Appendix F - Part 2 Appraisal Summary Tables

Proposal Details			
Name and address of authority or organisation promoting the proposal: (Also provide name of any subsidiary organisations also involved in promoting the proposal)		Scottish Executive	
Proposal Name:	***Package 1 – Town Centre Improvements***	Name of Planner:	Hugh Gillies, Scottish Executive Enterprise, Transport and Lifelong Learning Dept Trunk Roads – Transport Division 1 Victoria Quay, Edinburgh EH6 6QQ
Proposal Description:	A package of Town Centre Improvements dominated by a modification to the existing traffic signal junction to allow 2-way traffic flow on the A737 (Option 2). Other elements include Options 3, 5 and 7 as carried forward from the Part 1 Report.	Estimated Total Public Sector Funding Requirement:	*Capital costs/grant £530,000 (June 05)* *Annual revenue support £3,000* *Present Value of Cost to Govt. £800,000*
Funding Sought From: (if applicable)	North Ayrshire Council & The Scottish Executive	Amount of Application:	*Sum £530,000*
Background Information			
Geographic Context:	Dalry is a small town within North Ayrshire, with a population of over 4000. The A737 is the main road transport link to the larger towns of Glasgow and Ayr. The wider environs consist of urban fringe areas containing low intensity grazed grassland, wetland areas, boundary features, the River Garnock (notable for its fish population), a number of local wildlife reserves and to the north and east, some pockets of contaminated land. The Putyan Burn also runs through Dalry. The New Street/Townhead area is located within the urban town centre environment. There are a number of listed buildings present in the vicinity.		
Social Context:	The Scottish Index of Multiple Deprivation (SIMD 2004) offers a comprehensive picture of relative area deprivation. It shows that there are 6 data zones in North Ayrshire falling within the 5% most deprived in Scotland (out of 325), and 50 falling within the 20% most deprived zones (out of 1301). In North Ayrshire, average gross weekly income and earnings in 2002 are well below the corresponding levels for Ayrshire-wide and Scotland. There are no social inclusion partnerships (SIP) or priority partnerships in the Dalry study area, but both Dalry and Garnock East wards are eligible for West of Scotland Objective 2 European funding under the current 2000-2006 Programme, with a funding focus placed upon projects which will achieve: economic development, job creation, training, environmental works, and addressing barriers to participation and inclusion.		
Economic Context:	The A737 Dalry study area comprises Dalry and (part of) Garnock East. Dalry had a declining population of 6,130 in 2001. The demographic profile of the study area as a whole reflects that of all North Ayrshire. Employment within the study area remains heavily dependent upon manufacturing, and to an important but lesser extent wholesale and retail trade, and health and social work. Unemployment is higher than North Ayrshire and well above Scotland average. The study area is relatively well positioned in respect of educational qualifications, with 25% of the working age population holding a degree or similar qualification. Business formation levels are only marginally below the Scottish average.		

Planning Objectives	
Objective:	**Performance against planning objective:**
Planning Objective 1 – Stabilise average peak hour journey time over a prescribed length of the A737 through Dalry throughout the 25 year study horizon using 2004 October conditions as datum, without detriment to Town Centre conditions.	Planning Objective 1 is fully met at Short Term Planning Horizon (2012) providing equal or improved journey times on the 4 primary movements within Dalry. Sensitivity testing shows that network will experience significant queuing by 2015 meaning that the Planning Objective will not be met at either the Medium or Long Term Horizons.
Planning Objective 2 – Achieve 20% reduction in traffic volume in New Street between the Traffic Lights and Dalry Cross without detriment to local traders by 2010 using October 2004 conditions as datum.	The proposal can be expected to meet and exceed the reduction in traffic volume. Assessment against the second part concerning impact on local traders is difficult, but the majority of local traders are in favour.
Planning Objective 3 – Improve accessibility across the A737 between the Roche Way and Townend Street junctions for non-motorised road users. For residents in Garnock Street, target at least 1.5 minute reduction in walking time to a controlled crossing point on A737.	Planning Objective 3 is fully met with introduction of 2 additional pedestrian crossings on Townend Street (one at Roche Junction and one south of Merksworth Avenue junction) which significantly improves access across the A737 and significantly reduces walking time to a controlled crossing.
Planning Objective 4 – Enhance the attractiveness for walking and cycling in Dalry (access to Schools, Town Centre, Public Transport and Community Facilities). Target to be a 10% increase in the number of pupils regularly arriving on foot or by bicycle by 2010, and 5% increase in numbers of pedestrians or cyclists entering New Street between Traffic Lights and Dalry Cross by 2010.	Only met in part. Option 7 (school travel plans) can be expected to meet the objectives relating to the schools. Minor positive impact on the Dalry Town Centre objectives can be expected from the car parking initiatives of Option 3, and the improved accessibility resulting from the additional pedestrian crossings.
Planning Objective 5 – Stabilize average bus journey times through Dalry at peak hours in future years using October 2004 as datum.	Planning Objective 5 is fully met at Short Term Planning Horizon (2012) for the same reasons as Planning Objective 1. The Medium and Long Term Planning Horizons will not be met, again for the same reason as Planning Objective 1.
Rationale for Selection or Rejection of Proposal:	This proposal is recommended for implementation since it is the only intervention identified that will provide the required relief to Dalry Town Centre in the Short Term.

