

A35 Kilmington Improvements

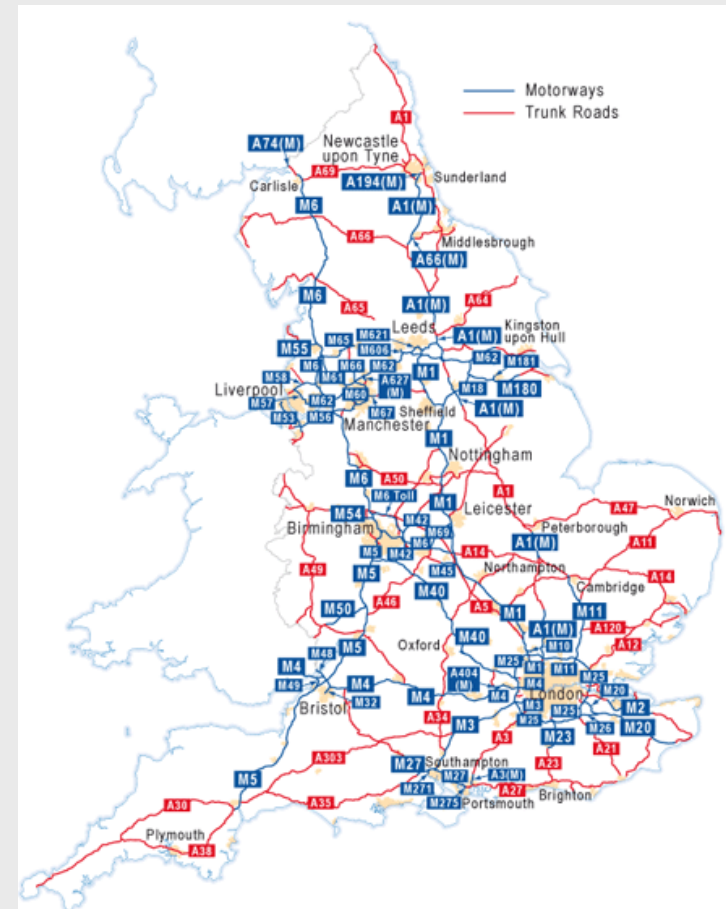
Alexis Wood

Assistant Department's Representative
A30/A35 Exeter to Bere Regis DBFO

23rd April 2009

The Highways Agency

- “We are responsible for the operation and stewardship of the strategic road network in England on behalf of the Secretary of State for Transport”
- The strategic road network is all motorways and trunk roads within England
- The asset is worth £81bn
- Is only 6% of the road surface
- Transports 30% of the traffic
- 60+% of freight traffic



The HA's Aims and Objectives

Our aim

- **Safe roads, reliable journeys, informed travellers**

Our prime objective

- To deliver a high quality service to all our customers by:
 - reducing congestion and improving reliability
 - improving road safety
 - respecting the environment
 - seeking and responding to feedback from our customers
- Our enabling objectives:
 - To ensure more effective delivery through better working relationships
 - To implement best practice and innovative solutions to improve service now and in the future

The A30/A35 Exeter to Bere Regis DBFO Project

- Design Build Finance and Operate Contract was let to Connect A30/A35 Ltd in Summer 1996.
- The 30 year contract ends on 31st March 2026
- Connect is paid yearly based upon shadow tolls
- The operation and maintenance of the road is carried out by South West Highways Balfour Beattie Infrastructure Services joint venture (SWHBBISjv)



Additional Works

- Additional works/improvement schemes are carried out by the joint venture, monitored by Connect and the Highways Agency.
- Funding for any scheme is applied for by the Highways Agency Area team to a senior level, then to the Department for Transport.
- Project Appraisal Reporting (PAR) and Value Management (VM) are used to assess the validity of the scheme

