

# TRAFFIC AND TRANSPORT APPRAISAL



PORTHCURNO COASTAL COMMUNITY TEAM

# Introduction

- Hydrock is a national multi-discipline engineering consultant with a local, Camborne based office specialising in highways and transport planning. As a local consultant, we are very keen support the Porthcurno Coastal Community Team (PCCT) and local residents.
- We were appointed by the PCCT to undertake a Traffic and Transport Appraisal (TTA) to identify key factors contributing to traffic congestion issues experienced within the Porthcurno Valley.



# Historic Infrastructure

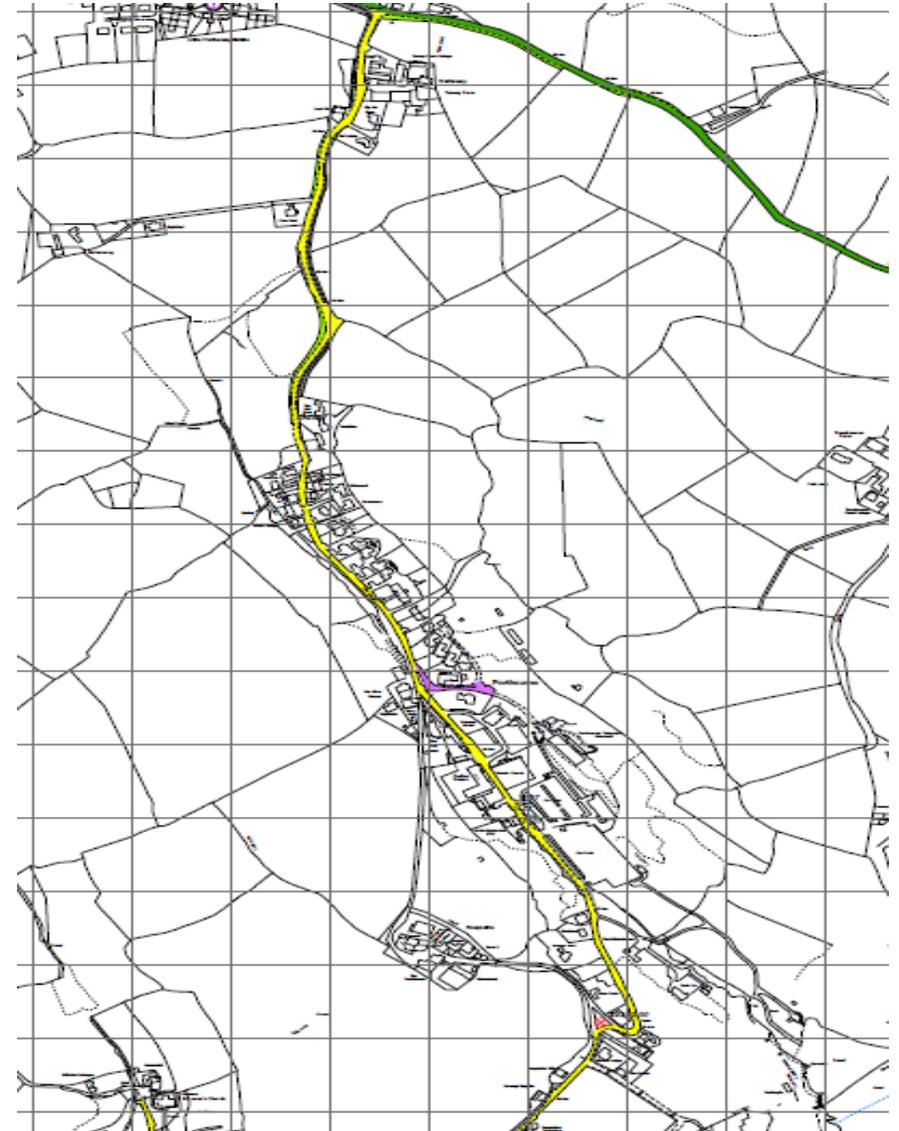
- As the operational requirement ceased for the telecommunications, the tourism industry developed within the area.
- The road infrastructure within Porthcurno has not evolved with the changing times.
- The highway infrastructure within the area is largely the same as it was 100 years ago.
- Historic mapping from 1937-1963 shows the highway as it is today, and previous to this has hardly changed since 1908.



