

An aerial architectural rendering of Sunderland's industrial waterfront redevelopment. The image shows a dense urban grid on the left, transitioning into a waterfront area with modern buildings, a bridge, and a river. The text 'Sunderland : Redeveloping the industrial waterfront' is overlaid in the center-right.

Sunderland : Redeveloping the industrial waterfront

Urban design thesis : Newcastle University

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Introduction.

Aims and Objectives

□ 1

Urban Context

- Urban context
- History and transformation
- Economic structure and prospects
- Social structure
- Movement and connectivity
- Districts and open spaces
- Land use analysis

□ 2

Physical Framework of Grove's and Pallion

- Physical framework
- Movement, permeability and barriers
- Terrain and Plateau
- Riverfront as the Edge
- Environmental aspects

□ 3

Regeneration Initiatives by the Council

- Regeneration Sites
- New Transit corridor (SSTC)

□ 4

Design Principles and Literature

□ 5

Precedents

□ 6

Approach

□ 7

Concept and Design

- Concept
- Master plan
- Land use
- Movement Hierarchy
- Figure ground and Green space

Bibliography

Introduction

Sunderland has been known for its eminent ship building activities and industrial economic sector. However it has seen a series of degradation since decline of mechanical and engineering trades and decline of service employment dependent on shipbuilding and other industries. This has largely affected the areas on the outskirts like the Pallion village undergoing severe social and economic discrediting.

The 36 hectare Grove's site is located towards the west of Sunderland city centre and on one of the prominent riverside industrial stretch of Sunderland. It has been a notable part in Sunderland's automotive sector but with a large volume of underused land and a derelict riverfront.

The Pallion village is a huge residential sprawl to the south of this site and currently deprived of a healthy community feel and social activities. The degrading employment opportunities over the years for the Pallion residents has increased a rising social tension and loss of livable environment and population.

The waterfront industrial belts of Sunderland which ones represented Sunderland's industrial and manufacturing economy have been identified for regeneration and constructing a cohesive economy and a leading business sector. The Grove's site is a promising opportunity to to transform Sunderland and its outskirts into a well recognised cohesive economy as well as bring in a notable shift in the socio-economic conditions of the Pallion village.



The challenge lies in identifying the possible land uses that can bring in socio-economic transformation in Pallion and structure a new image that shall promote an aspiring living and working environment in the Pallion district.

Aims and Objectives

The dream for Grove's and Pallion is to sketch a diverse waterfront that allows people to have different experiences in different types of urban and open spaces. It will maximise public access to the water, and maintain the area's character while balancing local businesses' needs for commercial return.

To structure a new image for Grove's and Pallion district that can radically transform the socio-economic and physical framework of the derelict industrial lands and monotonous Pallion village.

To contribute to the aspirations of Sunderland in terms of economic transformation by creating a configuration of business districts and uplifting the local market with the help of strategic land use programs.

To attract entrepreneurs, foreign workforce and local residents in an alluring environment of work, leisure, recreation and high living standards by providing a high quality mixed use urban environment with ideal working places, a range of housing options, local business and supporting infrastructure.

