Tax Incremental Financing Initiative
FULL BUSINESS CASE

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Tax Incremental Financing (TIF) Initiative

Full Business Case

Falkirk Council

Development Services
Falkirk Council
March 2013

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Note:

The information in this business case has been produced by Falkirk Council for the purposes of considering the development of the Tax Incremental Financing (TIF) scheme. The information should not be relied upon for any other purpose and neither the Council nor its professional advisers shall have any liability to any third party using that information.

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Executive Summary

Introduction

The Falkirk area makes a substantial contribution to Scotland's economy and has potential to stimulate significant new growth and investment. The Council and its partners have ambitions to establish Falkirk as the place to be in the 21st century; a place transformed, with a vibrant, powerful economy and a future where all can play their part. For this to be achieved significant investment must be secured, enhancing the quality of space and creating a modern, dynamic environment where business and communities thrive.

This report sets out the business case, including the strategic, financial and economic rationale for the use of £67m Tax Incremental Financing ("TIF") to fund a major package involving £176m of infrastructure interventions across the Falkirk area. This will unlock and accelerate £580m of private sector investment, generating business growth and helping to realise the economic potential of the area. It is anticipated to create up to 6,000 jobs and will contribute to the delivery of some of Scotland's national infrastructure priorities.

TIF is a funding mechanism being piloted in Scotland that uses future anticipated non-domestic rates ("NDR") revenues to finance infrastructure developments within a designated or 'redlined' area. Future NDR revenues secured over a period of 25 years from the redlined area are used to repay the debt and financing costs associated with the funding of the initial infrastructure programme.

The Scottish Ministers invited Falkirk Council ("the Council") to develop a full business case after a competitive selection process in November 2011 to select a number of TIF pilots across Scotland. Subsequently this business case was developed and has received Council approval on 26 September 2012.

Geographically situated between Scotland's two main cities, Edinburgh and Glasgow, the Falkirk area is a critical contributor to the wider Scottish economy. The area is the 4th highest contributor of Gross Value Added ("GVA") per capita to the economy in Scotland after Glasgow, Edinburgh and Aberdeen. It is a manufacturing success story with 43% of this GVA coming from this sector (compared to 17% nationally). This is particularly evident in the area of petrochemicals and fine chemicals, where Grangemouth is Scotland's main technology cluster. While not prominent in the public consciousness, the chemicals sector is Scotland's second largest export industry and generates £2.7bn annually. The projection for continued population growth in the area is testimony to the success of the Council's

place making agenda and the positive perception of Falkirk as a place to do business.

Despite this success there are apparent infrastructure limitations and constraints to future growth. A major concern is presented in the fact that an element of the core industrial area in Grangemouth is within an area of high flood risk, being largely a salient of land within the river Forth. This flood risk may inhibit major investment in manufacturing plant and reinvestment, necessary to ensure the existing chemicals activities remain competitive.

The Falkirk area is a national logistics hub, with several prominent distribution operations within its locality. There are significant limitations to the area's connectivity to the M8 and M9 Motorways and this is a growing impediment to economic activity in the area (and the rest of Scotland). Grangemouth dock itself is Scotland's largest, generating over 400 HGV movements a day and handling 10% of Scotland's Gross Domestic Product ("GDP").

What will the TIF initiative deliver?

A number of catalytic benefits arise from TIF investment. The TIF projects aim to improve the M9 Corridor connectivity along the key Falkirk-Grangemouth industrial area. The M9 Corridor TIF intervention can be considered wholly self-financing but inherently linked to the other two investment areas outlined in this report, namely the provision of the Avon Gorge bypass and the Grangemouth Flood Protection scheme.

The investment programme plans a TIF funded contribution to the delivery of flood defences for the Grangemouth area, providing a critical element of nationally significant infrastructure. It will also help to create a bypass to the significant choke point on the A801at Avon Gorge, which links the midpoints of the central belt's two primary motorways and is a critical logistics connection for major operators and businesses. Both require funding from public sector partners that is yet to be committed.

This business case seeks the flexibility to advance the M9 Corridor investment plans from April 2013 and in parallel progress and resolve a number of funding uncertainties with the other two investment clusters in order to maintain momentum.

In addition to major industrial development sites, the TIF programme targets new business space projects, particularly on the Eastern gateway to Falkirk. These will unlock developments that have stalled due to the current economic crisis and will help rebalance the area's reliance on a limited number of manufacturing employers. The TIF will exploit the visitor potential of the Helix, an internationally recognised environmental regeneration project, creating a new Central Park, visitor attractions and public art features. Town centres in the area are also anticipated to benefit from the TIF investments, with increased connectivity and environmental upgrade

assisting with delivery of current planned investments at Falkirk and Grangemouth town centres. Critically the TIF programme will help transform the quality of place, upgrading the environment, stimulating business growth, creating jobs and enhancing connections between the area's communities and the wider Scottish economy.

Key Principles

Infrastructure –Falkirk Council proposes a programme of interconnected infrastructure projects that operates on two distinct levels:

- **Strategic infrastructure** – delivering projects of national significance including key local and national network level road infrastructure and vital flood protection around one of Scotland's most intensive areas of manufacturing.

- **Site-specific level** – unlocking specific development sites through targeted interventions in site-enabling infrastructure.

The combined programme involves seven strategic infrastructure projects, with many having an interlinking impact across the 27 development sites identified in this business case. As such, the impact is considered in its entirety across the TIF programme. Combined with a clear delivery strategy, and clearly articulated in its marketing approach, this will provide an impact greater than the sum of the parts.

The 'but for' test – TIF projects are predicated on the principle that TIF finance acts as a catalyst for developments (and therefore the economic benefits) that would not happen 'but for' the proposed infrastructure investment. The constituent elements of this complex project satisfy this test on two distinct levels:

- **Public sector** – the proposed infrastructure projects are considered vital for the area with several having been identified as priorities under the Upper Forth Planning Framework and National Planning Framework 2 (NPF2). In addition, some of these projects have been 'construction-ready' for a number of years. The current constraints on public sector funding would see these projects indefinitely on hold without the specific intervention of TIF. The projects have also been selected through a prioritisation process and collectively they provide a holistic approach to delivering growth and jobs from the identified TIF enabling infrastructure.

- **Private sector** – the key intention of the Falkirk TIF is to enhance the area's competitive advantage as a business location by correcting key infrastructure shortcomings. This business case identifies 27 specific development sites where private sector development has either completely stalled or its delivery timescale has been significantly and adversely impacted by the financial crisis. Consequently the 'but-for' test for subsequent private sector development is readily demonstrated in this business case. Extensive formal consultation with large employers in the

Falkirk area was an important part of the business case and points clearly to the potential to secure competitive advantage and stimulate economic growth. The proposed TIF funding will not replace the Council's substantive policies which seek developer contributions. Instead it allows the Council to address infrastructure failures in a prioritised, planned approach that is not currently achievable through the existing approach of negotiating and applying developer contributions as development proposals come forward.

The Falkirk TIF anticipates that the principal infrastructure investments will be led by the Council and will create assets on land owned or acquired by the Council. Where land is not currently in Falkirk Council ownership or control, Scottish Government assistance will be sought to aid the programme's delivery (through joint funding, CPO or similar provisions). Key stakeholders including Transport Scotland have been engaged in the development of the business case and support its intentions.

Displacement–A requirement of the standardised TIF approach is to derive a single blended displacement rate to anticipate future NDR capture. The methodology for arriving at the blended rate used in this business case centred around three key areas:

- To incorporate the displacement assumptions developed by Roger Tym & Partners ("Roger Tym") for the previous Falkirk-Grangemouth Development Framework report.

- To refine the Roger Tym displacement findings through a targeted survey conducted by Ryden LLP ("Ryden") specifically focussed on the potential impact of the Falkirk TIF scheme.

- To apply a weighting to the results to produce a single displacement rate for the business case.

The profile of the proposed sectoral development is primarily in low displacement industries. In particular, the Stakeholder survey has confirmed that much of the chemicals sector and related supply chain investment would not realistically be located in Scotland outside of this existing sectoral hub. The result of the above process was to derive a global displacement rate for the project of 18.4%.

TIF programme investment

The Falkirk TIF proposes a programme of seven strategic infrastructure projects from contributing to the funding of the Grangemouth Flood Protection Scheme, road improvements to the M9 junctions 5 and 6, part funding of the Avon Gorge bypass and road enhancements around the Westfield roundabout, A904 and tributary Icehouse Brae. The TIF will fund a number of site-specific enabling project infrastructure interventions, targeted to unlock stalled developments on a number of key development

sites including the prominent Falkirk Gateway and Falkirk Stadium sites. This programme of works is summarised below:

Figure 1: Finalised list of TIF infrastructure projects

		Funded by:		
	Cost	**TIF**	**Other**	
Project	**£'000**	**£'000**	**£'000**	
Grangemouth Flood Protection	100,000	10,000	90,000	Non TIF element reliant on external funding including the Scottish Government
M9 Junction 6 Earlsgate Signalisation	2,191	2,191	-	
M9 Junction 5 Cadgers Brae Signalisation	5,213	5,213	-	
Icehouse Brae Upgrade	2,500	2,500	-	
Westfield roundabout and A904	16,847	16,847	-	
M9 Junction 4 Lathallan Upgrade	3,000	-	3,000	Funded by private sector developers
A801 Avon Gorge Upgrade	26,680	6,670	20,010	Funding sought from external sources, including West Lothian Council and Scottish Government
Development Site Specific Enabling Works	19,809	14,405	5,404	Funding for Falkirk Town Centre from £2m Heritage Lottery fund plus other sources including Council
Total	**176,240**	**57,826**	**118,414**	

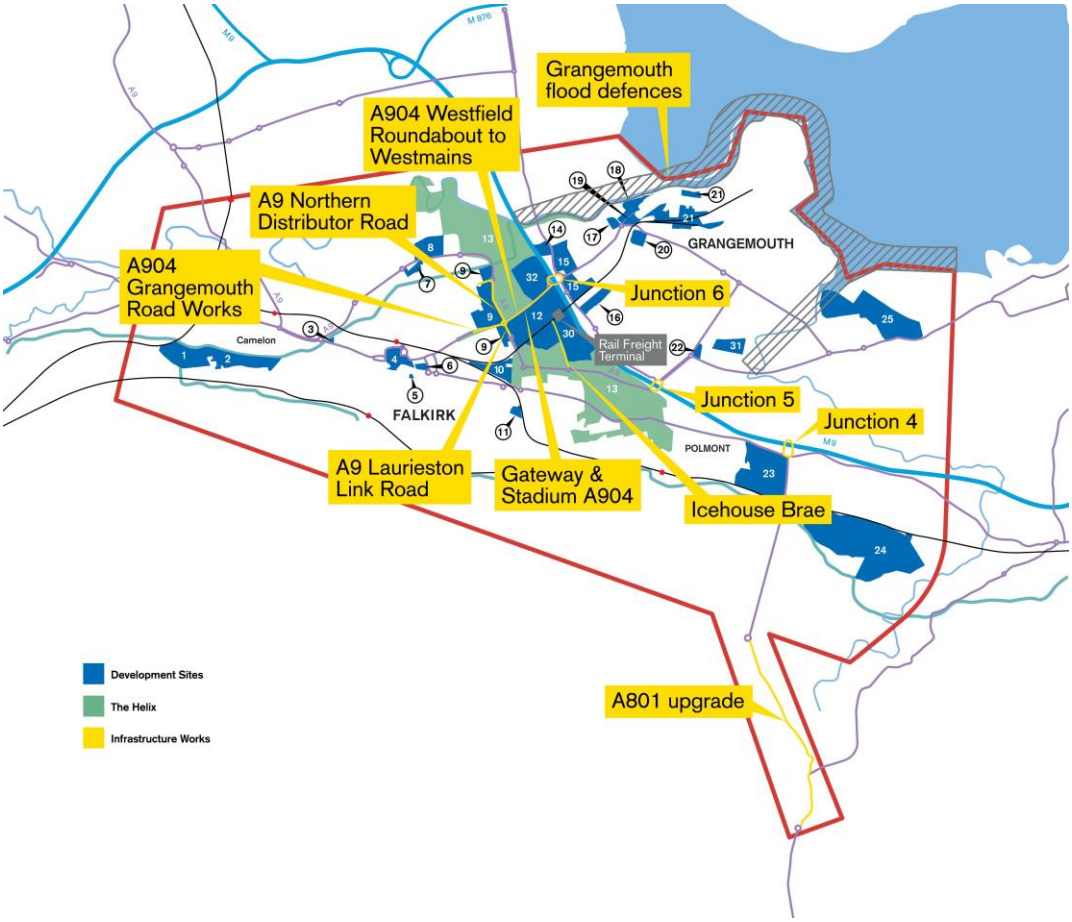
Source: Falkirk Council

The geographic impact of this programme of works is considerable and the location of the constituent strategic infrastructure projects is illustrated in the map overleaf.

The map identifies an indicative red-line which has been drawn to capture the combined impact that is anticipated on 27 development sites across the Falkirk-Grangemouth area over the next 25 years. These sites are anticipated to benefit directly from the TIF investment in enabling infrastructure to enhance access to the motorway network, benefit from the provision of flood defences and improve access via the A801 between the M8 and /M9 corridor.. Importantly, the uplift in development activity on these sites will be inherently linked to progress being made to plan and provide the enabling infrastructure required for each development cluster.

It is acknowledged that the indicative red-line boundary will require to be refined for the purposes of the TIF Agreement in order to reinforce the focus on the direct benefits of the TIF's enabling infrastructure investment and to finalise the capture mechanism.

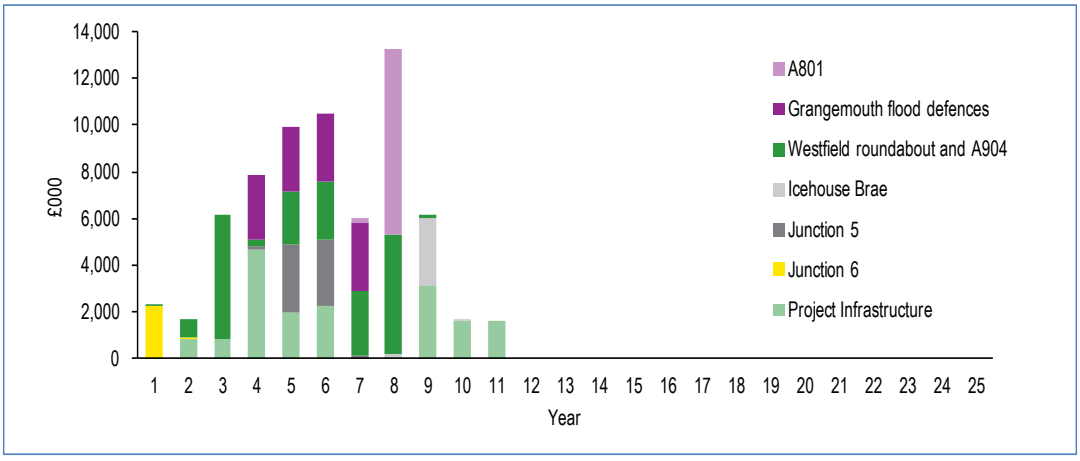
Figure 2: Falkirk TIF overview



Source: Eden Consultancy Group

The TIF expenditure profile of these projects totals £67m (£58m in real terms) across the first 11 years of the 25 year period of the TIF project. This would see the construction of the first project commence early in 2013/14, with the overall delivery profile summarised below.

Figure 3: TIF infrastructure programme investment profile



Source: Falkirk Council / Ernst & Young

TIF infrastructure construction is planned to commence in April 2013 with the start of the M9 Junction 6 enhancements and site specific investment activity. Grangemouth Flood Protection is a major undertaking and requires significant co-funding before the project can be commenced. The Council is undertaking preliminary technical work with a view to works on this major scheme commencing in four years. Year eight plans a spike in expenditure to deliver the A801 Avon Gorge Project. This also requires significant co-funding however it is otherwise construction-ready. As such, it could be commenced as soon as the additional funding is in place.

The ability to stage investment into individual projects across the long term provides an element of risk mitigation to the Council in committing to this considerable funding obligation.

In addition to the £67m of TIF investment, there is considerable potential for co-funding from other sources. It is envisaged that delivery of the A801 Grangemouth Flood Protection will require significant Scottish Government funding alongside TIF. The A801 Avon Gorge upgrade will also require match funding support from the Scottish Government.

Scottish Enterprise is a significant development partner. They have played a major role alongside the Council in developing the TIF initiative (and the Upper Forth Development Framework) and, through working closely with the leaders of the chemicals science sector in the area, plan a number of additional initiatives. Scottish Canals, Central Scotland Forest Trust and Big Lottery Fund are key partners in the delivery of the Helix project. Other contributions include an element of Falkirk Town Centre improvements works that have attracted Heritage Lottery Funding. The scope to attract other Lottery, EU and other public sector funding will be examined in the course of progressing each of the development projects anticipated.

Private sector development

Investment by developers will be key to securing delivery of the projects planned. Several of these developers have been consulted in the production of this business case and support its enabling approach.

In addition to the sums profiled, contributions from the Council and other partners will help stimulate investment on development sites. Consequently, total investment anticipated as a consequence of the TIF is over £400m of private sector investment in development. This has been estimated by our property advisors through review of the development potential and projections of anticipated likely development activity unlocked and accelerated by the TIF infrastructure on a site by site basis.

Falkirk TIF provides clear economic benefits and the proposed infrastructure programme is expected to unlock the following private sector developments:

Figure 4: Forecast TIF related build-out by type

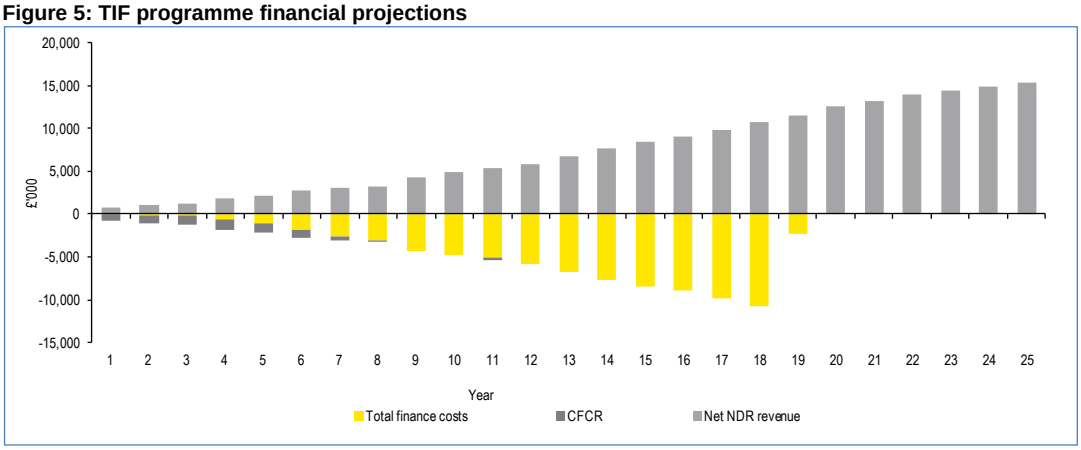
Sector	Business space (sq. m)
Office general	23,566
Office call centre	-
Warehouse & distribution general	164,627
General industrial	82,154
Office business park	58,469
Retail High Street	34,082
Retail food superstore	2,926
Chemical sector	43,144
Retail restaurants & cafes	697
Total	**409,665**

Source: Ryden LLP

Financial forecasts

Based on the infrastructure programme above, NDR receipts for the identified development sites have been hypothecated and the resulting 25 year TIF cashflows are shown below.

Figure 5: TIF programme financial projections



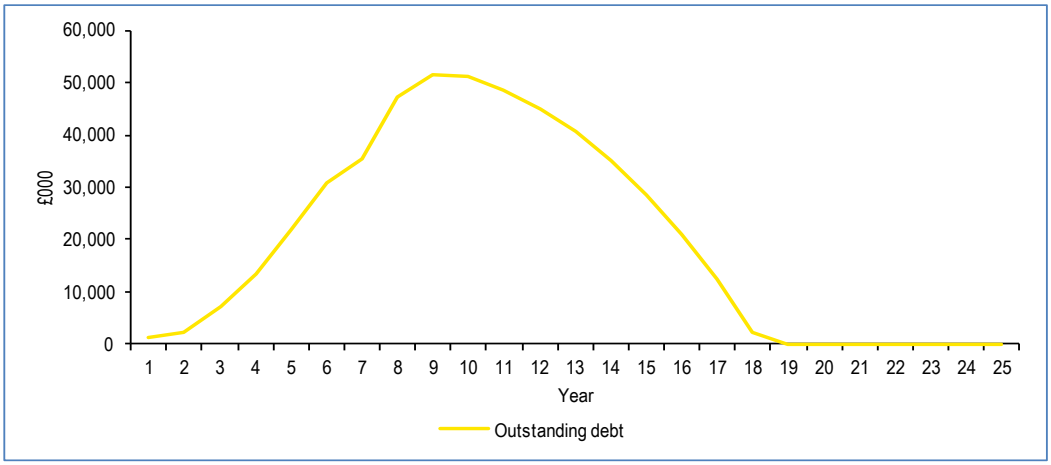
Source: Ernst & Young

The cashflow projections highlight that the net NDR revenues generated from the TIF infrastructure investment are anticipated to be sufficient to meet financing costs resulting from debt drawn down by the Council from the Public Works Loan Board (PWLB). Debt tranches are drawn down in years 1 to 11 with an element of Capital Financed from Current Revenue or "CFCR" employed to help fund the investment.

The debt is structured on an annuity basis with an additional cash sweep employed to apply all available surpluses to repay outstanding capital. This demonstrates the most efficient use of public sector funds to minimise borrowing cost. In year 19 all debt is repaid.

Total debt requirement is £60m based on an annual drawn down in each of the first 11 years. Peak debt of £52m occurs in year nine. The outstanding debt profile is shown below.

Figure 6: TIF debt drawdown and repayment profiles



Source: Ernst & Young

The graph illustrates that debt is fully repaid in year 19 and therefore within the 25 year period of TIF. Surpluses are expected to accumulate between years 19 to 25, totalling up to £94m in nominal terms or £26m expressed in NPV terms. If achieved, the surpluses would be shared between the Council and the Scottish Government. This will provide the Council with a future revenue stream to fund further regeneration activity across the wider Council area.

Economic impact

The economic outputs for the project, both in short-term construction terms and long-term sustainable terms are significant. These are anticipated being achieved over the 25 years of the initiative and assume completion of the developments planned. The estimates have been informed by the development and sectoral mix identified in the Upper Forth Development Framework. They reflect the economic impacts of development which is enabled as a consequence of the package of infrastructure works listed in Figure 1. They reinforce the ambition of the project and its capacity to achieve tangible benefits for the national economy.

Figure 7: Comparison of economic outputs for each investment programme

Metric	Output
Construction outputs	
Construction jobs (fte)	5,805
Construction GVA (£000)	290,605
Longer term economic outputs	
Business space (sq. m)	409,666
Hotel bedrooms	60
Net Scottish job impact (fte)	5,984
Net local job impact (fte)	8,304
Annual GVA (£000)	414,809

Source: Ernst & Young

Delivery of the TIF will secure additional economic benefits. It will aid the attraction of tourists to the area (including 300,000 visitors expected annually at the Helix) and will aid town centre regeneration. In addition, the inclusion of the Council's long-standing community benefits clauses in the construction contracts will secure training places for young people and other outcomes throughout the life of the initiative.

Investment clusters for TIF delivery

The infrastructure programme and associated NDR revenues stated above includes two strategic infrastructure projects, the Grangemouth Flood Protection and the A801 Avon Gorge improvements, which are contingent on additional public sector investment funding the majority of the overall infrastructure cost. In the case of the Grangemouth Flood Protection it is expected that the Scottish Government would be the majority funder while the stated intention for the A801 Avon Gorge is for the majority of funding to come from Transport Scotland and West Lothian Council.

While the TIF funding would be seen as helping to unlock the eventual delivery of these projects, the overall delivery is out with the control of Falkirk Council. Consequently the concept of investment clusters was developed to allow these infrastructure projects, and their dependent development projects, to be disconnected from the main delivery of TIF centring on the M9 Corridor. The inclusion of subsequent projects would be contingent on the co-funding issues being resolved.

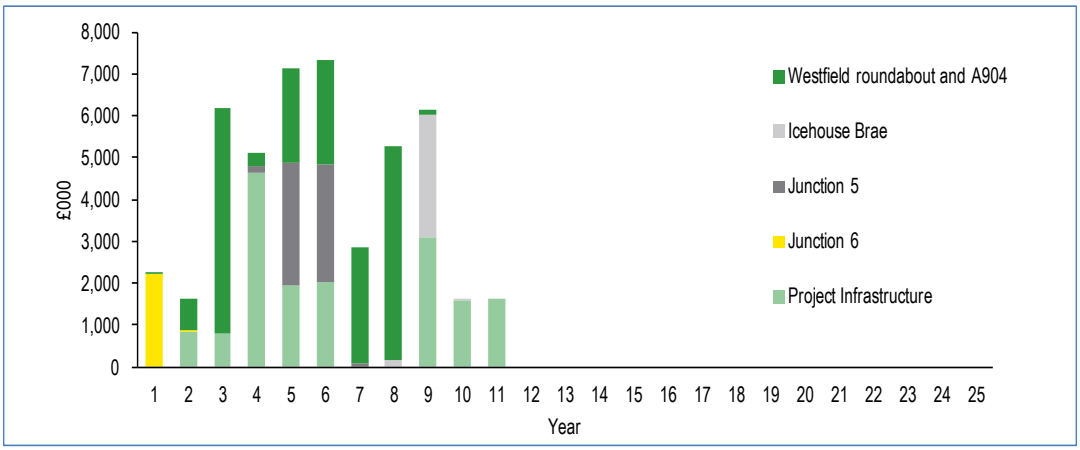
As such, the Falkirk TIF includes three investment clusters:

- M9 Corridor
- Avon Gorge
- Grangemouth Flood Protection

M9 Corridor TIF investment

The M9 Corridor is ready to deliver in its entirety and the proposed commencement date for the first infrastructure project is April 2013. The M9 Corridor investment cluster is summarised below with infrastructure totalling £47m in real terms.

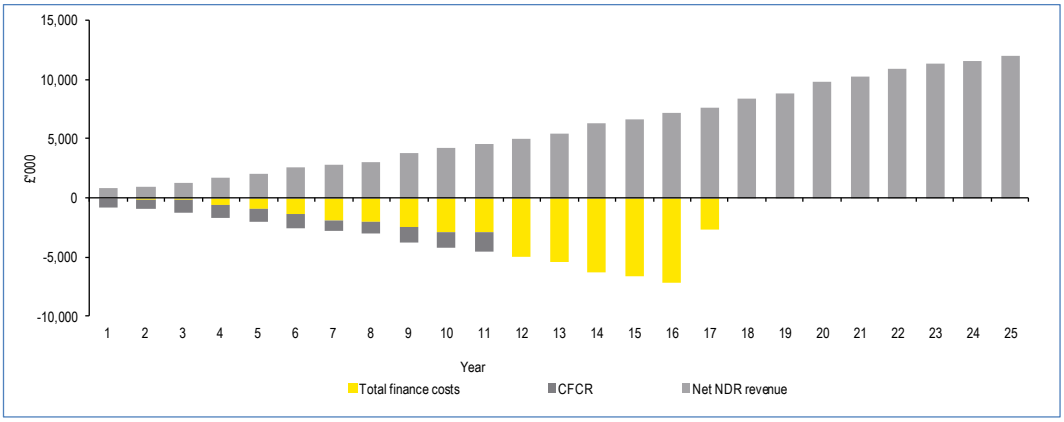
Figure 8: M9 Corridor TIF infrastructure investment profile



Source: Falkirk Council / Ernst & Young

Of the £47m planned infrastructure spend some £17m relates to site level project infrastructure whilst the main strategic infrastructure cost relates to the Westfield roundabout and A904 which has a cost of £19m. The M9 Corridor cluster TIF cash flows are summarised below.

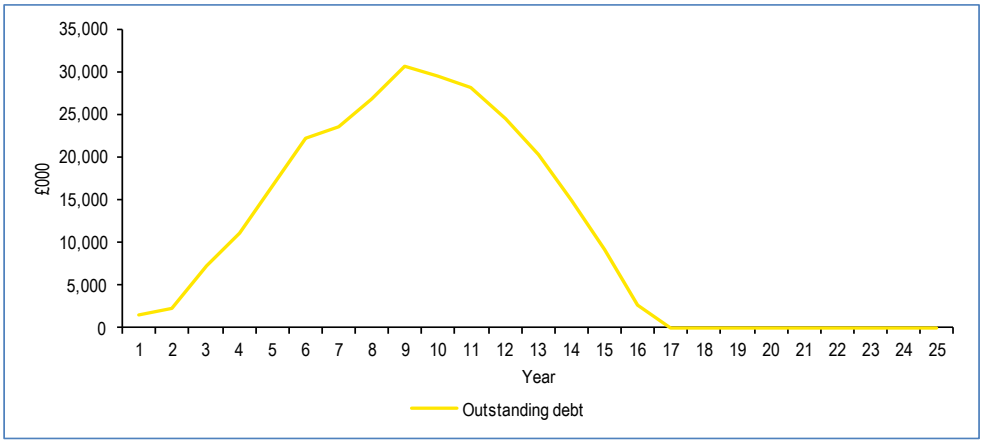
Figure 9: M9 Corridor TIF financial projections



Source: Ernst & Young

The M9 Corridor cash flows display similar outputs to those of the overall programme in that a breakeven position is achieved between years 1 and 11. CFCR of £12m is carried forward to meet infrastructure costs resulting in a borrowing requirement of £35m. If realised, surpluses are projected to be £88m in nominal terms and £25m in NPV terms with all debt repaid within the 25 year period. The outstanding debt profiles are shown below, with debt repayment achieved in year 17.

Figure 10: M9 Corridor TIF debt drawdown and repayment profiles



Source: Ernst & Young

This demonstrates debt repaid in year 17 with surpluses accumulating thereafter.

Falkirk Council seeks Scottish Government approval for the commencement of the Falkirk TIF M9 Corridor Cluster, with agreement in principal for the inclusion of the remaining two clusters at an appropriate future point in the 25 year TIF lifecycle. The Council considers that this clustered approach has merits in extending the benefits of TIF and is keen to examine its potential at other locations in its area.

Specifics of the Falkirk capture mechanism

Depreciated Replacement Cost – it is considered that the Grangemouth Flood Protection scheme would remove a major barrier to long term investment and ensure continued intensification of existing chemicals sector operations within the red line area. A number of key chemicals companies were consulted and confirmed the potential positive NDR impact arising from annual investment and intensification of existing plant and buildings should the long term viability of Grangemouth be ensured. Although incremental NDR growth due to existing plant intensification, based on the depreciated replacement cost basis of NDR calculation, has not been incorporated into the financial forecasts that underpin this business case, it is suggested that this should be captured within the formal NDR capture mechanism.

