

Our Ref: 61559/RL

Your Ref:

2nd December 2021

Countryside Properties – Northern Home Counties
c/o Mr Robert Phillips
Turnford Place
Great Cambridge Road
Broxbourne
Hertfordshire
EN10 6NH

Dear Mr Phillips

Re: Land off Cambridge Rd, Melbourn – Highways Advice

I refer to your instructions to complete an overview of access and transportation matters in respect of the above Site. It is understood the Site has a draft allocation in the Greater Cambridge Local Plan (S/RRA/CR) and scored 'amber' under the Greater Cambridge Housing and Economic Land Availability Assessment (HELAA) for transport accessibility and access. Under the current and draft Local Plan hierarchy, Melbourn is a key settlement and classed as a Minor Rural Centre; therefore, a development quantum of that being considered is likely to be appropriate on transport grounds. It has been advised that the Site area is approximately 6.5ha on greenfield land.

It is acknowledged that the total number of units the Site can accommodate will be determined at the planning application stage and be based on factors other than transport. Our assessment for access and the transportation elements has been made on the basis of the following as suggested in the draft Local Plan:

- Parcel A – 2.5ha of employment use (to be adjacent to the existing Melbourn Science Park);
- Parcel B – Up to 120 dwellings.

This assessment considers current policy with regards to development and accessibility issues, which are addressed in the following matters:

1. Access and the current situation.
2. Location and accessibility to services.
3. Transportation links including pedestrian, cycle and public transport modes.
4. Any likely off-site highway/transportation improvements.
5. Conclusions including a summary table.

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The site is located west of Cambridge Road in Melbourn with a grid reference of 539049, 245337 and an approximate postcode of SG8 6EE. The Site is adjacent to and fronts on to Cambridge Road with the Melbourn Science Park located to the south. To the north are small industrial estates and a few residential dwellings. Agricultural land lies to the northwest of the Site.

The Site was subject to a previous planning application and planning appeal in 2017 / 2018 for a development quantum of 160 dwellings. It should be noted that all highway / transport items concerns Cambridgeshire County Council (CCC), as the Highway Authority, had on the application were resolved and there was no objection subject to appropriate conditions and a Section 106 agreement.

Melbourn is a parish of South Cambridgeshire District Council and between the town of Royston and the City of Cambridge which are key destinations for commuter, retail and leisure related journeys. It has approximately 2,333 households and a population of approximately 5,610 (taken from the 2011 Census data for the Melbourn parish). The village is situated adjacent to the A10 which stretches from London, via Royston, to Cambridge. To the south of the village, the A505 links the A11(T) and M11 with Letchworth Garden City. Melbourn is approximately 15km southwest of Cambridge and 4.5km northeast of Royston.

Cambridge Road is approximately 7.3m wide, with a footway / cycleway on the north side of the road. Cambridge Road connects the A10 in the north with the centre of Melbourn, via High Street, located to the southwest. Where High Street junctions with Station Road, this provides access to the local train station in the neighbouring village of Meldreth (west of the A10).

CCC have previously identified, based on historic planning applications, that the main concerns for development on this Site, would be:

- Cumulative impacts on junctions with Melbourn (the key one is the traffic signal junction within the centre of the village) as well as junctions with the A10 and A505.
- Pedestrian / cycle access to / from the train station and primary schools in Melbourn and Meldreth.
- Cycle access to Royston and Cambridge.

Through a planning application approved for a 199-dwelling development (currently about 50% completed) in the south of Melbourn, the traffic signal junction located in the centre of the village had funding provided to CCC to provide a junction upgrade to improve capacity.

Routes to Cambridge and Royston from Melbourn are aimed to be facilitated for pedestrians, cyclists, and horse-riders via the Melbourn Greenway. This is managed by the Greater Cambridge Partnership and is currently under a detailed design stage. Within Melbourn, cycling is appropriate but along the A10 becomes more hazardous. The Melbourn Greenway will be an excellent piece of infrastructure that will link the village with key destinations in the County and a suitable contribution from the Developer of the Site to support the delivery between Melbourn and Royston will be supported. The link to Cambridge has primarily been provided for already.

