

## **16. Pedestrians, Cyclists, Equestrians and Community Effects**

### **16.1 Introduction**

16.1.1 In this chapter consideration of the pedestrians, cyclists, equestrians and community journey effects directly associated with the proposed A2 Shore Road Greenisland have been assessed in terms of temporary and permanent access effects on residential properties, community facilities, recreation and local amenities, public services, local businesses, the potential loss of land used by members of the public, and public road safety issues created by the Scheme construction and operation.

### **16.2 Approach and Methods**

16.2.1 The community effects assessment has been undertaken with reference to recognised methodologies including the guidance contained in the DMRB (Vol. 11) Section 3, Part 8 with regard to the potential changes to the way that existing non-vehicular and local vehicular traffic access routes are used, the effects to local community facilities and land uses and the potential mitigation measures that may be implemented as a result.

16.2.2 The community assessment methodology embraces a number of key considerations for existing receptors contained within, and in proximity to, the proposed A2. The “checklist” of community effects considered within this chapter include:

- Permanent or temporary restriction of access or severance of access to residential, community and other civic facilities;
- Permanent or temporary loss/closure of community or civic facilities;
- Permanent or temporary restriction of access or severance of access to commercial properties;
- Permanent or temporary closure of commercial properties;
- Permanent or temporary severance of public recreational routes e.g. cycleways, public Rights of Way (RoW), bridleways etc;
- Scheme impacts on existing local vehicular journey routes.

16.2.3 The assessment of the potential effects of the proposed A2 has been undertaken as follows:

- Identification of a particular community effect;
- Consideration of the magnitude of the effect (based on its spatial scope and the degree of change it will result in).

#### **Level of Impacts**

16.2.4 Impacts should be assessed firstly in terms of the sensitivity of the receptor (e.g. very high, high, medium, low and negligible) and secondly in terms of magnitude of the impact (e.g. severe, moderate, slight and negligible). This section should state the criteria used to determine these parameters.

16.2.5 The scales adopted for the magnitude of the effects are shown in the following table:

**Table 16.1: Magnitude Scales**

Level of Magnitude	Definition
Severe	Total loss or major change to the community baseline conditions
Moderate	Partial loss or change (but not fundamental change) to the community baseline conditions
Slight	Minor loss or change to the community baseline conditions
Negligible	No perceptible loss or change to the community baseline conditions

- Consideration of the Sensitivity of the community receptor – a judgment as to the importance or value of the receptor, and its resilience to cope with changes resulting from the community effect. A scale of sensitivity of the receptor has been defined as Negligible, Low, Medium, High and Very High;
- Determination of the significance of each effect by considering both the Magnitude and Sensitivity of the community receptor as summarised in the Table 16.2:

**Table 16.2: Significance of Effects**

Magnitude of Effect	Sensitivity of Receptor				
	<i>Very High</i>	<i>High</i>	<i>Medium</i>	<i>Low</i>	<i>Negligible</i>
<i>Severe</i>	Substantial	Substantial	Moderate	Minor	Negligible
<i>Moderate</i>	Moderate	Moderate	Minor	Minor	Negligible
<i>Slight</i>	Moderate	Minor	Minor	Negligible	Negligible
<i>Negligible</i>	Negligible	Negligible	Negligible	Negligible	Negligible

16.2.6 A qualitative judgment for the determination of Significance has been adopted and only those effects that fall within the “Moderate” and “Substantial” categories are considered to be Significant;

16.2.7 Following the determination of the effect, its nature and duration are then described. The scope of these can include: beneficial, neutral or adverse; direct or indirect; temporary or permanent.

16.2.8 Mitigation measures have been identified to minimise the community access effects of the Scheme as far as possible within the technical constraints of the project. The mitigation is designed to prevent, reduce or offset the potential effects upon the community baseline conditions.

### 16.3 Baseline Conditions

- 16.3.1 The following table firstly summarises the population age profile of residents contained in the wards of Jordanstown and Greenisland. Both of these wards are directly affected by the proposals for the A2, as it passes through both of these ward areas.

