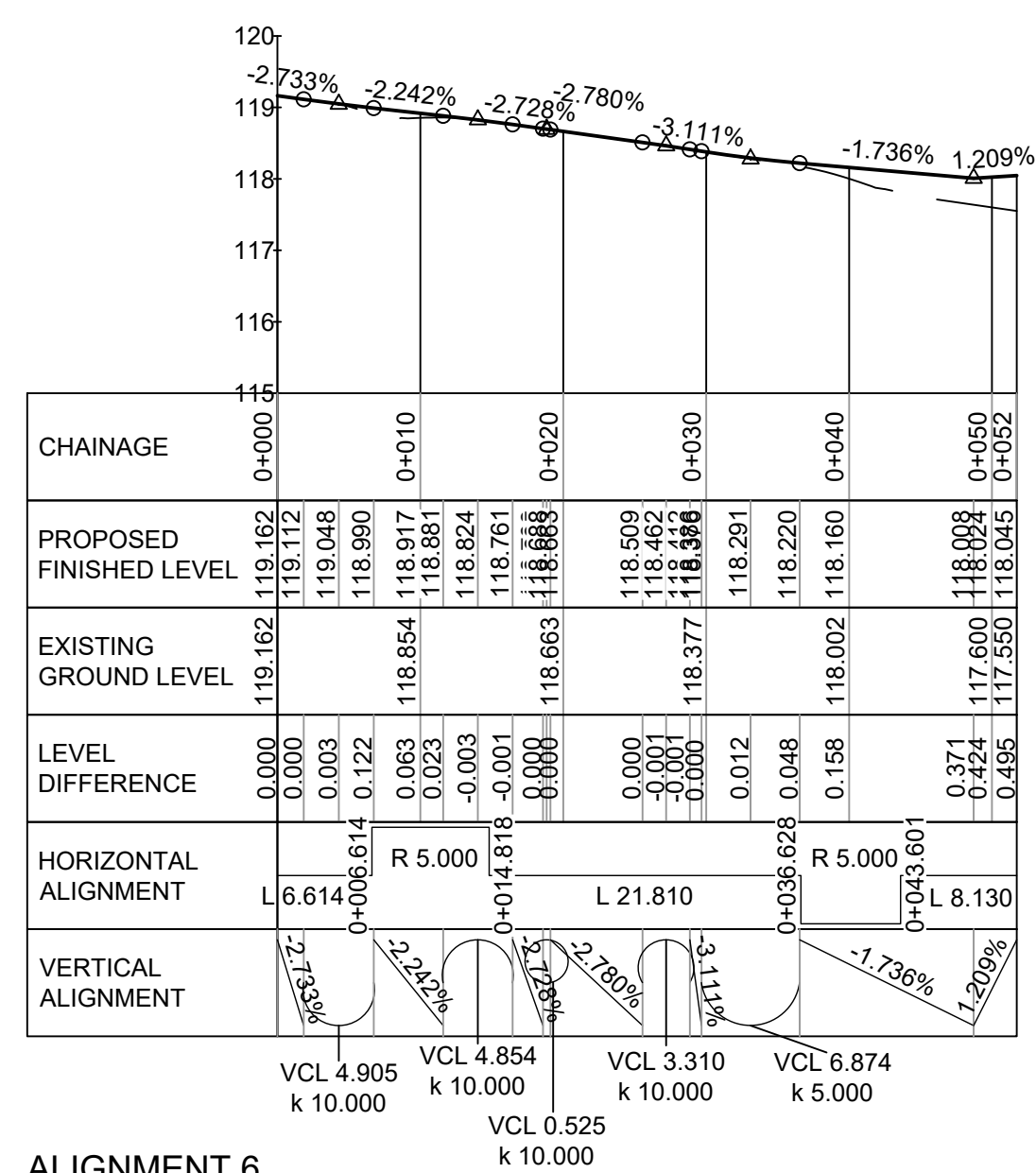
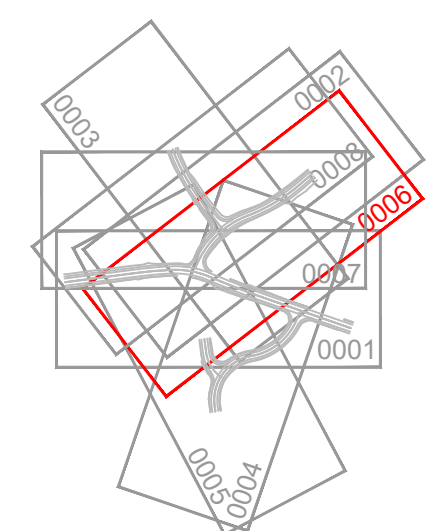
**LEGEND**

- PLANNING EXTENTS BOUNDARY
- CENTRELINE
- ROAD EDGE
- GRASSED VERGE
- CONTOURS - MINOR
- CONTOURS - MAJOR
- EARTHWORKS
- VISIBILITY LINES

**PROFILE LEGEND:**

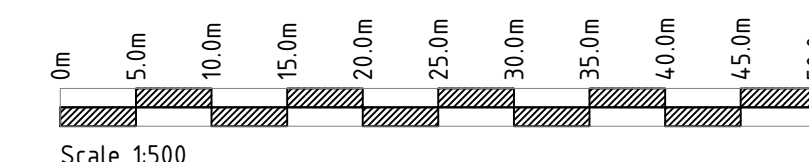
- EXISTING GROUND
- PROPOSED FINISHED GROUND

**KEY PLAN**



**ALIGNMENT 6**  
SCALE: H 1:500, V 1:100

**PROFILE**  
Scale 1:500



REV	DATE	DESCRIPTION	BY	CHK	APD
P01	16/08/2023	PART 8 PLANNING	ZM	LT	AP
P00	06/07/2023	PART 8 PLANNING	MV	LT	AP

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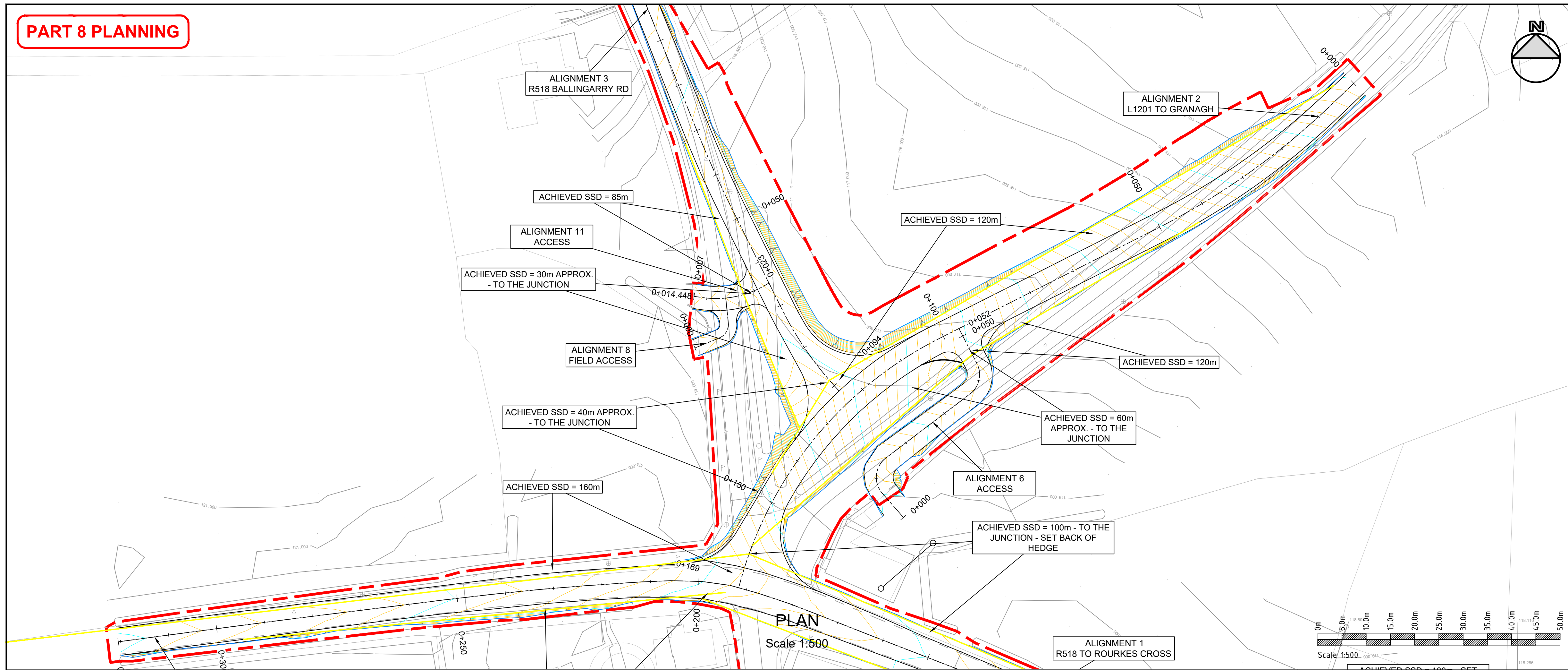
**PROJECT**  
LEE CROSS JUNCTION  
IMPROVEMENT SCHEME

**DRAWING TITLE**  
PLAN & PROFILE  
ALIGNMENT 6 - PRIVATE ACCESS

PURPOSE OF ISSUE	STATUS/STABILITY	SHEET SIZE
Planning	P1 - Planning	A1
DATE	SCALE	
06/07/2023	1:500	
DRAWING NUMBER	REVISION	
LCJU-CCC-CW-ZZ-DR-C-0006	P01	

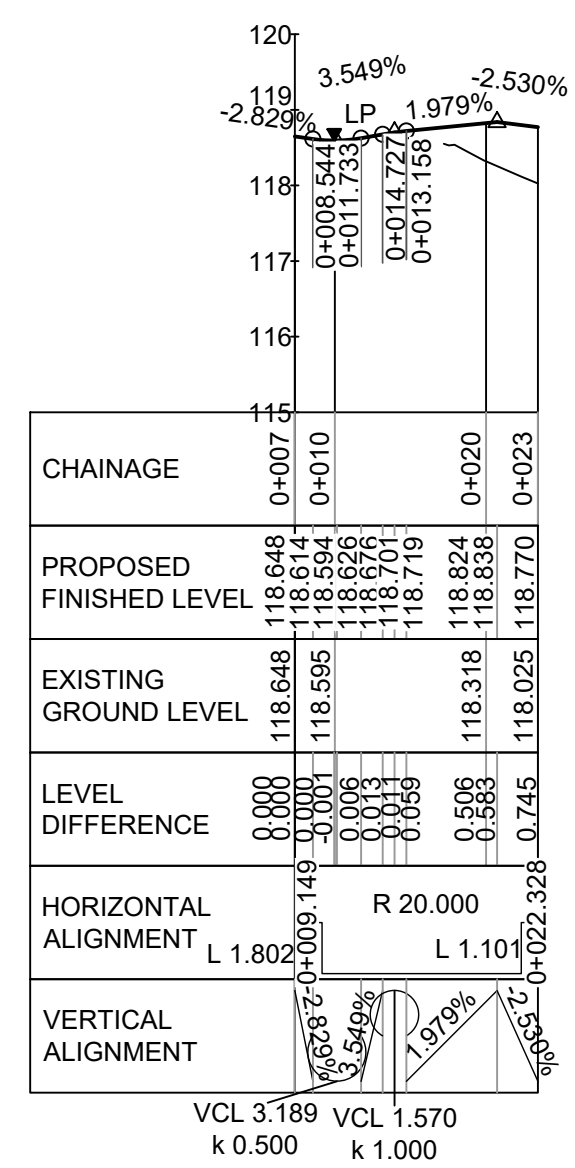
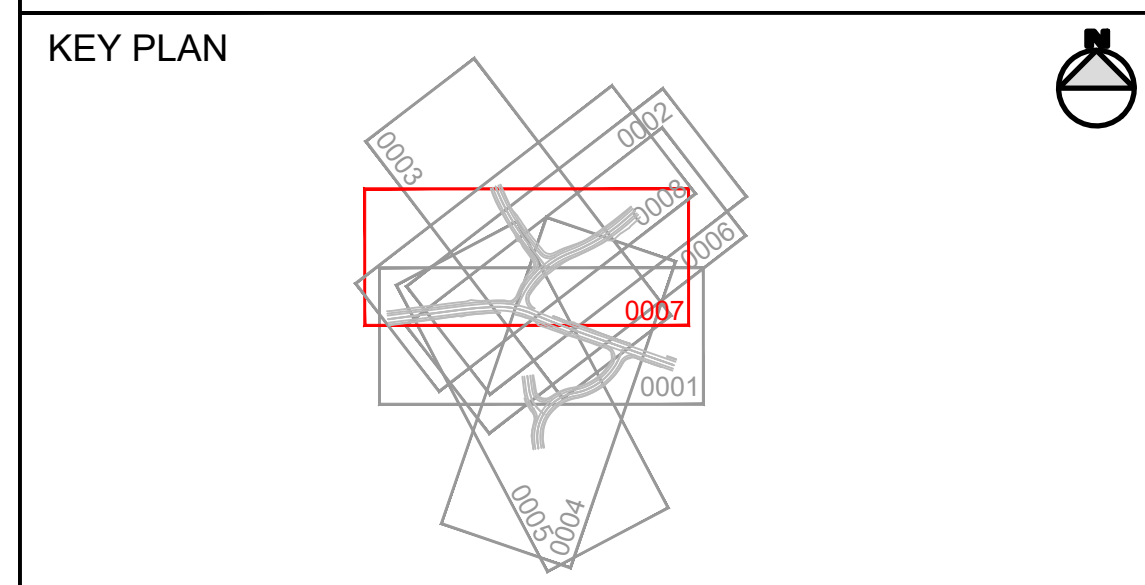


**PART 8 PLANNING**



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- LEGEND**
- PLANNING EXTENTS BOUNDARY
  - CENTRELINE
  - ROAD EDGE
  - GRASSED VERGE
  - CONTOURS - MINOR
  - CONTOURS - MAJOR
  - EARTHWORKS
  - VISIBILITY LINES
- PROFILE LEGEND:**
- EXISTING GROUND
  - PROPOSED FINISHED GROUND



**ALIGNMENT 11**  
SCALE: H 1:500, V 1:100  
**PROFILE**  
Scale 1:500

REV	DATE	DESCRIPTION	BY	CHK	APD
P01	16/08/2023	PART 8 PLANNING	ZM	LT	AP
P00	06/07/2023	PART 8 PLANNING	MV	LT	AP

CLIENT / CONSULTANT

**PROJECT**  
LEE CROSS JUNCTION IMPROVEMENT SCHEME

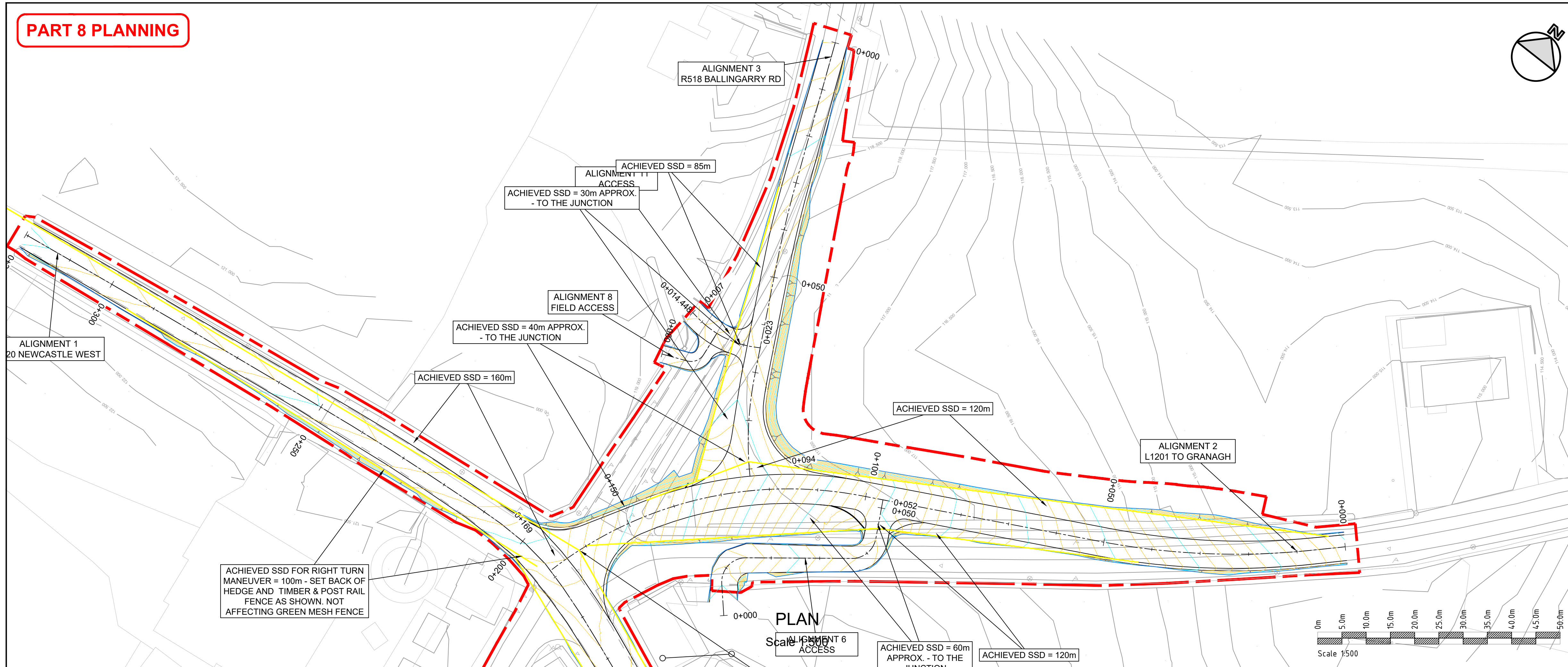
**DRAWING TITLE**  
PLAN & PROFILE  
ALIGNMENT 11 - PRIVATE ACCESS

PURPOSE OF ISSUE	STATUS/STABILITY	SHEET SIZE
Planning	P1 - Planning	A1
DATE	SCALE	REVISION
06/07/2023	1:500	

DRAWING NUMBER: LCJU-CCC-CW-ZZ-DR-C-0007  
REVISION: P01



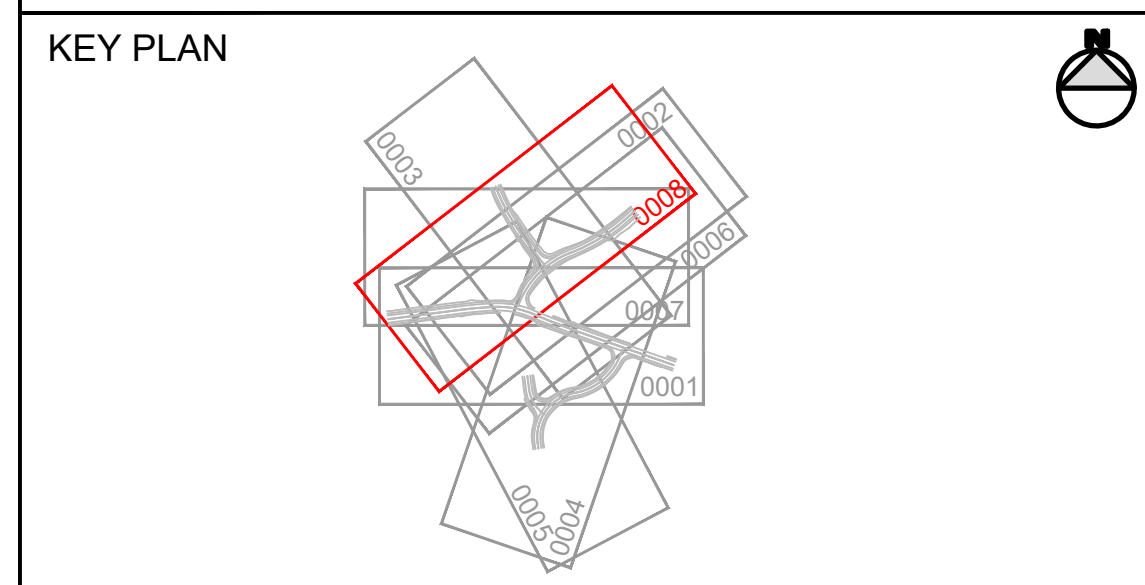
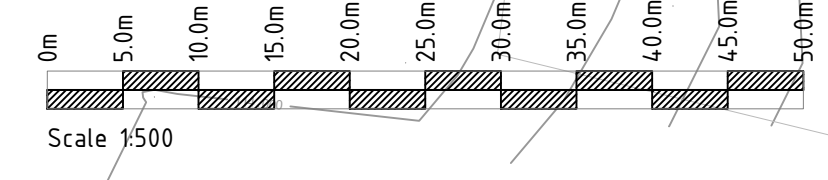
**PART 8 PLANNING**



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- LEGEND**
- PLANNING EXTENTS BOUNDARY
  - - - CENTRELINE
  - ROAD EDGE
  - GRASSED VERGE
  - CONTOURS - MINOR
  - CONTOURS - MAJOR
  - EARTHWORKS
  - VISIBILITY LINES
- PROFILE LEGEND:**
- - - EXISTING GROUND
  - PROPOSED FINISHED GROUND

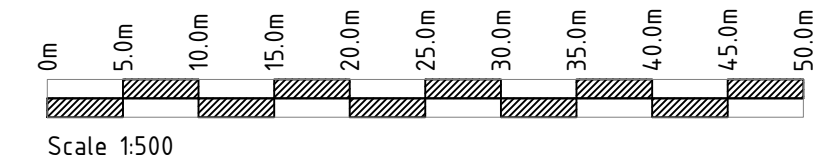
**PLAN**  
Scale 1:500



	120				
	119	-1.375%		2.489%	
	118		-0.937%		
	117				
	116				
	115				
CHAINAGE	0+000			0+010	0+014
PROPOSED FINISHED LEVEL	118.722	118.722	118.656	118.638	118.700
EXISTING GROUND LEVEL	118.767	118.714	118.741	118.638	118.691
LEVEL DIFFERENCE	0.000	-0.028	-0.085	-0.076	0.009
HORIZONTAL ALIGNMENT	L 5.444	R 3.000	L 5.155		
VERTICAL ALIGNMENT					