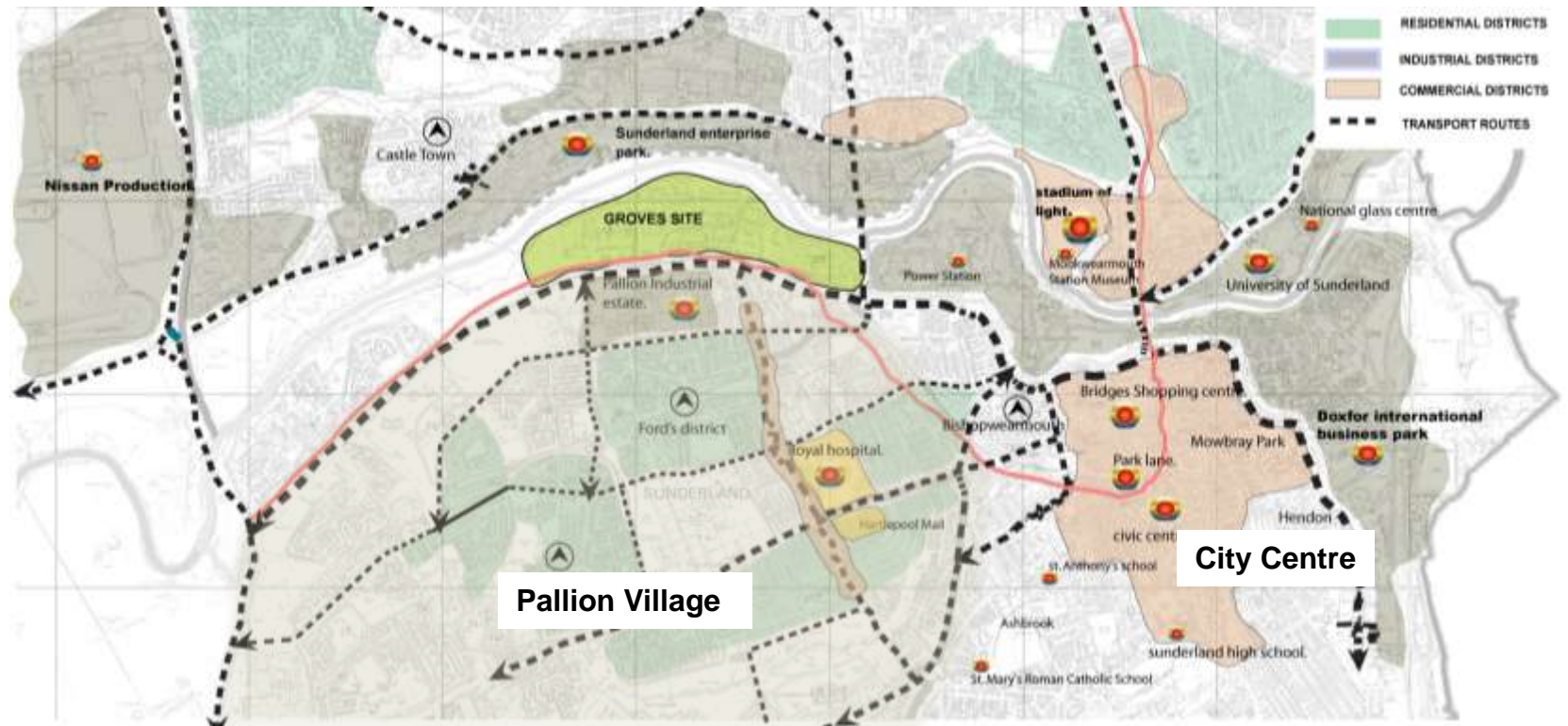
To give the riverfront back to the city and its people in a new configuration of spaces, activities and lifestyle.

To create an environment through built form, activities and events that can form the identity of its people which they are currently devoid of.

Give a bold gateway to the city through the proposed bridge across the river and efficiently distribute the vehicular and pedestrian traffic in an organisation of routes, spaces and events.

To have a concentration of arts and cultural activities can represent the life of Sunderland and Pallion village

To convert the waterfront into a memorable place for community events and envision an edge and skyline that can be a pride of Sunderland's new aspirations



Urban context

Sunderland's urban character varies considerably in its age, style, and the scale of its built form; this reflects the city's heritage of glass, shipbuilding, and coalmining.

Sunderland flaunts a long continuous industrial belt both on the north and south of the river flaunting some of the well known industries of the UK. The residential districts start spreading further south and north of the industrial belts in a monotonous land use pattern which does not keep them as a sustainable community. The Pallion district is one of such residential zone and devoid of a good social environment which makes it dependent on the city centre. The city centre holds a range of commercial and mixed use districts from Doxford international park, Sunderland University, Shopping areas. The city centre can be reached by metro rail and European way and other secondary routes. The eastern end of the Sunderland city centre has been under going transformations in the land use and business sectors.