Implementability Appraisal	
Technical:	There have been no technical difficulties or abnormal risks identified with the implementation of this package of measures.
Operational:	There are no factors identified which are likely to adversely affect the ability to operate the proposal over its projected life without major additional costs. However the success of the parking proposals will rely on an enhanced ongoing partnership between Strathclyde Police and North Ayrshire Council to ensure that illegal parking does not adversely affect the through flow of traffic.
Financial:	Funding will principally be from the Scottish Executive Capital Budget. Some elements of work on the local road network and car parks should be funded by North Ayrshire Council
Public:	The proposals were made public during the Part 2 Consultation process with the exception of the likely need to demolish No.43 New Street (a Category B listed building) to allow the required reconfiguration of the junction. This important issue became evident during additional design work carried out subsequent to the consultation process. That apart, the proposals subject to detailed assessment have generally been well received although some adverse comment was made regarding the proposal to introduce one-way operation in Main Street, and the proposal to introduce a loading bay area in New Street West (taking space from on-street parking). The adverse comments regarding the Main Street one-way system are limited; the adverse comments regarding the introduction of the loading bay (and loss of car parking space) were more comprehensive. Traffic Regulation Orders (TROs) will be required to be made to cover the proposed introduction of one-way traffic management in New Street (West) and Main Street. A new TRO will also be required to introduce on-street parking restriction on Townend Street opposite Roche Way junction. As such there will be the opportunity for members of the public to raise objections to the proposals which, if not resolved, could jeopardise the scheme.

Environment			
Mitigation Options Included: (Costs & Benefits)	Best practice in terms of good design and implementation of the engineering works together with a sound appreciation of the complexity of townscape design and public amenity.		
Sub-objective	**Qualitative Information**	**Quantitative Information**	**Significance of Impact**
Noise and Vibration	In addition to residential properties there are several particularly sensitive receptors located within the transport corridor including primary schools, a nursery school and health centre. Package 1 measures are likely to have a neutral effect on the noise levels in Dalry and at these sensitive receptors.	Strategic level assessment only.	No Impact
Air Quality – Overall	Overall, Package 1 is likely to improve the air quality of Dalry due to reduced congestion, higher average speeds and a reduction in the overall number of vehicle movements.	Strategic level assessment only.	**Minor Positive**
CO_2 – Global	No overall effects predicted.	No overall effects predicted.	No overall effects predicted.
PM_{10} – Local	Package 1 will reduce vehicle emissions and congestion and increase the average speed of vehicles in Dalry leading to a reduction in the concentration of vehicle emissions.	Strategic level assessment only.	**Minor Positive**
NO_2 – Local	Package 1 will reduce vehicle emissions and congestion and increase the average speed of vehicles in Dalry leading to a reduction in the concentration of vehicle emissions.	Strategic level assessment only.	**Minor Positive**
Water Quality, Drainage and Flood Defence	Possible reduction in vehicle related pollutant accumulation on the road surface due to the improved through-flow of traffic and therefore an increase in the quality of surface water run-off.	Putyan Burn which discharges to the River Garnock.	No Impact

Geology	Package 1 not predicted to have any effect on geological sites, mineral reserves, soils or groundwater.	No designated geological sites or mineral reserves identified. The soils beneath the town of Dalry consist of glacial till deposits, generally devoid of significant volumes of groundwater.	No Impact
Biodiversity	No designated sites or protected species affected. Any bird roosting not predicted to be affected.	No designated sites or protected species. Potential bird roosting in buildings.	No Impact
Landscape	Loss of No. 43 New Street listed building. No other townscape affects predicted.	No designated sites. One Category B listed building (No. 43 New Street).	**Moderate Negative** for Option 2 only. No Impact for other options.
Visual Amenity	Option 2 only - demolition of No.43 New Street (listed building) would fundamentally change the view, with the block of buildings appearing truncated. No other visual amenity affects predicted.	Despite No.43 New Street being a Category B listed building, its character has been negatively impacted by the structural change to form the flat. It is therefore considered as reasonably tolerant to further change and consequently of medium sensitivity.	**Major Negative** for Option 2 only. No Impact for other options.
Agriculture and Soils	Package 1 options will be confined to Dalry Town Centre and are not predicted to have any affect on local agriculture or soils.	Package 1 options are not predicted to have any effect on Class 1/2/3 land.	No Impact
Cultural Heritage	No scheduled ancient monuments affected. Listed buildings present, many which are located within areas currently affected by traffic congestion e.g. Main Street, New Street, Townend Street, Sharon Street and The Cross. One Category B listed building (No. 43 New Street) to be demolished as a result of the proposals. Some buildings possibly affected by vibrations from increased traffic speed affecting, others experience less vibration as traffic relieved.	No scheduled ancient monuments within Dalry. Approx. fifty Category B and C(S) Listed Buildings adjacent to New Street, Main Street, Town Street and Townend. Other sites listed on the National Monuments Record of Scotland adjacent to New Street, Main Street, Town Street and Townend.	**Major Negative** for Option 2 only. Overall No Impact