Our advice is based on Ordnance Survey mapping where topographical survey information is not available and third-party vehicle flow / speed data, where it is not possible to obtain new information due to time constraints. Therefore, use of publicly available information on nearby / historic planning applications has been used, where required. Any advice will be subject to future traffic survey work of an agreed Study Area with CCC.

Access and the current situation

The existing site currently has an existing farm access off Cambridge Road in the southern corner and it is approximately 30m south of the residential cul-de-sac known as Portway.

Access– See Drawing 61559/PP/SK01

The access parameters for the Site have been considered for a development of up to 120No. dwellings plus 2.5ha of employment. It is proposed that the Site has two separate points of access to serve the employment area and the residential dwellings independently. However, within the Site there will be the potential for connections for pedestrians, cyclists, and where possible emergency vehicles between the two proposed uses.

The type of access required to serve the development is dictated by the CCC Highway Development Management General Principles for Development (HDMGPD), which currently recommends for residential development between 100-300 dwellings dimensions of a 5.5m wide carriageway with 2.0m wide footways on both sides, unless utilising a cycleway. For residential development between 100 -200 dwellings a second point of access for emergency vehicles and vulnerable road users will be sought, which can be adequately accommodated with an internal link to Parcel A.

For the employment uses (Parcel A), a distributor road geometry is recommended of a minimum 6.1m carriageway width with a footway and cycleway on either side of the road. Larger junction radii will assist the movement of any potential larger vehicles accessing the employment uses until exact operational uses are known.

The design speed for the internal roads will be 20mph and designed according to the HDMGPD. The maximum gradient of the access road should be no more than 8%. This is considered to be achievable based on our initial reviews of the site and its topography.

As per the HDMGPD, the southern access to Parcel A would be a minimum 50m distance from the existing Portway access. The access to Parcel B would then be a minimum of 100m north of the southern access.

Cambridge Road along the Site frontage is mainly subject to a 60mph speed limit with the terminal plates located just north of Portway. Speed surveys undertaken at this location in November 2021 show that the 85th percentile speeds of vehicles are no higher than 50mph which equates to a 160m stopping sight distance. For a 60mph speed limit the equivalent stopping sight distance is 215m. It is considered that as part of the access proposals that the existing 30mph speed limit is extended further north by approximately 327m and provided with appropriate gateway signage to reduce vehicle speeds upon entry to the village.

To be robust, until a Traffic Regulation Order is approved for the speed limit extension, an initial review of the available visibility from the proposed vehicular access positions has been undertaken on existing vehicle speed limits / speed surveys. It indicates that 160m (suitable for a 50mph speed limit) for the southern access and 215m (suitable for a 60mph speed limit) for the northern access of visibility in each direction at a 2.4m setback, as a minimum, is likely to be achievable and should be unaffected by the horizontal deflection in the road as the existing access is on the inside of a bend.

As the two principle accesses can be linked with an emergency access link connecting Parcel A with B, it is not deemed necessary to provide an emergency link direct to Cambridge Road.

Based on estimated trip generation for each parcel and the recorded 2-way traffic flow (surveyed in November 2021) of approximately 4300 vehicles per day, the use of a priority-controlled junction format would provide adequate capacity and minimise traffic flow disruption along the main road to / from the village.

Location and accessibility to Services

To assess the ability for potential residents to access services, research has been undertaken to locate the nearest local services and amenities, which are tabulated in **Table 1**.

Table 1 – Local Amenities/Services

Facility	Location	Km
Pre-School	Melbourn	1.27
School - Primary	Melbourn	1.34
School - Primary	Meldreth	2.70
School - Secondary	Melbourn	1.04
Doctors Surgery	Melbourn	1.64
Post Office	Meldreth	2.80
Small Food Retail	Melbourn	1.05
Large Food Retail	Royston	6.10
Public House	Melbourn	1.40
Dentist	Melbourn	1.21
Place of Worship	Melbourn	1.17
Bus Stops	Cambridge Road	0.17
Local Employment	Melbourn Science Park	0.46
Gym / Sports Centre	Melbourn	1.04
Train Station	Meldreth	2.15

Accessibility to local services is very important in respect to transport planning. The conclusions that can be drawn from the table are that most of the amenities and services are available in the local area. A key aim of the National Planning Policy Framework (NPPF) is to promote sustainable travel choices and accessibility to shops, jobs and other facilities whilst reducing the need to travel, especially by car. Walking is identified as the most important form of transport at local level and the walking offers the greatest potential to replace the car for journeys of less than 2.0km. The NPPF, among others, also acknowledges that cycling has the potential to replace many car trips of less than 5.0km, which may also form part of longer journeys supported by public transport.