Towards the south is a huge residential sprawl with a social environment that is not so congenial and hospitable. Towards the east lies the main city centre, which can be accessed by road and metro. Expectancy of a sociable environment is towards the city centre, which lies on the east.

The eastern part boasts a range of mixed-use development right from a football stadium, university, Business Park and a sense community life as well.

Urban context



Royal Hospital

cemetery.

aquatic centre.

Stadium of light.





Fig : shipbuilding and industrial belts along the river bank.



Fig : shipbuilding and industrial belts along the river bank.

History.

Sunderland is situated on the northeast coast of England with a population of close to 300,000 and the origins of the city dates back to the 17th century with a growing maritime commerce.

Sunderland's economy was heavily dominated by coal mining, shipbuilding, the mechanical and electrical engineering trades supported by geography and associated transport infrastructure. It was known for its biggest shipbuilding port and complimenting this pride was a growth in riverside industries and commerce.

This formed the pivot of employment of labor force and growth of residential wards adjoining the industrial belts.

The closing of coal mines and ship building industries in the late 80's and early 90's led to re-inventing the industrial belts. Ever since Sunderland has seen rapid transformation towards automobile sector and glass making and other industries.

Some of the important inverts in the timeline.

Nissan productions company began in 1986 employing

Sunderland Polytechnic founded in 1969 became a university in 1992.

The Stadium of Light football stadium opened in 1997.

Wood glassworks closed in 1998.

Vaux Brewery closed in 1999.

Further introduction of business parks like the Doxford international business park and Sunderland enterprise park.



Decline

Unlike other declining port cities of UK, Sunderland's geography and associated transport infrastructure did not promote other commerce.

Total employment in Sunderland started falling from 1973 to 1988 as other secondary service industries also established a path towards extinction,

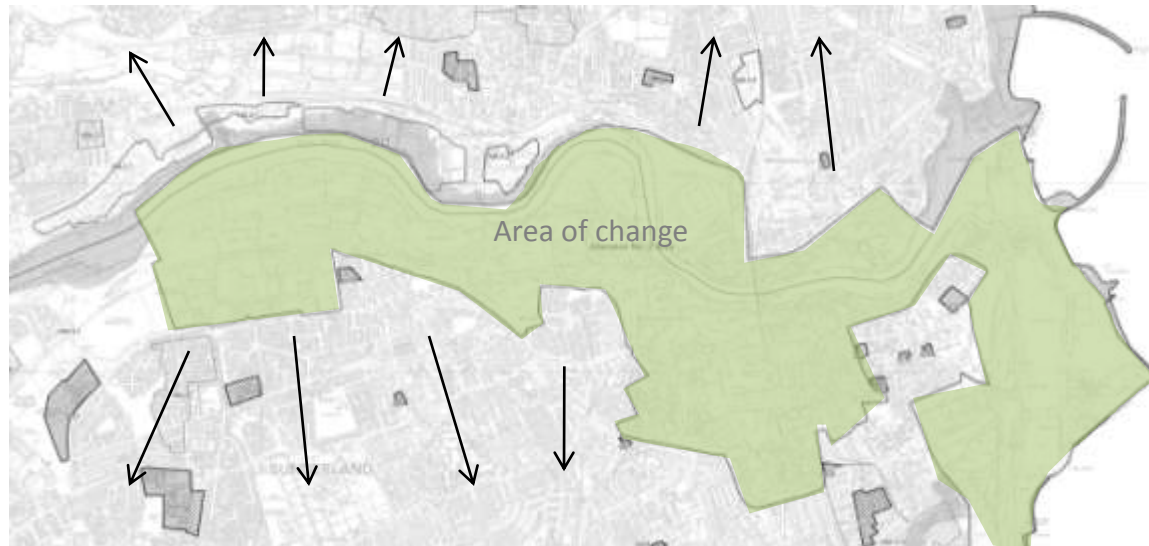
Its proximity to Newcastle was another hindrance in its growth and recovery since Newcastle was growing as the commercial and administrative centre of the northeast.

