

Proposal Details			
Name and address of authority or organisation promoting the proposal: (Also provide name of any subsidiary organisations also involved in promoting the proposal)		TACTRAN, Bordeaux House, 31 Kinnoull Street, Perth, PH1 5EN	
Proposal Name:	New Blackford Station	Name of Planner:	
Proposal Description:	Relocate existing Blackford station to the east of the B8081 bounded to the south by the Highland Spring plant. Level crossing used to provide access between platforms. All road traffic will have to travel through village.	Estimated Total Public Sector Funding Requirement:	<i>Capital costs/grant: £4.5m</i>
			<i>Annual revenue support: £nil</i>
			<i>Present Value of Cost to Govt.</i>
Funding Sought From: (if applicable)		Amount of Application:	<i>Sum:</i>
Background Information			
Geographic Context:	<p>The TACTRAN region covers the Angus Council, Dundee City Council, Perth and Kinross and Stirling Council authority areas, located to the north, east and west of Scotland's Central Belt. It is a unique geographical region including the three cities of Stirling, Perth and Dundee and an extensive rural hinterland of inter-connected towns, villages and rural areas, many of which are located within the Loch Lomond and Trossachs National Park and Cairngorms National Park. In general moving from north west to south east in the TACTRAN area moves from rural to more urban areas and the population density increases. The scope and influence of this study extends to Aberdeen in the north and Glasgow to the south, embracing the outskirts of the Grampians and the Central Belt area. 10% of the population in the TACTRAN area live in small towns with populations between three and ten thousand with 25% of the population living in rural settlements where the population is less than three thousand people. The majority of the population reside in the main urban settlements of Dundee, Perth, Stirling and Arbroath which range in size from between 20,000 and approximately 145,000 inhabitants.</p>		

<p>Social Context:</p>	<p>The demographic profile of the TACTRAN region is not dissimilar to Scotland as a whole, with around 19% of the population under the age of 16, 20% of the population over the pensionable age and the remainder of 61% between these two ranges. Angus, Dundee City and Perth & Kinross all have higher percentages of their population over the pensionable age than the Scottish average, but this is reduced across the region as a whole by the lower than average percentage observed in the Stirling Council area. The average number of persons per household is broadly consistent across the TACTRAN region and aligns with the Scottish average: the average number of people per household is highest in Stirling at 2.36 and lowest in Dundee City at 2.13.</p> <p>The percentage of residents in Dundee City who live in a household with no available car (46%) is much higher than the national average of 34% and compares to percentages of 24%, 24% and 25% in Stirling, Perth & Kinross and Angus respectively. Whilst the average across the region for people with no access to a car is 31%, car ownership in the TACTRAN area is higher than that observed in the rest of Scotland. The preferred mode for travel to work is dominated by the car, which is used for an average of 66% of journeys, above the Scottish average of 64%. The use of rail and bus is low within the Council areas of Angus, Perth and Kinross and Stirling ranging between 6% and 10% of journeys in those areas, corresponding to the availability and frequency of Public Transport.</p> <p>More than 17% of the population in Angus, Perth & Kinross and Stirling travel over 10 kilometres to work, compared to only 4% who travel this distance and reside in Dundee City. Work journeys account for 22% of all trips that are made. Whilst 78% of resident's travel to work trips are within local authority areas; Dundee City has the highest proportion of internal trips (88%) followed by Perth and Kinross (82%), Angus (69%) and Stirling (68%). Currently 69% of journeys to work in the region are made by car with a relatively high mode share of 10% bus trips. Walking accounts for a high proportion of trips (17%), with rail and cycling accounting for 2% of trips each. Within Dundee the public transport mode share is high (19%) but within Angus, Perth and Stirling the public transport mode share is much lower (9%). Public transport provision and related services within the urban and rural areas are regarded as good and poor respectively, albeit within the wider rural hinterland this is exacerbated by the dispersed nature of surrounding settlements.</p> <p>A greater percentage of residents than the Scottish average are considered to be in 'good' health across the TACTRAN area. This is true for the individual authorities apart from Dundee City which sees a lower than average percentage of 'good' health and a higher than average percentage with 'not good' health, rather than 'fairly good' health. It is also the case in Dundee City that there is a greater percentage occurrence of a limiting long term illness than the Scottish average.</p>
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Economic Context:

The distinct urban and rural areas across the TACTRAN region serve various functions. Dundee is a vibrant economic centre with a growing employment and residential market. As well as its function as a tourism destination, Stirling City also plays a key service role for the wider Stirlingshire area, providing a wide range of employment and other services for the surrounding communities as well as for visitors and passing trade. The wider Stirling authority area covers a deep rural hinterland, many areas of which are captured within the Loch Lomond and Trossachs National Park where tourism is a key industry. These patterns can be demonstrated by looking at industries which employ the greatest percentage of people in each of the Council areas compared to the Scottish average. In Angus it the extraction industries such as Agriculture, hunting and forestry, mining and quarrying and manufacturing employ a greater percentage than the Scottish average while Dundee City conforms much more to the Scottish average but is more heavily biased towards health, social work and manufacturing. Throughout the TACTRAN region, employment in the construction industry is higher than in other parts of the country, and the impact of the large Universities in Dundee and Stirling is reflected in the percentage of people who work in the education sector. The industries with the highest percentages in Perth & Kinross are agriculture, hunting and forestry and hotels and restaurants, reflecting a higher dependency on tourism. Retail employment in this area is also high. Stirling shows a high percentage of the population employed in the hotel and restaurant sector as well as a high financial and educational bias.

The percentage of the population within the TACTRAN area who are unemployed varies considerably between the constituent Council areas and is potentially compounded by the urban and rural characteristics of these areas. The Perth & Kinross and Stirling Council areas both have fewer than 3% unemployment compared with the national average of 4%, while Dundee City had over 5% of its population unemployed at the time of the last Census. The percentage of the economically active population who are undertaking full time study in the TACTRAN area is higher than the Scottish average and this is due to the impact of the large universities at Stirling and Dundee. Unemployment figures show that there are significant areas of high unemployment in the east of the TACTRAN region, primarily in Angus but also in the rural areas north of Kirriemuir and Brechin and around Crianlarich and Killin.

Planning Objectives	
Objective:	Performance against planning objective:
EC1. Ensure that rail provides and supports economic growth by connecting key business & employment sectors where possible	Minor Positive – a new station would facilitate rail travel for the surrounding catchment. Improved access would support economic growth at both local and regional levels.
EC2. Improve the efficiency, reliability and integration of rail services in the Tay Estuary study area specifically where this will benefit key business and employment sectors	Neutral – the station itself will not improve this objective when services are not considered.
ACC1. Increase accessibility to key service destinations in the TACTRAN area (e.g. employment, health and education sites) and to/from key external destinations by rail without compromising wider inter-regional rail connectivity	Minor Positive – a new station would facilitate rail travel for the surrounding catchment albeit the extent to which “increased accessibility” occurs is dependant on the services and destinations.
ENV1. Contribute to national greenhouse gas emission reductions through rail based interventions where possible	Minor Positive - the proposed car park at Blackford is likely to encourage a modal change from cars to rail.
ENV2. Contribute to the management of air quality in the TACTRAN area, particularly the AQMA’s across the Dundee City Council area and Perth	Minor Positive – the proposed car park is likely to encourage a modal change from cars to rail and therefore contribute to, albeit minor, air quality improvements in the TACTRAN area.
SEC1. Maintain or improve real and perceived levels of safety and personal security on the rail network	Moderate Positive – the new station will be fitted with lighting, CCTV which would enhance the levels of safety and personal security.
INT1. Ensure that rail is fully integrated with relevant land-use and planning projects	Minor Positive – the station will enhance the integration of rail with relevant land-use. In particular this station is sited close to the employment destination of Highland Spring factory.
INT2. Ensure the rail network is integrated with the wider public transport network	Neutral– the station will allow improved access to onward rail services at other stations, albeit the extent to which “integration” occurs is dependant on the services and destinations. It also is located close to existing local bus services.

Rationale for Selection or Rejection of Proposal:	<p>Whilst the preferred option would be to locate Blackford station at the alternative site adjacent to the Highland Spring factory, this, at present, is not practicable due to studies underway to provide a rail freight facility for the factory. The station is therefore assumed as having to be located at the site of the former station. This adds some construction complexity and conflicts with existing sidings. There are high levels of local support for reopening a station in Blackford. A station here would provide good direct links with employment and education in Stirling, Perth and Glasgow. However a station at Blackford would share a catchment area with the existing station at Gleneagles. Demand forecasting indicates a new station would generate around 19,000 additional journeys. It is estimated that improving facilities at Gleneagles would generate an additional 15,000 journeys. The proposals meet the targets of government objectives and should therefore be accepted as an option at this stage. It is recommended this option is further developed in order to differentiate the case for provision against enhancing the existing station at Gleneagles or the do-nothing option.</p>
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Implementability Appraisal	
Technical:	<p>Although the B8081 connects with the A9 northbound, north of Blackford, this junction does not allow traffic from the southbound A9 to access the B-road. All traffic from the north accessing the station site will have to travel through Blackford.</p> <p>From a construction perspective, the best station location is to the east of the level crossing, adjacent to the Highland Spring factory. However the land here is owned by Highland Spring and is presently subject to an advanced study to accommodate a rail freight hub.</p> <p>The only remaining option is to locate the station to the west of the level crossing where the original station stood. The railway is at grade throughout Blackford. This site has some complexities to provide full length 6 car platforms. On the down side, the land rises steeply behind the tracks at the western end and there is a single track road approximately 9m from the running line near the B8081. The single track road would require to be realigned to ensure a safe junction if the platform is constructed in this location. A retaining wall would also be required to create space for construction of the platform. The length of the up platform is constrained to a 4 car length by the turnout accessing the existing freight sidings. The sidings will require to be recovered or relocated in order to provide a full 6 car length platform.</p> <p>It should be notes there are no significant constraints to constructing the platforms on the alternative site to the east of the level crossing. Platform to platform access is proposed via the level crossing – this saves the significant cost of a DDA compliant footbridge.</p>
Operational:	<p>Blackford station will be unstaffed. The station is located within a standard signalling block section so trains stopping in the section will not have a significantly detrimental impact on the capacity of the main line. Blackford signal box is staffed and controls the level crossing over the B8081.</p> <p>The sidings on the up line are privately owned (Highland Spring) and they may be willing to allow these to be recovered if they develop a new freight hub to the east of the level crossing.</p>

Financial:	<p>Station and car park development at Blackford would cost circa £4.5m including a 44% uplift for risk and optimum bias. An operating cost of £30k pa is estimated for maintenance and utilities plus an annual lease charge of £20k pa to Network Rail to contribute to heavy maintenance.</p> <p>Blackford station has an almost identical drive catchment area to the existing Gleneagles station. If this station was provided in addition to Gleneagles, we estimate most of the existing patronage of Gleneagles would abstract to Blackford due to the better road links. The identified total demand (for the catchment of both stations) of circa 40,000 journeys pa does not appear to justify stopping the proposed services at Blackford and Gleneagles as the journey time disbenefits would negate the slight additional revenue provided by Blackford's walk in catchment. In summary the revenue generated by a Blackford station is marginally more than for a Gleneagles station with enhanced facilities, due to the additional walk in catchment, and around double that for the existing Gleneagles station. The existing patronage for Gleneagles is 21,000.</p> <p>A station at Blackford has the potential to generate just under 20,000 additional journeys and this revenue would cover the operating costs of the new facility. It is estimated that the timeframe for the station development would be 2017+ due to the availability of funding required.</p>
Public:	<p>Not currently public but acceptability anticipated to be high given improved access to the rail network for the surrounding catchment. There is significant local support for a new rail station at Blackford with a campaign group to reopen the station again active. Planning issues would be resolvable as a station previously existed here.</p>