**Table 16.3: Population Profile**

Age Group Bands	Population - Jordanstown	Population - Greenisland
0 – 4years	431	194
5 – 15 years	993	367
16 – 29 years	773	372
30 – 59 years	2,582	1,082
60 – 64 years	196	109
65+ years	519	380
Total	5,494	2,504

(Source: Northern Ireland Census 2001)

- 16.3.2 The following sections provide a comprehensive baseline description of a range of community facilities within the Scheme area in, and in proximity to, A2 Shore Road including school; sports and recreational amenities; post office, retail and business premises etc. These community facilities are illustrated on Figure 16.1 and provide the framework for the later community effects assessment.

#### Jordanstown

- 16.3.3 The Jordanstown campus of the University of Ulster is located a few miles north of Belfast on the shore of Belfast Lough (Shore Road). It is a large complex of contemporary buildings with views of the Belfast Hills, the Mourne Mountains and County Down. The Jordanstown campus is home to the Sports Institute for Northern Ireland and has facilities for recreational and more serious sporting activities. Modern fitness facilities include squash courts, sports halls and a large fitness suite.
- 16.3.4 The Campus is designed around a central mall, which is a spine for the 17 blocks of academic, study and recreational facilities. There are two banks, a bookshop, and a variety of catering facilities, as well as the Student's Union, sports centre, and chaplains' office. The Health Centre for the University of Ulster is also located on this campus. There is a post office located at University of Ulster on the Jordanstown Campus. The main university entrance is located on Shore Road and there is also a side entrance located on Jordanstown Road. The university will benefit from improved access as a result of the Scheme and there is also the possibility of a feature entrance. The construction of a new roundabout at the entrance will also feature 3 sets of new pedestrian crossings, one for each junction. The Grange junction just before the main university entrance will benefit from some improvements. Cars leaving the Grange Junction to access the A2 Shore Road can turn left only, onto the northbound section of road. Cars travelling from the north can still turn right into the Grange Junction.
- 16.3.5 Belfast High School is located slightly further north of the University of Ulster on Shore Road. There are a diverse range of facilities available on the campus. In September 1997, a new sixth form centre was opened to cater for the increasing numbers of pupils studying for A-levels in the school. Each pupil in Upper sixth has an individual study booth and a lower sixth study room is also provided, and there is also a new coffee bar. The school is set in extensive grounds with pitches for rugby and cricket

on-site along with an athletics track, outdoor netball court and six tennis courts. The main entrance to Belfast High School is located on Shore Road. Belfast High School will benefit from a new entrance. This should make the access to the site much improved compared with the current situation. There will be a new controlled pedestrian crossing at the High School. It will be located at the southern side of the entrance and will allow pedestrians to cross both sides of the carriageway. Neill's Lane will also benefit from a newly built controlled pedestrian crossing. The crossing will be located at the southern side of Neill's Lane and will cross both carriageways. There will not be any temporary severance of this right of way.

- 16.3.6 Rostulla Special School and Thornfield House School are based at the southern end of Jordanstown Road. Both of these schools are special schools. Jordanstown Schools is based further north on Jordanstown Road, beyond the entrance to the University of Ulster.
- 16.3.7 Jordanstown Schools provide a specialist education for children with an auditory and/or visual impairment aged from 4-19 years of age. It is a co-educational and non-denominational school. The pupils, who have a wide range of abilities, come from across Northern Ireland and from other parts of Ireland. The schools are situated on a spacious, attractive site covering some 24 acres approximately eight miles north of Belfast.
- 16.3.8 There is one church in Jordanstown. St Patrick's Jordanstown is located on Circular Road in Jordanstown. There are three ministers that hold sermons at the church providing various times of service.
- 16.3.9 Further community facilities include the Ulster Transport Bowling Club, which is located on Lynda Avenue just off Jordanstown Road, north of the University of Ulster Campus and Shore Road. The Lagan and Lough Cycle Way is a cycle route from Lisburn to Jordanstown encompassing National Cycle Network routes number 93 & 9, passing through Belfast. It is a 21-mile, level and traffic-free cycle ride or walk connecting Lisburn, Belfast and Jordanstown. The route is suitable for novice and family cyclists of all ages and abilities and passes along the waterside of the Lagan Towpath and Belfast Lough.
- 16.3.10 Hazelbank and Jordanstown Parks provide some of the best shoreline walks and cycle paths around Belfast Lough. This landscaped park is easily accessed from the Shore Road and offers prominent views of the Lough. It also has a bowling green and a specially designed garden for the visually impaired. There are also camping facilities available at this park. It is located on the southern side of Shore Road. At present, the Slip into Lough Shore is not currently being used but there are plans to change this and have it re-open for use.
- 16.3.11 Wavebank Apartments are located on Shore Road on the southern carriageway and provide accommodation for the students of the University of Ulster.
- 16.3.12 Jordanstown Railway Station is located at the northern end of Jordanstown Road. From here there are at least two services an hour that travel north and south. Ulsterbus services 163 and 166 pass Jordanstown on the A2.
- 16.3.13 Shorelands Junction will benefit from a new roundabout, which will also have 3 controlled pedestrian crossings. There is no anticipated severance of this junction.
- 16.3.14 Cloch-Na-Larty is an Archaeological Site Monument situated between Neil's Lane and the Shorelands junction. The site is also known as Castle Lug and is now a ruin of a large tower house and fortified dwelling built in late medieval times. The castle grounds have plan dimensions of approximately 12m by 53m, with an 11m frontage to Shore Road. It is not expected that there would be any direct impacts upon the remains of the