Previous HA Studies

- Route Management Strategy 2002
 - Kilmington was identified as a low priority Community
- Action Study on Non-Motorised User Crossings
 - 4 crossing locations identified
 - Low or medium priority and non-controlled crossings only
- Action Study Report on Community Issues 2001
 - Accessibility concerns at junction
 - Crossing of the road is difficult due to 60mph limit
 - Footpath facilities for residents to travel towards Axminster are limited
- Kilmington, Devon. Accident Review March 2007
 - Criteria of a 'village' is not met with respect to 20 house frontages in 600m and 3 houses per 100m minimum.
 - Conclusion stated that a reduction to 50mph is theoretically not beneficial but does deliver marginal economic benefits to the economy
 - Pedestrian refuge was discussed, but due to safety and cost implications was discounted. Although a crossing point is still required

Previous HA Studies

- DDA Compliance Audit June 2007 (Updated October 2008)
 - Footways along the A35 could be improved by width and creation where none exist.
 - No protected crossing exists across the A35, it was noted that the Parish suggested a Puffin Crossing at this location
- Kilmington Feasibility Report March 2008
 - There is not a speeding issue at this location and speeds are well below the 60mph limit
 - Traffic flows are around 12,000 AADT, around 14% HGV
 - Have an accident value of 38.4 per mvkm, above the threshold
 - Concludes that the speed limit should not be reduced but other measures used. This should be monitored for effectiveness
- Kilmington Lay-by Option Report October 2008
 - Due to safety and visibility, was concluded that The Hill bus stops should be closed and passengers encouraged to use stops at The Old Inn. Alternatively, buses should pass through the village.
 - If passenger demand is high at The Hill, the stop should be kept on carriageway but with increased visibility.
- A30/A35 Accident Study March 2009
 - Accidents analysed between 1st January 2005 and 31st December 2007
 - The link in which Kilmington resides was not identified as an at risk link and as such not further study was recommended.
 - No cluster sites were identified

Current HA Work

- The service provider's consultant is currently undertaking the detailed design of the Kilmington Improvements
- The preparation for the Value Management workshop is also underway; for funding approval
- Consultation with stakeholders and addressing the Parish's concerns, including lots of research.

Kilmingington's Concerns

- Speed Limit on the A35
- Pedestrian Crossing Facilities
- Bus Stop Facilities
- Western Footpath
- SAFETY!

Kilmingington Parish Plan



Transport and Traffic

Aim: Improve safety on Whitford Road with a 20mph limit between the school signs

Action: Education Authority with support from School Governors, Head Teacher and parents to press for this limit

Responsibility: Highways Agency, Devon County Council, Parish Council

Timescale: Immediate

Aim: Improve safety and encourage greater use of local bus services

Action: Parish Council to discuss with bus companies re-routing into the village to ensure safer stopping places

Responsibility: Parish Council, bus companies

Timescale: Immediate

Aim: Provide an access road from Gammons Hill to the quarry

Action: Parish Council to explore the possibility of such a road

Responsibility: Parish Council

Timescale: Immediate

Aim: Improve safety on the A35

Action: A35 Action Group to press for the introduction of a 40mph speed limit on the A35 between the Kilmingington Parish signs

Responsibility: Highways Agency, Connect-Honiton, Devon County Council, EDDC, Police, Parish Council, Local Councillors, MP

Timescale: Immediate and ongoing until successful

The Speed Limit Debate

- Kilmington Parish would like a reduction in the current national speed limit of 60mph, ideally to 30mph speed limit on the A35 between the village signs.
- The Highways Agency has to meet with it's targets that are set by the Department for Transport, but also standards and guidance that is set.
- The Highways Agency wants to improve the A35 for those that use and live on it, striving to meet it's objectives.
- Devon and Cornwall Constabulary has given it's comments on the speed limit and would enforce 50mph but not lower



Speed Limit Documentation

- Road Traffic Regulation Act 1984
- DfT Circular 1/06 Setting Local Speed Limits
 - ‘Local speed limits should not be set in isolation, but as part of a package with other measures to manage vehicle speeds’
- HA CHE Memorandum 200/07
 - ‘The objective should be to seek an acceptable balance between costs and benefits’
- TAL 2/06 Speed Assessment Framework
 - Balancing safety and mobility objectives on rural single carriageway roads
- TAL 1/04 Village Speed Limits
 - Definition of a ‘village’ is set out and measures discussed
- Transport Research Laboratory (TRL) Speed Management Assessment Framework (SMAF) Spreadsheet