1937-1963



Present Day OS Map



# Tourism - Cornwall

## Case Study Comparison

### Eden Project

- Ranked #99<sup>th</sup> attraction within Cornwall (Trip Advisor, 2016).
- Had 960,029 visitors in 2015.

### Minack Theatre

- Ranked #1 attraction in Cornwall (Trip Advisor, 2016)
- Had 255,728 visitors in 2015.
- Equates to nearly one third of the Eden project visitors, yet no road infrastructure investment.
- 2016 visitor numbers forecast to be a further 25% increase on 2015.



**eden project**

THE  
**minack**  
*theatre*  
PORTHCLURNO CORNWALL

**Hydrock** 

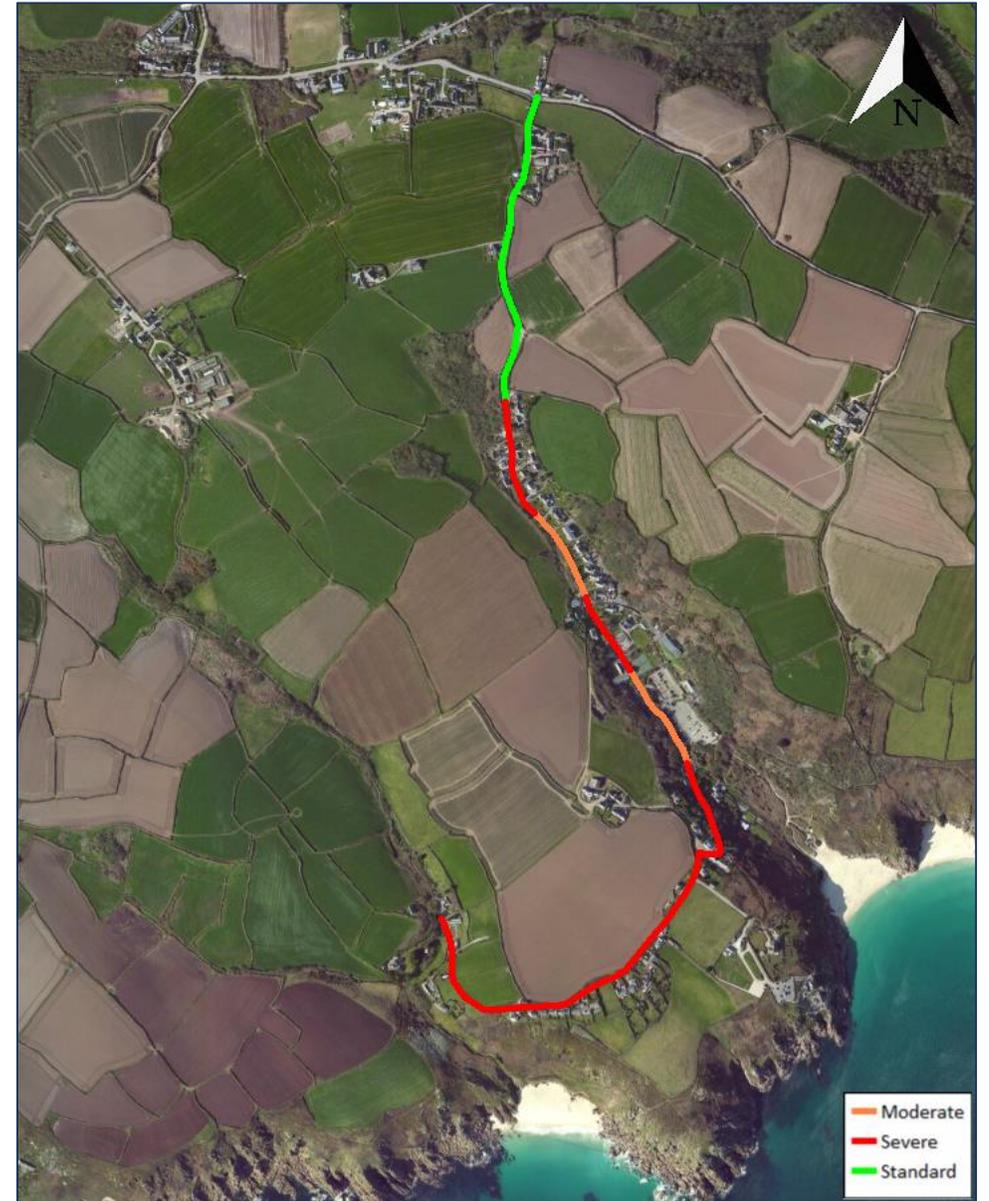
# CURRENT ISSUES AND CONSTRAINTS



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# 'The Valley' Road Width

- The road width of 'The Valley' is constrained by a number of factors. These include:
  - The natural constraints of the Porthcurno Valley causing pinch points along the route as shown in the diagram opposite;
  - The stream which runs through 'The Valley';
  - The rural nature of the road built to serve the historic use. It wasn't designed to cope with today's traffic volumes and types of vehicle.



# Examples

Southbound along 'The Valley'



