



# **West Winch Housing Access Road**

## **Environmental Statement Chapter 16: Traffic and Transport**

### **Appendix 16.3: Construction Phase Significance Effect**

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# **1 Introduction**

## **1.1 Construction Phase Significance Effect**

1.1.1 A table showing the significance of the traffic and transport effect during the construction phase. The significance effect is a product of the receptors' sensitivity shown in Appendix 16.2 and magnitude of impact shown in Appendix 16.1. The effects are classified Substantial, Moderate, Minor or Negligible

1.1.2 Some users may not be able to access all technical details. If you require this document in a more accessible format please contact [westwinchhar@norfolk.gov.uk](mailto:westwinchhar@norfolk.gov.uk)

## Severance\_2027

## Road Scheme Impact Assessment

Key	Change in Traffic Flow	LTN 120 Cycle Friendly Routes	
High	<90%	0 - 2500	Most suitable for cycling
Medium	<=60 and >90%	2501 - 5000	Suitable for some cyclists
Low	<=30 and >60%	>5000	Unlikely to be suitable for cycling on carriageway
Negligible	<= 0 and >30%		

(Magnitude / Probability / Reversibility etc)	Receptor (Sensitivity / Value / Importance)				
	High	Medium	Low	Very Low	Negligible
	High	Substantial	Substantial	Moderate	Minor
Medium	Substantial	Moderate	Minor	Minor	Negligible
Low	Moderate	Minor	Minor	Negligible	Negligible
Very Low	Minor	Minor	Negligible	Negligible	Negligible
Negligible	Negligible	Negligible	Negligible	Negligible	Negligible

Scenario	DS1
DS1	Road Scheme Impact Assessment
DS2	Road Scheme+4000 Homes Impact Assessment

Link ID	Link Name	Two-way AADT (DM)	Two-way AADT (DS1)	Two-way AADT (DS2)	DS1-DM	DS1-DM (%)	Receptor Sensitivity	Magnitude	Effect Significance DS1	
2655-2857	School Road (Middleton)	598	728	730	130	22%	High	Very Low	Minor	Adverse

## Severance\_2027

## Road Scheme+4000 Homes Impact Assessment

Key	Change in Traffic Flow	LTN 120 Cycle Friendly Routes	
High	<90%	0 - 2500	Most suitable for cycling
Medium	<=60 and >90%	2501 - 5000	Suitable for some cyclists
Low	<=30 and >60%	>5000	Unlikely to be suitable for cycling on carriageway
Negligible	<= 0 and >30%		

(Magnitude / Probability / Reversibility etc)	Receptor (Sensitivity / Value / Importance)				
	High	Medium	Low	Very Low	Negligible
	High	Substantial	Substantial	Moderate	Minor
Medium	Substantial	Moderate	Minor	Minor	Negligible
Low	Moderate	Minor	Minor	Negligible	Negligible
Very Low	Minor	Minor	Negligible	Negligible	Negligible
Negligible	Negligible	Negligible	Negligible	Negligible	Negligible

Scenario	DS2
DS1	Road Scheme Impact Assessment
DS2	Road Scheme+4000 Homes Impact Assessment

Link ID	Link Name	Two-way AADT (DM)	Two-way AADT (DS1)	Two-way AADT (DS2)	DS2-DM	DS2-DM (%)	Receptor Sensitivity	Magnitude	Effect Significance DS1	
2655-2857	School Road (Middleton)	598	728	730	132	22%	High	Very Low	Minor	Adverse

**NMU Delay 2042** **Road Scheme Impact Assessment**

**Key**  
 Change in Traffic Flow/Day (DMRB LA12)  
 Table 3.11  
 High >16000  
 Medium >8000 - 16,000  
 Low >4000 - 8000  
 Very Low <4000

**Receptor**  
 (Sensitivity / Value / Importance)  
 High Medium Low Very Low Negligible  
 Substantial Substantial Moderate Minor Negligible  
 Moderate Moderate Minor Minor Negligible  
 Low Moderate Minor Minor Negligible  
 Very Low Minor Minor Negligible Negligible  
 Negligible Negligible Negligible Negligible Negligible

**Receptor**  
 TAG Unit A4.1 Severance Sensitivity Table 5.1  
 None Very Low Low Medium High  
 Slight Moderate Medium Severe High