Newcastle along with Gateshead established itself as the the hub of the post-industrial service economy in the northeast

Effect on urban grain

housing and population reflect patterns relevant to the age of ship-building and coal mining, with the result that a number of deprived areas are relatively remote from the city centre.

The unemployment stress has been magnified since the workforce is not trained to adapt to the change in skilled jobs. This eventually started affecting the social environment on community level.



Sunderland's new Economy

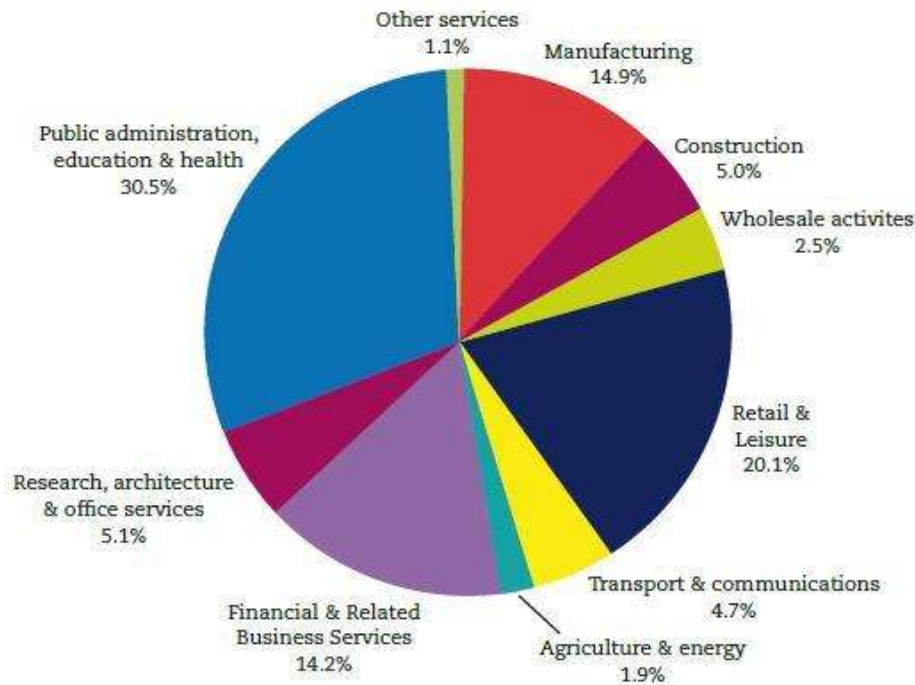
Growth of Business, Statistics and population.

The industrial floor space of Sunderland has grown from 1142 sqm in 1978 to 1305 sqm in 2002 and office floor space has grown from 191,900 sqm in 1978 to 410,044 sqm in 2002. This also reflected in building houses growing up to 9,189 more between 1995 to 2008. The unemployment in 2006 was 6,126 and can be presumed to have increased more which not only calls for increasing business and commercial prospects but enhancing the social environment becomes necessary.

There is a clear need for a fresh injection of enterprise and capital, first to create new employment, second to breathe new life into the city centre, and third to increase labour and service connectivity to the wider economy of the Northeast



Sunderland



Source: NOMIS 2008 Annual Business Inquiry Employee Analysis (ABI) for 2007 data .

Growth trajectory of Sunderland is towards :

- Automotive industry.
- Manufacturing.
- Services.
- Transport and communication.

Economic structure

Sunderland's economic structure is currently based on automotive industries and service sector industries.

It has witnessed a notable increase of jobs in Finance, IT and other business services and public sector service jobs.