VCL 1.314  
k 3.000  
**ALIGNMENT 8**  
SCALE: H 1:500, V 1:100

**PROFILE**  
Scale 1:500



REV	DATE	DESCRIPTION	BY	CHK	APD
P01	16/08/2023	PART 8 PLANNING	ZM	LT	AP
P00	06/07/2023	PART 8 PLANNING	MV	LT	AP

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**PROJECT**  
LEE CROSS JUNCTION  
IMPROVEMENT SCHEME

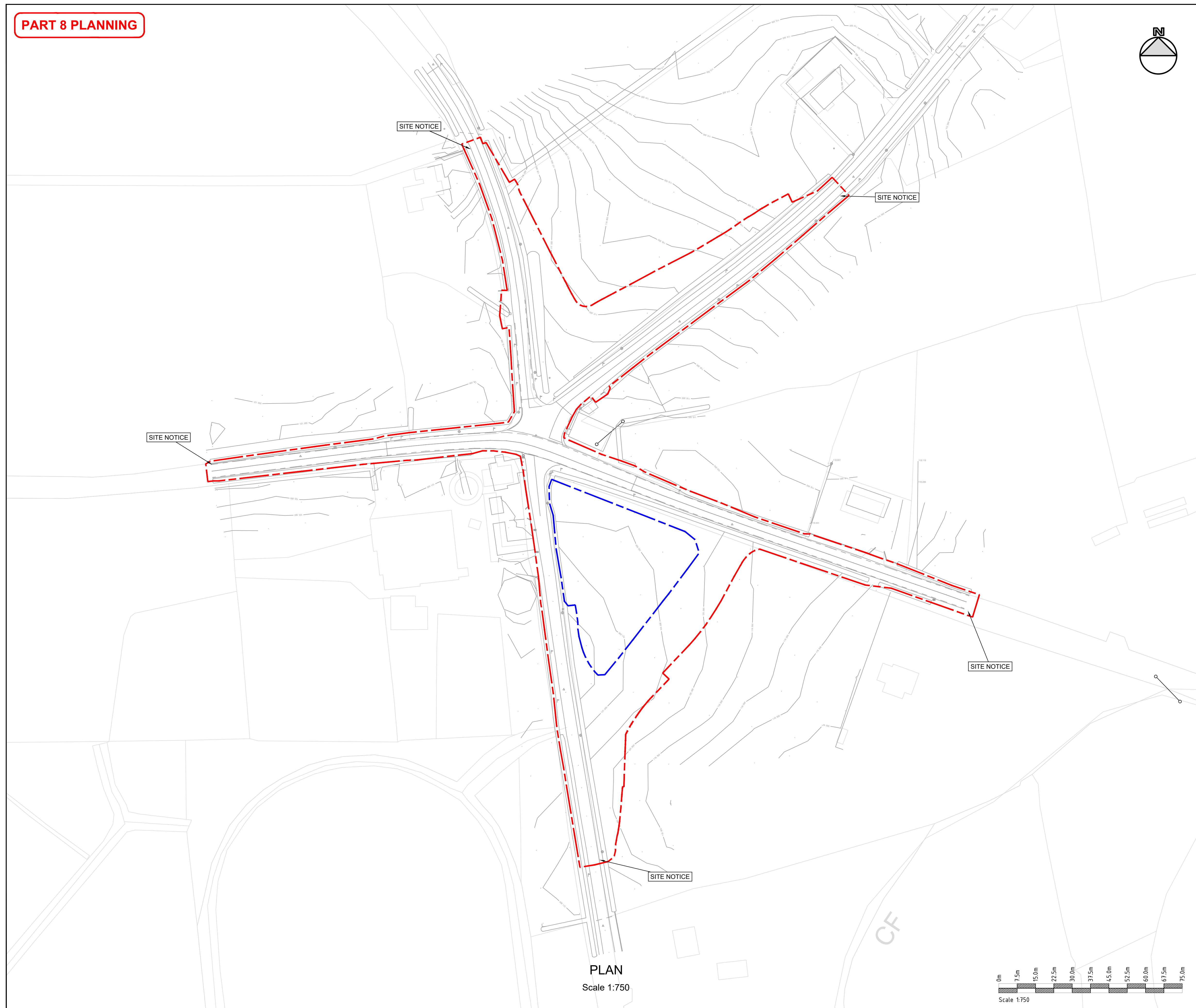
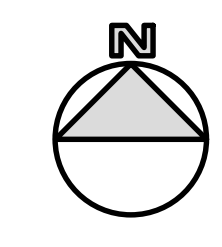
**DRAWING TITLE**  
PLAN & PROFILE  
ALIGNMENT 8 - PRIVATE ACCESS

PURPOSE OF ISSUE Planning	STATUS/STABILITY P1 - Planning	SHEET SIZE A1
DATE 06/07/2023	SCALE 1:500	

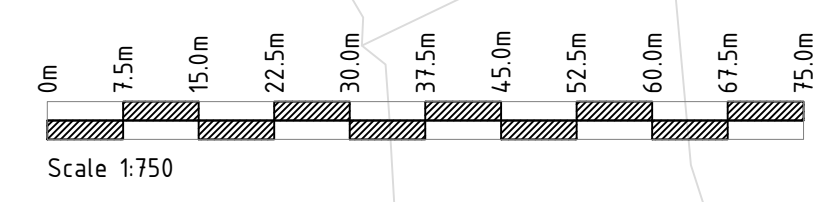
DRAWING NUMBER: LCJU-CCC-CW-ZZ-DR-C-0008  
REVISION: P01



**PART 8 PLANNING**



**PLAN**  
Scale 1:750



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3. Co-ordinate system used is Irish Transverse Mercator.

**LEGEND**

- PLANNING EXTENTS BOUNDARY
- AREA SUBJECT TO LANDOWNER DISCUSSIONS

REV	DATE	DESCRIPTION	BY	CHK	APD
P03	30/08/2023	PART 8 PLANNING		MV	LT AP
P02	16/08/2023	PART 8 PLANNING		ZM	LT AP
P01	08/08/2023	PRELIMINARY		MV	LT AP
P00	29/06/2023	PRELIMINARY		KK	LT AP

CLIENT / CONSULTANT

**PROJECT**  
LEES CROSS JUNCTION  
IMPROVEMENT SCHEME

**DRAWING TITLE**  
PLANNING EXTENTS

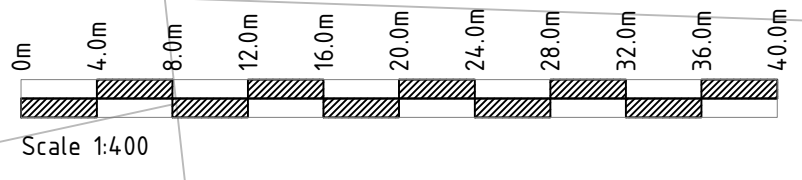
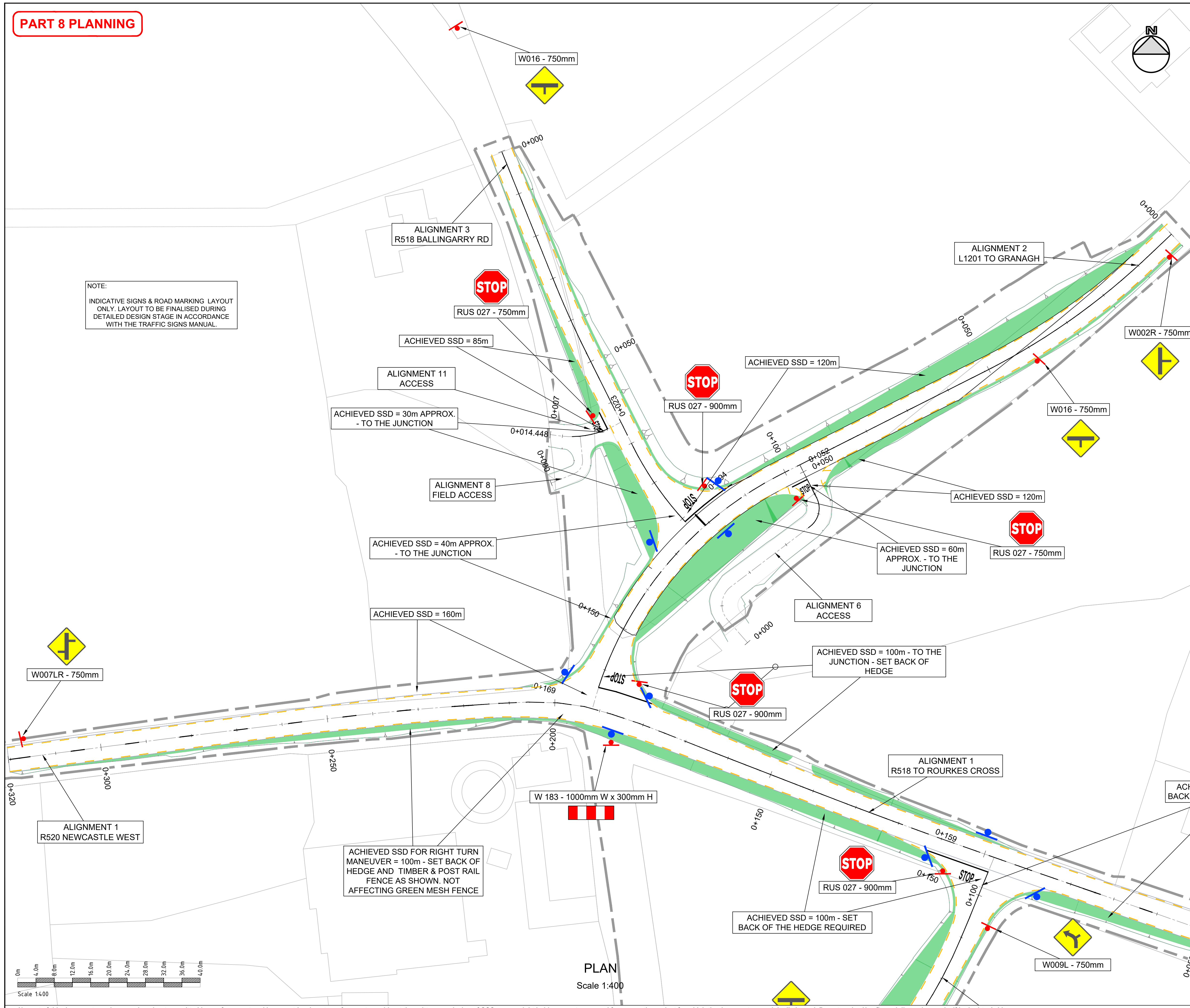
PURPOSE OF ISSUE	STATUS/SUITABILITY	SHEET SIZE
Planning	P1 - Planning	A1
DATE	SCALE	
22/05/2023	NTS	

DRAWING NUMBER: **LCJU-CCC-LA-ZZ-DR-C-0001**      REVIEW: **P03**



**PART 8 PLANNING**

NOTE:  
INDICATIVE SIGNS & ROAD MARKING LAYOUT ONLY. LAYOUT TO BE FINALISED DURING DETAILED DESIGN STAGE IN ACCORDANCE WITH THE TRAFFIC SIGNS MANUAL.

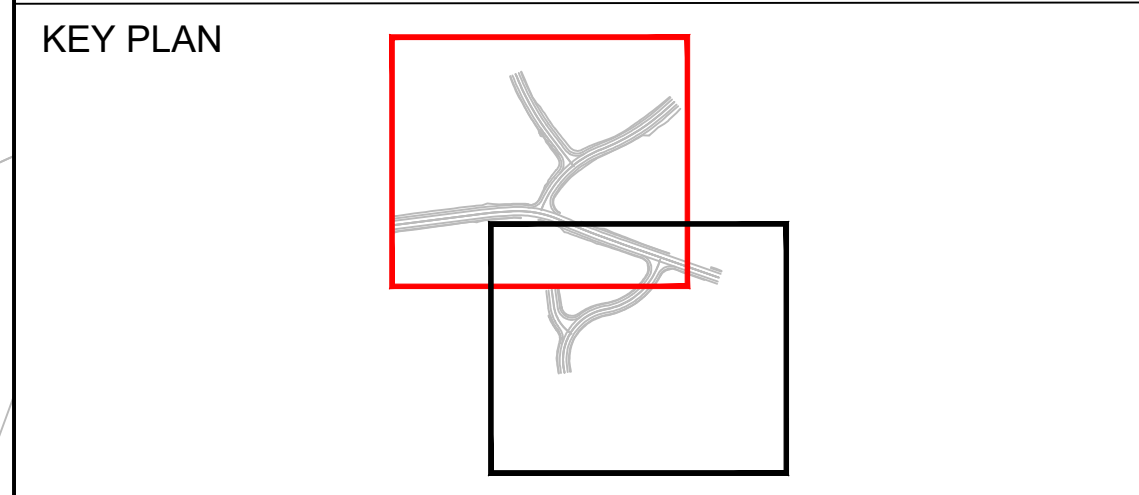


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**LEGEND**

	PLANNING EXTENTS BOUNDARY
	RRM 001 - 0.1m WHITE CONTINUOUS CENTRE LINE
	RRM 017 - 0.2m WHITE CONTINUOUS STOP LINE
	RRM 002C - 0.1m WHITE BROKEN CEN. LINE (4m LINE/2m GAP)
	RRM 002A - 0.1m WHITE BROKEN CEN. LINE (3m LINE/9m GAP)
	RRM 025 - 0.15m YELLOW BROKEN LINE (2m LINE/2m GAP)
	0.15m HATCHED MARKINGS DIAGONAL LINE (3m SPACING)
	STOP
	M 114 - WHITE STOP MARKING
	TRAFFIC SIGN LOCATION
	DIRECTIONAL SIGN LOCATION - TBC
	RUS 027 - 750mm
	TSM REFERENCE NUMBER AND SIGN SIZE



REV	DATE	DESCRIPTION	BY	CHK	APD
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P00	27/06/2023	PRELIMINARY	KK	LT	AP

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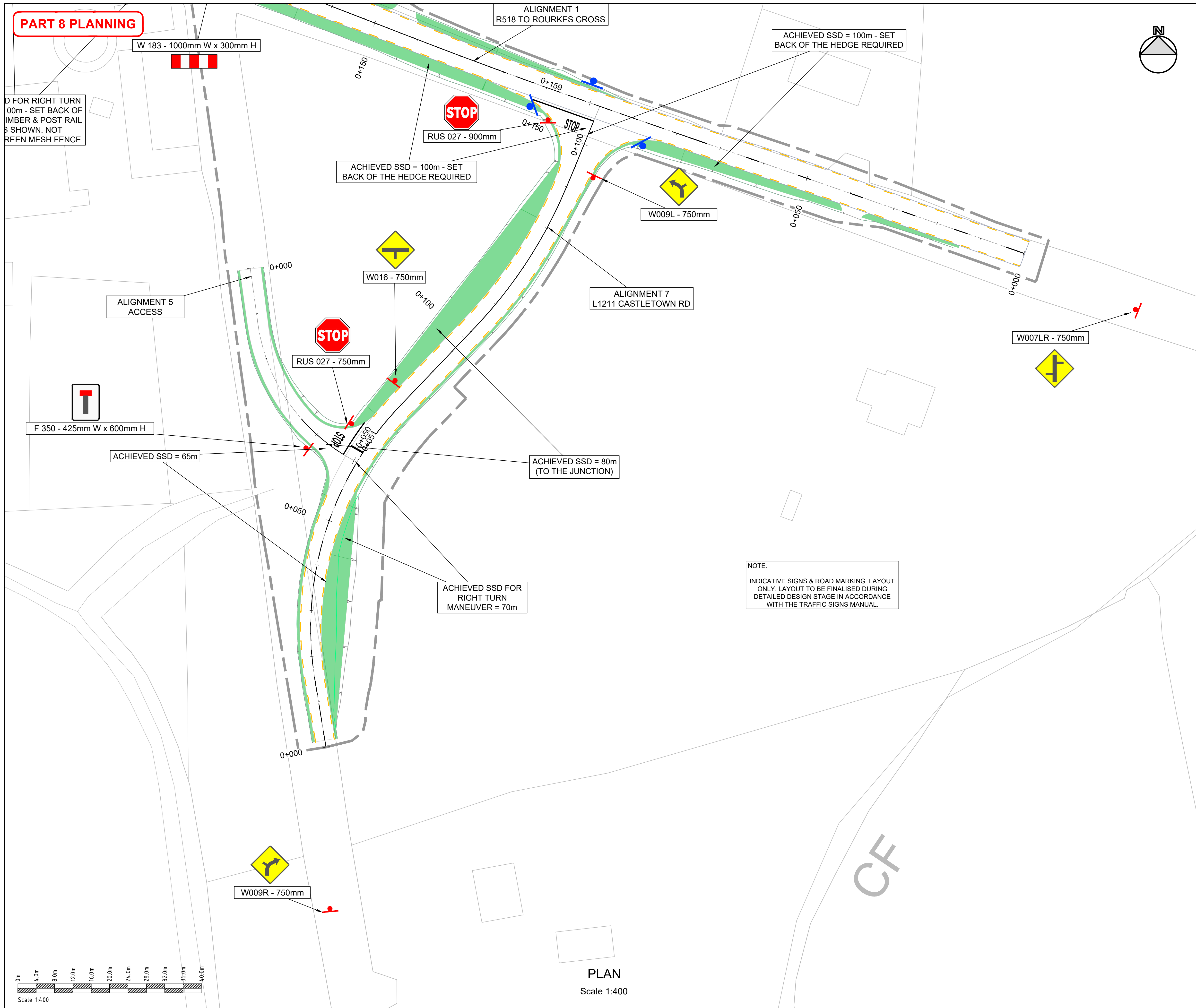
PROJECT  
**LEES CROSS JUNCTION IMPROVEMENT SCHEME**

DRAWING TITLE  
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PURPOSE OF ISSUE Planning	STATUS/STABILITY P1 - Planning	DATE 22/05/2023	SCALE 1:400	SHEET SIZE A1
DRAWING NUMBER <b>LCJU-CCC-SN-ZZ-DR-C-0001</b>				REVISION <b>P01</b>



**PART 8 PLANNING**

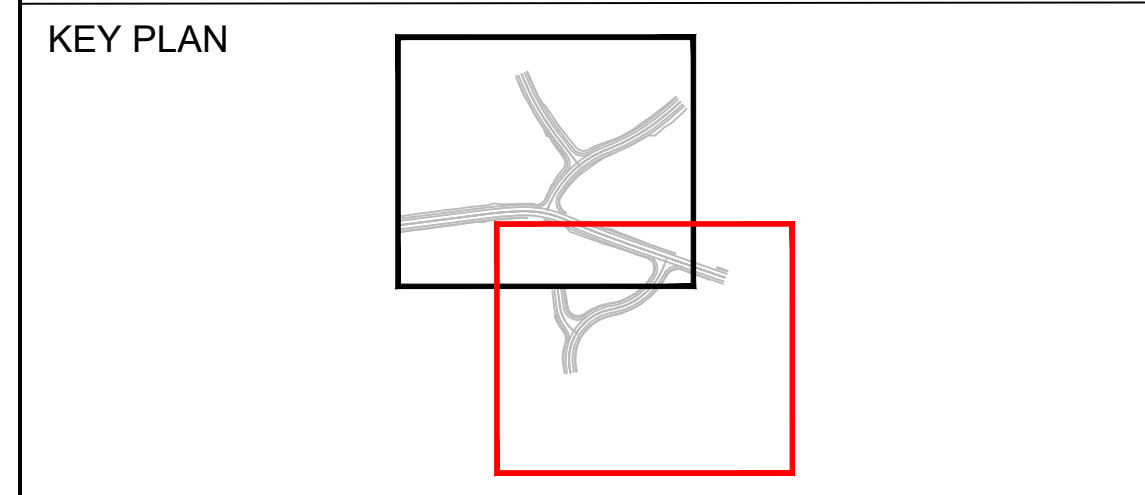


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**LEGEND**

	PLANNING EXTENTS BOUNDARY
	RRM 001 - 0.1m WHITE CONTINUOUS CENTRE LINE
	RRM 017 - 0.2m WHITE CONTINUOUS STOP LINE
	RRM 002C - 0.1m WHITE BROKEN CEN. LINE (4m LINE/2m GAP)
	RRM 002A - 0.1m WHITE BROKEN CEN. LINE (3m LINE/9m GAP)
	RRM 025 - 0.15m YELLOW BROKEN LINE (2m LINE/2m GAP)
	0.15m HATCHED MARKINGS DIAGONAL LINE (3m SPACING)
	M 114 - WHITE STOP MARKING
	TRAFFIC SIGN LOCATION
	DIRECTIONAL SIGN LOCATION - TBC
	TSM REFERENCE NUMBER AND SIGN SIZE



REV	DATE	DESCRIPTION	BY	CHK	APD
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P00	22/05/2023	PRELIMINARY	ZM	AP	TM

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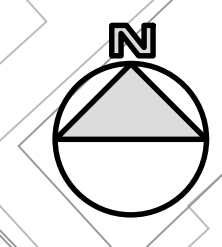
**PROJECT**  
LEES CROSS JUNCTION IMPROVEMENT SCHEME