castle, but it is possible that there could be land take immediately adjacent, to allow road widening. This could therefore affect the setting of the castle, by bringing it closer to the road. The castle could also suffer from construction impacts such as dust and vibration.

### **Greenisland**

- 16.3.15 Greenisland has a number of churches that serve the local area. At the southern end of Station Road is St Colman's RC Church. It is proposed that this church may have to move to make way for new stretch of road beside the A2. The congregation at the church are largely from the Greenisland area, though some also come in from Jordanstown, Whiteabbey and Carrickfergus. Opposite St Colman's is the Church of Nazarene located at Longfield Gardens, just off Station Road.
- 16.3.16 There will be a new roundabout constructed on Shore Road at the bottom of Station Road. This roundabout will also have 3 controlled pedestrian crossings. To the south of the Station Road junction there are 2 rights of way accessed from Shore Road: Bates Lane and The Gut. Neither of these rights of way should suffer any severance as a result of the work on the A2 Shore Road.
- 16.3.17 Greenisland Baptist Church was formed in October 1996 by a small group of Christians. It is located on Glassillan Grove, next to Greenisland Library. Access is gained via Station Road. Church of the Holy Name Greenisland is situated on Station Road, just beyond Glassillan Grove. With approximately 450 families, Greenisland Parish reflects the rich diversity of ages, background and culture situated within the area drawing its congregation from both the large housing estate facing onto the back of the church itself and from many local private residential areas. The church has recently undergone a full refurbishment together with the construction of a new 'Parish Centre'. The church is located half a mile up Station Road. Across the road from the Church of the Holy Name Greenisland, is the Greenisland Methodist Church.
- 16.3.18 There are a few shops in Greenisland that will be affected by the A2 Shore Road improvements and that fall within the study area. The shops are spread over Glassillan Court, Shore Road, Station Road and Knockleigh Drive. The main shopping area in Greenisland is at Glassillan Court, where there are a variety of shops. There is McKee's Quality Meats, a local butcher; Captain Cod, fish and chip shop; The Candy Shop, sweet shop; Greenisland Pharmacy (SV Primrose), local pharmacy; and Hair-o-dynamics, hairdressers. There is also a post office in Greenisland, the Greenisland Sub Post Office, which is also located Glassillan Court.
- 16.3.19 Further up Station Road by the railway station there is Movietown, a video store; Evergreen, a Chinese take away; a Day Today Cornerstore and Hairways, a hairdresser. On Shore Road there is a Spar. It is the only shop in the study area located right on the A2 Shore Road. It is located on the northbound carriageway shortly after the junction for Station Road.
- 16.3.20 Greenisland Dental Practice is located on Station Road just before the turning onto Knockleigh Drive. Next door to the dental surgery is the Playstation, a childcare centre. Further north on Station Road there is another children's play centre, The Rocking Horse Nursery.
- 16.3.21 There are a couple of facilities for the elderly in Greenisland, Abbeyfield House and Greenisland House. Abbeyfield House is located on Glassillan Grove just off Station Road. Greenisland House is located on Shore Road, the main A2 route. Both facilities provide care for the elderly and infirm. There is also a private nursing home located on Shore Road, Ravenhill Private Nursing Home.