Government's Objectives for Transport		
Objective	Assessment Summary	Supporting Information
Environment:	<p>Air Quality = Moderate positive Noise and Vibration = Moderate negative Water Quality, Drainage and Flood Defence = Neutral Geology = No change Biodiversity = Minor negative Landscape = Minor negative Visual Amenity = Minor negative Agriculture and Soils = No change</p>	<p>Air Quality –reopening a station here could expect to achieve a modal shift to train from private car and therefore improvements to air quality at a strategic and local level. Noise and Vibration - Noise of cars using car parks, station announcements and trains halting would create a moderate impact to properties within the vicinity of the station and car park boundaries. Water Quality, Drainage and Flood Defence - no change Geology – no change Biodiversity - clearing and remodelling of land for construction purposes will reduce biodiversity, albeit degree of severance from existing roads and railway lines Landscape - car park and station buildings will alter landscape but mitigation measures will ensure this is not significant. Visual Amenity - green environment to be replaced with car parks and buildings</p>

	Cultural Heritage = Neutral	reduces visual appeal from surrounding houses. Agriculture and Soils – no change Cultural Heritage – no change
Safety:	Accidents = Neutral Security = Moderate positive	Accidents – station does not impact upon accident rate Security – CCTV and lighting will improve the areas security level. With an increase of pedestrian footfall human surveillance is created.
Economy:	Transport Economic Efficiency = Neutral Economic Activity and Location Impacts = Minor positive	TEE - the station itself does not have a bearing on economic efficiency, it depends on the services provided. EALI - the station facilitates access to employment opportunities.
Integration:	Transport Integration = Major positive Land-use Transport Integration = Moderate positive Policy integration = Major positive	Transport Integration – Allows improved access to rail and onward services from other stations Land-use Transport Integration – option should have a positive effect on the business / employment across the region Policy Integration –Proposals fit well with the TACTRAN Regional Transport Strategy
Accessibility & Social Inclusion:	Community Accessibility = Moderate positive Comparative Accessibility = Moderate positive	Community Accessibility – the new station would enhance the attractiveness of rail to the public and will have benefits for those with restricted or no access to the private car. Comparative Accessibility – high quality station design will allow access to disabled groups and those with restricted access to the private car.

Proposal Details			
Name and address of authority or organisation promoting the proposal: (Also provide name of any subsidiary organisations also involved in promoting the proposal)		TACTRAN, Bordeaux House, 31 Kinnoull Street, Perth, PH1 5EN	
Proposal Name:	New Dunblane North station Site 1	Name of Planner:	
Proposal Description:	Adjacent to A9. Car park and platforms on opposite sides of the Allan Water. Excellent road conditions. Car parking space for 300-400 vehicles. Greenbelt site.	Estimated Total Public Sector Funding Requirement:	<i>Capital costs/grant: £13.8m</i>
			<i>Annual revenue support: £500k</i>
			<i>Present Value of Cost to Govt.</i>
Funding Sought From: (if applicable)	Central Government	Amount of Application:	<i>Sum:</i>
Background Information			
Geographic Context:	<p>The TACTRAN region covers the Angus Council, Dundee City Council, Perth and Kinross and Stirling Council authority areas, located to the north, east and west of Scotland's Central Belt. It is a unique geographical region including the three cities of Stirling, Perth and Dundee and an extensive rural hinterland of inter-connected towns, villages and rural areas, many of which are located within the Loch Lomond and Trossachs National Park and Cairngorms National Park. In general moving from north west to south east in the TACTRAN area moves from rural to more urban areas and the population density increases. The scope and influence of this study extends to Aberdeen in the north and Glasgow to the south, embracing the outskirts of the Grampians and the Central Belt area. 10% of the population in the TACTRAN area live in small towns with populations between three and ten thousand with 25% of the population living in rural settlements where the population is less than three thousand people. The majority of the population reside in the main urban settlements of Dundee, Perth, Stirling and Arbroath which range in size from between 20,000 and approximately 145,000 inhabitants.</p>		

Social Context:

The demographic profile of the TACTRAN region is not dissimilar to Scotland as a whole, with around 19% of the population under the age of 16, 20% of the population over the pensionable age and the remainder of 61% between these two ranges. Angus, Dundee City and Perth & Kinross all have higher percentages of their population over the pensionable age than the Scottish average, but this is reduced across the region as a whole by the lower than average percentage observed in the Stirling Council area. The average number of persons per household is broadly consistent across the TACTRAN region and aligns with the Scottish average: the average number of people per household is highest in Stirling at 2.36 and lowest in Dundee City at 2.13.

The percentage of residents in Dundee City who live in a household with no available car (46%) is much higher than the national average of 34% and compares to percentages of 24%, 24% and 25% in Stirling, Perth & Kinross and Angus respectively. Whilst the average across the region for people with no access to a car is 31%, car ownership in the TACTRAN area is higher than that observed in the rest of Scotland. The preferred mode for travel to work is dominated by the car, which is used for an average of 66% of journeys, above the Scottish average of 64%. The use of rail and bus is low within the Council areas of Angus, Perth and Kinross and Stirling ranging between 6% and 10% of journeys in those areas, corresponding to the availability and frequency of Public Transport.

More than 17% of the population in Angus, Perth & Kinross and Stirling travel over 10 kilometres to work, compared to only 4% who travel this distance and reside in Dundee City. Work journeys account for 22% of all trips that are made. Whilst 78% of resident's travel to work trips are within local authority areas; Dundee City has the highest proportion of internal trips (88%) followed by Perth and Kinross (82%), Angus (69%) and Stirling (68%). Currently 69% of journeys to work in the region are made by car with a relatively high mode share of 10% bus trips. Walking accounts for a high proportion of trips (17%), with rail and cycling accounting for 2% of trips each. Within Dundee the public transport mode share is high (19%) but within Angus, Perth and Stirling the public transport mode share is much lower (9%). Public transport provision and related services within the urban and rural areas are regarded as good and poor respectively, albeit within the wider rural hinterland this is exacerbated by the dispersed nature of surrounding settlements.

A greater percentage of residents than the Scottish average are considered to be in 'good' health across the TACTRAN area. This is true for the individual authorities apart from Dundee City which sees a lower than average percentage of 'good' health and a higher than average percentage with 'not good' health, rather than 'fairly good' health. It is also the case in Dundee City that there is a greater percentage occurrence of a limiting long term illness than the Scottish average.

Economic Context:

The distinct urban and rural areas across the TACTRAN region serve various functions. Dundee is a vibrant economic centre with a growing employment and residential market. As well as its function as a tourism destination, Stirling City also plays a key service role for the wider Stirlingshire area, providing a wide range of employment and other services for the surrounding communities as well as for visitors and passing trade. The wider Stirling authority area covers a deep rural hinterland, many areas of which are captured within the Loch Lomond and Trossachs National Park where tourism is a key industry. These patterns can be demonstrated by looking at industries which employ the greatest percentage of people in each of the Council areas compared to the Scottish average. In Angus it the extraction industries such as Agriculture, hunting and forestry, mining and quarrying and manufacturing employ a greater percentage than the Scottish average while Dundee City conforms much more to the Scottish average but is more heavily biased towards health, social work and manufacturing. Throughout the TACTRAN region, employment in the construction industry is higher than in other parts of the country, and the impact of the large Universities in Dundee and Stirling is reflected in the percentage of people who work in the education sector. The industries with the highest percentages in Perth & Kinross are agriculture, hunting and forestry and hotels and restaurants, reflecting a higher dependency on tourism. Retail employment in this area is also high. Stirling shows a high percentage of the population employed in the hotel and restaurant sector as well as a high financial and educational bias.

The percentage of the population within the TACTRAN area who are unemployed varies considerably between the constituent Council areas and is potentially compounded by the urban and rural characteristics of these areas. The Perth & Kinross and Stirling Council areas both have fewer than 3% unemployment compared with the national average of 4%, while Dundee City had over 5% of its population unemployed at the time of the last Census. The percentage of the economically active population who are undertaking full time study in the TACTRAN area is higher than the Scottish average and this is due to the impact of the large universities at Stirling and Dundee. Unemployment figures show that there are significant areas of high unemployment in the east of the TACTRAN region, primarily in Angus but also in the rural areas north of Kirriemuir and Brechin and around Crianlarich and Killin.

Planning Objectives	
Objective:	Performance against planning objective:
EC1. Ensure that rail provides and supports economic growth by connecting key business & employment sectors where possible	Moderate Positive – a new station would facilitate rail travel for the surrounding catchment. Improved access to the proposed 4 TPH would support economic growth at both local and regional levels.
EC2. Improve the efficiency, reliability and integration of rail services in the Tay Estuary study area specifically where this will benefit key business and employment sectors	Minor Negative – While improving efficiency, reliability and integration for the local catchment. The additional time required to stop services at Dunblane north will have performance implications on the main line affecting large numbers of services at Edinburgh and Glasgow. Furthermore, whilst this station was forecast to have high patronage levels, most were abstracted from existing services at Dunblane. Additional rolling stock and infrastructure required to service a station at Dunblane North make operating costs too high.
ACC1. Increase accessibility to key service destinations in the TACTRAN area (e.g. employment, health and education sites) and to/from key external destinations by rail without compromising wider inter-regional rail connectivity	Moderate Positive – a new station would facilitate rail travel for the surrounding catchment with 4 TPH service improving efficiency, reliability and integration for the surrounding catchment.
ENV1. Contribute to national greenhouse gas emission reductions through rail based interventions where possible	Minor Positive - the proposed P+R facility at Dunblane is likely to encourage a modal change from cars to rail.
ENV2. Contribute to the management of air quality in the TACTRAN area, particularly the AQMA's across the Dundee City Council area and Perth	Minor Positive – the proposed P+R at Dunblane station is likely to encourage a modal change from cars to rail and therefore contribute to, albeit minor, air quality improvements in the TACTRAN area.
SEC1. Maintain or improve real and perceived levels of safety and personal security on the rail network	Moderate Positive – the new station will be fitted with lighting, CCTV which would enhance the levels of safety and personal security.
INT1. Ensure that rail is fully integrated with relevant land-use and planning projects	Minor Positive – the station will enhance the integration of rail with relevant land-use projects. Although Dunblane is distanced from the Major Growth Area cited in Stirling Council's development plan, Dunblane's local plans detail housing and business activity proposals for an area south of the station site.