**DRAWING TITLE**  
INDICATIVE SIGNS AND ROAD MARKINGS LAYOUT SHEET 2 OF 2

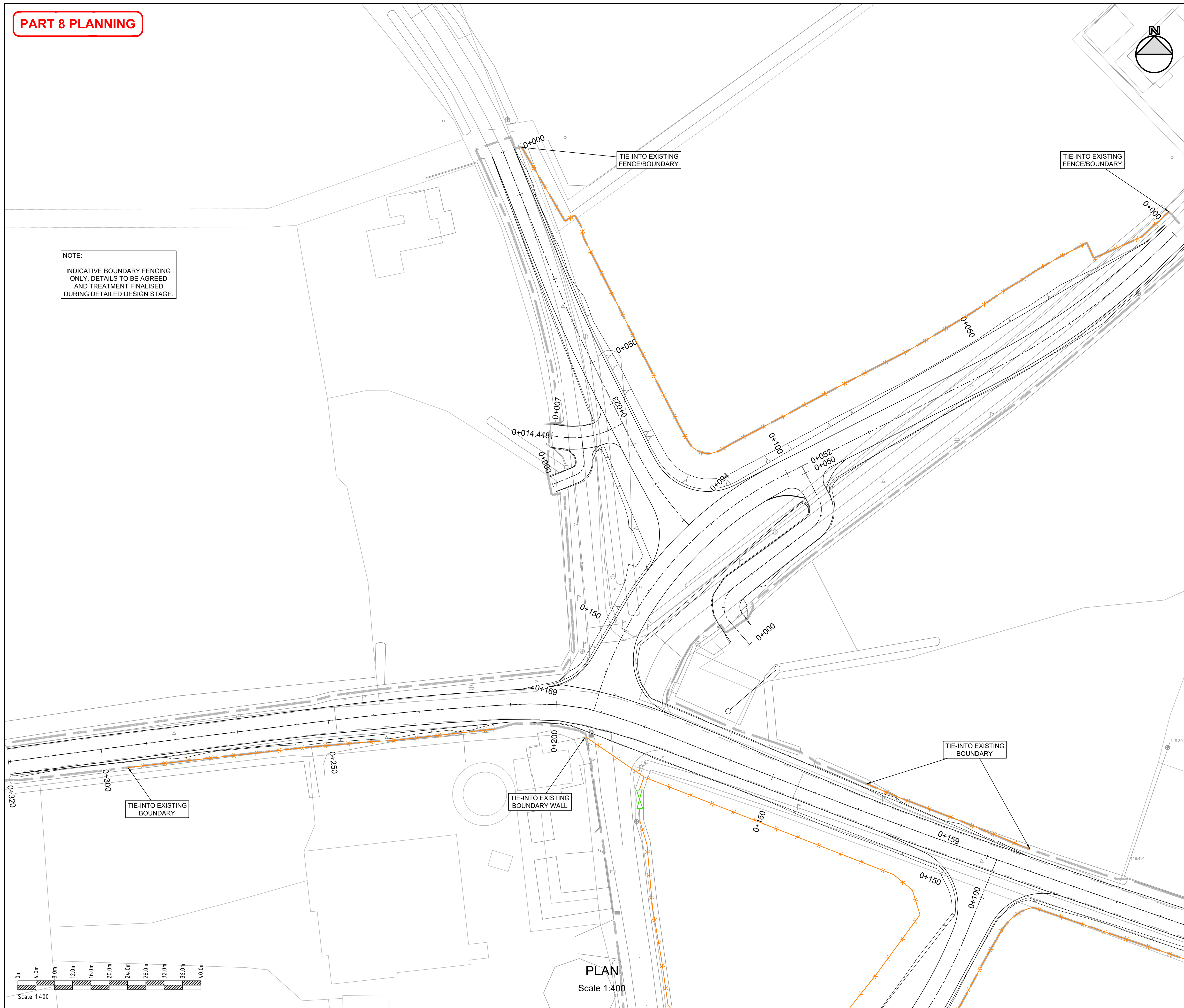
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DATE 22/05/2023	SCALE 1:400	REVISION P01
DRAWING NUMBER LCJU-CCC-SN-ZZ-DR-C-0002		



**PART 8 PLANNING**



NOTE:  
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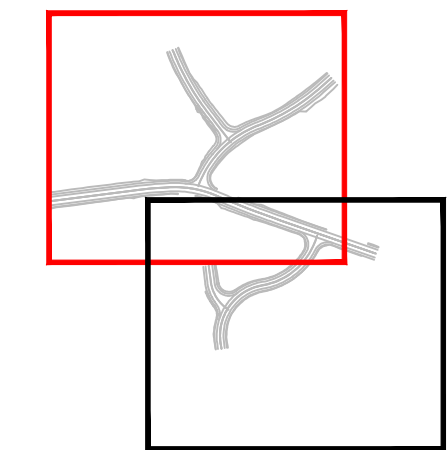
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**LEGEND**

- PROPOSED TIMBER POST AND TENSION MESH FENCING AS PER CC-SCD-00320
- PROPOSED STEEL SINGLE FIELD GATE AS PER CC-SCD-00309

**KEY PLAN**



REV	DATE	DESCRIPTION	BY	CHK	APD
P01	15/08/2023	PART 8 PLANNING	ZM	LT	AP
P00	08/08/2023	PART 8 PLANNING	MV	LT	AP

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PROJECT  
**LEES CROSS JUNCTION IMPROVEMENT SCHEME**

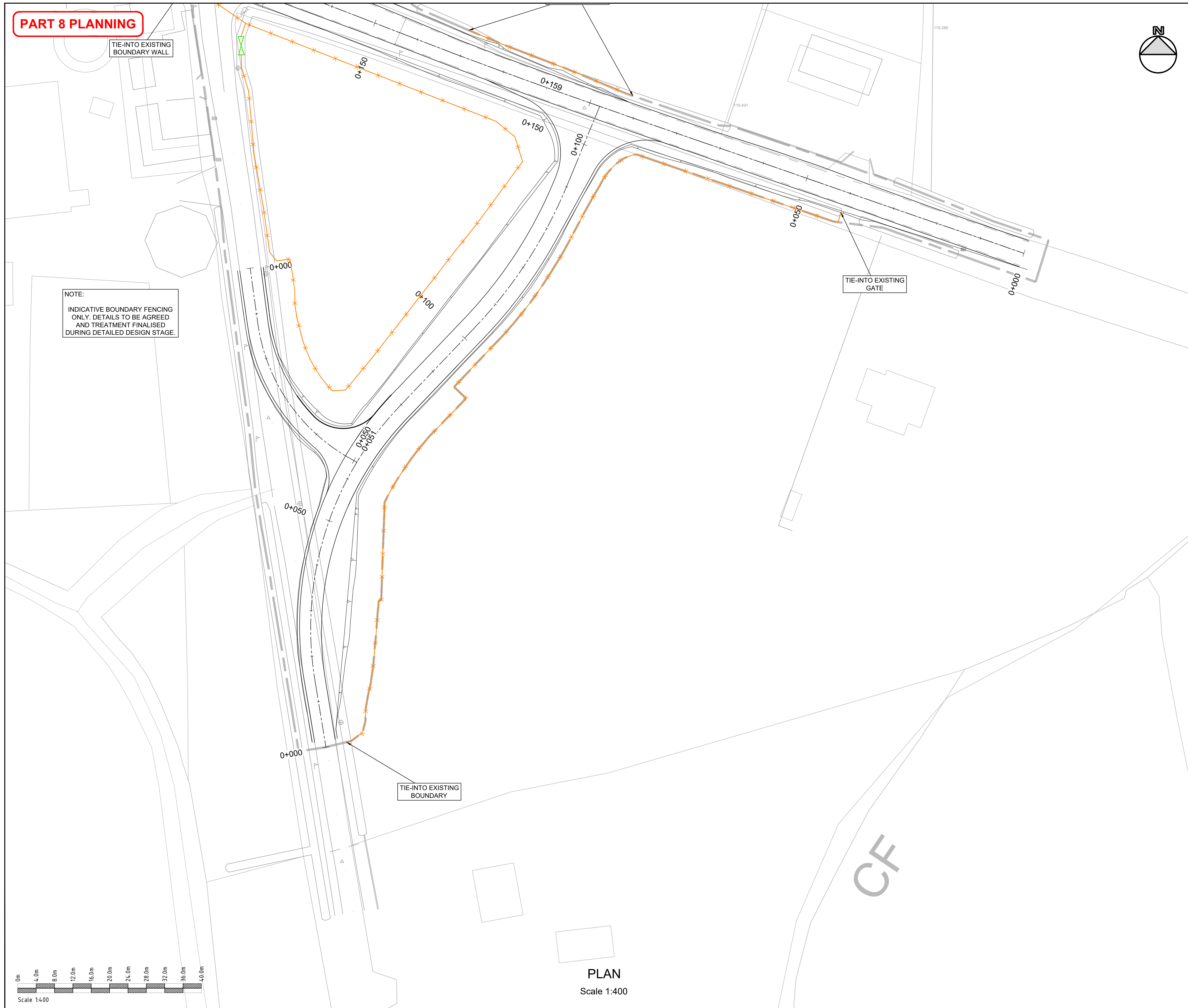
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**INDICATIVE BOUNDARY TREATMENT SHEET 1 OF 2**

PURPOSE OF ISSUE Planning	STATUS/STABILITY P1 - Planning	SHEET SIZE A1
DATE 08/08/2023	SCALE 1:400	REVISION P01

DRAWING NUMBER: **LCJU-CCC-FN-ZZ-DR-C-0001**



**PART 8 PLANNING**



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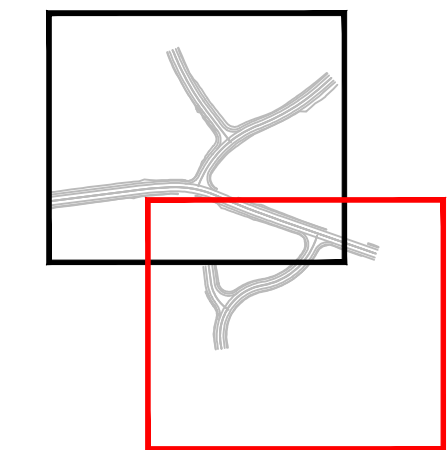
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**LEGEND**

- x — x — x — PROPOSED TIMBER POST AND TENSION MESH FENCING AS PER CC-SCD-00320
- x — x — x — PROPOSED STEEL SINGLE FIELD GATE AS PER CC-SCD-00309

**KEY PLAN**



REV	DATE	DESCRIPTION	BY	CHK	APD
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P00	08/08/2023	PART 8 PLANNING	MV	LT	AP

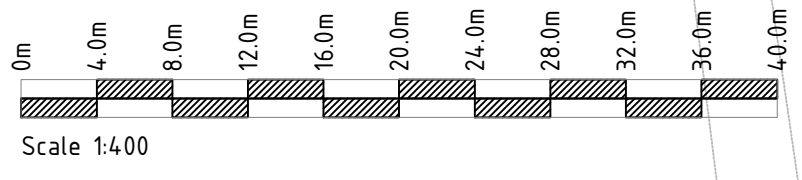
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**PROJECT**  
LEES CROSS JUNCTION IMPROVEMENT SCHEME

**DRAWING TITLE**  
INDICATIVE BOUNDARY TREATMENT SHEET 2 OF 2

PURPOSE OF ISSUE Planning	STATUS/STABILITY P1 - Planning	SHEET SIZE A1
DATE 08/08/2023	SCALE 1:400	REVISION P01

DRAWING NUMBER: LCJU-CCC-FN-ZZ-DR-C-0002

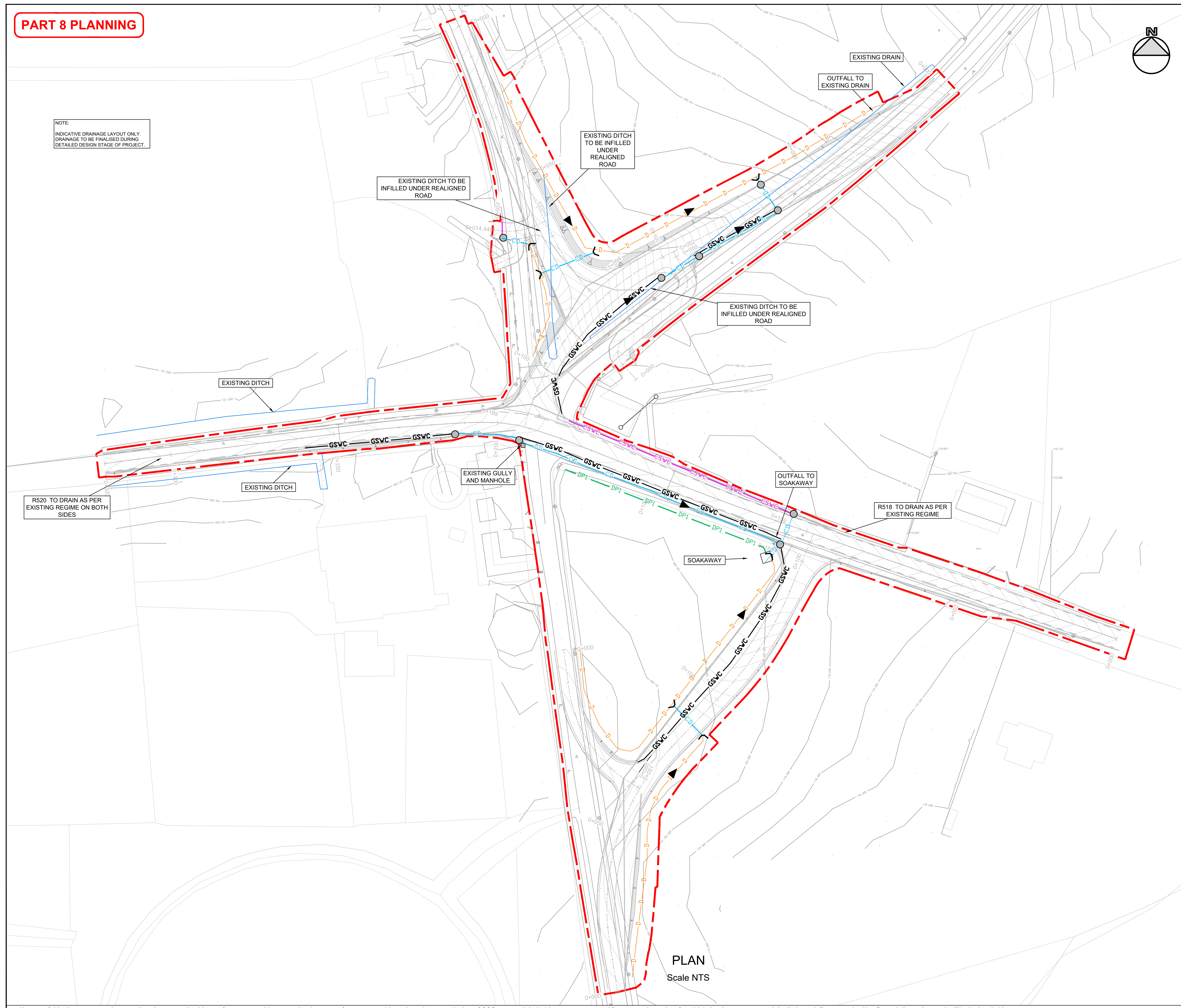
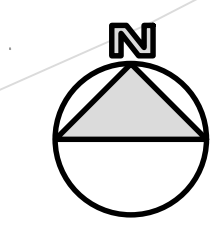


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**PART 8 PLANNING**

NOTE:  
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DETAILED DESIGN STAGE OF PROJECT.



PLAN  
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**LEGEND**

- Planning Extents Boundary
- Pre-earthworks Ditches  
See TII Publication No. CC-SCD-00602
- Lined Ditch  
See TII Publication No. CC-SCD-00602
- Ditch (Drain road over-the edge to ditch)  
See TII Publication No. CC-SCD-00602
- GSWC  
Grass surface Water Channel (and narrow filter drain)  
See DWG: CC-SCD-00104
- CSWC  
Concrete Surface Water Channel (and narrow filter drain)  
See DWG: CC-SCD-00103
- CD  
Carrier Drain  
See TII Publication No. CC-SCD-00521
- FD  
Filter Drain  
See TII Publication No. CC-SCD-00101
- NFD  
Narrow Filter Drain
- Swale
- Existing Ditch or Watercourse
- Area where Sealed Drainage is required
- Direction Flow Arrow
- Chamber
- Headwall  
See TII Publication No. CC-SCD-00553
- Check dam.
- Petrol/Oil Separator
- Gully & Gully Tail  
See TII Publication No. CC-SCD-00510
- KD  
Kerb Drain and Gully

P03	30/08/2023	PART 8 PLANNING	ZM	LT	AP
P02	15/08/2023	PART 8 PLANNING	ZM	LT	AP
P01	15/08/2023	PRELIMINARY	AP	LT	AP
P00	22/05/2023	PRELIMINARY	KK	LT	AP
REV	DATE	DESCRIPTION	BY	CHK	APD

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PROJECT  
**LEES CROSS JUNCTION  
IMPROVEMENT SCHEME**

DRAWING TITLE  
**INDICATIVE  
DRAINAGE LAYOUT**

PURPOSE OF ISSUE Planning	STATUS/SUBMITTAL P1 - Planning	SHEET SIZE A1
DATE 22/05/2023	SCALE AS SHOWN	REVISION P03

DRAWING NUMBER  
**LCJU-CCC-DD-ZZ-DR-C-0001**





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# APPENDIX B - APPROPRIATE ASSESSMENT SCREENING REPORT



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## Appropriate Assessment Screening

Lees Cross Junction Upgrade

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By: EMC Flynn Furney Environmental Consultants

For: Clandillon Civil Consulting

Date of Issue: 13/07/2023

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## 1. Introduction

This report comprises information in support of screening for Appropriate Assessment (AA) in line with the requirements of Article 6[3] of the EU Habitats Directive (EC 92/43/EEC) on the Conservation of Natural Habitats and of Wild Fauna and Flora; the Planning and Development (Amendment) Act 2010; and the European Union (Birds and Natural Habitats) Regulations 2011 as amended, for the upgrade of Lees Cross junction into staggered cross-roads.

This screening exercise aims to determine whether the proposed works have the potential to significantly impact upon the conservation objectives and overall integrity of any Natura 2000 sites. This assessment is based upon a desk study and field work carried out by suitably qualified ecologists. Also included is a general assessment of the ecological status of the site and the potential impacts of the proposed works on the ecology of the surrounding area, including Designated Sites.

The following definitions are used for the terms “impact” and “effect”:

**Impact** – Actions resulting in changes to an ecological feature, e.g. the construction activities of a development removing a hedgerow.

**Effect** – Outcome to an ecological feature from an impact, e.g. the effects on an animal population from loss of a hedgerow.

The Competent Authority is obliged to examine the likely significant effects individually or in combination, of the proposed development on European Designated Sites in light of their specific Qualifying Interests (QIs) and Conservation Objectives (COs). If AA screening determines that there is likely to be significant effects on one or more of these sites, or the impacts are uncertain, then full AA must be carried out for the proposed development, including the compilation of a Natura Impact Statement to inform the decision making.

For the purposes of this assessment, a “significant effect” is:

“...an effect that either supports or undermines biodiversity conservation objectives for ‘important ecological features’ ... or for biodiversity in general. Conservation objectives may be specific (e.g. for a designated site) or broad (e.g. national/local nature conservation policy) or more wide-ranging (enhancement of biodiversity).

Effects can be considered significant at a wide range of scales from international to local. A significant effect is an effect that is sufficiently important to require assessment and reporting so that the decision maker is adequately informed of the environmental consequences of permitting a project.

In broad terms, significant effects encompass impacts on structure and function of defined sites, habitats or ecosystems and the conservation status of habitats and species (including extent, abundance and distribution).”

- CIEEM Guidelines for Ecological Impact Assessment in the UK and Ireland (2018)

Sections 4 and 5 of the report comprises the AA Screening that specifically focuses on the potential for impacts on Natura 2000 sites deemed to be at risk from the proposed development.

## 2. Background to Screening for Appropriate Assessment

### 2.1. European Designated Sites

Sites designated for the conservation of nature in Ireland include:

- Special Areas of Conservation (SACs);
- Special Protection Areas (SPAs), and;
- Natural Heritage Areas (NHAs)

SPAs and SACs form the Natura 2000 network of sites. It is these sites that are of relevance to the screening process for this Appropriate Assessment Screening.

SPAs and SACs are prime wildlife conservation areas in the country, considered to be important on a European as well as Irish level. SPAs and SACs are designated under EU Habitats Directive, transposed into Irish law by the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011), as amended.

Natural Heritage Area (NHA) is the basic designation for wildlife in Ireland. These are areas considered important for their habitats or species of plants and animals whose habitat requires protection and are protected by the Wildlife (Amendment) Act of 2000.

All European Designated Sites (henceforth simply referred to as “Designated Sites”) that are connected to the proposed development were considered during the desktop study in order to assess the potential for significant effects upon their QIs and COs. This stage of the process is used to determine whether any of the Designated Sites can be regarded as not being relevant to the process of Appropriate Assessment of the project, having no potential to be significantly affected.

## 2.2. Legislative Context

The methodology for this screening statement is clearly set out in a document prepared for the Environment DG of the European Commission entitled ‘Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Article 6 paragraphs 3 and 4 of the Habitats Directive 92/43/EEC’ (Oxford Brookes University, 2001). This report and contributory fieldwork were carried out in accordance with guidelines given by the Department of Environment, Heritage and Local Government (2009, amended February 2010).

The assessment process is given in Articles 6[3] and 6[4] of the Habitats Directive and is commonly referred to as “Appropriate Assessment” or AA.

Article 6 of the Habitats Directive sets out provisions which govern the conservation and management of Natura 2000 sites. Article 6[3] and 6[4] of the Habitats Directive set out the decision-making tests for plans and projects likely to affect Natura 2000 sites (Annex 1.1). Article 6[3] establishes the requirement for Appropriate Assessment:

“Any plan or project not directly connected with or necessary to the management of the [Natura 2000] site but likely to have a significant effect thereon, either individually or in combination with other plans and projects, shall be subjected to appropriate assessment of its implications for the site in view of the site’s conservation objectives. In light of the conclusions of the assessment of the implication for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.”

Article 6[4] continues:

“If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted. Where the site concerned hosts a priority natural habitat type and/or a priority species the only considerations which may be raised are those relating to human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest.



It is the responsibility of the proponent of the plan or project to provide the relevant information (ecological surveys, research, analysis etc.) for submission to the 'competent national authority'. If satisfied that the information is complete and objective, the competent authority will use this information to screen the project, i.e. to determine if an AA is required and to carry out the AA, if one is deemed necessary. The competent authority shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned."

The appropriate assessment process has four stages. Each stage determines whether a further stage in the process is required. If, for example, the conclusions at the end of Stage One are that there will be no significant impacts on the Natura 2000 site, there is no requirement to proceed further. The four stages are:

1. Screening to determine if an appropriate assessment is required;
2. Appropriate assessment;
3. Consideration of alternative solutions, and;
4. Imperative reasons of overriding public interest/derogation.

### **Stage 1: Screening for AA**

This report provides a stage one Screening for Appropriate Assessment. It aims to establish whether the plan or project is directly connected with or necessary to the management of Designated Sites; or in view of best scientific knowledge, if the plan or project, individually or in combination with other plans or projects, is likely to have a significant effect on a Designated Site. This is done by examining the proposed plan or project and the COs of any Designated Sites that might potentially be affected.

The study is based on a preliminary impact assessment using both publicly available data and data collected during site surveys. This is followed by a determination of whether there is a risk that the effects identified could significantly impact any Natura 2000 sites, and if so an Appropriate Assessment (AA) is required. The need to apply the precautionary principle in making any key decisions in relation to the tests of AA has been confirmed by European Court of Justice case law. Therefore, where significant effects are likely, possible or uncertain at screening stage, a stage two AA will be required.

## 3. Methodology

### 3.1. Desk Study

A desktop study was carried out as part of this screening process to gain an understanding of the surrounding human and natural environments. This included a review of available data from a range of sources on the site and its immediate environs.