Safety			
Sub-objective	**Item**	**Qualitative Information**	**Quantitative Information**
Accidents	Change in Annual Personal Injury Accidents	No overall change in accidents. Package 1 measures afford benefits to drivers such as increased vehicle speed due to reduced queuing within the network, which may have a negative impact on accident rates. However, this is balanced off against the introduction of traffic signals at the Roche Way/Townend Street junction, and the partial closure of High Street, which will have a positive impact on accident rates.	Total reduction in accidents = -0.4
	Change in Balance of Severity	Increased traffic speeds due to less queuing may increase accident severity	N/A.
	Total Discounted Savings	Total Present Value of Accident Benefits, taken from NESA accident only analysis.	£0.00m
Security		Only Option 6 – Footpath/Cycleway link element from the Railway Station to the South end of Dalry has any negative security implications due to the rural location ad only then if used during darkness. The provision of secure cycle storage is seen as a positive benefit. Overall there will be a Minor Positive benefit in terms of security	N/A

Economy (Transport Economic Efficiency)			
Sub-objective	**Item**	**Qualitative Information**	**Quantitative Information**
User Benefits	Travel Time	Paramics microsimulation modelling shows that the modification to traffic signals within the town centre results in a more efficient use of available capacity than in base conditions. In addition, the closure of High Street to west-bound traffic removes the delay to south-bound traffic on the A737 associated with vehicles turning from New Street into High Street. The enforcement of parking regulations and the adherence to revised signage results in a reduced likelihood that illegally parked vehicles will cause obstruction to traffic.	Time saving of £6.5m
	User Charges	N/A	N/A
	Vehicle Operating Costs	Analysis of Paramics outputs using PEARS shows that VOCs are reduced by £0.52m. These savings result from improved efficiency achieved by increased average speeds and a reduced occurrence of queuing and delays.	Saving of £0.52m
	Quality / Reliability Benefits	N/A	N/A
Private Sector Operator Impacts	Investment Costs	N/A	N/A
	Operating & Maintenance Costs	Bus operators are expected to benefit from reduced operating costs as a result of the improved efficiency of the town centre road network. Delays associated with delivery vehicles and parked cars have been addressed by the Package 1 scheme, and the overall level of queuing and delay has been reduced.	N/A
	Revenues	N/A	N/A
	Grant/Subsidy payments	N/A	N/A

Economy (Economic Activity and Location Impacts)			
Sub-objective	**Item**	**Qualitative Information**	**Quantitative Information**
NB: It should noted that the business survey for simplicity was undertaken on the basis of seven individual improvement options, rather than focusing upon a combined 'town centre' improvement package, and the bypass option. This appraisal therefore provides an interpretation of the effects of the combined 'town centre' package rather than reporting separately on each of the options.			
Economic Activity and Location Impacts	Local Economic Impacts	The greatest effect will be experienced in respect of employment with impacts likely to result mainly within Dalry town centre itself. Between 90% and 76% of local businesses were found to be in favour of the town centre options (range provided due to number of individual options) with some 95%-80% also envisage such option implementation to have a stabilising or positive impact on employment. Additionally 95%-73% of the local Dalry business community expressed the perception that the options would result in a stable or positive effect upon performance. In relation to employment and industry sectors, the greatest anticipated employment change will typically occur amongst the services sectors, such as in retailing, food and drink and other local services. These are the employment sectors most represented within the town centre. This would provide opportunities for employment in providing support services and higher skilled occupations. An estimation of the exact level of local change has not been possible to be derived, due to the insufficient level of quantitative data provided in response to the survey.	It is estimated that a relatively small growth in economic performance and employment would occur in the short-to-medium term. **Minor Positive Benefit**
	National Economic Impacts	At the national level, it is estimated that there will be very limited positive or negative employment impacts experienced elsewhere within Scotland, i.e. outside Dalry and immediate adjoining parts of North Ayrshire. This will reflect the local geographical nature of the proposals, and likelihood and effects of displacement, etc. Analysis of the notional employment by industry type show that minimal impacts will occur across the services and in traditional manufacturing and the related industries, with similar minimal changes in value added and business performance. Estimation of the level of change at a national economic level has not been practical to be derived, due to the insufficient level of quantitative data provided in the local business survey	There will be limited change in the level of employment and added value at the national economy, a trend reflecting this local project. **Minor Positive Benefit**

Economy (Economic Activity and Location Impacts)			
Sub-objective	**Item**	**Qualitative Information**	**Quantitative Information**
	Distributional Impacts	The Glasgow City region and Ayrshire conurbations are currently benefiting from a period of relative buoyancy in regard to the wider regional economy and its associated property market. There are most likely to be benefits gained in a number of the most local regeneration areas situated within surrounding parts of primarily North Ayrshire, in particular those which suffer from varying aspects of social exclusion and relative deprivation. The town centre improvements will have a combination of short-to-medium and longer-term effects, particularly where it contributes towards an enhanced and attractive town centre environment, and also improved accessibility. In employment terms, any potential growth in services could provide further opportunities for higher employment, mainly amongst the female working population and those wishing to undertake employment on a part-time basis. In tandem with the introduction of the town centre improvements, wider society and economic change will provide positive impacts and other opportunities across the social spectrum. Estimation of the extent of distributional impact could not be derived directly, due principally to a lack of sufficient quantitative data being obtained from the local business survey.	Small scale employment and performance benefits for locals, particularly in services, with employment prospects for much of the local population. **Minor** **Positive Benefit**