- 16.3.22 There are two primary schools located in Greenisland, Greenisland Primary School and Silverstream Primary School, but only the latter falls into the study area. Silverstream Primary School is located at Moyard Gardens in Greenisland and is located to the west of Station Road. There is also a youth club located within Greenisland, the Greenisland Knockagh Youth Club. It is on Glassillan Grove, which is also to the west of Station Road.
- 16.3.23 Greenisland has a library located at Glassillan Grove. It is open 5 days a week and is closed on Wednesdays and Sundays. The library has car parking, computers, disabled access, exhibition space, fax service, photocopier, printers, public toilet and a scanner.
- 16.3.24 There is public open space provision located in Greenisland, on the western side of Station Road. Knockleigh Walk is a grassed area of 1.94 hectares. Glassillan Grove has a 1.02 hectare area of grassland. There is also 1.43-hectare area of community grassland at Rossmore Green. There is open grassland at Knocksallagh Park at the northwest end of Station Road. There are also 3 football pitches situated to the West of Glenkeen Avenue behind the houses. All of these open areas fall within the community study area.
- 16.3.25 James Logan Cars is located on Shore Road heading north towards Carrickfergus. It provides new and used cars for sale. Located on the other side of Shore Road on the carriageway heading south towards Belfast is the Greenisland Waste Water Treatment Works. At the most northern point of the Scheme, on the northbound carriageway is a civil service institution on the grounds of a former tobacco factory. The access to this building will not be changed by any of the works.
- 16.3.26 Whinfield Lane runs off Shore Road on the northbound carriageway. It is a private right of way but there will be no severance of this junction.
- 16.3.27 Greenisland train station is located half way up Station Road. From here there are at least two services an hour that travel north and south. There is also a bus service that passes through Greenisland. Ulsterbus Services 163 and 166 both pass through the village on there way north. These buses also pass through Jordanstown. Details of the bus service are given in Table 16.4.

**Table 16.4: Greenisland Bus Services**

Service	Service Frequency	Bus Operator
Belfast – Greenisland 166	Monday-Friday	Ulsterbus
Belfast – Whitehead 163	Monday – Friday	Ulsterbus

- 16.3.28 There are proposals for some new bus stops on the route, as well as maintaining the location of some of the current stops. Beginning at the south end of the A2 Shore Road at the junction of Jordanstown Road there are currently several bus stops from the beginning of the work section to the end of the work section just beyond Seapark Junction.
- 16.3.29 There is currently a bus stop at the foot of Dalriada Drive on the northbound carriageway and this will remain in place. North of this bus stop, on the southbound carriageway, there is a lay-by with a bus shelter in it. This bus shelter will also remain in place. On the northbound carriageway just slightly further north of this bus shelter there is a bus stop, which will remain in place.
- 16.3.30 Between the University and the High School there is a junction Langley Hall. It is proposed that there be a bus shelter on both sides of the road to the north of this junction, between Langley Hall and Belfast High School.

- 16.3.31 There is a bus shelter and bus stop between Silverstream Banks and Neill's Lane. Both of these are to be de-commissioned. At the junction of Neill's Lane there is a bus stop serving each carriageway. Both of these bus stops are to de-commissioned and replaced with and replaced with bus shelters. On the northbound carriageway the bus stop will be on the north side of the Neill's Lane junction and the bus shelter on the southbound carriageway will be on the south side of the Neill's Lane Junction.
- 16.3.32 The Shorelands junction will also have two new bus shelters. The shelters will be located on the northern side of the Shorelands junction on opposite sides of the road. North of this point there are two bus stops that are to be de-commissioned. Further on from this point there is a bus stop to be de-commissioned on the southbound carriageway. Just before the junction of Station Road and the A2 Shore Road there are proposals for two new bus shelters.
- 16.3.33 Beyond Station Road the offline section of the road comes into place. There will be no new bus shelters on this new stretch of road. The bus stops on the A2 will remain in place. The proposals indicate that buses will not travel on the new section of bypass road but will continue along the original stretch of A2 Shore Road.