### 3.2. Data Used To Carry Out The Assessment

The following sources of data were employed:

- Environmental Protection Agency (EPA) Appropriate Assessment Tool;
- EPA Maps (to identify watercourses, hydrology and Natura 2000 site boundaries);
- NPWS protected species database and online mapping;
- The Geological Survey of Ireland hydrological and lidar data and map viewer;
- The National Biodiversity Data Centre archives;
- Inland Fisheries Ireland, and;
- An Bord Pleanála's online database

### 3.3. SPR Model

This assessment was carried out using the source-pathway-receptor (SPR) approach, a standard tool in environmental assessment. The SPR concept in ecological impact assessment relates to the idea that for the risk of an impact to occur, a source is needed (e.g. a development site); an environmental receptor is present (a lake); and finally there must a pathway between the source and the receptor (a watercourse linking the development site to the lake). Even though there might be a risk of an impact occurring, it does not necessarily mean that it will occur, and in the event that it does occur, it may not have significant effects on the receiving environment. Identification of a risk means that there is a possibility of ecological or environmental damage occurring, with the level and significance of the impact depending upon the nature and exposure to the risk and the characteristics of the receptor.

In this instance, the most relevant receptors are any relevant Natura 2000 sites with connectivity of the proposed works. These were considered during the desktop study stage of this screening assessment in order to assess the potential for significant effects upon their QIs and COs.

### 3.4. Field Survey

The field survey was carried out on the 15<sup>th</sup> of June. Baseline ecological conditions were assessed. Habitats were classified according to A Guide to Habitats in Ireland (Fossitt, 2000). Where applicable, the habitat types and species usage were recorded (Smith et al. 2011; Scannell and Synnott, 1987; Wyse Jackson et al. 2016). Habitats were classified and dominant plant species noted according to the guidelines given by

the JNCC (2010) with reference to best practice guidance for habitat survey and mapping (Smith et al., 2011) and Census Catalogue of the Flora of Ireland (Scannell & Synnott, 1987).

## **4. Screening of Designated Sites**

### **4.1. Site Location**

The proposed site of upgrade is located in -8.8160787,52.4457584 (WGS84 standard). The junction to be upgraded is known as Lees Cross, Co. Limerick, which is currently a five-arm junction. The distance between the site and the closest towns is approximately 16km from Newcastle West and 17km from Kilamallock. The works will include an upgrade from the current five-arm junction to staggered crossroads, this road will go through private land. The land use around the junction mainly consists of agricultural fields and domestic dwellings.





*Figure 1.1: Overview of current five-arm junction. (Provided by Clandillon Civil Consultants)*



Figure 1.2: Overview of the general works area (staggered crossroads). (Provided by Clandillon Civil Consultants)

## 4.2. Receiving Environment

A description of the habitats of significant ecological value that were observed within the immediate surroundings of the works area are listed below, with descriptions adapted from “A Guide to Habitats in Ireland” by Julie A. Fossitt, 2000.

A description of the habitats of significant ecological value that were observed within the immediate surroundings of the works area are listed below. Details of each habitat found can be found in Appendix II which breaks down each habitat found in the proposed works area.

### Hedgerows (WL1)

Linear strips of shrubs, often with occasional trees, that typically form field or property boundaries. Most hedgerows originate from planting, and many occur on raised banks of earth that are derived from the excavation of associated drainage ditches. This habitat was found consistently throughout the survey with both managed and unmanaged hedgerows. One mature hedgerow was identified with a few other dense hedgerows, some with moderate species diversity. Details of these hedgerows can be found in Appendix II.

### Improved Agricultural Grassland (GA1)

This category is used for intensively managed or highly modified agricultural grassland that has been reseeded and/or regularly fertilised and is now heavily grazed and/or used for silage making. This habitat is common in the area.

### Treelines (WL2)

A treeline is a narrow row or single line of trees that is greater than 5 m in height and typically occurs along field or property boundaries. This category includes tree-lined roads or avenues, narrow shelter belts with no more than a single line of trees, and overgrown hedgerows that are dominated by trees. Two treelines were identified during the survey. Details of these treelines can be found in Appendix II.

### Scrub (WS1)

This broad category includes areas that are dominated by at least 50% cover of shrubs, stunted trees or brambles. The canopy height is generally less than 5 m. One hedgerow present in the survey area transitions into a scrub area further down. Details can be found in Appendix II.

#### 4.2.1. Surface water

The closest watercourse around the site of upgrade is West Liskennett\_010 which is approximately 200m east of Lees Cross. This watercourse has a downstream water quality status of ‘Good’ and flows



eventually into the Lower Shannon SAC (002165) (25.2km hydrologically) and River Shannon and River Fergus Estuaries SPA (002165) (34.7km hydrologically).

#### 4.2.2. Groundwater

Groundwater vulnerability is a term used to represent the natural ground characteristics that determine the ease with which infiltrating water and potential contaminants may reach groundwater in a vertical or sub-vertical direction. Subsoil permeability indicates how readily water from the surface can permeate through to the groundwater below.

The site is located in the Shannon Estuary South catchment and Maigne\_SC\_040 sub catchment. The groundwater vulnerability for the site is moderate and low. The subsoil vulnerability for the site is low and moderate. There are no pathways and or weaknesses to any designated sites through groundwater.



Figure 3: Groundwater vulnerability of surrounding area.



Figure 4: Subsoil permeability of surrounding area.



#### 4.2.3. Breeding Birds

All species of wild bird that occur naturally in Ireland are fully protected at all times by the Wildlife Act and relevant amending legislation. Similarly, all birds naturally occurring in the wild state are afforded a measure of protection by the EU Birds Directive but derogations may reduce protection for specific reasons. As such, any vegetation clearance must be carried out outside of the bird nesting season (March 1st - August 31st).

A breeding birds survey was deemed unnecessary to carry out for the proposed project, based on planned works and habitats present. However, birds seen and heard were recorded during the survey. These species included Thrush (*Turdidae spp.*), Rook (*Corvus frugilegus*), Jackdaw (*Corvus monedula*), Goldcrest (*Regulus regulus*), Swallow (*Hirundo rustica*), Robin (*Erithacus rubecula*), Blue Tit (*Cyanistes caeruleus*), Starling (*Sturnus vulgaris*), Wren (*Troglodytes troglodytes*), Song Thrush (*Turdus philomelos*), House Sparrow (*Passer domesticus*) and Magpie (*Pica pica*).

#### 4.2.4. Amphibians

There are no areas that could support amphibians on the proposed site. An amphibian specific survey was not deemed necessary based on the works and habitats present.

#### 4.2.5. Mammals

No evidence of mammals or mammal refugia were found during the survey. The presence of agricultural fields and hedgerows would support mammals locally.

#### 4.2.6. Aquatic Fauna

The proposed site is not within close proximity to any watercourses. Therefore, no aquatic fauna were identified.

#### 4.2.8. Invertebrates

No invertebrates of note were observed or features that could support invertebrate populations.

#### 4.2.9. Invasive Species

The Wildlife Acts, 1976 and 2000, contain a number of provisions relating to invasive non-native species (INNS), covering several sections and subsections of the Acts. It is prohibited, without licence, to plant or otherwise cause to grow in a wild state, in any place in the State, any species of flora, or the flowers, roots, seeds or spores of invasive flora listed on the Third Schedule. Articles 49 and 50 of the aforementioned Acts set out the legal implications associated with alien invasive species and Schedule 3 (the Third Schedule) of the regulations lists non-native species subject to the restrictions of Articles 49 and 50, which make it an offence to plant, disperse, allow dispersal or cause the spread of invasive species.

No Third Schedule species were found. An INNS Management Plan is not required.

### 4.3. Proposed Works

**Existing:**

Lees Cross is a five-arm junction, located in Ballynashig, approximately 4.5km south of Ballingary, in Co. Limerick. The junction is on the border between the Newcastle West and Adare-Rathkeale Municipal Districts. The main route through the junction is the R520 –R518 carriageway, connecting Newcastle West town with the N20 and Killamallock town.

The speed limit on this section of road is 80 km/h. This carriageway intersects with the R518 from the north-west, the L1210 from the north, and the L-1211 from the south. The road is approximately 6m wide, varying on each arm. There are no footpaths on any of the arms. The road lining along these sections consists of solid and broken white lines for centre lines. There are yellow dashed lines at the regional road edges.

**Proposed:**

The proposed design, which can be seen on drawing LCJU-CCC-GA-ZZ-DR-C-0001, seeks to separate the existing five-arm junction into two staggered T-junctions.

The R518/R520 referred to as Alignment 1 will remain on its existing alignment with some verge widening works to increase visibility from the re-aligned junctions. It will also be re-surfaced.

The R518 Ballingary Road from the north-west referred to as Alignment 3 will connect to the L-1210 Granagh Road to the east creating a new T-junction. This will then create a single approach road instead of 2 as it joins Alignment 1. The properties entrances will be extended to meet the new re-aligned roads.

The L-1211 Castletown Road referred to as Alignment 7 will be moved east to create a new junction with alignment 1. The existing L-1211 will then become an access to the property and farm only with no through access to the R518.

A combination of verge side drainage in the form of filter drains and grassed surface water channels and interceptor ditches at the toe of embankments will be used to drain the roads. There will be new road markings and signage also.



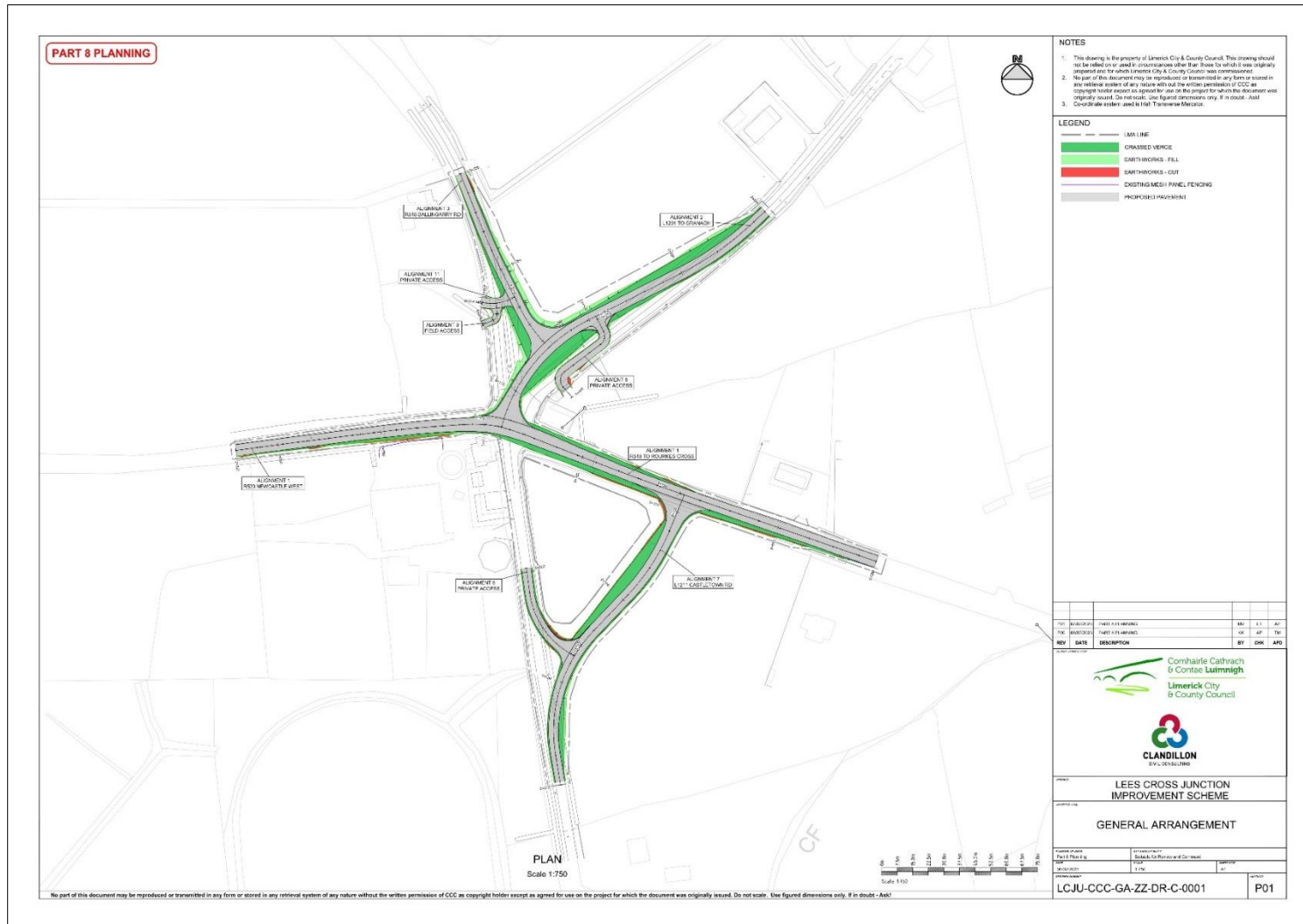


Figure 5: Staggered Crossroads (Provided by Clandillon Civil Consulting)

#### 4.4. Works, Site Characteristics And Risks To The Environment

The principal risks posed from the project relate to surface water discharge from the site during the proposed works that may impact on the water quality of the receiving environment. Leading to likely significant effects (LSE) to any QIs or Site(s) of Community Importance (SCI) species.

*Table 1: Potential impacts, effects and their zone of influence*

Potential Impact and Effect	Description	Zone of Influence
Land-take of resulting in habitat loss or degradation.	The permanent loss of the habitats present in the footprint of the development sites and access routes.	Lands within the proposed footprint of works and access routes to these developments.
Changes in water quality and quantity/distribution resulting in habitat loss or degradation.	Reduction in the quality of retained habitat or loss of habitat from surrounding areas as a result of surface water or groundwater pollution.	Changes in surface water quality within the local water courses or surface water bodies as a result of works associated with the proposed development.

#### 4.5. Nearby Designated Sites

The nearest designated sites to the works area are listed below in table 2 along with the details of the site's Qualifying Interests (QIs) and any potential impacts.

Table 2 below provides summaries of LSE to these designated sites based on the Source – Pathway – Receptor Assessment methodology.



Table 2: Designated Sites near the proposed project.

Site Name and Code	Qualifying Interests (* denotes a priority habitat)	Conservation Objectives	Distance (m)	Connectivity to Project
Tory Hill SAC (000439)	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites) [6210] Calcareous fens with <i>Cladium mariscus</i> and species of the Caricion davallianae [7210] Alkaline fens [7230]	To restore the favourable conservation condition of Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites) in Tory Hill SAC To maintain the favourable conservation condition of Calcareous fens with <i>Cladium mariscus</i> and species of the Caricion davallianae* in Tory Hill SAC To restore the favourable conservation condition of Alkaline fens in Tory Hill SAC	12521	No Connectivity.
Lower Shannon SAC (002165)	Sandbanks which are slightly covered by sea water all the time [1110] Estuaries [1130] Mudflats and sandflats not covered by seawater at low tide [1140] Coastal lagoons [1150] Large shallow inlets and bays [1160] Reefs [1170] Perennial vegetation of stony banks [1220] Vegetated sea cliffs of the Atlantic and Baltic coasts [1230] Salicornia and other annuals colonising mud and sand [1310] Atlantic salt meadows (Glauco-Puccinellietalia maritima) [1330]	See 'Conservation Objectives Series: Lower Shannon SAC 002165' (NPWS ,2012)	25284 (Hydrological Distance)	No Connectivity.

	<p>Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410]  Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation [3260]  Molinia meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>) [6410]  Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padion, Alnion incanae, Salicion albae) [91E0]  <i>Margaritifera margaritifera</i> (Freshwater Pearl Mussel) [1029]  <i>Petromyzon marinus</i> (Sea Lamprey) [1095]  <i>Lampetra planeri</i> (Brook Lamprey) [1096]  <i>Lampetra fluviatilis</i> (River Lamprey) [1099]  <i>Salmo salar</i> (Salmon) [1106]  <i>Tursiops truncatus</i> (Common Bottlenose Dolphin) [1349]  <i>Lutra lutra</i> (Otter) [1355]</p>			
<p>River Fergus Estuaries SPA (002165)</p>	<p>Cormorant (<i>Phalacrocorax carbo</i>) [A017]  Whooper Swan (<i>Cygnus cygnus</i>) [A038]  Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046]  Shelduck (<i>Tadorna tadorna</i>) [A048]  Wigeon (<i>Anas penelope</i>) [A050]  Teal (<i>Anas crecca</i>) [A052]  Pintail (<i>Anas acuta</i>) [A054]  Shoveler (<i>Anas clypeata</i>) [A056]</p>	<p>See 'Conservation Objectives Series: River Shannon and River Fergus Estuaries SPA 004077' (NPWS ,2012)</p>	<p>34774.83 (Hydrological Distance)</p>	<p>No Connectivity.</p>



	<p>Scaup (<i>Aythya marila</i>) [A062]          Ringed Plover (<i>Charadrius hiaticula</i>) [A137]          Golden Plover (<i>Pluvialis apricaria</i>) [A140]          Grey Plover (<i>Pluvialis squatarola</i>) [A141]          Lapwing (<i>Vanellus vanellus</i>) [A142]          Knot (<i>Calidris canutus</i>) [A143]          Dunlin (<i>Calidris alpina</i>) [A149]          Black-tailed Godwit (<i>Limosa limosa</i>) [A156]          Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157]          Curlew (<i>Numenius arquata</i>) [A160]          Redshank (<i>Tringa totanus</i>) [A162]          Greenshank (<i>Tringa nebularia</i>) [A164]          Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179]          Wetland and Waterbirds [A999]</p>			
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It must be noted that there may be inaccuracies with some of the boundaries of Designated Sites on NPWS digital mapping and so the SAC and SPA boundaries used for this assessment are interpreted based on available data.

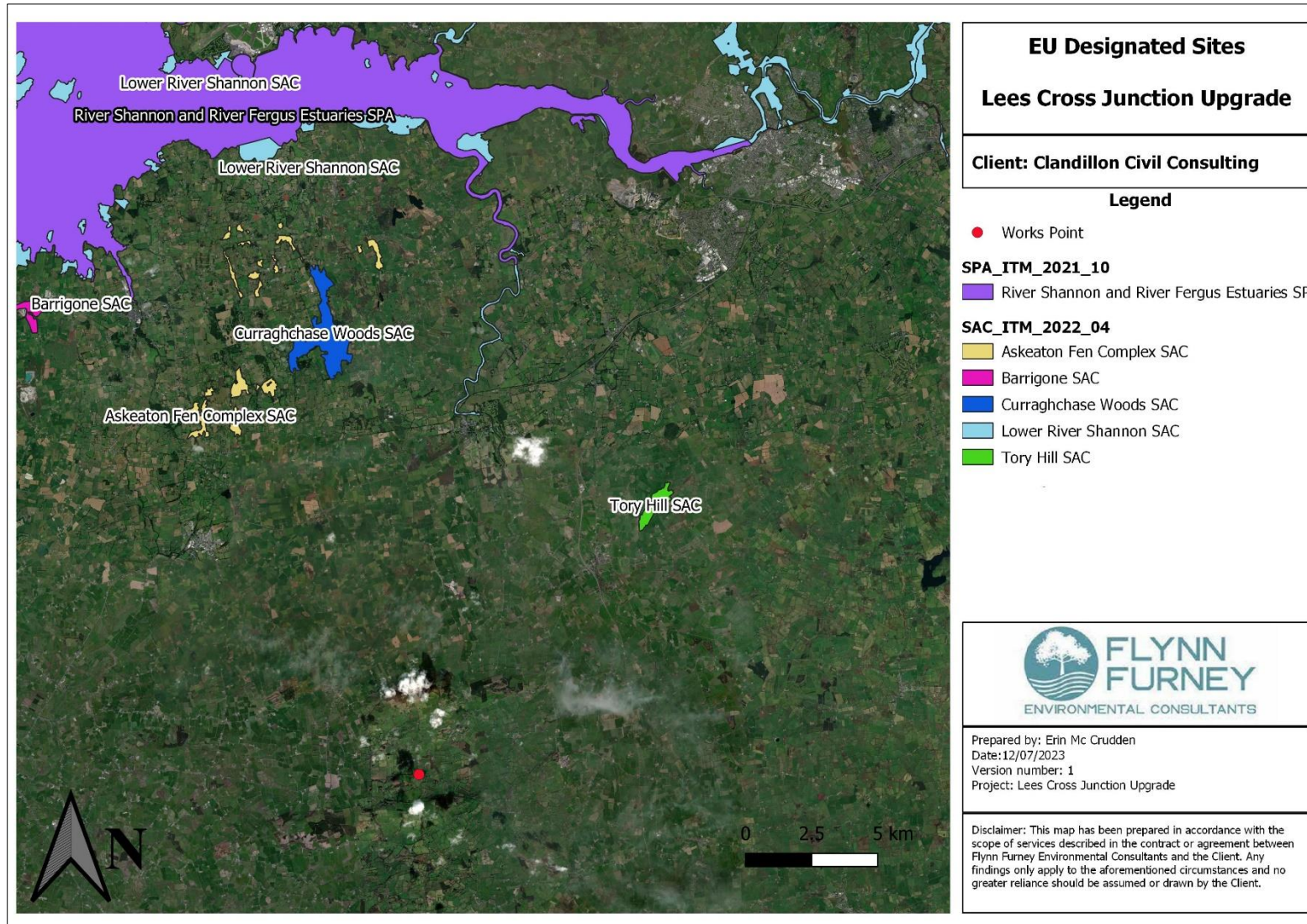


Figure 6: Proximity of the works to the nearby SACs and SPAs.



## 5. Assessment Criteria

### 5.1. Relation To Management Of Nearby Designated Site(s)

The proposed project is not necessary to or connected with the management of any Designated Sites.

### 5.2. Direct Or Indirect Impacts

Applying the concept of the source-pathway-receptor model, there is no potential for direct/indirect impacts on nearby Designated Sites due to the lack of connectivity.

#### 5.2.1. Surface and groundwater pollution

There are no risks to any Designated Sites based on hydrological connectivity. The closest river is 200m away and is not connected to the site of works. There will be no impact to any designated sites due to a lack of connectivity.

#### 5.2.3. Construction/installation of infrastructure and potential QI habitat loss

The infrastructure will not impinge on sensitive receptors, e.g. supporting ecological features, Designated Sites or their QIs.

#### 5.2.4. Invasive Species

No third schedule species were identified. There will not be any spread of invasive species to designated sites through the works.

### 5.3. Cumulative And Incombination Impacts

A search of the Limerick County Council planning registers was carried out on the 13 July 2023. Most applications relate to alterations, extensions and change of use to existing buildings, along with construction and retention of small-scale housing developments. A larger recent development includes the construction of farm buildings locally.