Integration			
Sub-objective	**Item**	**Qualitative Information**	**Quantitative Information**
Transport Interchanges	Services & Ticketing	There is only minor impact on this sub-objective arising from the proposed relocation of the northbound bus stop from Dalry Cross to Roche Way. This will affect both the through bus services by Stagecoach and the local Dalry service operated by Thistle. For the Stagecoach passengers, the impact is assessed as neutral. More Thistle passengers are assumed to want access to the shops which will entail a walk of approximately 200m from the shops.	Bus patronage data has not been made available so unable to quantify number of journeys affected. **Minor negative impact**.
	Infrastructure & Information	All the benefits accrued from the improved road infrastructure network and the associated signing and lining arising from both Package 1 & Package 2 have been assessed in the Transport Economic Efficiency section of this report	N/A
Land-use Transport Integration		The proposal is generally consistent with North Ayrshire Council (NAC) Local Plan policies TRA 2, TRA 8(R), TRA 10; and also with JTS policies A1, A2 and A4. It is also consistent with the NAC Local Transport Strategy vision statements, with Joint Structure Plan 1999 policy T8, and with Joint Structure Plan 2025 paragraph 2.62. It would not be consistent with NAC Local Plan policy BE5 if demolition is required to make way for the re-arranged junction at the existing traffic signals.	N/A
Policy Integration		With respect to Disability policy the proposal will contribute to overcoming barriers for people with disabilities with the introduction of 2 new controlled crossings. The relocation of the bus stop Roche Way will have an adverse impact due to its increased distance from the shops. With respect to Health the proposal will contribute to an improvement in the health of the residents of Dalry with a reduction in vehicle emissions and greater number of people walking to school/work/shops etc. The reduced travel journey times can be expected to help to maintain the attractiveness of living and working in the Dalry area.	N/A

Accessibility & Social Inclusion			
Sub-objective	**Item**	**Qualitative Information**	**Quantitative Information**
Community Accessibility	Public Transport Network Coverage	No issues were raised during the consultation process regarding current accessibility to the public transport network	N/A
	Access to Other Local Services	The main issue arising from the consultation process was the severance caused by the A737 particularly to people residing to the South of the A737.	Provision of a controlled pedestrian crossing at Roche Way and South of Merksworth Ave will considerably improve the provision of safe crossing points.
Comparative Accessibility	Distribution/Spatial Impacts by Social Group	The main driver for the assessment is the relief of peek hour congestion on A737 in Dalry. The main beneficiaries will be commuters	By lessening congestion journey times on A737 will be reduced and journey time reliability improved..
	Distribution/Spatial Impacts by Area	Given the relatively small geographic area impacted by the proposals only two areas of Dalry are considered ie Area South of Townend Street and the Blair Housing Estate.	Area South of Townend Street will benefit from improved pedestrian crossing facilities. The Blair Estate will not be affected..

Cost to Public Sector		
Item	**Qualitative information**	**Quantitative information**
Public Sector Investment Costs	Capital costs of town centre modifications and acquisition of No 43 High Street, including Optimism Bias. Costs provided at June 2005 prices (a), with an RPI of 192, and 1998 (b) with an average RPI of 162.9.	Total Scheme Cost (a) = £0.6625 Total Scheme Cost (b) = £0.5160
Public Sector Operating & Maintenance Costs	N/A	N/A
Grant/Subsidy Payments	N/A	N/A
Revenues	N/A	N/A
Taxation impacts	Increased vehicle efficiency due to reduced queuing and delay within central Dalry results in a loss of fuel duty to Government.	£0.67m

Monetised Summary	
Present Value of Transport Benefits	Total PVB = £7.40m
Present Value of Cost to Government	Total PVC = £0.80m
Net Present Value	Total NPV = £6.6m
Benefit-Cost to Government Ratio	Ratio = 9.22

