

Plymouth City Council

Plymouth Eastern Gateway

Stage 2 Report: Option Development

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with King Sturge, Scott Wilson, SIAS



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1 Introduction

Plymouth City Council has commissioned consultants Llewelyn-Davies, in association with transport planners SIAS and Scott Wilson, and property advisors King Sturge, to carry out a Framework Study for one of the key gateways to the City of Plymouth.

The Planning and Transport department has identified the need for a framework plan to illustrate how the area could be developed.

The study area stretches from Marsh Mills, along Embankment Road to Heles Terrace/Laira Bridge. A key issue is that a complex road and rail network passes through the area, severing access to some residential communities and potential development sites.

This report represents the work carried out in Stage 2 of the project, Option Development. Chapter 2 discusses the options/solutions for the study area, the rationale behind them and their aims. It also discusses the Stage 1 Appraisal of options. Chapter 3 then sets out four different groups of options, each representing different levels of intervention and change in the study area. It also looks at the appraisal of the amalgamated options, and discusses the options that have been subsequently discounted. Chapter 4 sets out the conclusions and next steps for Stage 3 of the Gateway Study.

2 Options and Solutions

2.1 Development of options

The Issues Report set out the current baseline positions in terms of transport, urban design, planning, regeneration initiatives, development opportunities and market analysis.

The report highlighted three key areas that the study should focus on. It also identified land use and development issues related to these.

The three key areas which determined option development were :

1. Views

The topography of the area along the banks of the River Plym gives tremendous views, and one of the fundamental principles of this study is to capitalise on and enhance views both from within and into the site.

2. Environmental Quality

The environmental quality of the area is currently poor. A key aim should be to improve the level of environmental quality, both for visitors entering the city, but also for those living in the communities within the study area, for instance along Embankment Road.

3. Transport and Movement

A key issue is rationalising the current movement through and within the study area and addressing the issue of traffic blight. The weight of traffic entering the city from the Eastern Gateway has seriously degraded the area, and needs to be managed and controlled.

With these issues in mind, the consultant team developed a list of different single options or solutions. No constraint was put on the level of intervention the option might require, nor on the costs or feasibility of implementation. The exercise was simply to produce the widest range of options possible.

The following section sets out the options, with details of their source, and an assessment of how they link back to the Issues set out in the Stage 1 report. The options have emerged from team and client workshops unless otherwise stated.

2.2 Land use Options

2.2.1 Context

The land use options are discussed in more detail below. Some have been amalgamated for ease and to avoid repetition, and as a result options are not always numbered consecutively (they originate from the original list which is replicated in full in the Appendix), however we have included them for ease of reference.

2.2.2 Options

Option 1- Consolidated Retail Park in Prince Rock

The consolidation of existing uses in the Prince Rock area would improve the amenity of the area, with landscaping, development of vacant underused sites and provide the opportunity for better public transport routes. A number of planning consents currently exist in the area:

- Implementation of the Salmon Harvester consent on the former Western National Bus depot site has the potential to inhibit many of the alternative recommendations of the Gateway Study.
- Morley Properties have indicated their intentions to intensify the amount of retail floor space at Laira Bridge and have pursued a Certificate of Lawful Use with this in mind.
- The potential redevelopment of the open A1 retail consent at Friary Park could result in new retailers occupying redevelopment/refurbished accommodation.

Each of these planning permissions has the potential to generate vehicle movements, which not only are in conflict with each other, but also with the movements along the primary highway network.

They may also prejudice the overall “vision” for the area.

The proposal to aggregate these consents in one location would eliminate/minimise these conflicts and provide the opportunity to create a purpose built retail park without increasing floor space.

If successfully implemented the potential to develop each or all of the sites exists.

Option 2 - Expanded Sainsbury Store

Sainsbury’s planning consultants have confirmed the strategic significance of the Marsh Mills store within their national network. The significance is underlined by the submission of their planning application which seeks to increase the retail floor space whilst simultaneously providing additional warehousing to serve their only Cornish store located at Truro. The function of the store and size of capital investment already undertaken means the potential for alternative uses are limited.

The physical boundaries of the property also inhibit any latent development potential. Our conclusions have therefore focused upon maximising the planning gain that may arise from negotiations concerning the Sainsbury application.

Option 3 – Consolidation of commercial development at Marsh Mills

The consolidation of land uses in the Marsh Mills area, particularly around the A38/Embankment Road junction where there is a proliferation of ‘space left over after planning’ (SLOAP). This would potentially improve the visual amenity of the area as well as provide a destination.

Options 4 & 9 - Blagdon’s Boatyard

The prime situation and location of this site demands careful consideration in appraising appropriate end use(s). The location and prominence of the site has attracted a range of uses, which may be considered inappropriate for the location and more appropriately

located elsewhere within the Gateway area. A planning application for hotel, Harvester restaurant, residential and other uses has been submitted for the site.

The proposal to relocate the uses to Heywood’s Paving (Option 5) was opportunistic given the company’s desire to relocate. The range of uses and proposals may also be inappropriate for the Heywood site.

Option 5 - Relocation of Heywood’s Paving

The industrial use and aesthetic features of this business are inappropriate for this highly visible site on Embankment Road.

The relocation of Heywood’s Paving to a more appropriate location is therefore encouraged, the prospects of which are greatly enhanced by the company’s own desire to move. Currently access is poor and far from ideal.

No relocation options have formally been tested, however the company’s Director has expressed a preference to be located close to the A38 corridor.

Option 6 – Landmark Buildings

Landmark buildings would provide points of visual focus, legibility, identity and mark progression and arrival into the city, thus enhancing the area’s Gateway role. These could be located in a number of locations but would be particularly placed strategically along Embankment Road for example at Marsh Mills, Laira depot and Laira Bridge. They could become local landmarks and evoke a sense of local pride in the area.

Option 7 – Artworks

Large scale public art projects would work in a similar way to landmark buildings in Option 6 above. These would mark points along the entrance to the city, improving legibility, and becoming local landmarks.

Option 8 – Residential development at Mount Gould

The relocation of Mount Gould hospital would provide a large area of land available for redevelopment, particularly if poor quality housing to the south were included. Redevelopment would provide the opportunity to increase the permeability of the area, improve access to the waterfront and become an important link in the strategic green network planned for the area (see also Option 14).

It would also provide the opportunity to create a new place - a mixed-use area which would include residential and commercial development. The site is prominent on a hill set back from Embankment Road, allowing the opportunity to achieve a highly visible gateway development.

Option 9 – see Option 4

Option 10 - Relocation of Industrial Uses within Cattedown or Marsh Mills

The East End study has concluded that a number of existing commercial uses within Cattedown are generating vehicle movements which are in conflict with residential amenities. Where uses are in conflict with the long term vision of the area, there is mutual benefit in relocating these uses to alternative more appropriate locations within the study area. This will also create new development opportunities, compliment regeneration initiatives and help to achieve the end vision of creating a gateway and a place. Industrial users will need access to the primary road network.

Options 11, 12 & 13 – Land reclamation on the River Plym

The existing water frontage from Marsh Mills to Laira Bridge is poorly utilised both for residential and commercial purposes. The quality of this water frontage could be enhanced through a land reclamation programme which could be incorporated with other recommendations within the study.

Reclaimed land could be used not only for residential and commercial uses, but also for transport infrastructure such as road, rail or LRT.