An example can be seen of this is seen with planning reference 16456 in 2016. This development was for (1) a new silage slab, (2) a new calf house, (3) a slatted tank and shed to replace existing slurry channel and associated works.

#### **5.4. Likely Changes To The Designated Site(s)**

No Designated Sites will be affected or changed in any way, good or bad, by the proposed development.



*Table 3: Likely changes to nearby Designated Sites.*

Site Name And Code	Reduction Of Habitat Area	Disturbance To Key Species	Habitat Or Species Fragmentation	Reduction In Species Density	Changes In Key Indicators Of Conservation Value (Water Quality, etc.)	Possible Impacts Related To Climate Change?
Tory Hill SAC (000439)	None	None	None	None	None	None
Lower Shannon SAC (002165)	None	None	None	None	None	None
River Fergus Estuaries SPA (002165)	None	None	None	None	None	None

## 6. Screening Conclusions

This report presents the information for the relevant authority, Limerick County Council, to carry out a screening for AA. A recommendation that a stage II is/is not required is made below, based on the findings of this assessment, which are summarised in Table 4. It is for the relevant authority to reach one of the following conclusions:

- (i) A stage II AA of the proposed development is required if it *cannot* be excluded, on the basis of objective information, that the proposed development, individually or in combination with other plans or projects, will not have a significant effect on any European Designated Sites.
- (ii) A stage II AA of the proposed development is not required if it *can* be excluded, on the basis of objective information, that the proposed development, individually or in combination with other plans or projects, will not have a significant effect on any European Designated Sites.

*Table 4: Assessment of likely effects on any Designated Sites*

<b>Assessment of Likely Effects</b>	
<b>Size and scale</b>	There will be no impact on any Natura 2000 sites owing to size or scale of the proposed works.
<b>Land-take</b>	No work will take place within the boundary of any Natura 2000 site. As such land-take is nil.
<b>Distance from the Natura 2000 site or key features of the site;</b>	The nearest Natura 2000 sites to the proposed development are Tory Hill SAC (000439) (12.5km), Lower River Shannon SAC (002165) (25.3km hydrologically from the site) and River Shannon and River Fergus Estuaries SPA (004077) (34.8km hydrologically from the site). There will be no impact due to lack of connectivity.
<b>Resource requirements (water abstraction etc.);</b>	No materials for construction will be sourced from within any Natura 2000 site. No water will be abstracted from any designated site.
<b>Emissions (disposal to land, water or air);</b>	There will be no additional emissions to land, air or water beyond those typical of any small road project. No emissions are likely to have any likely significant effects upon the conservation objectives of the SAC or SPA.
<b>Excavation requirements;</b>	No excavation or extraction requirement exists within the boundary of any designated site or in areas with hydrological connectivity to any designated site.
<b>Transportation requirements;</b>	Site has existing access. No other means of access will be required during any phase of the project that would impact upon any Designated Sites.



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<b>Duration of construction, operation, etc.;</b>	Duration of works are not known at time of writing.
<b>Timing of works</b>	Yet unknown. However, given the scale, location and nature of the proposed development, no impacts on protected species or habitats are predicted as a result of the proposed timing of works.
<b>Cumulative or In-combination Impacts with other Projects and Plans</b>	A desktop planning application search, using publicly available data. No projects that could have cumulative or in combination impacts with the proposed works were found.

Based on the available information gathered during field and desk surveys, it is the professional opinion of the author that the likelihood of significant impacts arising from the proposed development on all European Designated Sites can be ruled out on the basis of a lack of connectivity.

Therefore, it is the conclusion of this report that the proposed development will not have a significant effect on any European Designated Sites and progression to a stage II appropriate assessment is not required.

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## Appendix I: Photos

Figure no.	Description	Image

## Appendix II: Details of Survey



1 Scrub/Hedgerow		2 Hedgerow (managed) on earth bank		3 Dense hedgerow		4 Mature Hedgerow
1a Tree line				Cut on roadside		
Hearts tongue fern	Hawthorn	Honeysuckle (european)	Hawthorn	Wild privet	Hawthorn	Hazel
Bittersweet	Blackthorn	Creeping buttercup	Ash	Honeysuckle (european)	Ash	Hawthorn
Meadow Pea	Ash	Hearts tongue fern		Briar	Sycamore	Blackthorn
Cocksfoot	Sycamore	Cow parsley		Ivy	Laurel (house)	Ash
Willow herb		Briar		Dog Rose		Elder
Cow parsley		Cow parsnip		Greater periwinkle		
Briar		Herb Robert				
Bush vetch		Nettle				
Nettle		Yarrow				
Cow parsnip		Ivy				
Dock						
Cleavers						
Creeping thistle						
Hedge woundwort						
Creeping buttercup						
Herb Robert						
Dog Rose						



5 Managed hedgerow		6 Managed hedgerow		7 Managed hedgerow		8 Cypress hedge at House	
		<2m wide		GA1 side overgrown, reverting to scrub Drain appears to soak away		Cut hawthorn hedge to cross with immature ash and cherry.	
Hearts tongu	Hawthorn	Bush vetch	Hawthorn	Cow parsley	Salix sp.	<b>8a Meadow</b>	
Briar	Blackthorn	Male fern	Ash	Briar	Hawthorn		
Cleavers		Wild privet		Cow parsnip	Ash		Foxtail
Herb Robert		Briar		Cleavers	Sycamore		Cocksfoot
Dog Rose		Meadowsweet		Dog Rose			Creeping buttercup
Nettle		White clover		Dock			Scarlet pipernell
Ivy		False tall oat grass		False tall oat grass			Dock
		Cocksfoot		Cocksfoot			False oat grass
		Nettle		Nettle			
		Dog Rose		Creeping thistle			
		Honeysuckle (european)		Common marsh bedstraw			
		Creeping buttercup		Hairy willow herb			
		Wild privet		Honeysuckle (european)			
		Cow parsley		Yellow flag iris			
		Cow parsnip					
		Cleavers					
		Broad leaved plantain					
		Dandelion					
		Greater speddwell					
		Yellow flag iris					

9 Managed hawthorn hedg		10 Unmanaged hedgerow		11 Tree line	
along maedow		House at end under refurb. Some pbh.		Ditch on road side to 1st entrance	
<b>9a Dense hedgerow</b>		Briar	Hazel	Hearts tongu	Beech
		Cocksfoot	Hawthorn	Cow parsley	Ash
Briar	Hawthorn	Nettle	Blackthorn	Briar	Holly
Dog Rose	Sycamore	Mature	Cow parsnip	Ash	Cow parsnip
Wild privet	Ash		Hedge woundwort		Herb Robert
Cow parsley			Ivy		Dock
Horsetail			Vetch sp.		Willow herb
Creeping thistle			Cow parsley		Ivy
			Creeping thistle		Male fern
			Yellow flag iris		

# APPENDIX C - ENVIRONMENTAL IMPACT ASSESSMENT SCREENING REPORT



# LEES CROSS JUNCTION IMPROVEMENT SCHEME

Environmental Impact Screening Report

LCJU-CCC-EN-ZZ-EN-RP-0001



Client: Limerick City and County  
Council  
Date: 17/08/2023

[www.c3.ie](http://www.c3.ie)





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### Issue and revision record

Date	Rev	Change Description	Author	Checker	Approver
17/08/2023	P03	Part 8 Planning Submission	DF	HS	AP

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### Detailed Change Log

Rev	Change Description
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## 1. Introduction

Limerick City and County Council have appointed Clandillon Civil Consulting to provide technical consultancy services, to develop Lees Cross Junction Improvement Scheme. Lees Cross is a five-arm junction as shown in **Figure 1**, located in Ballynashig, approximately 4.5km south of Ballygary, in Co. Limerick. The junction is on the border between the Newcastle West and Adare-Rathkeale Municipal Districts. The main route through the junction is the R520 – R518 carriageway, connecting Newcastle West town with the N20 and Kilmallock town. The speed limit on this section of road is 80 km/h. This carriageway intersects with the R518 from the north-west, the L1210 from the north, and the L-1211 from the south.

The proposed design seeks to separate the existing five arm junction into two staggered T-junctions.

*Figure 1: Scheme Location*



## 2. Legislation and Guidance

### 2.1 Introduction

This section describes the relevant European and National Legislation and guidance for this EIA Screening Report.

### 2.2 Overview of Legislation and Guidance

#### 2.2.1 Introduction

The current requirements for EIA for projects are set out by the European Union in Council Directive 2011/92/EU on the Assessment of the Effects of Certain Public and Private Projects on the Environment as amended by Directive 2014/52/EU. Further details are provided in Section 2.2.2 below.

The Planning and Development Acts 2000 to 2022 and the Planning and Development Regulations 2001 to 2022 were both amended by the European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 (SI No. 296 of 2018) to take account of the requirements of the EIA Directive (Directive 2014/52/EU).

Section 172 of the Planning and Development Acts 2000 to 2022 sets out the requirement for EIA whilst the prescribed classes of development and thresholds that trigger a mandatory EIA are set out in Schedule 5 of the Planning and Development Regulations 2001 to 2022 and Section 50 of the Roads Act (1993 to 2015). Further details are provided in Section 2.2.6 below.

Section 103 of the Planning and Development Regulations 2001 to 2022 and Section 50(1)(b) and 50(1)(c) of the Roads Act 1993 to 2015 sets out the requirements for screening a sub-threshold development for EIA. Further details are provided in Section 2.2.6 below. Finally, the information to be provided by the applicant or developer for the purposes of screening sub-threshold development for EIA is set out in Schedules 7 and 7A of the Planning and Development Regulations 2001 to 2022. Further details are provided in Section 2.2.6 below.

A review of the above legislation was undertaken for the purpose of this EIA screening report and is further analysed in the sections below. The following guidance and consultation documents have also been considered during the preparation of this report:

- Department of Housing, Planning, Community and Local Government (2018) Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment (August 2018);
- Department of Housing, Planning, Community and Local Government (2017) Transposition of 2014 EIA Directive (2014/52/EU) in the Land Use Planning and EPA Licencing Systems;
- Department of the Environment, Heritage and Local Government (2003) Environmental Effect Assessment (EIA) Guidance for Consent Authorities regarding Sub-Threshold Development;
- Environmental Protection Agency (2022) Guidelines on the Information to be contained in Environmental Impact Assessment Reports;
- European Commission (2017) Guidance on EIA Screening;
- European Commission (2015) Interpretation of definitions of project categories of Annex I and II of the EIA Directive;
- Environmental Planning of National Road and Greenway Projects (RE-ENV-07008) (2023)

## 2.2.2 EIA Directive

EIA Directive 2014/52/EU provides criteria that are applied in the screening phase to determine if a development is likely to have a significant effect on the environment. The criteria are as follows:

- the **Characteristics of the Projects**, which must be considered having regard to the size and design of the whole Project, the cumulation with other existing and/or approved Projects, the use of natural resources, the production of waste, pollution and nuisances, and the risk of major accidents and/or disasters and the risks posed to human health.
- the **Location of the Projects**, so that the environmental sensitivity of geographic areas likely to be affected by Projects must be considered, having regards to the existing and approved land use, the relative abundance, availability, quality and regenerative capacity of natural resources and the absorption capacity of the natural environment in particular.
- **Type and Characteristics of the potential impact** with regards to the impact of the Project on the environmental factors specified in Article 3(1).

The characteristics of the project, its location and potential impact are described and assessed in Sections 3 – 8 of this report.

## 2.2.3 Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment

The European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 (S.I. No. 296 of 2018) have transposed Directive 2014/52/EU and are incorporated into the Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment (the Guidelines). Chapter 3 of these Guidelines deals with the EIA Screening process.

As referred to in Section 3.5 of the Guidelines, the EIA Screening process is based on professional expertise and experience, having due regard to the 'Source – Pathway – Target' (SPT) model, which identifies the source of likely significant impacts, if any, the environmental factors (target) which will potentially be affected, and the route (pathway) along which those impacts may be transferred from the source to the receiving environment.

As per Section 3.1 of the Guidelines, the screening determination *"is a matter of professional judgement, based on objective information relating to the proposed project and its receiving environment. Environmental effects can, in principle, be either positive or negative"*.

The EIA Screening process must also have regard to the European Court ruling that the EIA Directive has a "wide scope and a broad purpose" when determining if an EIAR is required.

The Chapter 3 Guidelines have been considered in developing the assessments and conclusions outlined in Sections 3 - 8 of this report.

## 2.2.4 Guidelines on the Information to be contained in Environmental Impact Assessment Report (EPA, May 2022)

The stated primary objective of the guidelines is to improve 'the quality of EIARs with a view to facilitating compliance (with the Directive). By doing so they contribute to a high level of protection for the environment through better informed decision-making processes.' According to the guidelines the start of the EIA process involves making a decision about whether an EIAR needs to be prepared or not. The guidelines note that the decision-making process begins by examining the regulations and if this does not provide a clear answer then the nature and extent of the project, the site and the types of potential effects are examined.



## 2.2.5 Environmental Impact Assessment Screening OPR Practice Note PN02 (2021)

This Practice Note was published in June 2021 by the Office of the Planning Regulator (OPR) and provides information and guidance on screening for EIA by planning authorities. It includes useful templates and addresses issues that commonly arise. The OPR Practice Note does not have the status of Ministerial Guidelines issued under Section 28 of the Planning and Development Act 2000, but are issued for general information purposes only, in accordance with the OPR's statutory remit to engage in education, training and research activities.

## 2.2.6 Planning and Development Regulations 2001 to 2022

The prescribed classes of development and thresholds that trigger a mandatory Environmental Impact Assessment are set out in Schedule 5 of the Planning and Development Regulations 2001, as amended. A review of the project types listed in the aforementioned Schedule 5 has been carried out.

## 2.2.7 Screening for Mandatory EIA

This first part of the EIA Screening exercise determines whether EIA is a statutory requirement for the proposed development under the discretionary provisions of the Planning and Development Act 2000 to 2022, Schedule 5 of the Planning and Development Regulations 2001 to 2022 and, in the case of road projects, Section 50 of the Roads Act 1993 to 2015 and Article 8 of the Roads Regulations 1994.

A review of Parts 1 and 2 of Schedule 5 of the Planning and Development Regulations 2001 – 2022 has determined that the proposed development does not screen in for mandatory EIA based on any of the thresholds set out therein. **Table 1** below, presents the findings of the screening assessment in respect of the Roads Act 1993 to 2015 and Roads Regulations 1994.

Table 1: Screening Matrix for Mandatory EIA for Road Projects

Screening Matrix for Mandatory EIA for Road Projects		
Mandatory Threshold	Regulatory Reference	Assessment
Construction of a Motorway	S. 50(1)(a) of the Roads Act, 1993, as amended by S. 9(1)(d)(i) of the Roads Act, 2007 (as amended)	The proposed development is not a Motorway. Mandatory threshold not reached.
Construction of a Busway	S. 50(1)(a) of the Roads Act, 1993, as amended by S. 9(1)(d)(i) of the Roads Act, 2007 (as amended)	The proposed development is not a Busway. Mandatory threshold not reached.
Construction of a Service Area	S. 50(1)(a) of the Roads Act, 1993, as amended by S. 9(1)(d)(i) of the Roads Act, 2007 (as amended)	The proposed development is not a Service Area and does not incorporate a Service Area. Mandatory threshold not reached.
Any prescribed type of proposed road development consisting of the construction of a proposed public road or the improvement of an existing public road, namely:	Article 8 of the Roads Regulations, 1994 (prescribed type of road development for the purposes of S. 50(1)(a)(iii) of Section 50 of the Act	Neither the existing road nor the proposed realigned roads include four or more lanes. Mandatory threshold not reached.  The proposed development does not involve the construction of a

### Screening Matrix for Mandatory EIA for Road Projects

<ul style="list-style-type: none"> <li>The construction of a new road of four or more lanes, or the realignment or widening of an existing road so as to provide four or more lanes, where such new, realigned or widened road would be eight kilometres or more in length in a rural area, or 500 metres or more in length in an urban area</li> </ul>	<p>bridge or a tunnel of more than 100m in length. Mandatory threshold not reached.</p>
<ul style="list-style-type: none"> <li>The construction of a new bridge or tunnel which would be 100 metres or more in length.</li> </ul>	

In conclusion, it has been determined that the proposed development is not of a class which exceeds a threshold specified in the Planning and Development Regulations 2001 – 2022, the Roads Act 1993 to 2015 or the Roads Regulations 1994, and therefore does not trigger a mandatory EIA. It follows that the proposed development is a sub-threshold development.

#### 2.2.8 Sub-Threshold EIA

Article 120 of the Planning and Development Regulations 2001 to 2022 states the following:

*‘Where a local authority proposes to carry out a subthreshold development, the authority shall carry out a preliminary examination of, at the least, the nature, size or location of the development’*

The information provided in this report provides details on the characteristics of the proposed development and its likely significant effects (if any) on the environment. It also provides the relevant details under each of the criteria set out in Schedule 7A of the Planning and Development Regulations 2001 to 2018.

The characteristics of the project, its location and potential impact are described and assessed in Sections 3 - 8 of this report.

Schedule 7A of the Planning and Development Regulations 2001 to 2022 ‘Information to be provided by the Applicant or Developer for the purposes of Screening Sub-Threshold Development for the Environmental Impact Assessment’. The requirements include:

- Description of the proposed development
- Review of relevant information within local and county development plans
- Appropriate Assessment of study area
- Description of the aspects of the environment likely to be significantly affected.

The nature, size and location of the development is described in Chapter 3 of this report, while a description of potential environmental impacts is outlined in Chapter 5 - 8.

An Appropriate Assessment screening report has also been completed. The information required from Schedules 7 and 7A of the Planning and Development Regulations 2001 to 2022 and responses which address the information to be provided are included in Section 8 of this report.

Table 2: The size and design of the whole of the proposed development

Section 7 Requirement
The size and design of the whole of the proposed development,
Cumulation with other existing development and/or development the subject of a consent for proposed development for the purposes of section 172(1A)(b) of the Act and/or development the subject of any development consent for the purposes of the Environmental Impact Assessment Directive by or under any other enactment,
The nature of any associated demolition works,
The use of natural resources, in particular land, soil, water and biodiversity,
The production of waste,
Pollution and nuisances,
The risk of major accidents, and/or disasters which are relevant to the project concerned, including those caused by climate change, in accordance with scientific knowledge, and
The risks to human health (for example, due to water contamination or air pollution).

Table 3: The environmental sensitivity of geographical areas likely to be affected by the proposed development, with particular regard to

Section 7 Requirement
Question: The environmental sensitivity of geographical areas likely to be affected by the proposed development, with particular regard to—
the existing and approved land use,
the relative abundance, availability, quality, and regenerative capacity of natural resources (including soil, land, water and biodiversity) in the area and its underground,
the absorption capacity of the natural environment, paying particular attention to the following areas:
<ul style="list-style-type: none"> <li>• wetlands, riparian areas, river mouths;</li> <li>• coastal zones and the marine environment,</li> <li>• mountain and forest areas;</li> <li>• nature reserves and parks;</li> <li>• areas classified or protected under legislation, including Natura 2000 areas designated pursuant to the Habitats Directive and the Birds Directive</li> <li>• areas in which there has already been a failure to meet the environmental quality standards laid down in legislation of the European Union and relevant to the project, or in which it is considered that there is such a failure;</li> <li>• densely populated areas;</li> <li>• landscapes and sites of historical, cultural, or archaeological significance.</li> </ul>



Table 4: The likely significant effects on the environment of proposed development

Section 7 Requirement
Question: The likely significant effects on the environment of proposed development in relation to criteria set out under paragraphs 1 and 2, with regard to the impact of the project on the factors specified in paragraph (b)(i)(I) to (V) of the definition of 'environmental impact assessment report' in section 171A of the Act, taking into account—
the magnitude and spatial extent of the impact (for example, geographical area and size of the population likely to be affected)
<p>The nature of the impact,</p> <p>the intensity and complexity of the impact,</p> <p>the probability of the impact,</p> <p>the expected onset, duration, frequency and reversibility of the impact,</p> <p>the possibility of effectively reducing the impact.</p>
the transboundary nature of the impact,
the cumulation of the impact with the impact of other existing and/or development the subject of a consent for proposed development for the purposes of section 172(1A)(b) of the Act and/or development the subject of any development consent for the purposes of the Environmental Impact Assessment Directive by or under any other enactment

Section 50(1)(b) and 50(1)(c) of the Roads Act 1993 to 2015 sets out the requirements for screening a sub-threshold development for EIA.

Section 50(1)(b) of the Roads Act (1993 to 2015) states:

*'If An Bord Pleanála considers that any road development proposed (other than development to which paragraph (a) applies) consisting of the construction of a proposed public road or the improvement of an existing public road would be likely to have significant effects on the environment, it shall direct the development be subject to an environmental impact assessment.'*

Section 50(1)(c) of the Roads Act 1993 to 2015 states:

*"Where a road authority or, as the case may be, the Authority considers that a road development that it proposes (other than development to which paragraph (a) applies [paragraph (a) relates to development mandatorily requiring EIA]) consisting of the construction of a proposed public road or the improvement of an existing public road would be likely to have significant effects on the environment, it shall inform An Bord Pleanála in writing prior to making any application to the Bord for an approval referred to in section 51(1) in respect of the development."*

The findings of the EIA screening assessment prepared for the project has informed our professional opinion as to whether an EIAR is warranted for the proposed project, with due regard to all relevant statutory requirements and technical guidance. However ultimately it is the responsibility of the competent authority to make a determination as to whether an EIAR is required for a particular project.

## 3. Description of proposed development

### 3.1 Project Overview

#### 3.1.1 Proposed Development

The proposed design, which can be seen on drawing **LCJU-CCC-GA-ZZ-DR-C-0001** in **Appendix B**, seeks to separate the existing five-arm junction into two staggered T-junctions.

The R518/R520 referred to as Alignment 1 will remain on its existing alignment with some verge widening works to increase visibility from the re-aligned junctions. It will also be re-surfaced.

The R518 Ballingarry Road from the north-west referred to as Alignment 3 will connect to the L-1210 Granagh Road to the east creating a new T-junction. This will then create a single approach road instead of 2 as it joins Alignment 1. The properties entrances will be extended to meet the new re-aligned roads.

The L-1211 Castletown Road referred to as Alignment 7 will be moved east to create a new junction with alignment 1. The existing L-1211 will then become an access to the property and farm only with no through access to the R518.

A combination of verge side drainage in the form of filter drains and grassed surface water channels and interceptor ditches at the toe of embankments will be used to drain the roads, out falling to a soakaway. There will be new road markings and signage also.