Floor Mechanism –the economy of the Falkirk area has a reliance on large industrial employers which makes it vulnerable to the closure of one or more operations of significant scale. With many of the large employers being multinationals, subject to economic influences out with the scope of TIF, the Council would require the TIF Agreement to take cognisance of this risk and provide a floor mechanism to protect against the potentially adverse impact to NDR arising from large plant closures.

The details of this would be agreed as part of the formal legal agreement.

Conclusion

The Falkirk TIF initiative is a key step in the area's economic transformation and offers significant benefits to growth and job creation for the national economy. Projections for the economic benefits of the initiative for the Falkirk area and the wider national economy over the 25 year programme are substantial. The TIF infrastructure investment programme would create some 5,800 construction jobs and is forecast to create a further 8,300 long term jobs and £415m annual GVA from sustainable economic growth. Job creation and provision of training places will be integral to these works. The TIF will stimulate development on 27 sites, aid town centre regeneration and through complementing the launch of the Helix project, help in the attraction of over 300,000 tourists annually to the area.

Importantly, the TIF is an expression of faith to renew the area's infrastructure and to attract investment by multinational companies in key sectors (manufacturing, chemicals and logistics) in the area. These sectors are vital to the health of Scotland's economy. The TIF also helps mitigate the potentially adverse jobs impact that might arise should major industrial employers migrate from Grangemouth if these interventions do not occur.

Every £1 of Council investment via TIF is projected to result in £8.66 investment from the private sector. The opportunity for TIF in Falkirk to create a sustainable long term investment zone, with its own unique identity to other parts of the UK lies at the heart of this business case. The Council is advanced in its thinking and development of a marketing and inward investment strategy to maximise this opportunity and will progress this, adopting the message 'MAKE IT. FALKIRK', which respects the area's strengths in manufacturing.

The TIF is viewed as a once-in-a-generation opportunity to position the Falkirk area as a zone for investment through the provision of sustainable infrastructure, where the Council's ambitions are matched by the private sector.

The Council aims to act quickly. It is proposed that the Falkirk TIF goes live early in 2013/14 with the commencement of the Junction 6 improvements as part of the M9 Corridor investment programme as well as site-specific projects being delivered.

Approvals and next steps

As part of this TIF Pilot submission, Falkirk Council request the Scottish Government to approve the following key steps, required to deliver Falkirk TIF:

- Approval of TIF business case.

- Approval to use the TIF mechanism to capture additional NDR to finance the proposed investment programme. This includes approval of the proposed redline area.

- Approval of the proposed baseline floor mechanism.

- Approval of a mechanism to allow incremental NDR growth from chemicals industry intensification of existing sites.

- Agree to the baseline level of NDR as established by Falkirk Council as at 30 September 2012.

- acknowledge the request that special borrowing powers may be required for TIF projects infrastructure investments taking place on non-Falkirk Council land.

The Council seeks to have full approval in place to allow commencement of the TIF initiative early in 2013/14.

Executive Summary

1. Introduction

1.1 Background

The Falkirk area makes a substantial contribution to Scotland's economy and has potential to stimulate significant new growth and investment. The Council and its partners have ambitions to establish Falkirk as the place to be in the 21st century; a place transformed, with a vibrant, powerful economy and a future where all can play their part. For this to be achieved significant investment must be secured, enhancing the quality of space and creating a modern, dynamic environment where business and communities thrive.

This report sets out the Full Business Case ("FBC"), including the strategic, financial and economic rationale for the use of Tax Incremental Financing ("TIF") to fund a major programme of infrastructure interventions across the Falkirk area. This will unlock and accelerate business growth and help realise the economic potential of the area, while contributing to the delivery of some of Scotland's national infrastructure priorities.

This FBC, which has been approved by Falkirk Council ("the Council"), is submitted to the Scottish Government for the Council to be granted consent to implement the TIF scheme, with a proposed commencement date for investment of April 2013.

The Falkirk area makes a substantial contribution to the economy of Scotland and is pivotal to the nation's economic growth prospects. The Gross Value Added ("GVA") of the area is in excess of £3bn annually and is focused significantly on manufacturing. The Grangemouth petrochemicals complex and Port are major economic assets for the nation. The INEOS Oil Refinery supplies diesel and petroleum to the whole of Scotland, North of England and Northern Ireland. Grangemouth Port is the largest container port in Scotland, transports a large percentage of Scotland's manufacturing exports and supports a significant hinterland of logistics operations.

There remains significant untapped economic potential in the area. Through the local economic strategy *My Future's in Falkirk*, the Council and the local business community are committed to the area's economic transformation. Significant potential for development exists through unlocking the area's capacity for business growth and overcoming several key infrastructure constraints. Population growth in the area is testimony to the success of the Council's place making agenda and the positive perception of Falkirk as a place to do business.

The area currently services a national economic purpose from a local scale of infrastructure and needs to make major improvements to road, rail and related service infrastructure to transform the efficiency of the area and exploit its true potential.

The coastal flood risks are a threat to the Grangemouth area and in particular to securing a long term sustainable petrochemicals industry – the need to

achieve major capital investment in flood defences is critical to achieving future economic growth.

This FBC presents proposals for investment in infrastructure which will help to unlock and/or accelerate the development potential of the area, initiate new business ventures to create added benefit for the Scottish economy and contribute to the funding and delivery of some of Scotland's national infrastructure priorities as outlined in the National Planning Framework (NPF2).

1.2 Key project sponsors

The TIF project is being taken forward by the Council as primary sponsor which will include the raising of debt finance to fund the TIF infrastructure investment plan. Other parties involved in guiding the project include Scottish Enterprise, Chemical Sciences Scotland, the Falkirk Business Panel, Forth Ports, INEOS, Calachem, Scottish Canals, private sector land owners and developers. These stakeholders are keen to participate in the implementation of the TIF Full Business Case and delivery of the project.

A joint initiative to develop an 'Upper Forth Development Framework' has recently been completed involving Scottish Enterprise, Chemical Sciences Scotland, Scottish Development International, Forth Ports and other local companies. This exercise examined the economic potential of the area and brought forward ideas on how this might be realised including the need for investment in key infrastructure projects. This information has been fed into this FBC.

1.3 Vision, aims and objectives

The Council's Strategic Community Plan (2010 to 2015) outlines a clear vision for the future of the area. One part of the vision is identified as:

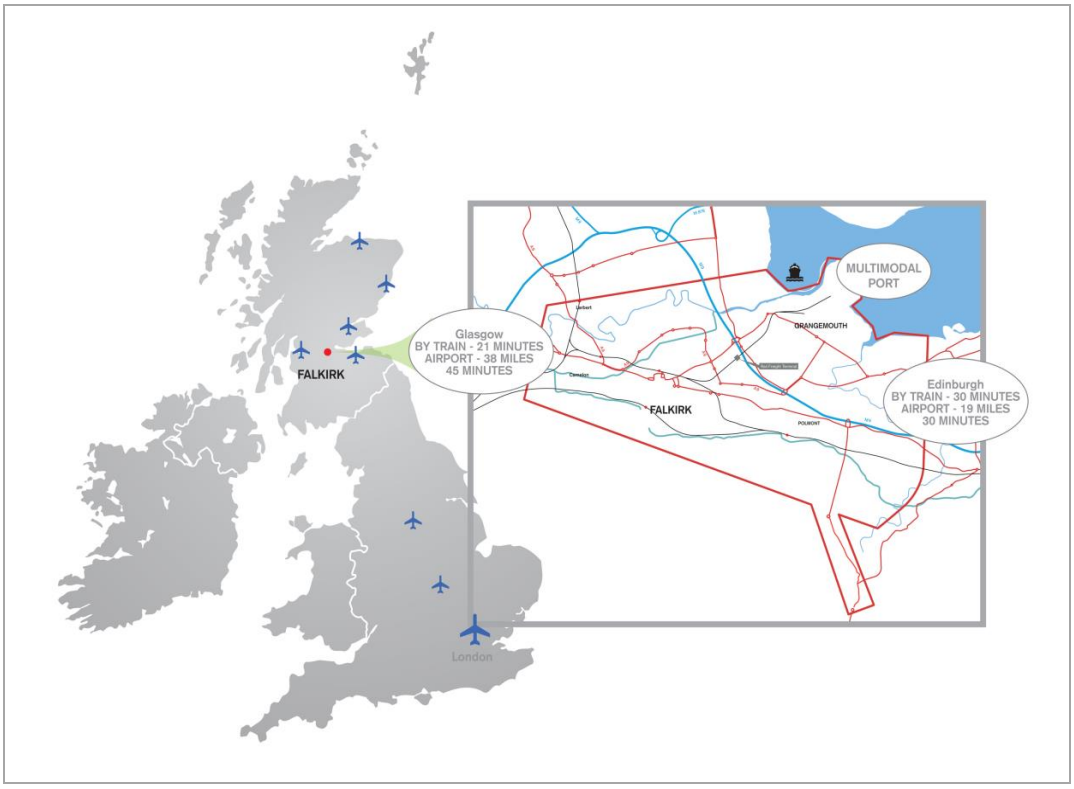
"Our area is at the centre of Scottish life. We will strive to become the focus of a new Scottish network of travel, tourism and employment opportunities".

My Future's in Falkirk, the economic development strategy, set up as a public and private sector partnership, and identifies its vision as:

"To establish Falkirk as the place to be in the 21st century, a place transformed, with a vibrant, powerful economy, creating a future in which all can play their part."

One of the key priority aims of My Future's in Falkirk matches the main objectives of the TIF scheme in terms of 'Developing Business Connections'. The Falkirk area has a clear advantage over others in its central location, providing businesses with ready access to market by road, rail, air and sea.

Figure11: Strategic Context



The Council is committed to fully exploiting the benefits of these multi-modal transport connections, further improving access in the Falkirk area for the benefit of local, national and international businesses, their customers, suppliers, employees and visitors. The improvement in infrastructure is recognised to be of national importance given the economic significance of the petrochemical complex and port for the nation and the need to provide a modern competitive logistical hub. This is confirmed through the project being identified in the Scottish Government's National Planning Framework.

Of particular importance is the UK wide impact of these measures. Grangemouth Port is the largest of Scotland's major ports and one of the most significant on the UK's East coast. The area contains a unique combination of economic infrastructure including the Port, Scotland's only oil refinery and its major chemicals sector hub. As such the development proposed not anticipated to displace significant levels of Scottish activity.

The petrochemicals site is of strategic importance, with the refinery being one of only seven remaining in the UK, following two recent closures. This process of rationalisation is expected to continue in the industry and the infrastructure supporting Grangemouth will be a factor in the sites long term viability.

The Council views the opportunity to use TIF as a means of providing a local contribution to national infrastructure priorities and seeks to work closely with the Scottish Government in securing contributions towards the funding of the Grangemouth Flood Protection scheme alongside a number of important local and regional projects where the Council takes the lead.

The Council's goals for the area are rooted in its efforts and desire to transform its prospects and realise its fullest potential. To achieve this, the Council has identified clear objectives:

1. *To grow business and employment opportunity in the Falkirk area through enhanced business locations*

2. *To enhance business connections, improving access to opportunities for business in Falkirk and nationally through improvement in the infrastructure serving the Grangemouth petrochemical and freight hub and wider investment programme*

3. *To boost performance in key sectors, particularly to promote the local petrochemicals sector, distribution and the potential of environmental technologies*

4. *To generate significant new private sector investment in the infrastructure of the Falkirk area to unlock and accelerate development potential in the area, especially around the M9 Corridor between Grangemouth and Falkirk*

The proposals outlined in this FBC are fully aligned to these objectives and the proposed targeted investment in key infrastructure will act as a major catalyst to achieving these ambitious objectives.

Principally this will be delivered through TIF funding a region wide programme of interconnecting infrastructure delivered over 11 years. The Scottish business community have been widely consulted in this endeavour and the Council's firm commitment to the programme is expected to provide developer confidence, unlocking initial developments as early as year one. The overall impact of this programme is expected to be greater than the sum of the parts, delivering benefit both locally and nationally, with the overall cause and effect will significantly increase as the delivery of the programme advances.

2. Overview of Tax Incremental Financing in Scotland

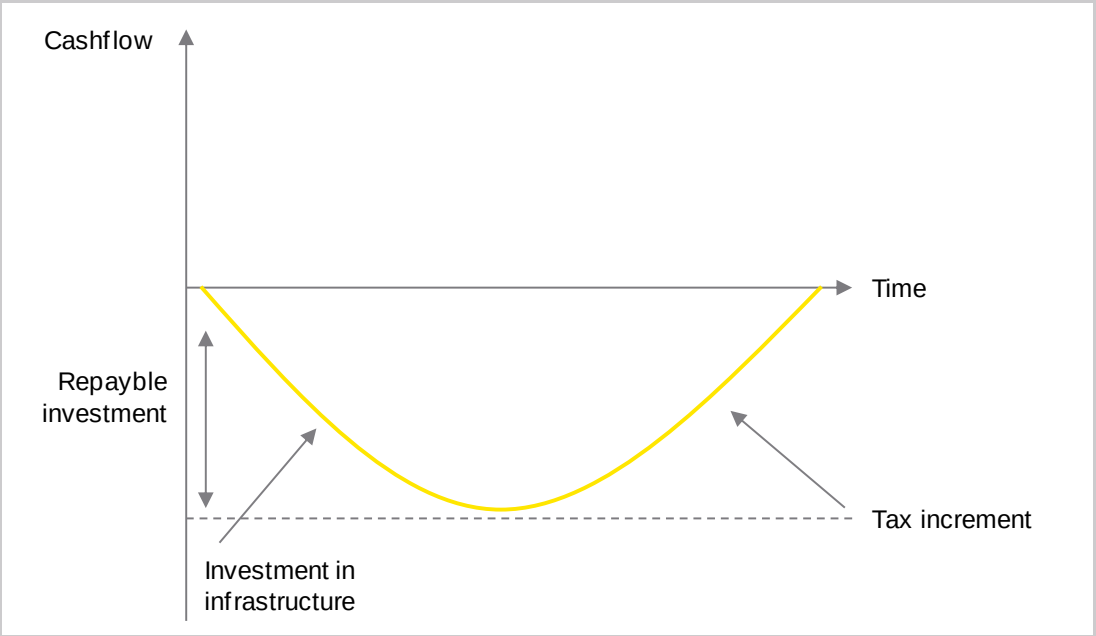
2.1 Introduction

This section sets out an overview of how the Scottish TIF scheme works and a number of key issues for senior management and elected members to consider.

2.2 Tax Incremental Financing

TIF is an investment tool for financing infrastructure and other related development that has been successfully employed in North America for 40 years. It works on the principle of capturing a future uplift in public sector revenues from development activities as illustrated below.

Figure 12: Cashflow principles of TIF



Source: Ernst & Young

The public sector can raise finance against the future taxation revenues to fund enabling infrastructure works which unlock and accelerate commercial development, with a focus on supporting sustainable economic growth.

The TIF scheme proposed by the Scottish Government is a funding mechanism that applies the anticipated additional or "incremental" non-domestic rates ("NDR") generated from development activity to repay debt which has been borrowed to fund infrastructure costs to unlock or accelerate the development opportunity that the private sector is unwilling to develop and fund.

The key principles of the TIF scheme as identified by the Scottish Futures Trust ("SFT") in its guidance notes are:

- A physical development with the ability to deliver regeneration and economic growth
- The identification of additional public sector income which arises as a result of the infrastructure investment
- The provision of a framework for capturing additional income to repay the debt raised by the Council to invest in the infrastructure development

The proposed Falkirk TIF set out within this FBC report meets these key principles.

2.3 Key considerations

In addition to the principles noted above, the following key elements define the suitability of the TIF scheme.

2.3.1 Defining eligible expenditure

TIF works by repaying investment from locally generated incremental NDR revenues that would not have arisen were it not for the delivery of enabling infrastructure investment that unlocks or accelerates the planned development. Such enabling works are not defined, but would typically include:

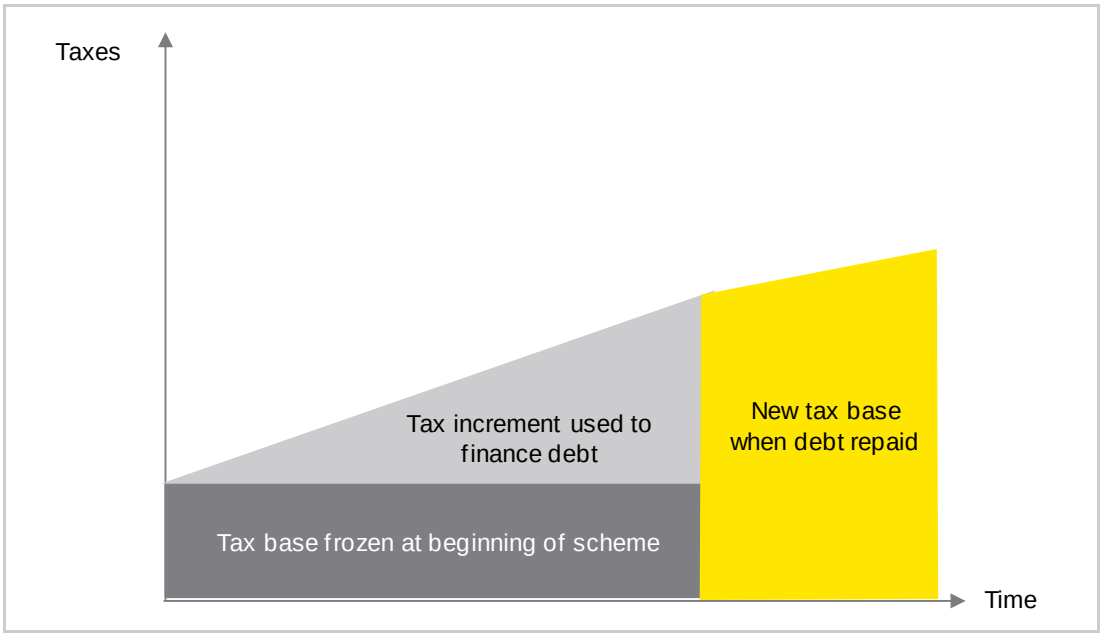
- Decontamination works
- Site remediation and environmental works
- Off-site access improvements, such as a new roundabout
- Road construction and re-alignment
- Ports infrastructure
- Pathways
- Transportation infrastructure
- Site servicing
- Public realm and streetscape
- Flood prevention
- Energy infrastructure
- Professional fees associated with the infrastructure requirements

A key consideration of what defines eligible expenditure has been a theme of the early TIF pilots in Scotland. Where a local authority is borrowing under its prudential borrowing powers to fund the infrastructure, then the Prudential Code requires such borrowing to be related to the construction, enhancement or acquisition of a fixed asset by the Council. The Council will be required to satisfy itself that it will be operating within the requirements of the Prudential Code prior to drawing down funds for infrastructure investment.

2.3.2 Measuring incremental growth in NDR within a defined geographic area

Typically the public sector borrows to invest in the upfront infrastructure works. These works must be within the boundary of a pre-determined geographical area known as the 'red line' programme. The red line is then used to identify the base level of NDR before any works are undertaken. The additional NDR generated above the existing rates is then used to service the debt funding of the initial infrastructure investment. This principle is illustrated below.

Figure 13: Growth and distribution of NDR



Source: Ernst & Young

Once enabling works and development activity have taken place then the incremental increase in NDR is used to repay the original debt. The increase in NDR is brought about as new businesses set-up or companies grow within the programme area. As a result the development focuses principally on commercial development rather than residential developments due to the need for the increase in NDR.

New regulations were introduced in December 2010 (SSI No. 391) in order to capture the incremental NDR revenues. The Non-Domestic Rating Contributions (Scotland) Amendment Regulations 2010 update existing regulations and provide for the retention of revenue by local authorities which

are operating TIF projects in Scotland. This provides the means for Falkirk Council to retain the identified incremental NDR revenues to repay the debt.

2.3.3 Payback and cash flow period

The TIF model in Scotland is working to a 25 year cash flow model within which period the Council's initial borrowing must be repaid. Any surplus cash flows following repayment of debt are then shared between the Council and the Scottish Government. This FBC assumes that surpluses are shared on a 50:50 basis The Council's receipts are to be used in the provision of further economic infrastructure. At the end of the 25 year period all additional rates then flow back to the Scottish Government.

2.3.4 Source of debt funding

A key theme of the early TIF pilots is that the public sector raises debt via the Public Works Loans Board ("PWLB") to fund the required proportion of the enabling infrastructure programme that makes the wider development commercially viable and fundable via the private sector.

The public sector's debt repayments are funded from the future incremental NDR revenues and other potential income arising from the development (for example, overage arrangements for future uplifts in development value).The financial risks associated with the NDR revenue projections rest with the public sector under this approach. It is a working assumption of this FBC that the Council will use its prudential borrowing powers to provide the debt finance via the PWLB.

2.3.5 Passing the "But for" test

The use of TIF is predicated on a "but-for" test, meaning that the identified enabling infrastructure, and the resultant forecast economic growth, can only be delivered through the creation of the TIF mechanism, and cannot be wholly funded by finance from the private sector and/or alternative sources of public sector funding. In this respect the TIF mechanism acts as a catalyst for significant private sector investment, totalling over £400m.

Another key tenet of TIF is that it must demonstrate that the enabling infrastructure will unlock or accelerate regeneration and sustainable economic growth that in turn will generate the required incremental public sector revenues that are capable of repaying, over an agreed timescale, the financing requirements of the TIF scheme. The incremental point is an important one – any TIF scheme will only capture the additional incremental revenues associated with any new development and investment (i.e. new revenues over and above what is happening at present), so that the model does not result in the displacement of economic activity from within Scotland, but rather that it delivers net additional growth at a national level. Given the existing concentration of manufacturing and chemicals sector activities in the Falkirk area, this FBC report presents a compelling case for investment via TIF funding in respect of passing the "But-for" test.

2.3.6 Managing the "flash to bang" risk

The "flash to bang" risk reflects concern that the public sector funds the delivery of the physical infrastructure works then nothing happens on the wider development with the private sector failing to deliver its development commitments. In order to address this risk the Council may establish appropriate legal agreements between land owners/development partners and the Council prior to committing to funding site specific infrastructure works. The Council will also seek to formalise reliance on other funding partners – both public and private sector. Phasing of infrastructure investment will also be used as a mitigation tool.

2.3.7 A robust procurement strategy

A robust procurement strategy will be undertaken with proper consideration given to EU and national procurement legislation, State Aid regulations and the Council's own Best Value provisions. These matters will be considered in further detail at the implementation phase. The Council is highly experienced in this area having successfully procured a number of high profile major capital projects over recent years including its Secondary Schools PPP/NPDO contracts and major investment programmes in housing, town centre regeneration and roads infrastructure.

2.3.8 Approval process

This full business case received approval from the Council on 26 September 2012. It is anticipated that, after ongoing dialogue with SFT and Scottish Government, formal approval could be concluded in March 2013, facilitating a go live date of April 2013 for the M9 Corridor investment phase.

3. Strategic Case for Infrastructure Investment

3.1 Introduction

This section details the national and regional context of the proposed Falkirk TIF scheme and how it complements existing economic development initiatives and programmes in the area. It makes the strategic case for investment in infrastructure that can only be funded on the scale required via a TIF scheme.

3.2 A national priority

The Falkirk area has a strong strategic geography being located between Scotland's two main cities, on a major estuary and with ready access to Scotland's primary rail and road routes.

This has allowed Grangemouth and Falkirk to grow as a key industrial centre, the focus for Scottish chemicals production and the location of Scotland's main oil refinery. The area represents a significant concentration of industry in Scotland based around manufacturing, which provides 14% of all local employment (as opposed to 8.7% nationally).In addition, Grangemouth has a major rail freight facility, as well as Scotland's largest port, which handles approximately 10% of Scottish GDP and 50% of Scotland's container traffic annually. These industries and activities generate a substantial supply chain of jobs in related warehousing, freight and distribution. Grangemouth is truly multi modal and the area's potential as a national logistics hub is recognised as a National Planning Framework priority.

This indicates a significant success story and the Council area has the 4thlargest GVA per capita in Scotland, behind Glasgow, Edinburgh and Aberdeen. However, this does not represent the full picture as the area has marginally higher unemployment than the national average (0.2% higher). A more worrying trend is that of the population between 18 and 24, 10.7% have claimed Job Seekers Allowance, as opposed to 8.1% nationally. Despite the relatively high value jobs provided by the chemicals sector, the average weekly pay for the region is still 2% lower than the national average, suggesting a strong reliance on this sector to drive the local economy.

The area has seen substantial population growth and the aspirations held by partners to progress Falkirk as a vibrant and prosperous place to live have been clearly articulated by their *My Future's in Falkirk* strategy and its ambitious place-making initiatives such as the Helix project, a national 'Living Landmark' project. However, the recent financial crisis has created a barrier to private sector investment and a number of highly prominent projects have been delayed. A core purpose of the TIF infrastructure investment programme is to intervene to reinvigorate projects.

On a strategic level there are other structural issues facing the area. The Grangemouth refinery is a major employer, however, it is the second oldest refinery in the UK and much of the plant is in need of upgrade. This is largely replicated across much of the chemicals production facilities in the area. The

ongoing financial viability of several operations in the area relies heavily on multinational owners investing millions of pounds on an ongoing basis. Whilst there has been major recent acquisition activity with Petrochina acquiring INEOS, Aurelius acquiring Calachem and Arcus acquiring Forth Ports, these global companies will be developing their long term investment strategies, and it is imperative for the national economy that the competitiveness of Grangemouth as a location is enhanced. The opportunity to create a zone for investment and to exploit the area's position to place Scotland's chemical sector and manufacturing supply chain on the EU stage will help maximise global competitiveness. Without large-scale infrastructure investment, the local economy may witness a period of gradual decline, rather than economic development. This would result in the agglomeration advantages of this technology cluster being diluted or lost to the Scottish economy.

Falkirk is an existing economic powerhouse based substantially around the chemicals industry, manufacturing, port operations and rail and road freight distribution. The economic value and contribution of these activities to the Scottish economy is substantial:

- 8,300 manufacturing jobs in the Falkirk area, 33% of which are in the chemical sciences sector (2,700)
- 43% of Falkirk's GVA is based on manufacturing sectors compared to 17% across Scotland
- GVA for chemical sciences is £170,000 per employee compared to £67,000 for manufacturing (second highest Scottish sector)
- Value of chemical sciences exported goods is Scotland's second highest export, contributing £2.7bn
- The chemical sciences sector in Grangemouth has invested in excess of £200m in the last four years both in research and technology investments and manufacturing
- Grangemouth produces all of Scotland's and part of northern England's petrol and diesel supply

The infrastructure programme proposed under this FBC clearly and specifically addresses the needs of the local economy and with this investment the area can realistically look to create prolonged long term future economic growth.

3.3 Falkirk Council and *My Future's in Falkirk*

The Council is pro-active in the development of its local economy and has a strong track record of working in partnership with both the private and public sectors in the delivery of major investment projects. The Council manages an annual budget of £350m revenue and £65m capital.

Recent examples of successful project delivery in the area of social infrastructure include:

- £100m NPDO Schools programme which has delivered four new Secondary Schools
- £81m programme to upgrade the HRA social housing stock
- Upgrade of the local roads network and flood prevention schemes including delivery of major projects on behalf of Transport Scotland
- Completion of major town centre regeneration projects in Falkirk, Stenhousemuir and Bo'ness

This track record demonstrates that the Council is highly experienced in the delivery of large scale and complex infrastructure programmes of the nature being proposed by this TIF scheme.

My Future's in Falkirk is an economic development initiative. It represents a long term journey, aiming to:

- Make Falkirk a great place to be, a place to live, work, visit and invest
- Diversify its economic base
- Build on its undoubted potential
- Attain the peak of ambition, for our people and for business

In 2002, Falkirk Council, Scottish Enterprise Forth Valley and BP came together to form *My Future's in Falkirk,* a public and private sector partnership to tackle job losses in the petrochemical industry. The partnership initiated a series of successful projects to make a real impact for the area's economy and to promote Falkirk in national and international arenas.

My Future's in Falkirk has engaged a wide range of bodies in delivering its activities. This includes companies such as INEOS, BP, Calachem and Forth Ports and organisations including Forth Valley College, Skills Development Scotland, Scottish Canals and Jobcentre Plus.

A diverse range of Council Services are involved, including Education, Housing, Development and the Falkirk Community Trust. Each partner brings

talent and resources to assist economic development and plan further support for the area.

The initiative seeks to achieve to a number of clearly defined key aims.

To grow business and employment opportunity in the Falkirk area:

- Enhancing business locations
- Creating a business-friendly environment with strong networks of support for business
- Equipping people with skills to meet business needs

To enhance business connections:

- Improving access to opportunities for business in Falkirk and across Central Scotland
- Promoting Falkirk's message nationally and internationally

To transform our communities:

- Creating new programmes for investment
- Regenerating key centres and locations
- Creating visitor attractions and attracting tourists to the Falkirk area

To engage young people in realising their potential:

- Enabling them to make connections
- Raising their aspirations and encouraging their ambition to succeed
- Creating more choices and more chances for their future

A number of prominent development sites were promoted by the Council under the *My Future's in Falkirk* initiative. This included the flagship Falkirk Gateway development where the Council, as land owner, procured a development partner to deliver the vision. This project was substantially constrained by the up-front site-enabling works required for its delivery. However, the well documented downturn in the commercial property market has made this ambitious, £500m project unviable at this time. The key reasons for this are that, in addition to the up-front infrastructure costs, land values have significantly decreased due to the economic recession.

The proposed TIF infrastructure programme seeks to address this lack of development on sites such as the Falkirk Gateway by providing improved transport connectivity to project sites, overcoming financial constraints caused by certain Section 75 obligations by addressing the underlying infrastructure

needs and, in specific cases, intervening to provide site enabling infrastructure to facilitate or accelerate the private sector development. Each of these actions will assist in the attraction of investment and in creating/sustaining jobs at a critical time for the national economy.

TIF will contribute to *My Future's in Falkirk's* aim to transform the prospects for the area's economy. In addition to the benefits in stimulation of industrial growth, it will contribute to the area's regeneration and the 'place-making' agenda promoted by the partners. It will build on the stimulus to development arising from the Helix, an innovative and transformational project to create a 'Living Landmark' and attract over 300,000 visitors annually.

The initiative will also assist in the delivery of town centre regeneration projects in Grangemouth (currently being procured) and at Falkirk, where the Council is leading the development of an innovative Townscape Heritage Initiative which anticipated over £5m of investment in the town centre. As an outcome of the TIF, the area will be recognised as a nationally significant economic hub, with a quality of supporting infrastructure, amenities and environment that gives confidence for investment.

NDR growth in Falkirk town centre is expected to be incremental and, as such, has not been included in the NDR revenues modelling in this business case. The redevelopment of Grangemouth town centre is expected to see considerable demolition and reconfiguration of properties.. This will provide significantly enhanced business and retail space, which is additional in nature. As such, the additional element of this expected development is included within the business case and where necessary, TIF may assist to fill gaps in its delivery..

3.4 TIF proposals

To address the strategic case for infrastructure investment, the TIF proposal is focussed on an ambitious infrastructure programme that addresses key structural challenges currently facing the M9 Corridor area.

3.4.1 Investment in the local and national road network

The Council, alongside other key public sector stakeholders, propose a programme of key road infrastructure projects that will improve the competitiveness of the area and future proof the infrastructure required to support the long term ambitions of the manufacturing, freight, ports and petrochemicals sectors.