<p>INT2. Ensure the rail network is integrated with the wider public transport network</p>	<p>Minor Negative– the station will allow improved access to onward rail services at other stations, albeit the extent to which “integration” occurs is dependant on the services and destinations. The station is somewhat displaced from the community in this location and is not easy to access form residential areas on foot.</p>
<p>Rationale for Selection or Rejection of Proposal:</p>	<p>This option has been rejected at this stage due to both the high capital investment required and the high annual operating costs which have to cover the station, new infrastructure and rolling stock. Moreover this design has been noted to have significant construction risks. Despite the sites good road access from Dunblane and Strathearn, those with no access to a car will struggle to use it. As such, it falls short in performance against planning objectives INT 2 and government objectives. A significant portion of the identified demand for the new station is abstracted from existing stations at Dunblane and Gleneagles. Due to the lack of a walk in catchment he identified demand for the station does not appear sufficient to cover the annual operating costs nor make a contribution to the required capital investment.</p>

<p>Implementability Appraisal</p>	
<p>Technical:</p>	<p>This site has excellent road access from both Dunblane and the Strathearn/ Strathallan areas. It is located adjacent to the existing B8033 overbridge to the A9, with access to and from both north and south carriageways of the A9. The junction of the slip roads to the north bound A9 and the B8033 has the potential to be upgraded to a roundabout to give access to the station site. A new road carriageway would be required, with a reasonable extent of earthworks to access the station across the existing uneven ground. The rail tracks at this location are west of the Allan Water but are approximately level with the ground to the east of the Allan Water where the station car park etc is proposed. Topographical constraints in accommodating a station. Piling would be required to accommodate ground conditions and there is a potential issue with consents to construct so close to Allan Water. A bridge across the Allan water would be required to give level access to platforms. There is no scope in progressing vehicular access from the west of the site as the existing road is single track and bounded by a number of residential properties through Auchenlay. Extensive engineering works and significant construction risk are associated with this option.</p> <p>Opportunities may also exist in this location for provision of rolling stock Light Maintenance Depot facilities should electrification be extended to a Dunblane North location.</p>
<p>Operational:</p>	<p>The site has sufficient capacity to provide a significant park and ride facility serving 300-400 vehicles. A new footbridge is required to provide platform to platform access.</p> <p>It is assumed that if development of the new station proceeds some rationalisation of the current infrastructure at Dunblane will take place. It is also assumed that provision of a new Dunblane North Station will be associated with a comprehensive signalling upgrade between Stirling and Blackford.</p> <p>Ideally the station would be constructed with three platforms protected by main line signals with extended overlaps of 225 metres to comply with Robust Train Protection requirements. A reduction of Bay Platform and or Overlap lengths may have an impact on the operational flexibility of the layout. A bay platform would be provided forming a shared ‘island’ platform with the up or down Main. It is</p>

	<p>assumed that trains in any Platform will be attended at all times and trains will not be stabled in Platform 3. Although there is a significant falling gradient towards Dunblane, trapping protection in Platform 3 will not be provided if the preceding criteria is met.</p> <p>The Bay Platform line should be extended a sufficient distance to ensure that the TPWS (TSS) at Signals 13, 15 and 16 will effectively stop a 'start against' SPAD before the point of conflict. If the Bay Platform line has to be shortened because physical constraints, this may have an impact on the operational flexibility of the layout.</p> <p>An intervention of the scale of a Dunblane North station would almost certainly necessitate provision of intermediate signals between Dunblane North and Blackford and replacement of Greenloaning Signal Box. Track Circuit Block will then apply between Dunblane and Blackford.</p> <p>With the signalling and platforming arrangements described above, services would be able to call at the new station without impact on operational performance of the rail network. The base timetable for EGIP currently shows a 5 minute turnaround time at Dunblane for terminating services. With the additional running section and new station, this would not be achieved and additional rolling stock required to operate the service. As a minimum, 1 additional train would be required at an annual cost of £500k.</p>
Financial:	<p>Station and car park development at Dunblane would cost circa £13.8m including a 44% uplift for risk and optimum bias. Of this, just over £8m cost is for electrification from the current limits of the EGIP scheme at Dunblane station and resignalling between Dunblane and Blackford.</p> <p>An operating cost of £30k pa is estimated for maintenance and utilities plus an annual lease charge of £25k pa to Network Rail to contribute to heavy maintenance. The extra journey time to Dunblane North will break the currently planned 5 minute turn around time at Dunblane – this means an additional train will be required to maintain the timetable. The cost for this is estimated as £500k pa. Lastly the new infrastructure provided between Dunblane and the new station will require to be maintained – these are Overhead Line Equipment and turnouts / crossovers at the new station. New signalling equipment is assumed as being the same maintenance equivalent as at present. The estimated additional maintenance cost for infrastructure is £200k.</p> <p>In total operating costs would be = £55k (station) + £500k (EMU) + £200k (infrastructure) = £755k.</p> <p>New revenue generated, ie. ignoring the journeys abstracted from Gleneagles and Dunblane is estimated as £200k pa. Clearly there will be congestion, journey time and air quality benefits but these are not felt to be sufficient to compensate for the annual operating deficit.</p> <p>This scheme would be delivered in 2016 if included as part of the EGIP programme. Otherwise the timeframe for the station development would be 2017+ due to the availability of funding required.</p>
Public:	<p>Not currently public but acceptability anticipated to be strong given improved access to the rail network for the surrounding catchment. The site is planned on a greenbelt site which may raise some planning issues and public disapproval.</p> <p>Noise level and other general disturbance issues are unlikely to cause problems as the site is located far enough away from housing zones. The site already has a high noise level from the A9 and B8033 which border the south and east sides of the proposed station boundaries.</p>

Government's Objectives for Transport		
Objective	Assessment Summary	Supporting Information
Environment:	<p>Air Quality = Moderate positive Noise and Vibration = Moderate negative Water Quality, Drainage and Flood Defence = Moderate negative Geology = No change Biodiversity = Moderate negative Landscape = Moderate negative Visual Amenity = Minor negative Agriculture and Soils = No change Cultural Heritage = Minor Negative</p>	<p>Air Quality – park and ride facility could expect to achieve a modal shift to train from private car and therefore improvements to air quality at a strategic and local level. Noise and Vibration - Noise of cars using car parks, station announcements and trains halting would create a moderate impact to properties within the vicinity of the station and car park boundaries. Water Quality, Drainage and Flood Defence - The water quality of Allan Water may be affected during the construction process albeit mitigation measures will be proposed. Post construction the impacts on water quality are likely to be reduced to minor negative Given proximity to water course flooding issues would be likely. Geology – no change Biodiversity - removal of trees and shrubs for construction purposes will reduce biodiversity, albeit degree of severance from existing roads and railway lines. Water course may get an increased level of rubbish which could disturb wildlife. Proposals to reduce the impact of this would be set out. Landscape - removal of trees and shrubs in construction process and levelling of uneven ground will alter landscape significantly Visual Amenity - green environment to be replaced with car parks and buildings will reduces visual appeal. Agriculture and Soils – no change Cultural Heritage – Lady’s Mount earthbank, a natural mound, is located on this site. Albeit protection and upkeep mitigation measures could be adopted.</p>
Safety:	<p>Accidents = Neutral Security = Moderate positive</p>	<p>Accidents – station does not impact upon accident rate Security – CCTV and lighting will improve the areas security level. With an increase of pedestrian footfall human surveillance is created.</p>
Economy:	<p>Transport Economic Efficiency = Neutral Economic Activity and Location Impacts = Minor positive</p>	<p>TEE - the station itself does not have a bearing on economic efficiency, it depends on the services provided. EALI - the station facilitates access to employment opportunities.</p>

<p>Integration:</p>	<p>Transport Integration = Major positive Land-use Transport Integration = Moderate positive Policy integration = Major positive</p>	<p>Transport Integration – Allows improved access to rail and onward services from other stations Land-use Transport Integration – option should have a positive effect on the business / employment across the region Policy Integration –Proposals fit well with the TACTRAN Regional Transport Strategy</p>
<p>Accessibility & Social Inclusion:</p>	<p>Community Accessibility = Minor positive Comparative Accessibility = Minor positive</p>	<p>Community Accessibility – the new station would enhance the attractiveness of rail to the public. It will have limited benefits to those with restricted or no access to the private car as the station is not easily accessed on foot by nearby houses because crossing the A9 trunkroad is required. This walk is perceived to be highly undesirable to locals. Comparative Accessibility – high quality station design will allow access to disabled groups and if linked with appropriate bus services will benefit those without access to a car.</p>

Proposal Details			
Name and address of authority or organisation promoting the proposal: (Also provide name of any subsidiary organisations also involved in promoting the proposal)		TACTRAN, Bordeaux House, 31 Kinnoull Street, Perth, PH1 5EN	
Proposal Name:	New Dunblane North station Site 2	Name of Planner:	
Proposal Description:	Adjacent to Ashfield on B8033. Good construction location and car parking space for 300-400 vehicles. Greenbelt site. Distance from main trunk routes for P+R catchment.	Estimated Total Public Sector Funding Requirement:	<i>Capital costs/grant: £15m</i>
			<i>Annual revenue support: £500k</i>
			<i>Present Value of Cost to Govt.</i>
Funding Sought From: (if applicable)		Amount of Application:	<i>Sum:</i>
Background Information			
Geographic Context:	<p>The TACTRAN region covers the Angus Council, Dundee City Council, Perth and Kinross and Stirling Council authority areas, located to the north, east and west of Scotland's Central Belt. It is a unique geographical region including the three cities of Stirling, Perth and Dundee and an extensive rural hinterland of inter-connected towns, villages and rural areas, many of which are located within the Loch Lomond and Trossachs National Park and Cairngorms National Park. In general moving from north west to south east in the TACTRAN area moves from rural to more urban areas and the population density increases. The scope and influence of this study extends to Aberdeen in the north and Glasgow to the south, embracing the outskirts of the Grampians and the Central Belt area. 10% of the population in the TACTRAN area live in small towns with populations between three and ten thousand with 25% of the population living in rural settlements where the population is less than three thousand people. The majority of the population reside in the main urban settlements of Dundee, Perth, Stirling and Arbroath which range in size from between 20,000 and approximately 145,000 inhabitants.</p>		

Social Context:

The demographic profile of the TACTRAN region is not dissimilar to Scotland as a whole, with around 19% of the population under the age of 16, 20% of the population over the pensionable age and the remainder of 61% between these two ranges. Angus, Dundee City and Perth & Kinross all have higher percentages of their population over the pensionable age than the Scottish average, but this is reduced across the region as a whole by the lower than average percentage observed in the Stirling Council area. The average number of persons per household is broadly consistent across the TACTRAN region and aligns with the Scottish average: the average number of people per household is highest in Stirling at 2.36 and lowest in Dundee City at 2.13.

The percentage of residents in Dundee City who live in a household with no available car (46%) is much higher than the national average of 34% and compares to percentages of 24%, 24% and 25% in Stirling, Perth & Kinross and Angus respectively. Whilst the average across the region for people with no access to a car is 31%, car ownership in the TACTRAN area is higher than that observed in the rest of Scotland. The preferred mode for travel to work is dominated by the car, which is used for an average of 66% of journeys, above the Scottish average of 64%. The use of rail and bus is low within the Council areas of Angus, Perth and Kinross and Stirling ranging between 6% and 10% of journeys in those areas, corresponding to the availability and frequency of Public Transport.