#### 3.1.2 Construction Methodology

The proposed development will include the following:

- Site clearance, including the removal of existing hard surfaces, certain trees, hedgerows and field boundaries
- Diversion works of existing utilities such as electrical poles, telecoms and potentially some protections works to existing utilities
- Erection of new field and property boundaries
- Construction of new road embankments, widening of existing verges on the R520-R518, new links from the realigned roads to existing property entrances
- Construction of road drainage systems including:
  - interceptor ditches for overland flow
  - new surface water drains in the form of grassed surface water channels and filter drains
  - some carrier drains to convey runoff to an outfall point
  - a soakaway
- Signage and road markings installation

**Table 5: Relevant Policies and Objectives taken from the Limerick Development Plan 2022-2028**

Relevant Policies and Objectives taken from the Limerick Development Plan 2022-2028		
Policy/Objective No.	Title	Policy/Objective
TR P6	Delivery of Transport Infrastructure in line with National Policy	It is a policy of the Council to support the delivery of transport infrastructure identified within the National Planning Framework, National Development Plan 2021-2030 (and any update) and the Regional Spatial and Economic Strategy for the Southern Region and to support enhanced connectivity within Limerick and inter-urban connectivity within the regions.
TR P8	Local Transport Plans	It is a policy of the Council to prepare a Local Transport Plan (LTP), Mobility and Public Realm Plan for the Key Town of Newcastle West, in consultation with the National Transport Authority, Transport Infrastructure Ireland and other relevant stakeholders, as part of the Local Area Plan process and for other settlements as deemed necessary.
TR P11	Road Safety and Carrying Capacity of the Road Network	It is a policy of the Council to seek improvements to road safety and enhance carrying capacity of the road network throughout Limerick, through minimising existing traffic hazards, including access onto roads, which are substandard in terms of width and alignment and preventing the creation of additional or new traffic hazards in the road network, maintaining the carrying capacity and securing appropriate signage.
TR O37	Land Uses and Access Standards onto All Roads	It is an objective of the Council to ensure that any development involving a new access to a public road, or the intensification of use of an existing access onto a public road, that would compromise the safety and capacity of the road network, will not be permitted unless the new or existing access meets the appropriate design standards.
TR O38	Improvements to Regional and Local Roads	It is an objective of the Council to provide for and carry out sustainable improvements to sections of regional roads and local roads, that are deficient in respect of alignment, structural condition, or capacity, where resources permit and to maintain that standard thereafter.
TR P12	Safeguard the Capacity of National Roads	It is a policy of the Council to: <ul style="list-style-type: none"> <li>a) Protect the capacity of the national road network, having regard to all relevant Government guidance and associated junctions, including DoECLG Spatial Planning and National Roads Guidelines (DoECLG, 2012) in the carrying out of Local Authority functions and;</li> <li>b) Ensure development does not prejudice the future development, or impair the capacity of, the planned national roads, which includes the N/M20 Cork to Limerick Scheme and Foynes to Limerick Road (including Adare Bypass) projects and other schemes referenced in Section 7.4;</li> </ul>



### Relevant Policies and Objectives taken from the Limerick Development Plan 2022-2028

		c) Continue to engage, at an early stage, with relevant transport bodies, authorities and agencies in respect of any plans or projects that are located in proximity to national road infrastructure.
TR O39	National Roads	<p>It is an objective of Council to:</p> <p>(a) Prevent, except in exceptional circumstances and subject to a plan-led evidence-based approach, in consultation with Transport Infrastructure Ireland, in accordance with the Section 28 Ministerial Guidelines Spatial Planning and National Roads Guidelines for Planning Authorities (DoECLG, 2012), development on lands adjacent to the existing national road network, which would adversely affect the safety, current and future capacity and function of national roads and having regard to reservation corridors, to cater for possible future upgrades of the national roads and junctions</p> <p>b) Avoid the creation of any new direct access points from development, or the generation of increased traffic from existing direct access/egress points to the national road network, to which speed limits greater than 60km/h apply;</p> <p>c) Facilitate a limited level of new accesses, or the intensified use of existing accesses, to the national road network on the approaches to, or exit from, urban centres that are subject to a speed limit of between 50km/h and 60km/h. Such accesses will be considered where they facilitate orderly urban development and would not result in a proliferation of such entrances;</p>
TR O40	National Road Network Drainage Regimes	It is an objective of the Council to ensure all developments protect and safeguard the capacity and efficiency of the drainage regimes of the national road network.
TR P13	Strategic Regional Road Network	It is a policy of the Council to protect the investment in the strategic regional road network and maintain and improve road safety and capacity.
TR O51	Roadside Signage	It is an objective of the Council to regulate, control and improve signage throughout Limerick and avoid a proliferation of roadside signage, in accordance with the Spatial Planning and National Roads – Guidelines for Planning Authorities (DoECLG, 2012) and the National Roads Authority’s policy statement on the Provision of Tourist and Leisure Signage on National Roads (March 2011) and any updated versions of these documents.
TR O52	Directional Signage	It is an objective of the Council to facilitate the provision of directional signage for amenities, tourist attractions and local attractions and along cycle and pedestrian routes, at appropriate locations throughout Limerick, in accordance with planning and traffic regulations.

## 4. Appropriate Assessment

A screening for Appropriate Assessment was carried out as part of the environmental evaluation of the proposed scheme. Based on the available information gathered during field and desk surveys, the likelihood of significant impacts arising from the proposed development on all European Designated Sites can be ruled out on the basis of a lack of connectivity.

Therefore, the proposed development will not have a significant effect on any European Designated Sites and progression to a Stage II Appropriate Assessment is not required.

## 5. Receiving Environment

This Chapter of this report considers the receiving environment and the potential impact of the scheme in respect of:

- Population and Human Health;
- Biodiversity;
- Land and Soil;
- Material Assets;
- Landscape;
- Air Quality and Climate;
- Noise and Vibration;
- Water; and
- Cultural Heritage.

### 5.1 Population and Human Health

The proposed development will have a positive effect on the local community using Lee's Cross, as well as the wider Limerick area. The development is designed to improve safety for road users travelling through Lee's Cross and to provide safe access to residents and businesses to their properties. It is expected that the works will result in a reduction in road accidents immediately around the crossroads.

There are a few residential and agricultural properties adjacent to the scheme. During the construction stage, there will likely be additional noise and dust emissions during this phase as well as disturbance while accesses are relocated, and the junctions are developed. These will be temporary and will not cause significant negative impacts.

Traffic associated with the construction stage of the proposed works will be managed appropriately using a Construction Traffic Management Plan (CTMP), in order to minimise effects on residents and the operation of the local road network. The CTMP, which will be prepared by the construction contractor for the proposed development, will be implemented for the duration of the works with the aim of minimising disruption to traffic flow on the road network. It is not predicted that significant negative effects will arise.

Sensitive receptors are located near the proposed works and include six residential dwellings in total. These include one immediately adjacent to and west of the L1211, one south of the L1121 realignment on the east verge of the existing road, a dwelling between the R518 and L1210 adjacent to the main junction, another on the north verge of the L1210, a property on the northern boundary of the R518 eastbound, and another west of the R518 Ballingarry Road.

Due to the complexity of the existing junction, it will be necessary for land take along the routes of the new alignments, a soakaway area, as well as locations where pinch points will necessitate road widening as shown on drawing LCJU-CCC-GA-ZZ-DR-C-0001 and LCJU-CCC-DD-ZZ-DR-C-0001 in Appendix B. The design will seek to minimise the amount of land required along the roadway and will work with affected landowners to minimise impacts. The impact of land take will be permanent and slightly negative. Boundary reinstatement, replanting and landscaping and accommodation works will mitigate this impact.

It is considered that the proposed works will not have significant adverse effects with respect to population and human health and will result in an improved, safer junction arrangement for road users and residents and businesses.

Careful and considered local consultation will be carried out with nearby residents to ensure that the minimum amount of disturbance will be caused. Access to existing residential and agricultural properties will be maintained for the duration of the works.

## 5.2 Biodiversity

The dominant habitat found in the proposed site of works consists of 'Improved Agricultural Grasslands' GA1. This category is used for intensively managed or highly modified agricultural grassland that has been reseeded and/or regularly fertilised and is now heavily grazed and/or used for silage making. Rye-grasses (*Lolium* spp.) are abundant and may entirely dominate the sward, often in association with White Clover (*Trifolium repens*). Other species found are Dandelion (*Taraxacum* spp.), Creeping Buttercup (*Ranunculus repens*), Plantains (*Plantago* spp.), Nettle (*Urtica dioica*), Thistles (*Cirsium arvense*, *C. vulgare*) and Docks (*Rumex* spp.). 'Hedgerow' WL1 habitats were common in the area with both unmanaged and managed conditions. Few of these hedgerows were dense and mature. Hawthorn (*Crataegus monogyna*) and Ash (*Fraxinus excelsior*) were a dominant species within the hedgerows. Other examples of species found included Blackthorn (*Prunus spinosa*), Sycamore (*Acer pseudoplatanus*), Hazel (*Corylus avellana*) and Elder (*Sambucus nigra*). These hedgerows (especially dense and mature) would act as ecological corridors for much of the local wildlife. One mature Sycamore was noted in one of the hedgerows. Few 'Treelines' WL2 were found within the works area, species consisted of Hawthorn, Blackthorn, Ash, Beech (*Fagus sylvatica*), Hazel and Holly (*Ilex aquifolium*). None were identified as mature trees. A 'Scrub' WS1 area was identified within the area of works down along a hedgerow. An old house under refurbishment was noted around the area, which could have potential for bat habitats. Further detail on the habitats found can be found in the Appropriate Assessment Screening Report.

Regarding birds seen or heard, the following were identified during the field survey carried on the 15<sup>th</sup> June as referenced in the Appropriate Assessment Screening Report; Thrush (*Turdidae* spp.), Rook (*Corvus frugilegus*), Jackdaw (*Corvus monedula*), Goldcrest (*Regulus regulus*), Swallow (*Hirundo rustica*), Robin (*Erithacus rubecula*), Blue Tit (*Cyanistes caeruleus*), Starling (*Sturnus vulgaris*), Wren (*Troglodytes troglodytes*), Song Thrush (*Turdus philomelos*), House Sparrow (*Passer domesticus*) and Magpie (*Pica pica*). Any works particularly around hedgerows/scrub areas should be done outside of bird nesting season (March 1st – August 31st).

## 5.3 Land and Soil

Corine Online Mapping identifies landcover designations around Lees Cross to be 'made ground and agricultural areas', and 'till'. GSI mapping identifies that the quaternary geology underlying the scheme is comprised of Sandstone till (Devonian). The proposed project will involve works within the existing roadway but will also require lands for the new junction realignments and road widening. This will result in removal of some agricultural lands; however the area is relatively small.

The GSI (1:100,000) Bedrock Mapping indicates that Lee's Cross is underlain by 2 no. bedrock formations; namely the Ballysteen Formation (Dark muddy limestone, shale) to the northwest and



the Lower Limestone Shales to the southeast. The corresponding aquifer designations are a Locally Important (LI) Aquifer beneath Lees' Cross and to the northwest with a Regionally Important Fissured (Rf) Aquifer to the southeast. Subsoils underlying and surrounding the site are mapped as Moderate to Low Permeability.

Aquifer or groundwater vulnerability is the ease with which the groundwater may be contaminated by human activity and depends upon the aquifer's intrinsic geological and hydrogeological characteristics. The vulnerability is determined by the permeability and the attenuation capacity of any overlying deposits. The vulnerability of the aquifer underneath the entirety of the route can be classified by the GSI as having a low to moderate vulnerability.

The nature of the proposed development means that the majority of the works will take place within the existing roadway. However, there will be a requirement for road widening and land take for realigned junctions. Given the low vulnerability of the subsoils, the underlying aquifers are considered to be at low risk from the development.

Given the nature of the proposed development, which will take place predominantly along the existing road footprint as well as extending into adjacent agricultural lands, it is likely that the ground immediately affected will be made ground and agricultural and it can therefore be concluded that the proposed works will have limited negative impact on land and soil characteristics in the area.

## 5.4 Material Assets

A number of landowners have been identified along the proposed route. Landholdings comprise residential dwellings and agricultural fields. The various landholdings were identified by reference to [www.landdirect.ie](http://www.landdirect.ie)

The Limerick City and County Council online Planning Application System was consulted to determine whether there were any recent planning applications granted which could impact on or be impacted by the proposed development.

It is considered that no recently granted or conditional planning applications will be impacted by the proposed works.

Figure 2: Screenshots from Limerick City and County Council Planning Portal

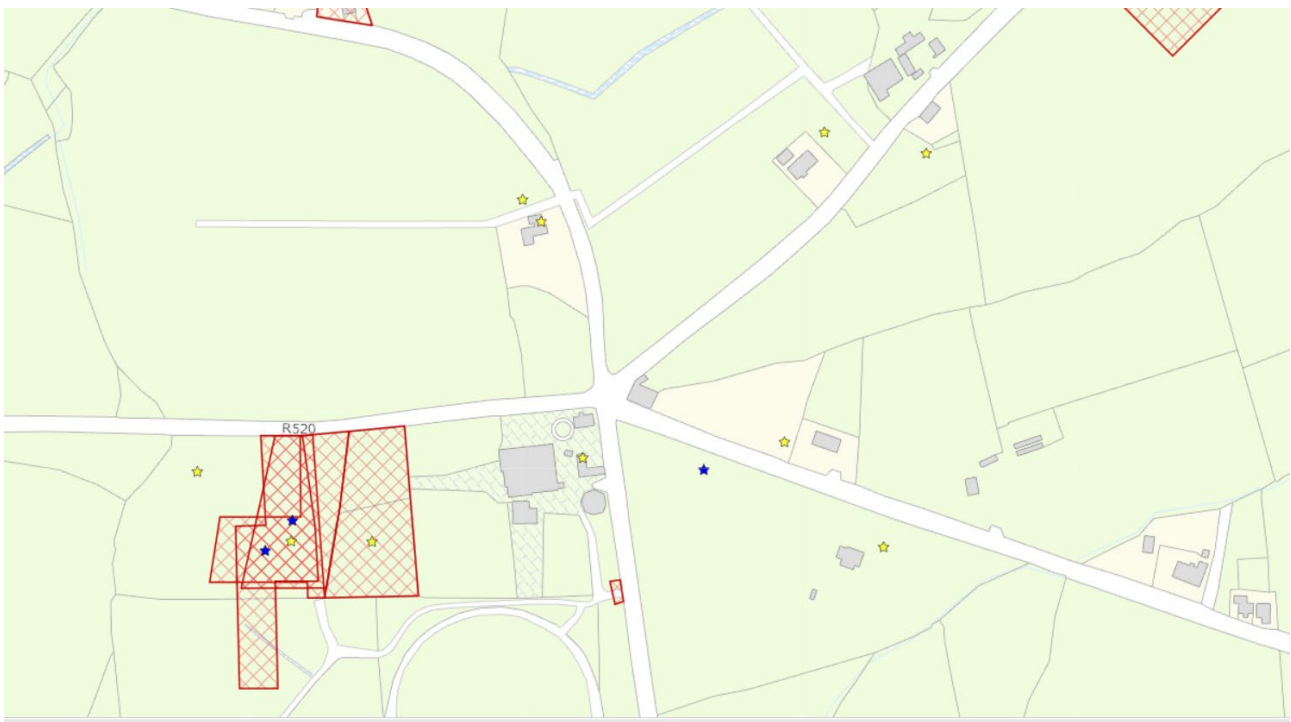
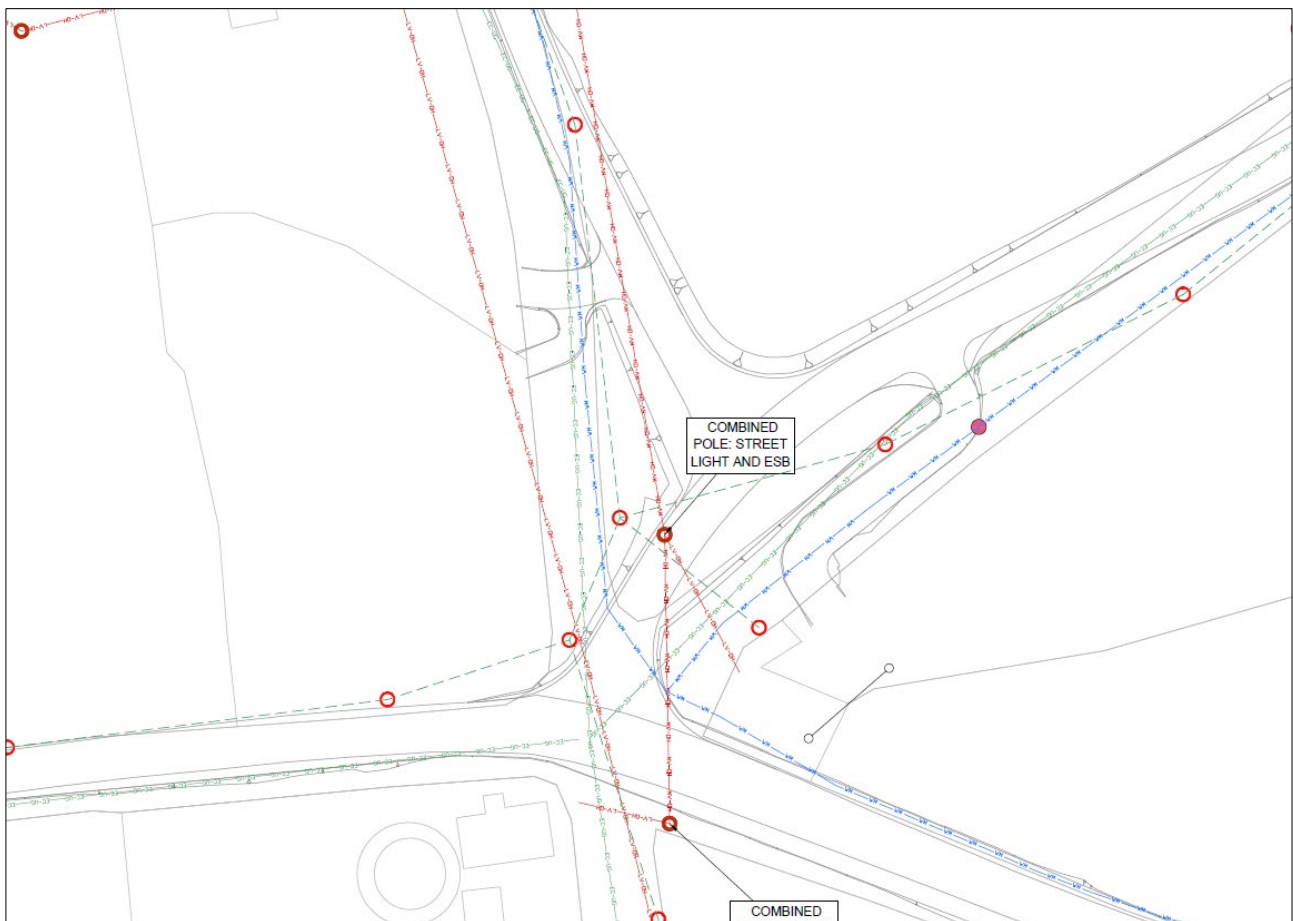


Figure 2 identifies locations where planning has been granted, refused, no decision or are conditional are indicated by a star. Planning sites are indicated by a red hatched area.

Existing utility information has been gathered from service providers for the area as shown in Figure 3.

Figure 3: Existing Services crossing the existing road junction with the proposed road in the background



LEGEND	
	Eir Telecoms Underground
	Telecoms Overhead
	Telecom Pole
	ESB Medium Voltage overhead
	ESB Low Voltage Overhead
	ESB Pole
	Watermain
	Sluice valve

There is a medium voltage (MV) overhead line crossing from the south side of the R518 across to the east verge of the R518 Ballingarry Road. There is also a low voltage (LV) overhead line crossing from the R518 to the west side of the Ballingarry Road. There are telecom lines running on the north verge of the R520 which cross over to the south side of the L-1210. Underground EIR services travel along the south verge of the R520 crossing through the junction to the north side of the L-1210.

There is also underground EIR ducts and cables running on the west side of the L-1211 and an overhead telecom line on the east verge. There is a watermain on the east verge of the Ballingarry road, crossing to the north verge of the R518.

Works will be required to relocate an electrical pole situated between the R518 Ballingarry Road and the L-1210 which will clash with the proposed new road layout. The watermain on the R518 Ballingarry Road will cross the proposed new road realignment and so will need to be assessed for road loading and be protected in place or diverted. The EIR duct bank on the L-1210 will cross the proposed realigned road and will need to be assessed for road loading and protecting in place or diverted to the verge.

The Contractor will be responsible for putting measures in place to ensure that there are no interruptions to existing services and that all services and utilities are maintained unless this has been agreed in advance with the relevant service provider. All works near existing services and utilities will be carried out in ongoing consultation with the relevant utility company and will follow any requirements or guidelines they may have.

Further methods to be implemented by the Contractor to minimise the risk of damage to existing services will be as follows.

- Undertake surveys to establish full extent of underground services prior to the commencement of construction;
- The use of Ground Penetration Radar (GPR) and CAT (cable avoidance tool), to provide greater confirmation of the locations of existing assets;
- The use of trial holes, where required, again to provide greater knowledge on the exact location of existing assets.

Overall, it may be considered that there will not be negative impacts on both land use and on material assets due to utilities being moved or replaced.

## 5.5 Landscape

The landscape character areas within County Limerick have incorporated the scenic views and prospects of earlier County Development Plans, which will ensure continuity between, and further development of, landscape policies for the County. There are 10 differing landscape areas (Landscape Character Areas, LCA) in County Limerick. The proposed works are located within the Agricultural Lowlands. This area is described below:

This is the largest of the Landscape Character Areas in Limerick City and County Councils Landscape Character Assessment and comprises almost the entire central plain. This landscape is a farming landscape and is defined by a series of regular field boundaries, often allowed to grow to maturity. This well-developed hedgerow system is one of its main characteristics. In terms of topography, the landscape is generally rather flat with some locally prominent hills and ridges. The pastoral nature of the landscape is reinforced by the presence of farmyards.

Proposed works will take place in a rural area along a busy stretch of regional road and therefore the landscape is not typical of the Landscape Character Area and is less sensitive to proposed land uses.