### Rights of Way

- 16.3.34 The stretch of the A2 between Jordanstown and Greenisland where the A2 upgrade is to be carried out has many Rights of Way that run off it on both sides of the carriageway. Table 16.5 identifies all of these Rights of Way and their location, and also identifies as to whether they are public or private Rights of Way. Figure 16.2 shows all of these Rights of Way in relation to the A2. The works to widen the A2 Shore Road will impact all these Rights of Way.
- 16.3.35 The Rights of Way at Shorelands, Bates Lane and Whinfield Lane are all of significant importance as they are Public Rights of Way. During the construction phase this will be an issue, as the road will be widened, but during the operation phase the rights of way should not be affected.

**Table 16.5: Identification of Rights of Way**

Town	Location of Right of Way	Public or Private Right of Way	Location on Map
Jordanstown	Meadowbank Lane	Private	Plot 6 Brown
West Division	Between Neill's Lane and Silverstream Banks on Northbound Carriageway	Private	Plot 13 Brown
West Division	Between Neill's Lane and Silverstream Banks on Northbound Carriageway	Private	Plot 19 Brown
West Division	Cloch-Na-Larty	Private	Plot 27A Yellow
West Division	Just before the Shorelands Junction on the Northbound carriageway.	Private	Plot 34A Brown
West Division	Shorelands	Public	Plot 36A Magenta
West Division	Between Shorelands and Station Road on Northbound carriageway.	Private	Plot 45 Yellow
West	Between Shorelands and Station	Private	Plot 55 Magenta

Division	Road on Northbound carriageway.		
West Division	Bates Lane	Public	Plot 62 Magenta
West Division	Adjacent to Station Road	Private	Plot 65A Yellow
West Division	Whinfield Lane	Public	Plot 73A Blue
West Division	Whinfield Lane	Public	Plot 74A Yellow
West Division	Whinfield Lane	Public	Plot 75A Green
West Division	North of Meadowbank Lane on Southbound carriageway	Private	Plot 84 Magenta
West Division	Southbound carriageway between Shorelands and Station Road	Private	Plot 92A Yellow
West Division	On Southbound carriageway just after Station Road.	Private	Plot 101 Magenta

## 16.4 Predicted Impacts

### Environmental Effects

- 16.4.1 The assessment of the community access effects associated with the proposed A2 Shore Road Greenisland is based on the Scheme as outlined in Chapter 2 – The Scheme.
- 16.4.2 For ease of reference the assessment of effects has been made for the same two defined location areas detailed in the community baseline section of this chapter, Jordanstown and Greenisland.

#### *Jordanstown - Proposed Scheme Works Summary*

- 16.4.3 Scheme works in this area would involve a new junction at Shore Avenue and Shorelands and also the widening of the single carriageway to dual carriageway. These changes would be relevant to receptors in this area. The effects (*before Mitigation*) of these proposed junction improvement works during construction and the following operational period on the community receptors located north of A2 Shore Road are summarised in the following Tables 16.6 and 16.7.

**Table 16.6: Effects of Construction**

Feature	Type of Community Effect	Magnitude of the Effect	Sensitivity of the Community Receptor	Significance Of the Effect	Significant/Not Significant	Nature
University of Ulster	Temporary local vehicular journey/access disruption to/from the University from the A2 as junction improvements are carried out at Shore Avenue.	Severe	High	Substantial	Significant	Temporary, Adverse, Reversible
Belfast High School	Temporary local vehicular journey/access disruption to/from the school from the A2 as junction improvements are carried out at Shorelands junction to the north and Shore Avenue to the south.	Moderate	Moderate	Substantial	Significant	Temporary, Adverse, Reversible
Wavecrest Apartments	Temporary local vehicular journey/access disruption to/from the A2 as junction improvements are carried out at Shore Avenue.	Severe	Moderate	Substantial	Significant	Temporary, Adverse, Reversible
Plot 36A Magenta	Shorelands (Public Right of Way)	Moderate	Moderate	Substantial	Significant	Temporary

**Table 16.7: Effects of Operation (continued over)**

Feature	Type of Community Effect	Magnitude of the Effect	Sensitivity of the Community Receptor	Significance Of the Effect	Significant/Not Significant	Nature
University of Ulster	Scheme operation results in the introduction of a roundabout improving the flow of traffic along the A2 and improving the junction at Shorelands and Shore Avenue.	Moderate	High	Minor	Not Significant	Permanent, Direct
Belfast High	Scheme operation results in the introduction of a roundabout improving	Moderate	Moderate	Minor	Not Significant	Permanent, Direct