More than 17% of the population in Angus, Perth & Kinross and Stirling travel over 10 kilometres to work, compared to only 4% who travel this distance and reside in Dundee City. Work journeys account for 22% of all trips that are made. Whilst 78% of resident's travel to work trips are within local authority areas; Dundee City has the highest proportion of internal trips (88%) followed by Perth and Kinross (82%), Angus (69%) and Stirling (68%). Currently 69% of journeys to work in the region are made by car with a relatively high mode share of 10% bus trips. Walking accounts for a high proportion of trips (17%), with rail and cycling accounting for 2% of trips each. Within Dundee the public transport mode share is high (19%) but within Angus, Perth and Stirling the public transport mode share is much lower (9%). Public transport provision and related services within the urban and rural areas are regarded as good and poor respectively, albeit within the wider rural hinterland this is exacerbated by the dispersed nature of surrounding settlements.

A greater percentage of residents than the Scottish average are considered to be in 'good' health across the TACTRAN area. This is true for the individual authorities apart from Dundee City which sees a lower than average percentage of 'good' health and a higher than average percentage with 'not good' health, rather than 'fairly good' health. It is also the case in Dundee City that there is a greater percentage occurrence of a limiting long term illness than the Scottish average.

Economic Context:	<p>The distinct urban and rural areas across the TACTRAN region serve various functions. Dundee is a vibrant economic centre with a growing employment and residential market. As well as its function as a tourism destination, Stirling City also plays a key service role for the wider Stirlingshire area, providing a wide range of employment and other services for the surrounding communities as well as for visitors and passing trade. The wider Stirling authority area covers a deep rural hinterland, many areas of which are captured within the Loch Lomond and Trossachs National Park where tourism is a key industry. These patterns can be demonstrated by looking at industries which employ the greatest percentage of people in each of the Council areas compared to the Scottish average. In Angus it the extraction industries such as Agriculture, hunting and forestry, mining and quarrying and manufacturing employ a greater percentage than the Scottish average while Dundee City conforms much more to the Scottish average but is more heavily biased towards health, social work and manufacturing. Throughout the TACTRAN region, employment in the construction industry is higher than in other parts of the country, and the impact of the large Universities in Dundee and Stirling is reflected in the percentage of people who work in the education sector. The industries with the highest percentages in Perth & Kinross are agriculture, hunting and forestry and hotels and restaurants, reflecting a higher dependency on tourism. Retail employment in this area is also high. Stirling shows a high percentage of the population employed in the hotel and restaurant sector as well as a high financial and educational bias.</p> <p>The percentage of the population within the TACTRAN area who are unemployed varies considerably between the constituent Council areas and is potentially compounded by the urban and rural characteristics of these areas. The Perth & Kinross and Stirling Council areas both have fewer than 3% unemployment compared with the national average of 4%, while Dundee City had over 5% of its population unemployed at the time of the last Census. The percentage of the economically active population who are undertaking full time study in the TACTRAN area is higher than the Scottish average and this is due to the impact of the large universities at Stirling and Dundee. Unemployment figures show that there are significant areas of high unemployment in the east of the TACTRAN region, primarily in Angus but also in the rural areas north of Kirriemuir and Brechin and around Crianlarich and Killin.</p>
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Planning Objectives	
Objective:	Performance against planning objective:
EC1. Ensure that rail provides and supports economic growth by connecting key business & employment sectors where possible	Major Positive – a new station would facilitate rail travel for the surrounding catchment. Improved access would support economic growth at both local and regional levels.
EC2. Improve the efficiency, reliability and integration of rail services in the Tay Estuary study area specifically where this will benefit key business and employment sectors	Minor Negative – While improving efficiency, reliability and integration for the local catchment. The additional time required to stop services at Dunblane north will have performance implications on the main line affecting large numbers of services at Edinburgh and Glasgow. Furthermore, whilst this station was forecast to have high patronage levels, most were abstracted from existing services at Dunblane. Additional rolling stock and infrastructure required to service a station at Dunblane North make operating costs too high.

<p>ACC1. Increase accessibility to key service destinations in the TACTRAN area (e.g. employment, health and education sites) and to/from key external destinations by rail without compromising wider inter-regional rail connectivity</p>	<p>Moderate Positive – a new station would facilitate rail travel for the surrounding catchment with 4 TPH service improving efficiency, reliability and integration for the surrounding catchment.</p>
<p>ENV1. Contribute to national greenhouse gas emission reductions through rail based interventions where possible</p>	<p>Minor Positive - the proposed P+R at Dunblane North is likely to encourage a modal change from cars to rail.</p>
<p>ENV2. Contribute to the management of air quality in the TACTRAN area, particularly the AQMA's across the Dundee City Council area and Perth</p>	<p>Minor Positive – the proposed P+R at Dunblane North station is likely to encourage a modal change from cars to rail and therefore contribute to, albeit minor, air quality improvements in the TACTRAN area.</p>
<p>SEC1. Maintain or improve real and perceived levels of safety and personal security on the rail network</p>	<p>Moderate Positive – the new station will be fitted with lighting, CCTV which would enhance the levels of safety and personal security.</p>
<p>INT1. Ensure that rail is fully integrated with relevant land-use and planning projects</p>	<p>Neutral– the station will not significantly enhance the integration of rail with relevant land-use projects. Dunblane itself is distanced from the Major Growth Area cited in Stirling Council's development plan but the site is a short driving trip from proposed housing and economic development areas in Dunblane's local plan.</p>
<p>INT2. Ensure the rail network is integrated with the wider public transport network</p>	<p>Minor Negative– the station will allow improved access to onward rail services at other stations, albeit the extent to which “integration” occurs is dependant on the services and destinations. It also is located close to existing local bus services. The proposed site however is distanced from housing areas reducing its walk in catchment potential.</p>
<p>Rationale for Selection or Rejection of Proposal:</p>	<p>The proposed site has greenbelt status and requires significant flood protection and road improvements. Its relative remoteness from the A9 will inhibit rather than encourage Park and Ride travel. The walk in catchment is not sufficient to offset this potential reduction over site 1. The financial outlay and construction risks are less than site 1 but still significant – particularly with regard to flood defences and resignalling. This option should be rejected at this stage as it provides no improvements over site 1 for a potential Dunblane North station.</p>

Implementability Appraisal	
Technical:	<p>Construction in this location is relatively straightforward. Flood protection works likely to be required. A new on grade road carriageway would be required, with earthworks to access the station across the existing ground. The tracks are within a cutting as the railway passes Ashfield but are on grade at the proposed site. A 90mph speed limit exists at this location. A new footbridge would need to be constructed to provide platform to platform access. Alternative access could be achieved from the village of Ashfield which is served by a single track road from the B8033.</p> <p>Opportunities may also exist in this location for provision of LMD facilities should electrification be extended to a Dunblane North location.</p>
Operational:	<p>The site has sufficient capacity to provide a significant park and ride facility serving 300-400 vehicles.</p> <p>It is assumed that if development of the new station proceeds some rationalisation of the current infrastructure at Dunblane will take place. It is also assumed that provision of a new Dunblane North Station will be associated with a comprehensive signalling upgrade between Stirling and Blackford.</p> <p>Ideally the station would be constructed with three platforms protected by main line signals with extended overlaps of 225 metres to comply with Robust Train Protection requirements. A reduction of Bay Platform and or Overlap lengths may have an impact on the operational flexibility of the layout. A bay platform would be provided forming a shared 'island' platform with the up or down Main. It is assumed that trains in any Platform will be attended at all times and trains will not be stabled in Platform 3. Although there is a significant falling gradient towards Dunblane, trapping protection in Platform 3 will not be provided if the preceding criteria is met.</p> <p>The Bay Platform line should be extended a sufficient distance to ensure that the TPWS (TSS) at Signals 13, 15 and 16 will effectively stop a 'start against' SPAD before the point of conflict. If the Bay Platform line has to be shortened because physical constraints, this may have an impact on the operational flexibility of the layout.</p> <p>An intervention of the scale of a Dunblane North station would almost certainly necessitate provision of intermediate signals between Dunblane North and Blackford and replacement of Greenloaning Signal Box. Track Circuit Block will then apply between Dunblane and Blackford.</p> <p>With the signalling and platforming arrangements described above, services would be able to call at the new station without impact on operational performance of the rail network. The base timetable for EGIP currently shows a 5 minute turnaround time at Dunblane for terminating services. With the additional running section and new station, this would not be achieved and additional rolling stock required to operate the service. As a minimum, 1 additional train would be required at an annual cost of £500k.</p>

Financial:	<p>Station and car park development at Dunblane would cost circa £15m including a 44% uplift for risk and optimum bias. Of this, just over £8m cost is for electrification from the current limits of the EGIP scheme at Dunblane station and resignalling between Dunblane and Blackford.</p> <p>An operating cost of £30k pa is estimated for maintenance and utilities plus an annual lease charge of £25k pa to Network Rail to contribute to heavy maintenance. The extra journey time to Dunblane North will break the currently planned 5 minute turn around time at Dunblane – this means an additional train will be required to maintain the timetable. The cost for this is estimated as £500k pa. Lastly the new infrastructure provided between Dunblane and the new station will require to be maintained – these are Overhead Line Equipment and turnouts / crossovers at the new station. New signalling equipment is assumed as being the same maintenance equivalent as at present. The estimated additional maintenance cost for infrastructure is £200k.</p> <p>In total operating costs would be = £55k (station) + £500k (EMU) + £200k (infrastructure) = £755k.</p> <p>New revenue generated, ie. ignoring the journeys abstracted from Gleneagles and Dunblane is estimated as £200k pa. Clearly there will be congestion, journey time and air quality benefits but these are not felt to be sufficient to compensate for the annual operating deficit.</p> <p>This scheme would be delivered in 2016 if included as part of the EGIP programme. Otherwise the timeframe for the station development would be 2017+ due to the availability of funding required.</p>
Public:	<p>Not currently public but acceptability anticipated to be strong given improved access to the rail network for the surrounding catchment. The site is planned on a greenbelt site which may raise some planning issues and public disapproval.</p> <p>Noise level and other general disturbance issues are unlikely to cause problems as the site is located far enough away from Ashfield.</p>

Government's Objectives for Transport		
Objective	Assessment Summary	Supporting Information
Environment:	<p>Air Quality = Moderate positive Noise and Vibration = Moderate negative Water Quality, Drainage and Flood Defence = Moderate negative Geology = No change Biodiversity = Moderate negative Landscape = Moderate negative</p>	<p>Air Quality – park and ride facility could expect to achieve a modal shift to train from private car and therefore improvements to air quality at a strategic and local level. Noise and Vibration - Noise of cars using car parks, station announcements and trains halting would create a moderate impact on existing noise levels. Water Quality, Drainage and Flood Defence - The water quality of Allan Water may be affected during the construction process albeit mitigation measures will be proposed. Post construction the impacts on water quality are likely to be reduced to minor negative. Given proximity to water course flooding issues would be likely. Geology – no change</p>