Speed Limit Assessment Criteria

- Establishment of Lower and Upper tier
 - Upper – those with a primarily through function, where mobility is important, typically A and B roads
- Accident Rate
 - Not to exceed 37 accidents per 100 million vehicle kilometres on an upper tier road
- Village criteria
 - 20 or more houses over a minimum length of 600m
 - The density of housing should be 3 per 100m, particularly on the first 100m of speed limit.
- Traffic Flow and HGV %
 - Awareness of the characteristics and figures for the location including the mean speed and AADT

Kilmington Assessment Data

- The A35 is in the Upper tier of road as it is a strategic route.
- The accident rate over the 1200m is 65.9 accidents per mvkm. 20 PIAs including 2 severe. Data is taken from 1st January 2004 to 31st December 2008.
- Kilmington does not meet with the village criteria due to number of residential properties and density of frontages.
- The AADT is 12474. Data from 2007
- The HGV % is 15%. Data from 2007
- The Mean Speed was calculated as 44.4mph at the last speed survey which was January 2008.

Kilmingington Assessment Conclusion

- Only speed limits of 50mph and 60mph are able to be assessed
- SMAF spreadsheet used to compare 50mph and 60mph both with additional measures
- Accident and financial savings are higher with the 60mph, however both have minimal cost savings over the existing situation

1 Description	Upper Tier
	Lower Tier
	Partial development Village

2

Speed	Speed Limit
	Use additional measures (Y/N)
	Mean Speed

Current
60
44.37

Proposal 1
60
Yes
41.37

Proposal 2
50
Yes
43.73

Accidents	Annual Number
	Accident Rate
	Maximum acceptable rate
	Annual Cost
	Change

4.00
73.21
£ 426,840
Change

3.19
58.47
38.00
£ 340,892
-£ 85,948
-20.1%

3.67
67.09
£ 391,124
-£ 35,716
-8.4%

Time	Annual Cost
	Change

£ 706,245
Change

£ 757,459
£ 51,214
7.3%

£ 716,602
£ 10,357
1.5%

Fuel	Fuel Cost
	Change

£ 95,030
Change

£ 94,739
-£ 290
-0.3%

£ 94,915
-£ 115
-0.1%

Total	Change
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-£ 35,024

-£ 25,473

Qualitative Factors	Encourages walking
	Encourages cycling
	Encourages horse riding
	Reduces severance
	Reduces noise nuisance

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Road characteristics	Current values	With extra measures
Road name	A35	
Link length (km)	1.2	
Flow (AADT)	12474	
1 HGV Flow	High	
3 Walking activity	Low	
3 Cycling activity	Low	
3 Horse riding activity	Low	
4 Speed Limit	60 mph	
Mean speed (mph)	44.4	41.4
Injury Accidents	20	16.0
Years of Data	5	5
Annual Accidents	4.0	3.2
Accident Rate (per 100m veh km)	73.2	58.5

Additional measures	Measure	Likely effect
Speed measure		-3.0 mph
Accident measure		-5%

Speed Limit Conclusion

- The TRL research spreadsheet suggests a higher accident saving maintaining the speed limit at 60mph with additional measures.
- The Highways Agency has decided to reduce the speed limit to 50mph based on the consideration of Kilmington's concerns
- The establishment of the Speed Limit Order could take approximately 9 months and therefore enforceable in early 2010 provided there are no objections during the consultation period.



Alternative Measures to Reduce Speed

There are a number of proven measures to reduce traffic speed and accident numbers.

The MOLASSES (Monitoring of Local Authority Safety Scheme database) was established to identify the returns of schemes...