Feature	Type of Community Effect	Magnitude of the Effect	Sensitivity of the Community Receptor	Significance Of the Effect	Significant/Not Significant	Nature
School	the flow of traffic along the A2 and improving the junction at Shorelands and Shore Avenue.					
Wavecrest Apartments	Scheme operation results in the introduction of a roundabout improving the flow of traffic along the A2 and improving the junction at Shore Avenue.	Moderate	Moderate	Minor	Not Significant	Permanent, Direct

*Greenisland - Proposed Scheme Works Summary*

- 16.4.4 The Scheme work in this area would involve the creation of a roundabout on Shore Road at the junction of Station Road and the creation of a new stretch of road running parallel to Shore Road on the land north of Shore Road. The construction of the roundabout does not involve the destruction of any properties or any new access points. The effects (*before mitigation*) of these proposed works during construction and the following operational period on the community receptors north of Shore Road are summarised in Tables 16.8 and 16.9.

Table 16.8: Effects of Construction

Feature	Type of Community Effect	Magnitude of the Effect	Sensitivity of the Community Receptor	Significance Of the Effect	Significant /Not Significant	Nature
St Colmans RC Church	Temporary disruptions to visitors use of A2 Shore Road and Station Road local access road link (pedestrian, cyclist and vehicular) to permit construction of roundabout and associated connecting road links.	Moderate	High	Substantial	Significant	Temporary, adverse.
Church of the Nazarene	Temporary disruptions to visitors use of A2 Shore Road and Station Road local access road link (pedestrian, cyclist and vehicular) to permit construction of roundabout and associated connecting road links.	Moderate	High	Substantial	Significant	Temporary, adverse.
Silverstream Primary School	Temporary disruptions to visitors use of A2 Shore Road and Station Road local access road link (pedestrian, cyclist and vehicular) to permit construction of roundabout and associated connecting road links.	Moderate	High	Substantial	Significant	Temporary, adverse.
Greenisland community facilities and services - <i>(from St Colmans RC Church at the southern end of Station Road to Greenisland Train Station at the Northern end of Station Road</i>	Temporary disruptions to visitors use of A2 Shore Road and Station Road local access road link (pedestrian, cyclist and vehicular) to permit construction of roundabout and associated connecting road links.	Moderate	High	Substantial	Significant	Temporary, adverse.
Ulsterbus	There will be disruption to services 163 and 166 that pass through Greenisland.	Severe	High	Substantial	Significant	Temporary, Adverse
<b>Plot 62 Magenta Bates Lane (Public Right of Way)</b>	Scheme operation results in cutting back of junction where Bates Lane meets A2.	<b>Moderate</b>	<b>Moderate</b>	<b>Substantial</b>	<b>Significant</b>	<b>Permanent</b>

Feature	Type of Community Effect	Magnitude of the Effect	Sensitivity of the Community Receptor	Significance Of the Effect	Significant /Not Significant	Nature
Plot 73A Blue Whinfield Lane (Public Right of Way)	Scheme construction results in work on Whinfield Lane as part of offline option.	Severe	Moderate	Substantial	Significant	Permanent
Plot 74A Yellow Whinfield Lane (Public Right of Way)	Scheme construction results in work on Whinfield Lane as part of offline option.	Severe	Moderate	Substantial	Significant	Permanent
Plot 75A Green Whinfield Lane (Public Right of Way)	Scheme construction results in work on Whinfield Lane as part of offline option.	Severe	Moderate	Substantial	Significant	Permanent

Table 16.9: Effects of Operation

Feature	Type of Community Effect	Magnitude of the Effect	Sensitivity of the Community Receptor	Significance Of the Effect	Significant/Not Significant	Nature
Spar Shore Road	Demolition of community retail unit	Severe	Moderate	Substantial	Significant	Permanent, Adverse.
Silverstream Primary School	Creation of new dual carriageway in close proximity to primary school leading to potential safety issues.	Severe	Very High	Slight	Significant	Permanent, Direct
St Colmans RC Church	Creation of new dual carriageway in close proximity to church leading to potential safety issues.	Severe	Very High	Slight	Significant	Permanent, Direct
Church of the Nazarene	Creation of new dual carriageway in close proximity to church leading to potential safety issues.	Severe	Very High	Slight	Significant	Permanent, Direct
Greenisland	Restriction of access to community facilities	Moderate	Moderate	Slight	Not	Permanent,