	<p>Visual Amenity = Minor negative Agriculture and Soils = No change Cultural Heritage = Neutral</p>	<p>Biodiversity - removal of trees and shrubs for construction purposes will reduce biodiversity, albeit degree of severance from existing railway line. Water course may get an increased level of rubbish which could disturb wildlife. Proposals to reduce the impact of this would be set out. Landscape - Earthworks to access the stations and station buildings / platforms will alter the landscape significantly. Appropriate design would reduce the impact on the landscape as far as possible. Visual Amenity - green environment to be replaced with car parks and buildings will reduce visual appeal. Agriculture and Soils – no change Cultural Heritage – no protected areas or sites of significance on this site.</p>
Safety:	<p>Accidents = Neutral Security = Moderate positive</p>	<p>Accidents – station does not impact upon accident rate Security – CCTV and lighting will improve the areas security level. With an increase of pedestrian footfall human surveillance is created.</p>
Economy:	<p>Transport Economic Efficiency = Minor Negative Economic Activity and Location Impacts = Minor positive</p>	<p>TEE – As location of a new station here would mean reducing the patronage at the existing Dunblane station it reduces its economic efficiency. EALI - the station facilitates access to employment opportunities.</p>
Integration:	<p>Transport Integration = Major positive Land-use Transport Integration = Moderate positive Policy integration = Major positive</p>	<p>Transport Integration – Allows improved access to rail and onward services from other stations Land-use Transport Integration – option should have a positive effect on the business / employment across the region Policy Integration –Proposals fit well with the TACTRAN Regional Transport Strategy</p>
Accessibility & Social Inclusion:	<p>Community Accessibility = Moderate positive Comparative Accessibility = Minor positive</p>	<p>Community Accessibility – the new station would enhance the attractiveness of rail to the public. This site would allow a walk in catchment from Ashfield and a local bus service operates between Ashfield and Kinbuck/Stirling. Comparative Accessibility – high quality station design will allow access to disabled groups and if linked with appropriate bus services will benefit those without access to a car.</p>

Proposal Details			
Name and address of authority or organisation promoting the proposal: (Also provide name of any subsidiary organisations also involved in promoting the proposal)		TACTRAN, Bordeaux House, 31 Kinnoull Street, Perth, PH1 5EN	
Proposal Name:	New Dundee West Station	Name of Planner:	
Proposal Description:	Close Invergowrie and build new station located 700m east called Dundee West. Car parking for 300 vehicles.	Estimated Total Public Sector Funding Requirement:	<i>Capital costs/grant: £5.3m</i>
			<i>Annual revenue support:</i>
			<i>Present Value of Cost to Govt.</i>
Funding Sought From: (if applicable)		Amount of Application:	<i>Sum:</i>
Background Information			
Geographic Context:	<p>The TACTRAN region covers the Angus Council, Dundee City Council, Perth and Kinross and Stirling Council authority areas, located to the north, east and west of Scotland's Central Belt. It is a unique geographical region including the three cities of Stirling, Perth and Dundee and an extensive rural hinterland of inter-connected towns, villages and rural areas, many of which are located within the Loch Lomond and Trossachs National Park and Cairngorms National Park. In general moving from north west to south east in the TACTRAN area moves from rural to more urban areas and the population density increases. The scope and influence of this study extends to Aberdeen in the north and Glasgow to the south, embracing the outskirts of the Grampians and the Central Belt area. 10% of the population in the TACTRAN area live in small towns with populations between three and ten thousand with 25% of the population living in rural settlements where the population is less than three thousand people. The majority of the population reside in the main urban settlements of Dundee, Perth, Stirling and Arbroath which range in size from between 20,000 and approximately 145,000 inhabitants.</p>		

Social Context:

The demographic profile of the TACTRAN region is not dissimilar to Scotland as a whole, with around 19% of the population under the age of 16, 20% of the population over the pensionable age and the remainder of 61% between these two ranges. Angus, Dundee City and Perth & Kinross all have higher percentages of their population over the pensionable age than the Scottish average, but this is reduced across the region as a whole by the lower than average percentage observed in the Stirling Council area. The average number of persons per household is broadly consistent across the TACTRAN region and aligns with the Scottish average: the average number of people per household is highest in Stirling at 2.36 and lowest in Dundee City at 2.13.

The percentage of residents in Dundee City who live in a household with no available car (46%) is much higher than the national average of 34% and compares to percentages of 24%, 24% and 25% in Stirling, Perth & Kinross and Angus respectively. Whilst the average across the region for people with no access to a car is 31%, car ownership in the TACTRAN area is higher than that observed in the rest of Scotland. The preferred mode for travel to work is dominated by the car, which is used for an average of 66% of journeys, above the Scottish average of 64%. The use of rail and bus is low within the Council areas of Angus, Perth and Kinross and Stirling ranging between 6% and 10% of journeys in those areas, corresponding to the availability and frequency of Public Transport.

More than 17% of the population in Angus, Perth & Kinross and Stirling travel over 10 kilometres to work, compared to only 4% who travel this distance and reside in Dundee City. Work journeys account for 22% of all trips that are made. Whilst 78% of resident's travel to work trips are within local authority areas; Dundee City has the highest proportion of internal trips (88%) followed by Perth and Kinross (82%), Angus (69%) and Stirling (68%). Currently 69% of journeys to work in the region are made by car with a relatively high mode share of 10% bus trips. Walking accounts for a high proportion of trips (17%), with rail and cycling accounting for 2% of trips each. Within Dundee the public transport mode share is high (19%) but within Angus, Perth and Stirling the public transport mode share is much lower (9%). Public transport provision and related services within the urban and rural areas are regarded as good and poor respectively, albeit within the wider rural hinterland this is exacerbated by the dispersed nature of surrounding settlements.

A greater percentage of residents than the Scottish average are considered to be in 'good' health across the TACTRAN area. This is true for the individual authorities apart from Dundee City which sees a lower than average percentage of 'good' health and a higher than average percentage with 'not good' health, rather than 'fairly good' health. It is also the case in Dundee City that there is a greater percentage occurrence of a limiting long term illness than the Scottish average.

Economic Context:	<p>The distinct urban and rural areas across the TACTRAN region serve various functions. Dundee is a vibrant economic centre with a growing employment and residential market. As well as its function as a tourism destination, Stirling City also plays a key service role for the wider Stirlingshire area, providing a wide range of employment and other services for the surrounding communities as well as for visitors and passing trade. The wider Stirling authority area covers a deep rural hinterland, many areas of which are captured within the Loch Lomond and Trossachs National Park where tourism is a key industry. These patterns can be demonstrated by looking at industries which employ the greatest percentage of people in each of the Council areas compared to the Scottish average. In Angus it the extraction industries such as Agriculture, hunting and forestry, mining and quarrying and manufacturing employ a greater percentage than the Scottish average while Dundee City conforms much more to the Scottish average but is more heavily biased towards health, social work and manufacturing. Throughout the TACTRAN region, employment in the construction industry is higher than in other parts of the country, and the impact of the large Universities in Dundee and Stirling is reflected in the percentage of people who work in the education sector. The industries with the highest percentages in Perth & Kinross are agriculture, hunting and forestry and hotels and restaurants, reflecting a higher dependency on tourism. Retail employment in this area is also high. Stirling shows a high percentage of the population employed in the hotel and restaurant sector as well as a high financial and educational bias.</p> <p>The percentage of the population within the TACTRAN area who are unemployed varies considerably between the constituent Council areas and is potentially compounded by the urban and rural characteristics of these areas. The Perth & Kinross and Stirling Council areas both have fewer than 3% unemployment compared with the national average of 4%, while Dundee City had over 5% of its population unemployed at the time of the last Census. The percentage of the economically active population who are undertaking full time study in the TACTRAN area is higher than the Scottish average and this is due to the impact of the large universities at Stirling and Dundee. Unemployment figures show that there are significant areas of high unemployment in the east of the TACTRAN region, primarily in Angus but also in the rural areas north of Kirriemuir and Brechin and around Crianlarich and Killin.</p>
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Planning Objectives	
Objective:	Performance against planning objective:
EC1. Ensure that rail provides and supports economic growth by connecting key business & employment sectors where possible	Minor Positive – a new station would facilitate rail travel for the surrounding catchment. Improved access would support economic growth at both local and regional levels.
EC2. Improve the efficiency, reliability and integration of rail services in the Tay Estuary study area specifically where this will benefit key business and employment sectors	Neutral – the station itself will not improve this objective when services are not considered.
ACC1. Increase accessibility to key service destinations in the TACTRAN area (e.g. employment, health and education sites) and to/from key external destinations by rail without compromising wider inter-regional rail connectivity	Minor Positive – a new station would facilitate rail travel for the surrounding catchment albeit the extent to which “increased accessibility” occurs is dependant on the services and destinations. The new station would be located close to Ninewells hospital which greatly increases access to health services and a major employment generator in the TACTRAN area.

ENV1. Contribute to national greenhouse gas emission reductions through rail based interventions where possible	Minor Positive - the proposed P+R at Dundee West is likely to encourage a modal change from cars to rail.
ENV2. Contribute to the management of air quality in the TACTRAN area, particularly the AQMA's across the Dundee City Council area and Perth	Minor Positive – the proposed P+R at Dundee West is likely to encourage a modal change from cars to rail and therefore contribute to, albeit minor, air quality improvements in the TACTRAN area.
SEC1. Maintain or improve real and perceived levels of safety and personal security on the rail network	Moderate Positive – the new station will be fitted with lighting, CCTV which would enhance the levels of safety and personal security.
INT1. Ensure that rail is fully integrated with relevant land-use and planning projects	Minor Positive – the station will enhance the integration of rail with relevant land-use projects.
INT2. Ensure the rail network is integrated with the wider public transport network	Neutral – the station will allow improved access to onward rail services at other stations, albeit the extent to which “integration” occurs is dependant on the services and destinations. It also is located close to existing local bus services and cycle routes.
Rationale for Selection or Rejection of Proposal:	The proposal to relocate the current Invergowrie station 800m east to Dundee West is justified by a combination of the 30% larger walk in population catchment and the walk in employment centres provided by the Ninewells hospital and Dundee Technology Park. National Cycle Route 77 links the new site with Invergowrie. A station here would firstly allow improved access to the health services at Ninewells hospital and the associated employment generated at this site to a wider community. Secondly it will link more people with better services to employment generators of Perth and Stirling. This option should be retained for further appraisal to identify the likely increase in demand which would be generate through relocating the station from the current location in Invergowrie.

Implementability Appraisal	
Technical:	A long linear car park can be created in this location with capacity for at least 300 vehicles. The site is adjacent to a main Scottish Water sewer as indicated by the presence of manholes adjacent to the site. This will not prohibit development in the area but the design and construction proposals will require approval from Scottish Water. Further investigation on this issue is required prior to detailed proposals being developed. There is limited space for the northbound platform with a degree of retaining likely to be required along the back of the platform. The southbound platform construction would be elevated due to the existing ground topography but would have level access from the car park/ access road. A new footbridge would need to be constructed to provide platform to platform access.