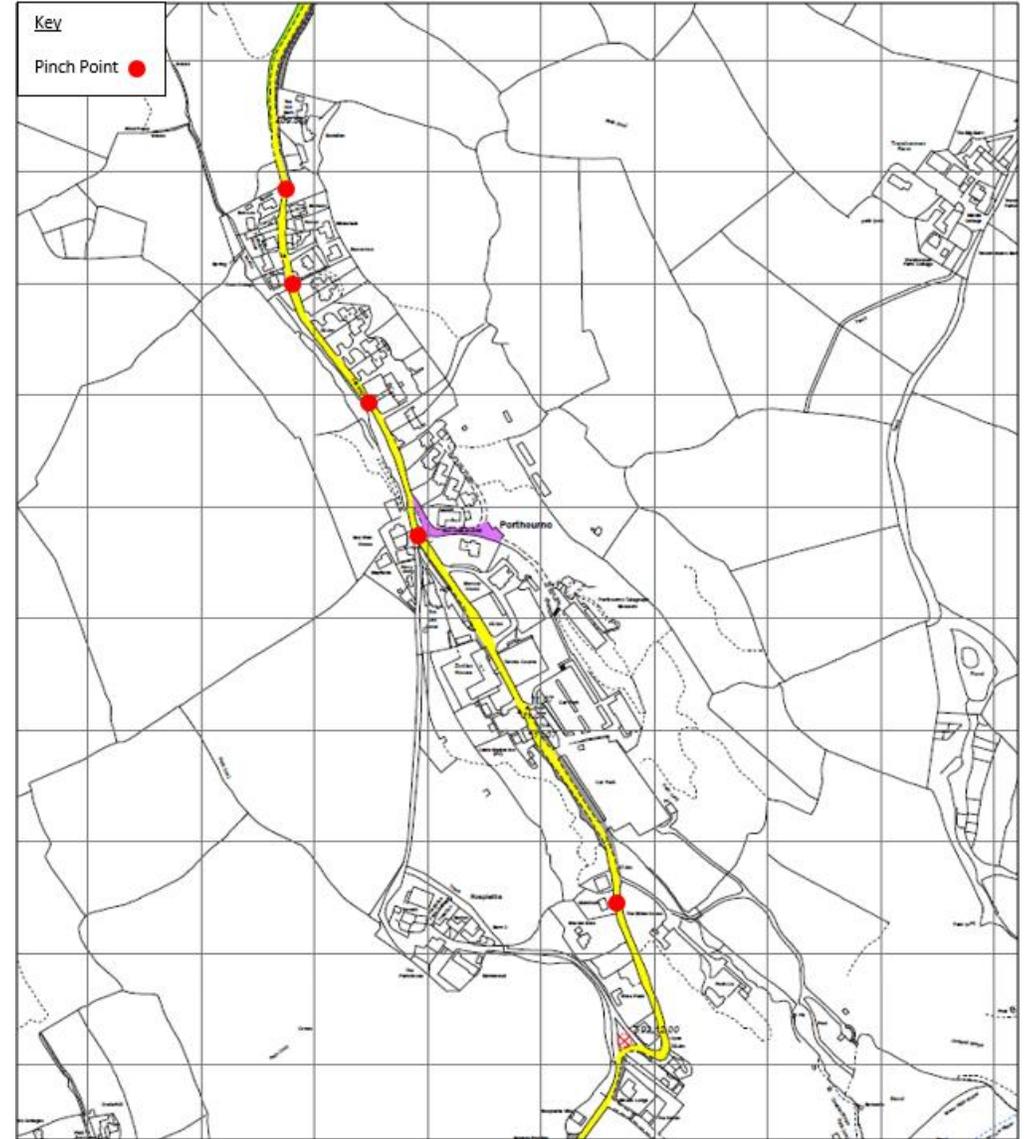
Southbound up Mansel's Hill



Northbound down Mansel's Hill

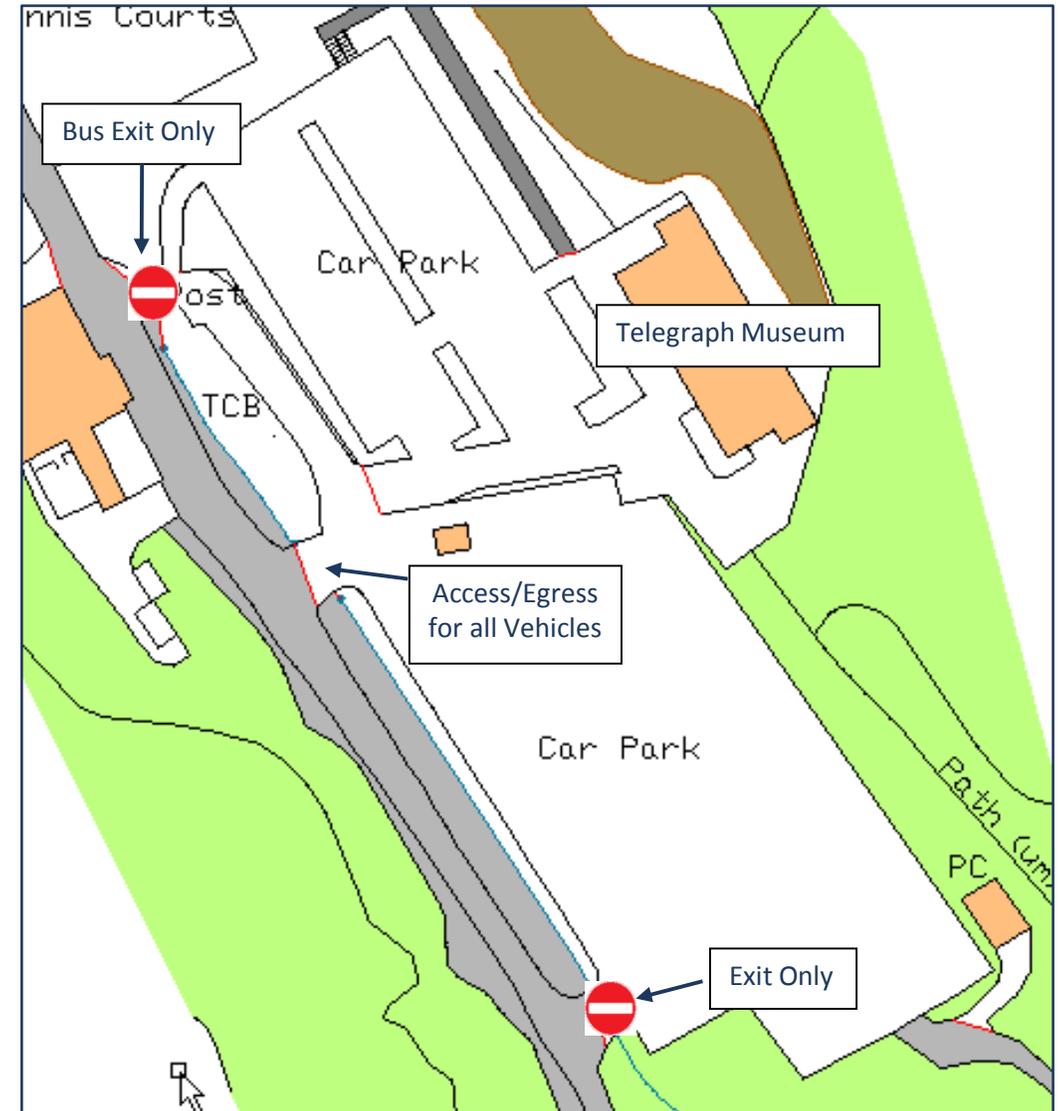


- There are a number of areas along 'The Valley' where the road width is constrained, which cause various 'pinch points' to occur along the road, causing congestion at these points.
- Where 'pinch points' have been identified, it is recommended the road is widened, subject to highway land ownership, in order to allow two-way vehicular operation and minimise potential conflict between vehicles occurring.



# Existing Car Parking

- The Telegraph Museum and Porthcurno Beach Car Park are run as separate entities with three separate access/egress points.
- The layout of the car parks are confusing and poorly maintained.
- The lack of pedestrian/cycle provision in both car parks introduces a potential conflict between pedestrians/cyclists and vehicles.



Cornwall Council Beach Car Park



Telegraph Museum Car Park



# Restricted Visibility

- There are a number of points along 'The Valley' where overgrown vegetation constricts forward visibility of the road ahead and accesses into the car parks.
- Mansel's Hill is a key area identified where visibility is restricted due to overgrown vegetation. This results in vehicles being unable to see vehicles heading up/down the Hill.



# Lack of Traffic Management

- 'The Valley' has a distinct lack of a cohesive and simplified traffic management scheme.
- The lack of coordination in the signage makes it difficult for drivers to identify relevant and clear information.
- A number of signs are poorly maintained, incorrectly positioned for ease of driver viewing and in many cases entirely absent.



# SUGGESTED IMPROVEMENTS



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# Quick Wins (Short Term Solutions)

- Quick Wins are suggested improvements that are short term solutions at low cost.
- The following quick wins have been identified:
  1. Vegetation Clearance and Management Plan.
  2. Traffic Signage Scheme.
  3. Traffic Management Scheme.



# Longer Term Wins (Long Term Solutions)

- Longer Term Wins are suggested improvements with higher associated costs.
- The following longer term wins have been identified:
  1. Redesign of the Car Parks.
  2. Park & Ride Scheme.
  3. A Proposed Link Road.

# The Minack Theatre - Traffic Management Plan

- The Minack Theatre are in the process of producing an independent Traffic Management Plan.
- The plan will assess the potential impact of traffic upon the local highway network and presents measures to mitigate this. The aim is to promote safe and controlled traffic flow to and from the Minack Theatre.