Proposal Details			
Name and address of authority or organisation promoting the proposal: (Also provide name of any subsidiary organisations also involved in promoting the proposal)		Scottish Executive	
Proposal Name:	***Package 2 – Dalry Bypass***	Name of Planner:	Hugh Gillies, Scottish Executive Enterprise, Transport and Lifelong Learning Dept Trunk Roads – Transport Division 1 Victoria Quay, Edinburgh EH6 6QQ
Proposal Description:	A737 By-pass to the east of Dalry from Highfield to Monk Castle.	Estimated Total Public Sector Funding Requirement:	*Capital costs/grant* £18m (June 05) *Annual revenue support* £20,000 *Present Value of Cost to Govt.* £18.08m
Funding Sought From: (if applicable)	Scottish Executive	Amount of Application:	*Sum £18m*
Background Information			
Geographic Context:	Dalry is a small town within North Ayrshire, with a population of over 4000. The A737 is the main road transport link to the larger towns of Glasgow and Ayr. The wider environs consist of urban fringe areas containing low intensity grazed grassland, wetland areas, boundary features, the River Garnock (notable for its fish population), a number of local wildlife reserves and to the north and east, some pockets of contaminated land. There are a number of listed buildings present in the town centre. The Putyan Burn also runs through Dalry. The by-pass would cross the River Garnock, as well as potentially impact upon contaminated land. The majority of the land affected would be agricultural, though the presence of other habitats, such as woodland, wetland and hedgerows has yet to be fully established (consultation responses awaited).		
Social Context:	The Scottish Index of Multiple Deprivation (SIMD 2004) offers a comprehensive picture of relative area deprivation. It shows that there are 6 data zones in North Ayrshire falling within the 5% most deprived in Scotland (out of 325), and 50 falling within the 20% most deprived zones (out of 1301). In North Ayrshire, average gross weekly income and earnings in 2002 are well below the corresponding levels for Ayrshire-wide and Scotland. There are no social inclusion partnerships (SIP) or priority partnerships in the Dalry study area, but both Dalry and Garnock East wards are eligible for West of Scotland Objective 2 European funding under the current 2000-2006 Programme, with a funding focus placed upon projects which will achieve: economic development, job creation, training, environmental works, and addressing barriers to participation and inclusion.		

Economic Context:	The A737 Dalry study area comprises Dalry and (part of) Garnock East. Dalry had a declining population of 6,130 in 2001. The demographic profile of the study area as a whole reflects that of all North Ayrshire. Employment within the study area remains heavily dependent upon manufacturing, and to an important but lesser extent wholesale and retail trade, and health and social work. Unemployment is higher than North Ayrshire and well above Scotland average. The study area is relatively well positioned in respect of educational qualifications, with 25% of the working age population holding a degree or similar qualification. Business formation levels are only marginally below the Scottish average.

Planning Objectives	
Objective:	**Performance against planning objective:**
Planning Objective 1 – Stabilise average peak hour journey time over a prescribed length of the A737 through Dalry throughout the 25 year study horizon using 2004 October conditions as datum, without detriment to Town Centre conditions.	Meets and exceeds this Planning Objective in long term on the assumption that traffic growth continues at Central NRTF levels. Will also meet and exceed the Objective in the Short Term if the by-pass is constructed by 2012.
Planning Objective 2 – Achieve 20% reduction in traffic volume in New Street between the Traffic Lights and Dalry Cross without detriment to local traders by 2010 using October 2004 conditions as datum.	The Package does not meet this Planning Objective since the implementation of the by-pass will not be available by 2010
Planning Objective 3 – Improve accessibility across the A737 between the Roche Way and Vennel Street junctions for non-motorised road users. For residents in Garnock Street, target at least 1.5 minute reduction in walking time to a controlled crossing point on A737.	The Package does not meet this Planning Objective since the implementation of the by-pass has no impact on the Planning Objective.
Planning Objective 4 – Enhance the attractiveness for walking and cycling in Dalry (access to Schools, Town Centre, Public Transport and Community Facilities). Target to be a 10% increase in the number of pupils regularly arriving on foot or by bicycle by 2010, and 5% increase in numbers of pedestrians or cyclists entering New Street between Traffic Lights and Dalry Cross by 2010.	Planning Objective unlikely to be met. No direct impact, but the Town Centre will experience traffic relief as soon as by-pass is opened and will make walking and cycling more attractive propositions.
Planning Objective 5 – Stabilize average bus journey times through Dalry at peak hours in future years using October 2004 as datum.	Meets and exceeds this Planning Objective in long term on the assumption that traffic growth continues at Central NRTF levels. Will also meet and exceed the Objective in the Short Term if the by-pass is constructed by 2012.

Rationale for Selection or Rejection of Proposal:	This proposal is recommended for implementation since it is the only intervention identified that will provide the required relief to Dalry Town Centre in the long term.

Implementability Appraisal	
Technical:	Towards the southern end of the bypass a structure or structures totalling approximately 265m in length will be required to carry the bypass across the River Garnock (and its flood plain on the west bank) and the Glasgow-Ayr Railway Line (on a 30° skew). Tried and tested design and construction materials are proposed. Allowance will need to be made for construction of the bridge early in any procurement contract to provide suitable haul route south of the river without affecting Dalry Town Centre. Old mapping indicates "Blair Iron Works" approximately 400m west of the proposed alignment where it crosses Blair Road with an Ironstone Pit to the south and Coal Pits to the north. No other details relating to this activity have been forthcoming so far. The historic mapping also shows a Lime Kiln on the line of the proposed alignment just south of Blair Road. From the crossing of Blair Road northwards the proposed by-pass alignment traverses an area which has a history of coal mining with 8no. mine entries identified by the Coal Authority. Detailed records of the treatment of the mine entries are not held by the Coal Authority. The Coal Authority also confirms that other mine entries may exist in this locality. A £1M contingency has been allowed in the costing to cover ground preparation/stabilisation works that might be required arising from this source. No abnormal environmental risks have been identified, but suitable arrangements will need to be put in place for containing and treating surface water run-off during construction to avoid contamination of watercourses.
Operational:	Providing the historic mine workings described above were properly dealt with at the time of original abandonment, or are suitably treated during construction, there are no factors which might adversely affect the ability to operate the proposal over its projected life without major additional costs
Financial:	Funding will be provided from the Scottish Executive Capital Budget

Public:	The corridor of study for the proposed by-pass was made public during the Part 2 Consultation process. Support of the proposal has generally been widespread albeit with reservations regarding the scope of the by-pass study. A concern has been raised however regarding the proximity of the proposed route to the housing in Baidland Avenue and Kerse Avenue with a request made for any future alignment to be moved further away. As noted elsewhere the final alignment of any by-pass will be subject to a detailed design exercise including a detailed assessment of possible route options.