Table 1 provides an indication of the distances that need to be travelled to the facilities and as a consequence, the following list indicates the acceptability of the site in terms of distance, frequency of use and acceptability of need to travel.

Table 2 - Acceptability of Travel/Use Table

Amenity	Location	Km	Likely Frequency of Use						
			Daily		Weekly		Greater than Weekly		
			Km		Km		Km		
			<5.0	>5.0	<5.0	>5.0	<5.0	>5.0	
Pre-School	Melbourn	1.27	X						
School - Primary	Melbourn	1.34	X						
School - Primary	Meldreth	2.70	X						
School - Secondary	Melbourn	1.04							
Doctors Surgery	Melbourn	1.64					X		
Post Office	Meldreth	2.80			X				
Small Food Retail	Melbourn	1.05	X						
Large Food Retail	Royston	6.10				X			
Public House	Melbourn	1.40			X				
Dentist	Melbourn	1.21					X		
Place of Worship	Melbourn	1.17			X				
Bus Stops	Cambridge Road	0.17	X						
Local Employment	Melbourn Science Park	0.46	X						
Gym / Sports centre	Melbourn	1.04	X						
Train Station	Meldreth	2.15	X						

The conclusions of the acceptability table for distance and frequency travelled indicates that most daily activities are within 2.0km of the development. For those employed or travelling to Cambridge or Royston, access to the city or town can be achieved by bus or by train. The train station is within a suitable walking and easy cycling distance (approx. 2.15km) from the site.

There is also a very good level of employment in Melbourn and will be further enhanced by the proposed employment use on the Site. The new residential properties will assist those working in Melbourn to potentially relocated closer to their employer and thus travel by walking / cycling.

Transportation Links for Pedestrian, Cycle and Public Transport

As stated previously, local, regional and national guidance for transportation advises that proposed development should be readily accessed by all sustainable modes of transport, for all users. Considering the different modes an assessment can be made in respect of the suitability of existing infrastructure.

Pedestrians

There are no public rights of way on or adjacent to the site that the development proposals would affect.

The routes for pedestrians are well served up to the village centre and all key amenities with a footway along the northern side of Cambridge Road of varying width but a minimum of 1.5 metres. There is also a footway connection on the southern side of Cambridge Road starting near to the junction with Portway. Within the main area of the village there are also crossing points at key locations both controlled and uncontrolled.

Further to this, for access to the train station pedestrians can utilise the existing Public Right of Way rather than the longer route via Station Road. There is a footbridge that then enables access to the other platform. The Public Right of Way is well used as a shortcut from Melbourn to the train station and funding

has been provided to upgrade the route by the permitted development in the south of the village.

An assessment of the safe route to schools would be undertaken at the planning application stage but the initial assessment shows that for both primary school age children and secondary school age persons, a safe route to school (in Melbourn) can be achievable. A full assessment will be undertaken in the supporting Transport Assessment.

Cyclists

The bicycle has become a much more widely used mode of transport in recent years, as promoting the healthier lifestyle and the current economic circumstances that affects the population. From assessing the locations of the facilities locally, many of them are well within the 5.0km cycling distance parameters that are recognised in NPPF. The increased use of e-bikes has increased this range to easily cycle to / from to 10-15km.

There is currently no Sustrans route that passes through Melbourn but there is a shared use cycleway on the northern side of Cambridge Road that starts at Melbourn Science Park and ends at the Garden Centre at the north. Beyond this there is an uncontrolled crossing of the A10 off Dunsbridge Turnpike to access the off-road shared use cycleway that connects with Foxton, Hauxton, Trumpington and then into Cambridge City Centre. There is no direct cycleway connection to Royston, but the Melbourn Greenway will assist with connecting the village with the nearby town.

The roads in Melbourn are within a 30mph speed limit and, thus, provide an appropriate network for cycle use in the village, to access local amenities. It is known that there are proposals for improving bicycle parking in Melbourn village centre to promote this mode of travel from the outlying residential areas.