In qualitative terms it was felt that visual access was of greater priority to residential based development, whilst water access would favour a general commercial use.

In general terms it is proposed a qualitative assessment of the water frontage is undertaken identifying sites where water access is possible. A detailed environmental assessment would be eventually required and it is likely that any reclamation would focus on the less sensitive southerly sections of the Plym, the focus of the Gateway area.

Options 14, 15, 16 and 17 - open space strategy

Currently the study area has only a few pockets of public open space which are under-utilised and lack amenity. These options aim to provide the foundation of a coherent open space strategy. Improvement to existing open space would be an important feature of the strategy, for instance at Laira depot, linking with Lipson Community College. However, the strategy would also create new areas of public open space. Two corridors could be created, which link Laira open space and Tothill Park, with the waterfront via traffic calming and improved crossings, creating “green fingers”. This could incorporate a Green Bridge from the recreation ground at Laira depot. These corridors would provide a better-quality amenity for local residents, as well as improving pedestrian access and reducing severance, noise and pollution.

There would be some constraints to be overcome, however, including bridging the railway and ramped approaches for the riverside, although it is not thought that the cost of these would be prohibitive.

Prince Rock Playing Fields currently occupies a prime, prominent site on the banks of the River Plym. This could be relocated, either in conjunction with the school, or on its own, to the Mouth Gould/Laira depot area, to allow for development.

Option 26 – Development of St Boniface Playing Fields

St Boniface College owns playing fields to the north of the A38 at Marsh Mills in a prominent position. The

site is currently under-utilised by the college and could be available for development. The site has already been refused permission for retail development.

The site could potentially be used for Park and Ride, although there would need to be some rationalisation of P&R provision in the area. It is important that, if this site were developed, alternative uses and development form are in keeping with its prominent gateway location.

However this will require a thorough investigation before development as it is susceptible to flooding.

Option 35 – Living Bridges on Gdynia Way

This option explores the potential of reducing the severance created by Gdynia Way and linking the two communities either side of the road by a wide bridge containing buildings and open space.

Option 37 Reduce impact of Network Rail sidings

This proposal looks at reducing the impact of the Network Rail sidings to the study area. The sidings occupy a prime site at Laira overlooking the River Plym. One method would be to investigate whether replacing the overhead gantry at the depot would be feasible, and replacing it with another less visual prominent system.

Alternatively the site could be relocated to a more discreet site, perhaps at Marsh Mills, allowing the redevelopment of the site for more suitable uses. For instance using the corridor for road or public transport. Consultation with Network Rail is planned as part of this study. However, whatever the outcome, this is certainly a long term proposal.

Option 38 – Construction of tidal gate

In order to maximise the estuary to its fullest, one option might be to construct a tidal gate across the River Plym. This would create a large aquatic area where tides could be controlled by a lock (for instance on a 12 hour cycle). The potential, particularly in terms of leisure development, would be significant.

However there would be obvious environmental issues which would need to be addressed.

It is thought that such a structure would only occur in conjunction with a new Laira Road Bridge, which would take the form of a tidal barrier with the road on the top.

Option 42 – Relocation of Prince Rock School

Prince Rock School is currently sandwiched between Heles Terrace, Laira Embankment and Embankment Road, all busy roads. Whilst the building itself is of architectural merit and would be retained, the school could move to a more suitable location, perhaps on the Mount Gould site should the hospital be relocated. This would greatly reduce the severance currently endured by pupils, parents and staff, and improve the local environment. However a more detailed impact study would be required to assess whether this would be a feasible option.

Option 43 – Riverside park or promenade

As already mentioned the study area does not really celebrate its location on the River Plym, and access to the water's edge for local residents and visitors is very poor.

This option looks at the possibility of locating a riverside promenade or park allowing access to the water's edge and maximising the amenity value of the River.

This should be carried out alongside measures to reduce the severance created by Embankment Road, to allow safe and convenient form the residential areas to the west in Laira, Mount Gould, Efford and Prince Rock to the river edge.

Option 46 - Pylons

The presence of the electricity pylons between Laira and Cattedown is visually intrusive and, particularly in the Embankment Lane/Laira Bridge Road area, they inhibit/prevent development and the provision of alternative road alignments.

This option proposes the undergrounding or re-routing of the pylons to improve the visual environment and enable development/highway improvement.

2.3 Transport Options

2.3.1 Context

Transport options are divided into sections relating to type (for instance road building, public transport). As with the land use section above, the option numbers from the Options Matrix have been used for ease of cross-reference.

2.3.2 Public Transport Improvements (Infrastructure Related)

One way of influencing car-based trips over time as congestion increases is to enhance the choice available from public transport (PT). Short-term gains might be achievable via improvement measures to bus operations (increased frequency, bus lanes, signal priorities, real-time information, etc). Longer-term possibilities might be achievable from LRT and/or heavy rail improvements.

Whilst it may be naïve to think that improved PT opportunities could result in a decrease in congestion, measures which could absorb growth in travel demand and thereby maintain current congestion levels would still be worthwhile.

The study has therefore considered a range of PT improvements, some of which may not have a major influence on road traffic demand but where physical implications need to be recognised and planned for via this study.

Option 18 - Implementation of Bus Lanes

This option relates to the implementation of bus lanes where they can be provided within the physical constraints of existing infrastructure. In addition to physical opportunities being limited there would be a need to consider the ability of the bus to be able to gain access to the start of the bus lane and consequential delays to other traffic as a result of the bus lanes. This option is unlikely to reduce severance because it is effectively removing an available lane of

traffic, creating more queuing. However, the overall objective would be to improve bus journey times and public transport reliability.

Option 19 - Bus Priority Package

This is a more comprehensive package than Option 18 and would include additional public transport enhancements including new stops, junction signal priorities, real-time information for passengers, etc. Since many commuters will work in the 'satellite' employment areas rather than the city centre this option needs to assume an improvement in bus service interchange.

The overall aim is to improve the public transport "offer" in order that people may make more frequent use (current users) or change mode for at least some of their journeys. Journey times and penetration of the study area are likely to improve.

Options 31, 32 and 41 - LRT System.

In terms of long-term aspirations to provide improved public transport access across a wider area, there are "proposals" for an LRT system which would pass through the study area. It is unlikely that this would impact directly on current operational traffic demands (since again it is likely to be designed to accommodate new growth areas) although its physical presence may impact on other study decisions.

However the possibility exists that the LRT system could in practice consist of express bus services and the provision of dedicated routes, or sections of the route, which could be used by the local bus services.

Therefore it is important to understand the possible routes for the LRT and to what extent these might impact on current considerations.

Option 44 - Community Transport

This option simply flags up the ongoing requirement for a wide range of community transport initiatives to

address the various demands not catered for by current mainstream transport provision. It will have no impact on the traffic modelling work to test the main network/demand options.

2.3.3 Improvements For Pedestrians and Cyclists

Inherent in all good current urban design practice is the need to give a high priority to the requirements of pedestrians and cyclists. This is an essential component of this study and the need to ensure that these issues are addressed is an integral element of all options and therefore final recommendations.

Option 20 - Enhanced Pedestrian and Cycle Network

This option highlights the need to think about the design issues for these modes as an integral part of the process, and promotes overlooking and surveillance as a means of improving safety and vitality and viability. The option specifically identifies a requirement to design for these modes perhaps at the “expense” of other modes; e.g. the car. There may be some physical implications arising from this and the option evaluation process should identify the consequences of these physical issues.