The scale of this investment is not affordable by the Council in the absence of TIF and failure to invest could contribute to a gradual decline in key industries over time, most notably the chemicals sector based in Grangemouth, adversely impacting on the nation's long term economic prosperity. The scale and nature of the infrastructure projects mean that these cannot be funded by the private sector as the scale of investment inhibits the viability of development activity.

The infrastructure programme includes the direct funding of a number of roads projects, the combined impact of which will be to significantly enhance local and regional traffic networks and M9 motorway access along the M9 Corridor. The central location is at the heart of the area's competitiveness in terms of manufacturing and freight based business.

The road improvements include addressing a key priority at the Avon Gorge, a choke point on the A801, a primary connection midpoint along the M8 and M9 motorways. This would not only increase the area's position as an intermodal transport hub, but also improve a significant part of motorway interconnectivity in Scotland's road network relied on by several major logistics operators. It is proposed that the Council would use TIF to part fund the Avon Gorge improvement with additional funding from other sources including West Lothian Council and the Scottish Government. The Avon Gorge is viewed as a longer term infrastructure investment priority for the TIF scheme, however the project is 'shovel-ready and can be brought forward at an early stage if funds are available.

The planned improvements to interconnectivity via TIF will contribute:

- at a development site specific level, through the provision of site enabling infrastructure;
- at a local level with connectivity within the area, linked to improvements at the two main motorway junctions (Junctions 5 and 6);
- at a national level through improved connectivity between the area and the rest of Scotland.

The programme will enhance national competitiveness through ease of movement while promoting more sustainable transport through reduced journey times and modal shift. Further benefits would include enhanced road connectivity to the intermodal hubs of Grangemouth docks, Scotland's largest, and the Grangemouth Rail Freight Terminal, each the focus of major logistics operations.

3.4.2 Investment in Grangemouth's flood protection scheme

The investment programme will provide a significant amount of local authority funding to be earmarked as a contribution towards the Grangemouth flood protection scheme which is of national importance and essential to ensure the ongoing viability of the chemicals and petrochemicals hub in Grangemouth.

Investment into this sector in Grangemouth is being planned by the private sector but constrained by the uncertainty over flood risk. This has been confirmed through investigations of this issue conducted by the Grangemouth Regulatory Forum, chaired by Professor Russell Griggs. The TIF contribution to these essential works is intended to assist the Scottish Government in developing the overall funding package required to address the needs of this significant national infrastructure requirement.

The investment is required to provide effective protection from pluvial and fluvial flooding at Grangemouth. Despite its national significance, much of the area is considered high flood risk and has significant areas of inadequate flood protection. It is adjacent to the Firth of Forth Estuary, at its confluence with the River Carron, River Avon and Grange burn and SEPA's flood risk maps demonstrate a substantial risk of flooding in the area.

The petrochemicals and logistics operations in the area are of key economic value to Scotland, being the location for its main oil refinery, the focus for its high value chemicals sector and a port handling in excess of 10% of Scottish GDP annually. Flooding of this area would have a substantial adverse impact on the Scottish economy. This is perhaps best illustrated by a recent example of the impact of the shutdown of the plant, the 2008 industrial action at the Grangemouth refinery which led to the country experiencing widespread petrol shortages and resulting business interruption.

In addition, BP's Forties pipeline terminates at the Kinneil terminal and relies on power from the Grangemouth refinery. It is estimated that the resulting disruption to North Sea oil production would cost the Scottish economy an additional £50m a day.

3.4.3 Targeted site specific infrastructure investment

A final element of infrastructure funding is being made available for site-specific infrastructure intervention. This is critical to unlocking previously stalled development projects such as the Falkirk Gateway and Falkirk Stadium sites. Using TIF to positively contribute to stimulate such projects will assist in the attraction of new investment whilst contributing overall to the Council's place making and tourism agenda. The launch of the Helix project in 2014 will be a major factor in contributing to an enhanced profile and visitor potential for the area. It is anticipated that the area will attract 300,000 visitors annually and there is a need to ensure the provision of complementary visitor facilities to sustain these visitor numbers. The TIF will assist these efforts through site enabling works which will attract complementary development.

3.4.4 Unlocking and accelerating development activity

As a result of the TIF infrastructure investment a 27 development sites have been identified as likely to have development unlocked, accelerated or enhanced as a result of the TIF investment. Of these, 16 sites have been included in the core TIF funding case, where NDR growth can be realistically forecast at this time to support the Council's proposed borrowing. This is with a view to being prudent on the scale of NDR revenues that could be generated. The remaining sites are considered to be significantly impacted by TIF. However, the likely resulting NDR revenues are less certain and therefore more problematic to forecast. For prudence NDR revenues have not been assumed in the business case however the sites will be included within the red line area. If development happens, this will enable quicker payback of the TIF debt.

A primary objective is to accelerate a number of highly visible, development-ready, projects at an early stage in the project, providing both a boost to the economy and creating an environment for job creation. Most prominently this would include the Falkirk Gateway, Earlsgate, Abbotsford Business Park and the Falkirk Stadium sites. This will provide a visible and demonstrable showcase of the area's business and development potential, acting as a catalyst for wider private sector development.

It is also considered that the Grangemouth Flood Protection scheme would remove a potential barrier to long term investment and ensure continued intensification of existing chemicals sector and port related operations within the red line area. A number of key fine and petrochemical companies were consulted and the potential positive NDR impact arising from annual investment and intensification of existing plant and buildings have been illustrated in this FBC. This NDR upside should be borne in mind by the Scottish Government in developing its value for money case for the Grangemouth Flood Protection Scheme.

To ensure that development activity is unlocked and accelerated, a range of support measures to market the area and aid the underpinnings for business growth and skills development will take place. The Council is working closely with Scottish Enterprise, Scottish Development International and Skills Development Scotland to help realise this investment and ensure the area is marketed effectively and the successes dovetail with the delivery of TIF.

3.4.5 Market failure

The proposed interventions of the Falkirk TIF investment programme are necessary to correct three key areas of market failure where interventions are:

- necessary due to externalities
- considered for public good
- necessary to overcome co-ordination failure.

In defining market failures the Council refers to the Office of the Deputy Prime Minister's '3Rs Guidance', 2004, which identifies market failure as "*imperfections in markets that prevent them from producing efficient outcomes."* The guidance establishes methodologies for identifying types of market failure and these can be summarised as:

- Externalities – where economic activity positively impacts on people and locations outside of the direct consumption of the good or service. This is demonstrated in, for example, public realm investment, which improves the aesthetics of a town centre, increasing consumer/visitor footfall. This indirectly benefits businesses on the periphery of the physical redevelopment. who subsequently enjoy increased passing trade.

- Public goods – these goods must satisfy two positions, namely that they are non-rival in consumption, meaning the ability of one person to consume the good does not impact on the ability of another person to do so. A clear example of this would be the Grangemouth Flood Protection scheme, where the benefit cannot be 'used up' by an individual or limited number of users. Public goods must also be non-excludable, i.e. once it is provided, the benefit could not be realistically restricted to those willing to pay. Again flood protection can be used as an illustration. These criteria make delivery of such goods by the private sector highly problematic as there are limited ways of capturing a financial return.

- Coordination failure – this exists where no single private entity is willing or able to bear the entire cost in order to enjoy the immediate benefit. An example would be a large multi-user development site with no site-enabling access roads. To gain physical access, the first potential occupier may face the cost of providing all necessary road access, which will ultimately benefit all future occupiers. This would be a major disincentive to investment and often requires public sector intervention to act as an enabling provider to coordinate activities in an efficient and equitable manner. Often this requires powers that are not within the control of the private sector and is particularly true in public infrastructure schemes, such as roads, or requires particular issues of planning policy or CPO.

The proposed interventions of the Falkirk TIF investment programme are necessary to correct three key areas of market failure and the respective clusters address several examples of market failure, summarised below.

M9 Corridor

This cluster provides the most diverse range of infrastructure however its principal focus is road connectivity. This intervention demonstrates public good by providing roads projects of a nature and scale prohibitive to the private sector, while providing non-excludable public benefit.

In the case of connectivity to the rail freight and port facilities, the Council is investing through TIF to address co-ordination failure, where major intermodal facilities are restricted by the road system connecting them to main road transport arteries.

The cluster also proposes a number of project specific infrastructure projects. In most cases these will address co-ordination failure, by establishing investment ready, serviced development sites which will attract investment on an individual basis. Even before the current market downturn, these development sites had not been delivered due to this failure.

Grangemouth Flood Protection

The Grangemouth Flood Protection project highlights clear market failure on a number of levels. Recent planning conditions within the chemicals manufacturing zone have required site occupiers to address the areas flood

risk on a site specific level. This has proven a credible disincentive to investors, who are being required to expend considerable resources addressing flood protection on an expansion site level, while the existing plant and neighbouring facilities would not enjoy any benefit of protection.

Also flood protection on a purely site specific level merely displaces flood water, compounding the issue on neighbouring sites. This piecemeal approach to flood protection is highly inefficient, ineffective and a significant disincentive to invest. It is a critical concern of business stakeholders.

As such this project demonstrates a co-ordination failure however the costs of the overall flood protection are so great and the benefits felt so widely, that the responsibility cannot be placed in the responsibility of an individual company. Similarly the scale of such a project is beyond what is feasible for a single authority. It requires multi-agency input and is demonstrated by the need for considerable capital grant funding from the Scottish Government highlighted in this business case.

Avon Gorge

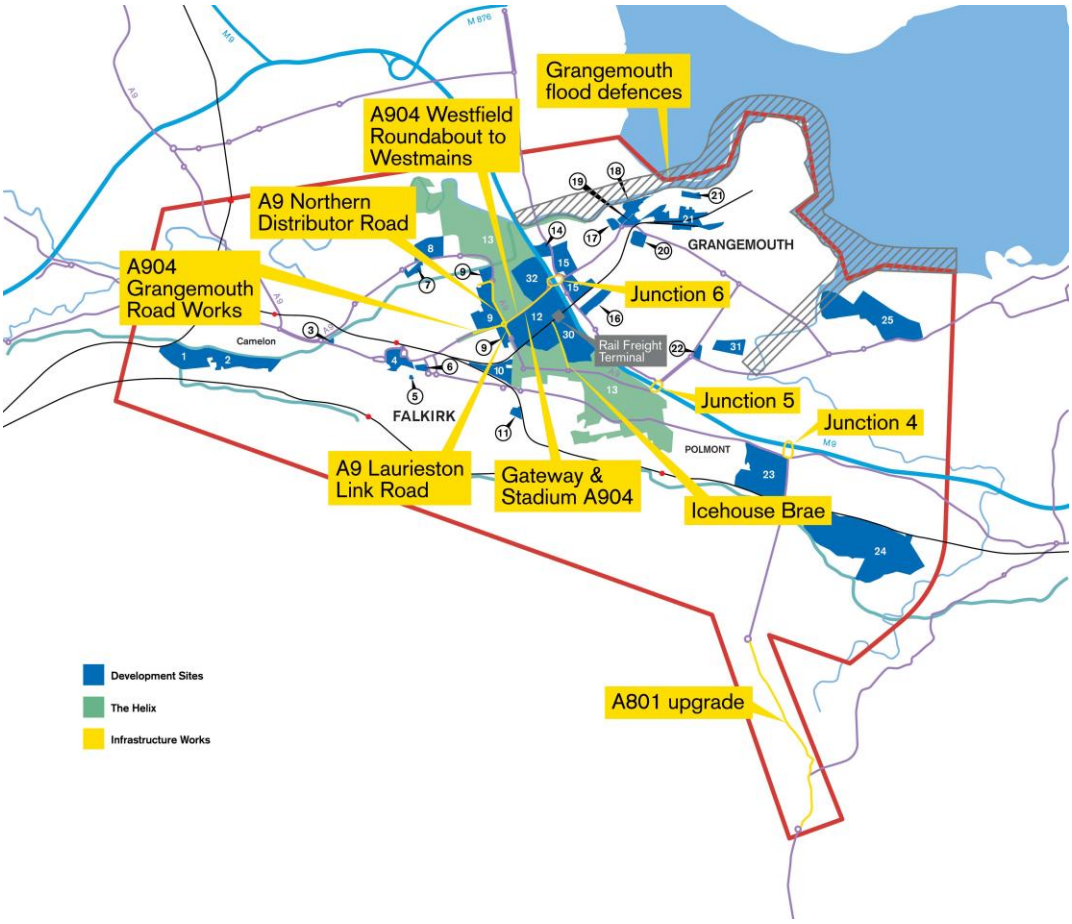
This cluster provides major public benefit by correcting a major failing of the national roads infrastructure, namely the choke point on the midpoint connection between the M8 and M9 on the A801 Avon Gorge. By doing so it is providing non excludable benefit to individuals and people across the central belt of Scotland. The benefit of this will be felt across the region, with particular benefit to businesses and commuters.

3.4.6 Red line area

A project map of the proposed red line is shown below (details at Appendix A). This map also sets out the locations of the proposed infrastructure projects and development sites. It is acknowledged that the boundary of the redlined area will be finalised for the purposes of the TIF Agreement and will require increased focus on the delivery area and definition by postcode sector of the NDR areas for uplift of incremental revenues.

The map shows the redline capturing development sites along the M9 Corridor, surrounding Junction 6 in the West to Junction 4 in the East. The eastern periphery also benefits from the proposed improvements to the Avon Gorge on the A801, while the industrial centre of Grangemouth is captured to the North of the M9, justified by enhanced access to the M9 through junction improvements and through the proposed Grangemouth Flood Protection.

Figure 14: Falkirk TIF area overview



This area emphasises the inter-related and catalytic impact of the TIF. It contains three distinct clusters that are addressed later in this report. The first of these clusters is the M9 Investment Cluster which has an area of peak impact in the development sites to the North and South of the M9 from Junction 6 in the West and to Junction 4 in the East.

The second area of distinct cause and effect is the Avon Gorge Investment Cluster. This sees impact along the A801 where it meets the M9 at Junction 4.

The final area is the Flood Protection Investment Cluster, which is directly impacted by shaded flood protection works on the above map. This includes estuarial and fluvial protection along the Carron and Avon rivers. The development sites impacted are geographically linked to these currently designated flood risk areas.

Although the true impact of the TIF programme is felt on a holistic level, delivery necessitates demarcation by cluster. A heat-mapping exercise, undertaken to demonstrate the relationship between development sites and the various infrastructure projects confirmed the inherent and critical linkage between the overall package of works proposed in the TIF and the

momentum of development required for its successful delivery. The cluster approach has however enabled us to deconstruct this and associate a cluster's infrastructure with those projects which offer the most direct cause and effect.

The M9 cluster contains projects considered to be shovel ready as at April 2013 and can commence in isolation of the additional clusters.

The Council considers that this clustered approach has merits in managing the risks presented by the delivery of TIF and considers that there may be merits in having the provision to extend this clustered approach to other locations where the requirement arises, e.g. at Glenbervie, where an additional requirement for site-enabling works has been identified.

3.4.7 The But-for case – Demand

Local and National infrastructure priorities

The TIF funded infrastructure is necessary to address local and national strategic infrastructure priorities that cannot be addressed through private sector funding or existing Council funding sources. The infrastructure investment though this TIF scheme will form the cornerstone of the Council's response to supporting the economic resilience of the area.

Site specific infrastructure interventions will only be used to unlock sites of strategic importance where it can be clearly demonstrated that development has otherwise stalled and such investment will accelerate the pace of development. A priority for such investment is road and utilities provision for the Falkirk Gateway site. No development has commenced on this Council site, despite a development partner being in place for a number of years and it is anticipated that, given its adjacency to the Helix, this area may present an 'early win' development which would drive developer confidence in the wider area.

Upper Forth Development Plan

The economic evaluation work carried out as part of the *Upper Forth Development Plan* saw engagement with a range of local stakeholders, including the primary employers in the chemicals and petrochemicals sector. The need for the large scale and comprehensive infrastructure investment plan as set out in this FBC is a response to addressing the concerns of stakeholders over the adequacy of the road network and flood defences. Should such concerns not be addressed then economic decline is a possibility for these national assets.

In a number of notable cases, including parts of the Grangemouth refinery complex, current plant infrastructure is nearing the end of its economic life. Millions of pounds are spent annually for maintenance alone and more investment is required. The companies perceive particular strengths in the cluster of operations at Grangemouth; however they experience significant competition for business, and for the investment needed to upgrade their

plant. New low-cost (and low-regulation) alternatives are increasingly emerging overseas.

For Grangemouth to remain competitive, to maintain and grow its high value industries, requires significant investment in the core strategic infrastructure provided by both the public and private sectors. This can ensure that the site is serviced by properly interconnected roads infrastructure and offers access to intermodal transport. If secured, there is the prospect that this will be matched by investment to upgrade the power generating capacity of the area (including new renewable energy projects); and enhanced logistics capacity at the Port and its surroundings.

The public and private sector partners and the wider community intend to aid the area's transition towards a 'lower' carbon economy, attracting renewable energy projects, increasing energy efficiency, promoting modal-shift, upgrading the environment and providing flood protection. The area has three active expressions of interest in renewable energy schemes involving biomass and carbon capture. If approved, these will boost local energy generation for the operations locally while adding to the complement of renewable energy capacity in Scotland.

The proposals set out in this FBC represent a unique, timely and unprecedented opportunity not only for the Council, but for the Scottish Government to provide complementary investment, ensuring the retention of an existing economic powerhouse, achieving resilience in the Scottish fuel supply chain and aiding the development of a lower carbon economy.

Investment in the key infrastructure by local and national government will provide the platform for private sector investment and the economic growth scenario outlined in the Upper Forth Development Plan based around the chemicals industry. In summary, this will achieve a number of strategic benefits for Scotland:

- Resilience in the fuel supply chain, retaining the value of, and facilitating the growth of the Falkirk economy with particular emphasis on the chemical sciences sector

- Placing Scotland as one of the top EU locations for chemical sciences investment in research and technology development leading to manufacturing, which will include further development of existing centres of excellence where Scotland could play a leading role (for example, in oil molecule efficiency and carbon utilisation technologies)

- Enhancing Scotland's current position on renewable energy with wind and wave technology by adding a third leg to the 'renewable energy stool' in the use of biomass and biofuels technology

The benefits of these growth projects are noted in the table below and this demonstrates the scale of economic opportunity should this investment be forthcoming.

Figure 15: Growth in the Falkirk area (net additionality): Potential Strategic Value to Scotland

Year	2015	2020	2025
Employment Total (FTEs)	546	4,700	7,500
Of which total chemical sciences jobs (FTEs)	339	2,160	2,900
GVA	£101m	£327m	£409m

Source Upper Forth Development Plan

The *Upper Forth Development Framework* suggested a need for a 'managed decline' strategy if key infrastructure issues are not addressed. Much of the advantage of Grangemouth as a location for its specialist and high value industries comes from the advantages of synergies and vertical supply chains. This provides strong agglomeration advantages, which could be quickly eroded were a key player to exit the local market.

The proposed TIF scheme will help secure the existing core industries through providing infrastructure that is fit-for-purpose. Of equal importance will be the drive to support a more diverse employment base, providing a robust and adaptable economy for the Falkirk area. The Council and Scottish Enterprise are establishing a joint Falkirk-Grangemouth investment zone, with a programme of activities which utilises the complementary tools of TIF enterprise programmes and skills measures which will create complimentary actions for the TIF. This will include assessment of the skills requirements for new industrial developments, development of enterprise support activities and delivery of jobs and training programmes for young unemployed people as an integral component of the package of infrastructure works proposed.

The area has also been included in a successful Phase 1 submission to the Scottish Funding Council for the formation of an Innovation Centre focussed on the provision of smart sensor systems which have the potential to integrate with the TIF's infrastructure provision and development and can be used to aid the monitoring of the environment, some parts of which have special protection.

The development projects included in the TIF were identified as sites where anticipated commercial development had been adversely impacted by the financial climate. These have either been significantly delayed or abandoned due to the decline in private sector development appetite, or have no likelihood of development potential being realised without intervention. A key example is the Falkirk Gateway site where a development partner had been appointed and the masterplan completed, but due to the infrastructure constraints and impeded demand, the scheme is unable to progress.

The TIF intends that site specific infrastructure interventions will be employed to unlock sites of strategic importance where it can be clearly demonstrated that development has otherwise been delayed and such investment will reinvigorate the pace of development. The Falkirk Gateway is considered key to this strategy.

A clear impact beyond the immediate provision of strategic infrastructure is the stated intention of the Council to engage in correcting long term infrastructure shortcomings. In the case of motorway access, the Avon Gorge and flood defences there have been several years of clear dialogue between the area's main chemicals and petrochemicals employers and the Council. This has been formalised in the Upper Forth Planning Framework that has included involvement from Scottish Enterprise and other stakeholders; private and governmental. These forums have articulated that the provision of this infrastructure is critical for ongoing plant investment in the area. These key employers understand the funding constraints on the Council and their investments in plant would similarly be long term and capital intensive in nature. As such they would welcome a solid commitment to delivering this infrastructure in the medium term as this will provide investor confidence in the immediate term.

Similarly commitment to roads infrastructure as part of TIF has been clearly articulated to key local businesses that are reliant on haulage activity. The area contains several major logistics operators who have confirmed that the TIF investment forms a critical component to their decisions to invest in new premises, plant and haulage capacity.

The But-for case – Funding

The requirement to deliver the TIF projects has come about through longstanding and ongoing dialogue with business and other stakeholders in the area which has recognised that delivery has not been previously possible due to the significant limitations of funding due to infrastructure constraints and market failure. The projects included within the TIF infrastructure programme have not been devised specifically for the purposes of TIF. Sources such as Council capital budgets, developer contributions etc. have diminished significantly and prevent these works from proceeding. The TIF enables a targeted, integrated and holistic approach which will enable development to be stimulated and accelerate investment within the red-lined area.

In the case of Grangemouth Flood Protection, Ernst &Young advised the Council on alternative forms of funding however the scale of the required investment, and the direct impact on the areas core NDR generating areas made TIF the only viable option. Even then the TIF would only provide an element of this cost. It is seen as important in potentially unlocking additional funding from the Scottish Government, contributing a proportion of funding consistent with comparable flood defences projects.

3.4.8 Base lining

The redline area shown at Appendix A is indicative and the finalised boundary will be established using postcode boundaries to extrapolate historic NDR revenues. This is readily achieved and definition of the exact redline will enable calculation of NDR capture levels, to be maintained.

There has been ongoing dialogue with the Assessor for Central Scotland to ensure that the finalised redline is practical. The appropriate information has

been captured to enable the base lining to be established and enable monitoring of ongoing NDR growth. These discussions have also sought guidance on the wider methodology for calculating incremental growth in NDR which is likely to arise. The Council is satisfied that the systems are in place to enable base lining to be established at 30 September 2012 base date.

4. Infrastructure Investment Plan

4.1 Introduction

This section sets out the details of individual infrastructure projects and the process for inclusion in the TIF FBC infrastructure programme.

The proposed infrastructure programme will help to unlock a total of £176m of infrastructure, with total proposed TIF funding of £58m. This programme of projects is summarised in the table below:

Figure 16: Finalised list of TIF infrastructure projects

			Funding Source	
		Cost	TIF	Other
Reference	Project	£'000	£'000	£'000
A	Grangemouth Flood Protection	100,000	10,000	90,000
C	M9 Junction 6 Earlsgate Signalisation	2,191	2,191	-
D	M9 Junction 5 CadgersBrae Signalisation	5,213	5,213	-
E	Icehouse Brae Upgrade	2,500	2,500	-
G	Westfield roundabout and A904	16,847	16,847	-
I	M9 Junction 4 Lathallan Upgrade	3,000	-	3,000
J	A801 Avon Gorge Upgrade	26,680	6,670	20,010
K	Development Site Specific Enabling Works	19,809	14,405	5,404
	Total	**176,240**	**57,826**	**118,414**

Source: Falkirk Council

This programme will address a range of significant infrastructure shortcomings at national, local and site-specific levels.

4.2 Approach

A key consideration in this programme is the need to address infrastructure inadequacies on two distinct levels:

- Strategic
- Site-enabling

4.2.1 Strategic infrastructure

The vast majority of the TIF investment programme is considered strategic infrastructure. This includes three main categories:

- **Strategic road investment** – improvements to three M9 motorways junctions and improvements to the A801, linking the M8 and M9

- **Local roads investment** – road enhancements in and around the Falkirk-Grangemouth area, linking development sites to motorway access points and other multimodal transportation – rail and ports

- **Flood protection** – specifically, around the key manufacturing zones of Grangemouth

In demonstrating strategic infrastructure cause-and-effect, we analysed varying degrees of impact across the respective development sites. This produced a graphical 'heat-map' of impact and was employed in short listing the final infrastructure programme.

4.2.2 Site-enabling infrastructure

A number of sites have been earmarked for site enabling infrastructure interventions as part of the TIF infrastructure programme. These interventions are proposed through satisfying a defined set of criteria:

- **Market failure** – development on the site has either stalled or no development has been forthcoming for a considerable period of time due to market failure

- **Council ownership or interest** – the sites identified are either owned by the Council or has a commercial interest in the sites, enabling the site to be readily brought forward

- **Multiple end users** – to avoid issues of State Aid, site enabling infrastructure would only be considered if the site would host multiple end users

Due to the inherently site-specific nature of these interventions, the cause and effect on these development sites is relatively straightforward to demonstrate.

4.2.3 Programme

In addition to cause-and-effect on an infrastructure project specific level, there is obvious interconnectivity between the individual projects, particularly in relation to enhanced road connectivity. This interconnectivity aims to increase the overall capacity of the infrastructure to serve national level demands (including fuel supply requirements) which arise from major local companies. It will also deliver far reaching economic development benefits that are greater than the 'sum of the parts'.

It is expected that the TIF's infrastructure projects will also contribute to accelerating or unlocking nearby developments sites in addition to those of high dependency identified in the heat mapping exercise.

4.3 Identifying necessary interventions

For a number of years initiatives, such as the Upper Forth Planning Framework study and the National Planning Framework 2 (NPF2), have identified key strategic infrastructure failings that adversely impact the economic development of the Falkirk area. In addition, the Council has identified a number of localised interventions which would help alleviate development barriers across development sites.

These projects are considered critical to unlocking or accelerating the development potential of development sites across the area which would subsequently attract considerable private sector investment. The TIF is recognised as the critical tool that is required to unlock this development potential and accelerate/attract new investment.

An initial list of ten strategic infrastructure projects (A to J), all of which are currently constrained was identified for appraisal along with a number of localised interventions.

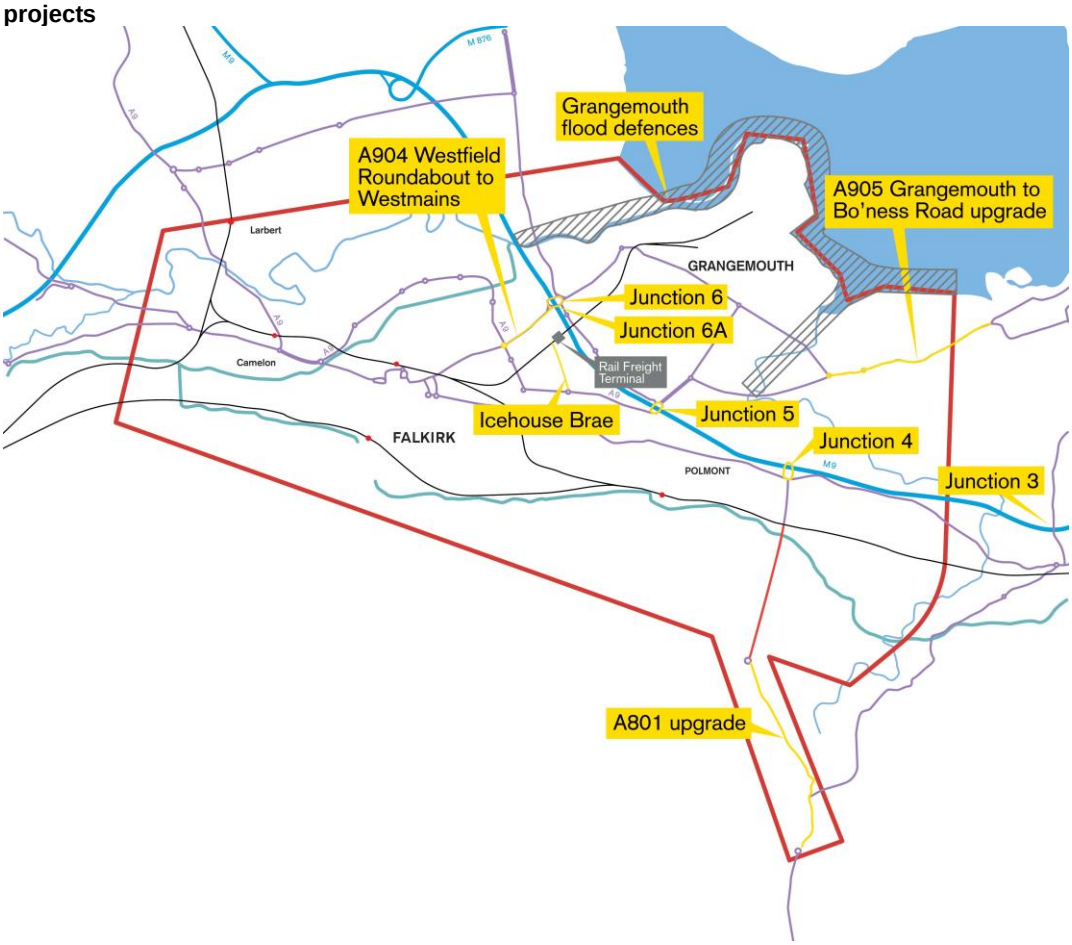
Figure 17: Long list of infrastructure projects

Reference	Project	Estimated Capital Costs (£'000)
A	Grangemouth Flood Protection Scheme	100,000
B	M9 Junction 6A Earlsgate 4 Way Junction	47,000
C	M9 Junction 6 Earlsgate Signalisation	2191
D	M9 Junction 5 CadgersBrae Signalisation	5,213
E	Icehouse Brae Upgrade	2,500
F	M9 Junction 3 Champany Upgrade	3,600
G	Westfield roundabout and A904	16,847
H	A905 Grangemouth to Bo'ness Road Upgrade	3,000
I	M9 Junction 4 Lathallan Upgrade	3,000
J	A801 Avon Gorge Upgrade	26,680
K	Development Site Specific Enabling Works	19,809
	Total	**229,840**

Source: Falkirk Council

This long list includes overall programme expenditure of £229.84m with the largest project expenditure coming from the Grangemouth Flood Protection. The costs above are uninflated, representing the full project capital costs and therefore do not reflect sources of potential co-funding later identified. These projects are shown on the diagram below:

Figure 18: Location of infrastructure long list projects



Source: Eden Consultancy Group

The long list identified a potential requirement for capital investment of some £230m.

The projects are summarised below and the detail of each project is set out in Appendix B.