Public Transport

To assess the available bus services to the proposed development a review of the service provision has been undertaken and scheduled in the table below, all bus routes are within 400m of the site and therefore considered to be a reasonable walking distance for most able-bodied people.

Table 3 - Local Regular Bus Services

Operator	Service	Frequency
Stagecoach (opp Portway)	915 – Royston - Cambridge	Monday – Friday 06.37, 60 min frequency to 19.13 Saturday 06.37, 60 min frequency to 19.13 Sunday No Service
Stagecoach (adj Portway)	915 – Cambridge - Royston	Monday – Friday 07.36, 60 min frequency to 19.56 Saturday 07.36, 60 min frequency to 19.56 Sunday No Service

Note: Correct as of November 2021

The commute time for the service 915 is approximately 49 minutes to Cambridge City Centre and 28 minutes to Royston. It is considered that there are additional Community Transport options available at each bus stop for those less able to utilise public transport.

The existing nearest bus stops to the development consist of informal laybys and flagpole features. As part of the development proposals, the Cambridge bound bus stop will be relocated and provided with a formal layby and bus shelter facility. The Royston bound bus stop is only considered to be provided with a formal timetable feature and formal flagpole. An uncontrolled crossing with dropped kerbs and tactile paving should be provided to facilitate crossing between the two bus stops.

The above shows that the bus services provide as a minimum a Minor Rural Centre the following:

- Shopping service - five days a week;
- A journey to work service – Monday to Friday to and from Cambridge;
- A Saturday service to Cambridge and return.

Further public transport services are available via the local Train Station. The train service from Meldreth Train Station provides an hourly service off-peak and half hourly peak times to/from Cambridge and London Kings Cross. The journey time to Cambridge is approximately 15 minutes and to London it is approximately 69 minutes, and the train service provides a Sunday service. The station is within easy cycling distance and reasonable walking distance of the Site and also has bicycle parking available for use. Step free coverage is available through the station's platforms.

It is considered that the adjacent bus stops allowing access to/from Royston and Cambridge as well as a local train station for access to/from London allow for a sustainable development location.

In addition to the traditional public transport provision above, Melbourn has a Car Club operator in the village that enables pay as you go services for those trips that require the use of car but enable residents to consider the need to own a car / second car. It would be recommended that this service is further investigated for this Site and local neighbourhood.

Highway/Transportation Improvements

A comprehensive study would be needed for the site in the form of a Transport Assessment prior to the submission of any future planning application. The Transport Assessment would review the site access format and visibility requirement in detail through an up-to-date speed and traffic survey. The principle of two separate priority control accesses to serve a future residential and employment development in this location is considered to be acceptable and in accordance with national and local design criteria based on the available traffic data for Cambridge Road and quantum of development being considered with minimal alteration to the existing highway network.

With regard to pedestrian links, footways are available to most of the amenities in Melbourn including the primary & secondary schools, doctors, and public transport boarding locations. It is not considered that improvements are

required as part of these development proposals beyond that of the site frontage. Section 106 contributions to the Melbourn Greenway and Public rights of Way improvements are considered appropriate.

It is not considered that improvements to public transport provision, beyond improvements to the nearby bus stops, would be necessary given the easy ability to access the bus services and local train station.

An up-to-date assessment of local junction capacity in Melbourn has not been undertaken, however, it is known from historic planning applications that during peak periods the Station Road / High Street / Mortlock Street junction can be busy. However, the approved development located off New Road, to the south of the village, was required to provide funding to improve capacity levels at this junction.

Through the historic planning application for this site local junction capacity assessment were undertaken and the only junctions that identified capacity issues was the traffic signal-controlled junction in the centre of the village and the New Road junction with the A505. The proposed development had a direct impact on the traffic signal junction’s capacity (prior to the noted capacity improvements by others). Since the planning application was submitted, the UK has gone through large changes as a result of the COVID-19 pandemic with an increase in home working and use of cycling for travel. Traffic growth as historically predicted has altered and even reduced in some cases. A new traffic survey of the High Street approach to the traffic signal-controlled junction has been undertaken to determine if traffic growth has occurred as predicted in the historic planning application.

The survey was undertaken over a 7-day period between the 16th November and 22nd November 2021, when there were no travel restrictions in place within the UK. A summary for daily traffic and peak hour traffic is presented below.