Environment			
Mitigation Options Included: (Costs & Benefits)	Due to the sensitivities of the River Garnock, specific pollution prevention measures would be developed as part of any scheme design and employed during construction/operation to protect water quality and aquatic ecology. Best practice techniques applied during construction phase when working in/near watercourses. SUDS developed in consultation with SEPA for use during construction and operation. Sensitive design features used to minimise physical impact on nature of watercourses. Mammal/fish passable culverts. Minimise land take, re-use of soils on site wherever practicable. Contaminated land/mining issues to be fully addressed through avoidance, removal or treatment. Detailed protected species survey of the route corridor and sensitive design features to minimise any negative impacts on biodiversity. Successful landscape integration would be achieved by the design and construction of an appropriate structure to cross the River Garnock and mitigation measures to reduce visual and landscape impact in accordance with latest best practice. N.B. Visual assessment has taken into account the anticipated reduction in traffic currently passing close to properties along the A737.		
Sub-objective	**Qualitative Information**	**Quantitative Information**	**Significance of Impact**
Noise and Vibration	In addition to residential properties there are several particularly sensitive receptors located within the transport corridor including primary schools, a nursery school and health centre. It is likely that the majority of these receptors would experience a benefit due to the scheme. Overall, the proposed bypass will reduce noise levels in Dalry and at these sensitive receptors.	The bypass scheme will cause 60 people to experience an increase in annoyance. The bypass scheme will cause 130 people to experience a reduction in annoyance. These figures are taken from the completion of Worksheet N1 and the assumptions made in deriving these figures should be noted.	Based on current information, **Minor to Moderate Positive.**
Air Quality - Overall	The proposed bypass will generate an overall improvement in air quality.		Based on current information, **Minor to Moderate Positive.**
CO_2 - Global		The net change in CO_2 with the proposed bypass in place would be –161 tonnes per year.	**Minor Positive**
PM_{10} - Local	The concentration of vehicle derived PM_{10} along the A737 from the junction of the B777 to the junction	530 people would experience an increase in PM_{10} with the proposed bypass in place.	Based on current information, **Minor to Moderate Positive.**

	with Saltcoats Road will decrease. However, an increase will occur between the south of Saltcoats Road and the junction of the proposed bypass, and within the 400m wide zone created along the new bypass route. Overall, the concentration of PM_{10} generated by vehicle emissions will decrease with the proposed bypass in place.	1950 people would experience a decrease in PM_{10} with the proposed bypass in place. These figures are taken from the completion of Worksheet A1.	
NO_2 - Local	The concentration of vehicle derived NO_2 along the A737 from the junction to the B777 to the junction with Saltcoats Road will decrease. However, an increase will occur between the south of Saltcoats Road and the junction of the proposed bypass, and within the 400m wide zone created along the new bypass route. The overall concentration of NO_2 generated by vehicle emissions will decrease.	530 people would experience an increase in NO_2 with the proposed bypass in place. 1950 people would experience a decrease in NO_2 with the proposed bypass in place. These figures are taken from completion of Worksheet A1.	Based on current information, **Minor to Moderate Positive.**
Water Quality, Drainage and Flood Defence	Potential indirect adverse effects relating to the risk of pollution of watercourses through the input of sediments, oils, fuels, etc. from both construction phase run-off, and road run-off/accidental spillage once the bypass is operational. Potential change in the physical characteristics of watercourses through in/near channel construction (bridge crossing of the River Garnock and crossings other un-named minor watercourses). Potential increased flood risk with increased run-off from roads.	River Garnock (Class B - fair water quality), and other un-named minor watercourses/ditches. The Garnock is classified as a salmonid watercourse and therefore sensitive to pollution.	**Minor Negative** with mitigation to prevent pollution and minimise alteration to watercourses.