Option 21 - Improvements to Embankment Road

This is a specific option aimed at providing additional crossing opportunities (for pedestrians and cyclists) particularly on the section between Marsh Mills and Heles Terrace, and improving the pedestrian environment through planting, street furniture and other environmental improvements.

This would improve severance and accessibility in the area, and reduce the impacts from noise and pollution and improve the setting of the local parade of shops. The likely consequences would require the removal of at least some motorised traffic on the section between Cattedown Roundabout and Heles Terrace.

Option 22 - Cycle Route

This option looks at specific cycle improvement aimed at linking Saltram House with the waterfront and cycle paths. It will improve leisure opportunities for locals and visitors to the area at a relatively low cost. This cycle provision is to be incorporated in all network package option.

2.3.4 New Road Construction

It is generally accepted that new road construction that is based entirely on providing additional traffic capacity would be difficult to justify. In that context, as well as for wider planning reasons such an approach in this study is deemed unacceptable. There is therefore a presumption against new road construction for increasing car capacity only.

New road construction may be supported if it creates opportunities for regeneration with long term benefits for the immediate surroundings and in this case beyond, because of the strategic gateway location of the area.

This may include road building which is directed towards improving operational reliability and/or providing an opportunity for improving access and movement by non-car modes. Additionally new road construction may be put forward to improve/enable accessibility and the value of development sites and as a means of improving environmental conditions within existing residential areas.

It is inherent in all new road options that safety considerations would be paramount for any resulting design.

Arising out of these considerations is a range of new roads options that have a multi-faceted approach. They are intended to address a number of specific objectives.

Option 24 - Additional Bridge over the Plym

The objective here would be to provide an increase in overall person crossing capacity by allocating specific lanes for buses, and providing improved pedestrian and cycling facilities. Within this option there are a number of possibilities including a new bridge for non-

car modes only or a new bridge for all traffic that releases space on the existing bridge for bus priority lanes. A new bridge may be either a fairly standard design, or an architecturally designed “feature”.

This option is included in case Option 23 cannot provide the required operational benefits for public transport because of limiting physical constraints of the existing bridge and its approaches.

As with Option 23, it would improve links from new development in the east. It would also provide an opportunity to create a landmark feature or an image for the gateway area.

This option could be accommodated as part of Option 38, the construction of a new tidal gate.

Option 25 - New Local Relief Road to bypass Gdynia Way.

This option of new road building would have a number of specific objectives such as improving through traffic and local access, improving the local environment in existing residential areas. It is included in order to allow an option for closing or re-defining the role of Gdynia Way in order to overcome current traffic congestion and severance issues.

Whilst many existing roads will be utilised it is likely that this option will require a significant amount of new build. Engineering design issues are vital to the achievement of functional success; a higher-grade route is likely to provide a better through route alternative for traffic in terms of its operation and visual amenity.

Option 29 - Embankment Road Relief Road

This option looks at the widening of Gdynia Way to provide for two-way traffic and thereby allow the downgrading of the existing Embankment Road. This would result in one major through traffic route through the area rather than two. The main objectives of this option would be to reduce severance in residential streets, improve the shopping

environment along Embankment Road and improve public transport accessibility via Embankment Road.

Option 30 - Construction of a new road link from Embankment Road to Finnigan Road.

This new road link is intended to become a key route for commercial traffic including HGVs travelling between the A38 and Cattedown, so that they can avoid the existing residential areas. Its main purpose is to improve access to Cattedown but could bring about wider environmental benefits in terms of improvements across a wider area with respect to noise, air quality and severance.

Option 33 - New Corniche Road around Cattedown peninsula.

This option has the same traffic operational and environmental objectives as Option 25 but with more ambitious regeneration and redevelopment aspirations across a wider area. The road would utilise existing roads where possible, although new build may be required.

Option 36 - Heles Terrace Bus Priority

Heles Terrace caters for a significant volume of traffic between The Embankment and Laura Bridge (and vice versa). Congestion affects the operation of the bus services to and from the city centre. This option is a more localised improvement than those above albeit that it would have a significant physical impact in terms of property demolition within the immediate study area. The objective would be to design a major new junction configuration with the specific aim of improving bus operations and constraining car movements to existing levels. Properties adjoining the existing junctions would require to be demolished and residents relocated.

2.3.5 Traffic Management

There are a number of options that can be grouped under the banner of traffic management. These might include changes to traffic control and operational

arrangements or may extend to restricting access for some vehicle types in order to reduce, for example, undesirable through routing of HGVs.

Option 23 - Laira Bridge Operational Modifications

This option considers the operation of the existing bridge to see if improvements can be made to public transport movements. If it is possible to alter the balance between operational priorities for bus, pedestrian, cyclists and cars then it may be possible in the longer term to increase the “person” capacity of the crossing. This would allow additional growth on the A379 corridor to be accommodated by public transport.

Option 27 - Traffic Management – localised measures on residential streets.

This option arose from the East End Study which raised the issue HGVs passing through residential areas creating noise and air pollution.

Whilst not directly impacting on wider network operational conditions at peak periods, this option should explore the broad implications of access restrictions for some vehicle types in addition to traffic calming measures to influence vehicle routing and speeds.

2.3.6 Demand Management

Although from a congestion charging perspective, this is not in the current political agenda at a local level there is little doubt that demand management will play an important part in the future operational performance of the transport network. PCC is already making good progress with Travel Plan implementation and these initiatives must continue. In due course, charging may need to be introduced even if only at peak periods.

Option 28 - Laira Bridge Tolls

These might be introduced either as a demand management tool on the existing crossing or on a new crossing to help finance its construction and operation. Tolled crossings are already an accepted

principle in Plymouth although there would be some political concern about introducing some on a crossing which has to date been free from tolls. It is perhaps more likely if there was a new architect-designed bridge, or as part of a city-wide initiative. It is unlikely that the Gateway Study traffic modelling work will detect to what extent the toll will influence demand but it may be useful to carry out an exploratory calculation to identify potential revenues.

2.4 Rail

There are rail issues to be considered although these are unlikely to affect peak traffic demand on the road network but are simply part of tackling longer term growth in travel. The possibility of achieving a switch from road to rail for freight from the port at Cattedown could however bring about significant relief to the road network in terms of HGV movements. A study is already underway to quantify this.

Options 39 - Rail Capacity Improvements.

The capacity of the freight rail link to Cattedown would be increased by reinstating the direct link between Laira and Cattedown. This would remove the need for trains to travel towards Friary using the other two sides of the triangle. Additional advantages would be that the ‘barrier’ created through the community by the line to Friary could be removed, a development opportunity would be created, and potential highway improvement in the Embankment Lane area simplified.

Option 40 - Improvements to Passenger Traffic

There would appear to be potential for the main line to carry additional commuter traffic to and from the A38 east corridor. However the performance of new station at Ivybridge and the park and ride facility do not as yet point favourably towards this. This option is therefore not likely to impact on the study evaluation work.

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Option 45 – New Road along rail line to Friary Yard

The rail line from Laira depot to Friary Yard is currently a rail halt used to change levels so that freight traffic can continue south into Cattedown.

Should the rail line to Cattedown be realigned and the line to Friary removed, the opportunity would exist for a road to replace the latter. This would link traffic entering from the east to skirt the residential areas of Cattedown and arrive at St Andrews roundabout. It was relieve traffic on existing roads, particularly Embankment Road, (vehicular access would remain) which would improve the neighbourhood shopping area.