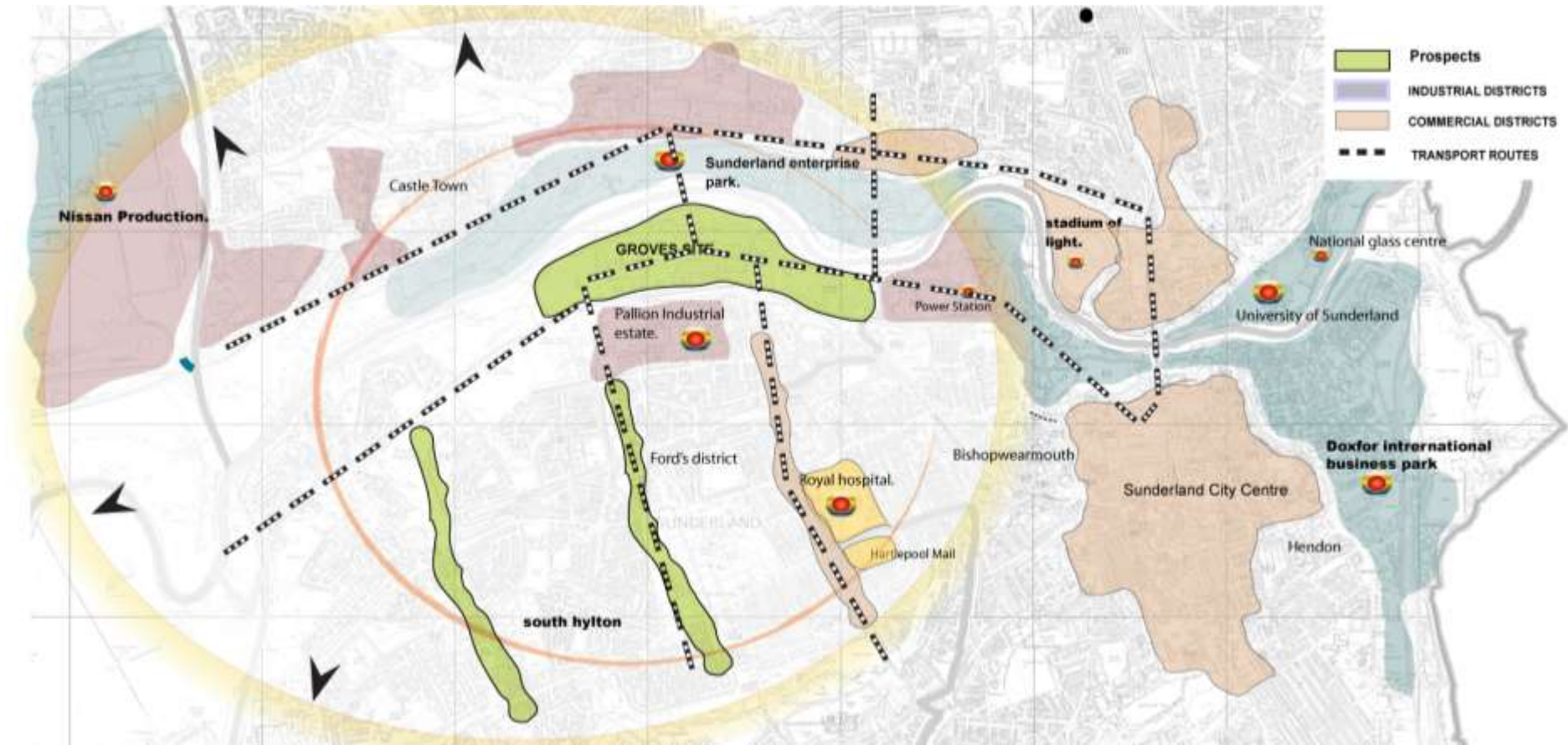
Nissan and Doxford international business park together have created over 15,000 jobs.

However the change in the growth trajectory over the years from ship building and mining industries to a service sector economy has not fully transformed the local skills to be compatible with the change which is why potential investors do not see Sunderland as a land equipped with skills and labor.

This leaves a large portion of population unemployed and difficult to be adopted in the future economic transformation.

Non residents of Sunderland are employed in these industries in large numbers however they do not wish to reside there because of its poor living conditions.