Table 4 – High Street Daily Traffic Comparisons

	Northbound	Southbound	Total
April 2017 – Average Daily Traffic Flow (surveyed)	2404	2421	4825
November 2021 – Average Daily Traffic Flow (surveyed)	2149	2128	4277

Table 5 – High Street Peak Hour Traffic Comparisons

	Northbound		Southbound		Total	
	AM	PM	AM	PM	AM	PM
April 2017 – Peak Hour Flow (surveyed)	446	314	224	397	670	711
November 2021 – Peak Hour Flow (surveyed)	177	209	242	174	419	383

As it can be seen daily weekday traffic has reduced by approximately 11% and the peak hours reduced by approximately 40%. The capacity concerns identified at the traffic signal-controlled junction will have likely been resolved through the traffic reductions in the village and the mitigation by the development to the south of the village. This is also taking into consideration the large development under construction is 50% fully occupied. It can also be assumed that traffic on the New Road approach to the A505 will have also reduced and capacity constraints will likely have reduced compared to the last assessment in 2017. The likely conclusion of the impact of the proposed development on the local highway network capacity is that it will not be severe as prescribed in the NPPF and thus requires no mitigation.

The proposed development will not generate sufficient traffic volumes to affect a specific Trunk Road of the National Highways network.

However, the formal Transport Assessment would review all agreed junctions in a Study Area formally to present the capacity levels based on the decided number of dwellings being promoted on the Site.

Conclusions

To collate the issues and highlight the matters that are relevant to transportation for a proposed development on the Land off Cambridge Road, Melbourn, **Table 6** shows the summary of opportunities / constraints that the scheme includes.

Table 6 - Summary Table

Matters	Comment	Satisfactory / Easily mitigated	Requires further investigation or mitigation	Unlikely to be Satisfactory or mitigated
Principle of Site Access	Two points of priority-controlled accesses can be provided on to Cambridge Road that meet the requirements of CCC and an initial investigation based on Ordnance Survey data indicates that appropriate visibility splays can be achieved based on the current speed limits along the Site frontage of Cambridge Road. However, it would be proposed to extend the 30mph speed limit further north to reduce vehicle speeds across the site frontage. An emergency access (including pedestrians and cyclists) between the proposed residential and employment uses can be provided for but a vehicular link will not be provided.			
Accessibility to Amenities	A high proportion of daily and weekly services can be accessed by pedestrian and cyclists within 5.0km. Further amenities can be accessed through local public transport provision.			
Pedestrian Links	Good site routes to primary and secondary education and most local amenities are already provided for.			
Cycle Facilities	No additional infrastructure deemed necessary. Contribution to off-site infrastructure to support cycling to / from Royston deemed appropriate.			
Public Transport	The current public transport provision has suitable frequency to key employment destinations outside of Melbourn. Local bus stop upgrades are deemed necessary to support access to the local bus service.			
Highway / Transport Improvements	A review of historic planning applications and comparison of local traffic volumes has shown that traffic has likely reduced significantly through the village and the proposed development is not likely to have a significant or severe impact that would warrant mitigation.			

It is therefore concluded that in terms of vehicular access, accessibility to services, other modes of transport and the public transport provision, the Site is likely to meet all necessary transport policy criteria.