Feature	Type of Community Effect	Magnitude of the Effect	Sensitivity of the Community Receptor	Significance Of the Effect	Significant/Not Significant	Nature
community facilities and services - <i>(from St Colmans RC Church at the southern end of Station Road to Greenisland Train Station at the Northern end of Station Road</i>	as a result of the creation of a new dual carriageway.				significant	direct
Cycleway & Footway	During construction phase there will be disruption to these paths and severance will be an issue.	Moderate	Moderate	Substantial	Significant	Temporary, Adverse

## 16.5 Mitigation

16.5.1 Mitigation measures have been identified to minimise the effects of the proposed A2 Shore Road on pedestrians, cyclists, equestrians and the community. The mitigation is designed to prevent, reduce or offset the potential effects upon the baseline situation. Where appropriate, these mitigation recommendations should be considered for inclusion in the specified Conditions of Contract of Works when these are being formulated. The recommended mitigation measures for each of the defined geographical areas are summarised in Table 16.10.

**Table 16.10: Proposed Mitigation Measures (continued over)**

<b>Location</b>	<b>Community Effect before Mitigation</b>	<b>Mitigation</b>
<b>Jordanstown</b>		
Public Rights of Way (Shorelands, Bates Lane and Whinfield Lane)	During the construction phase there will be severance of these public rights of way.	There are no mitigation measures that can be put in place during the construction phase. The severance is only temporary and will only be an issue during the construction phase.
University of Ulster	Temporary disruption to the north as a result of construction of roundabout at Shore Avenue.	Use of temporary traffic lights to control A2 vehicular flows during roundabout construction period – but with no temporary severance of vehicular (or pedestrian) access to/from the A2.
Belfast High School	Temporary disruption to the south as a result of construction of roundabout at Shore Avenue and temporary disruption to the north as a result of construction of a roundabout at Shorelands.	Use of temporary traffic lights to control A2 vehicular flows during roundabout construction period – but with no temporary severance of vehicular (or pedestrian) access to/from the A2.
Wavecrest Apartments	Temporary disruption to the south as a result of construction of roundabout at Shore Avenue.	Use of temporary traffic lights to control A2 vehicular flows during roundabout construction period – but with no temporary severance of vehicular (or pedestrian) access to/from the A2.
<b>Greenisland</b>		
Spar Shore Road	Demolition of community retail unit	Compensation
St Colmans RC Church	Temporary disruption to visitors use of A2 and Station Road local access road link (pedestrian, cyclist and vehicular) to permit construction of roundabout and associated connecting	Use of temporary traffic lights to control A2 vehicular flows during roundabout construction period – but with no temporary severance of vehicular (or pedestrian) access to/from the A2.

Location	Community Effect before Mitigation	Mitigation
	road links, over-bridges etc	
Church of the Nazarene	Temporary disruption to visitors use of A2 and Station Road local access road link (pedestrian, cyclist and vehicular) to permit construction of roundabout and associated connecting road links, over-bridges etc	Use of temporary traffic lights to control A2 vehicular flows during roundabout construction period – but with no temporary severance of vehicular (or pedestrian) access to/from the A2.
Silverstream Primary School	Temporary disruption to visitors use of A2 and Station Road local access road link (pedestrian, cyclist and vehicular) to permit construction of roundabout and associated connecting road links, over-bridges etc	Use of temporary traffic lights to control A2 vehicular flows during roundabout construction period – but with no temporary severance of vehicular (or pedestrian) access to/from the A2.
Greenisland community facilities and services - <i>(from St Colmans RC Church at the southern end of Station Road to Greenisland Train Station at the Northern end of Station Road)</i>	Temporary disruption to visitors use of A2 and Station Road local access road link (pedestrian, cyclist and vehicular) to permit construction of roundabout and associated connecting road links, over-bridges etc	Use of temporary traffic lights to control A2 vehicular flows during roundabout construction period – but with no temporary severance of vehicular (or pedestrian) access to/from the A2.
Ulsterbus	Temporary disruption to journey time on A2 and Station Road local access road link (pedestrian, cyclist and vehicular) to permit construction of roundabout and associated connecting road links, over-bridges etc	Use of temporary traffic lights to control A2 vehicular flows during roundabout construction period – but with no temporary severance of vehicular (or pedestrian) access to/from the A2.
Cycleway & Footway	Temporary disruption to access to cycleway and footway.	Use of temporary pedestrian crossing during construction period at points of severance and danger.