THE  
**minack**  
*theatre*  
PORTHCUKNO CORNWALL

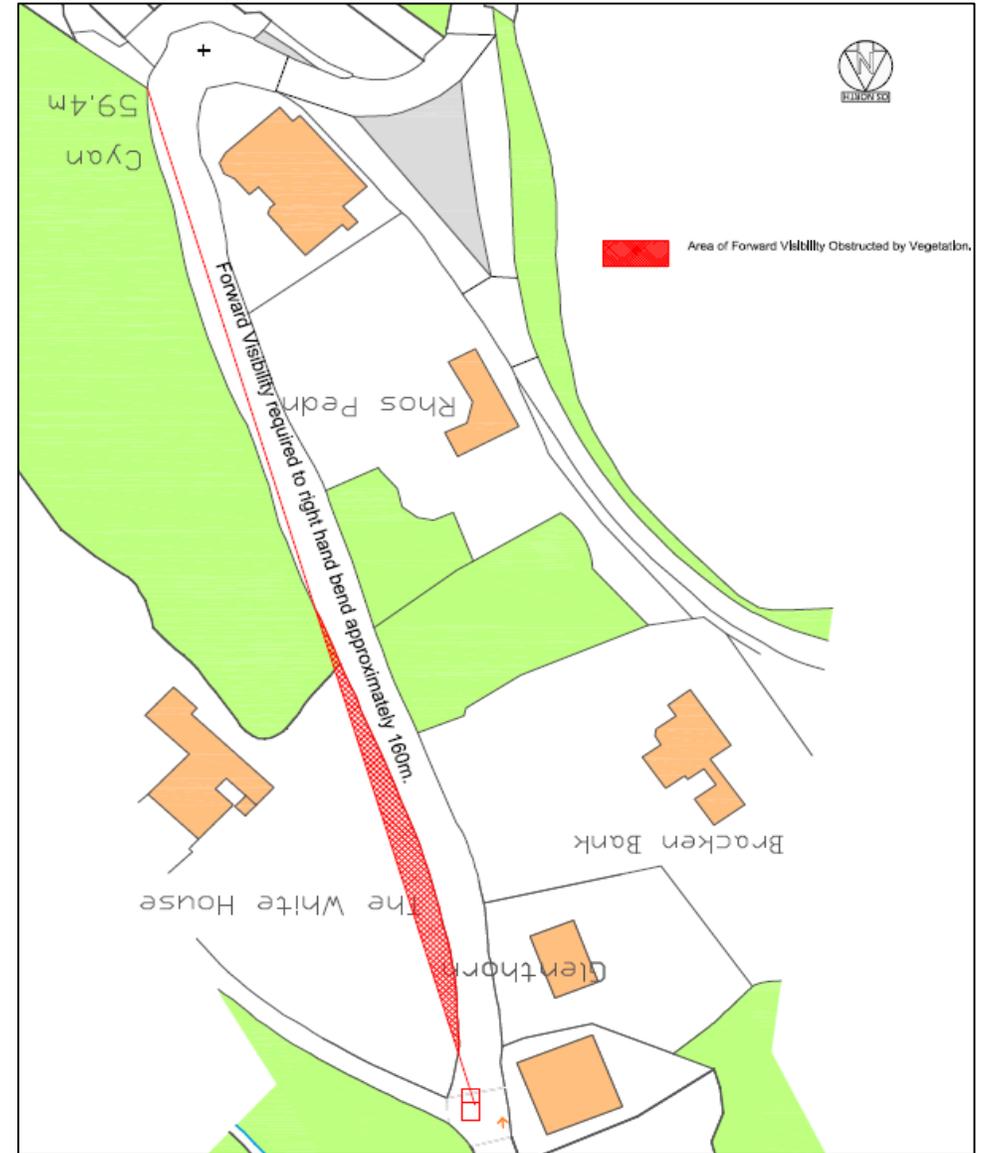
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# QUICK WINS (SHORT TERM SOLUTIONS)

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# Vegetation Clearance and Management Plan

- Implementing a recurring vegetation management plan, will open up optimal viewing angles of 'The Valley'.
- Fairly low-cost option which could be implemented immediately, but would require third party permission in some areas.







# Traffic Signage Scheme

- It is important that all the main attractors within Porthcurno are involved in a scheme that reduce the duplication of signage, simplify directions and provide clear information to visitors.
- A unified scheme would be more sympathetic to the locations rural setting, avoiding a number of confusing and varying signs.
- Any signage scheme must be in keeping with the locality given the Area of Outstanding Natural Beauty (AONB).



# Traffic Management Scheme

- Hydrock's traffic management scheme relies on improvements to the car parks, specifically the entry/exit points, minimising to the degree possible conflict at the southern section of The Valley.
- A shuttle bus or 'road train' service from the redesigned car parks to the Theatre is one means of reducing the number of vehicles heading south along 'The Valley'.