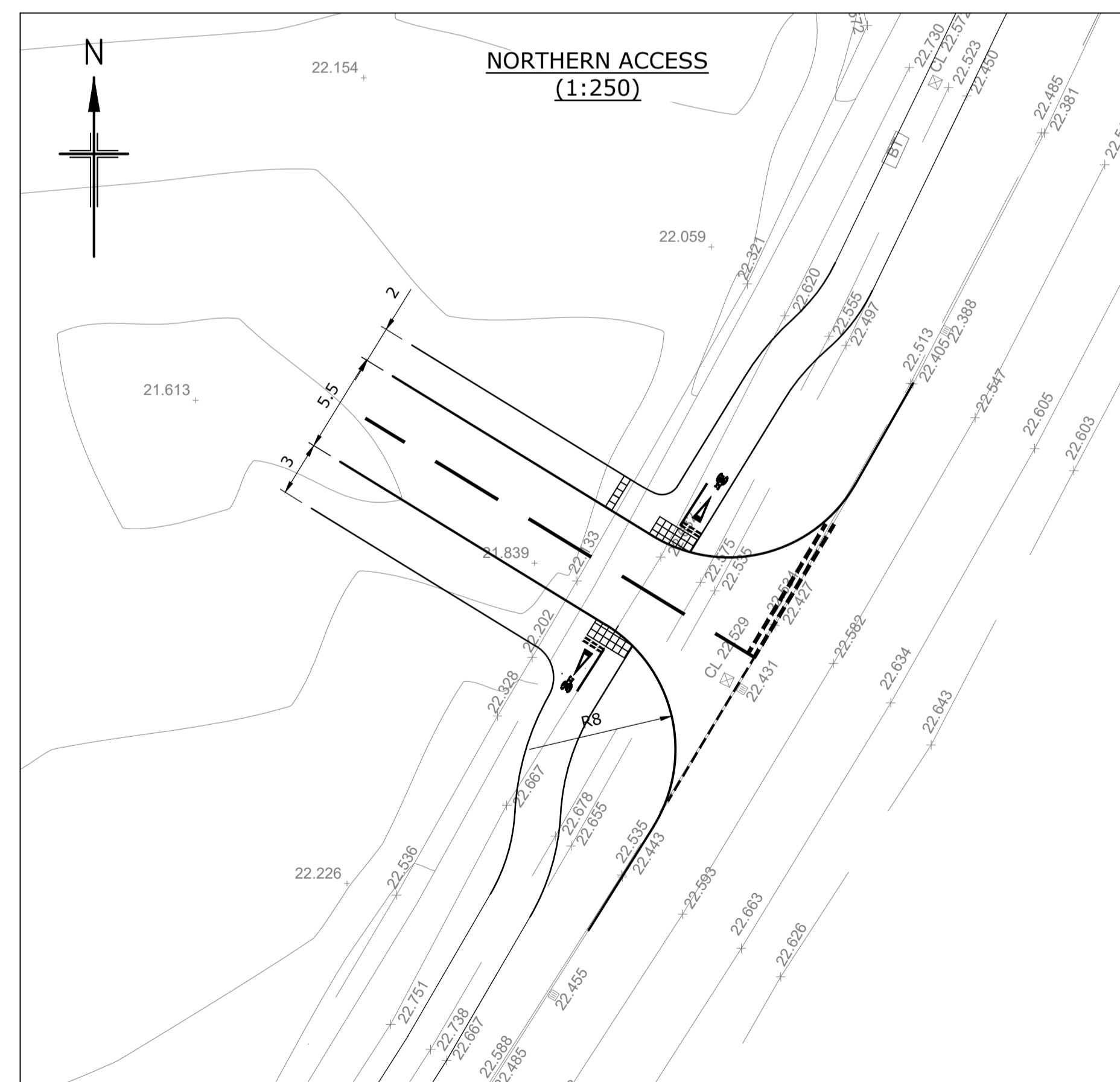
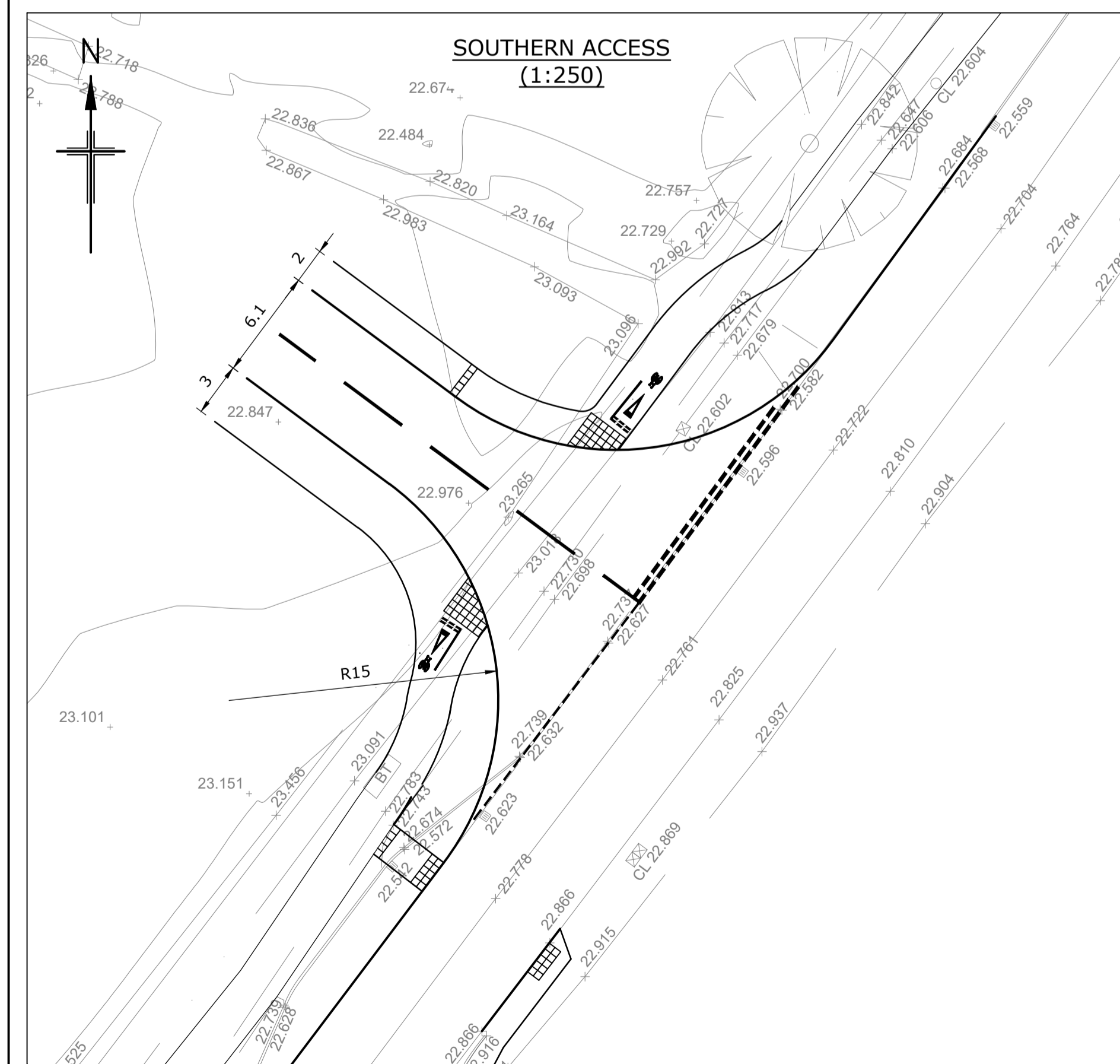
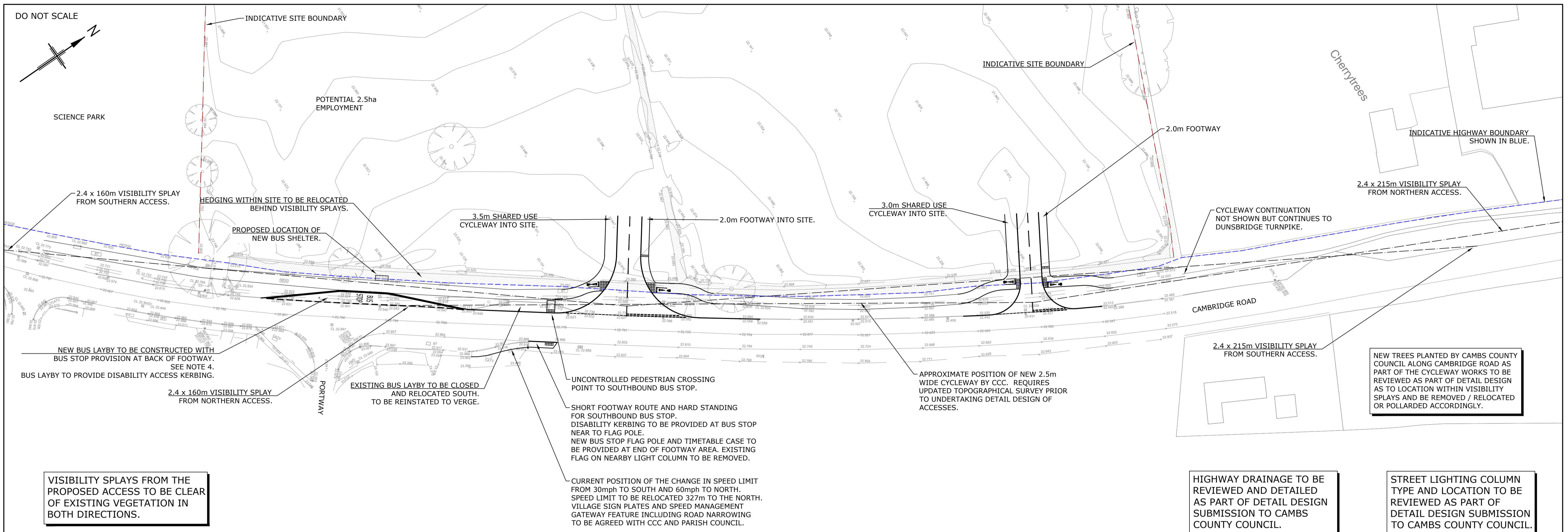
I trust the foregoing is satisfactory but if we can be of any further assistance, please do not hesitate to contact us.