Project A: Grangemouth Flood Protection Scheme

This is an NPF2 priority project. The proposed flood defence scheme involves the construction of estuarial shore defences of some 5km from the Eastern bank of the Carron River mouth to the Western limit of the Bo'ness coastal defences. The defences would create on shore defences to protect against estuarial flooding and tidal surges.

The project was identified for the TIF scheme given the national importance of the petrochemicals industry and the adverse impact that the flooding risk has on long term investment plans by the industry. Studies are underway currently to confirm the extent of the flooding risk to the area and assess the detailed requirements for a scheme design. TIF offers an opportunity for the Council to make a local contribution to this national level infrastructure project; however a funding package involving national Government is required for a project of this scale.

This key topic is being examined in a joint Grangemouth Regulatory Review Group involving the Scottish Government and Government agencies, the Council and business, chaired by Professor Russell Griggs. The significance of the flood defences was outlined in the Strategic Context section and is addressed more fully in Section 5, Flood Protection Funding, which highlights that, should TIF revenues prove to be secured ahead of those forecast, these may be directed towards the provision of these flood prevention works.

Project B: M9 Junction 6A Earlsgate 4 Way Junction

The project would comprise of an additional motorway junction constructed to create a 4 way access to the M9 to the East of Falkirk and Grangemouth. This would be achieved by the construction of an interchange situated at the site of the current Eastbound off slip at Junction 6.

The existing Junction 6 can be a significant pinch point for traffic. This includes considerable traffic generated by the Grangemouth Docks, the busiest port in Scotland, handling 50% of all the country's container shipments. The Port generates traffic of over 400 HGVs a day and all westbound traffic gains access via this junction. In addition, HGV based traffic coming from Earls Road would naturally access this roundabout regardless of whether gaining access to the M9 at this junction or gaining Eastbound access at J5 via the A905.

The project was identified for the TIF scheme as it would positively assist motorway access to a number of development sites and existing businesses that are highly reliant on road freight activity. Relieving usage pressure on the existing motorway junctions would reduce the impact of Section 75 requirements on a number of stalled development sites. This would enable these sites to be unlocked or accelerated for development.

Project C: M9 Junction 6 Earlsgate Signalisation

As a primary link between Falkirk and Grangemouth to the M9, Junction 6 has limited functionality, only providing on access to the Westbound M9 and off access from the Eastbound M9. The TIF project proposes a full signalisation system to address the immediate need for relieving the considerable congestion at the junction.

As highlighted in Project B above, it can be a significant pinch point for traffic and, at present, investment at this junction is dependent on S75 payments. This gives rise to significant uncertainty in the delivery timescale for any project as there is no timescale or timetable for planning applications being brought forward.

Project D: M9 Junction 5 Cadgers Brae Signalisation

Junction 5 is the only 4 way M9 junction serving Falkirk, Grangemouth and Bo'ness. As such it is a key linkage in the area's transport infrastructure and gateway to the area. The existing junction receives all of Falkirk and Grangemouth's Eastbound traffic, much of this being HGV traffic from the ports, freight and chemicals/petrochemicals industries in Grangemouth.

The project would seek to enhance this junction, providing widening of lanes and full signalisation to ease traffic flow. There would also be an element of widening the Eastern end of the A9, along with a new roundabout at the junction of A9 with Grandsable Road, to improve connecting traffic flow. There is potential for improved access for the businesses at Beancross and Cadgers Brae, which includes the headquarters of Klondyke Garden Centres, an expanding nationwide business and a planned new distillery and visitor centre. The improvements will also provide a positive impact on tourism by enabling improved access at the entrance to the Helix site.

As highlighted in Projects B & C above, investment at this junction is dependent on S75 payments. This gives rise to uncertainty in the delivery timescale for any project as there is no timescale for the contingent planning applications being brought forward.

The project would significantly ease traffic congestion at the junction roundabout that services the town and the nationally strategic intermodal transport hubs for Grangemouth port and rail facilities.

Project E: Icehouse Brae Upgrade (A9 Laurieston Bypass)

The existing Icehouse Brae is a minor service road linking the Tillyflats industrial site from the A9 in the South and the A904 in the North. This access route is narrow, with a sharp bend and a single lane narrowing over a rail bridge. Despite the road's obvious limitations it serves as a vital part of the wider Falkirk-Grangemouth road infrastructure. The project would see an upgrade to this road and potential widening of the rail bridge.

The Tillyflats site hosts a number of large occupants in freight reliant businesses, including timber yards and container storage. Of more strategic importance is the Grangemouth Rail Freight Facility, which is a key part of the Scottish/UK freight network and interlinks with the considerable WH Malcolm Haulage operation also based at Tillyflats. The Grangemouth Rail Freight Facility provides freight linkage to all Tesco stores in the North of Scotland and services the ASDA depots in Falkirk.

Due to the weight of HGV traffic the road is unfit for purpose and causes considerable backlogs of HGVs, particularly trying to access the A904. The operating margins affecting haulage are such that, delays have direct impacts on business efficiencies, and means that the area is not optimising its competitive advantage. The upgrading of this route would significantly reduce the journey distance to M9 junction 5 thus removing HGV traffic from the A904, Earlsgate Interchange and Westfield Roundabout, with resultant benefits for the local community. This improvement and promotion of transfer of freight from road to rail will potentially lead to significant environmental benefits and can attract new business opportunities.

Project F: M9 Junction 3 Champdany Upgrade

Junction 3 is to the extreme east of Falkirk Council's boundary however this only provides access to the M9 Eastbound and access from the M9

Westbound. This limitation requires motorway traffic to/from the West to take a lengthy detour from Bo'ness, along the A905, to Junction 5, Grangemouth.

The proposed development would add two additional ramps to complete a 4 way junction. This would provide complete motorway linkage to Bo'ness as well as Linlithgow (situated in West Lothian Council). This project has been highlighted as part of a package of measures associated with the Wallacelea development in West Lothian Council.

Project G: A904 Westfield Roundabout to West Mains (Middlefield Road to Earlsgate Interchange)

The Westfield Roundabout is situated next to the Falkirk Stadium site and enables the intersecting of the A9 and the A904. The 4 way roundabout is of considerable importance as the gateway route into Falkirk. The roundabout is a regular pinch point with heavy traffic and is a major linkage between Falkirk, Junction 6 of the M9 and Grangemouth.

The land immediately surrounding the roundabout is core to the *My Future's in Falkirk* delivery plan which includes the enhancement of the Stadium Site, Falkirk Gateway and the Helix project. There is also an anticipated redevelopment of the Forth Valley College site, plans for which are in development, creating a Science and Technology facility to benefit local industries. All will significantly increase traffic pressure on the roundabout.

The proposed improvements will see the roundabout widened with dedicated left turn lanes added to 3 of the 4 exits. Elements of the adjoining A904 will also be widened to improve the flow of traffic.

This infrastructure project was originally to be funded by a developer as a precondition of planning for the Falkirk Gateway development. Since the economic downturn the S75 obligation has remained as one of the key barriers to unlocking further development.

The project was reviewed further during FBC stage to ensure the works included surrounding road transportation pinch points which would otherwise limit the benefit of the investment. The project was broken down into 4 stages to link these works more closely to the demand requirements of surrounding developments:

- A904 (Middlefield Road to Earlsgate Interchange) Westfield Roundabout to Westmains
- Gateway & Stadium
- A9 Falkirk Northern Distributor road works
- A9 Laurieston Link Road Works

This sub-phasing allowed the project build-out to more closely represent the traffic flow and site access requirements of key development sites, in

particular the key development sites of Stadium and Falkirk Gateway. The works were also extended to ensure potential pinch points immediately beyond the originally proposed works were also addressed.

This provides a more comprehensive strategic approach to enhancing the traffic flow to and from the M9 to the primary gateway of Falkirk town itself.

Project H: A905 Grangemouth to Bo'ness Road Upgrade

This project proposes upgrading the Grangemouth to Bo'ness road and cycleway. This includes sections of the A905 and A904. The road is currently single carriageway which experiences heavy traffic and a high volume of HGVs**.**

In the absence of a Westbound on-ramp/Eastbound off-ramp at Junction 3, the A905/4 currently links Bo'ness and surrounding areas to the Westbound M9 (Junction 5). This diverts traffic along the single carriageway causing congestion at Junction 5, which could also be addressed by the proposed alterations to Junction 3 at Champany (Project F).

Project I: M9 Junction 4 Lathallan Upgrade

Junction 4 improvements involve signalisation to an existing large interchange. The project is a response to the projected increase in traffic flow emanating from the proposed, mainly residential, development at Whitecross and the mixed use business park development at Gilston.

The A801 Avon Gorge Upgrade is seen as a missing link in the national road infrastructure network. It links the midpoints of the M8 and M9 at their respective Junction 4s. The Lathallan interchange would be an access point for this connecting road while providing access to the M9 from Whitecross, Gilston, Polmont and Westbound access for Linlithgow (West Lothian).

In addition there is a major landfill site and the new Avondale waste management plant situated immediately on the junction. The growing requirements of the Junction will require its signalisation to avoid it becoming another choke point in the linkage between the M8 and M9. These works are currently anticipated to be provided through S75 payments from developments proposed in the vicinity of the junction.

Project J: A801 Avon Gorge Upgrade

The A801 is the primary linkage between the M8 and M9. This road links these motorways at their respective Junction 4s. As a result the linkage is of national strategic importance and is a priority under the NPF2 framework. The existing road is of variable quality, with sections of straight dual carriageway. However, as the road crosses the Avon Gorge it narrows down to a tight junction with a steep gradient descent and ascent and across a small and aged stone bridge. This is a considerable choke point and is the 'missing link' in the provision of an adequate linkage between the two motorways. More fundamentally it inhibits usage of the road by heavy goods vehicles resulting in poor connectivity of road freight between the M8 and M9 at this natural geographical link point.

Upgrading the A801 requires by passing the existing Avon Gorge crossing with a new single carriageway and the provision of a new 255m composite steel/concrete 5 span bridge.

Given this is a piece of national infrastructure included within NPF2, provide particular economic benefit to neighbouring West Lothian, it is proposed that the Council would use TIF to part fund the Avon Gorge improvement with additional funding sought from other sources including West Lothian Council and the Scottish Government.

Project K: Development Site Specific Enabling Works

A number of development site specific infrastructure works were identified where the development has stalled due to the economic conditions, including the Falkirk Gateway and Falkirk Stadium sites. It is proposed that the provision of site enabling infrastructure will act as a means of accelerating developer investment and progressing key, highly visible development projects as early wins for the TIF project.

These works will support the *My Future's in Falkirk* "transforming places' agenda, including environmental upgrade for inward investment,, town centre development (which is complementary to the TIF investments) and promotion of the area's tourism potential at key sites such as the Falkirk Wheel, the Helix, Rosebank (site of a proposed Brewery and national visitor centre and Falkirk Town Centre.

It should be noted that Scottish Enterprise has identified the potential requirement for additional investment to be made in site preparation works at Glenbervie. This site, owned by Scottish Enterprise has previously been held for a significant single user investment. It requires substantial up-front investment in site levelling, access and service infrastructure, but offers significant potential for the attraction of major single, or multi-user investment. It is suggested that this location offers the potential to be identified as an additional cluster to be finalised with Scottish Government through preparation of an additional Glenbervie cluster business case.

To assist with the delivery of the site enabling works programme, the Council has commissioned the production of an infrastructure and development plan, to be implemented to coincide with commencement of the TIF initiative.

4.3.1 Ownership considerations

The primary elements of work planned in the TIF initiative will take place on land currently held by the Council. In addition some agreements may require to be entered into to enable the Council to acquire assets for investment. While not envisaged at this time, the Council may need to enter into compulsory purchase agreements to ensure that some elements of work can progress.

It is understood that the Council under the prudential code cannot fund assets that are not owned or controlled by the Council or a council controlled company. With this in mind, there are likely to be some elements of the

construction work at motorway junctions where Transport Scotland currently own the land. These junctions are currently adopted by the Council as a local road and are therefore primarily under its control. Where these require to be widened or have signals installed, involving Transport Scotland owned land, agreements will be entered into enabling the additional land to be "adopted" by the Council, with the underlying ownership retained by Transport.

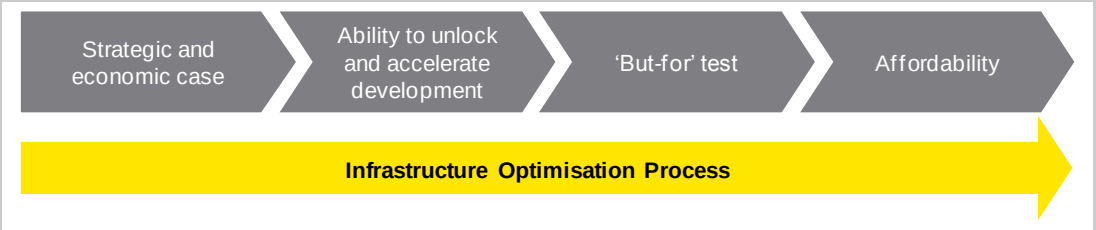
Conversely, at M9 junction 5, the westbound off slip may need to be widened onto land which Falkirk Council would purchase but which, following construction, may be adopted by Transport Scotland, with the Council retaining ownership however the preferred option would be to request special borrowing powers from Scottish Ministers.

A register of land interests required and progress in securing these has been commenced and this will be maintained over the course of the project's delivery.

4.4 Optimising the infrastructure investment plan

The long list of infrastructure projects outlined above was appraised for short listing into an optimised investment plan that would see the overall impact of TIF magnified, public and private sector asset delivery and economic growth accelerated and jobs created for the TIF FBC. A four step methodology was applied to appraise and shortlist the projects:

Figure 19: Four step optimisation methodology



Each step is considered below.

4.4.1 Step 1: contribution to the strategic economic development case

The review was undertaken within the context of the *National Planning Framework 2* and with the emerging new local plan developed within the *Upper Forth Planning Framework* ("UFPF").The UFPF Task Force was formed to ensure planning and economic development initiatives are suitably targeted. This group brings together parties including Falkirk Council, Scottish Enterprise, major local employers, industry bodies and others. In developing the FBC a number of planning sessions were held with representatives from the Task Force. These sessions strengthened understanding of the infrastructure needs of the area supplementing the project team's conversations with site developers and land owners. The Task Force has now engaged with Scottish Government and reports to the Enterprise Minister on delivery of the project. A particular focus on the regulatory issues involved in

the project, which are key to its delivery, is being led by Professor Russell Griggs.

4.4.2 Step 2: ability to unlock and accelerate development

Given that the Council is proposing a complex programme of infrastructure projects, it was important to understand how each infrastructure project linked to potential developments as well as taking stock of the wider programme impact and the indirect benefits such a programme could bring to development activity across the Falkirk-Grangemouth area.

With this in mind a 'heat map' matrix was devised to score the positive direct impact that each element of the proposed infrastructure programme would have at an individual development site level, in terms of potential to unlock and accelerate development. This was the subject of further analysis at FBC stage and was informed by the results of a further stakeholder survey.

This process identified the M9 Junction 3 Champany (Project F) and the A905 Grangemouth to Bo'ness Road Upgrade (Project H) as having the narrowest geographic spread of impact, primarily servicing a number of Bo'ness based projects. In turn the Bo'ness development sites had a low potential for NDR growth, being either limited in scope, scale or being almost exclusively residential in nature. As a result the Council decided to exclude infrastructure projects F and H from the TIF infrastructure plan and the Bo'ness based development sites from the redline area.

4.4.3 Step 3: passing the But-for test

The infrastructure projects were then subject to a But-for test, confirming whether intervention from the TIF scheme was necessary and in particular, that the strategic infrastructure would not be financed directly by private sector development, for example, through existing or proposed S75 agreements and that there was no alternative public sector funding available. Specific consideration was also given to whether such S75 contributions were acting as a barrier to development.

Junction 3 (Project F) failed this test. Its impact to the overall TIF was restricted to a number of marginal development projects in Bo'ness and would only become valid to consider should a significant development proposed within the West Lothian boundary secure planning consent. A precondition of this would be the developer funding the junction improvements, thus removing its need for funding under TIF.

Of the remaining infrastructure projects, M9 Junction 4 Lathallan (Project I) is similarly linked to the proposed developments at Gilston (Project 23) and Whitecross (Project 24).The Lathallan upgrade is planned for completion in phases to match the incremental growth in traffic linked to these developments. It is planned that these costs will be fully funded under S75 contributions recently put in place with the two respective developers. As a result, it is assumed that infrastructure Project I will be fully funded by the private sector and as a result does not form part of the TIF funding requirement. However as Junction 4 is an important linkage in the transport

connectivity programme provided under TIF, especially the proposed A801 improvements (Project J), it is referred to as part of the infrastructure programme being delivered by this Business Case, albeit developer funded.

4.4.4 Step 4: affordability modelling

The final test was that of financial affordability. This required an iterative financial modelling exercise to determine the optimal TIF infrastructure plan taking into account the annual cash flow implications for the Council, level of debt funding required and exposure to financial risks.

As part of this process, M9 Junction 6A Earlsgate 4 Way Junction (Project B) was removed from the infrastructure plan. This project has major potential impact for the port and surrounding area; however its cost was substantial with early cost estimates at £47m. More immediate benefit can be achieved through more limited and focused TIF funded infrastructure investment in the existing Junction 6 (Project C), rather than the creation of the 4 way Junction 6A.

Transport Scotland had previously indicated that it would be seeking to provide Junction 6A as part of a national programme. Remedial work to Junctions 5 and 6 (Projects C and D) would relieve the pressure until this time and this has been identified by the Council as the preferred investment plan for the TIF scheme. The approach suggested in this FBC has been agreed with Transport Scotland.

4.5 TIF infrastructure programme

4.5.1 Excluded projects

For the reasons noted above the following projects were removed from the finalised TIF infrastructure programme.

Figure 20: Infrastructure projects excluded from TIF

Reference	Project	Estimated Capital Costs £'000	Reason for Exclusion
B	M9 Junction 6A Earlsgate 4 Way Junction	47,000	Affordability
F	M9 Junction 3 Champany Upgrade	3,600	Failed but for test
H	A905 Grangemouth to Bo'ness Road Upgrade	3,000	Limited benefit at present
	Total	**53,600**	

4.5.2 Finalised list of TIF infrastructure projects

The finalised list of TIF infrastructure projects is summarised below.

Figure 21: Finalised list of TIF infrastructure projects

			Funding Source	
		Cost	TIF	Other
Reference	Project	£'000	£'000	£'000
A	Grangemouth Flood Protection	100,000	10,000	90,000
C	M9 Junction 6 Earlsgate Signalisation	2,191	2,191	-
D	M9 Junction 5 Cadgers Brae Signalisation	5,213	5,213	-
E	Icehouse Brae Upgrade	2,500	2,500	-
G	Westfield roundabout and A904	16,847	16,847	-
I	M9 Junction 4 Lathallan Upgrade	3,000	-	3,000
J	A801 Avon Gorge Upgrade	26,680	6,670	20,010
K	Development Site Specific Enabling Works	19,809	14,405	5,404
	Total	**176,240**	**57,826**	**118,414**

This demonstrates total TIF expenditure of £57.8m, which would be matched to a further £118.4m of external funding. This includes both national and local government funding, Transport Scotland, the National Lottery and private developers. In total this would deliver £176.24m of infrastructure. Negotiations with national bodies over the provision of match funding for infrastructure will continue over the course of the early stages of TIF delivery, with the means of securing match funding for the flood defences and Avon Gorge upgrade being key priorities. A summary of the proposed site enabling infrastructure is included in the table below.

Figure 22: Development Site Specific Enabling Works (Project K)

				Funding Source	
Reference	Project	Details	Cost	TIF	Other
			£'000	£'000	£'000
K1	Abbotsford	Off site road works	300	300	-
K2	Falkirk Gateway	Internal roads and utilities	6,930	6,930	-
K3	Stadium Site	Road access and utilities	4,975	4,975	-
K4	TIF development sites	Road access, public realm, services and utilities	2,000	2,000	-
K5	Wholeflats	Roads improvements and services	200	200	-
K6	Falkirk town centre	Public Realm Enhancements	5,404	-	5,404
	Total		**19,809**	**14,405**	**5,404**

This programme of interventions would see targeted investment in six projects, providing £19.8m of infrastructure investment, of which £14.4m would be funded directly through TIF. There are several development sites that are currently constrained and require assistance to be brought forward. The package includes a fund of £2m to support investment in development

sites where joint ventures with other public and private sector partners are required to stimulate development on these sites. The Infrastructure and Development Plan will confirm these requirements. The regeneration of Falkirk Town Centre will positively contribute to the place making agenda underpinning *My Future's in Falkirk* and help improve attractiveness and therefore inward investment into the area which in turn will aid the TIF investment return.

It is important that works at Falkirk and Grangemouth town centre are undertaken to complement the industrial and commercial activity arising as a consequence of TIF. Local population and business growth are anticipated to increase demand for town centre services and therefore works to upgrade the quality of the town centres will be an important asset to the TIF investment proposition.

Falkirk Town Centre's regeneration will be subject to public realm works of £5.4m in years 1-5 of the TIF programme. This project has already secured £2m from the Heritage Lottery Fund's Town Heritage Initiative. The sources for the remaining funding for this project have already been identified, including Historic Scotland and contributions from premises occupiers. The Council will commit £0.5m from its capital programme with a further £1.4m of gap funding to be secured to fully fund the works. This amount may be met by the Council should additional sources not be found.

At Grangemouth town centre, a procurement exercise is underway to attract a developer to assist with the regeneration of this 1960s centre. This involves the transfer of existing Council assets to contribute to the upgrade of the town centre and provision of new community assets. It is a vitally important project for the local community and businesses and complements the investment activity promoted by the TIF. Details of the scheme will be contingent on the results of the procurement exercise and TIF support is not currently anticipated to be required for the scheme.

4.6 Scheduling of infrastructure projects

Once the finalised infrastructure projects were agreed the scheduling of the optimal programming of projects was agreed. This was based on three key considerations:

4.6.1 Maximising cause and effect

Market demand assessments for development sites were carried out by Ryden and this data was linked to the strategic and site enabling infrastructure required to unlock and/or accelerate the developments. Where possible, infrastructure build-out was prioritised to ensure that major constraints to economic growth were addressed first, thus unlocking NDR growth at the earliest possible stage of the programme.

Optimising this schedule required the A904 Westfield Roundabout to West Mains project, to be sub-divided to ensure the phases addressed the

particular traffic flow and site access issues, reflecting the development build-out in the Falkirk Gateway and Stadium sites.

A full heat-map detailing the cause and effect assumptions that underpin the infrastructure optimisation process is included in Section 6.

4.6.2 Financial

Where possible, project cash flows were sculpted to ensure a steady funding requirement and avoid excessive, early stage, borrowing. This steady flow of infrastructure projects provides an obvious risk mitigation strategy and the credibility of genuine market demand for developments can be monitored as the respective phases of infrastructure progress. Failure of the TIF programme to deliver the required NDR growth can be assessed at regular stages and before the full infrastructure spend is committed. This provides a series of break points, an important element in managing overall project risk.

4.6.3 Technical feasibility

Many of the infrastructure projects contained in the TIF programme address the road linkages between areas of high economic activity and the motorway infrastructure. This series of linkages requires a methodical and phased build-out to ensure traffic disruption is minimised and pinch-points avoided in the course of delivering the scheme.

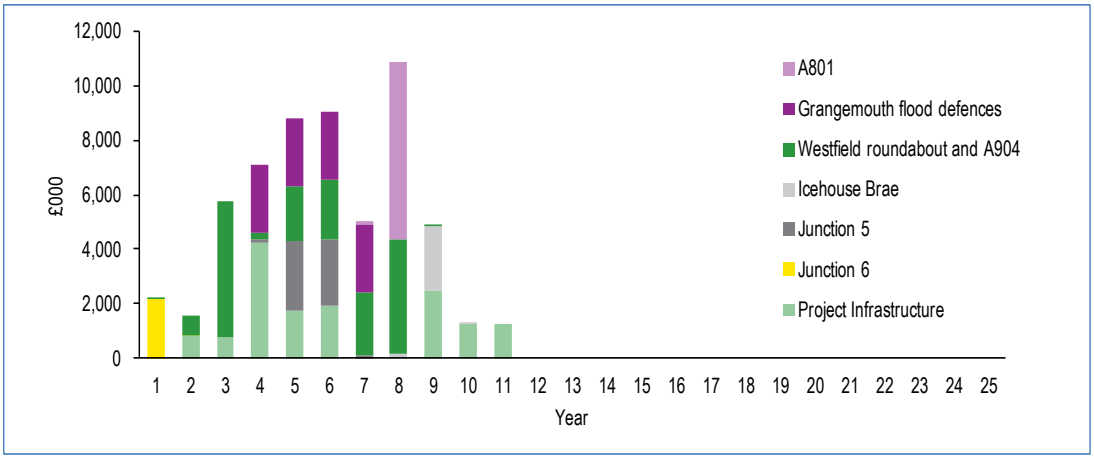
4.7 Delivery programme

The infrastructure programme will commence in April 2013 with initial works proposed at the upgrade to Junction 6.This is a key part of the M9 corridor network of road enhancements however its full scheduling is highly dependent on the delivery of adjacent works including the A905 Lifting Bridge, in order to avoid unacceptable levels of road disruption.

The programme would then deliver a steady build out of infrastructure with Icehouse Brae expected to be the last to complete, with an estimated completion date of financial year 2023.

Site enabling infrastructure would continue throughout the initial 10 year period of the TIF scheme and is closely linked to the specific demand requirements of the development programme. This phased build out is outlined below.

Figure 23: TIF infrastructure programme scheduling (real terms)



The programme sees a steady build out commencing in year 1 with Junction 6 works. The build out has a series of peaks with the highest expenditure in year 8, largely due to the assumed delivery of the A801 Avon Gorge. It is assumed that the overall programme completes in year 11.

Funding of the A801 Avon Gorge Improvements (Project J) and the Grangemouth Flood Defences (Project A) face uncertainty over co-funding and likely timescales. The scheduling of these two projects is viewed as indicative at this time. The Grangemouth Flood Protection will require ongoing investment from the Council's existing budgets to ensure the project can be construction ready if and when the necessary co-funding is achieved. The Avon Gorge Improvements are considered 'shovel- ready' and, as such, the project could be commenced at any point, once co-funding is secured.

The initial M9 Cluster would deliver the main local connectivity to the M9 and would commence in April 2013. As a distinct cluster, this can commence immediately, but has an inherent link to delivery of the Avon Gorge and Grangemouth Flood Protection clusters.

5. Funding of the Grangemouth Flood Protection Scheme

5.1 Introduction

The TIF project presents an opportunity for the Council to contribute to the funding solution for a major upgrade to flood protection for the Grangemouth area, which is considered to be of national priority. This chapter sets out the need for upgraded flood protection, the funding challenges and the potential use of TIF to access funding.

5.2 The flood protection area

The Council is deeply concerned about the lack of adequate flood defences and to move matters forward commissioned the Halcrow Group Limited ("Halcrow") in January 2010 as specialist technical advisors for the Flood Protection scheme. Halcrow's initial Phase 1 report mapped the area defined as the Falkirk Grangemouth Flood Protection Area, provided an assessment of flood risk in the area and set a high level cost estimate for the scheme of £100m, based on comparatively sized projects in England. The scale of the Flood Protection scheme is substantial.

Figure 24: Falkirk Grangemouth Flood Protection Area

Source: Falkirk Council/Halcrow

Halcrow's detailed Phase 2 report has recently been completed. It provides a more detailed flood risk assessment based on a range of flooding scenarios. Based on these findings, Halcrow and the Council are undertaking an options

appraisal to identify the high risk priority areas and allow a phased approach to delivering the flood defences.

At this early stage, the Council has produced an indicative infrastructure programme setting out a 4 year phase of consultation and pre construction works from 2013 followed by a potential 10 year phased design and construction programme from 2017 onwards. Halcrow has reviewed the Council programme and, based on its professional experience considers this achievable, but optimistic given the range of common restrictions and delays associated with flood protection works.

5.3 The need for upgraded flood protection

The provision of adequate flood protection in Grangemouth is vital to both the long term economic stability of the region and the wider Scottish economy. This headland into the Firth of Forth Estuary is home to the most significant element of petrochemical sector and the country's key port facility in Grangemouth which handles in excess of 10% of annual Scottish GDP. Much of the area is considered high flood risk and has inadequate flood protection and the provision of appropriate flood defences should be viewed as a national priority.

The petrochemical industry in Scotland is massed in Grangemouth. The alternative investment decision for existing and potential businesses is not where else in Scotland to invest but rather where else internationally. This assertion is corroborated by the TIF displacement work which assigns a very low displacement rating to the petrochemical sector. In other words, investment from the petrochemical industry is almost entirely additional and is not displaced from elsewhere in the country. A lack of action on flood defences acts as a disincentive to organisations to invest in the region as the risk of flood damage has not been addressed. Delays in delivery of the project may risk a gradual decline of the major industry players activities at Grangemouth. Such a scenario would have repercussions for the regional and national level economies. The importance of this issue has been confirmed in the work undertaken by the Grangemouth Regulatory Review Group, chaired by Professor Russell Griggs.

The potential environmental impact of flood damage to businesses in the chemical sector as a direct result of inadequate flood protection is an issue of national concern. Flood damage to the petrochemical sites could be significantly damaging to the area and to the wider environment of the Forth Estuary, parts of which are internationally recognised for the quality of their habitats. The risk of such damage is recognised in its highly protected status, monitored by SEPA and other bodies. The response to and clear up of any flooding would be a significant issue for SEPA, the local council and the Scottish Government.

The national importance of the area is already well supported by a variety of agencies. The inclusion of Grangemouth as a Potentially Vulnerable Area within the Forth Estuary Local Flood Risk Management Plan confirms that the Scottish Government and SEPA are aware of the issues facing the region.

Falkirk is also included in the 5 priority projects in Scottish Water's Quality and Standards investment programme for Integrated Catchment Studies.

5.4 TIF funding

A number of sites within the TIF redline are impacted by potential flood damage risk and development on a number of these sites may not proceed without upgrading of the current flood defences as this is a risk/barrier to investment.

This FBC suggests that the Council could potentially contribute up to £10m of funding towards the flood protection scheme through the TIF project with the debt funding repaid from the related NDR revenues generated from the development sites unlocked by this investment. The £10m is deemed an affordable limit within the existing FBC financial model and is viewed as a contribution to what is viewed as a national infrastructure project that lends itself to a predominately grant funded model in line with how the Scottish Government currently funds flood protection schemes across Scotland.

This funding could contribute or even kick start the delivery of appropriate risk focussed flood prevention measures in the area, de-risking investment decisions within the chemicals sector.

It is estimated that the surplus NDR revenues that could be generated from unlocked sites enabled by the provision of the flood protection scheme could be in the region of £6.28m after repayment of the Council's £19.67m borrowing and related interest.

There are a number of other synergies between the TIF project and the need for a national funding solution for the Flood Protection scheme:

- TIF is a key differentiator when comparing the flood protection scheme against other proposed flood protection plans across Scotland that also require grant funding. Connecting two large scale projects would be a strong demonstration of a coordinated local and central government strategy that efficiently and effectively draws best value from the available resources.