## 16.6 Residual Impacts

- 16.6.1 There are impacts, which are likely to remain after the application of the proposed mitigation measures. Where residual impacts are predicted - following mitigation - these are summarised in Table 16.11 below.

**Table 16.11: Predicted Residual Impacts**

<b>Location</b>	<b>Mitigation</b>	<b>Predicted Residual Impact</b>
<b>Jordanstown</b>		
No residual impacts		
<b>Greenisland</b>		
Spar Shore Road	N/A	Permanent loss of community retail unit
St Colmans RC Church	Use of temporary traffic lights to control A2 vehicular flows during roundabout construction period – but with no temporary severance of vehicular (or pedestrian) access to/from the A2	No residual effects
Church of the Nazarene	Use of temporary traffic lights to control A2 vehicular flows during roundabout construction period – but with no temporary severance of vehicular (or pedestrian) access to/from the A2	No residual effects
Silverstream Primary School	Use of temporary traffic lights to control A2 vehicular flows during roundabout construction period – but with no temporary severance of vehicular (or pedestrian) access to/from the A2.	No residual effects
Greenisland community facilities and services - <i>(from St Colmans RC Church at the southern end of Station Road to Greenisland Train Station at Northern end of Station Road</i>	Use of temporary traffic lights to control A2 vehicular flows during roundabout construction period – but with no temporary severance of vehicular (or pedestrian) access to/from the A2.	No residual effects

## 16.7 Summary

- 16.7.1 The A2 Shore Road proposals will have a number of temporary and permanent community effects including access to, and use of, existing outdoor recreational amenity provision; residential and business properties including village services and farms. In addition, the Scheme construction and operational requirements will affect journeys made by people as pedestrians, cyclists as well as local private vehicular traffic and public transport (bus and rail) users. Public safety considerations are also raised by route section improvements creating situations whereby non-vehicular transport users are brought into closer/new proximity with vehicular transport modes.
- 16.7.2 Some of these effects would be potentially significant *without mitigation* e.g. temporary severance of existing recreational cycleway/pedestrian route sections and permanent

severance of a current pedestrian route and the only vehicular accesses to/from the A2 (T) for a number of residential properties.

- 16.7.3 However, a range of measures has been proposed in order to mitigate, where possible, the effects on journeys and the community. These include the provision of temporary pedestrian/cycling route section alternatives (if construction detail requires) to avoid temporary severance or loss of recreational amenity; provision of new local road access links to the A2 maintaining pedestrian, cyclist and local vehicle traffic journey links from residential and business receptors - with construction programming such that existing local accesses would remain open until new access links are complete thereby avoiding any temporary severance impacts. Safety issues have been addressed through the development of the Preliminary Scheme Design, as pedestrian crossings have been incorporated into the Scheme as required.
- 16.7.4 Impacts as a result of re-aligned or alternative route accesses for pedestrians and cyclists are estimated only to have a "slight" level of permanent residual impact. Finally, the changes in the traffic flows created by the Scheme would not reduce accessibility or create additional separation of residents from community facilities and services they currently use within Greenisland.
- 16.7.5 However, there will be a significant adverse residual impact as a result of the demolition of the existing Spar retail unit in Greenisland.

## 16.8 References

- 16.8.1 The following documents / sources were utilised in undertaking this assessment.
- Design Manual for Roads and Bridges, Volume 11, Environmental Assessment. Department of the Environment for Northern Ireland et al (August 1994, as amended up to August 2006).
  - Northern Ireland Census 2001: Population Statistics. Northern Ireland Statistics and Research Agency (NISRA). <http://www.nisra.gov.uk/publications/>
  - Ulsterbus website. <http://www.ulsterbus.co.uk/>
  - Translink website. <http://www.translink.co.uk/nir.asp>