Operational:	<p>This site is adjacent to the A85, Riverside Avenue, providing good access to Dundee City Centre and surrounding areas. A new junction would require to be formed to give access to the station site. To the east of the station site there is an existing pedestrian underpass to the railway which gives access to Perth Road with nearby bus stops for local bus services and with a fairly laborious walk to Ninewells hospital. The pedestrian route would require to be developed with new surfacing and lighting. Ideally a pedestrian route would run from the station footbridge between two properties on Perth Road giving a reasonable link to Ninewells hospital. This would require land purchase from private owners and therefore has not been included in the current estimate of cost.</p> <p>To minimise journey time penalties and operating costs, it is proposed this station replaces the current facility at Invergowrie, ie. Invergowrie station would be closed. Station closure is a difficult process but is generally made easier when a replacement (and improved) facility is provided close by. The walk-in distance from Invergowrie is between 500 and 1000m.</p> <p>The Down and Up Perth Lines between Longforgan and Dundee are worked under Track Circuit Block regulations. Down trains from Lonforgan (Signal No.4) to Signal D697 are controlled by Lonforgan Signal Box. Up trains from Dundee (Signal No.D698) to Invergowrie Signal D672 are controlled from Dundee Signal Box. The line speed of Down and Up Perth Lines at the proposed Dundee West Station is 75 mph.</p> <p>The preferred site for the proposed Dundee West Station is in the vicinity of 3 Mile Post between the existing Invergowrie Station and Dundee Central Junction. The station should be ideally situated clear of the overlap for Signal D697. This would allow Longforgan SB to send an Up train up to Signal D697 whilst the Down Platform of Dundee West station is occupied.</p> <p>Up trains stopped at the new Dundee West station will enforce following trains to be held at Signal D698 until the train has departed from the station and cleared the overlap track circuit for Signal D762.</p> <p>The consequences (rear end collision) of a SPAD at Signal D697 whilst a train is stopped in the new station is increased. It is likely that TPWS (TSS) will be recommended at Signals D697 and possibly Signal D698.</p> <p>There is not likely to be any signal sighting issues for Down trains.</p> <p>Signal D672 will be visible to a train stopped in the Up Platform and may be classified as a 'Remote Platform Starting Signal'. There may however be a signal sighting issue for non-stopping Up trains in the new station. Signal D672 may be obscured by the new station platform shelter / furniture and lighting. The worst case would be provision of a banner repeating signal on the approach to the Up Platform.</p>
Financial:	<p>The station and car park development at Dundee West would cost circa £5.3m including a 44% uplift for risk and optimum bias.</p> <p>An operating cost of £30k pa is estimated for maintenance and utilities plus an annual lease charge of £25k pa to Network Rail to contribute to heavy maintenance. This would reduce to a total of £25k if the existing station at Invergowrie was closed because the overall quantum of stations on the network would remain the same. Lease and operating costs would be higher for Dundee West compared to Invergowrie hence the £25k pa. difference.</p> <p>Provision of the proposed hourly service to Invergowrie is estimated to generate 35,000 additional journeys pa. Moving to Dundee west</p>

	<p>would result in an estimated additional 52,000 new journey's pa. The additional patronage estimated from the employment centres adjacent to the new station are estimated to add a further 20-30,000 journey's pa. In summary providing an hourly service at Dundee West compared to the existing station at Invergowrie is estimated to generate a further 45,000 journeys pa with only a marginal increase (£25k) in annual operating cost.</p> <p>The new station at Dundee West can meet its ongoing operating costs.</p> <p>It is estimated that the timeframe for the station development would be 2017+ due to the availability of funding required.</p>
Public:	<p>Not currently public but acceptability anticipated to be high given improved access to the rail network for the surrounding catchment. Noise level and other general disturbance issues may be raised by dwellers of the housing estates that border parts of the proposed station boundaries, albeit screening/ mitigative measures could be adopted.</p>

Government's Objectives for Transport		
Objective	Assessment Summary	Supporting Information
Environment:	<p>Air Quality = Moderate positive Noise and Vibration = Moderate negative Water Quality, Drainage and Flood Defence = Minor negative Geology = No change Biodiversity = Moderate negative Landscape = Moderate negative Visual Amenity = Minor negative Agriculture and Soils = No change Cultural Heritage = Neutral</p>	<p>Air Quality – car parking facility could expect to achieve a modal shift to train from private car and therefore improvements to air quality at a strategic and local level. Noise and Vibration - noise of cars using car parks, station announcements and trains halting would create a moderate impact to properties within the vicinity of the station and car park boundaries. Water Quality, Drainage and Flood Defence - Mitigation measures would have to be in place to ensure that storm water drains are not affected during construction. Geology – no change Biodiversity - removal of trees and shrubs for construction purposes will reduce biodiversity, albeit degree of severance from existing roads and railway lines. Landscape - removal of trees and shrubs in construction process and elevation of southbound platform and retaining on northbound platform would alter landscape to a certain degree. Visual Amenity - green environment to be replaced with car parks and buildings reduces visual appeal from surrounding houses. Agriculture and Soils – no change Cultural Heritage - no change</p>

<p>Safety:</p>	<p>Accidents = Neutral Security = Moderate positive</p>	<p>Accidents – station does not impact upon accident rate. Security – CCTV and lighting will improve the areas security level. With an increase of pedestrian footfall human surveillance is created.</p>
<p>Economy:</p>	<p>Transport Economic Efficiency = Neutral Economic Activity and Location Impacts = Minor positive</p>	<p>TEE - the station itself does not have a bearing on economic efficiency, it depends on the services provided. EALI - the station facilitates access to employment opportunities.</p>
<p>Integration:</p>	<p>Transport Integration = Major positive Land-use Transport Integration = Moderate positive Policy integration = Major positive</p>	<p>Transport Integration – allows improved access to rail and onward services from other stations. This option also allows direct access to health services in the region being located closer to Ninewells Hospital. Land-use Transport Integration – option should have a positive effect on the business / employment across the region. Policy Integration – proposals fit well with the TACTRAN Regional Transport Strategy</p>
<p>Accessibility & Social Inclusion:</p>	<p>Community Accessibility = Moderate positive Comparative Accessibility = Moderate positive</p>	<p>Community Accessibility – the new station would enhance the attractiveness of rail to the public and will have benefits for those with restricted or no access to the private car. This option gives greater community access to health services. Comparative Accessibility – high quality station design will allow access to disabled groups and those with restricted access to the private car.</p>

Proposal Details			
Name and address of authority or organisation promoting the proposal: (Also provide name of any subsidiary organisations also involved in promoting the proposal)		TACTRAN, Bordeaux House, 31 Kinnoull Street, Perth, PH1 5EN	
Proposal Name:	Enhanced Gleneagles Station	Name of Planner:	
Proposal Description:	Provide improved road access from A9. Provide additional car parking, CCTV and help points and step free access to both platforms.	Estimated Total Public Sector Funding Requirement:	<i>Capital costs/grant: £3.8m</i>
			<i>Annual revenue support: £nil</i>
			<i>Present Value of Cost to Govt.</i>
Funding Sought From: (if applicable)		Amount of Application:	<i>Sum:</i>
Background Information			
Geographic Context:	<p>The TACTRAN region covers the Angus Council, Dundee City Council, Perth and Kinross and Stirling Council authority areas, located to the north, east and west of Scotland's Central Belt. It is a unique geographical region including the three cities of Stirling, Perth and Dundee and an extensive rural hinterland of inter-connected towns, villages and rural areas, many of which are located within the Loch Lomond and Trossachs National Park and Cairngorms National Park. In general moving from north west to south east in the TACTRAN area moves from rural to more urban areas and the population density increases. The scope and influence of this study extends to Aberdeen in the north and Glasgow to the south, embracing the outskirts of the Grampians and the Central Belt area. 10% of the population in the TACTRAN area live in small towns with populations between three and ten thousand with 25% of the population living in rural settlements where the population is less than three thousand people. The majority of the population reside in the main urban settlements of Dundee, Perth, Stirling and Arbroath which range in size from between 20,000 and approximately 145,000 inhabitants.</p>		

Social Context:

The demographic profile of the TACTRAN region is not dissimilar to Scotland as a whole, with around 19% of the population under the age of 16, 20% of the population over the pensionable age and the remainder of 61% between these two ranges. Angus, Dundee City and Perth & Kinross all have higher percentages of their population over the pensionable age than the Scottish average, but this is reduced across the region as a whole by the lower than average percentage observed in the Stirling Council area. The average number of persons per household is broadly consistent across the TACTRAN region and aligns with the Scottish average: the average number of people per household is highest in Stirling at 2.36 and lowest in Dundee City at 2.13.

The percentage of residents in Dundee City who live in a household with no available car (46%) is much higher than the national average of 34% and compares to percentages of 24%, 24% and 25% in Stirling, Perth & Kinross and Angus respectively. Whilst the average across the region for people with no access to a car is 31%, car ownership in the TACTRAN area is higher than that observed in the rest of Scotland. The preferred mode for travel to work is dominated by the car, which is used for an average of 66% of journeys, above the Scottish average of 64%. The use of rail and bus is low within the Council areas of Angus, Perth and Kinross and Stirling ranging between 6% and 10% of journeys in those areas, corresponding to the availability and frequency of Public Transport.

More than 17% of the population in Angus, Perth & Kinross and Stirling travel over 10 kilometres to work, compared to only 4% who travel this distance and reside in Dundee City. Work journeys account for 22% of all trips that are made. Whilst 78% of resident's travel to work trips are within local authority areas; Dundee City has the highest proportion of internal trips (88%) followed by Perth and Kinross (82%), Angus (69%) and Stirling (68%). Currently 69% of journeys to work in the region are made by car with a relatively high mode share of 10% bus trips. Walking accounts for a high proportion of trips (17%), with rail and cycling accounting for 2% of trips each. Within Dundee the public transport mode share is high (19%) but within Angus, Perth and Stirling the public transport mode share is much lower (9%). Public transport provision and related services within the urban and rural areas are regarded as good and poor respectively, albeit within the wider rural hinterland this is exacerbated by the dispersed nature of surrounding settlements.

A greater percentage of residents than the Scottish average are considered to be in 'good' health across the TACTRAN area. This is true for the individual authorities apart from Dundee City which sees a lower than average percentage of 'good' health and a higher than average percentage with 'not good' health, rather than 'fairly good' health. It is also the case in Dundee City that there is a greater percentage occurrence of a limiting long term illness than the Scottish average.