011	Road Scheme Impact Assessment
012	Road Scheme+4000 Homes Impact Assessment

Change in Traffic Flow/Day (DMRB LA12) Table 3.11

TAG Unit A4.1 Severance Sensitivity Table 5.1

Link ID	Link Name	Two-way AADT (DM)	Two-way AADT (DS1)	Two-way AADT (DS2)	Traffic Flow DM	Traffic Flow DS1	Traffic Flow DS2	Traffic Flow DM	Magnitude Step Change DM DS1	Magnitude Step Change DM DS2	TAG Unit A4.1 Severance Sensitivity Table 5.1					Combined Magnitude of Change (DM-DS1)	combined Magnitude of Change (DM-DS2)	Magnitude of Change (DM-DS1)	Assessment of Effect	
											DM Severance (Without Scheme)	DS1 Severance (with Road Scheme)	DS2 Severance (Road +Home Scheme)	Change in Severance (DM DS1)	Change in Severance (DM-DS2)				Receptor Sensitivity	Effect Significance
M15-2817	School Road (Middleton)	598	720	722	Very Low	Very Low	Very Low	Very Low	Very Low	Very Low	Low	Low	Low	Very Low	Very Low	Very Low	High	Minor	Adverse	

TAG Unit A4.1

With scheme Severance Score				
Very Low	Low	Medium	High	Very High
Very Low	Low	Medium	High	Very High
Very Low	Low	Medium	High	Very High
Very Low	Low	Medium	High	Very High

Severance may be classified according to the following four broad levels.

- None** - Little or no hindrance to pedestrian movement.
- Slight** - All people wishing to make pedestrian movements will be able to do so, but there will probably be some hindrance to movement.
- Moderate** - Pedestrian journeys will be longer or less attractive; some people are likely to be dissuaded from making some journeys on foot.
- Severe** - People are likely to be deterred from making pedestrian journeys to an extent sufficient to induce a reorganisation of their activities. In some cases, this could lead to a change in the location of centres of activity or to a permanent loss of access to certain facilities for a particular community. Those who do make journeys on foot will experience considerable hindrance.

**NMU Delay 2042** **Road Scheme+4000 Homes Impact Assessment**

**Key**  
 Change in Traffic Flow/Day (DMRB LA12)  
 Table 3.11  
 High >16000  
 Medium >8000 - 16,000  
 Low >4000 - 8000  
 Very Low <4000

**TAG Unit A4.1 Severance Sensitivity Table 5.1**  
 None Very Low  
 Slight Low  
 Moderate Medium  
 Severe High

	Receptor (Sensitivity / Value / Importance)				
	High	Medium	Low	Very Low	Negligible
High	Substantial	Substantial	Medium	Minor	Negligible
Medium	Substantial	Minor	Minor	Minor	Negligible
Low	Minor	Minor	Minor	Negligible	Negligible
Very Low	Minor	Minor	Negligible	Negligible	Negligible
Negligible	Negligible	Negligible	Negligible	Negligible	Negligible

011	Road Scheme Impact Assessment
051	Road Scheme+4000 Homes Impact Assessment
052	Road Scheme+4000 Homes Impact Assessment

Link ID	Link Name	Change in Traffic Flow/Day (DMRB LA12)					TAG Unit A4.1 Severance Sensitivity Table 5.1					Assessment of Effect								
		Two-way AADT (DM)	Two-way AADT (DS1)	Two-way AADT (DS2)	Traffic Flow DM	Traffic Flow DS1	Traffic Flow DS2	Traffic Flow DM	Magnitude Step Change DM DS1	Magnitude Step Change DM DS2	DM Severance (Without Scheme)	DS1 Severance (with Road Scheme)	DS2 Severance (Road +Home Scheme)	Change in Severance (DM DS1)	Change in Severance (DM DS2)	Combined Magnitude of Change (DM-DS1)	combined Magnitude of Change (DM-DS2)	Magnitude of Change (DM-DS2)	Receptor Sensitivity	Effect Significance
015-2857	School Road (Middleton)	598	720	722	Very Low	Very Low	Very Low	Very Low	Very Low	Very Low	Very Low	Low	Low	Low	Very Low	Very Low	Very Low	High	Minor	Adverse

**TAG UNIT A4.1**

Without scheme	With scheme Severance Score				
	Very Low	Low	Medium	High	Very High
Severance Score	Low	Minor	Minor	Minor	Minor
	Medium	Minor	Minor	Minor	Minor
	High	Substantial	Minor	Minor	Negligible

Severance may be classified according to the following four broad levels.