- The 25 year TIF timeline aligns with the potentially lengthy construction timeframe for the flood protection scheme

- TIF surpluses accruing to the Scottish Government offer a potential source of funding to contribute to the flood protection scheme and bolster the value for money case.

5.5 Summary

The provision of adequate flood protection for the Grangemouth area is a key priority at a regional and national level. Aside from mitigating the financial and environmental risk of flood damage, investment in flood defences would also send a strong signal to existing businesses and potential investors that long term investment in the region is supported by local and central government.

The scale of the flood protection cost and delivery timescales currently remains unclear with the £100m cost forecast by Halcrow very much an initial estimate. Greater detail on the scale of the issues involved and the potential solution are being developed but all indicators point to the cost of the scheme being significant. This FBC suggests that up to £10m could be made available from TIF to part fund the overall scheme. The Council is activity engaged in discussions with the Scottish Government and other partners to achieve a fundable solution.

6. Development Sites

6.1 Introduction

This section summarises the development sites included in the TIF scheme red line area.

The proposed TIF infrastructure programme is expected to unlock or significantly accelerate 27 identified development sites. Of these, a number were seen as being too speculative to provide the basis for reliable hypothecation of NDR. Detailed demand assumptions were made in respect of the remaining 16 development sites and the forecast of TIF related build out is summarised in the table below:

Figure 25: Forecast TIF related build-out by type

Sector	New floor space sq ft
Tourism and Leisure	247,500
Retail	294,452
Business	961,309
General Industrial	1,819,669
Port and Logistics	957,779
Chemical Sciences	464,400
Total	**4,745,109**

These development projects rely on TIF as the catalyst to their development and form the basis of our TIF revenue projections. They represent the focus of development activity that is anticipated to be accelerated and unlocked by TIF intervention. It is recognised that in a programme of this scale and complexity that a number of projects may happen without direct intervention. However the estimation of development that could happen (or 'deadweight') is considered to be low (refer to Section 8). This provides further rationale for the TIF, as the alternative is low levels of development, increased risk of disinvestment and a lost opportunity for the local and national economy.

To support this FBC, a detailed analysis of the development market has been undertaken, considering the area's Development Plan, site development plans and their links to the infrastructure plan. The analysis involved:

- Site-by-site review of short listed developments earmarked as core projects to support the Council's debt repayments (Appendix C)
- Projected development timescales over the 25 year period of the TIF scheme and related NDR assumptions, such as net internal areas, rent per floor area and occupancy levels. (Appendix C)
- A property market review (Appendix D)

Reference should be made to these appendices for the detailed assumptions underpinning the projected development.

Note: The projections and assumptions in relation to likely developments in the area and their phasing have been made in order to support the decision by the Council to borrow to invest through TIF in enabling infrastructure. In contrast the projections and assumptions are not planning decisions or planning policy or guidance.

If projects or developments are brought forward at different times than envisaged, the fact that the timing is different than is assumed in the business case will not be a bar to their progression. The projections and assumptions in the business case will not be relevant planning considerations and will not be given any weight in decisions which may be taken on planning applications relating to developments.

6.2 Identification and optimisation

The Council identified some 31 development sites as a long list for inclusion in the TIF. These were subject to appraisal for inclusion in the TIF scheme. This included:

- Assessing the potential impact on unlocking and/or accelerating development as a result of the planned infrastructure investment plan
- Consideration of property market supply and demand issues
- Review of available development appraisals
- Discussions with site developers and land owners
- Review of the local plan and relevant planning considerations.
- Evidence of market failure, demonstrating a ‘but-for’ case

Consequently, each development project identified for inclusion in this business case has been subject to market failure, with one or more of the TIF interventions expected to unlock or significantly accelerate built-out. The development status for these respective development projects is summarised below:

Figure 26: Status of TIF development projects

No	Description	Core	Current Status
1	Falkirk wheel	No	Specific development completely stalled
2	Tamfourhill development site	No	Specific development completely stalled
3	Rosebank	No	Specific development significantly delayed
4	Falkirk town centre	No	No advancement in development proposals
5	Williamson Street	No	Specific development completely stalled
6	Callendar Road	No	Development build-out significantly delayed
7	Mungalend	No	No advancement in development proposals
8	Abbotsford Business Park	Yes	No advancement in development proposals
9	Falkirk gateway	Yes	Specific development completely stalled
10	Caledon business park	Yes	Development build-out significantly delayed
11	Callendar business park	Yes	Specific development completely stalled
12	Stadium site	Yes	Specific development completely stalled
13	Helix	Yes	Development capacity constrained
14	Glensburgh	No	No advancement in development proposals
15	Earls Road	Yes	Development build-out significantly delayed
16	Wood Street	No	Specific development completely stalled
17	South Bridge Street	Yes	Development build-out significantly delayed
18	Grangemouth Docks (Z3)	Yes	Specific development completely stalled
19	Grangemouth Docks (Z2)	Yes	Specific development completely stalled
20	Grangemouth town centre	Yes	No advancement in development proposals
21	Grangemouth docks (Z4)	Yes	Specific development completely stalled
22	Wholeflats	Yes	Development build-out significantly delayed
23	Gilston	Yes	Development build-out significantly delayed
24	Whitecross	Yes	Development build-out significantly delayed
25	KinneilKerse	No	No advancement in development proposals
31	INEOS Site	Yes	No advancement in development proposals
30	Tillyflats	No	No advancement in development proposals

A primary tool in defining the connectivity between infrastructure interventions and resulting development activity was the use of a heat-map. This provided the basis for the Bo'ness development sites (projects 26 – 27) to be excluded due to their low correlation to the infrastructure programme. An illustration of this is included overleaf:

Figure 27: Cause and Effect Heatmap

Heatmap		Status	Grangemouth Flood Defences (A)	Junction 6 (C)	Junction 5 (D)	Icehouse Brae (E)	Westfield Roundabout to Westmains (G(i))	Gateway & Stadium A904 (G(ii))	A9 Distributor Road (G(iii))	A9 Lauriston Link Road Work (G(iv))	Junction 4 (I)	A801 (J)	Project Infrastructure (K)
1	Falkirk Wheel	N											
2	Tamfourhill Development Site	N											
3	Rosebank	N											
4	Falkirk Town Centre	N											
5	Williamson Street	N											
6	Callender Road	N											
7	Mungalend	N											
8	Abbotsford Business Park	Y											
9	Falkirk Gateway	Y											
10	Callender Business Park	Y											
11	Caledon Business Park	Y											
12	Stadium Site	Y											
13	Helix	Y											
14	Glensburgh	N											
15	Earls Road	Y											
16	Wood Street	N											
17	South Bridge Street	Y											
18	Grangemouth Docks (Z3)	Y											
19	Grangemouth Docks (Z2)	Y											
20	Grangemouth Town Centre	Y											
21	Grangemouth Docks (Z4)	Y											
22	Wholeflats	Y											
23	Gilston	Y											
24	Whitecross	Y											
25	Kinneil Kerse	N											
26	Bo'mains Industrial Estate	X											
27	Foreshore Site	X											
28	Drum Farm	X											
30	Tillyflats	N											
31	INEOS Site	Y											

Key

Impact

- No impact
- Marginal impact
- Medium impact
- High impact
- Critical impact

Status

- Excluded from project **X**
- Redline but not funding case **N**
- Included in funding case **Y**

Source: Ernst & Young

This optimisation process resulted in three classifications of development sites:

- Discount from the TIF scheme
- Include within the TIF scheme and place reliance on NDR revenues to support the funding case (i.e. revenues to repay the Council's borrowing). These are development proposals which are committed in planning terms and can have a timescale, development volume attributed to them.
- Include within the TIF scheme, but no reliance placed on NDR revenues to support the funding case (i.e. should these revenues be generated then these will accelerate the repayment of debt). These were primarily development proposals which are not yet committed but are at a sufficiently detailed stage of pre-planning to be noted as potential future projects.

An area of further consideration was investment activity at Grangemouth by the petrochemicals industry and by other major specialist land users. These NDR revenues are not included in the funding case for the TIF however a mechanism for capturing any resulting growth in these rates would be sought in the finalised TIF Agreement. This would include capturing the value in intensification within existing plant sites using the Depreciated Replacement Cost valuation method for NDR.

The results of this optimisation is that the funding case development sites were reduced to 16 core NDR revenue-generating development projects that support the Council's debt repayments. A further 4 development projects were discounted (mainly residential led within the Bo'ness area) with the remaining 11 included within the red line area. A detailed map showing the locations of the optimised list of development sites is included at Appendix A.

For the 16 core projects (assuming three distinct projects at the Grangemouth Docks), Ryden developed key assumptions for the financial modelling:

- Estimate of rental potential and occupancy levels for the proposed end uses
- Estimate of development timescales and build out rates.

This work is set out in Appendix C.

6.3 Specific issues

A number of key issues were considered in reviewing the development sites and are summarised below:

6.3.1 Falkirk Gateway

The revised plans for Falkirk Gateway used in this FBC to populate the development programme and financial model exclude Forth Valley College.

The College no longer intends to relocate and will instead redevelop its existing site, leaving a reduced area for new office development within the Gateway project. The College is currently reviewing options for site redevelopment and this site remains within the TIF redline area. The development potential of the site has been recognised in the Local Development Plan and a review of the proposals for the Gateway will be conducted via the preparation of the TIF Infrastructure and Development Plan. Prudent assumptions for delivery at the Gateway have been made on this basis.

6.3.2 Falkirk Stadium

Development at the Stadium is phased in this FBC over the long term. Three phases are over the 25 year period of the TIF and a final phase beyond this time horizon. Market assessment suggests there could be early win opportunities at the Stadium based upon current market interest and the planned completion of the Helix. This early development would comprise a hotel/ restaurant/ bar opportunity on a corner 'pod' or expansion land adjacent to the Stadium. Early development at the Stadium would send a clear signal to the market that the TIF programme will deliver more than simply advance infrastructure and will attract new investment too.

It has been an assumption of our infrastructure costings, that the initial pod for development would utilise existing site infrastructure and as such would not require site enabling intervention from TIF, with site enabling interventions forecast to correspond with likely demand for subsequent phases of the development site. However, the overall development benefits from the TIF's strategic infrastructure plans providing phased enhancements to the Westfield Roundabout, A904 and adjoining M9 Junction 4.

6.3.3 Helix

The Helix is an innovative project which aims to transform 300 hectares of under-used land between Falkirk and Grangemouth into a new high quality green space. The centrepiece will be "The Kelpies", a huge 30m sculpture of two horses heads which will be positioned either side of the Forth and Clyde canal.

Driven by a partnership of Falkirk Council, Scottish Canals, and Central Scotland Forest Trust, The Helix has been awarded a £25 million grant by The Big Lottery Fund, with total phase one development costs in the region of £43 million.

The proposed Helix site will initially provide a limited amount of retail and catering facilities however its main impact for the TIF project is its significant tourism (300,000 visitors anticipated annually) and place making potential. This will provide a signal of the economic transformation being promoted in the area, stimulated by the TIF and contributing towards enhanced business growth across the area.

6.3.4 Canal related development – Falkirk Wheel/Portdownie/Rosebank

Falkirk is at the intersection of the Forth & Clyde and Union canals and as a result a number of canal related developments are being pursued in the Falkirk area. A cluster of opportunities exists in the west of Falkirk Council's territory, at Falkirk Wheel, Portdownie and Rosebank, (where a proposal has come forward to establish a brewery and associated visitor centre).A canal hub development is also proposed at the eastern end to the south of Gilston. These sites could potentially contribute additional NDR revenue and will add to any assessment of tourism-related economic development potential across the Council area.

6.3.5 Falkirk Town Centre

Falkirk Town Centre was the only Scottish town centre to receive funding under the recent round of the Heritage Lottery Fund's Town Heritage Initiative (THI). This will provide initial THI funding of £2m. Combined with co-funding and support, this could increase to £5m, involving other sources of funding, including Historic Scotland £1.6m) and a contribution from Falkirk Council. There remains an overall £2m funding gap in this funding package which would be specifically addressed by TIF and this investment forms part of the overall place-making objective to upgrade amenities to help support inward investment to the area.

This will see improvements to town centre public realm which, when combined with improvements to transport connectivity will reinvigorate the town centre. However, there is little potential for additional growth in the town centre and, as incremental growth is not included in this business case, no TIF NDR income has been modelled in respect of the town centre.

6.3.6 Caledon

The Council has highlighted that there is under-provision of distribution and logistics space within the TIF programme area in comparison with the economic development potential of the area around rail/ port/ road (tri-modal). Sites such as Caledon and Tillyflats offer the potential to accommodate Class 6 rather than Class 5 development should market conditions dictate. It is intended that further work is undertaken via the Infrastructure and Development Plan to confirm the means of making these sites effective for delivery during the period of the TIF. However, from a TIF perspective an assessment of likely economic and NDR growth has been based upon the current understood potential for the site.

6.3.7 West Mains Industrial Estate

This prominent site is not included in the current TIF programme as it is mainly occupied. The estate is however ageing and during the 25 year life of the TIF scheme is expected to be affected by obsolescence and potentially relocations, requiring new development to sustain NDR revenues. The site is disadvantaged by a significant traffic choke points at its entrance, on the A904 approach to the Junction 6 Roundabout, and would receive considerable development potential should improvements to Junction 6 (Project C) and the A904 (Project G) go ahead.

6.3.8 Gilston

This 90 acres development site at Gilston has planning consent and an updated masterplan for its development is currently being considered in a planning application submitted to the Council.

The associated developer contribution would fund the first phase of Junction 4 (Project I) roundabout signalisation, an integral part of the M9 connectivity enhancements provided under the TIF programme. The project has an important role to play in the land supply for business in the area, presenting opportunities for development linked to growth taking place at Grangemouth. The site's development potential is significantly enhanced by its connectivity to Falkirk and Grangemouth at Junction 5 (Project D), with additional connectivity provided by the Avon Gorge project (Project J).

6.3.9 Whitecross

The mixed use, sustainable settlement development at Whitecross has significantly stalled due to the current market conditions. The site is primarily residential; however it contains a significant amount of business space and is the focus of a joint venture with the University of Stirling to provide an Enterprise Centre. These are largely dependent on the housing phases progressing. A key assumption in our NDR hypothecation is that, by addressing the fundamental shortcomings of the A801, this site would be opened up to commuting to a wider range of employment centres, including Livingston, Bathgate and Eurocentral.

As such Whitecross is included as part of the A801 Avon Gorge Improvements Investment Programme and is fully addressed in Section 7, Investment Clusters.

6.3.10 Flood risk

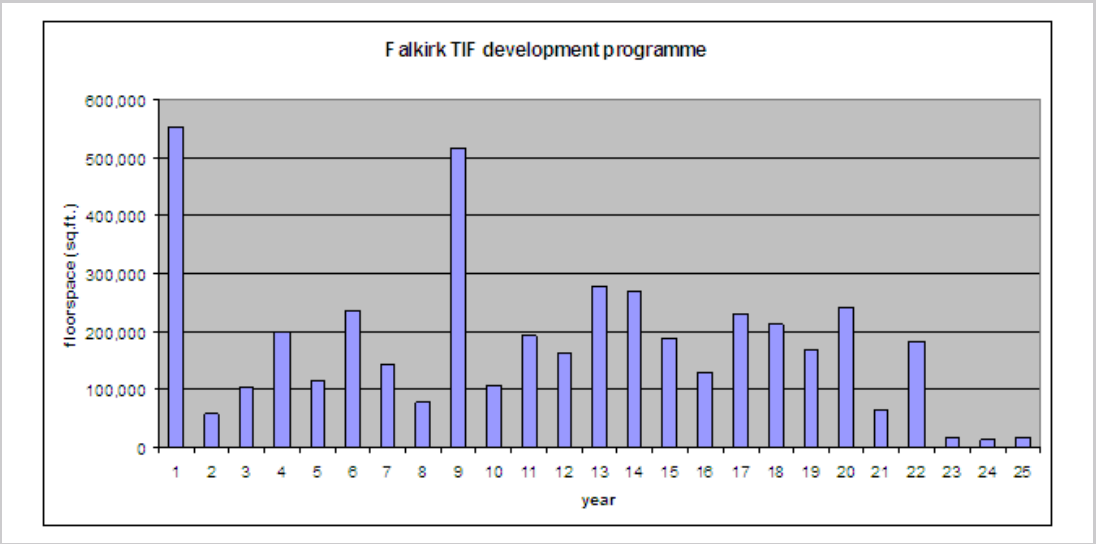
A number of sites are seen as being at high risk to flooding whether estuarial, or fluvial risk emanating from the rivers Avon and Carron. Some are treated as critically dependant on the proposed Grangemouth Flood Protection.

6.4 TIF development programme

The development projects assessed in this section represent a substantial, long term development programme for the Falkirk Council area. In economic development terms this programme is supported by the comparatively strong economic performance of the region and by both regional (*My Future's in Falkirk*) and national (National Planning Framework 2/Upper Forth Development Framework) strategies. The TIF initiative is the catalyst for development, pump-priming and enabling investment to come forward in a targeted and accelerated way.

The table below illustrates the programme development rate on an annual basis. The source data for both charts is the development programme which is also included in Appendix C.

Figure 28: Development programme



Source Ryden LLP

Demand forecasts to calibrate this programme against are currently difficult to find. Long run forecasts for the Falkirk area by consultants including Oxford Economics, SLIMS, DTZ and Ryden were produced pre-recession.

Annual average take-up of industrial property across the Falkirk Council area is 206,000 sq.ft. The TIF programme proposes 42,000 sq.ft. per annum general industrial accommodation, which is 20% of the historic take-up rate. This industrial property development volume appears to be realistic and prudent.

Office take-up historically has averaged 34,000 sq.ft. per annum. The development programme includes 29,000 sq.ft. per annum new-build offices. This is equivalent to 85% of historic take-up, which includes both new-build and second hand office accommodation. Delivering this scale of office development would require continued economic growth particularly in the service sector sufficient to support successor business locations to the likes of Callendar Business Park.

The development programme is a result of the modelling undertaken and in reality the timeline and mix will change – for example the INEOS site may present earlier development opportunities while sites such as the Falkirk Gateway and Caledon Business Park are expected to change their development mix as the next market cycle emerges.

Whilst the delivery of development floor space seems long compared to the 11 year infrastructure delivery timeframe, this is driven by the cumulative impact of the TIF programme as well as the respective site unlocking impact. As such, initial phases of infrastructure works will unlock development and this continues over time as the true benefit of the connecting infrastructure programme is delivered.

6.4.1 Rental growth potential

A forecast growth rate is required to apply to the predicted rental income within the TIF model. Rents indicated for each development project are as at Spring 2012 and would, over the long term, be expected to grow.

The property market is highly cyclical. Calculations of “average” rental growth vary according to when the analysis starts and ends. For example recent short term growth in many sectors has been:

- 4.1% per annum rental growth for retail property
- 3.3% for office property
- 2.8% for industrial property

These growth rates for prime property conform with economic theory. Stock inelasticity means that long run rental growth exceeds inflation. Retail property stock is least elastic, followed by offices then industrial property.

The TIF development programme will provide new-build property which should have good rental and rental growth potential, although Falkirk and Grangemouth may not exhibit the same rental growth rates as major city property markets. A prudent approach to rental growth is taken here and the rate is simply assumed to keep pace with inflation over the long run, at 2.5% per annum. Rental performance will of course be determined by market conditions and will not occur in a straight line. It will also vary between property sectors and locations.

6.5 Basis of NDR projections

TIF NDR revenues are estimated by applying the rates poundage to rental values.

The Uniform Business Rate (“UBR”) from 1 April 2012 to 31 March 2013 is 45p per pound of estimated rental value. This UBR may or may not change at Falkirk TIF’s proposed commencement date of 1 April 2013. It is not possible to second-guess what the next UBR will be or how it will change over 25 years, therefore it is assumed to remain at 45p but is subject to sensitivity tests in the financial model.

The overall UBR of 45p in the pound is subject to supplements for large businesses and large retail stores which are licensed to sell alcohol and registered for the sale of tobacco. There are also reliefs available for some types of vacant premises and potentially a deferral scheme too. UBR adjustments will vary over time and many are de minimus, so for the purposes of the TIF model the relevant data have been provided to Ernst & Young for inclusion or exclusion as appropriate.

Estimated rental values for existing properties are set out in the Valuation Roll (available at www.saa.gov.uk). Most of the development proposals in Section 6 do not yet exist and are not listed on the Valuation Roll. Therefore the

estimated rental values used for the full business case are the rents provided by Ryden. These are predicted rents for future developments and the degree of uncertainty inherent in market forecasting makes it prudent to apply sensitivity tests in the financial model.

6.5.1 Investment by the chemicals sector in existing sites

In addition to the base case development proposals reviewed in Section 6, there are specialist valuation subjects in Grangemouth which merit particular consideration. These were not included in the TIF outline business case.

As part of the recent *Upper Forth Development Framework*, Scottish Government and Scottish Enterprise confirmed major recent and ongoing investment by the petrochemicals industry at Grangemouth. This involves intensification of existing activities through capital expenditure on plant, processes and premises. Such capital investment should in turn affect the depreciated replacement costs used to determine rateable values via the Contractor's Method. This cost-based approach to assessing properties' rateable values is used for specialist rating subjects where there is no open market.

Consequently, NDR revenues will be increased by continual reinvestment, intensification and diversification by major companies such as BP and INEOS and other large employers within the Grangemouth petrochemicals sector.

TIF-funded strategic infrastructure is linked to this petrochemicals sector re-investment via the "but for" case. The case is made through the *Upper Forth Development Framework*, confirmation of planning constraints on development by Falkirk Council and ongoing TIF consultation surveys with industrial companies.

SE data on major investment by chemicals companies in Grangemouth identifies at least £200 million of capital expenditure in seven major assets over the past 3 to 4 years. Data is confidential but some of the companies who have invested include INEOS, Syngenta, Fujifilm and Dow. The uplift in rateable value across the seven assets at the 2010 revaluation was £7.766 million or 37%. INEOS is the major asset and accounts for 83% of 2010 rateable value. It is important however to note that most of these rateable values are subject to appeals which have yet to be determined.

This analysis is historic and concerns capital investments increased rateable values in 2010. For the TIF to benefit from additional NDR revenue at the next revaluation in 2015 and also subsequent revaluations, a capture mechanism requires to be established. This will require to:

- Confirm and agree with Scottish Government / SFT specific assets to monitor
- Track economic activity and investment in these (and any new assets)
- Confirm new rateable values at each revaluation (post any appeals)

- Apply the appropriate rate poundage to rateable values
- Deduct any baseline growth in values between 5-yearly revaluations
- Apply the single blended displacement figure (and any agreed deadweight applicable to the particular investment based upon monitoring)

These steps will yield the net additional NDR revenue which it is valid to capture for the TIF. This is a matter that will be progressed via the TIF Executive Board once established, the structure of which is addressed in Section 13.

7. Displacement

7.1 Introduction

Displacement in the context of TIF is the measurement of economic activity and associated business rate revenues that are likely to be displaced from areas outwith the TIF redline from other parts of Scotland. Displacement is measured in percentage terms and represents a deduction from the gross incremental business rate revenues generated in the redline area. This deduction is to ensure that at a national level, Scottish Government is in a no worse off position due to the impact of TIF and any related displaced economic activity.

The calculation of the displacement rate for the Falkirk TIF builds upon a series of different reference points and the methodology can be summarised as follows:

- Initially, a desktop review and analysis of displacement assumptions was undertaken based upon Scottish Enterprise's additionality guidance which is the basis of the TIF approach to additionality[1]. This approach also incorporates the analysis, outcomes and findings of a wider economic impact assessment commissioned by Scottish Enterprise in 2011 in relation to the Upper Forth Development Framework.

- From the base position outlined above, the findings and potential impacts were further refined through a targeted TIF stakeholder survey. The survey sought responses based upon the likely level of development that would be enabled by the TIF, and the related counterfactual, and the potential positive and negative impact of the proposals. This allowed the responses to be analysed and enabled the refinement of the desktop analysis to reflect the likely impact of the TIF proposals.

- Following this, a weighting was applied to the results by end land use to produce the TIF required single displacement rate for the business case.

7.2 Desktop review

The initial displacement assumptions that were identified build upon generic displacement levels for each land use at both a national level (Scotland) and local level (wider Falkirk and surrounding area level) are summarised below.

[1] Scottish Enterprise, 2008, *Additionality & Economic Impact Assessment Guidance Note*

Displacement

Figure 29: Desktop review displacement assumptions

Type	Assumption Scotland level	Displacement	Assumption TIF level	Displacement
Tourism / Leisure	35%	Low/Medium	25%	Low
Retail	75%	High	50%	Medium
Business space	50%	Medium	25%	Low
General industrial	35%	Low/Medium	25%	Low
Port and logistics	35%	Low/Medium	25%	Low
Chemical sciences	25%	Low	25%	Low

Source: Ernst & Young

These are based upon a series of base assumptions as set out in the Scottish Enterprise additionality guidance note. The conclusions from this exercise were that the trend was towards a lower level of displacement than the national starting point, with the exception of retail space (which reflects that of other publicly available TIF business cases). This initial analysis was informed by benchmark data and from the findings of the Upper Forth Development Framework. This Framework confirmed the economic potential of the area, focussing in particular on its unique combination of port, logistics and petrochemicals infrastructure, which given their competitive importance to Scotland, see the level of displacement mitigated given the likely types of future development coupled with competing sites often being outwith Scotland.

To further the assessment, and ensure the economic impact assessment reflects the actual TIF project, a stakeholder survey was undertaken to support a greater degree of relevant and more detailed, TIF project specific assumptions.

7.3 Stakeholder survey

The economic impact assessment survey was used to obtain the views of a range of experts and stakeholders about the benefits and negative impacts of the TIF proposals and are summarised in Appendix E to this main report. The survey questions, interpretation approach and consultation list was assembled in consultation with SFT.

Respondents were asked to assess what impact developments in specific sectors might have upon existing local and regional competitors. The 19 respondents comprised of representatives from:

- Adjoining local authorities (5)
- Economic development organisations (6)
- The tourism industry (2)

- Major local employers (5)
- Economic development consultants (1).

The survey picked up a broadly-held consensus that the investment programme will bring economic benefits to such an extent that these will greatly offset the limited negative impacts on existing businesses. This includes a forecast limited impact within surrounding regions and at a national level.

The results of the survey were assessed and used to inform the selection of appropriate displacement rates by sector for the TIF project. The table below sets out the likely displacement impact by sector derived from the survey results.

Figure 30: Survey results on displacement by sector

Sector	Displacement
Tourism	Very low
Retail	Medium
Business space	Low
Port and logistics	Very low
General industrial	Low
Chemical science	Marginal

Source: TIF Survey Results

We then applied the qualitative results of the survey to the Scottish Enterprise guidance displacement rates and the desktop exercise to derive a revised displacement rate at a property type level, specifically based upon the TIF project. The outturn displacement rate derived from the economic impact assessment is shown in the table below.

Figure 31: Revised displacement assumptions based on the survey

Sector	Revised per survey result
Tourism / Leisure	10%
Retail	50%
Business space	21%
General industrial	21%
Port and logistics	10%
Chemical sciences	5%

Source: Ernst & Young

The basis for the revised displacement rates can be summarised as follows:

Tourism / Leisure: The developments proposed are tourism-related commercial schemes; therefore, the standard displacement for a local level was 25%. Survey respondents made a strong case that the new tourism assets anticipated (e.g. Helix) will be an additional part of the portfolio rather than significantly displacing activity from elsewhere and unique to the leisure assets within the TIF redline (such as the Falkirk Wheel). Consequently, displacement would be very low, supporting a reduction to 10%.

Retail: Survey results for retail range from low benefits to low adverse impacts. Raising overall economic activity will benefit both new and existing retail locations. Despite these balanced views, the survey results do not claim any major beneficial economic impacts from retail development therefore the medium displacement rate of 50%, supported by the desk top analysis, is adopted. This is reflective of other local authority TIF projects.

Business space: Survey respondents believe that new business space will bring economic benefits through rising economic activity and the creation of prime markets which are currently weak in the Falkirk Council area. The only displacement risk would be if there was over-provision of similar development across the wider property market. The survey results suggest low displacement and support using a marginally lower rate than the desk top analysis of 21%.

The primary reason for this being that the space will be related to the logistics, chemicals and ports sectors, and as such given the concentration of these industries within the Falkirk area and competing locations being in Northern England and globally (in the case of the chemicals sector), will have a limited impact from a business rates displacement sense.

General industrial: The survey included responses from the manufacturing and wider business community which welcomed the TIF as a way of enhancing the road connectivity to the M9, which would make significant difference to business operations. In particular, addressing necessary road enhancements would remove the current market failure concerning developer contributions. While new developers are required to make contributions, which often prove an investment disincentive in the current market, there is not sufficient additional development take-up to make S75 contributions a credible funding source for the necessary significant infrastructure projects. Faced with the cost of developer contributions, but no likely resolution to associated infrastructure shortcomings, developers are deterred from investing.

Consequently, in many cases, S75 contributions are currently seen as a barrier to expansion in the area. The survey results suggest low displacement with the expectation that a significant proportion of local general industrial businesses were involved in the supply chain for the chemicals hub and would grow in response to the TIF investment enabling

further expansion of the chemicals industry. This supports using a marginally lower rate than the desk top analysis of 21%.

Port and Logistics: The survey work demonstrates a wide range of responses skewed towards beneficial economic impacts. The upper end of the beneficial impact range primarily applies to Grangemouth Docks and related businesses. The Port is generally non-displacing across East Central Scotland and drives the wider supply chain, where some displacement may occur through business location/relocation decisions and competition for contracts. A key geographic consideration is that the nearest major competing port is south of Grangemouth at Teeside, a road distance of over 165 miles. Based upon these findings a reduction in the displacement rate to a very low figure of 10% is applied.

Chemicals: Survey results indicate this is the least displacing sector. Each of the chemicals industry companies at Grangemouth operates in a niche market sector and competes internationally for contracts and new investment, rather than with other companies locally, regionally or nationally. During the interview process specific industry respondents spoke of zero displacement. However, a prudent assumption of a marginal 5% displacement is suggested rather than opting for zero.

7.5 Weighted average displacement rate

In line with SFT's guidance note, a single blended rate should be calculated for the TIF scheme and this should be based on a weighted average basis to give a "no better no worse" outcome than the individual figures for different property types as per the development programme.

The table below shows the displacement rate blended across the property types with reference to the floor areas from the projected TIF development programme. Weighting is on the basis of total floor area.

Figure 32: Blended rate calculation

Sector	Displacement rate	Floor area Sq.ft.	Weighted average by floor area	Blended
Tourism / Leisure	10%	247,500	5.2%	0.5%
Retail	50%	294,452	6.2%	3.1%
Business space	21%	961,309	20.3%	4.3%
General industrial	21%	1,819,669	38.3%	8.0%
Port and logistics	10%	957,779	20.2%	2.0%
Chemical sciences	5%	464,400	9.8%	0.5%
		4,745,109	100.0%	**18.4%**

Source: Ernst & Young / Ryden

The blended rate produced from the displacement analysis is **18.4**% and it is proposed that this be adopted as the appropriate displacement rate for the TIF project.