Several residential dwellings are located along the R520, R518, L1210 and L-1211 where works are proposed. These sites will be the most impacted by the changes arising from the proposed development. The proposed development will mean that the agricultural land adjacent and adjoining walls will have boundaries altered with some land take possible. Sections of hedgerow will require removal. It is not anticipated that the scheme will increase the number of users of these roads but rather that the development will improve safety for road users at the junction.

Works along these roads will necessitate land take from an adjacent field to the west and east of the existing roadway.



There is no potential for the proposed project to impact directly or indirectly on listed or scenic views or protected landscapes.

Localised impacts on adjacent residences will be mitigated by appropriate landscape planting mitigation and consultation with affected landowners.

The nature of the proposed development being principally adjacent to the existing road corridor will have limited negative impacts.

## 5.6 Air Quality and Climate

In terms of Air Quality, it is noted that the proposed works are in an area defined by the EPA as 'Region 3: Large Towns (EPA mapping). The Air Quality Index is (1) Good (last update 14/7/23).

The website [www.airquality.ie](http://www.airquality.ie) gives information on the air quality for locations throughout the country and any associated health advice. The ambient air quality network is managed by the EPA. In addition, Limerick City and County Council have installed 2 no. air quality monitors which can provide live indicative air quality data to the public. The locations are Limerick City and Askeaton. These monitors measure particulate matter (PM) which is commonly used as an indicator of dust particles in air, including total suspended particulates, PM<sub>10</sub> and PM<sub>2.5</sub>.

Air quality results and reports for Limerick City and County Council can be accessed at the following website: Air Quality | Limerick.ie

It is considered that the route of the proposed works is not particularly sensitive to additional emissions and that the surrounding environments are mainly influenced by existing emissions from road transport on the R520 and R518 and adjacent roads.

For the construction phase, this stage of the project will lead to the production of greenhouse gas (GHG) emissions from traffic and the fuel used by mobile plant and equipment. However, these impacts are not anticipated to create any significant adverse effects as they will be short term and temporary in nature.

It is assumed that a Site Waste Management Plan will be developed and there will be contractual requirements for the principal contractor to demonstrate best practice principles and procedures to minimise the consumption of resources such as fuels and raw materials.

There is potential for dust from site construction works such as excavations, earthworks, and the movement of site traffic. Dust can be spread by vehicles entering and exiting the site. It is anticipated that the appointed contractor will be required to implement dust measures to reduce/avoid any potential dust impacts.

Noting the above and the nature, size and location of the development, significant adverse effects on the environment are unlikely with respect to climate change, GHG emissions and air quality.

## 5.7 Noise and Vibration

There is potential for localised noise and vibration impacts to residential properties in the vicinity of the proposed development during the construction phase due to operation of machinery on site. These impacts would be temporary and only during the construction phase. The noise generated from the roads' during operation is expected to be the same as the existing scenario. Mitigation measures against such impacts will be outlined in the operating plans to be devised by the contractor.

## 5.8 Water

The proposed scheme is located within Hydrometric Area 24: Shannon Estuary South Catchment, and the Mague\_SC\_40 Water Framework Directive (WFD) sub catchment. The immediate area around Lee's Cross lies within the West Liskennett\_010 River Sub Basin which has a total catchment

area of 30.89km<sup>2</sup>. The RBMP (2022-2027) sets the Liskennet\_010 as being under Review and for the 2016-2021 period the river status was set as 'Poor'. The nearest watercourse is mapped as flowing in a north easterly direction approximately 350m east of Lee's Cross.

The existing road is drained over-the-edge to ditches in places but there also sections where the road drains over-the-edge with no evidence of any ditch in place so likely drains into the ground. It is expected that the proposed drainage for the scheme will consist of over-the-edge drainage to ditches at the base of embankments in places, interceptor ditches at the toe of the road embankment to catch over-land flow. There will also be filter drains and grassed surface water channels out-falling to carrier pipe systems which will ultimately outfall to a soakaway. Nature based drainage solutions will be employed as much as possible.

The location and extent of the proposed soakaway system will be finalised at the detailed design stage, following completion of trial hole / BRE 365 testing to appropriately size and design the system. Care shall be taken to ensure that the soakaway is not located in areas where there is a risk of ponding or where shallow bedrock is encountered. The design and location of the soakaway and any necessary pre-treatment will be considered at detailed design stage following completion of a risk assessment (selection of appropriate measures commensurate with site specific groundwater protection response) by competent hydrogeologists.

The OS 6" historical mapping indicates no rises or drainage ditches/minor streams within the site, however there are existing drainage features along the R518 northbound, which are due to be relocated. The watercourse (West Liskennet\_010 is shown on the historic 25" mapping) and a spring and Holy Well is mapped to the north and northwest of the site respectively. In addition, a spring flows into an ornamental fishpond at Ballyneale House (approx. 1km west of Lee's Cross).

Current Pollution Prevention Guidelines (PPGs) shall be adhered to as standard practice to prevent pollution (including muddy runoff) for both construction of the and future maintenance work.

Limerick City and County Council SFRA and OPW Flood Mapping have been checked to identify if the site and surrounds is at risk of flooding or whether works could cause flooding elsewhere. There is no history of flooding within or near the site. The works will not increase flood risk.

The site is underlain by the Ballinderry ground water body which is considered to be 'At Risk'. For 2016-2021 RBMP, its status was 'Good'.

In conclusion, noting the scale, nature and characteristics of the proposed works, there will be no requirement for significant site works or deep excavations. It is not anticipated there will be any significant adverse environmental impacts on the existing groundwater or surface water conditions.


## 6. Cultural Heritage and Archaeology

There are 7 no. recorded archaeological sites within 1km approximately of Lee's Cross and 1 no. site recorded on the National Inventory of Architectural Heritage (NIAH).

Table 6: Archaeological Sites

Archaeological Sites				
Site Reference	Distance from Lees Cross	Description	Townland	Other
LI-038-011	387m	Ritual Site – Holy Well	Ballyelan	On S side of road. Spring enclosed by recent surround surmounted by statue of St Patrick. Still venerated, with a variety of devotionalia hung about the surround as well as coins dropped into the water.
LI038-052	380m	Ringfort-Rath	Ballyguileataggle	In pasture, on gentle NW-facing slope. Circular area (31.6m N-S) enclosed by earthen bank (int. H 1.65m; ext. H 2.65m) with external fosse (D 1.6m; Wth 1m), and with counterscarp bank (ext. H 0.6m) W->NW. Enclosing element is masked by dense overgrowth. Field boundaries which formerly skirted enclosure on N and E sides have recently been removed, but field boundaries still abut enclosure at W and SE. Gaps in bank at ENE (Wth 2.3m) and W (Wth 1.5m). Interior is covered by dense undergrowth and coniferous trees; at centre is fenced-off animal pen, no longer used.
LI038-051	520m	Ringfort-Rath	Ballynoe	In pasture, on gentle N-facing slope in undulating terrain, marshy area adjoins to NW. Circular area (27.5m N-S) enclosed by earthen bank with external fosse (D 0.9m; Wth 1.95m). Bank (int. H 0.7m; ext. 1.5m), best preserved along E side, denuded by cattle to form gaps at SSW (Wth 1.9m) and SW (Wth 1.1m). Fosse is crossed by field boundaries at S and NNE, which abut enclosing bank. Level interior under grass except for centre and NE quadrant which are covered by dense overgrowth. Mature beech tree grows atop bank at SSE, with a mixture of ash and thorn covering bank elsewhere.
LI038-157	720m	Ringfort-Rath	Ballynoe	In pasture, atop low rise in undulating terrain. Circular area (26.4m N-S; 26.7m E-W) defined by scarp edge (H 0.8m; Wth 2.2m). Scarp, best preserved E->W, dips at NNE for c. 3.5m. Interior, under pasture, is level except for some slight unevenness near centre.
LI038-168	800m	Earthwork	Ballynoe	Cropmark of roughly oval-shaped earthwork (approx. diam. 65m) on poorly drained land visible on Digital Globe aerial imagery. This earthwork may be related to land reclamation and could be the remains of a small raised paddock or field of post-1700 date.



Archaeological Sites				
LI038-015	845m	Ringfort-Rath	Ballyelan	In pasture, on gentle N-facing slope. Roughly circular area (diam. 34.8m N-S) defined by scarp edge (H 1.05m; Wth 0.8m) with external waterlogged fosse (D 1.5m; Wth 1.2m); enclosing element and interior are masked by dense overgrowth. Field boundaries skirt enclosure on S and W sides. Earthen bank (int. H 0.7m; ext. H 0.4m), immediately outside but not concentric with scarp NW->SE, is probably of recent construction. Gaps across scarp at NE and S, but neither has corresponding causeway across fosse. Interior is completely covered by dense overgrowth.
LI038-055	1075m	Ringfort-Rath	Ballyguileataggle	In pasture, on gentle N-facing slope. Roughly circular area (diam. 34.8m N-S) defined by scarp edge (H 1.05m; Wth 0.8m) with external waterlogged fosse (D 1.5m; Wth 1.2m); enclosing element and interior are masked by dense overgrowth. Field boundaries skirt enclosure on S and W sides. Earthen bank (int. H 0.7m; ext. H 0.4m), immediately outside but not concentric with scarp NW->SE, is probably of recent construction. Gaps across scarp at NE and S, but neither has corresponding causeway across fosse. Interior is completely covered by dense overgrowth.
21903801 (NIAH)	1060m	Ballyneale House	Ballyneale	

Architectural heritage sites identified within the study area are all structures currently located along existing roads or removed from the proposed works. It is not anticipated that there will be any direct impacts on archaeological or cultural heritage features as a result of the proposed development. The impact of the proposed development is therefore deemed to be low.

## 7. Cumulative Impacts

A review of nearby projects, which have the potential for cumulative impacts on the environment, when considered together with the proposed development, was completed.

There are currently no known existing or permitted projects (including under other legislation that is subject to EIA) that could give rise to significant adverse cumulative effects.

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## 8. Preliminary Examination Conclusion

The proposed development does not fall into a category or exceed thresholds under the Planning Acts that trigger the mandatory requirement for an EIA, and therefore a statutory EIA is not required (refer to **Table 1**).

Having carried out the EIA screening assessment of the proposed scheme and considering the type of the proposed development and the nature of the receiving environment in addition to the nature, size and location of the proposed development, significant impacts on aspects such as biodiversity, air quality and climate, noise and vibration, land and soil, water, landscape, and visual and cultural heritage are not expected and can be ruled out. However, while there are positive impacts associated with the junction re-alignments via the improvements in safety for road users and the local population, the impacts associated with the land take required to facilitate the junction re-alignments may have a negative impact on the localised population, though only temporary. Moreover, material impacts will be impacted through land take, though landowners will be consulted throughout the design process.

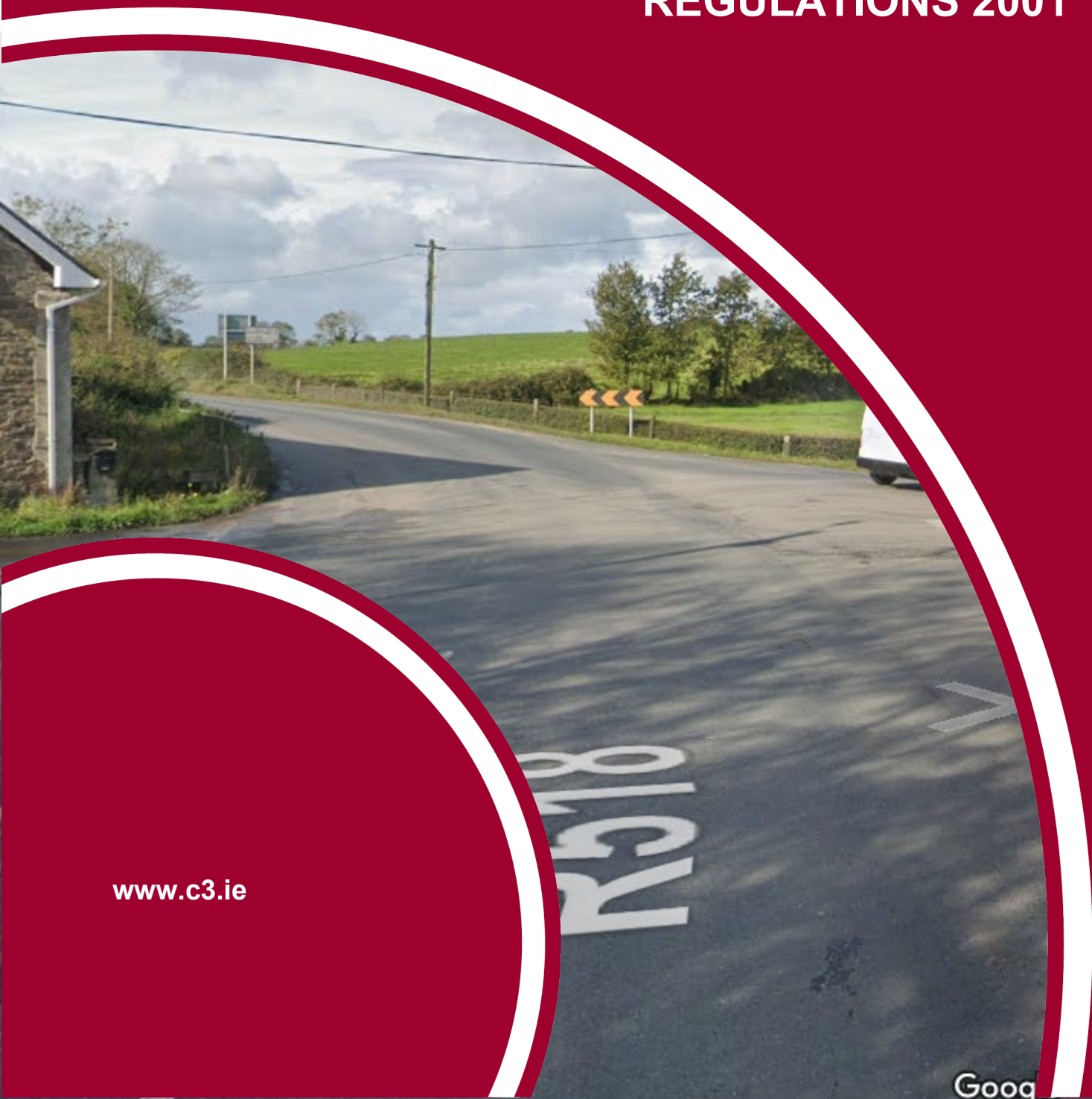
This report has discussed possible positive and negative impacts of the proposed development, however, it is not anticipated that any of these are likely to have a significant impact on the environment. It is also noted that the potential for impacts on nearby Natura sites have been assessed by means of an Appropriate Assessment Screening Report can be excluded and the proposed development is therefore not subject to Appropriate Assessment and the preparation of a Natura Impact Statement.

Accordingly, based on the aforesaid EIA screening set out in this report, it is concluded that there is not a real likelihood of significant effects on the environment arising from the scheme and therefore the preparation of an Environmental Impact Assessment Report (EIAR) is not required.



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# APPENDIX A - SCHEDULE 7 AND SCHEDULE 7A (PLANNING AND DEVELOPMENT REGULATIONS 2001



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Good



Characteristics of the Proposed Development	
Section 7 Requirement	Response
The size and design of the whole of the proposed development,	<p>The proposed design seeks to separate the existing five-arm junction into two staggered T-junctions.</p> <p>The R518/R520 will be resurfaced and remain on the existing alignment with some verge widening works to increase visibility from the re-aligned junctions.</p> <p>The R518 Ballingarry Road from the north-west will connect to the L-1210 Granagh Road to the east creating a new T-junction. This will then create a single approach road to the R518/R520 instead of the existing two. The property entrances will be extended to meet the new re-aligned roads. The L-1211 Castletown Road will be moved east to create a new junction. The existing L-1211 will become an access to the property and farm only with no through access to the R518.</p> <p>A combination of verge side drainage in the form of filter drains and grassed surface water channels and interceptor ditches at the toe of embankments will be used to drain the roads. There will be a soakaway outfall. There will be new road markings and signage also.</p>
Cumulation with other existing development and/or development the subject of a consent for proposed development for the purposes of section 172(1A)(b) of the Act and/or development the subject of any development consent for the purposes of the Environmental Impact Assessment Directive by or under any other enactment,	N/A
The nature of any associated demolition works,	Some site clearance works will be required to facilitate the construction. It is not anticipated that any buildings or structures will be demolished. Some breaking up of the pavement may be required, excavation of existing roadside verges. There may be some demolition works required also to facilitate services/utilities as necessary.
The use of natural resources, in particular land, soil, water and biodiversity,	<p>While construction materials will be required in carrying out the proposed works, it is not considered that there will be a significant use of natural resources as part of the proposed works.</p> <p>Services such as water and power (mobile generators) may be required during the construction phase, however, it is not expected that there will be a significant use of these resources due to the nature of the works proposed.</p>
The production of waste,	There will be a production of waste which is associated with the site clearance works. Surplus construction materials which are not required for use on site will be reused, recovered or disposed off site. An appropriate

Characteristics of the Proposed Development	
	waste collection permit holder will be used for removal of wastes from site. All by products and wastes removed from site will be reused, recovered, or disposed of in accordance with the Waste Management Act, 1996, as amended.
Pollution and nuisances,	Construction activities will be restricted to within the defined works boundaries. The employment of standard best practice measures and construction techniques as described in the CEMP will serve to minimise the risk of pollution of soil, storm water run-off or groundwater.
The risk of major accidents, and/or disasters which are relevant to the project concerned, including those caused by climate change, in accordance with scientific knowledge, and	There is a low possibility that accidents will occur as the construction works are standard in nature and well understood. Standard construction practices will ensure that the risk of accidents will be low. Traffic Management Plans and method statements will be put in place.
The risks to human health (for example, due to water contamination or air pollution).	Throughout all project phases, standard construction materials will be used and will not be harmful to human health or the environment. The contractor will ensure that the proposed works are carried out in accordance with the Safety, Health and Welfare at Work (Construction) Regulations 2013 (S.I. No. 219 of 2013)

Location of the Proposed Development	
Section 7 Requirement	Response
Question: The environmental sensitivity of geographical areas likely to be affected by the proposed development, with particular regard to—	
the existing and approved land use,	Much of the ground immediately underlying the site has been modified through construction/utilities works along the existing roadways, junctions and residential properties and can be considered to be 'made ground'. Though, land take is required outside of the road corridor, this is mainly made up agricultural lands.  Given the nature of the proposed development, which will take place predominantly along the existing road footprint as well as extending into adjacent agricultural lands, it is likely that the ground immediately affected will be made ground and agricultural and it can therefore be concluded that the proposed works will have limited negative impact on land and soil characteristics in the area.

Location of the Proposed Development	
	<p>A number of residential and agricultural properties where works are proposed. These locations will be the most impacted by the changes arising from the proposed development.</p> <p>Sensitive receptors are located near the proposed works and include six residential dwellings in total. These include one immediately adjacent to and west of the L1211, one south of the L1121 realignment on the east verge of the existing road, a dwelling between the R518 and L1210 adjacent to the main junction, another on the north verge of the L1210, a property on the northern boundary of the R518 eastbound, and another west of the R518 Ballingarry Road.</p>
the relative abundance, availability, quality and regenerative capacity of natural resources (including soil, land, water and biodiversity) in the area and its underground,	<p>The main natural resource in the area is agricultural land. There may be temporary impacts on the environment during construction due to noise or dust emissions depending on the activity involved and the ambient conditions at the time. However, the construction works are standard in nature and well understood. Implementation of standard best practice measures and construction techniques will be set out by the Contractor in their CEMP and this will ensure no significant impact on the abundance, quality and regenerative capacity of natural resources in the area. Careful and considered local consultation will be carried out with nearby residences to ensure that the minimum amount of disturbance will be caused. The necessary removal of some areas of grass and hedgerow will be mitigated by a sympathetic replanting and boundary reinstatement strategy.</p>
the absorption capacity of the natural environment, paying particular attention to the following areas:	
<ul style="list-style-type: none"> <li>wetlands, riparian areas, river mouths;</li> </ul>	Not Applicable. The route does not cross any wetlands, riparian areas, river mouths
<ul style="list-style-type: none"> <li>coastal zones and the marine environment,</li> </ul>	Not Applicable. The route does not traverse any coastal zones or the marine environment
<ul style="list-style-type: none"> <li>mountain and forest areas;</li> </ul>	Not Applicable. The route does not go through any mountain or forested areas.
<ul style="list-style-type: none"> <li>nature reserves and parks;</li> </ul>	Not Applicable. The route does not go through any nature reserves or parks.
<ul style="list-style-type: none"> <li>areas classified or protected under legislation, including Natura 2000 areas designated pursuant to the Habitats Directive and the Birds Directive and;</li> </ul>	Not Applicable. The route does not go through or is in relative proximity to any Natura 2000 sites (See Appropriate Assessment Screening Report)
<ul style="list-style-type: none"> <li>areas in which there has already been a failure to meet the environmental quality standards laid down in legislation of the European Union and relevant to the project, or in which it is considered that there is such a failure;</li> </ul>	Not Applicable. The route does not go through any areas in which there has already been a failure to meet the environmental quality standards laid down in legislation of the European Union and relevant to the project, or in which it is considered that there is such a failure;



Location of the Proposed Development	
• densely populated areas;	Not Applicable. The route does not pass through any densely populated areas.
• landscapes and sites of historical, cultural or archaeological significance.	Not Applicable. The route does not pass through any landscapes and sites of historical, cultural, or archaeological significance.

**Types and Characteristics of Potential Impacts**

Section 7 Requirement	Response
Question: The likely significant effects on the environment of proposed development in relation to criteria set out under paragraphs 1 and 2, with regard to the impact of the project on the factors specified in paragraph (b)(i)(I) to (V) of the definition of ‘environmental impact assessment report’ in section 171A of the Act, taking into account—	
the magnitude and spatial extent of the impact (for example, geographical area and size of the population likely to be affected	The works will take place along the R518, R520 and L-1210. Potential environmental impacts are mainly related to land take and construction. The impacts are anticipated to be localised and minor along the road length. A relatively small number of residences will be affected as set out in the EIAR Screening main report
the nature of the impact, the intensity and complexity of the impact, the probability of the impact, the expected onset, duration, frequency and reversibility of the impact, the possibility of effectively reducing the impact.	<p><b>Population and Human Health</b></p> <p>The proposed development will have a positive effect on the local community using Lee’s Cross, as well as the wider Limerick area. The development is designed to improve safety for road users travelling through Lee’s Cross and to provide safe access to residents and businesses to their properties. It is expected that the works will result in a reduction in road accidents immediately around the crossroads.</p> <p>There are several residential and agricultural properties adjacent to the scheme. During the construction stage, there will likely be additional noise and dust emissions during this phase as well as disturbance while accesses are relocated, and the junctions are developed. These will be temporary and will not cause significant negative impacts.</p> <p>Traffic associated with the construction stage of the proposed works will be managed appropriately using a Construction Traffic Management Plan (CTMP), to minimise effects on residents and the operation of the local road network. The CTMP, which will be prepared by the construction contractor for the proposed development, will be implemented for the duration of the works with the aim of minimising disruption to traffic flow on the road network. It is not predicted that significant negative effects will arise.</p>

## Types and Characteristics of Potential Impacts

Sensitive receptors are located near the proposed works and include six residential dwellings in total. These include one immediately adjacent to and west of the L1211, one south of the L1121 realignment on the east verge of the existing road, a dwelling between the R518 and L1210 adjacent to the main junction, another on the north verge of the L1210, a property on the northern boundary of the R518 eastbound, and another west of the R518 Ballingarry Road.