Treatment	Urban or rural	Number of schemes	Average annual accidents saved	Before	After	Change	Change %
Cycle Schemes	Both	5	4.87	150	52	-98	-58
Anti skid surfacing	Rural	4	2.08	40	15	-25	-62
Markings	Rural	74	0.88	599	370	-229	-35
Guard rails and pedestrian barriers	Rural	3	2.01	49	26	-23	-41
Lighting	Rural	5	0.22	44	38	-6	-8
Pedestrian crossing	Rural	2	1.88	18	3	-15	-83
New mini or conventional roundabout	Rural	15	2.62	216	45	-171	-76
New signals	Rural	8	1.93	93	20	-73	-75
Modification to Signals	Rural	10	1.96	135	66	-69	-48
Signing	Rural	136	0.7	879	521	-358	-37
Yellow bar markings	Rural	2	1.17	19	12	-7	-37
Mass action schemes	Rural	11	3.11	151	50	-101	-68
Route action schemes	Rural	15	1.31	128	64	-64	-49
Area wide schemes	Rural	1	6.67	23	3	-20	-87

Kilmington Improvement Measures

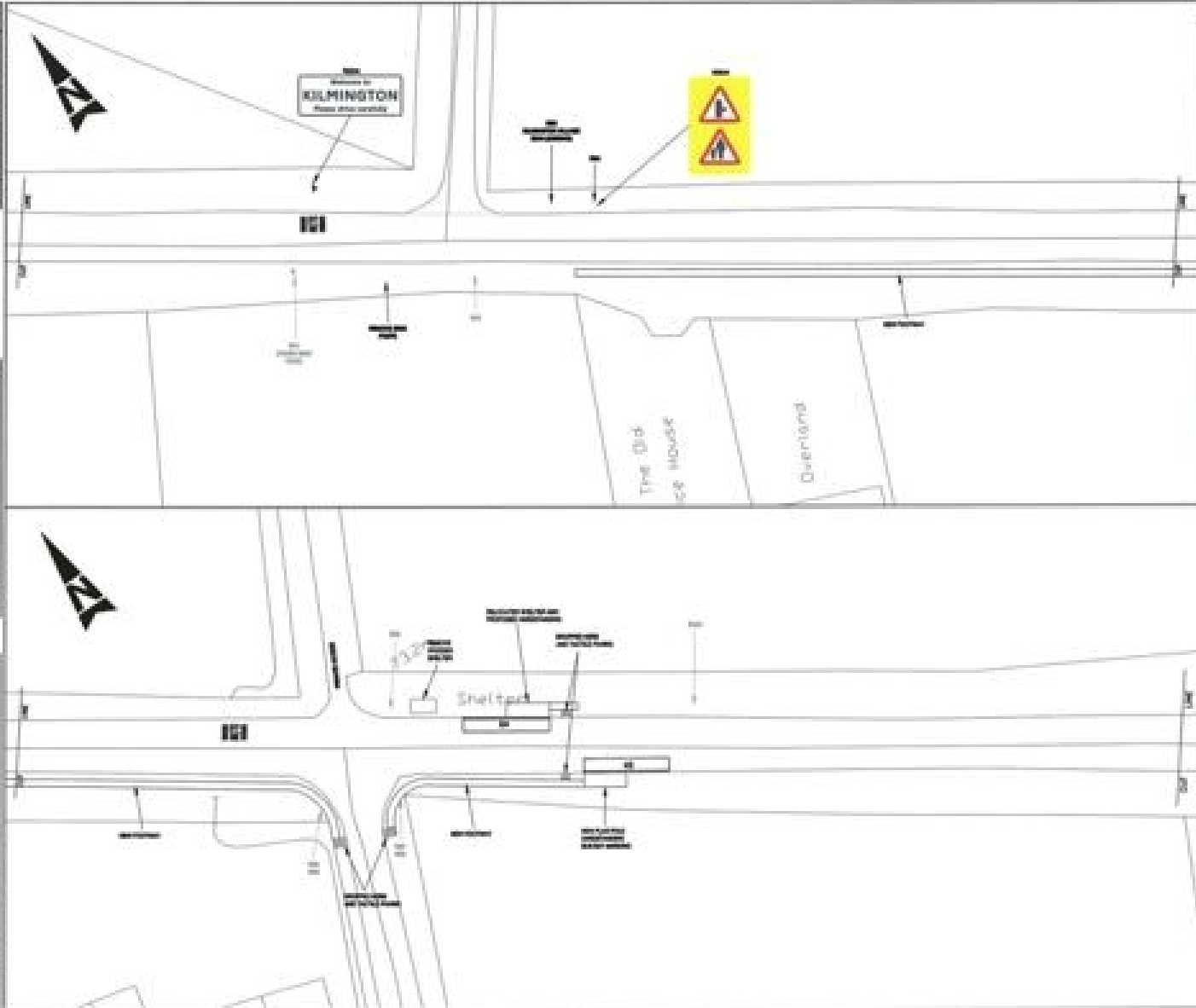
- New signs at the extents of Kilmington warning drivers of junctions and pedestrians and 'Slow' markings
- Improved bus stop facilities including raised kerbs and bus stop markings on road
- Dropped kerbs and tactile paving at crossing points
- Junction lining improved and antiskid surfacing at Kilmington Cross
- Edge of carriageway lining to be realigned to reduce width of running carriageway
- Infrastructure at Kilmington Cross relocated/removed to improve visibility