This scheme would have to be carefully development so that it does not maintain the ‘barrier’ between the communities and worsen environmental conditions for local residents. An alternative is that this rail line would provide one of the possible routes for buses only as an alternative to an LRT system.

2.5 Ferry

Option 34 - Ferry

This options attempts to increase water activity, an objective consistent with David Mackay’s strategy for the City Centre. A ferry-taxi from selected points along Embankment Road into the city centre and to other nodes such as Plymstock would provide an alternative transport mode. It may also become a local attraction. However, usage is likely to be modest, since destinations may be tide-dependent, and will not influence demand on the road-based modes.

2.6 Baseline options

In addition to the options outlined above, there are a number of baseline options, either planning permissions or regional policy aspirations, are planned for the area. These can be divided into a number of types:

1. Current policy, for example residential and employment allocation, such as Plymstock Quarry.

These policy commitments and their implications have been factored into all options.

2. Planning permissions which will go ahead as they are in line with the overall vision for the study area such as The Community Centre at Cattedown. These have been factored in to all options

3. Planning permissions or applications which the consultant team do not think are compatible with the Gateway Vision, such as the extant planning commitments permission at the Salmon Harvester site (former bus depot) for non food retail. These have been included in the “do minimum” scenario only.

Baseline options are set out in the table below.

Table 1 Baseline Options

<i>Baseline Options</i>	
South Hams	Structure Plan proposal for New community (including 3,500 dwellings)
Langage	Structure Plan proposal for strategic development site
P & R	Local Plan proposal in Plymstock area along A379
Tavistock Junction Freight	Local Plan proposal for land at Marsh Mills allocated for road to rail freight interchange
Former bus depot	Owned by Salmon Harvester Planning permission for non food retail Current plan allocation for mixed-use of commercial development
Blagdons	Owned by Midas Construction Planning application for mixed use development Local Plan allocation for marine employment
Cattedown Community Village	Local plan allocation for mixed use Outline planning permission for Phase 1 submitted
Tothill sidings	Local Plan allocation for coach parking. Safeguarded for potential LRT, and cycleway
Penrose Yard	Local plan allocation for mixed use development including residential (16 dwellings)
Brentor Road	Local Plan proposal for residential development (60 dwellings)
Stenlake Terrace	Local Plan proposal for residential development (12 dwellings)
Cattedown Road	Local plan allocation for residential development (45 dwellings)

Western Power, Elliot Road	Local Plan allocation for residential development (110 dwellings)
Wakeham's quarry	Owned in part by London and West Country Estates Local plan proposal for employment including marine-related development
Breakwater Works	Local plan proposal for employment including marine-related development
Plymstock Quarry	Owned by Westbury Homes Former Blue Circle Cement works Local Plan designation for Mixed Use development potentially up to 1,500 dwellings with a public transport interchange

2.7 Options Summary Table

Table 1 of the Appendix sets out more detailed description of the options, how they link with the issues in the Issues Report, and potential timescales.

No	Option Name
1	Consolidated retail park in Prince Rock
2	Expanded Sainsbury store
3	Consolidate commercial development at Marsh Mills
4	Making best use of site at Blagdons
5	Relocation of Heywoods Pavings
6	Landmark buildings
7	Artworks
8	Residential Development at Mount Gould
9	Transfer Midas application to Heywood site
10	Relocation of non conforming industrial uses to Cattedown/Marsh Mills
11- 13	Land reclamation along River Plym
14	Open space strategy – Green fingers to waterfront
15	Open space strategy – improvements near Laira depot (Lipson?)
16	Development of Prince Rock Playing Fields
17	Laira open space strategy –Laira open space bridge
18	Bus lanes
19	Bus Priority Package
20	Enhanced Pedestrian and Cycle Network
21	Improvements to Embankment Road
22	Cycle route
23	Laira Bridge - operational modifications
24	Additional Bridge over the River Plym
25	New Local Relief Road to bypass Gdynia Way
26	Development on St Boniface playing fields
27	Traffic Management; localised measures on residential streets
28	Demand Management; Laira Bridge tolls
29	Embankment Road Relief Road
30	Construction of a road link from Embankment Road to Finnigan Road
31-32 and 41	LRT
33	New Corniche Road around Cattedown peninsular
34	Ferry
35	Living bridges over Gdynia Way
36	Heles Terrace bus priority
37	Reduce Impact of Network Rail Sidings
38	Construction of a tidal gate
39	Rail Capacity Improvement
40	Rail – Improvements to Passenger Traffic
42	Relocation of Prince Rock School
43	Riverside Park or promenade
44	Community Transport
45	New road along rail line to Friary Yard
46	Mitigation of Pylons

2.8 Options appraisal

The above options were all subject to the study's Appraisal Criteria. The Appraisal Criteria contains local and strategic objectives, developed by the joint client and study team, and are based on the Government's New Approach to Transport Assessment (NATA), but supplemented by more tailored criteria.

This model was used as it provides a robust methodology and fits with wider transport, regeneration initiatives, social issues and environmental constraints. It was used in the Government's Multi Modal Studies, and although is transport-orientated, works well in this context, particularly as transport issues are so crucial to the successful redevelopment of this area.

2.8.1 Appraisal objectives

The strategic and local objectives are: -

Environmental

1. To reduce the impact of traffic on residents
2. To minimise the impact upon flora and fauna and the landscape
3. To improve the local quality of life (local objective)

Safety

4. To reduce accidents
5. To improve security

Economy

6. To support the sustainable economic life in the city and get good value for money
7. To provide employment opportunities (local Objective)

Accessibility

8. To improve access to facilities for those without a car and reduce severance
9. To improve reliability of public transport
10. To access leisure opportunities in the local area (local objective)
11. To provide for local community needs (local objective)

Integration

12. To ensure decisions are taken the context of National and Local policy objectives

2.8.2 Application of Appraisal Criteria

Each option was assessed qualitatively in the following way:

1. Degree of impact – significant, moderate, slight, none; and
2. Type of impact - positive or negative,

so that, for example, an option might have a significant negative impact or slight positive etc.

A number of assumptions were made during the assessment, outlined in Table 2 of the Appendix.

2.8.3 Appraisal Results

The results of the Stage 1 Appraisal of each option is set out in Table 3 of the Appendix. The table provides a guide as to the options that ultimately may be prohibitive and discarded. However at this stage all have been retained and integrated into one of the Options set out in the following Chapter.

3 Amalgamated Options

3.1 Methodology

In grouping the options, the study team aimed to address the following themes from the Issues Report:

Views – the study area contains excellent existing and potential views into and across the area, reinforced by the topography. It is important that the Gateway Vision capitalises on and enhances views.

Environmental Quality – the environmental quality of the area is currently poor, and each option should aim to improve environmental quality for both visitors entering the city and local communities.

Transport and Movement – the weight of traffic entering the city is seriously degrading the area and creating traffic blight. It is imperative that this is managed and controlled.

The options are grouped in the following way:

- Option A and B- Do Minimum
- Option C - Do Something More
- Option D - Do Everything

This grouping reflects the level of intervention required by the local authority and other stakeholders, the phasing of options and the complexity and scale of each individual solution.