8. Economic Output Analysis

8.1 Introduction

This section sets out the projected economic outputs TIF scheme. An integrated financial and economic model has been developed by Ernst & Young which calculates the projected economic outputs arising from the planned TIF construction and development activity.

In a separate engagement Scottish Enterprise appointed Roger Tym & Partners to provide an economic impact analysis on the impact of the Falkirk-Grangemouth Upper Forth Development Framework. The assumptions used by Roger Tym & Partners have been used to support the economic assumptions set out in this section.

8.2 Economic output summary

The economic modelling of the projected economic benefits that can be attributed to the projects with the TIF scheme is set out below. This is a high level analysis and is intended to demonstrate the potential economic benefits over the 25 years of the project. Further work would be required to present a more complete picture of the projected results as more details of the schemes became available. Our economic modelling covers the three investment clusters:

- M9 corridor
- Flood protection scheme
- A801 Avon Gorge.

It should be noted that economic impacts shown below relate to the TIF infrastructure and development projects in their entirety and not just the TIF funded elements.

Figure 33: Comparison of economic outputs by investment cluster

Metric	M9 corridor	Flood protection	A801 Avon gorge	All three programmes
				Construction phase outputs
Construction jobs (FTE)	3,227	1,920	657	5,804
Construction GVA (£000)	161,565	96,116	32,921	290,602
				Longer term economic outputs
Business space (sqm)	307,598	80,224	21,843	409,665
Hotel bedrooms	60	-	-	60
Additional gross jobs (FTE)	8,703	1,070	876	10,649
Net national job impact (FTE)	4,331	1,220	432	5,983
Net local job impact (FTE)	6,345	1,326	634	8,305
Annual GVA (£000)	225,871	161,097	27,841	414,809

Source: Ernst & Young

Whilst economic impacts are broken down by investment cluster for the purposes of this business case, it should be noted that in reality, impacts are not so easily broken down and attributed to individual clusters due to the highly inter-related nature of the TIF assets and the private sector investment that they enable.

Significant economic benefits are projected to be realised for the Scottish economy. The TIF scheme will be able to leverage substantial private sector funding for the development. The leverage potential is summarised below.

Figure 34: Private sector development leverage

	TIF scheme funding	Development construction costs
Expenditure (uninflated £m)	£58m	£413m
Ratio of TIF spend to private sector development value	£1.00	£7.14

Source: Ernst & Young

The TIF infrastructure investment of £58m is projected to attract £413m of private sector funding. In respect of development site investment, this represents leverage of £7.14 for every pound that is invested in the TIF scheme.

The economic outputs resulting from construction activity associated with the TIF related infrastructure and development programmes are analysed further below.

Figure 35: Construction outputs by infrastructure project and development programme

Project	Project name	Construction costs (£000)	Construction jobs (FTEs)	Construction GVA (£000)
A	Grangemouth flood defences	100,000	1000	50,061
C	Junction 6	2,191	22	1,097
D	Junction 5	5,213	52	2,610
E	Icehouse Brae	2,500	25	1,252
G	Westfield roundabout and A904 improvements	16,847	168	8,434
I	Junction 4	3,000	30	1,502
J	A801	26,680	267	13,356
K	Project Infrastructure	14,405	144	7,211
	Total infrastructure outputs	**170,836**	**1,708**	**85,523**
	Development sites	409,666	4,097	205,083
	Total construction outputs	**580,502**	**5,805**	**290,605**

Source: Ernst & Young

Over the life of all three infrastructure and development programmes, 5,805 construction jobs would be achieved generating related construction GVA of £291m.

A premise of the Falkirk TIF is that the infrastructure programme of interventions will unlock or accelerate development across the 27 sites included within the redline. The resulting longer term economic outputs associated with all development sites are summarised in the table below.

Figure 36: Programme level economic benefits, based on all development projects

Metric	Output
Business space (sq. m)	409,666
Hotel bedrooms	60
Additional gross jobs	10,649
Net national job impact	5,984
Net local job impact	8,304
Annual GVA (£000)	414,809

Source: Ernst & Young

The TIF scheme has the potential to generate 10,649 gross jobs which represents 8,304 additional jobs at the regional Falkirk level (and 5,984 when measured at a national level) and generate £415m of additional annual GVA to the Scottish economy as sites are developed over the life of the TIF scheme. The sites would see some 409,666 sqm of new business space created and a new hotel in the area. The potential for further accommodation is acknowledged, but has not been modelled. The positive impact on place making and tourism for the area has not been captured in this analysis.

This represents a significant boost to the local and national economy and goes a long way to achieving the Council's economic and social ambitions for the area and its residents. The table below analyses the economic benefits at development site level.

Figure 37: Project level economic benefits, based on the development projects

Project name	Business space (sq.m)	Hotel bedrooms	Additional gross jobs	Net national job impact	Net local job impact	Annual GVA (£000)
Abbotsford Business Park	21,281	-	469	314	371	14,056
Falkirk gateway	33,369	-	1,756	425	1,135	28,397
Callendar business park	4,580	-	241	123	175	8,226
Caledon business park	30,555	-	634	422	495	28,898
Stadium site	12,176	60	641	327	465	21,869
Helix	697	-	37	-	16	-
Earls Road	56,572	-	917	699	758	28,305
South Bridge Street	6,048	-	90	69	74	4,779
Grangemouth Docks (Z3)	20,067	-	300	239	253	7,936
Grangemouth Docks (Z2)	22,199	-	331	265	280	8,779
Grangemouth town centre	11,338	-	644	152	393	10,165
Grangemouth docks (Z4)	46,714	-	697	557	588	18,474
Wholeflats	2,270	-	119	61	87	4,077
Gilston	48,050	-	2,036	810	1,416	50,767
Whitecross	21,843	-	876	432	634	27,841
INEOS Site	71,906	-	861	1,090	1,166	152,241
	409,665	**60**	**10,649**	**5,985**	**8,306**	**414,810**

Source: Ernst & Young

The high impact sites are INEOS (£152m GVA), Gilston (£50m GVA), Caledon (£29m), Earls Road (£32m) and Falkirk Gateway (£28m GVA) generating around 77% of total forecast GVA.

The GVA results for INEOS site reflect the high GVA per employee generated due to the highly skilled and specialist nature of the chemicals industry. An average GVA per employee of £170,000 is assumed compared to the average of £45,649 across the other development sites.

8.4 Supporting assumptions

The majority of the economic assumptions used within the TIF economic model are based on the work done by Roger Tym& Partners in developing the *Economic Impacts of Falkirk-Grangemouth Development Framework* report.

The assumptions have then been refined using the SE and EP methodology[2] and are detailed below.

8.4.1 Employment densities

The employment density assumptions are used to calculate the gross jobs that will be created for each sector. A range of economic impact metrics are then applied to the gross job figure to calculate the employment impact at the

[2] Scottish Enterprise, 2008, *Additionality & Economic Impact Assessment Guidance Note*
English Partnerships, 2008, *Additionality Guide third edition*

local and national level. The table below details the employment density assumptions that are used within the model.

Figure 38: Employment densities

Sector	Detail	Metric
Industrial and warehousing	19	Sqm per employee
Warehousing	16	Sqm per employee
Office	19	Sqm per employee
Retail	19	Sqm per employee
Chemical	100	Sqm per employee
Hotel	2	Bedrooms per employee

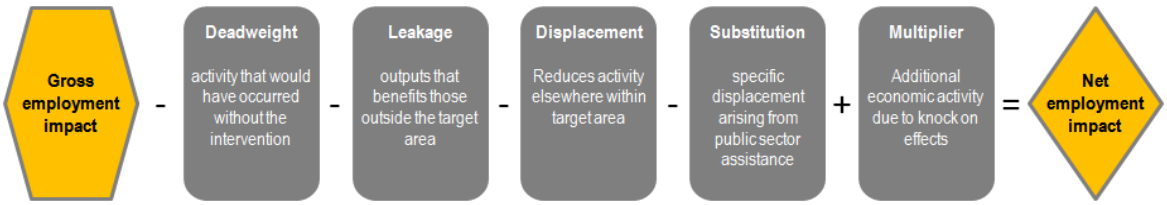
Source: Roger Tym& Partners (2011)

8.4.2 Employment impact assessment – measuring additionality

This section details the adjustments that are made to the gross employment figures to determine the employment impact at a local (Falkirk) and national (Scottish) level.

The methodology used to calculate the additionality is based on the additionality and economic impact assessment guidance note 2008 from Scottish Enterprise shown below.

Figure 39: measuring additionality



The assumptions to calculate deadweight, leakage, displacement, substitution and multiplier impacts are outlined in the remainder of this section.

8.4.3 Deadweight

Deadweight takes into consideration the benefits that would have occurred without the intervention, for example where a new business would have set up within the area regardless of the intervention.

A calculation is made based on a percentage of the benefits that is a direct result of the intervention and an adjustment is made that reduces the benefit where it would have occurred otherwise. The deadweight assumptions are detailed below.

Figure 40 Deadweight assumptions

Type	Assumption National	Impact	Assumption Local	Impact
Industrial	35%	Low	25%	Low
Warehousing	35%	Low	25%	Low
Office	35%	Low	25%	Low
Retail	35%	Low	25%	Low
Chemical	25%	Low	15%	Low/Marginal
Hotel	35%	Low	25%	Low

Source: Scottish Enterprise Methodology / Roger Tym& Partners Assumptions (2011)

The underlying assumptions are that a low level of activity is anticipated without the intervention of TIF. This reflects market conditions and the critical constraints to the area's economic infrastructure which TIF is designed to help overcome.

The assumptions above do not reflect the ability of the TIF to accelerate development activity. We have not sought to measure the acceleration effect on economic outputs in this business case. However, given the recent levels of development, even in a strong market, the level of deadweight would again be seen as low.

8.4.4 Leakage

Leakage is the proportion of benefits that go to those outside the intervention area, for example people from outwith the target area are employed in the newly created positions.

A calculation is made based on the percentage of the benefits that remain within the target area and an adjustment is made that reduces the amount of benefit should it go outside the target area. The leakage assumptions are detailed below.

Figure 41 – Leakage assumptions

Type	Assumption National	Impact	Assumption Local	Impact
Industrial	35%	Low	25%	Low
Warehousing	35%	Low	25%	Low
Office	50%	Medium	25%	Low
Retail	100%	Full leakage	50%	Medium
Chemical	25%	Low	10%	Marginal
Hotel	100%	Full leakage	50%	Medium

Source: Scottish Enterprise Methodology / Roger Tym& Partners Assumptions (2011)

8.4.5 Displacement

The displacement assumptions are detailed below.

Figure 42: Displacement assumptions

Type	Assumption National	Description	Assumption Local	Description
Industrial	35%	Low	25%	Low
Warehousing	35%	Low	25%	Low
Office	50%	Medium	25%	Low
Retail	75%	High	50%	Medium
Chemical	25%	Low	10%	Marginal
Hotel	35%	Low	25%	Low

Source: Scottish Enterprise Methodology / Roger Tym& Partners Assumptions (2011)

It should be noted that with reference to the section seven, then the methodology for calculating the displacement of business rates (the TIF blended rate) is different from that used to calculate the net additional jobs impact. As a result different displacement rates prevail primarily due to the use of the TIF stakeholder survey to refine displacement for the purpose of establishing the blended rate for business rates impact.

8.4.6 Substitution

Substitution occurs when a firm substitutes one activity or job for another to take advantage of public sector assistance, for example, a business renting premises relocates to accommodation provided at a subsided cost. A calculation is made based on the percentage of the benefits that could be substituted and an adjustment is made that reduces the amount of benefits were substitution occurs within the target area.

No substitution is deemed to have occurred under any option.

8.4.6 Multiplier

The multiplier effect measures the further economic activity that occurs as a result of the intervention, for example, a new business will use suppliers within the target area. A multiplier is used to calculate the additional economic activity that the intervention will create. A calculation is made based on the additional expected benefits and an adjustment is made that increases the amount of benefits to the target area. The multiplier assumptions are detailed below.

Figure 43: Multiplier assumptions

Type	Assumption National	Assumption Local
Industrial	1.52	1.25
Warehousing	1.52	1.25
Office	1.63	1.31
Retail	1.52	1.25
Chemical	1.63	1.31
Hotel	1.52	1.25

Source: Roger Tym and Partners (2011)

8.4.7 Gross Value Added

GVA represents the amount that individual businesses, industries or sectors contribute to the economy. Broadly, this is measured by the income generated by the business, industry or sector less their intermediate consumption of goods and services used up in order to produce their output. GVA consists of labour costs (e.g. wages and salaries) and an operating surplus (or loss). The latter is a good approximation of profits as the cost of capital investment; financial charges and dividends to shareholders are all met from the operating surplus.

Data collected and published through the ONS Annual Business Inquiry (ABI) is used to produce an approximate estimate of GVA at basic prices. This measure is approximate because it does not allow fully for certain types of National Accounts concepts/issues such as taxes or subsidies or income earned-in-kind.

The figures from the ABI are adjusted to produce industry estimates of GVA. There are four key adjustments required to the survey based data: coverage adjustments; conceptual and valuation adjustments; quality adjustments; and coherence adjustments.

The adjustments cover areas such as where the employees live/work, retail sales data and adjustments to remove spending by businesses, undeclared income and checking the plausibility of other estimates. The GVA assumptions used within the model are noted below.

Figure 44: GVA assumptions

Type	£GVA per employee
Industrial	69,234
Warehousing	33,181
Office	66,878
Retail	33,181
Chemical	169,957
Hotel	33,181

Source: Roger Tym& Partners (2011)

8.4.8 Construction jobs

The assumptions used to calculate the construction jobs are shown below.

Figure 45: Construction assumptions

Description	Metric £	Source
Development spend per FTYE created	£101,632	Barbour ABI, 2006 uplifted to 2007
Construction GVA per FTE	£50,061	Scottish Government ABI statistics, 2007 SIC45 (Construction)

8.5 Conclusion

This section has demonstrated that the infrastructure and development programmes which the TIF scheme enables have the potential to generate substantial benefits not only for Falkirk but for Scotland as a whole:

- Attracting £413m of private sector funding, with £7 levered for every £1 invested
- Up to 5,984 new jobs created when measured at a national level
- £415m of additional annual GVA to the Scottish economy.

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9 Investment Clusters

9.1 Introduction

This section analyses the infrastructure and development plans into three clusters within the single red line area.

9.2 Clusters

The concept of clusters was developed in light of the dependency on third party funding for a number of infrastructure projects, in particular the flood defences and Avon Gorge upgrade. Delivery of such projects is out with the control of the TIF project. To recap, the funding sources of the finalised infrastructure programme is summarised below.

Figure 46: Infrastructure projects and sources of funding

Ref.	Project	Capital Cost	TIF	Other	
		£'000	£'000	£'000	
A	Grangemouth Flood Protection	100,000	10,000	90,000	Non TIF element reliant on external funding including the Scottish Government
C	M9 Junction 6 Earlsgate Signalisation	2,191	2,191	-	
D	M9 Junction 5 Cadgers Brae Signalisation	5,213	5,213	-	
E	Icehouse Brae Upgrade	2,500	2,500	-	
G	Westfield roundabout and A904	16,847	16,847	-	
I	M9 Junction 4 Lathallan Upgrade	3,000	-	3,000	Funded by private sector developers
J	A801 Avon Gorge Upgrade	26,680	6,670	20,010	Funding sought from external sources, including West Lothian Council and Scottish Government
K	Development Site Specific Enabling Works	19,809	14,205	5,404	Funding for Falkirk Town Centre from £2m Heritage Lottery fund plus other sources including Council
	Total	**176,240**	**57,626**	**118,414**	

The Grangemouth Flood Protection (Project A) and A801 Avon Gorge Upgrade (Project J) utilise TIF funding as a minority proportion of overall funding. As such these are viewed as unlocking funding from additional sources, but not enough to ensure delivery of the projects via the TIF scheme.

This led us to separate the infrastructure into three main clusters and link development sites to these clusters. This is within the context of maintaining a single red line area, given the overall interdependency of infrastructure

investment and developments (see heat-map in section 6.2). As such, it is possible that the M9 Corridor investment could be enough to unlock development designated as linked to Flood Protection, due to the cluster's road connectivity improvements. Certain development sites are assumed not to take place within the cluster if investment in infrastructure does not happen. The three clusters are:

- M9 Corridor
- Avon Gorge
- Flood protection

The M9 Corridor infrastructure funding is in the control of the Council and therefore the TIF project. As such this forms the first cluster investment under the TIF project that the Council will take forward for implementation.

9.3 Measuring cause and effect

While considerable attention has been paid to linking development cause and effect to the respective infrastructure projects, it is not possible to completely separate a cluster's infrastructure projects from its cause and effect on the wider development programme.

In devising the cluster approach we have allocated development sites to the most appropriate cluster of infrastructure investment however particular infrastructure investments are likely to have a ripple effect beyond their designated cluster of development sites.

A likely example would be the Grangemouth Flood Protection cluster, where a number of development sites are currently stalled and the most obvious dependency for unlocking or accelerating development is the proposed investment in flood protection. As demonstrated in the heat mapping exercise, there are additional and significant dependencies on the proposed transport interconnectivity to the M9 Corridor. This investment is likely to be completed before the flood defences and, should those development sites currently allocated to the Flood Protection Cluster, advance because of this preceding roads intervention we would propose the resulting NDR growth be captured, regardless of whether the flood protection investment is underway.

This inter-relation also provides greater resilience over the 'flash to bang' risk inherent with TIF funding structures and provides a greater impact over the wider programme than simply being a sum of the respective parts.

9.4 M9 Corridor

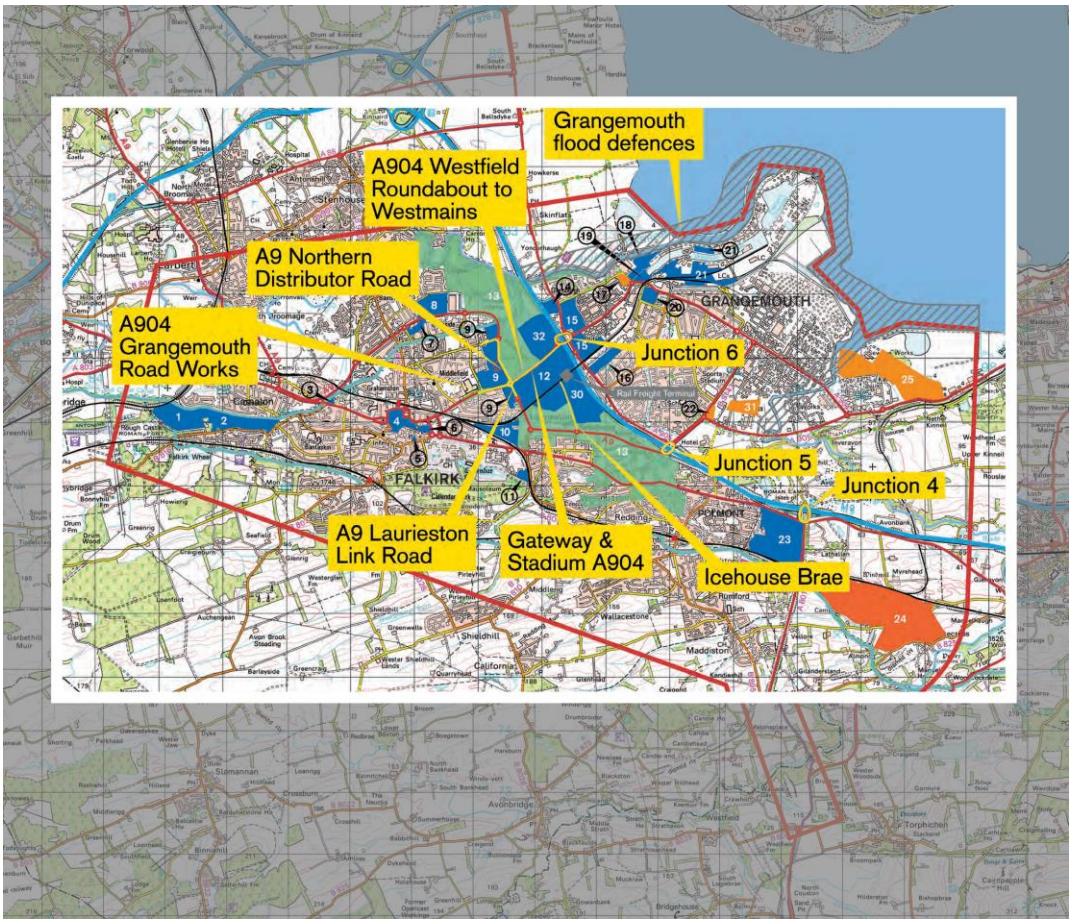
The M9 Corridor is considered the core initial TIF proposal due to its scale and relative certainty. This programme also included a number of early win projects that can commence as soon as 2013.

The strategic focus of this phase will be to improve road connectivity on a local level through enhancing accessibility to and from the M9 to the main business districts of Falkirk and Grangemouth. This also complements national transport connectivity through enhanced road access to Scotland's largest port as well as the Grangemouth Rail Freight Terminal.

There will also be a programme of site specific enabling infrastructure to unlock key developments.

The M9 Corridor investment is illustrated below:

Figure 47: M9 Corridor Investment Programme



The above map illustrates an obvious zone of cause and effect from an interconnecting programme of infrastructure interventions along Falkirk's M9 corridor. This has impact on either side of the M9, from Junction 6 in the West to Junction 4 in the East. Infrastructure interventions include:

- Project C – M9 Junction 6
- Project D – M9 Junction 5
- Project E – Icehouse Brae

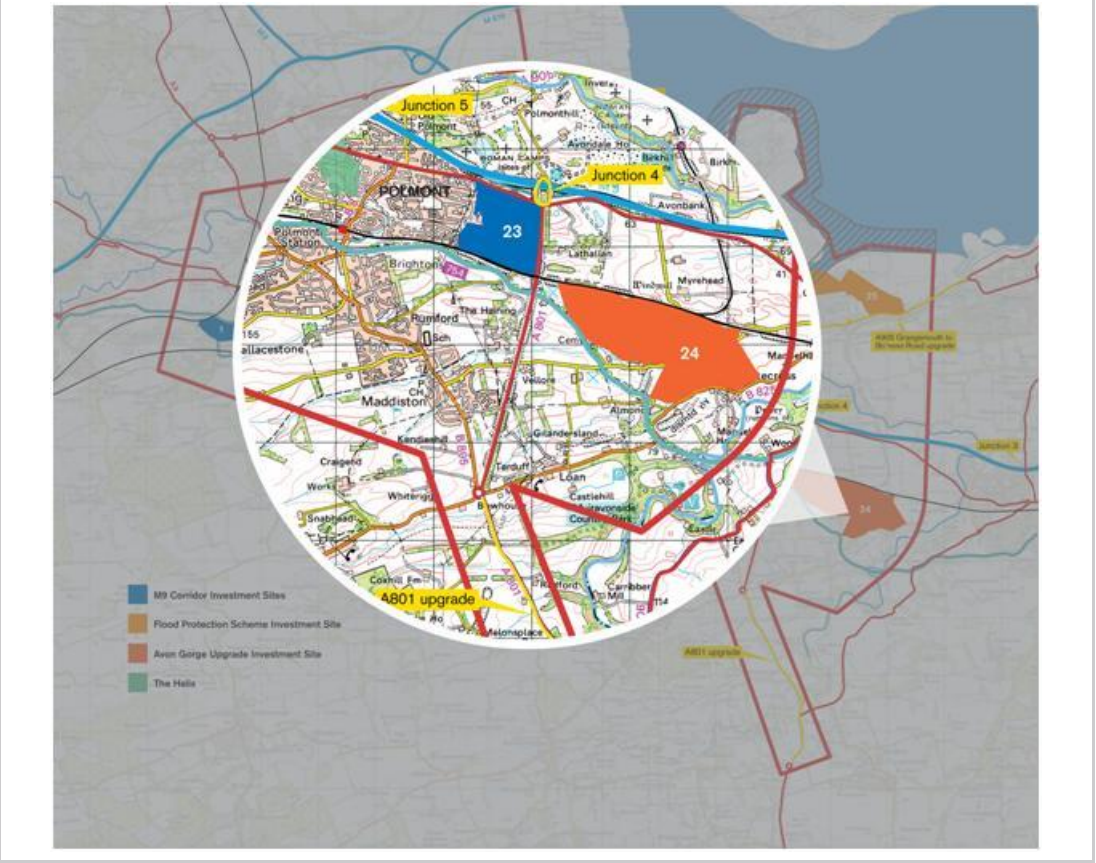
- Project G – A904 and Westfield Roundabout to West Mains
- Project I – M9 Junction 4
- Project K – Development Site Specific Enabling Works

A key assumption of the cluster strategy is that the M9 Cluster is ready to commence construction in April 2012 and can be progressed as a discrete infrastructure programme, while having inherent links with the remaining two clusters.

9.5 Avon Gorge

This cluster requires a single infrastructure intervention in the form of a bypass to the Avon Gorge choke point on the A801. The A801 primarily impacts the development sites of Gilston and Whitecross and is illustrated in the Figure below.

Figure 48: Development projects with critical dependence to the A801 Avon Gorge Upgrade



The map demonstrates the proximity of Whitecross and Gilston developments to the termination point of the enhanced A801, which itself links the midpoints of the M9 and M8 motorways.

The development at Whitecross (Project 24) is constrained by market and infrastructure issues and its NDR generating business space is largely reliant

on the development being built out as a residential village. The likely delivery for this site has already been significantly postponed and failure to address the limitations of the A801 further affects the prospects for the village's delivery. Consequently it has been designated a constituent of the Avon Gorge clusters.

Gilston (Project 23) is situated next to M9 Junction4, which connects the A801 and the M9. However the site includes a number of proposed business and retail based development sites and it is expected that this site benefits as much from connectivity to the main populations around Falkirk (e.g. Junction5, Project D) as it does from its proximity to the A801. As such it has been included in the M9 Corridor cluster.

9.6 Flood Protection

This investment programme is predicated on commencement of the Grangemouth Flood Protection (Project A) and would trigger inclusion of 4 development projects which have a corresponding critical dependence. As well as the investment in flood defences there would be a minor amount of site-enabling infrastructure investment in Wholeflats. The development projects with dependence on the flood protection scheme are detailed below.

Figure 49: Development projects with critical dependence on Grangemouth Flood Protection

Ref.	Project	Detail
17	South Bridge Street	High fluvial from Carron and estuarial
22	Wholeflats	High fluvial risk from river Avon
26	KinneilKerse	High estuarial risk. Site not part of funding case.
31	INEOS	High fluvial risk from the Avon and estuarial risk

The risk of flooding impacts these development sites in three clear ways:

Planning

The requirement for a flood protection scheme is a critical uncertainty for investment. It is a requirement that development proposals state clearly how they will address the issue of flood risk. In the absence of a clear proposal to upgrade flood infrastructure this adds cost and uncertainty for developers and this has been evidenced in development projects which have stalled as a result.

Insurance costs

Flood risk is becoming an increasingly prominent factor for insurance companies and it is feared that premiums on high risk sites around Grangemouth may be adversely affected as the flood risk becomes more widely appreciated. This is particularly true for capital intensive plant.

Demand risk

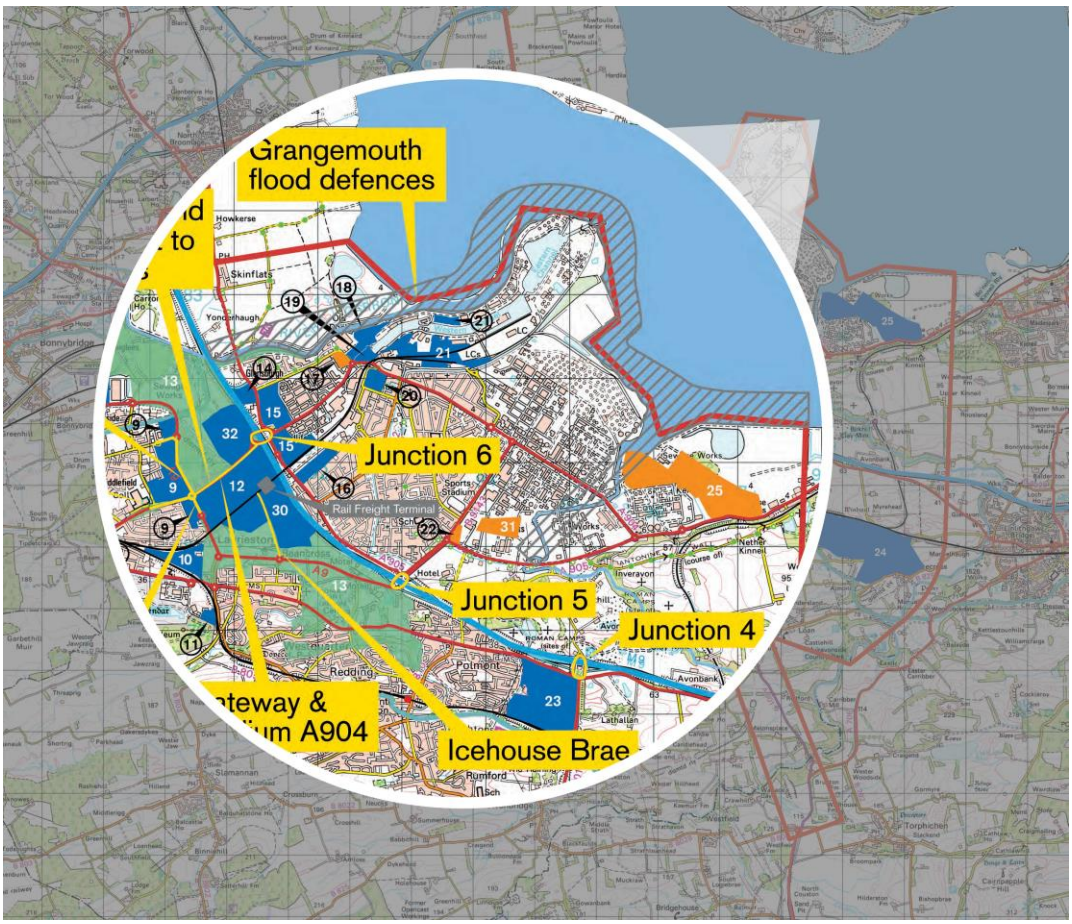
Local representatives of the chemicals sector have indicated that a growing cost to operations and a growing awareness of the flood risk to property and

business continuity may lead to a decrease in reinvestment over time. This may cascade, effectively leading to a long term gradual decline of the industrial base in the area affected.

In addition to these development sites Section 6 details how TIF could capture incremental growth NDR based on the Depreciated Replacement Cost derived from investment in a number of identified chemicals companies. This NDR income would be subject to the Grangemouth Flood defences proceeding.

The diagram below shows the geographic locations of those development projects with critical dependence to the Grangemouth Flood Protection.

Figure 50: Development projects with critical dependence to the Grangemouth Flood Protection



This map illustrates that the developments are primarily at the estuarial frontage and/or close to the rivers Carron or the Avon. These two rivers and the Forth ensure that Grangemouth has a considerable flood risk from sources to its North, West and East.