# LONG TERM SOLUTIONS



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# Car Park Re-Designs

- A longer term improvement is to consider a redesign of the Telegraph Museum and Porthcurno Beach Car Parks.
- **Option One** – Re-design of the Porthcurno Beach Car Park, whilst maximising the car parking spaces and providing coach parking.
- **Option Two** – Combines both car parks into a large single car park, whilst maximising the car parking spaces and providing coach parking.
- **Option Three** - Combines both car parks with associated landscaping.
- **Option Four** - Proposes a separate re-design of both car parks shown on the same plan with associated landscaping.
- **Option Five** – As per Option four but with a separate route for cars into the Telegraph Museum Car Park with a link to the Beach Car Park. A separate bus/coach route is also provided into the Beach Car Park.





# Option 1

Courts

Car Park

Car Park

Path (um)

PC

PROPOSED EGRESS FOR ALL VEHICLES

4.8m

R6.0m

5.2m

PROPOSED WIDENING

R3.0m

BUS STOP

1.8m PEDESTRIAN FOOTWAY

6.0m

5.8m

2.0m

PROPOSED ACCESS FOR ALL VEHICLES

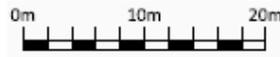
PROPOSED RELOCATION OF BUS STOP

POTENTIAL LAYBY FOR LAND-TRAIN SUBJECT TO FURTHER DESIGN WORK

ACCESS / EGRESS CLOSED TO VEHICULAR TRAFFIC

PROPOSED BOX JUNCTION (NO WAITING)