DO NOT SCALE

DO NOT SCALE

A1

DO NOT SCALE



- ATKINS**
- P7
 - R30 - A25 DIRECTIONAL SIGN
 - R34
 - R35
 - R36
 - R37
 - R38 - A25 DIRECTIONAL SIGN
 - R39

DATE: 10/10/2011 10:10:10 AM

PROJECT: A1 ROAD IMPROVEMENTS

CLIENT: HIGHWAYS AGENCY

DESIGNER: ATKINS

DRAWN BY: [Name]

CHECKED BY: [Name]

NO.	DESCRIPTION	DATE

NO.	DESCRIPTION	DATE

Atkins Limited

Company Number: 02038519

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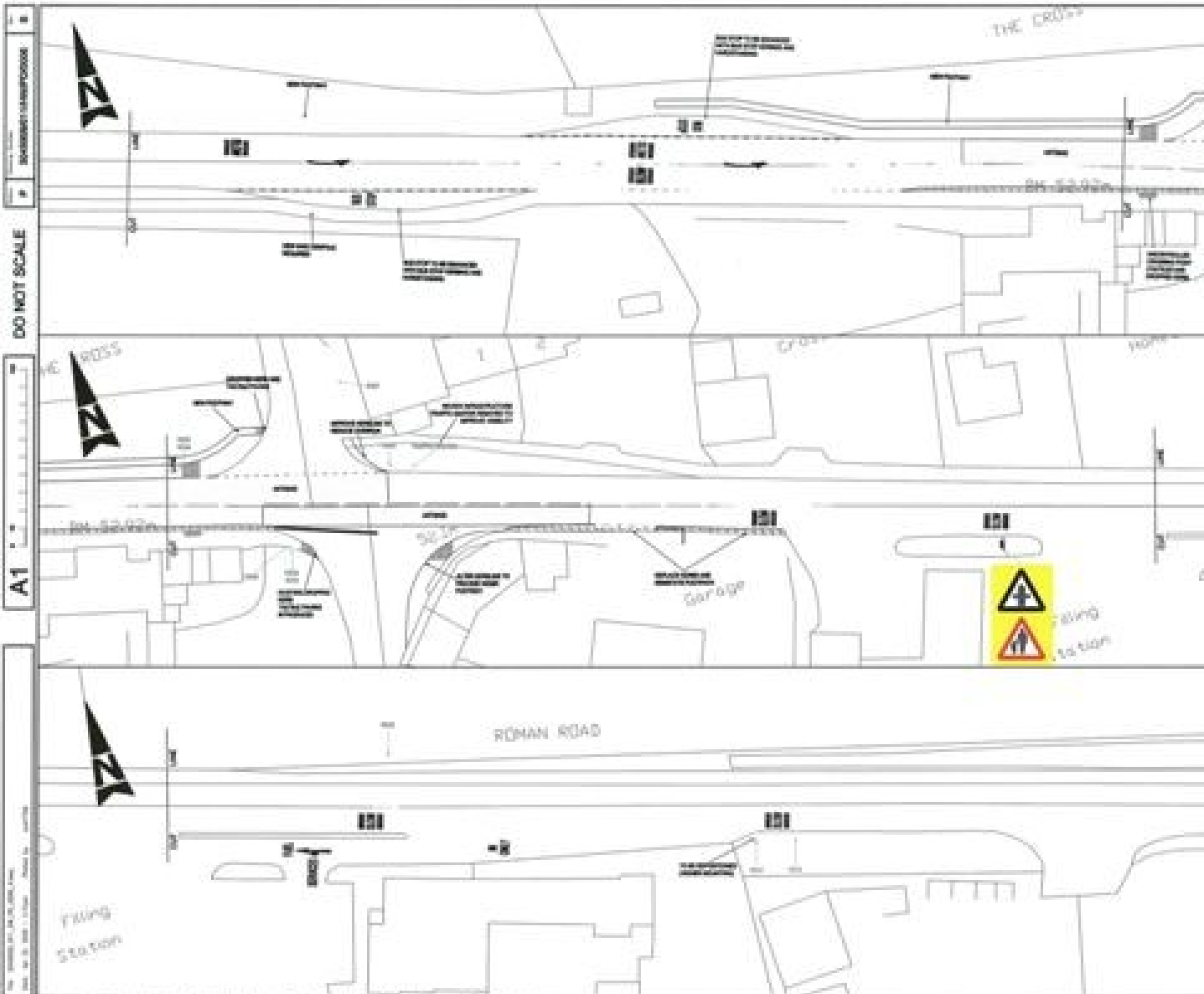
www.atkins.com