The Grangemouth Docks (Projects 18, 19 and 21) have not been considered as being critically linked to the Flood Protection. This is due to the owners, Forth Ports, having devolved planning authority and that much of the planning

within Grangemouth Docks is solely subject to their capacity to address flood risk within the site. The primary proposed usage for the development plots is warehousing. Forth Ports have stated a clear intention to develop out the docks subject to access improvements to the M9. Generating over 400 HGV movements a day, the dock sites were viewed as benefitting from the improved roads connectivity at the core of the M9 Corridor Investment Programme.

10 M9 Corridor Financial Analysis

10.1 Introduction

Due to the uncertainty of necessary co-funding for the A801 Avon Gorge upgrade and the Grangemouth Flood Protection projects, three distinct clusters of infrastructure and related developments have been proposed.

Of key importance, the first series of projects timetabled all relate to the M9 Corridor cluster. This cluster is entirely self-funding and can commence without the other two clusters. As such, this allows the road connectivity enhancements around Falkirk and the M9 corridor to advance with an intended start date of April 2013. The clusters relying on less certain sources of funding can be introduced into the overall TIF, as and when co-founding is secured.

This section sets out the results of the financial analysis of the M9 Corridor cluster.

The analysis provided was performed using a financial model developed by Ernst & Young with input provided by Ryden on property assumptions. Strategic infrastructure costs and timescales have been provided by the Council along with debt financing assumptions.

10.2 Infrastructure costs

The starting point for the financial analysis was the capital costs of the infrastructure investment clusters shortlisted in Section 9.

In line with SFT guidance, in estimating the delivery cost of the strategic infrastructure programme the Council added cost contingencies in order to mitigate optimism bias. The raw costs and contingencies applied are summarised below.

Figure 51: Analysis of cost contingencies (Real terms)

Ref	Project	Capital Cost (£'000)	Contingency (%)	Contingency (£'000)	Total Cost (£'000)
C	M9 Junction 6Earlsgate Signalisation	1,522	44%	669	2,191
D	M9 Junction 5 Cadgers Brae Signalisation	3,620	44%	1,593	5,213
E	Icehouse Brae Upgrade	1,736	44%	764	2,500
G	Westfield roundabout and A904	11,470	47%	5,377	16,847
K	Development Site Specific Enabling Works	14,205	-	-	14,205
	Total	**32,553**	**-**	**8,403**	**40,956**

Falkirk Council / Ernst & Young

This table shows the uninflated costs before the contingencies we applied to get to the real costs stated elsewhere in this business case.

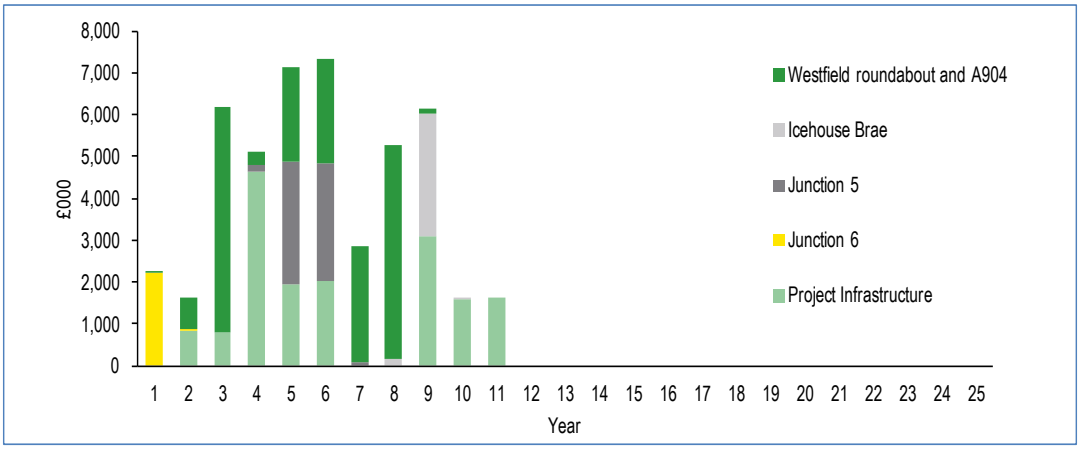
Contingencies were applied at a level of 44% for roads and to 66% for structures, as per Treasury guidance. The only project to include a structure is work to a rail bridge as part of the Westfield roundabout and A904 improvements, Project G. When this expenditure is apportioned it provides a blended contingency rate of 47%.

Although specific items of work have been detailed for each of the development sites receiving site enabling infrastructure, the eventual usage and configuration of developments is subject to additional work and the Council has commissioned an Infrastructure and Development Plan for these sites. As such the cost estimates under reference K above are based with reference to overall affordability of the TIF scheme so additional contingencies have not been added to these amounts. Effectively the TIF funded, development site enabling works of £14.2m noted above is within a £15m budget allocation for site interventions. A further £5.4m is earmarked specifically to Falkirk public realm, being delivered between years 1 and 5. This is funded through £2m Heritage Lottery as well as various other sources of non-TIF funding, including occupier contributions and Council capital budgets. This is not included in the £14.2m funding noted above. The above costs are all stated as at April 2012.

10.2.1 Infrastructure investment programme

The table below details the infrastructure investment required under the M9 Corridor (inclusive of inflationary uplifts).

Figure 52: M9 Corridor infrastructure investment programme (inflated)



Source: Falkirk Council / Ernst & Young

This programme of expenditure sees infrastructure being delivered from year 1, when the M9 Junction 6 works commence, up until year 11 when the programme is complete. The total expenditure in real terms is £41m.

Application of a 2.5% indexation factor to reflect RPI generates a nominal figure of £47m. This is the infrastructure funding requirement used for funding case purposes.

10.3 NDR revenues

The infrastructure investment described above is forecast to generate incremental NDR revenues over the 25 year TIF horizon.

Gross NDR revenues were forecast by applying the methodology stated in Section 6.5, and in the accompanying Appendix C. The additional income figures relate to those sites within the M9 Corridor where development plans are advanced enough for credible estimates to be made and as such are reliable enough to be included in the funding case. Similarly a number of less advanced sites are listed in the table below as being part of the cluster but to be prudent NDR income forecasts for these areas have been excluded for the purposes of this business case.

To these Gross NDR figures a displacement factor was then applied to reflect the element of incremental income that is expected to be generated from displacement rather than incremental growth. A displacement factor of 18.4% was applied, based on the global average for the Falkirk TIF.

Figure 53: M9 Corridor NDR revenues (25 years)

No	Project Name	Part of funding case	Gross NDR income (£'000)	Displacement (£'000)	Net NDR income (£'000)
1	Falkirk wheel	No	-	-	-
2	Tamfourhill development	No	-	-	-
3	Rosebank	No	-	-	-
4	Falkirk town centre	No	-	-	-
5	Williamson Street	No	-	-	-
6	Callendar Road	No	-	-	-
7	Mungalend	No	-	-	-
8	Abbotsford Business	Yes	16,037	(2,951)	13,086
9	Falkirk gateway	Yes	40,368	(7,428)	32,941
10	Caledon business park	Yes	16,958	(3,120)	13,837
11	Callendar business park	Yes	5,684	(1,046)	4,638
12	Stadium site	Yes	17,693	(3,256)	14,438
13	Helix	Yes	1,479	(272)	1,207
14	Glensburgh	No	-	-	-
15	Earls Road	Yes	50,325	(9,260)	41,065
16	Wood Street	No	-	-	-
18	Grangemouth Docks (Z3)	Yes	13,165	(2,422)	10,742
19	Grangemouth Docks (Z2)	Yes	11,591	(2,133)	9,458
20	Grangemouth town	Yes	20,430	(3,759)	16,671
21	Grangemouth docks (Z4)	Yes	13,520	(2,488)	11,032
23	Gilston	Yes	36,573	(6,729)	29,843
30	Tilly flats	No	-	-	-
	Total		**243,823**	**(44,863)**	**198,960**
	Risk deflator (25%)		**(60,956)**	**11,216**	**(49,740)**
	Adjusted NDR		**182,867**	**(33,648)**	**149,220**

Source: Ernst & Young / Ryden

The table shows that the sites included in the funding case provide gross NDR income of £244m over the 25 year TIF timeframe. The displacement

factor reduces this gross figure by £45m, generating a net NDR figure of £199m.

A key project risk in respect of these assumptions is that, while the NDR hypothecation applied in this analysis is believed to be prudent, these forecasts are inherently uncertain in nature.

To reflect this uncertainty, a 25% risk deflator was applied to all NDR income in the funding case in order to mitigate voids, optimism bias, the risk that project incomes are overstated. This has the effect of reducing the NDR income after displacement further to £149m. This is the income figure on which the funding case is predicated.

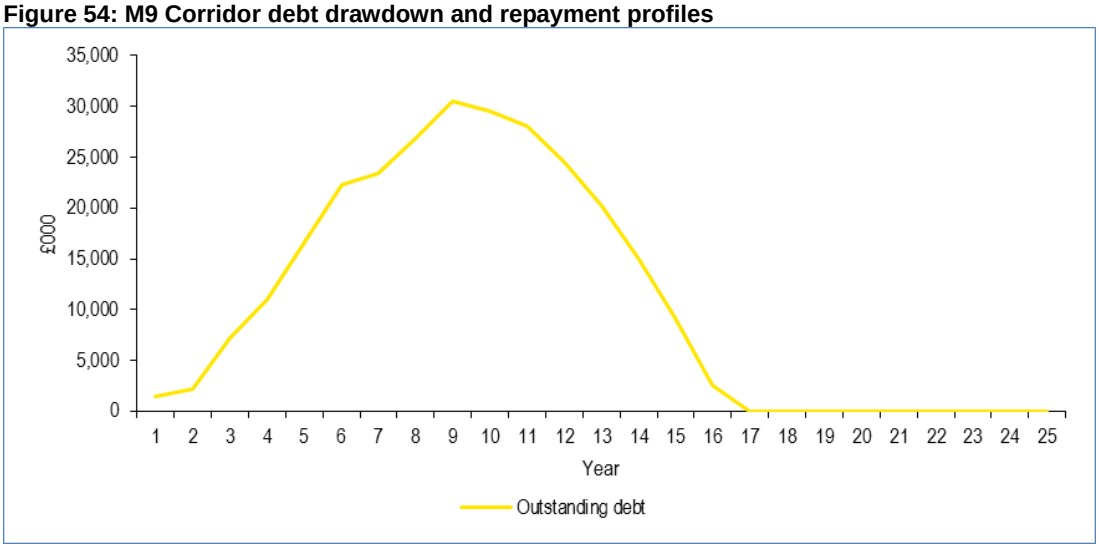
10.4 Debt requirement

The financial model brings together the infrastructure costs and projected incremental NDR income described above to identify the borrowing requirement of the project across the 25 year period.

As the Falkirk TIF is based on a programme approach, infrastructure is delivered over an 11 year period. NDR revenues are forecast in the first year of the programme and steadily increase as more of the infrastructure capacity comes on-stream. As a consequence, the borrowing requirement is not required to fund the full £47m of infrastructure spend, with funding from NDR revenues ("CFCR") reducing the overall borrowing requirement to £35m.

The £35m of debt is modelled as being provided by 11 debt tranches, drawn down annually between years 1 and 11, and peaking in year 9 at £31m. The debt drawdown and repayment profiles are illustrated below.

Figure 54: M9 Corridor debt drawdown and repayment profiles



Source: Ernst & Young

All debt is on an annuity basis with a cash sweep employed to deploy all available surpluses towards repaying additional capital. Repayment terms are set so that debt is repaid no later than year 25 of the TIF, with the cash sweep mechanism forecast to accelerate this repayment, with debt modelled

as repaid in year 17. Borrowing has been assumed to be from PWLB and a rate of 5.0% has been used.

Full 25 year cashflows of the M9 Corridor are included at Appendix F.

10.5 Summary financial outturn

The summary financial outturn for the M9 cluster is presented below.

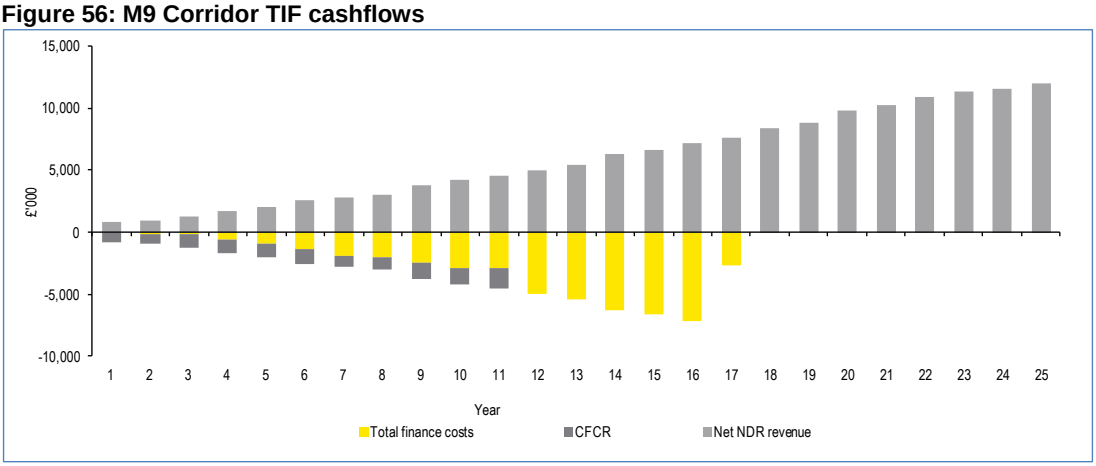
Figure 55: Summary financial outturn (25 years)

M9 Corridor	Total 25 years £'000
Gross NDR revenues	182,867
Displacement	(33,648)
Net NDR revenues	**149,220**
Financing costs	(27,498)
CFCR	(12,226)
Projected Surplus	**88,198**
NPV surplus	**25,462**
Infrastructure spend	**47,226**
Funded by:	
PWLB debt	34,999
NDR revenues (CFCR)	12,226
Total	**47,226**

Source: Ernst & Young

Net NDR revenue reflects total NDR revenues after displacement rates and the project deflator have been applied. Net TIF revenue reflects this figure after borrowing costs and any other income sources. The resulting TIF cashflows for the M9 corridor are demonstrated in the table below:

Figure 56: M9 Corridor TIF cashflows



Source: Ernst & Young

The graph shows finance costs increasing as the debt tranches are drawn down in the period to year 11 to fund the £47m infrastructure expenditure. There is a steady build-up of associated NDR income throughout the 25 year period, with total NDR revenue of £149m. Debt is repaid in year 17 and thereafter surpluses start to accumulate. The M9 Corridor Investment

Programme projects a surplus created over the 25 years of £88m in nominal terms and £25m in NPV terms which would be shared between the Council and Scottish Government.

10.5.1 Non new build NDR

The Falkirk TIF scheme consists of new build projects which are expected to generate additional NDR and economic activity. The proposed infrastructure investment programme will also create further, genuinely incremental (rather than new) NDR. These incremental revenues have not been assessed at this stage of developing the TIF proposal, but are noted for their potential in future.

It is understood from the *Upper Forth Development Framework* research that there is ongoing investment by the petrochemicals industry at Grangemouth. This is likely to involve intensification of existing activities through investment in plant, processes and existing facilities rather than new building or extensions to the physical footprint of buildings. Additional NDR revenues flowing from this investment can potentially be assessed, as investment will affect the depreciated replacement costs which the Assessor uses to determine rateable values. NDR revenues will be higher than if continual investment in intensification did not happen, but would also be heavily influenced by the proposed investment in flood protection.

The suggested scale of investment in intensification suggests that this could be a further contributor to the TIF, but discussions with SFT and the Scottish Government will be required around both the principles of using genuinely incremental NDR revenues and the methodology to be applied.

Incremental NDR revenues can also be estimated for the Helix. Anticipated visitor numbers (annual visitors are expected to be 300,000) and spend can be used to estimate business turnover, rental income and therefore additional NDR revenues from existing leisure and town centre locations such as Falkirk and Grangemouth. This will be a material contributor to the TIF.

A final source of incremental NDR revenues is the likely direct beneficial impact of infrastructure investment upon existing business and commercial premises across the region and also the indirect impacts of economic activity supported and secured through the TIF programme. These impacts would be marginal for most locations and difficult to relate directly to the TIF scheme. They are unlikely to form part of the business case.

The Council does see merit in the cluster approach promoted by the TIF FBC in the Falkirk area, where this can assist in realising additional economic activity which is of national significance. It considers that this approach may offer benefits at other locations including Glenbervie, where Scottish Enterprise own a site that has been held for a single user, which are enabled by TIF, meet the ‘But For’ argument and which produce new incremental revenues. The Council wishes to examine the potential of this approach further in the course of implementing the TIF project.

It is also important to recognise that the economy of the Falkirk area has a reliance on large industrial employers which makes it vulnerable to the closure of one or more operations of significant scale. With many of the large employers being multinationals and subject to economic influences out with the scope of TIF, the Council suggests that the TIF Agreement takes cognisance of this risk and provides a floor mechanism to protect against the downside coming from large plant closures.

The details of this would be agreed as part of the formal acceptance process with SFT and Scottish Government.

By Scottish standards, the Falkirk economy has a concentration of large multinational employers. This TIF is intended to enhance the Falkirk area as an employment location for these investors, who are unlikely to consider alternative locations in Scotland. This provides a distinct national benefit however, when resulting NDR is supporting significant borrowing, the risk of significant closure is an external risk that the Council could not realistically bear.

Financial Analysis: Additional clusters

11. Financial Analysis: Additional Clusters

11.1 Introduction

The following section represents related infrastructure and development sites comprising the two additional clusters: Avon Gorge and Grangemouth Flood Protection.

The M9 cluster is due to commence in April 2013 and as such these clusters are seen as additional and separable. The Avon Gorge cluster would require a small element of cross subsidy from the primary M9 Corridor cluster. The Flood Protection cluster, as defined in this section, is self-funding.

The combined financial analysis for the complete implementation of the Falkirk TIF is presented in this section.

11.2 Avon Gorge Improvements

This investment cluster would see one major infrastructure project completed which would address the Avon Gorge choke point on the A801. This upgrade has been fully costed at £27m. It is assumed that TIF contributes 25% of the funding requirement or some £6.7m. The remaining funding would be made from contributions from Scottish Government (via Transport Scotland) and West Lothian Council..

The key development project dependant on the Avon Gorge improvement is Whitecross (Project 24). Net NDR revenues projected to be generated from this development are some £9m as summarised below. The site at Gilston is also in proximity to this development and will benefit considerably from the improved access on the A801. However the site benefits principally from connectivity to the rest of the Falkirk area (e.g. Junction 5, Project D) and as such it has been included in the M9 Corridor cluster.

Figure 57: Avon Gorge Improvements - NDR revenue (25 years)

No	Project Name	Part of funding case	Gross NDR income	Displacement	Net NDR income
			(£'000)	(£'000)	(£'000)
24	Whitecross	Yes	15,042	(2,768)	12,274
	Risk adjustment (25%)		**(3,761)**	**692**	**(3,069)**
	Total		**11,282**	**(2,076)**	**9,206**

Source: Ernst and Young /Ryden

The financial cashflows attributed to the addition of the Avon Gorge cluster are summarised below.

Figure 58 Avon Gorge Improvements - Summary financial outturn (25 years)

	(£000)
Gross NDR revenues	11,282
Displacement	(2,076)
Net NDR revenues	**9,206**
Financing costs	(8,997)
Contribution	**1,900**
Deficit	**(2,162)**
NPV deficit	**(1,318)**
Infrastructure spend	**8,123**
Revenue support	1,900
Total	**10,023**
Funded by:	
PWLB debt / revenue	**10,023**

Source: Ernst & Young

This project would introduce additional infrastructure expenditure of £8m (after inflation). Due to timing differences and the limited NDR income forecast for the associated Whitecross development, the funding would require additional debt draw down of £10m. This would reduce the overall project surplus by £2.2m, which equates to an NPV value of £1.3m.

The above analysis assumes PWLB debt would be drawn down to cover the revenue shortfall, however an alternative would be revenue cross subsidy from the M9 Cluster. This is merited due to the overall TIF benefit gained through the Avon Gorge upgrade.

11.3 Flood Protection Scheme

The Flood Protection investment would see TIF fund £10m of a contribution (in years 4 to 7) towards the estimated project costs of £100m, the balance of which would be funded by the Scottish Government.

Based on the above contribution this would present a TIF investment of £12m in nominal terms, including £0.2m for site infrastructure at Wholeflats. This investment would directly unlock four development sites, three of which are part of this funding case and are projected to contribute £26m of net NDR revenues.

Figure 59: Flood Protection - NDR revenues (25 years)

No	Project Name	Part of funding case	Gross NDR income	Displacement	Net NDR income
			(£'000)	(£'000)	(£'000)
17	South Bridge Street	Yes	(4,702)	865	(3,837)
22	Wholeflats	Yes	(3,404)	626	(2,777)
25	KinneilKerse	No	-	-	-
31	INEOS	Yes	(35,048)	6,449	(28,599)
	Total		**(43,154)**	**7,940**	**(35,213)**
	Risk adjustment (25%)		**10,788**	**(1,985)**	**8,803**
	Revised Total		**(32,365)**	**5,955**	**(26,410)**

Source: Ernst & Young/Ryden

The financial cashflows are summarised below.

Figure 60: Flood Protection - Summary financial outturn (25 years)

	(£000)
Gross NDR revenues	32,365
Displacement	(5,955)
Net NDR revenues	**26,410**
Financing costs	(16,141)
contribution	3,720
Surplus	**7,793**
NPV surplus	**1,506**
Infrastructure spend	**11,691**
Revenue support	3,720
Total	**15,411**
Funded by:	
PWLB debt / revenue	**15,411**

Source: Ernst & Young

This would introduce additional infrastructure expenditure of £11.7m (after inflation) and would require additional debt draw down of £15.4m due to cashflow timing differences. Detailed cashflows representing the inclusion of this investment cluster are included in Appendix F.

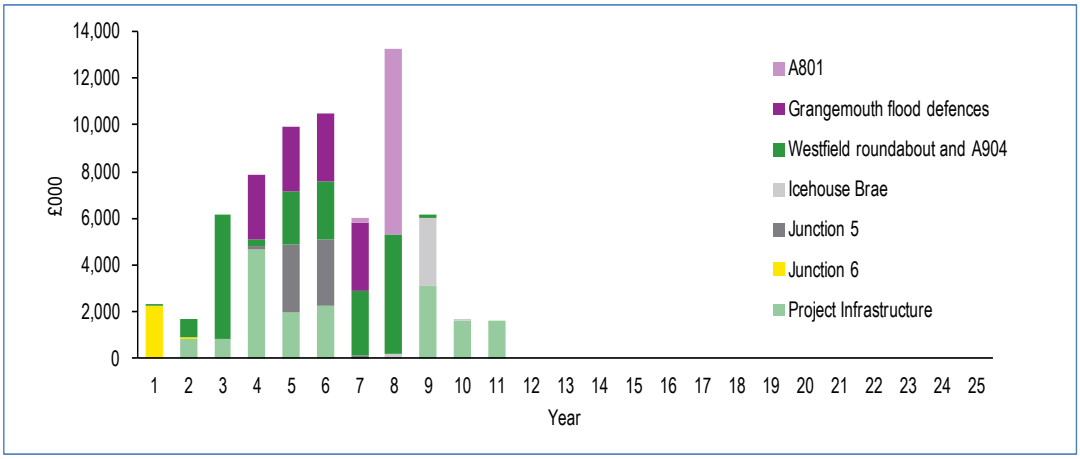
11.4 Combined investment programmes

The use of multiple investment programmes allows flexibility in the TIF delivery to address the uncertainty of co-funding not being fully obtained. However this uncertainty does mean that timing assumptions for modelling purposes are indicative in nature.

In modelling the scenario of all three investment programmes going ahead, it was assumed that delivery will be phased based on the optimal delivery programme. This programme was developed by the Council project team after taking into account a number of factors, including technical feasibility of delivery timescales, interplay with other projects, minimising disruption, smoothing borrowing requirements and the likely demand from associated development sites.

As such the proposed delivery of the combined infrastructure programme reflects the optimised Infrastructure Investment Plan detailed in Section 4. This assumes that projects will commence at the wider project start date in 2013. This investment profile is illustrated below (inclusive of inflationary uplifts):

Figure 61: Combined investment programme funding profile



Source: Ernst & Young/ Falkirk Council

The combined investment programme would see a total infrastructure spend of £67m funded through £60m of debt and £7m CFCR. The financial analysis indicates that the net surplus NDR revenue after borrowing amounts to £94m in nominal terms and £26m in NPV terms.

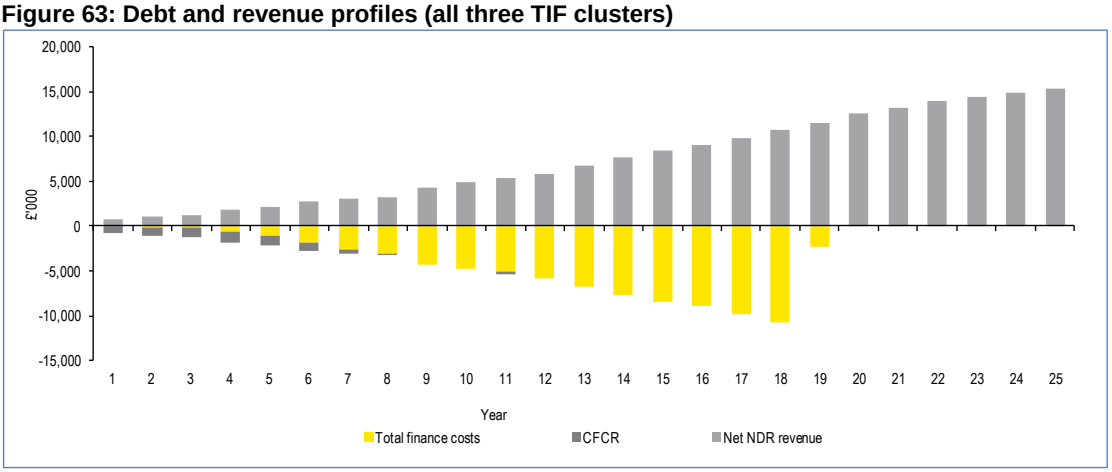
Figure 62: Combined investment programmes - summary financial outturn (25 years)

	M9 Corridor (£000)	Avon Gorge (£000)	Flood Protection (£000)	Combined (£000)
Gross NDR revenues	182,867	11,282	32,365	226,514
Displacement	(33,648)	(2,076)	(5,955)	(41,679)
Net NDR revenues	**149,220**	**9,206**	**26,410**	**184,836**
Financing costs	(27,498)	(8,997)	(16,141)	(52,551)
Contribution / (CFCR)	(12,226)	1,900	3,720	(6,606)
Surplus / (Deficit)	**88,198**	**(2,162)**	**7,793**	**93,936**
NPV surplus / (Deficit)	**25,462**	**(1,318)**	**1,506**	**25,838**
Infrastructure spend	**47,226**	**8,123**	**11,691**	**67,039**
Funded by:				
PWLB debt	**34,999**	**10,023**	**15,411**	**60,434**
CFCR/ Revenue support	12,226	1,900	3,720	6,606
Net Funded	**47,226**	**10,023**	**15,411**	**226,514**

Source: Ernst & Young

The debt and revenues profiles for the combined project are represented in the figure below.

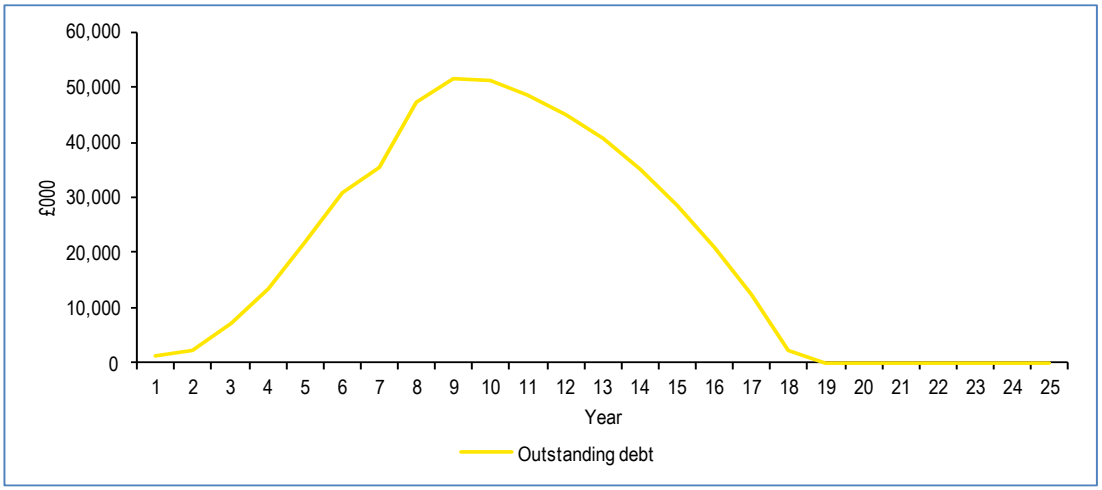
Figure 63: Debt and revenue profiles (all three TIF clusters)



Source: Ernst & Young

The graph demonstrates that debt is repaid in year 19 after which surpluses accumulate within the remainder of the 25 year TIF period. The overall TIF cashflows are represented in the following graph:

Figure 64: TIF cashflows (all three clusters)



Source: Ernst & Young

It is projected that all three clusters provide surpluses based on the assumed infrastructure delivery programme. Surpluses total £94m in nominal terms or £26m expressed in NPV. If achieved, the surpluses would be shared between the Council and the Scottish Government. This will provide the Council with a future revenue stream to fund regeneration activity across the wider Council area, some of which may assist further delivery of TIF related schemes.

The cluster approach allows a flexible approach to available co-funding, maximising what can be delivered under the TIF programme while mitigating funding risk.

12 Risk Management

12.1 Introduction

This section provides an overview of the main projects risks identified in preparing the FBC and related mitigation strategies and actions. A full risk register as well as accompanying risk matrixes are included at Appendix G.

12.2 Approach to managing risks

The Council will manage the risks associated with delivery of the project in an approach consistent with its risk management policies. It will establish appropriate levels of risk transfer at programme and individual project level. This will be key to the success of the TIF project and will help provide sufficient safeguards so that the Council is not overly exposed financially.

Risks have been evaluated as an ongoing part of delivering this project and a dedicated risk workshop involving a multi-disciplinary team from the Council was facilitated by Ernst & Young and the Council's external legal advisors, Brodies LLP.

The approach has been to define risks across four key themes:

- Delivery
- Financial
- Legal
- Post implementation

These are considered below:

12.2.1 Delivery

This concerns the fundamentals of the project – the delivery of the infrastructure investment and the consequential delivery of developments to drive NDR growth.

Infrastructure cost overruns would have an obvious impact on the investment required to deliver the project, while time overruns and ineffective infrastructure investment would result in failure to deliver the required NDR growth from the stimulated development activity.

Lower NDR revenues resulting from less development is a primary risk with development activity remaining significantly impacted by the wider macro-economic conditions, investor confidence and availability of development finance.