However two additional categories were added:

- ‘The Add-ons’ – these are solutions that are not a central or integral part of each Option, yet may be “bolted-on” as an additional development proposal.
- ‘The Must Dos’ – these are options that the study team consider crucial for the study area, no matter what level of intervention is required.

The following pages set out these amalgamated Options for the study area. As a guide to each Option,

some background text is provided. Further detail on each individual solution can be found in Chapter 2 and in Table 1 of the Appendix.

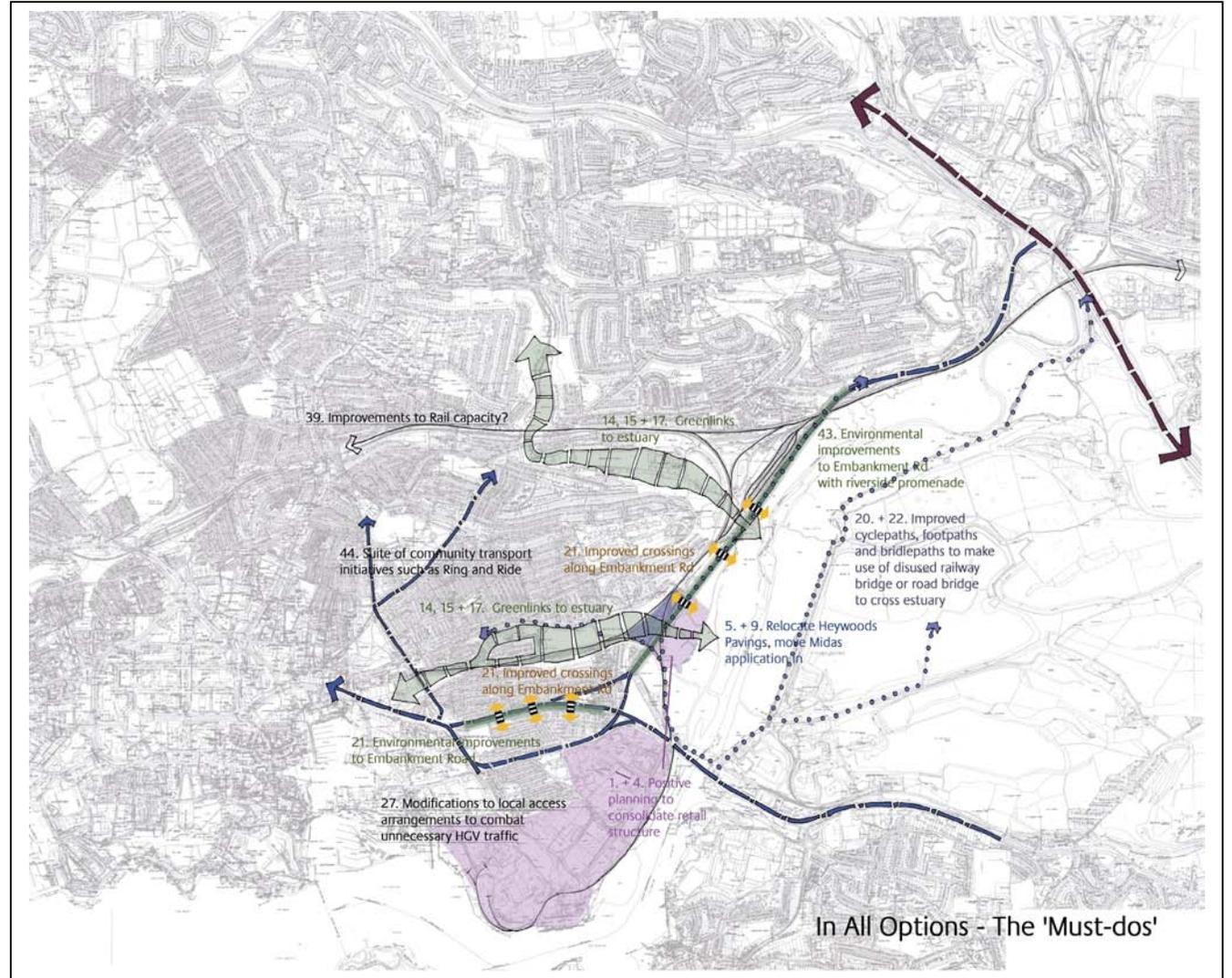
3.2 'The Must Dos'

The 'Must Dos' do not represent a single option, rather a collection of solutions that are considered important to include in all outcomes.

In terms of transport, the measures include community transport initiatives, modifications to local access arrangements and rationalising HGV movements and improving the cycle paths on the eastern banks of the Plym.

This list of important measures also includes encouraging green links through the area to the estuary and environmental improvements to Embankment Road to include a riverside promenade, and increased pedestrian crossing points.

In terms of land use, it is thought that positive planning is essential to rationalise and consolidate retail in the Laira Bridge area, and to try to relocate Heywoods Pavings, allowing a more suitable use for the site.



3.3 Options A and B 'Do Minimum/Do Something'

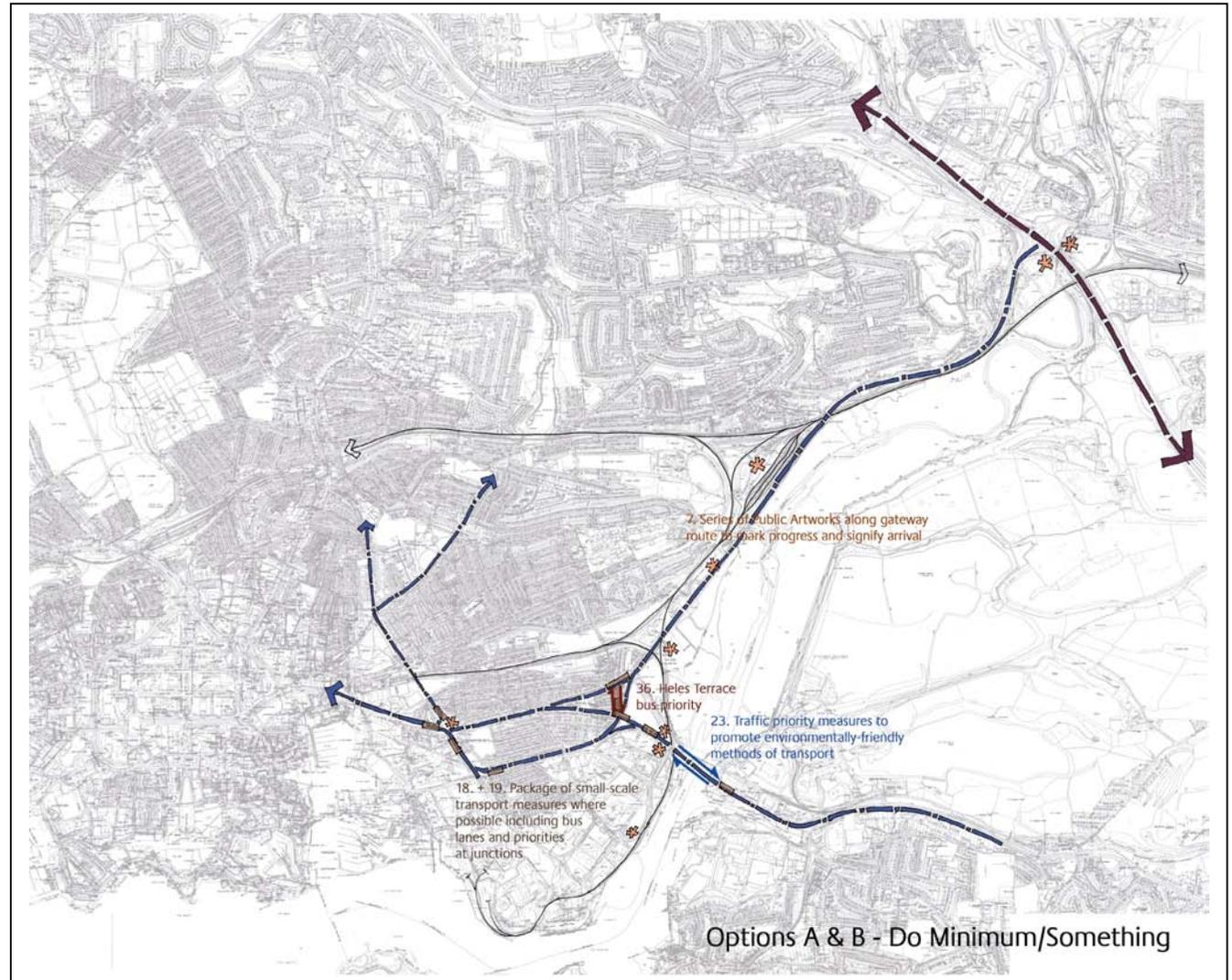
Options A and B have been amalgamated because in essence they were very similar. Both options require a minimum of intervention by the local authority, over and above development proposals and planning permissions already in the pipeline. They are reactive options, where the local officers will largely act in response to opportunities rather than proactively promote development.