<p>Economic Context:</p>	<p>The distinct urban and rural areas across the TACTRAN region serve various functions. Dundee is a vibrant economic centre with a growing employment and residential market. As well as its function as a tourism destination, Stirling City also plays a key service role for the wider Stirlingshire area, providing a wide range of employment and other services for the surrounding communities as well as for visitors and passing trade. The wider Stirling authority area covers a deep rural hinterland, many areas of which are captured within the Loch Lomond and Trossachs National Park where tourism is a key industry. These patterns can be demonstrated by looking at industries which employ the greatest percentage of people in each of the Council areas compared to the Scottish average. In Angus it the extraction industries such as Agriculture, hunting and forestry, mining and quarrying and manufacturing employ a greater percentage than the Scottish average while Dundee City conforms much more to the Scottish average but is more heavily biased towards health, social work and manufacturing. Throughout the TACTRAN region, employment in the construction industry is higher than in other parts of the country, and the impact of the large Universities in Dundee and Stirling is reflected in the percentage of people who work in the education sector. The industries with the highest percentages in Perth & Kinross are agriculture, hunting and forestry and hotels and restaurants, reflecting a higher dependency on tourism. Retail employment in this area is also high. Stirling shows a high percentage of the population employed in the hotel and restaurant sector as well as a high financial and educational bias.</p> <p>The percentage of the population within the TACTRAN area who are unemployed varies considerably between the constituent Council areas and is potentially compounded by the urban and rural characteristics of these areas. The Perth & Kinross and Stirling Council areas both have fewer than 3% unemployment compared with the national average of 4%, while Dundee City had over 5% of its population unemployed at the time of the last Census. The percentage of the economically active population who are undertaking full time study in the TACTRAN area is higher than the Scottish average and this is due to the impact of the large universities at Stirling and Dundee. Unemployment figures show that there are significant areas of high unemployment in the east of the TACTRAN region, primarily in Angus but also in the rural areas north of Kirriemuir and Brechin and around Crianlarich and Killin.</p>
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Planning Objectives	
Objective:	Performance against planning objective:
<p>EC1. Ensure that rail provides and supports economic growth by connecting key business & employment sectors where possible</p>	<p>Minor Positive – an enhanced station would encourage a switch to rail travel for the surrounding catchment. Improved access to services and destinations would support economic growth at both local and regional levels.</p>
<p>EC2. Improve the efficiency, reliability and integration of rail services in the Tay Estuary study area specifically where this will benefit key business and employment sectors</p>	<p>Neutral – the station itself will not improve this objective when services are not considered.</p>
<p>ACC1. Increase accessibility to key service destinations in the TACTRAN area (e.g. employment, health and education sites) and to/from key external destinations by rail without compromising wider inter-regional rail connectivity</p>	<p>Moderate Positive – the enhanced station would facilitate rail travel for the surrounding catchment, particularly if better road access was installed albeit the extent to which “increased accessibility” occurs is dependant on the services and destinations. Gleneagles has direct rail connections to London and Inverness which could not be provided by an alternative station at Blackford.</p>

ENV1. Contribute to national greenhouse gas emission reductions through rail based interventions where possible	Minor Positive – the increased station car park is likely to encourage a modal change from cars to rail.
ENV2. Contribute to the management of air quality in the TACTRAN area, particularly the AQMA's across the Dundee City Council area and Perth	Minor Positive – the increased car park is also likely to encourage a modal change from cars to rail and therefore contribute to, albeit minor, air quality improvements in the TACTRAN area.
SEC1. Maintain or improve real and perceived levels of safety and personal security on the rail network	Moderate Positive – the enhanced station will be fitted with lighting, CCTV, and heated waiting rooms which would enhance the levels of safety and personal security.
INT1. Ensure that rail is fully integrated with relevant land-use and planning projects	Minor Positive – the station will enhance the integration of rail with the new developments proposed in the wider Auchterarder area.
INT2. Ensure the rail network is integrated with the wider public transport network	Neutral – the station will allow improved access to onward rail services at other stations, albeit the extent to which “integration” occurs is dependant on the services and destinations. Onward travel from the station will have to be assessed and improved for public transport users.
Rationale for Selection or Rejection of Proposal:	Gleneagles station is well known nationally and investment to improve accessibility to this underused facility would be welcomed. Improving the existing station would appear to be the most cost effective option to make rail a viable public transport choice for the communities of Blackford, Auchterarder and Crieff. There is a strategic link between the proposed works and other nationally committed schemes. This option strongly performs against planning objectives and government policies as it provides a station that will promote rail travel through the implementation of a secure and more user friendly station environment. An enhanced Gleneagles station is likely to have a slightly reduced patronage over a new station at Blackford however this could be offset by overall reduced operating and capital costs whilst still providing similar levels of accessibility. This option is recommended for further analysis to allow differentiation with a new station at Blackford and the do nothing option.

Implementability Appraisal	
Technical:	<p>The station is well located for drive-up passengers from both nearby and more remote communities. Current road access to Gleneagles station from the A9 is not sufficient to safely accommodate an increase in usage. This could be enhanced with the location of a link road (97.3m carriageway) between the station and the A823 which has full slip road access to the A9 both north and southbound. Closure of the existing access junction from the A9 would have a strategic fit with Transport Scotland's scheme to upgrade the A9 trunk road.</p> <p>The road would be located on the solum of the original Crieff branch line at the station then rise up the slope to cross over farmland parallel to the railway with a new junction formed at the A823. This concept has in principal support from Perth & Kinross Council, Network Rail and Transport Scotland. There is an application for planning approval under consideration by Perth and Kinross Council for junction improvements at Loaninghead. This application proposes the creation of separate on and off slips to the southbound carriageway from the A823 to the A9. A consultation on funding for developer contributions to Loaninghead junction improvements is ongoing. This proposes funding for the improvements be sourced from developer contributions in addition to Government funding. There is an embargo on new development in the wider Auchterarder area until junction improvements are in place.</p>
Operational:	<p>There is scope for increasing the size of the station car park to facilitate a park and ride function although land acquisition would be necessary for more than approx 150 spaces. The lack of CCTV and CIS is of significant concern to existing station users, the remoteness of the station meaning there is no physical surveillance of the station buildings. Provision of these facilities together with the introduction of heated waiting spaces will significantly enhance customer satisfaction.</p> <p>The lack of compliant access can be resolved with a new ramp constructed up to the station buildings/ platforms and installation of lifts to serve the footbridge. Neither of these proposals is considered to have an adverse impact on the listed buildings and the industry in now experienced in installing lifts in a sensitive manner to listed structures.</p> <p>The station buildings are currently Category B listed. The view of Perth and Kinross Council and Historic Scotland is that listed buildings should remain in active use and that so long as any accessibility improvements made in line with the DDA are done sensitively in terms of design and materials used and do not have a detrimental impact upon the character and setting of the building they would be supportive of such improvements.</p> <p>An opportunity exists for local community use of the presently unused station buildings. This type of initiative is supported by Transport Scotland and First ScoRail and would further contribute to an enhanced perception of safety and security.</p> <p>It is proposed that in the enhanced form, Gleneagles station will remain unstaffed.</p>
Financial:	<p>Provision of a new road access, an extended car park, DDA compliant access CCTV and passenger help points is estimated at a cost of £3.8m including a 44% uplift for risk and optimum bias. Funding sources could come from Access for all, the A9 improvement project and listed building conservation bodies as well as the more traditional rail budgets.</p> <p>It is estimated that the additional infrastructure would increase existing operating costs by £30k pa.</p> <p>The station improvements along with the increase levels of train service are forecast to increase the current patronage of 21,000 journeys pa to circa 35,000 pa. The increase in revenue generated would cover the additional annual operating cost.</p>

	There is an opportunity to deliver these enhancement works in a manner which would link to the Ryder cup being hosted at Gleneagles in 2014.
Public:	Not currently public but acceptability anticipated to be high given improved access to the rail network for the surrounding catchment. The safety and security proposals, would in particular be supported by users of the rail network. Investment in historical stations such as Gleneagles is supported, in general, by the public. Due to the isolation of Gleneagles station increased noise level and other general disturbance issues caused by construction is not likely to raise any problems albeit screening/ mitigative measures could be adopted.

Government's Objectives for Transport		
Objective	Assessment Summary	Supporting Information
Environment:	Air Quality = Moderate positive Noise and Vibration = Minor negative Water Quality, Drainage and Flood Defence = Neutral Geology = Neutral Biodiversity = Minor negative Landscape = Minor negative Visual Amenity = Neutral Agriculture and Soils = Neutral Cultural Heritage = Minor positive	Air Quality –increased car park size could expect to achieve a modal shift to train from private car and therefore improvements to air quality at a strategic and local level. Noise and Vibration – the only difference to noise and vibration levels would be during the construction process for which mitigation measures will be put in place. Water Quality, Drainage and Flood Defence - no change Geology – no change Biodiversity – loss of greenspace for car park expansion will reduce biodiversity on and around the site. Landscape - no major alterations to landscape as only enhancing existing conditions. Visual Amenity – very little change to existing site. Agriculture and Soils – no change Cultural Heritage - enhancing Gleneagles station ensures the vitality and upkeep of the Grade 2 listed building for future years.
Safety:	Accidents = Minor positive Security = Moderate positive	Accidents – station does not impact upon accident rate, however new road access would provide a safer route for vehicles to the station. Security – CCTV and lighting will improve the areas security level. With an increase of pedestrian footfall human surveillance is created.

Economy:	Transport Economic Efficiency = Neutral Economic Activity and Location Impacts = Minor positive	TEE - the station itself does not have a bearing on economic efficiency, it depends on the services provided. EALI - the station facilitates access to employment opportunities.
Integration:	Transport Integration = Major positive Land-use Transport Integration = Moderate positive Policy integration = Major positive	Transport Integration – Allows improved access to rail and onward services from other stations. Land-use Transport Integration – option should have a positive effect on business / employment across the region. Policy Integration –Proposals fit well with the TACTRAN Regional Transport Strategy.
Accessibility & Social Inclusion:	Community Accessibility = Moderate positive Comparative Accessibility = Moderate positive	Community Accessibility – the enhanced station would enhance the attractiveness of rail to the public and will have benefits for those with restricted or no access to the private car. Comparative Accessibility – high quality station design will allow access to disabled groups and those with restricted access to the private car. This will only come to full effect if suitable public transport links to and from the station are implemented.

Proposal Details			
Name and address of authority or organisation promoting the proposal: (Also provide name of any subsidiary organisations also involved in promoting the proposal)		TACTRAN, Bordeaux House, 31 Kinnoull Street, Perth, PH1 5EN	
Proposal Name:	New Greenloaning Station	Name of Planner:	
Proposal Description:	Locate new station at the down passing loop north of the original station site, where the siding for both up and down lines are located.	Estimated Total Public Sector Funding Requirement:	<i>Capital costs/grant: £5m</i>
			<i>Annual revenue support: £0</i>
			<i>Present Value of Cost to Govt.</i>
Funding Sought From: (if applicable)		Amount of Application:	<i>Sum:</i>
Background Information			
Geographic Context:	<p>The TACTRAN region covers the Angus Council, Dundee City Council, Perth and Kinross and Stirling Council authority areas, located to the north, east and west of Scotland's Central Belt. It is a unique geographical region including the three cities of Stirling, Perth and Dundee and an extensive rural hinterland of inter-connected towns, villages and rural areas, many of which are located within the Loch Lomond and Trossachs National Park and Cairngorms National Park. In general moving from north west to south east in the TACTRAN area moves from rural to more urban areas and the population density increases. The scope and influence of this study extends to Aberdeen in the north and Glasgow to the south, embracing the outskirts of the Grampians and the Central Belt area. 10% of the population in the TACTRAN area live in small towns with populations between three and ten thousand with 25% of the population living in rural settlements where the population is less than three thousand people. The majority of the population reside in the main urban settlements of Dundee, Perth, Stirling and Arbroath which range in size from between 20,000 and approximately 145,000 inhabitants.</p>		

Social Context:

The demographic profile of the TACTRAN region is not dissimilar to Scotland as a whole, with around 19% of the population under the age of 16, 20% of the population over the pensionable age and the remainder of 61% between these two ranges. Angus, Dundee City and Perth & Kinross all have higher percentages of their population over the pensionable age than the Scottish average, but this is reduced across the region as a whole by the lower than average percentage observed in the Stirling Council area. The average number of persons per household is broadly consistent across the TACTRAN region and aligns with the Scottish average: the average number of people per household is highest in Stirling at 2.36 and lowest in Dundee City at 2.13.