Yours sincerely



Raymond Long BSc (Hons) IEng MCIHT MICE
Associate
on behalf of Richard Jackson Limited

encs
Drawing 61559/PP/SK01 – Indicative Access Strategy



- NOTES**
- ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE STATED. PLAN IS BASED ON TOPO SURVEY INFORMATION.
 - VISIBILITY SHOWN ACCORDS WITH DMRB CD 109 REF 5.N (DESIGN SPEED OF 85/100KPH). VISIBILITY BASED ON CURRENT SPEED LIMITS AND SPEED SURVEYS.
 - JUNCTION STAGGER FROM WESTERN ACCESS TO PORTWAY IS APPROX. 73m.
 - PRELIMINARY BUS LAYBY EXTENTS ACCORD WITH LTN 1/97 'KEEPING BUSES MOVING', AND ARE BASED ON A 52m LENGTH, 3.0m DEEP.
 - THE EXACT EXTENT OF THE HIGHWAY BOUNDARY IS UNCONFIRMED.
 - REFER TO ARCHITECTS MASTERPLAN FOR CONTINUATION OF ACCESS ROADS AND FOOTWAY/CYCLEWAY INTO THE SITE.

REPRODUCED FROM ORDNANCE SURVEY MAP WITH THE PERMISSION OF THE CONTROLLER OF HER MAJESTY'S STATIONERY OFFICE. © CROWN COPYRIGHT RICHARD JACKSON LTD - ACC No. 100002572.

REV	DATE	DESCRIPTION	DRAWN	CHKD
B	02.12.21	AMENDED ROAD MARKINGS & TACTILES	RNL	MJD
A	23.11.21	RELOCATED EASTERN ACCESS.	RNL	MJD

Project LAND NORTH OF CAMBRIDGE RD MELBOURN CAMBS	Title PRELIMINARY ACCESS DESIGN	Client COUNTRYSIDE PROPERTIES (UK) LTD	Drawn RNL	Date 22.10.21	This drawing is to be read in conjunction with all other Engineer's drawings and all other project information. Any discrepancy between the Engineer's drawings and other project information is to be reported to the Engineer immediately.	<p>847 The Crescent, Colchester, Essex CO4 9YJ Unit 06C130, 6th Floor, 1 St. Katherine's Way, London, E1W 1UN 5 Quern House, Mill Court, Great Shelford, Cambs CB22 5LD 4 The Old Church, St. Matthews Road, Norwich, Norfolk NR1 1SP The Wheelhouse, Boods Mill, Stonehouse, Gloucestershire GL10 3RF Email Address: mail@rj.co.uk</p> <p>Tel: 01206 228800 Tel: 020 7448 9910 Tel: 01223 314794 Tel: 01603 230240 Tel: 01172 020070 Website: http://www.rj.co.uk</p>	Drawing No. 61559/PP/SK01	Revision B
Job Manager RNL			Checked RNL	Scale 1:500@A1			Drawing Status	<input checked="" type="checkbox"/> INFORMATION <input type="checkbox"/> APPROVAL <input type="checkbox"/> COSTING
Approved RNL							<input type="checkbox"/> TENDER <input type="checkbox"/> CONSTRUCTION <input type="checkbox"/> AS CONSTRUCTED	