This option also includes all the baseline options, although these are not shown diagrammatically.

The 'Do Minimum/Do Something' approach sets out options which can be achieved relatively easily and within a short time frame. Measures are predominantly transport related and include traffic priority measures, which promote environmentally friendly modes of transport, bus priority packages at Heles Terrace and potential for bus priority at junctions. These should be co-ordinated through an area-based transport strategy.

The other major initiative for the area would be the implementation of a series of artworks along Embankment Road. These would be administered by the SRB Gateway Study, and it is recommended that a city or area-wide strategy be in place to co-ordinate the planned structures within an overall theme.

However, it is unlikely that these options will produce major benefits for the area in terms of traffic blight and environmental impact. The public artworks will, if carefully planned, provide visual identity and focus but the real issues of the area fail to be addressed adequately.

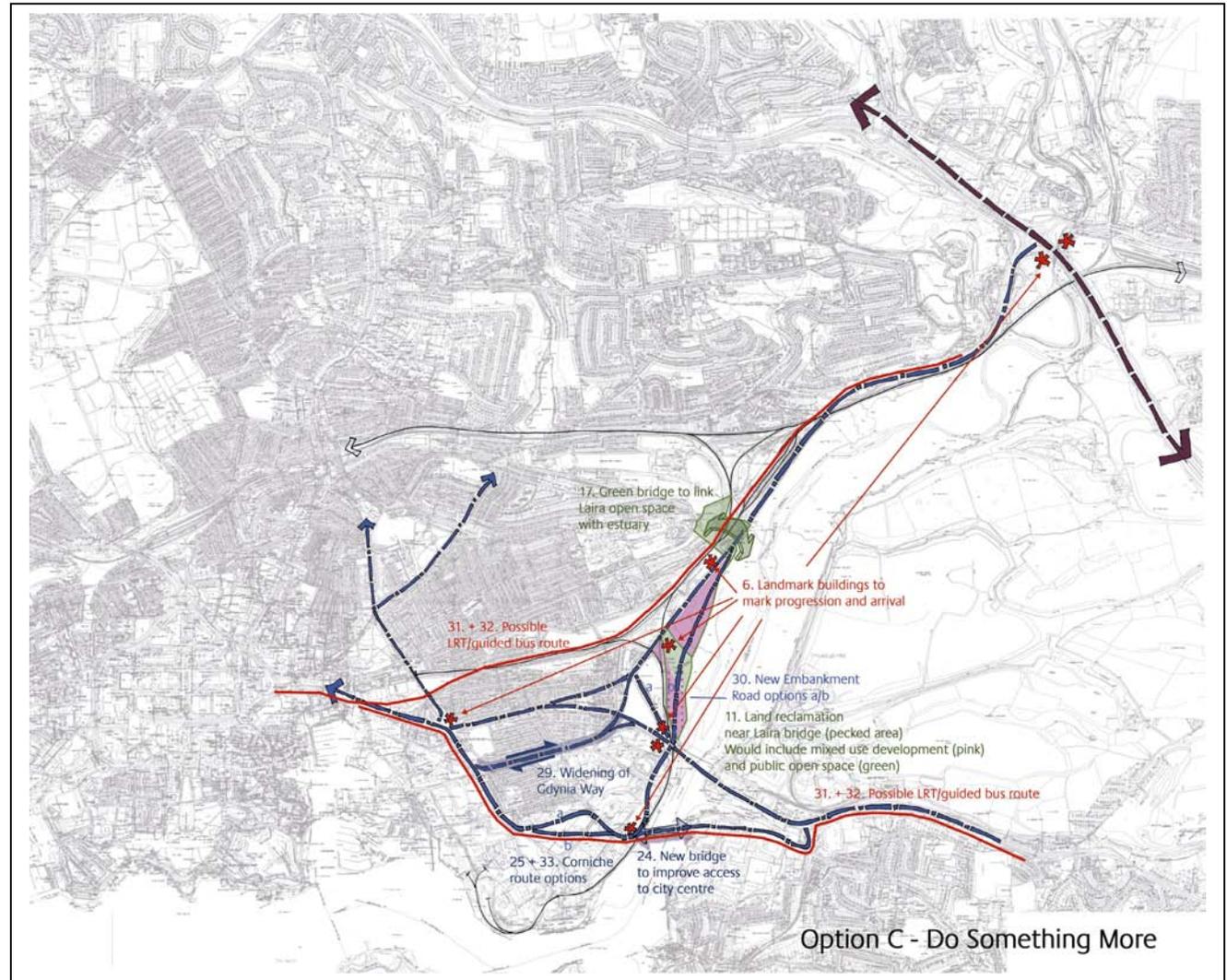


3.4 Option C 'Do Something More'

Option C 'Do Something more' explores the potential for major change in the Gateway Area. It includes a number of ambitious options for the area including land reclamation and a re-ordering of the road network. It requires proactive intervention from local authority officers, who will need to plan and promote development, and search hard for potential funding sources. If carefully planned and implemented, this option has the potential to produce real change in terms of environmental quality and accessibility through and within the area.

In terms of land use and development, this option looks at the potential for land reclamation only on the southern reaches of the River Plym. This would be used for green space and mixed-use development. A 'Green Bridge' develops the green links concept advocated in the 'Must Dos' and would link Laira open space more dramatically with the estuary. This should become part of the recommended Open Space Strategy for the area. Landmark buildings at key moments on the gateway route would add a sense of visual identity and improve the area's image.