Total jobs	1997	2006
Manufacturing	26,400	17,700
Construction	4,400	5,700
Services	72,700	95,500
Total jobs	103,500	118,900
Finance, IT & other business services	12,600	23,100
Public Administration	26,100	35,100



Prospects

The regeneration of the industrial belts equips Sunderland with 89.5 hectares of employment land immediately available, with another 92 hectares available in the long term.

The Sunderland Software City (SSC) initiative is an important step in the economic change to create in international recognised software sector in the North East. the initiative will concentrate on encouraging more people to consider the software sector as a viable career option, achievable through education programmes closely linked to the real business world. The Grove's site is a potential land amongst other regeneration sites to structure a new image of Sunderland 's aspirations.



How can Grove's site contribute to the new aspirations in the economic sector:

- Developing a chain of business events along the new proposed transit corridor linking all the regeneration sites for mixed use development.
- Developing series of buildings to accommodate and facilitate growth of software companies and high quality workspace and related infrastructure.
- Establishing an environment which shall be encouraging for investors as well as employees to work and live in Sunderland.
- Structuring an appealing residential environment with a quality homes and a healthy community feel can stop loss of population and encourage local skill to learn and avail the bright prospects of the economic change.
- By establishing business sectors in the Grove's site and encouraging migrants to settle in the new residential environment can increase the retail and local market.
- Proposing high quality social and recreational land uses can be feasible with the increase in the local market and change in the economic conditions of the households.
- All this in totality can regenerate the area in at root level with a long term benefits.

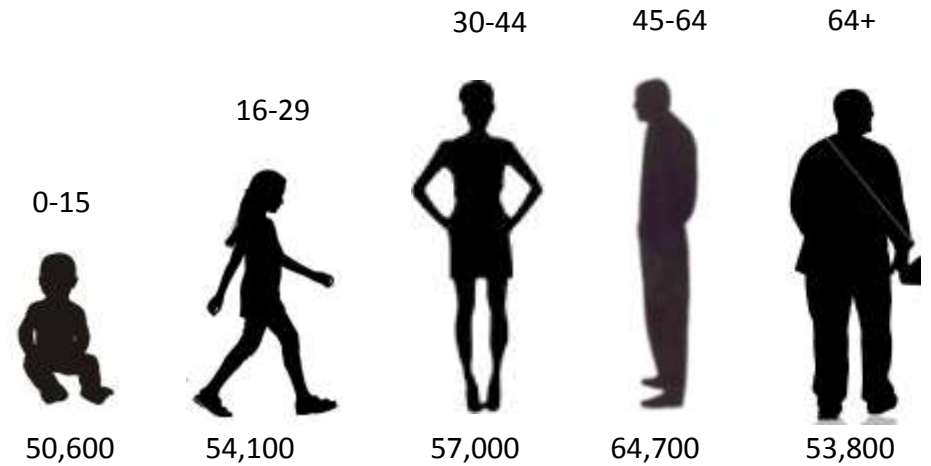
Social Structure

With the prolonged economic decline in Sunderland and incompatibility of the local labor force to adapt to the economic changes the social structure has been degrading to a considerable extent.

Highlighted aspects of Grove's and Pallion:

- Unfavorable housing environment.
- Lack of community feel and public interaction and social atmosphere looks aggressive.
- Loss of working class population due to unemployment.
- Loss of old age population since there is no activity or places that can engage them.
- Increase in crime rate.
- Strikingly unsafe atmosphere in the night.
- Loss of cultural awareness amongst all age groups.
- No places for recreation, pubs, bars or restaurants in the entire Pallion village. Only take away joints exist which makes the atmosphere secluded.
- No social interaction between the large population of ethnic groups and causes further isolation of communities.
- The huge monotonous built environment devoid of any charm and social and cultural significance create a depressing mood in the evening and night.





Population - different age groups in Sunderland

Population structure:

One of the main reasons for the unfavorable social structure of Pallion village is the difference in the population structure and the lack of interaction and compatibility between each of these. This difference causes the notable isolation in the community

- Different age groups.
- Different ethnic groups.
- Employed and unemployed people.
- Skilled and unskilled people.