Geology	Disturbance to geological attributes due to earthworks required during construction. Potential for disturbance to shallow groundwater resources. Disturbance of contaminated land/old mine workings – possibly avoided through design.	No designated geological sites. Pockets of contaminated land, particularly to the north and east of Dalry, relating to past mining and quarrying activities, unknown spoil heaps and some ex-foundry sites.	**Moderate to Minor Negative** **Minor Negative**
Biodiversity	Habitat loss, damage, disturbance and fragmentation of mainly farmland, hedgerows and some scattered tress affected; potential physical disturbance to the River Garnock and other minor watercourses during construction of the new bridge and culverts; potential pollution of watercourses and effects on aquatic flora and fauna (e.g. salmon, lamprey) and supported terrestrial species, e.g. otter.	No European/national designated sites or listed woodlands affected by the eastern bypass. Otter recorded in the wider area. Badger likely to be present. Atlantic Salmon and lamprey, protected under the EU habitats directive recorded within the River Garnock.	**Moderate Negative**
Landscape	Change to the landscape character due to the presence of the proposed bypass.	No designated sites will be affected. Landscape in the northern section of the route corridor along the valley side has a medium sensitivity to change, whilst the southern section where it crosses the river corridor a high sensitivity to change.	**Moderate to Minor Negative** for the northern section and **Major Negative** for the southern section.
Visual Amenity	Hillend would have a direct view of the bypass. The most easterly row of properties at the residential development on the edge of Dalry, properties within the vicinity of Highfield and the farm at Blairland would experience a direct view of the proposed bypass.	Hillend adjacent to the A737 at the southern end of the bypass corridor. Residential properties associated with the high-density residential development on the eastern edge of Dalry, to the west of the proposed bypass corridor. Blairland farm located to the south of the housing	**Major Negative** in year 15 after the road opens. **Major to Moderate Negative** in year 15 after the road opens.

		development, west of the bypass corridor.	
	The properties set further back within the residential development and the farmhouse at Stoophill would have a restricted view of the bypass.	**Stoophill farmhouse, to the east of the bypass corridor. Properties in and within the environs of Highfield at the northern end of the corridor adjacent to the A737.**	**Minor Negative** in year 15 after the road opens.
	Negative change in the character and amenity of the view from the farm track and short term view from Dalry to Irvine cycleway.	A farm track used by pedestrians from Blairland to the River Garnock. The Dalry to Irvine Cycleway crossing the route corridor along the B707 west of Highfield.	Overall **Moderate** Negative
Agriculture and Soils	Substantial loss/disturbance of Grade 4_2 agricultural land due to significant land take requirements.	Grade 4_2 agricultural land. No grade 1/2/3 prime agricultural land affected.	**Moderate Negative**
Cultural Heritage	There are no scheduled ancient monuments or listed buildings within the proposed bypass corridor. One undesignated archaeological feature may be affected but could be avoided. Listed buildings with Dalry are predicted to benefit in terms of reduced traffic flows and congestion, thereby alleviating effects on the setting of these sites.	No designated sites will be affected. Five Category C(S) Listed Buildings outwith the bypass corridor on the eastern edge of Dalry. One site listed on the National Monuments Record of Scotland within the bypass corridor. Approx. forty three Category B and C(S) Listed Buildings within Dalry.	No Impact

Safety			
Sub-objective	**Item**	**Qualitative Information**	**Quantitative Information**
Accidents	Change in Annual Personal Injury Accidents	Analysed using NESA, the occurrence of accidents is reduced with the by-pass in place. Large numbers of vehicles are attracted to the by-pass which has a lower accident rate than the existing route through Dalry.	Total reduction in accidents = 32.8
	Change in Balance of Severity	Despite the lower accident rate on the by-pass, the higher average speed of traffic will have a bearing on the severity of injuries.	.
	Total Discounted Savings	Total Present Value of Accident Benefits, taken from NESA accident only analysis.	£0.89m
Security		. No effect	N/A.

Economy (Transport Economic Efficiency)			
Sub-objective	**Item**	**Qualitative Information**	**Quantitative Information**
User Benefits	Travel Time	Vehicles which reassign to the by-pass benefit from reduced journey times, avoiding the delay associated with the junctions in central Dalry. Savings would be particularly evident during the PM peak period.	Time saving of £79.14m
	User Charges	N/A	N/A
	Vehicle Operating Costs	Analysis of NESA outputs shows that VOCs are reduced by £1.20m. Compared with the delay in central Dalry, the by-pass offers significant time savings, and provides a more direct route for strategic trips.	Saving of £1.20m
	Quality / Reliability Benefits	N/A	N/A
Private Sector Operator Impacts	Investment Costs	N/A	N/A
	Operating & Maintenance Costs	The provision of a by-pass to the east of Dalry introduces the opportunity for time and distance savings for all users, including bus and coach operators. This, combined with the savings evident in central Dalry as a result of vehicles diverting to the by-pass, results in a saving to Bus and Coach operators of £0.22m.	Saving of £0.22m
	Revenues	N/A	N/A
	Grant/Subsidy payments	N/A	N/A

Economy (Economic Activity and Location Impacts)			
Sub-objective	**Item**	**Qualitative Information**	**Quantitative Information**
Economic Activity and Location Impacts	Local Economic Impacts	One of the greatest effects will be experienced in respect of employment with impacts likely to result mainly within Dalry town centre itself as well as in the immediate environs. 76% of local businesses were found to be in favour of the bypass option. 77% also envisage the bypass implementation to have a stabilising or positive employment impact, and 68% envisage the bypass implementation having a similar stable or positive effect upon their business performance. In relation to employment and industry sectors, the greatest anticipated employment change will typically occur amongst the services sectors, such as in retailing, food and drink and other local services. This would provide opportunities for employment in providing support services and higher skilled occupations. An estimation of the exact level of local change has not been possible to be derived, due to the insufficient level of quantitative data provided in response to the business survey.	It is estimated that a relatively small growth in economic performance and employment would occur in the medium to long term. **Minor Positive Benefit**
	National Economic Impacts	At the national level, it is estimated that there will be very limited positive or negative employment impacts experienced elsewhere within Scotland, i.e. outside Dalry and immediate adjoining parts of North Ayrshire. This will reflect the localised nature of the proposed bypass road, and the overall likelihood and effects of displacement, etc. Analysis of the notional employment by industry type show that minimal impacts will take place across the service sectors and in traditional manufacturing and related industries, with similar minimal changes in value added/ business performance. Estimation of the level of change at a national economic level has not been practical to be derived, due to the insufficient level of quantitative data provided in the local business survey.	There will be limited employment change and added value growth at the national economy, reflecting the localised nature of this project. **Minor Positive Benefit**