AGREE EXETER TO BEING MADE
BETWEEN ADDITIONAL WORKS TO BE
CARRIED OUT APPROXIMATE

LAYOUT OF
PROPOSED ROAD MARKINGS
SHEET 1 OF 1

A1	1:500	DATE	SCALE	BY	CHECKED
P	DESIGNED	DATE	SCALE	BY	CHECKED



ATKINS

- R100
- R101
- R102
- R103
- R104
- R105
- R106
- R107
- R108
- R109
- R110
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- R148
- R149
- R150

DATE: 10/10/2018 10:00:00 AM

PROJECT: [REDACTED]

CLIENT: [REDACTED]

LOCATION: [REDACTED]

SCALE: [REDACTED]

DATE: 10/10/2018 10:00:00 AM

PROJECT: [REDACTED]

CLIENT: [REDACTED]

LOCATION: [REDACTED]

SCALE: [REDACTED]

Atkins Limited

Company Name: [REDACTED]

Company No: [REDACTED]

Company Address: [REDACTED]

Company Phone: [REDACTED]

Company Email: [REDACTED]

ROADWAYS

ADVISE CLIENT TO MAKE SURE ROAD DATA ADDITIONAL WORK NOTED IN EXPLANATION APPROPRIATE

LAYOUT OF PROPOSED ROADWAY SHEET 1 OF 1

A1

DO NOT SCALE

NMU Crossing of the A35

- Kilmington Parish Council have previously requested a signalised crossing, known as a Puffin crossing, to be installed at Kilmington
- Previous studies have identified crossing at Kilmington as medium/low priority and uncontrolled crossing points to be utilised



Kilmington Crossing Assessment

- TAL 2/03 states 'Signal-controlled junctions are not recommended where the 85th percentile approach speed exceeds 65 mph (104 km/h). Before installing stand-alone crossings on roads where the 85th percentile is above 50 mph, serious consideration should be given to speed reduction measures'
- Uncontrolled crossing locations have been identified within the scheme
- Further evaluation should be done in the future once the current improvements can be assessed



Bus Stop Facilities

- There are 2 existing sites with west bound and east bound stops
- The stops are to be enhanced with raised boarding areas, road markings and improved visibility
- New/improved footpaths and crossing points are also included
- The report encouraged buses entering the village itself.



SAFETY

- The safety of all road users are of paramount importance to the Highways Agency and with the proposals we are developing, we hope to increase the safety of the road at Kilmington
- The scheme will be assessed after construction to ensure that this is the case with further evaluations periodically after completion.
- Reviews of the A35 are ongoing and updated with the latest guidance and standards, including an annual Accident Study and DfT Speed Limit Review

Thank you for listening!

Any Questions or Comments???