- None** - Little or no hindrance to pedestrian movement.
- Slight** - All people wishing to make pedestrian movements will be able to do so, but there will probably be some hindrance to movement.
- Moderate** - Pedestrian journeys will be longer or less attractive; some people are likely to be dissuaded from making some journeys on foot.
- Severe** - People are likely to be deterred from making pedestrian journeys to an extent sufficient to induce a reorganisation of their activities. In some cases, this could lead to a change in the location of centres of activity or to a permanent loss of access to certain facilities for a particular community. Those who do make journeys on foot will experience considerable hindrance.

## NMU Amenity\_2027

## Road Scheme Impact Assessment

Key	Change in Traffic Flow	LTN 120 Cycle Friendly Routes
High	>160%	0 - 2500 Most suitable for cycling
Medium	>130 and <=160%	2501 - 5000 Suitable for some cyclists
Low	>100% and <=130%	5000 Unlikely to be suitable for cycling on carriageway
Very Low	<100%	
Key		Footway Width (m)
High		0.0-2.0m
Medium		2.0-2.2m
Low		2.2m-3.3m
Very Low		>3.3m

		Receptor (Sensitivity / Value /)				
		High	Medium	Low	Very Low	Negligible
(Magnitude / Probability / Reversibility etc)	High	Substantial	Substantial	Moderate	Minor	Negligible
	Medium	Substantial	Moderate	Minor	Minor	Negligible
	Low	Moderate	Minor	Minor	Negligible	Negligible
	Very Low	Minor	Minor	Negligible	Negligible	Negligible
Negligible	Negligible	Negligible	Negligible	Negligible	Negligible	Negligible

Link ID	Link Name	Two-way AADT (DM)	Two-way AADT (DS1)	Two-way AADT (DS2)	DS1-DM	DS1-DM (%)	Footway Width (DM)	Footway Width Sensitivity	Receptor Sensitivity	Overall Receptor Sensitivity	Magnitude	Effect Significance
2655-2857	School Road (Middleton)	598	720	722	122	20%	1.00	High	High	High	Very Low	Minor Adverse



## NMU Amenity\_2027

## Road Scheme+4000 Homes Impact Assessment

Key	Change in Traffic Flow	LTN 120 Cycle Friendly Routes
High	>160%	0 - 2500 Most suitable for cycling
Medium	>130 and <=160%	2501 - 5000 Suitable for some cyclists
Low	>100% and <=130%	5000 Unlikely to be suitable for cycling on carriageway
Very Low	<100%	
Key	Footway Width (m)	
High	0.0-2.0m	
Medium	2.0-2.2m	
Low	2.2m-3.3m	
Very Low	>3.3m	

		Receptor (Sensitivity / Value /)				
		High	Medium	Low	Very Low	Negligible
(Magnitude / Probability / Reversibility etc)	High	Substantial	Substantial	Moderate	Minor	Negligible
	Medium	Substantial	Moderate	Minor	Minor	Negligible
	Low	Moderate	Minor	Minor	Negligible	Negligible
	Very Low	Minor	Minor	Negligible	Negligible	Negligible
		Negligible	Negligible	Negligible	Negligible	Negligible

Link ID	Link Name	Two-way AADT (DM)	Two-way AADT (DS1)	Two-way AADT (DS2)	DS1-DM	DS1-DM (%)	Footway Width (DM)	Footway Width Sensitivity	Receptor Sensitivity	Overall Receptor Sensitivity	Magnitude	Effect Significance
2655-2857	School Road (Middleton)	598	720	722	124	21%	1.00	High	High	High	Very Low	Minor Adverse

**Fear and Intimidation Degree of Hazard 2027**

**Road Scheme Impact Assessment**

Table 3.1.1: Fear and Intimidation Degree of Hazard				
Average traffic flow over 15-hour day - all vehicles/hour (A) (VPH)	Total 18-hour heavy vehicle flow (B)	Average vehicle speed (C) (km/h)	Weighted hazard score (D)	Level of fear and intimidation
High	>1000	<40	>40	High
Medium	500-1000	40-60	10-40	Medium
Low	500-1000	60-80	0-10	Low
Negligible	<500	>80	<0	Small

  

Table 3.1.2: Levels of fear and intimidation	
Level of fear and intimidation	Total hazard score (B) + (C) + (D)
High	>40
Medium	10-40
Low	0-10
Small	<0

  