The percentage of residents in Dundee City who live in a household with no available car (46%) is much higher than the national average of 34% and compares to percentages of 24%, 24% and 25% in Stirling, Perth & Kinross and Angus respectively. Whilst the average across the region for people with no access to a car is 31%, car ownership in the TACTRAN area is higher than that observed in the rest of Scotland. The preferred mode for travel to work is dominated by the car, which is used for an average of 66% of journeys, above the Scottish average of 64%. The use of rail and bus is low within the Council areas of Angus, Perth and Kinross and Stirling ranging between 6% and 10% of journeys in those areas, corresponding to the availability and frequency of Public Transport.

More than 17% of the population in Angus, Perth & Kinross and Stirling travel over 10 kilometres to work, compared to only 4% who travel this distance and reside in Dundee City. Work journeys account for 22% of all trips that are made. Whilst 78% of resident's travel to work trips are within local authority areas; Dundee City has the highest proportion of internal trips (88%) followed by Perth and Kinross (82%), Angus (69%) and Stirling (68%). Currently 69% of journeys to work in the region are made by car with a relatively high mode share of 10% bus trips. Walking accounts for a high proportion of trips (17%), with rail and cycling accounting for 2% of trips each. Within Dundee the public transport mode share is high (19%) but within Angus, Perth and Stirling the public transport mode share is much lower (9%). Public transport provision and related services within the urban and rural areas are regarded as good and poor respectively, albeit within the wider rural hinterland this is exacerbated by the dispersed nature of surrounding settlements.

A greater percentage of residents than the Scottish average are considered to be in 'good' health across the TACTRAN area. This is true for the individual authorities apart from Dundee City which sees a lower than average percentage of 'good' health and a higher than average percentage with 'not good' health, rather than 'fairly good' health. It is also the case in Dundee City that there is a greater percentage occurrence of a limiting long term illness than the Scottish average.

<p>Economic Context:</p>	<p>The distinct urban and rural areas across the TACTRAN region serve various functions. Dundee is a vibrant economic centre with a growing employment and residential market. As well as its function as a tourism destination, Stirling City also plays a key service role for the wider Stirlingshire area, providing a wide range of employment and other services for the surrounding communities as well as for visitors and passing trade. The wider Stirling authority area covers a deep rural hinterland, many areas of which are captured within the Loch Lomond and Trossachs National Park where tourism is a key industry. These patterns can be demonstrated by looking at industries which employ the greatest percentage of people in each of the Council areas compared to the Scottish average. In Angus it the extraction industries such as Agriculture, hunting and forestry, mining and quarrying and manufacturing employ a greater percentage than the Scottish average while Dundee City conforms much more to the Scottish average but is more heavily biased towards health, social work and manufacturing. Throughout the TACTRAN region, employment in the construction industry is higher than in other parts of the country, and the impact of the large Universities in Dundee and Stirling is reflected in the percentage of people who work in the education sector. The industries with the highest percentages in Perth & Kinross are agriculture, hunting and forestry and hotels and restaurants, reflecting a higher dependency on tourism. Retail employment in this area is also high. Stirling shows a high percentage of the population employed in the hotel and restaurant sector as well as a high financial and educational bias.</p> <p>The percentage of the population within the TACTRAN area who are unemployed varies considerably between the constituent Council areas and is potentially compounded by the urban and rural characteristics of these areas. The Perth & Kinross and Stirling Council areas both have fewer than 3% unemployment compared with the national average of 4%, while Dundee City had over 5% of its population unemployed at the time of the last Census. The percentage of the economically active population who are undertaking full time study in the TACTRAN area is higher than the Scottish average and this is due to the impact of the large universities at Stirling and Dundee. Unemployment figures show that there are significant areas of high unemployment in the east of the TACTRAN region, primarily in Angus but also in the rural areas north of Kirriemuir and Brechin and around Crianlarich and Killin.</p>
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Planning Objectives	
Objective:	Performance against planning objective:
<p>EC1. Ensure that rail provides and supports economic growth by connecting key business & employment sectors where possible</p>	<p>Minor Positive – a new station would facilitate rail travel for the surrounding catchment. Improved access would support economic growth at both local and regional levels.</p>
<p>EC2. Improve the efficiency, reliability and integration of rail services in the Tay Estuary study area specifically where this will benefit key business and employment sectors</p>	<p>Neutral – the station itself will not improve this objective when services are not considered.</p>
<p>ACC1. Increase accessibility to key service destinations in the TACTRAN area (e.g. employment, health and education sites) and to/from key external destinations by rail without compromising wider inter-regional rail connectivity</p>	<p>Minor Positive – a new station would facilitate rail travel for the surrounding catchment albeit the extent to which “increased accessibility” occurs is dependant on the services and destinations.</p>

ENV1. Contribute to national greenhouse gas emission reductions through rail based interventions where possible	Minor Positive - the new station is likely to encourage a modal change from cars to rail thus indirectly reducing greenhouse gas emissions.
ENV2. Contribute to the management of air quality in the TACTRAN area, particularly the AQMA's across the Dundee City Council area and Perth	Minor Positive – the proposed station is likely to encourage a modal change from cars to rail and therefore contribute to, albeit minor, air quality improvements in the TACTRAN area.
SEC1. Maintain or improve real and perceived levels of safety and personal security on the rail network	Moderate Positive – the new station will be fitted with lighting, CCTV which would enhance the levels of safety and personal security.
INT1. Ensure that rail is fully integrated with relevant land-use and planning projects	Minor Positive – the station will enhance the integration of rail with relevant housing development projects identified in the Strathearn area Local Plan.
INT2. Ensure the rail network is integrated with the wider public transport network	Neutral– the station will allow improved access to onward rail services at other stations, albeit the extent to which “integration” occurs is dependant on the services and destinations.
Rationale for Selection or Rejection of Proposal:	This option has a strong performance against the study planning objectives however is not expected to attract significant demand because of its close proximity to Dunblane and Bridge of Allan which have more frequent services to both Edinburgh and Glasgow. Greenloaning is also a very difficult site to develop given the need for modification of the existing sidings and limited space to provide full length platforms. The station site is within the longest signalling block section on the study corridor and stopping a train in this will increase headways between trains and impact capacity (and therefore performance) of the main line. Finally the limited scope for a station car park at this site would reduce the potential commuters attracted to opt to use rail instead of the car. Demand forecasting indicates this station would abstract journeys from Gleneagles and Dunblane rather than generate significant new patronage. It is recommended this option is rejected at this stage.

Implementability Appraisal	
Technical:	The old station location requires significant earthworks to accommodate 2 platforms. Alternative location requires infrastructure works to move sidings to accommodate platforms. Detailed topographic surveys would be required to ascertain if the platforms could be installed without modification to the existing tracks, however this is believed to be unlikely and modification of the existing sidings would be required. In both cases unless the station was only on one side of the down and up loop then an island platform between the loop and the main line and a platform on the up line siding, modified to a loop, would be required. These platforms would only be accessed from the sidings area.

Operational:	<p>There is restricted access from the main road with most projected station traffic approaching through Greenloaning. There is limited scope for a station car park in this location with the original access road junction not to current standards and the area of the original station being in private ownership. The land between the railway and the Allan water is occupied by the waste water treatment works. Greenloaning station will be unstaffed.</p> <p>The sidings at Greenloaning are used by Network Rail for stabling engineering trains and have been identified in the STPR as having the potential to be extended in order to provide refuges for freight services in future.</p> <p>Greenloaning signal box would require to be staffed if a station was to be provided. The station location is also within the longest signalling block section on the study corridor. A stop within this block section would increase signalling headways resulting in a reduction in capacity of the main line.</p>
Financial:	<p>Station and car park development at Greenloaning would cost circa £5m including a 44% uplift for risk and optimum bias.</p> <p>An operating cost of £30k pa is estimated for maintenance and utilities plus an annual lease charge of £25k pa to Network Rail to contribute to heavy maintenance.</p> <p>Demand forecasting estimates an annual patronage of 27,000 journeys from a Greenloaning station most of which is abstracted from the existing Gleneagles and Dunblane stations, ie. there is very little new patronage. The revenue generated would just about cover annual operating costs but make a negligible contribution to the significant capital investment required.</p> <p>It is estimated that the timeframe for the station development would be 2017+ due to the availability of funding required.</p>
Public:	<p>Not currently public but acceptability anticipated to be high given improved access to the rail network for the surrounding catchment.</p> <p>The site is planned on a proposed area of green belt extension which may raise some planning issues.</p> <p>Noise level and other general disturbance issues should not be significantly different after the construction phase to what exists already. Screening/ mitigation measures could be adopted to ensure this would be the case.</p>

Government's Objectives for Transport		
Objective	Assessment Summary	Supporting Information
Environment:	<p>Air Quality = Minor positive Noise and Vibration = Moderate negative Water Quality, Drainage and Flood Defence = Neutral Geology = No change Biodiversity = Minor negative Landscape = Minor negative</p>	<p>Air Quality – rail station access could expect to achieve a modal shift to train from private car for those within its catchment area and therefore improve air quality at a strategic and local level.</p> <p>Noise and Vibration - Noise of cars picking up/dropping off, station announcements and trains halting would create a moderate impact to properties within the vicinity of the station boundaries.</p> <p>Water Quality, Drainage and Flood Defence - No likely impacts</p> <p>Geology – no change</p> <p>Biodiversity - earthworks during construction purposes will reduce biodiversity, albeit</p>

	<p>Visual Amenity = Minor negative Agriculture and Soils = No change Cultural Heritage = Minor negative</p>	<p>degree of severance from railway lines already exists. Landscape - new buildings would alter landscape albeit mitigation measures would be put in place to ensure they fitted appropriately into the local setting. Visual Amenity - green environment replaced with station building reduces visual appeal from surrounding houses. Agriculture and Soils – no change Cultural Heritage – Existing station at Greenloaning listed as a national monument. Mitigation measures would have to ensure this was adequately preserved.</p>
Safety:	<p>Accidents = Neutral Security = Moderate positive</p>	<p>Accidents – station does not impact upon accident rate Security – CCTV and lighting will improve the areas security level. With an increase of pedestrian footfall human surveillance is created.</p>
Economy:	<p>Transport Economic Efficiency = Neutral Economic Activity and Location Impacts = Minor positive</p>	<p>TEE - the station itself does not have a bearing on economic efficiency, it depends on the services provided. EALI - the station facilitates access to employment opportunities.</p>
Integration:	<p>Transport Integration = Major positive Land-use Transport Integration = Moderate positive Policy integration = Major positive</p>	<p>Transport Integration – Allows improved access to rail and onward services from other stations Land-use Transport Integration – option should have a positive effect on the business / employment across the region Policy Integration –Proposals fit well with the TACTRAN Regional Transport Strategy</p>
Accessibility & Social Inclusion:	<p>Community Accessibility = Moderate positive Comparative Accessibility = Moderate positive</p>	<p>Community Accessibility – the new station would enhance the attractiveness of rail to the public and will have benefits for those with restricted or no access to the private car. Comparative Accessibility – high quality station design will allow access to disabled groups and those with restricted access to the private car.</p>