The option includes a number of different road options. Along Embankment Road Option 30 (a) looks at the opportunity to re-route Embankment Road using existing roads (Embankment Lane) revising the access point at Laira Bridge and providing an alternative route into Cattedown avoiding Gdynia Way. This option would not require major road building, although would require a careful look at levels around Laira Bridge. Option 30 (b) looks at reducing traffic on the rest of Embankment Road by building a road on reclaimed land. Options 25 and 33 are alternative routes through Cattedown avoiding Gdynia Way, which will require the relocation of the DSD site and some new road building. Option 29 looks at actually widening Gdynia Way so that it can carry more traffic. Option 24 provides a new bridge either a public transport bridge or allowing bus priority lanes on Laira Bridge. It is not suggested that all of these options are a part of Option C, rather that they represent some of different ways of tackling the traffic problems in the study area. Similarly Option C shows a number of different LRT alignments. However, until there is a clear guidance as to the exact nature of the LRT, this study can only safeguard potential routes, rather than offer firm proposals.



3.5 Option D 'Do Everything'

Option D represents the most proactive approach to the Gateway Area so far, and will provide a Gateway experience that is radically different from that which exists at the moment.

Land reclamation will be far more extensive, along most of the western side of the estuary. This will provide the additional land for mixed-use development and a large area for public open space. Open space is also extended from the "Must do" green links from Laira depot and Tothill Park to the river edge, with the addition of the "Green Bridge" (also in Option C) and a green route or "finger" running into the City centre along the disused railway line.

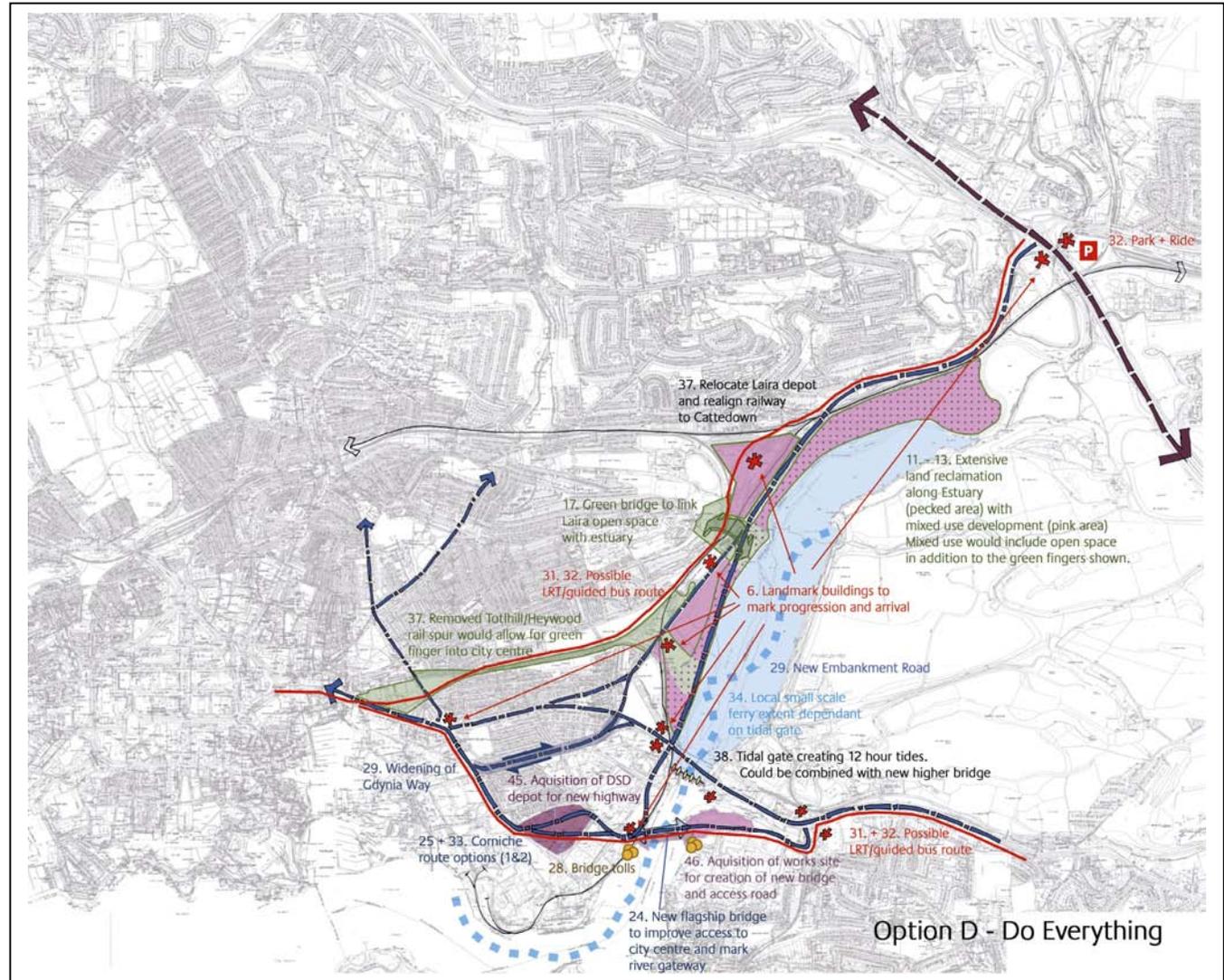
Perhaps the most radical change will be the creation of a tidal gate across the River Plym. This will effectively allow the tides to be controlled to create 12 hour cycles. A "high tide" during the day will mean that the newly created expanse of water can be used for leisure activities including watersports, and become a major leisure attraction. It will also allow for a local small-scale ferry operation to run between Saltram and Cattedown and city centre.

In terms of transport, this Option looks at the development of a new Embankment Road (Option 29) along the reclaimed land and as with Option C offers two routes for the Corniche Road, providing better access to Cattedown, as well as the potential to widen Gdynia Way. The new tidal gate will also act as a new bridge into the area, and will be tolled.

LRT possibilities are similar to Option C above, but include in addition a Park & Ride at Marsh Mills.

Also as with Option C, definition and visual links will be created by the landmark buildings.

This is an ambitious Option, designed to radically change the scale and feel of the Gateway area. However, it contains many challenges for development, not least in environmental terms, requiring sustained effort and perseverance towards a long term vision by the local authority and developers.