PROPOSED PSEUDO FOOTWAY

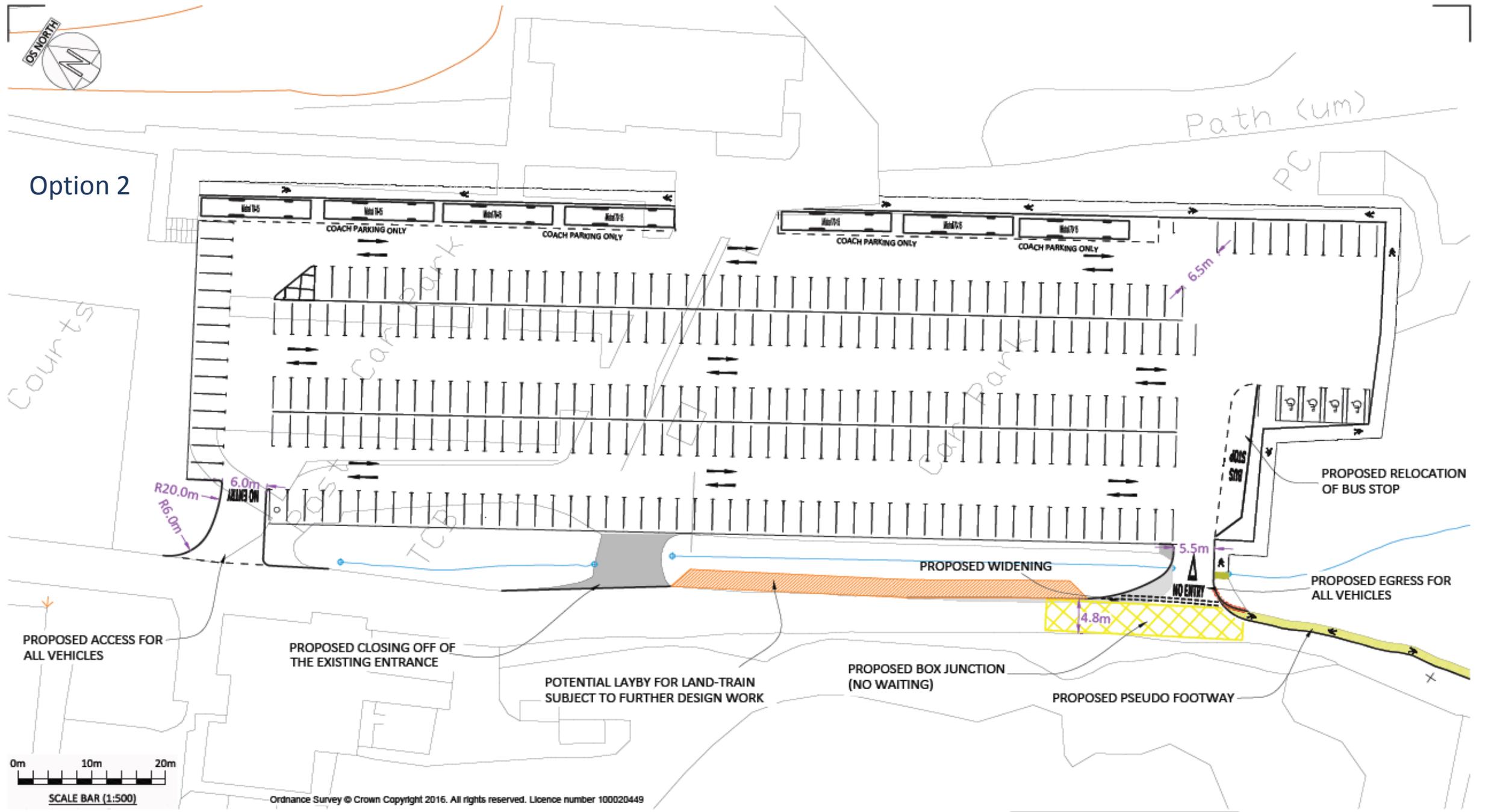


SCALE BAR (1:500)

OS NORTH



# Option 2



PROPOSED ACCESS FOR ALL VEHICLES

PROPOSED CLOSING OFF OF THE EXISTING ENTRANCE

POTENTIAL LAYBY FOR LAND-TRAIN SUBJECT TO FURTHER DESIGN WORK

PROPOSED BOX JUNCTION (NO WAITING)

PROPOSED PSEUDO FOOTWAY

PROPOSED RELOCATION OF BUS STOP

PROPOSED EGRESS FOR ALL VEHICLES



SCALE BAR (1:500)





**TELEGRAPH MUSEUM  
CAR PARK PROVISION**  
90 STANDARD PARKING BAYS  
3 DISABLED PARKING BAYS

**CORNWALL COUNCIL BEACH  
CAR PARK PROVISION**  
105 STANDARD PARKING BAYS  
5 DISABLED PARKING BAYS

Option 4

Courts



PROPOSED WIDENING

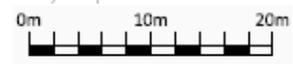
PROPOSED RELOCATION  
OF BUS STOP

PROPOSED BOX JUNCTION  
(NO WAITING)

POTENTIAL LAYBY FOR LAND-TRAIN  
SUBJECT TO FURTHER DESIGN WORK

PROPOSED PSEUDO FOOTWAY

ACCESS / EGRESS CLOSED  
TO VEHICULAR TRAFFIC



SCALE BAR (1:500)  
SCALE BAR (1:200)



# Park & Ride Scheme

- Consideration has been given regarding a park and ride scheme at the northern extent of 'The Valley'. The scheme would involve vehicles parking within a designated field at the northern section of 'The Valley' and using a designated bus service to access the southern section of 'The Valley'.

Positives	Comment
Reducing Congestion	Reduces the amount of vehicles entering and exiting 'The Valley'
Parking	Less car parking spaces would be required within 'The Valley' which would free up more space for landscaping etc.
Reducing Pollution	Public transport has less of a negative impact on the environment and could significantly reduce the carbon footprint of visitors to/from the area.



# Proposed Link Road

- Potential link road from St Levan and reconnecting back to the B3315.
- A single carriageway would be required, negating the need for vehicles to route north back up 'The Valley'.
- Two Key Issues:
  1. Third Party Land Agreement
  2. Funding – c. £10m +



# Conclusion

- This presentation has provided an overview of the existing constraints at Porthcurno and provided potential solutions for discussion.
- There are a number of short term and long term solutions that have been considered.

<b>'Quick' Wins</b>	<b>Longer Term Wins</b>
Vegetation Clearance and Management Plan	Re-design of Car Parks
Traffic Signage Scheme	Park & Ride Scheme
Traffic Management Scheme	Proposed Link Road



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