Sunderland's labor force is inward looking. Very few people travel outside Sunderland for work unlike those in other cities.

However there is no sustainable relationship between where people work and where they live which is why the social problems get magnified.

Higher skilled workers from outside Sunderland are not attracted to live there which leaves a very dormant social scenario and inactive local market.

Currently Pallion village does not bear the capacity to enhance the lifestyle of its residents without social and economic regeneration which is where Grove's site can play an important role



Urban grain

The urban grain is illustrative of a lengthy industrial belt with loose footprints of industrial buildings and on either sides of the river the landscape merges into a huge residential sprawl.

The industrial belt of Sunderland on both sides of the river stands out as a huge relief zone from the dense residential sprawls and is indicative of opportunities for visions that can transform the image of Sunderland and have a lasting impact on the socio-economic conditions of Sunderland.

The Pallion village has large portions of open space but somehow do not integrate with the surrounding context.

The city centre and the eastern edge shows a pattern of relatively mixed use footprints.



Movement and connectivity

The main roads connecting roads are the European way on the south of the river and Wessington way on the north. These transit corridors are further linked by Queen Alexandra bridge and Wear mouth Bridge on the east.

Further to the south are the secondary connecting corridors St.Luke's road and Midmoor road and Hylton road. These roads connect the outskirts to the city centre but are not too efficient in terms of visual structure nodes and direction.

The internal roads and mews have a dense network in the residential setting and show a regulated hierarchy of movement.

Landmarks

The European way does not carry any notable landmarks nor does the secondary roads in the village. Visual landmarks are established by certain built forms like Pallion industrial estate, the cemetery in Pallion village, The Royal hospital.

Districts

The Grove's site is a 36 hectare industrial district and to its south lies Pallion industrial estate.

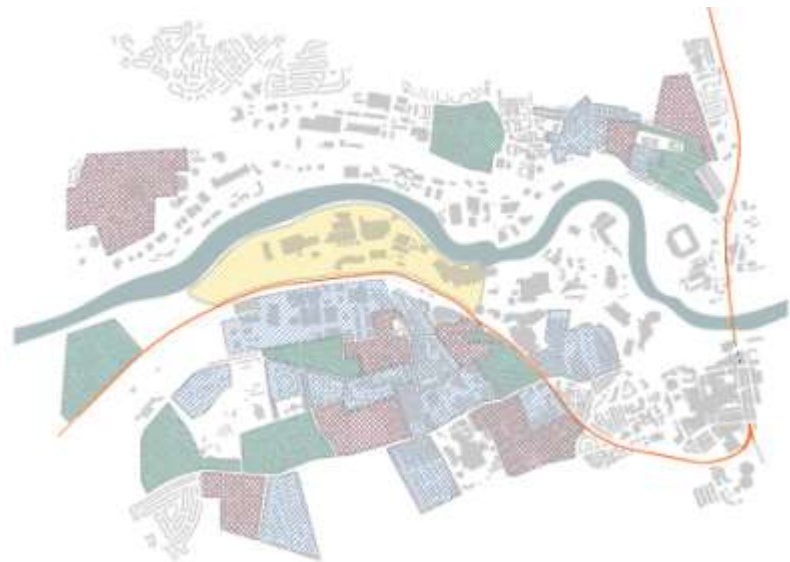
Further south the huge residential sprawl can be identified in different districts illustrative of different age.

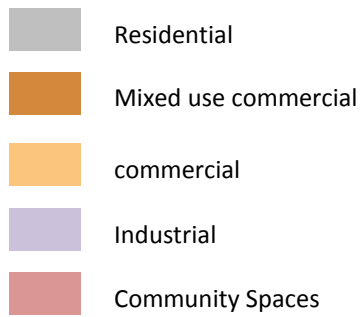
Each residential district indicates a different quality and type of housing. These districts can be identified as different sectors however they do not integrate with open spaces and are devoid of a favorable mix of land use.