3.6 The “Extras”

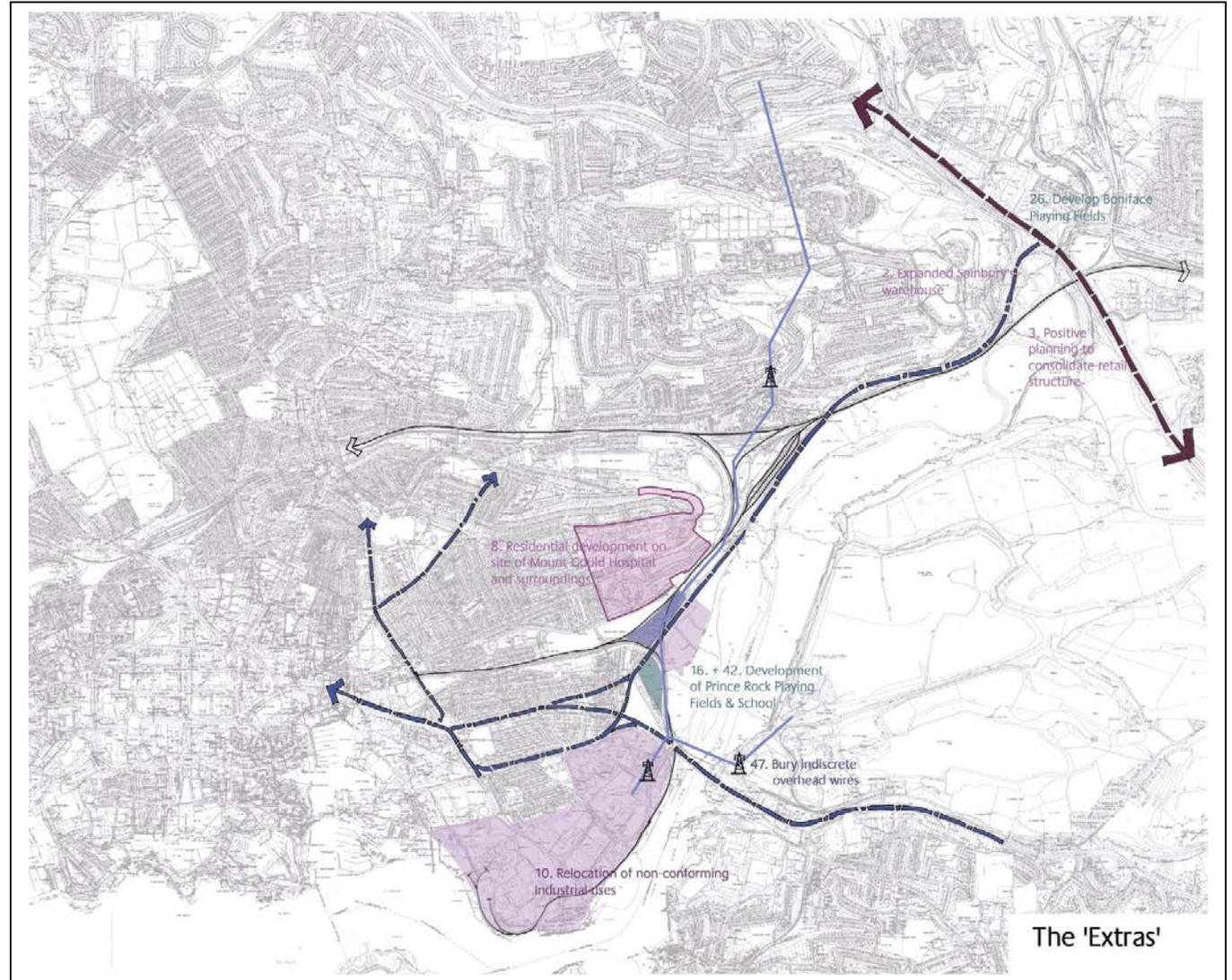
Whilst the consultant team were developing ideas, it became apparent that although many of the solutions were excellent schemes for the area, they were not crucial or vital to any one particular Option, and could be regarded as additional schemes that could be included whatever the preferred Development Framework.

The ‘Extras’ are therefore a varied set of proposals which relate mainly to land use and development. For example the relocation of non-conforming industrial uses from the Cattedown area, and positive planning in the Marsh Mills area to consolidate the existing uses there.

The closure of the Mount Gould Hospital would create an important large-scale development opportunity in the Mount Gould area which provides the potential for real change, and would fit into any of the Options set out above.

Similarly the redevelopment of Prince Rock and less so St Boniface Playing Fields would allow prime development to occur on important highly visual sites in the gateway area, (providing the open space was provided elsewhere).

The pylons currently run through the area and represent a constraint to development, as well as a visual intrusion. Their removal (through burial of lines) would greatly enhance the visual amenity of the area, and remove some of the constraints to development, but is not intrinsically linked to the development of any of Options A- D above.



3.7 Appraisal of Amalgamated Options

The previous pages set out initial pragmatic solutions for the study area, represented as amalgamated Options. At this stage they merely signify what might be achieved in the area, and are subject to further refinement.

The Stage 1 appraisal, originally applied to individual solutions, was also applied to the Options themselves. This is set out in Table 4 and Table 5 of the Stage 1 Appendix.

In Summary:

Options A and B offer some improvements to the area but are modest in scale and are short term, achievable within the next 5 years. They are not options which will solve all the problems presented in the area, but will result in limited changes, and represent a low risk strategy for developers and the local authority.

Option C is a more ambitious set of solutions, which will provide real change of the area, but take longer to achieve. Implementation will depend upon detailed impact assessments and further studies, particularly relating to the environment. This option will require proactive approach by the local authority, which will have to establish an implementation strategy to manage development.

Option D offers the opportunity to create a new place for Plymouth and it represents very great change. Even more than in Option C, this Option will require local authority intervention at an early stage, careful planning, and a great deal of resolve and commitment are will be necessary to implement change.

3.8 Discounted options

Whilst there was a commitment to avoid discounting options, at the end of this stage some were deleted where it was felt constraints greatly outweighed the likely expenditure.

Options 11, 12 & 13 – Land reclamation on the River Plym

This option is retained, but it is thought that at this stage the study should not include land reclamation north of the Laira depot. The Steering Group expressed concern regarding the extent of reclamation, with no clear grounds for such extensive reclamation in view of the costs and constraints.

Option 35 Living Bridges over Gdynia Way

This option was regarded as impractical and expensive, requiring demolition of a number of houses, with little purpose, and has therefore not been included in Options A – D above and has been removed from the original list.

4 Conclusions

4.1 Conclusions

This Stage 2 report sets out ways of addressing some of the issues affecting the study area. Solutions have been apportioned to Options A to D depending upon their level of intervention and ease of development. These amalgamated Options represent pragmatic approaches, which will change the nature of the study area and to varying degrees attempt to improve accessibility, traffic congestion and the area's image. At this stage these Options should not be seen as final solutions, which will be identified in Stage 3. More work is required to assess and rationalise the many alternatives and in assembling them into more coherent, integrated groups.

4.2 Next Steps

Stage 3 will complete the task of appraisal. This will result in a clear idea of the potential and/or limits of options set out in Chapters 2 and 3 of this report. It is likely that a number will be discounted as their feasibility is tested.

The final report will set out Integrated Options as follows:

1. Do Minimum Option
2. Proactive lower cost Option
3. Preferred Option – The Development Framework

Within these three Options, it is likely that there will be a number of phases, representing different levels of development.

4.3 Post Script

Since presenting these options, the study team have been able to appraise some of the solutions in more detail. Potential transport options have been rationalised and grouped into six different packages. Initial results from this appraisal have led to preliminary conclusions that although all of these options will alleviate traffic to some extent, they will not solve the problems that affect the study area.

In addition, further information has emerged regarding the condition and life expectancy of the present bridge over the Laira, and this has been taken into account in developing Stage 3 Integrated Options.

Concurrently, the team have been working on a Preferred Vision for the area. The individual options which make up this Preferred Approach are all taken from those set out in Chapter 2 of the Stage 2 report. However, they are grouped together in a way not discussed before.

In essence the option looks at using the Friary yard rail line (Option 45) as a road link from Embankment Road to the city centre, rationalising the freight line to Cattedown and eventually linking the new Friary Boulevard with a bridge across the River Plym, through the Blue Circle site to Pomphlett Roundabout. This will mean that the existing Laira Bridge will have dramatically less traffic, (only local traffic to Cattedown) and becomes a public transport route. Gdynia Way can be downgraded or shut, and the environment on Embankment Road, which will no longer have any through traffic, is dramatically improved.

This option, along with a Do Minimum and a Low Cost Proactive Option, will be tested further during the course of Stage 3.