Due to the complexity of the existing junction, it will be necessary for land take along the routes of the new alignments, a soakaway area, as well as locations where pinch points will necessitate road widening. The design will seek to minimise the amount of land required along the roadway and will work with affected landowners to minimise impacts. The impact of land take will be permanent and slightly negative. Boundary reinstatement, replanting and landscaping and accommodation works will mitigate this impact.

It is considered that the proposed works will not have significant adverse effects with respect to population and human health and will result in an improved, safer junction arrangement for road users and residents and businesses.

Careful and considered local consultation will be carried out with nearby residents to ensure that the minimum amount of disturbance will be caused. Access to existing residential and agricultural properties will be maintained for the duration of the works.

### Biodiversity

The ecological assessment concluded the site is not within or adjacent to any area designated for nature conservation. Baseline ecological conditions were assessed.

The dominant habitat found in the proposed site of works consists of 'Improved Agricultural Grasslands' GA1. This category is used for intensively managed or highly modified agricultural grassland that has been reseeded and/or regularly fertilised and is now heavily grazed and/or used for silage making. Rye-grasses (*Lolium* spp.) are abundant and may entirely dominate the sward, often in association with White Clover (*Trifolium repens*). Other species found are Dandelion (*Taraxacum* spp.), Creeping Buttercup (*Ranunculus repens*), Plantains (*Plantago* spp.), Nettle (*Urtica dioica*), Thistles (*Cirsium arvense*, *C. vulgare*) and Docks (*Rumex* spp.). 'Hedgerow' WL1 habitats were common in the area with both unmanaged and managed conditions. Few of these hedgerows were dense and mature. Hawthorn (*Crataegus monogyna*) and Ash (*Fraxinus excelsior*) were a dominant species within the hedgerows. Other examples of species found included Blackthorn (*Prunus spinosa*), Sycamore (*Acer pseudoplatanus*), Hazel (*Corylus avellana*) and Elder (*Sambucus nigra*). These

## Types and Characteristics of Potential Impacts

hedgerows (especially dense and mature) would act as ecological corridors for much of the local wildlife. One mature Sycamore was noted in one of the hedgerows. Few 'Treelines' WL2 were found within the works area, species consisted of Hawthorn, Blackthorn, Ash, Beech (*Fagus sylvatica*), Hazel and Holly (*Ilex aquifolium*). None were identified as mature trees. A 'Scrub' WS1 area was identified within the area of works down along a hedgerow. An old house under refurbishment was noted around the area, which could have potential for bat habitats. Further detail on the habitats found can be found in the Appropriate Assessment Screening Report.

Regarding birds seen or heard, the following were identified during the field survey carried on the 15<sup>th</sup> June as referenced in the Appropriate Assessment Screening Report; Thrush (*Turdidae* spp.), Rook (*Corvus frugilegus*), Jackdaw (*Corvus monedula*), Goldcrest (*Regulus regulus*), Swallow (*Hirundo rustica*), Robin (*Erithacus rubecula*), Blue Tit (*Cyanistes caeruleus*), Starling (*Sturnus vulgaris*), Wren (*Troglodytes troglodytes*), Song Thrush (*Turdus philomelos*), House Sparrow (*Passer domesticus*) and Magpie (*Pica pica*). Any works particularly around hedgerows/scrub areas should be done outside of bird nesting season (March 1st – August 31st).

In conclusion, it is recommended that works may proceed as planned without any significant negative ecological effects arising.

A Stage I Appropriate Assessment Screening was completed and concluded that in view of the best scientific knowledge and in view of the conservation objectives of the Natura 2000 sites reviewed in the screening exercise, the proposed development individually/in combination with other plans and projects (either directly or indirectly) is not likely to have any significant effects on any of the European sites and that Stage II Appropriate Assessment is not required.

### Land and Soils

Corine Online Mapping identifies landcover designations around Lees Cross to be 'made ground and agricultural areas', and 'till'. GSI mapping identifies that the quaternary geology underlying the scheme is comprised of Sandstone till (Devonian). The proposed project will involve works within the existing roadway but will also require lands for the new junction realignments and road widening. This will result in removal of some agricultural lands; however, the area is relatively small.

The GSI (1:100,000) Bedrock Mapping indicates that Lee's Cross is underlain by 2 no. bedrock formations; namely the Ballysteen Formation (Dark muddy limestone, shale) to the northwest and the Lower Limestone Shales to the south east. The corresponding aquifer designations are a Locally Important (LI) Aquifer beneath Lees' Cross and to the northwest with a Regionally Important Fissured (Rf) Aquifer to the south east. Subsoils underlying and surrounding the site are mapped as Moderate to Low Permeability.



## Types and Characteristics of Potential Impacts

The nature of the proposed development means that the majority of the works will take place within the existing roadway. However, there will be a requirement for road widening and land take for realigned junctions. Given the low vulnerability of the subsoils, the underlying aquifers are considered to be at low risk from the development.

### Material Assets

A number of landowners have been identified along the proposed route. Landholdings comprise residential dwellings, agricultural fields. The proposed development will have an impact on landowners along the route where land is required to develop the scheme.

There are existing electrical lines, telecoms and watermains in the area which will require some protection and diversion works. However, it may be considered that there will not be negative impacts on both land use and on material assets due to utilities being moved or replaced.

### Landscape and Visual

A small number of residential dwellings are located along the R518 and L1211 where works are proposed. These sites will be the most impacted by the changes arising from the proposed development. The proposed development will mean that the agricultural land adjacent will have boundaries altered with land take required. Sections of hedgerow will require removal. It is not anticipated that the scheme will increase the number of users of the junction but rather that the development will improve safety for road users at the junction.

Works along the R518 and L1211 will require land take from an adjacent field to the west of the existing roadway.

There is no potential for the proposed project to impact directly or indirectly on listed or scenic views or protected landscapes.

Localised impacts on adjacent residences will be mitigated by appropriate landscape planting mitigation and consultation with affected landowners.

### Air Quality and Climate

It is considered that the route of the proposed works is not particularly sensitive to additional emissions and that the surrounding environments are mainly influenced by existing emissions from road transport on the R520 and R518 and adjacent roads.

For the construction phase, this stage of the project will lead to the production of greenhouse gas (GHG) emissions from traffic and the fuel used by mobile plant and equipment. However, these impacts are not anticipated to create any significant adverse effects as they will be short term and temporary in nature.

It is assumed that a Site Waste Management Plan will be developed and there will be contractual requirements for the principal contractor to demonstrate best practice principles and

## Types and Characteristics of Potential Impacts

procedures to minimise the consumption of resources such as fuels and raw materials.

There is potential for dust from site construction works such as excavations, earthworks, and the movement of site traffic. Dust can be spread by vehicles entering and exiting the site. It is anticipated that the appointed contractor will be required to implement dust measures to reduce/avoid any potential dust impacts.

Noting the above and the nature, size and location of the development, significant adverse effects on the environment are unlikely with respect to climate change, GHG emissions and air quality.

### Water

The existing road is drained over-the-edge to ditches in places but there also sections where the road drains over-the-edge with no evidence of any ditch in place so likely drains into the ground. It is expected that the proposed drainage for the scheme will consist of over-the-edge drainage to ditches at the base of embankments in places, interceptor ditches at the toe of the road embankment to catch over-land flow. There will also be filter drains and grassed surface water channels out-falling to carrier pipe systems which will ultimately outfall to a soakaway. Nature based drainage solutions will be employed as much as possible.

The location and extent of the proposed soakaway system will be finalised at the detailed design stage, following completion of trial hole / BRE 365 testing to appropriately size and design the system. Care shall be taken to ensure that the soakaway is not located in areas where there is a risk of ponding or where shallow bedrock is encountered. The design and location of the soakaway and any necessary pre-treatment will be considered at detailed design stage following completion of a risk assessment (selection of appropriate measures commensurate with site specific groundwater protection response) by competent hydrogeologists.

Current Pollution Prevention Guidelines (PPGs) shall be adhered to as standard practice to prevent pollution (including muddy runoff) for both construction of the and future maintenance work.

Limerick City and County Council SFRA and OPW Flood Mapping have been checked to identify if the site and surrounds is at risk of flooding or whether works could cause flooding elsewhere. There is no history of flooding within or near the site. The works will not increase flood risk.

In conclusion, noting the scale, nature and characteristics of the proposed works, there will be no requirement for significant site works or deep excavations. It is not anticipated there will be any significant adverse environmental impacts on the existing groundwater or surface water conditions.

Types and Characteristics of Potential Impacts	
	<p><b>Cultural Heritage.</b></p> <p>There are 7 no. recorded archaeological sites within 1km approximately of Lee’s Cross and 1 no. site recorded on the National Inventory of Architectural Heritage (NIAH).</p> <p>Architectural heritage sites identified within the study area are all structures currently located along existing roads or removed from the proposed works. It is not anticipated that there will be any direct impacts on archaeological or cultural heritage features as a result of the proposed development. The impact of the proposed development is therefore deemed to be low.</p>
<p>the transboundary nature of the impact,</p>	
<p>the cumulation of the impact with the impact of other existing and/or development the subject of a consent for proposed development for the purposes of section 172(1A)(b) of the Act and/or development the subject of any development consent for the purposes of the Environmental Impact Assessment Directive by or under any other enactment</p>	<p>There are currently no known existing or permitted projects (including under other legislation that is subject to EIA) that could give rise to significant adverse cumulative effects.</p>





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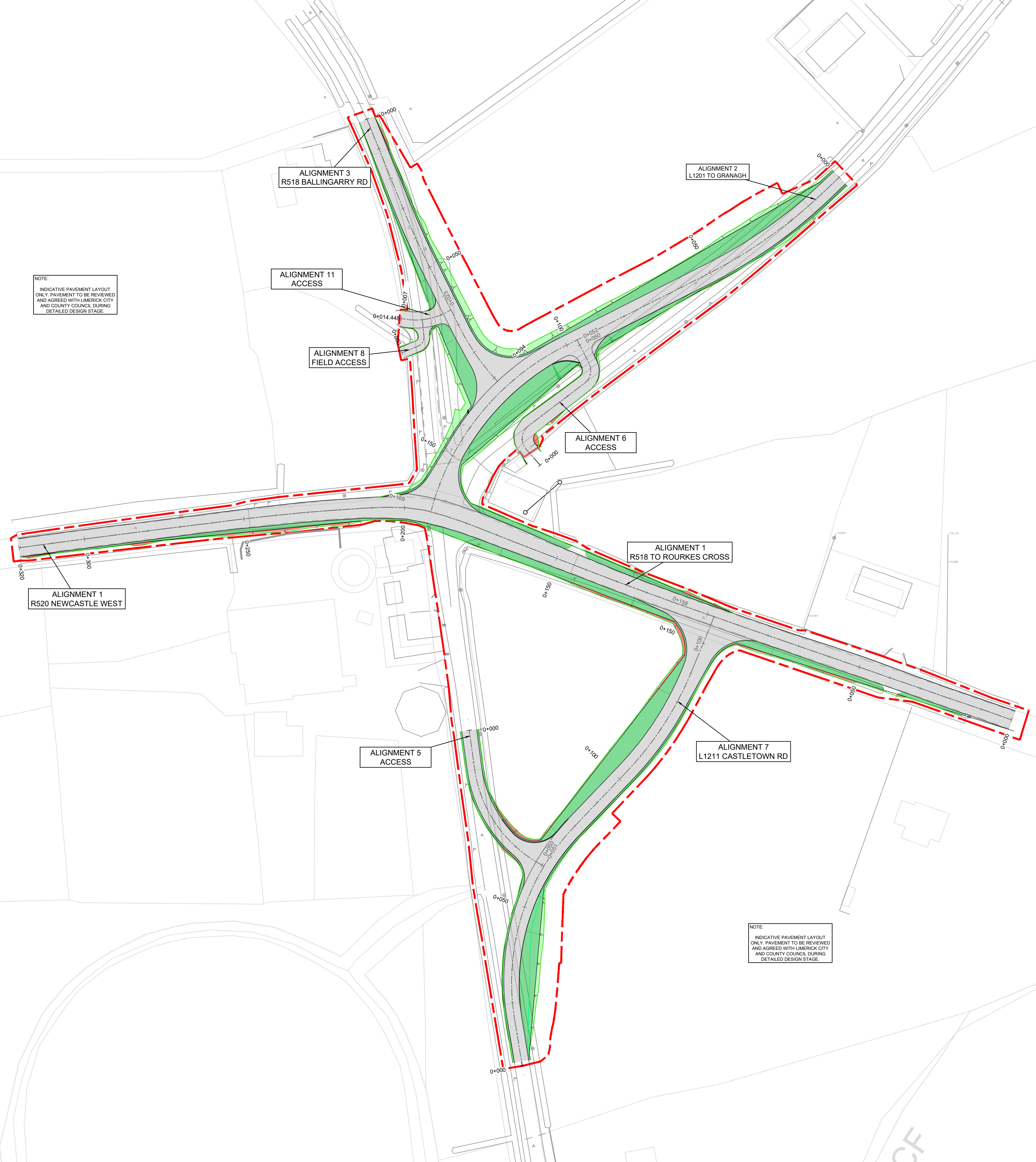
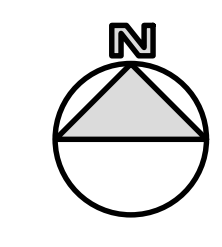
## APPENDIX B - GENERAL ARRANGEMENT AND INDICATIVE DRAINAGE LAYOUT



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Good

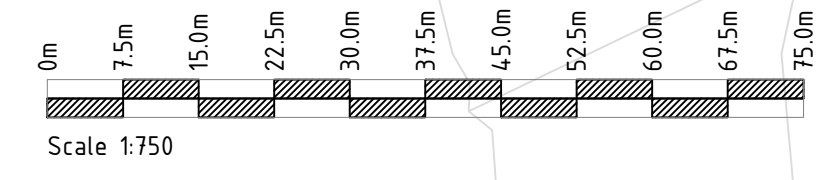
**PART 8 PLANNING**



NOTE:  
INDICATIVE PAVEMENT LAYOUT  
ONLY. PAVEMENT TO BE REVIEWED  
AND AGREED WITH LIMERICK CITY  
AND COUNTY COUNCIL DURING  
DETAILED DESIGN STAGE.

NOTE:  
INDICATIVE PAVEMENT LAYOUT  
ONLY. PAVEMENT TO BE REVIEWED  
AND AGREED WITH LIMERICK CITY  
AND COUNTY COUNCIL DURING  
DETAILED DESIGN STAGE.

**PLAN**  
Scale 1:750



**NOTES**

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3. Co-ordinate system used is Irish Transverse Mercator.

**LEGEND**

- PLANNING EXTENTS BOUNDARY
- GRASSED VERGE
- EARTHWORKS - FILL
- EARTHWORKS - CUT
- PROPOSED PAVEMENT

REV	DATE	DESCRIPTION	BY	CHK	APD
P04	15/08/2023	PART 8 PLANNING	ZM	LT	AP
P03	11/08/2023	PART 8 PLANNING	LT	LT	AP
P02	18/07/2023	PART 8 PLANNING	LT	LT	AP
P01	07/07/2023	PART 8 PLANNING	MV	LT	AP
P00	06/07/2023	PART 8 PLANNING	KK	AP	TM

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**PROJECT**  
LEES CROSS JUNCTION  
IMPROVEMENT SCHEME

**DRAWING TITLE**  
GENERAL ARRANGEMENT

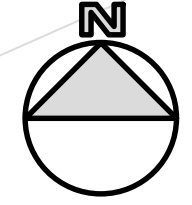
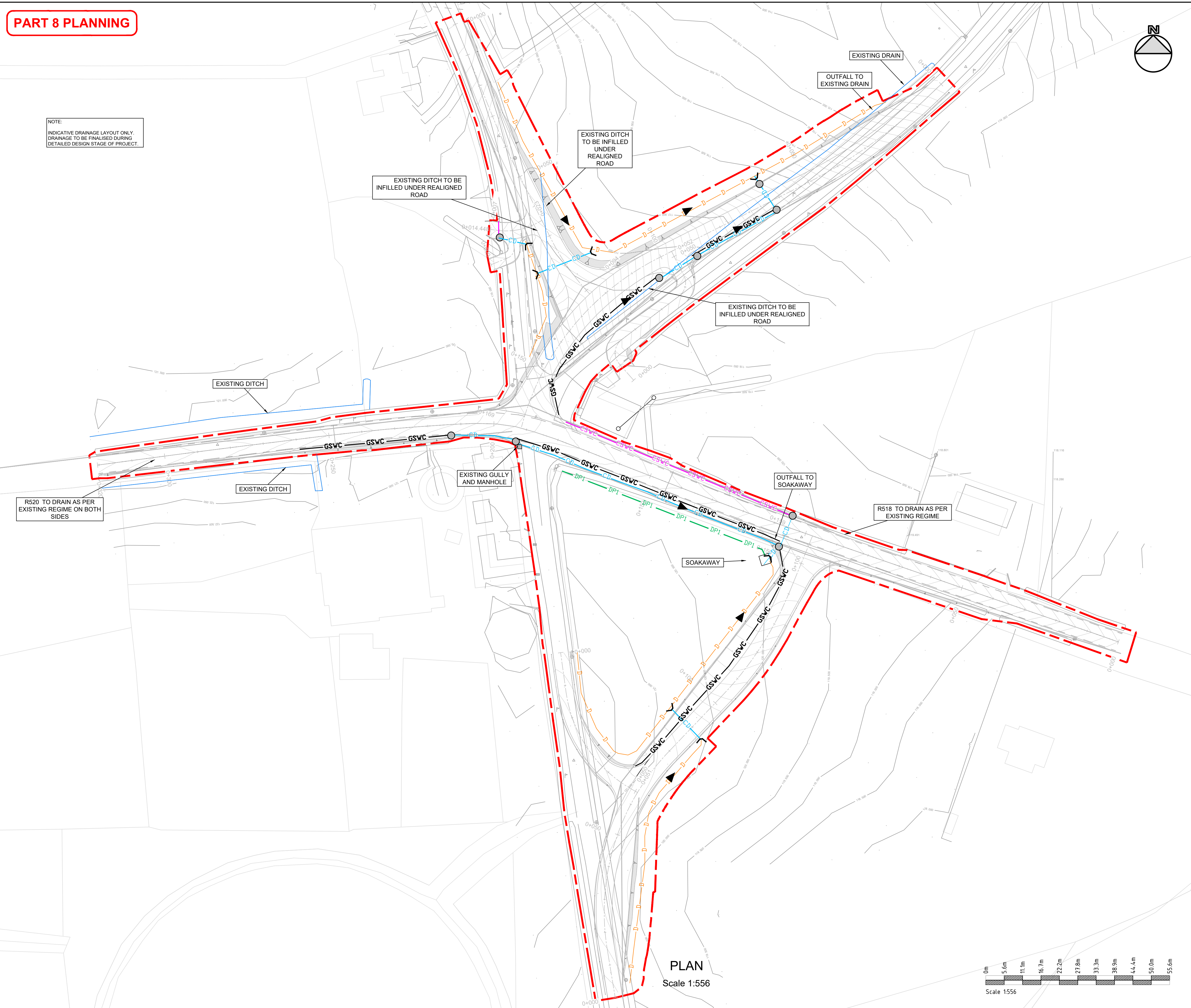
PURPOSE OF ISSUE	STATUS/SUBMITTAL	SHEET SIZE
Planning	P1 - Planning	A1
DATE	SCALE	
06/07/2023	1:750	

DRAWING NUMBER: LCJU-CCC-GA-ZZ-DR-C-0001  
REVISION: P04



**PART 8 PLANNING**

NOTE:  
INDICATIVE DRAINAGE LAYOUT ONLY.  
DRAINAGE TO BE FINALISED DURING  
DETAILED DESIGN STAGE OF PROJECT.



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**LEGEND**

- Planning Extents Boundary
- Pre-earthworks Ditches  
See TII Publication No. CC-SCD-00602
- Lined Ditch  
See TII Publication No. CC-SCD-00602
- Ditch (Drain road over-the edge to ditch)  
See TII Publication No. CC-SCD-00602
- GSWC  
Grass surface Water Channel (and narrow filter drain)  
See DWG: CC-SCD-00104
- CSWC  
Concrete Surface Water Channel (and narrow filter drain)  
See DWG: CC-SCD-00103
- CD  
Carrier Drain  
See TII Publication No. CC-SCD-00521
- FD  
Filter Drain  
See TII Publication No. CC-SCD-00101
- NFD  
Narrow Filter Drain
- Swale
- Existing Ditch or Watercourse
- Area where Sealed Drainage is required
- ▶ Direction Flow Arrow
- Chamber
- ) Headwall  
See TII Publication No. CC-SCD-00553
- ⊓ Check dam.
- Petrol/Oil Separator
- Gully & Gully Tail  
See TII Publication No. CC-SCD-00510
- KD  
Kerb Drain and Gully

P02	15/08/2023	PART 8 PLANNING	ZM	LT	AP
P01	15/08/2023	PRELIMINARY	AP	LT	AP
P00	22/05/2023	PRELIMINARY	AP	LT	AP
REV	DATE	DESCRIPTION	BY	CHK	APD

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**PROJECT**  
LEES CROSS JUNCTION  
IMPROVEMENT SCHEME

**DRAWING TITLE**  
INDICATIVE  
DRAINAGE LAYOUT

PURPOSE OF ISSUE Planning	STATUS/SUBMITTAL P1 - Planning	SHEET SIZE A1
DATE 22/05/2023	SCALE AS SHOWN	REVISION

DRAWING NUMBER: LCJU-CCC-DD-ZZ-DR-C-0001  
REVISION: P02

**PLAN**  
Scale 1:556