In addition, the Falkirk-Grangemouth area experiences unique circumstances in respect of health and safety requirements exercised under the Control of

Major Accident Hazards ("COMAH") regulations. In some cases these present constraints to development and requirements for additional examination and mitigation works prior to commissioning. The risks to development associated with these requirements have been factored into the area's adopted Local Plan, which formed the basis for the TIF sites selection.

As part of our business case, demand assumptions have been subject to independent demand based estimation of development activity and NDR revenues by Ryden as well as sense checking against the Assessor's historic growth patterns. As global risk mitigation, our approach has been to apply a 25% deflator to the assumed development activity in each year of the 25 year development programme.

12.2.2 Financial

Financial risks are at the centre of the TIF project and run through all aspects of the project. These include the risk of higher than anticipated financing costs, lower NDR revenues and higher infrastructure costs. The inclusion of the development activity deflator and cost contingencies provide a level of inherent mitigation with the financial model.

12.2.3 Legal

There are a number of legal risks concerning the delivery of this project, the most obvious of these including:

- ***State Aid***

The Council has consulted with the State Aid Unit of the Scottish Government in relation to the TIF FBC. The view of the State Aid Unit is that there are no state aid difficulties inherent in the Council's proposals. As set out in section 3.4, there are three primary categories of investment which the TIF project will support: roads, flood protection and site specific interventions.

In relation to the investment in the local and national road network, the analysis of the State Aid Unit is that as the investment will result in infrastructure which will:

a) benefit all businesses and residents (rather than benefit accruing to any particular economic operator or operators)

b) be owned and maintained by a public body and as such can be regarded as a general measure which does not amount to state aid.

That analysis applies equally to the investment in Grangemouth's flood protection scheme. This infrastructure will benefit all businesses and residents (rather than benefit accruing to any particular economic operator or operators) and will be owned and maintained by a public body.

In relation to the targeted site specific infrastructure investment, the State Aid Unit and the Council recognise that careful consideration has to be given to state aid issues on a site by site basis. This is because where investment it

targeted at a particular site there is a greater risk of a state aid benefit accruing to those with an economic interest in that site. The state aid compliance options include:

- Concluding on a case by case basis that the infrastructure is a general measure benefitting all, rather than conveying a benefit on those with interests in that site

- Utilising one of the recognised "block exemptions" which allows measures to be deployed in a state aid compliant way. This may be relevant, for example, to environmental protection measures, provided that the strict rules attaching to the block exemption are complied with

- Utilising one of the state aid compliant schemes in relation to which the Scottish Government has secured the approval of the EU Commission. For example, the Scottish Property Support Scheme allows support to be provided in some circumstances to support property development, provided that the strict rules attaching to the scheme are complied with

- Securing an appropriate contribution from those with interests in the site, to ensure that any benefit of the investment accruing to them is netted off by the contribution to the cost of the infrastructure which they make

- Relying on the de minimus state aid rules, where benefits accruing are identifiable but only marginal

The Council will continue to take advice from the State Aid Unit and its other advisers as the TIF project progresses.

Additional legal risks identified include:

► **Prudential Code compliance**

This particularly relates to improvements to traditionally non-Council assets such as trunk roads and flood defences. The Council will follow its financial regulations in regard to its use of the prudential code for capital borrowing. Compliance is monitored annually through the Council's internal and external audit procedures. Where asset and land ownership issues are incompatible with standard prudential borrowing rules; appropriate consent from Scottish Government will be sought.

► **Procurement issues**

Particularly where development partners are engaged to help develop out earmarked key developments. In relation to procurement of works and services, these will be conducted in full compliance with the Council's procurement regulations which adopt the provisions of EU directives and Scottish legislation.

12.2.4 Post implementation

This theme largely covered actual performance and monitoring. The Council will mitigate risks through managing the TIF as a programme which will help to ensure that it is not overly dependent on any one development and developer. Similarly the Council will stage funding draw-downs linked to development activity and NDR revenue milestones so that it is not fully exposed to the total financing costs assumed in the FBC on day one.

12.3 Key risks

A risk register with suggested mitigations is included in the appendices. This details our risk approach where each risk was rated for its risk of occurrence and for potential impact. This provided a weighted score and was carried out for both pre and post risk mitigation. The weighted scores are charted on an accompanying graph.

The following risks were rated as being the highest level of risk before mitigation.

12.3.1 Private development does not happen/ NDR over stated

An obvious risk of TIF is often referred to as the ‘flash to bang’ risk, i.e. the risk that the public sector enabling investment takes place however the resultant private sector development fails to materialise. This is a high risk to this project.

Prudence has been an underlying consideration in all demand assumptions which were provided by an external property consultancy.

In arriving at NDR growth assumptions, only a limited number of the overall development projects within the red line area have been assumed as reliable enough to be the basis of the supporting TIF business plan. The others are captured within the redline however any resulting NDR growth will be over and above those stated as funding assumptions in this business plan. In addition an overall project deflator of 25% has been included and as such this risk is largely mitigated. Continued close monitoring of this risk will be necessary.

12.3.2 Significant closures to existing plant

Due to the heavy manufacturing profile of the Falkirk economy, there is a large reliance on a limited number of large employers. These sites are generally operated by multinational companies who will be subject to economic influences far and beyond those relating to Falkirk TIF. In the case of a major site closure within the redline area the Council could become exposed for a potential reduction in NDR which would influence its ability to service TIF debt. Consequently it is a requirement of Falkirk Council that the TIF Agreement protects the Council from the downside risk of a material plant closure. This would be agreed as part of the acceptance process with SFT/Scottish Government.

12.3.3 Movement in debt costs

Current borrowing is at an exceptionally low rate and so it is prudent to assume this will increase during the project timeframe. Any financial assumptions must be cognisant of this and, as such, the risk has been mitigated by income and cost assumptions that allow appropriate debt service cover. Increases to borrowing costs have also been projected as a sensitivity test and the Council has the mitigation of limiting the funding available to the TIF project if it is considered unaffordable.

12.3.4 Co-funding of the Avon Gorge and Flood Protection are not secured

A key risk facing this project is the considerable uncertainty regarding the necessary co-funding being available to allow the A801 Avon Gorge and the Grangemouth Flood Defences projects to be delivered under TIF.

This is mitigated by the creation of three distinct and separable infrastructure investment clusters. This ensures that the need to secure co-funding for the A801 Avon Gorge and the Grangemouth Flood Defences will not prevent the initial investment across the M9 Corridor. The remaining clusters can be commenced once co-funding can be secured.

12.3.5 Infrastructure delivery delays and cost overruns

There are obvious risks that the infrastructure projects which drive the potential NDR growth are delayed, postponing resulting income. Similarly there is a risk that the infrastructure costs are significantly understated. The infrastructure programme has been subject to sensitivity analysis to assess the impact of delays and contingencies have been included in the financial modelling assumptions.

This is mitigated by the used of prudent assumptions within this business case and include 44% contingency for roads and 66% for structures, the upper limit of HM Treasury Green Book guidance. The only structure proposed as part of the TIF programme is the £1.5m replacement of the Midthorn Railway Bridge as part of the road widening in the A904, Westfield Roundabout to West Mains project. Of the overall £41m infrastructure programme delivered under the M9 Investment Cluster, £8m of these costs is directly attributable to cost contingencies.

The TIF delivery programme has also been devised so that limited levels of slippage do not adversely impact on the delivery of subsequent projects in the delivery timetable. As such this should minimise ‘choke points’ from a project management perspective.

Where necessary, the Council intend to further mitigate these risks, as appropriate, through the use of fixed price contracts. These would pass relevant risks to the private sector.

The phased nature of the infrastructure programme would also lower the risk of significant cumulative overruns. If significant overruns were incurred, then the TIF Executive could be asked to consider adjustments to the delivery timescale of subsequent projects.

12.3.6 Sensitivity testing

With any project of this complexity it is essential that a full range of sensitivities are modelled to appraise the impact of a range of potential outcomes. This was based on the primary scenario of the M9 Corridor investment cluster.

The following factors were assessed for a range of sensitivities:

- Investment plan cost base – these sensitivities were in addition to strategic infrastructure base costs including contingencies based on HM Treasury Green Book guidance (44% for roads and 66% for structures).

- Interest rate – these sensitivities were applied to the rate of 5% used for modelling purposes. This rate was used for prudence, with the rate of PWLB annuity borrowing for 25 years at the time of this report being significantly lower at 3.33%.

- Displacement – the global rate flexed under these sensitivities represents a prudent rate derived from the approach fully detailed in Section 8 of this report.

- Real rental growth –this is a core assumption of the TIF business case however it is reliant on external demand, itself highly subject to many influences. As these factors cannot be controlled it is important to run sensitivities to illustrate the impact of potential underperformance in rental growth, the driver for NDR income required to service debt. This should be seen in the context of rental growth being subject to detailed demand analysis by external property consultants (see Appendix D). Furthermore a 25% global project deflator has been applied to all NDR growth projections to account for optimism bias.

Figure 65: Sensitivity analysis outputs (M9 Cluster)

Scenario description	Total infrastructure investment £'000	Annual break-even achieved?	Debt repayment year	NPV of Council surplus over 25 years £'000
Base	47,226	Yes	17	12,731
Increase investment plan cost base by 5%	49,587	Yes	17	12,069
Decrease investment plan cost base by 5%	44,864	Yes	16	13,472
Increase investment plan cost base by 10%	51,948	Yes	18	11,329
Decrease investment plan cost base by 10%	42,503	Yes	16	14,242
Increase interest rate by 1%	47,226	Yes	17	12,069
Decrease interest rate by 1%	47,226	Yes	16	13,992
Increase displacement factor by 5%	47,226	Yes	17	11,132
Decrease displacement factor by 5%	47,226	Yes	16	14,410
Increase displacement factor by 10%	47,226	Yes	18	9,509
Decrease displacement factor by 10%	47,226	Yes	16	16,126
Decrease real rental growth by 1% per annum	47,226	Yes	18	8,800
Increase real rental growth by 1% per annum	47,226	Yes	16	17,588

Source: Ernst & Young

This table illustrates the impacts to the finance costs and surplus of flexing various assumptions, assuming the M9 Corridor Investment Cluster as the base case. While most of these assumptions flexed have a detrimental effect on the Council surplus none of those illustrated above created a deficit.

13 Management and Delivery

13.1 Introduction

This section sets out the project governance and management framework. In developing the management arrangements for the project the main considerations have been availability of qualified personnel, establishing robust monitoring and approval processes, risk management and flexibility of project resources. Further discussions will take place with stakeholders to refine and implement the management arrangements outlined below.

13.2 Approach

The approach builds on that employed in the successful delivery of the Upper Forth Development Framework, which utilised a partnership approach involving Scottish Enterprise, the Council, Chemical Sciences Scotland and local businesses. Ultimately it is appropriate that the project will be led by the Council, with key links to SFT, Scottish Government, Scottish Enterprise and business leaders.

As such we propose a three-tier delivery and management structure:

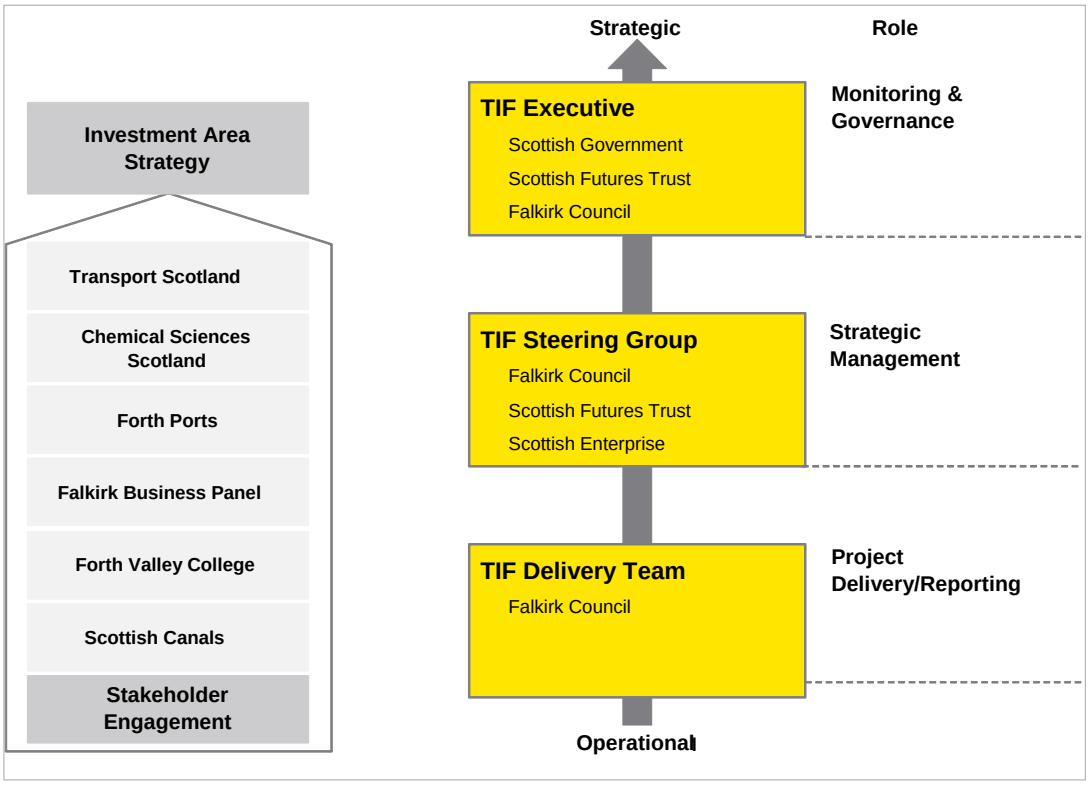
- High level monitoring and governance in the form of the TIF Executive, as defined in the TIF legal agreement. This comprises representative of the Scottish Government, SFT and Falkirk Council and provides clear governance over the TIF process. For the Council, this governance level will also involve reporting to elected members via the relevant Committees.

- Ongoing strategic management in the form of the TIF Steering Group, which will incorporate both senior management of Falkirk Council. Similarly it will include representation from SFT and Scottish Enterprise. This management committee will also retain close contacts with other stakeholders who will inform the necessary strategic delivery.

- Operational management of project delivery by the TIF Delivery team, resourced by officers of the respective specialist departments of Falkirk Council.

The diagram below sets out the overall project governance and management structure.

Figure 66: TIF project governance and management structure



The structure is considered further below.

13.3 TIF Executive

The TIF Executive will provide independent scrutiny to the strategic direction of the Programme Governance Board and will provide a suitable level of transparency to SFT, Scottish Government and other stakeholders.

The TIF Executive will meet as required and is expected to comprise of:

- Director of Development Services (Falkirk Council)
- Representative of Scottish Government
- Representative of Scottish Futures Trust

The TIF Executive's key responsibilities will include:

- Agreeing the annual TIF Business Plan

- Monitoring of the actual 25 year financial position against that projected in the approved FBC financial model
- Resolution of issues and approval for key parameter amendments
- Progress report review on delivery of project, issues, actions and risks

The Executive will be responsible to seeking the formal project approvals which will be required via Scottish Government and Falkirk Council (via the relevant Committee).

13.4 TIF Steering Group

The Council will provide clear strategic direction and delegated decision making powers for the TIF project team through its TIF Steering Group, in addition to normal governance arrangements in the form of reporting to the corporate management team and relevant Committees as appropriate.

The TIF Steering Group will provide clear strategic stewardship to the overall TIF project and is expected to comprise of:

- Director of Development Services (Falkirk Council)
- Chief Finance Officer (Falkirk Council)
- Head of Economic Development & Environmental Services (Falkirk Council)
- Head of Planning & Transportation (Falkirk Council)
- Representative of Scottish Enterprise
- Representative of Scottish Futures Trust

Elected members and other key stakeholders will be engaged in the Steering Group at key stages (commencement and annual review). The key responsibilities of the TIF Steering Group's governance and overview role are as follows:

- Provide strategic direction to, and scrutiny over, the TIF Delivery Team
- Delegate powers to the Delivery Team

- Ensure the TIF investment strategy is aligned with stakeholder needs and complements other key economic growth strategies
- Approval of the draft annual TIF Business Plan and monitoring of its implementation
- Approval for draw-down of debt and to enter into infrastructure construction contracts
- Provide scrutiny over the TIF delivery team
- Take overall responsibility for risk management arrangements
- Agreeing the annual TIF Business Plan
- Monitoring of the actual 25 year financial position against that projected in the approved FBC financial model
- Resolution of issues and approval for key parameter amendments
- Progress report review on delivery of project, issues, actions and risks
- Liaison with external stakeholders to ensure consistency of delivery and interface management.

13.5 TIF Delivery Team

To date, preparation of the Business Case has been led by the Council's Development Services with input from Finance Services, Legal, Roads, Planning and Scottish Enterprise Business Infrastructure team. It is proposed that work on taking forward the TIF scheme will be undertaken by a delivery team involving senior representation from Development Services, Legal Services and Financial Services reporting into the Falkirk Officers Group chaired by the Director of Development Services, who will be designated Project Director. This group will also be attended by Scottish Enterprise and regular arrangements for partnership delivery will be put in place.

The group will also include a dedicated Project Manager who will oversee and coordinate operational matters concerning the TIF Project.

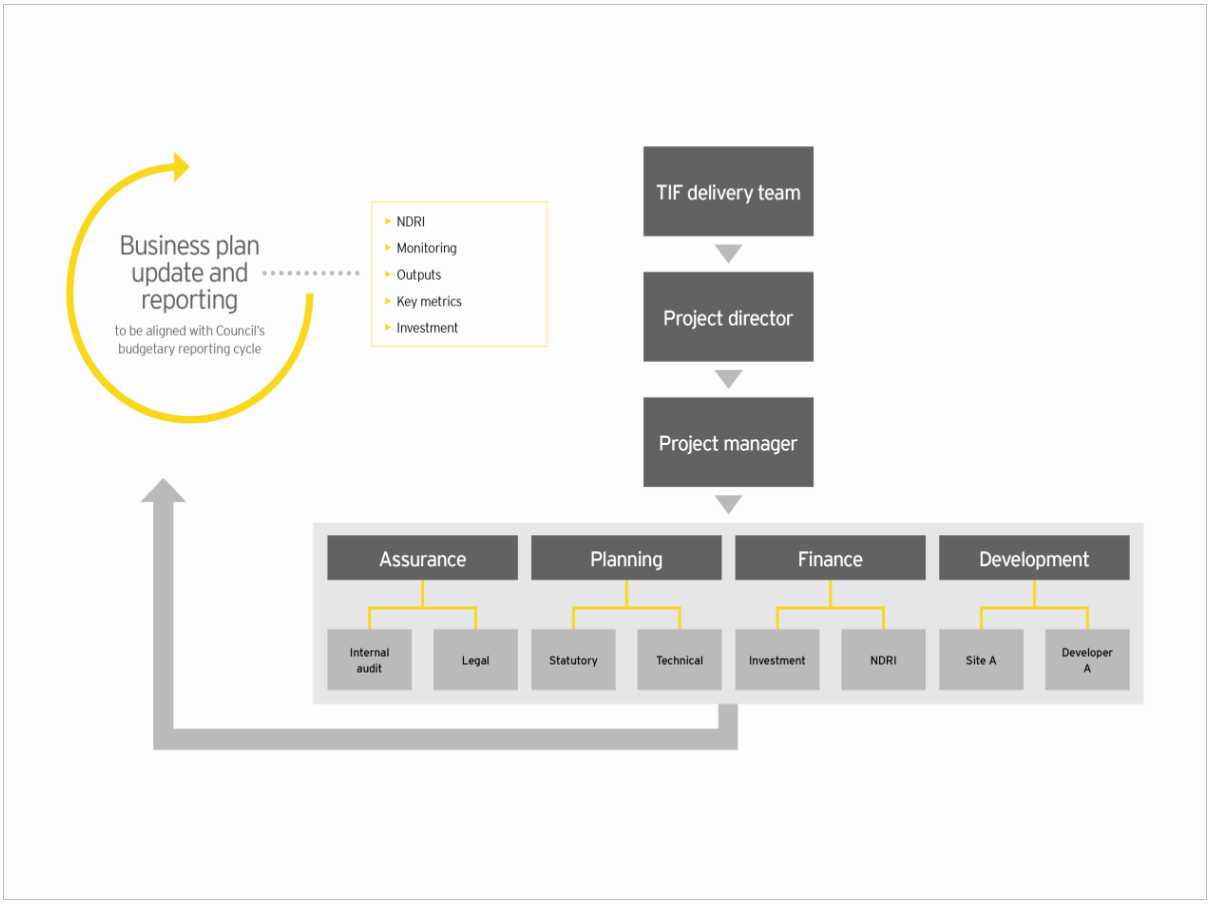
The Delivery Team's main responsibilities will be as follows:

- Managing the delivery of the TIF infrastructure programme
- Monitoring and reporting of programme and project delivery
- Preparation of requests for debt draw-downs

- Monitoring of performance against the approved TIF FBC
- Preparation of annual TIF business plans and annual reporting of performance
- Monitoring of NDR revenues collected and assigned to the TIF project
- Project management and administration
- Stakeholder engagement and management
- Aligning the opportunities presented by TIF to other strategies as appropriate
- Maximising the economic growth opportunities presented by the TIF infrastructure investment
- Promoting the TIF project in the wider context of a Falkirk investment area

The structure of the Delivery Team is shown below.

Figure 67: TIF Delivery Team



13.6 Contributing to the area's wider investment area strategy

The management arrangements will ensure connection with related delivery of the investment strategy for the area set out in Section 4. The Council has worked with Ernst & Young, Eden Consultancy Group and Ryden to formulate a strategy that will align Falkirk TIF with *My Futures in Falkirk's* wider investment area strategy.

The Falkirk TIF is a significant investment tool to enable the area's business growth potential to be realised and will act as a significant catalyst to attract private sector investment. A range of opportunities will combine to form an environment that is attractive for development:

- A unique, timely and unprecedented commercial business opportunity for Falkirk with the creation of a new investment zone comprising 27 development sites.

- Development of centres of excellence, including chemicals science, logistics and port infrastructure (with the possibility of creating an Innovation Centre around the TIF programme). Investment in these centres of excellence will bring together academics, technical advisors and public and private organisations.

- The optimisation of regional and national competitive advantage. In 2010 Falkirk won the most enterprising place in Scotland award and 92.5% of businesses surveyed[3] agreed Falkirk is a good place to do business. Internationally, Scotland is the leading location in the UK for FDI employment creation. This has been down to interventions of Scottish Development International and the TIF programme will only enhance this position.

- Strong existing partnerships and momentum within the *My Future's in Falkirk* initiative, the programme will complement current initiatives for business, skills and investment. The business survey results indicated that improvements in infrastructure area key priority for local businesses.

- Existing development sites with their own brand identity and communications, sites such as the Helix, Falkirk Gateway and Falkirk Stadium are integral to the investment zone and the marketing will complement that currently.

- Embedded community benefits programmes which will ensure that job creation and skills development outcomes are secured from project delivery

[3] *My Future's in Falkirk*, Business survey results, March 2011

- An Infrastructure & Development Plan is being prepared which will identify the development framework and masterplans for delivery of key sites and the works necessary to secure development, to be supported by TIF and other project partners.

13.7 Marketing : MAKE IT. FALKIRK

Coinciding with the preparations for commencement of the TIF initiative, an approach to marketing is being developed which will ensure that key messages are presented to prospective investors and the wider development market. The approach will be commercially focussed and aimed towards the corporate market for inward investment. It adopts the message 'MAKE IT. FALKIRK', reflecting the area's strength in manufacturing and a commitment to project delivery. Content and branding adopted will be immediately appealing to the business audience and will feature strong, clean typography.

The marketing approach builds upon and refocuses existing marketing and communications associated with *My Future's in Falkirk*. Key stakeholders such as Scottish Development International, Scottish Enterprise, local business and development partners will be engaged in this approach. It will recognise the diversity of sites and opportunities within the TIF, and the fact that site-specific target markets and marketing initiatives exist.

The early stage marketing objectives include:

- Development of the marketing budget
- Assembling the branding and the communications plan (this will be commissioned prior to commencement)
- Identification and benchmarking of success factors and measurement metrics
- Communication - by building and developing market awareness through:
    - Branding and publicity
    - Events
    - Web-support
    - Brochures
    - Brand placement and advertising

It is envisaged this will be done through a variety of channels including:

- Property Trade and Business Press
- TIF Project Launch and follow-up events

- Website and targeted digital media
- Network, agency and professional advisor channels.

13.8 Capitalising on existing and related marketing initiatives

The marketing approach will complement a number of existing and related initiatives including:

13.8.1 My Future's In Falkirk

This is a durable and widely recognised umbrella brand for the existing wider economic regeneration initiative. The *My Future's in Falkirk* brand and existing materials offer a strong context and foundation to link with the TIF marketing strategy and branding.

13.8.2 The Helix

This major community based initiative will transform the area between Falkirk and Grangemouth, creating into a thriving urban green space and a national Living Landmark. It will be a central feature of the future Falkirk TIF area and will signify the TIF's commencement.

13.8.3 Growth & Investment Unit

Coinciding with the development of TIF, the Council has restructured its delivery team in Development Services, creating a new Growth & Investment Unit which brings together a team involving capital project delivery, regeneration, marketing and business support functions. This 'one-stop shop' for business will play a key role in managing the TIF's delivery and response to inward investment anticipated through TIF.

13.8.4 Early wins and opportunities for targeted investor marketing

Among the sites listed above are a number which are anticipated to provide early wins attracting investment interest within the first three years of the TIF.

These will be important statement in marketing the TIF, seeking to attract subsequent interest, investment and job creation. Sites are anticipated in this initial portfolio include Earls Gate, Falkirk Stadium, Falkirk Gateway, Abbotsford and the Helix. These sites have the advantage of being in close proximity to each other and can therefore create a focal point for early TIF investment.

13.9 Longer term target markets

Targets for the investment zone to attract market interest will include:

- Regional and national property developers and business organisations
- Chemical science and bio pharmaceutical sectors
- Transport logistics organisations

- Site-specific market targets

- Internationally based investors (leveraging linkages between companies in Falkirk and other parts of the world).

13.10 Next steps

It is intended that the marketing proposals to accompany the TIF are developed further and that a major launch event be conducted early in the programme to stimulate market interest and establish the presence of the initiative.

14 Conclusion

14.1 The strategic case

Falkirk's economy is of national importance and has a number of key strengths that can help stimulate growth at a vital time for the economy. Its concentration of industries in manufacturing, chemicals and logistics offer critical advantages for Scotland and have the potential to attract investment, generate jobs and increase productivity,

The strategy for Falkirk TIF founds on a commitment to exploit the area's central location in Scotland and resolve the infrastructure challenges facing the area. The need to overcome these challenges has gained national support through initiatives such as NPF2 and the Upper Forth Development Framework which brought together the main partners who have a stake in the local economy.

The TIF investment programme is a carefully designed programme with a combined impact greater than the sum of its parts. This is particularly evident in its approach to attracting investment, through the removal of barriers to development, while enhancing intermodal transport across the M9 corridor. In this respect, the TIF will enhance road connectivity to Scotland's largest port at Grangemouth Docks; addressing the poor road accessibility in the area; and promote a shift to more sustainable forms of transport. All of these contribute to providing the Falkirk area with the infrastructure it requires to maintain its position as Scotland's manufacturing hub.

The TIF will play an important role in removing the barriers and uncertainties which inhibit investment and be a powerful tool in attracting investment to the area. It will also build on the positive momentum and transformational potential of the Helix which, with the Falkirk Wheel, will add to the area's national status as a visitor location.

14.2 The funding case

The financial analysis in this business case has been prepared on the basis of prudence and demonstrates that the project can be delivered with a manageable programme involving £67m capital expenditure generating £244m of revenue which in time will create a surplus of £26m in NPV terms.

The TIF funding mechanism ultimately relies on the area's industrial base and property market to provide the resulting revenue sources. The business case has sought to mitigate this obvious risk and as a result development demand assumptions have come from external property consultants, after extensive analysis and survey of business stakeholders. An additional level of comfort has been achieved by applying a global deflator of 25% to account for any optimism bias.

Due to the uncertainty facing the necessary co-funding of the A801 Avon Gorge and Grangemouth Flood Protection projects the investment cluster approach was devised. This allowed these infrastructure projects and their

related development projects to become separable, stand alone, projects that would be brought online if and when funding was secured.

Consequently, the investment cluster approach allows the Council to mitigate the risk of co-funding not being achieved, while allowing the flexibility to include the wider investment plan in the aspirations for the Falkirk TIF initiative.

Funding scenarios were run to include the core M9 Corridor, as well as scenarios where the A801 Avon Gorge and Grangemouth Flood Protection were included respectively and together. All scenarios, as well as the stand-alone investment clusters, were financially viable and produced surpluses over the 25 year timeframe of TIF.

The management of risk over the course of the TIF project will be the responsibility of the Project Team, who will report to the TIF Executive on the infrastructure programme and monitor the revenues generated against the business case assumptions. Should there be a significant risk of NDR revenues being insufficient to service future debt obligations then the infrastructure expenditure will be delayed until NDR growth is achieved. This is a key risk mitigation offered by the TIF FBC's programme approach.

14.3 The economic case

As an innovative economic development mechanism, Falkirk TIF will provide a significant benefit to Scotland and the local economy. The investment anticipates that attraction of private sector investments totalling over £410m, with construction based GVA of £293m and ongoing GVA of £415m per annum.

Principally this will include 5,859 construction jobs, initiated on a 'shovel-ready' basis during a period of significant development downturn. Long term local job creation is forecast at 8,300. A key consideration is that these figures include additional jobs after displacement. They do not consider the very real impact and benefit of sustaining existing jobs in the area. A key message from local industrial employers is that ongoing programmes of reinvestment in their plant are necessary for the ongoing viability of the production facilities. They must compete internationally to secure this investment and require a matching commitment at local level from government bodies to ensure that infrastructure to enable connection to markets and provide adequate flood protection for the Grangemouth industrial zones is in place. The TIF initiative helps to provide this assurance, providing a platform for investment for the next 25 years. Community benefits programmes, embedded in project delivery through the Council's procurement policies, will ensure ongoing provision of jobs, training and other economic outcomes over the life of the initiative.

14.4 Approvals and next steps

As part of this TIF Pilot submission, Falkirk Council request the Scottish Government to approve the following key steps, required to deliver Falkirk TIF:

- Approval of TIF full business case
- Approval to use the TIF mechanism to capture additional NDR to finance the proposed investment programme. This includes approval of the proposed redline area.
- Approval of the proposed baseline floor mechanism
- Approval of a mechanism to allow incremental NDR growth from the intensification of existing chemicals industry sites
- Agree to the baseline level of NDR as established by Falkirk Council at 30 September 2012
- acknowledge the request that special borrowing powers may be required for TIF projects infrastructure investments taking place on non-Falkirk Council land.

The Council seeks full approval to be achieved in early 2013 to allow commencement of construction works in early 2013/14. Should this be secured the Council will ensure the following steps are completed:

- confirm acceptance of the Scottish Government's terms and conditions for the TIF scheme
- Establish necessary management and governance structures for the TIF and clarify roles and responsibilities.
- Ensure all necessary design and procurement measures are undertaken to allow commencement of construction to commence in early in 2013/14.

Development Services

Falkirk Council

March 2013