Table 3.1.3: Fear and Intimidation Degree of Hazard - Change in Degree of Hazard (ADPT) - Road Schemes Conditions	
Magnitude of impact	Change in Degree of Hazard (ADPT) - Road Schemes Conditions
High	Two-step changes in level
Medium	One-step changes in level
Low	One-step changes in level
Small	One-step changes in level

Scenario	DS1
DS1	Road Scheme Impact Assessment
DS2	Road Scheme+4000 Homes Impact Assessment

Magnitude / Probability / Reversibility etc	Receptor Sensitivity / Value / Importance				
	High	Medium	Low	Very Low	Negligible
	High	Substantial	Substantial	Medium	Minor
Medium	Substantial	Medium	Minor	Minor	Negligible
Low	Medium	Minor	Minor	Negligible	Negligible
Very Low	Minor	Minor	Negligible	Negligible	Negligible
Negligible	Negligible	Negligible	Negligible	Negligible	Negligible

Link ID	Link Name	Fear and Intimidation Degree of Hazard															Results for DS1_Road Scheme															
		Traffic Flows			Fear and Intimidation Degree of Hazard					Traffic Flows			Fear and Intimidation Degree of Hazard					Results for DS1_Road Scheme														
		Average 15-hour Daily Flow	Total 18-hour heavy vehicle flow (B)	Average Speed	Average traffic flow over 18-hour day - all vehicles/hour (A)	Total 18-hour heavy vehicle flow (B)	Average vehicle speed (C)	Total hazard score (D) = (B) + (C) + (D)	Level of fear and intimidation	Average 15-hour Daily Flow	Total 18-hour heavy vehicle flow (B)	Average Speed	Flow over 15-hour day - all vehicles/hour (A)	Total 18-hour heavy vehicle flow (B)	Average vehicle speed (C)	Total hazard score (D) = (B) + (C) + (D)	Level of fear and intimidation	Average 15-hour Daily Flow	hour heavy vehicle flow	Average Speed	hour 18-hour day - all vehicles/hour 2-way	hour heavy vehicle flow	average vehicle speed (C)	hazard score (D)	Level of fear and intimidation	DS1 Step Change Level of F&I	Change in Total 18hr Traffic	Change in 18hr HDV Traffic	Magnitude of impact	Receptor sensitivity	Effect Significance	
2025-2887	School Road (Middleton)	33	351	29	0	0	10	+10	Small	37	30	29	0	0	10	+10	Small	37	70	29	0	0	10	+10	Small	0	<400	<500	Negligible	High	Insignificant	Adverse







Road Safety Overall Link Sensitivity Assessment\_2027

Key	IRAP Rating Adapted	Accident Clusters showing	SCENARIO		Receptor (Sensitivity / Value / Importance)																						
High	1	2 or more killed (K) and/or 5 or more serious injuries (SI)	DM	DM	High	Medium	Low	Very Low	Negligible																		
Medium	2	1 or more killed (K) and/or 5 or more serious injuries (SI)			High	Medium	Low	Very Low	Negligible																		
Low	3	2 or more serious injuries (SI)			Medium	Medium	Minor	Minor	Negligible																		
Very Low	4	5 or more slight injuries			Low	Medium	Minor	Minor	Negligible																		
Negligible	5				Very Low	Minor	Minor	Negligible	Negligible																		
Key		Change in Traffic Flow/Day (DMRB LA112)																									
High	>30000																										
Medium	16,000 - 30,000																										
Low	8,000 - 16,000																										
Very Low	<8000																										
				DM Sensitivity								DS Sensitivity															
Link ID	Params ID	Link Name	IRAP Rating	Accident Cluster Rating	Safety Sensitivity (IRAP)	Accident Cluster	Overall Safety + Accident Sensitivity	Receptor Sensitivity	Overall Sensitivity (Accident + IRAP-Receptor Sensitivity)	IRAP Rating	Accident Cluster Rating	Safety Sensitivity (IRAP)	Accident Cluster	Overall Safety + Accident Sensitivity	Receptor Sensitivity	Overall Sensitivity (Accident + IRAP Sensitivity)	Traffic Flow DM	Traffic Flow DS1	Traffic Flow DS2	Traffic Flow Magnitude DM	Traffic Flow Magnitude DS1	Traffic Flow Magnitude DS2	ERROR	Sensitivity Step Change (DM/DS)	Effect Significance		
2655-2857	19	School Road (Middletown)	3	4	Low	Very Low	Very Low	High	Low	3	4	Low	Very Low	Very Low	High	Low	584	714	716	Very Low	Very Low	Very Low	Very Low	Very Low	Negligible	Neutral	