Economy (Economic Activity and Location Impacts)			
Sub-objective	**Item**	**Qualitative Information**	**Quantitative Information**
	Distributional Impacts	The Glasgow City region and Ayrshire conurbations are currently benefiting from a period of relative buoyancy in regard to the wider regional economy and its associated property market. There are most likely to be benefits gained in a number of the most local regeneration areas situated within surrounding parts of primarily North Ayrshire, in particular those which suffer from varying aspects of social exclusion and relative deprivation. The bypass is therefore likely to have few positive medium-to-long term impacts, particularly where it contributes to improved accessibility to job opportunities and wider labour market. In employment terms, any potential growth in the services sector could provide opportunities for higher employment, especially amongst the female working population as well as those perhaps wishing to take on part-time employment. In tandem with the bypass introduction, wider society changes will provide positive impacts and other opportunities across the social spectrum. Estimation of the extent of distributional impact could not be derived, due primarily to insufficient quantitative data obtained from the local business survey.	Small scale employment benefits for locals, particularly in services, with job prospects for much of the local population. **Moderate to Minor Positive Benefit**

Integration			
Sub-objective	**Item**	**Qualitative Information**	**Quantitative Information**
Transport Interchanges	Services & Ticketing	The new eastern by-pass has no direct impact on Services and Ticketing.	N/A
	Infrastructure & Information	All the benefits accrued from the improved road infrastructure network and the associated signing and lining arising from both Package 1 & Package 2 have been assessed in the Transport Economic Efficiency section of this report	N/A
Land-use Transport Integration		The proposal is generally consistent with North Ayrshire Council (NAC) Local Plan policies TRA 2, TRA 8(R), TRA 10; and also with JTS policies A1, A2 and A4. It is also consistent with the NAC Local Transport Strategy vision statements, with Joint Structure Plan 1999 policies T8 and T9, and with Joint Structure Plan 2025 paragraph 2.62.	N/A
Policy Integration		This proposal does not contribute to improving the access for people with disability other than introducing a significant reduction in traffic passing through Dalry. With respect to Health the proposal will contribute to an improvement in the health of the residents of Dalry through the reduction in vehicle emissions and consequent improvement in air quality through the reduction in traffic volume passing through Dalry. The reduced travel journey times can be expected to help to maintain the attractiveness of living and working in the Dalry area, and to help to encourage new businesses into the area.	N/A

Accessibility & Social Inclusion			
Sub-objective	**Item**	**Qualitative Information**	**Quantitative Information**
Community Accessibility	Public Transport Network Coverage	No issues were raised during the consultation process regarding current accessibility to the public transport network	N/A
	Access to Other Local Services	The main issue arising from the consultation process was the severance caused by the A737 particularly to people residing to the South of the A737.	While the Eastern Dalry Bypass will have no direct effect on accessibility the associated reduction in traffic passing through Dalry will reduce severance.
Comparative Accessibility	Distribution/Spatial Impacts by Social Group	The main driver for the assessment is the relief of peek hour congestion on A737 in Dalry. The main beneficiaries will be commuters.	By removing traffic from the A737 in Dalry congestion will be reduced. Commuters, off peak travellers will benefit from reduced journey times and improved journey time reliability.
	Distribution/Spatial Impacts by Area	Given the relatively small geographic area impacted by the proposals only two areas of Dalry are considered ie Area South of Townend Street and the Blair Housing Estate.	The area South of Townend Street will have improved accessibility due to the reduced traffic on Townend Street. The Blair Estate will suffer a detriment to countryside accessibility.

Cost to Public Sector		
Item	**Qualitative information**	**Quantitative information**
Public Sector Investment Costs	Capital costs of by-pass scheme, including Optimism Bias. Costs provided at June 2005 prices (a), with an RPI of 192, and 1998 (b) with an average RPI of 162.9.	Total Scheme Cost (a) = £22.5m Total Scheme Cost (b) = £17.10m
Public Sector Operating & Maintenance Costs	N/A	N/A
Grant/Subsidy Payments	N/A	N/A
Revenues	N/A	N/A
Taxation impacts	Increased vehicle efficiency due to reduced queuing and delay within central Dalry, combined with the enhanced performance afforded by the by-pass results in a loss of fuel duty to Government.	£0.76m

Monetised Summary	
Present Value of Transport Benefits	Total PVB = £79.52m
Present Value of Cost to Government	Total PVC = £18.08m
Net Present Value	Total NPV = £61.44
Benefit-Cost to Government Ratio	Ratio = 4.40