Open space

The Grove's site has a large volume of open space however it lies derelict and is mostly private industrial land which cannot be used by the residents for any purpose.

The large open land in the centre of Pallion village is a cemetery and further down to its south is large park field. However this open space in the south does not conveniently serve the entire district.





Land use

Sunderland has fair amount of mixed use development in the city centre with some prominent commercial and business districts.

The riverfront belt is consumed by industrial setup and sits in isolation from the surrounding residential development.

The Grove's site apart from the industrial setup has a big shopping mall which serves as the only retail market in the whole of Pallion district.

The Pallion road is the only internal road that holds a mixed use commercial frontage in the Pallion district.

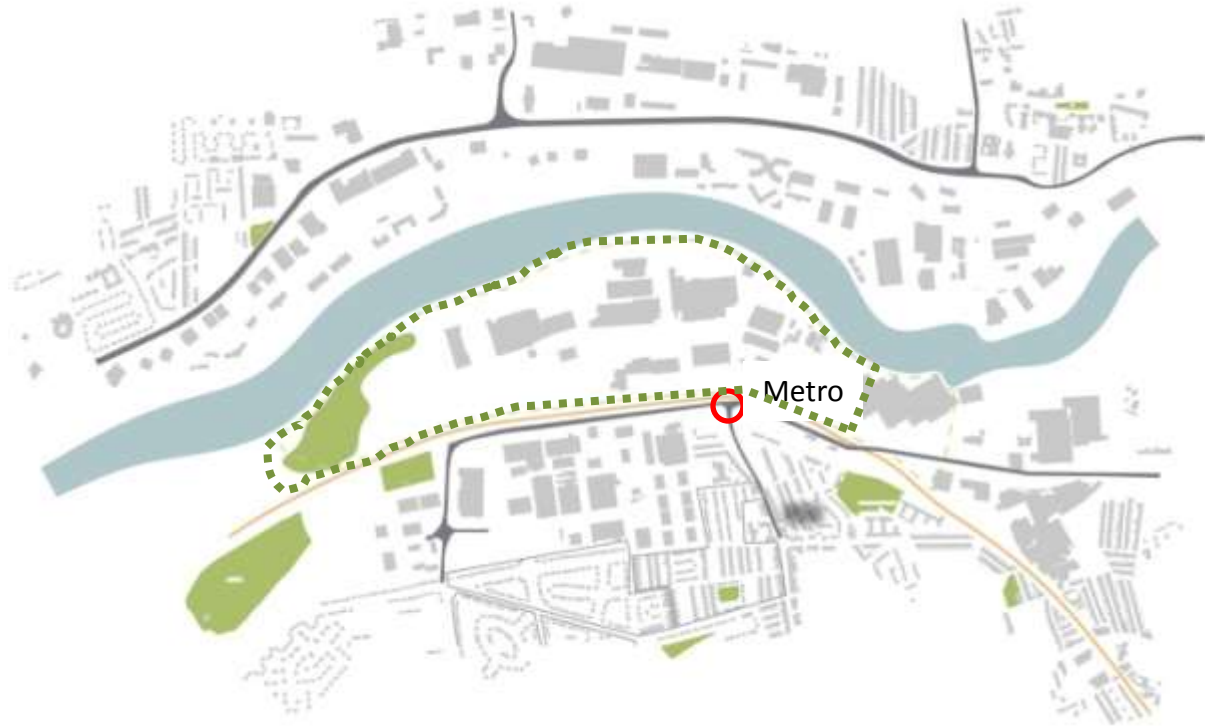
It is evident that that the Pallion village is dependent on the city centre for much of its employment, retail, recreation and leisure activities .

Because of its rigid setup Grove's and Pallion district has not attracted potential investors, buyers, retail business and the local market remains stagnant.

The Grove's site is an unattractive industrial landscape with large portions of derelict waste land.

Its land use is predominantly occupied by automotive industries and scrap work.

This setting has been isolated from the Pallion village because of its robust land use and physical division by the metro rail and European Way.



Physical Framework

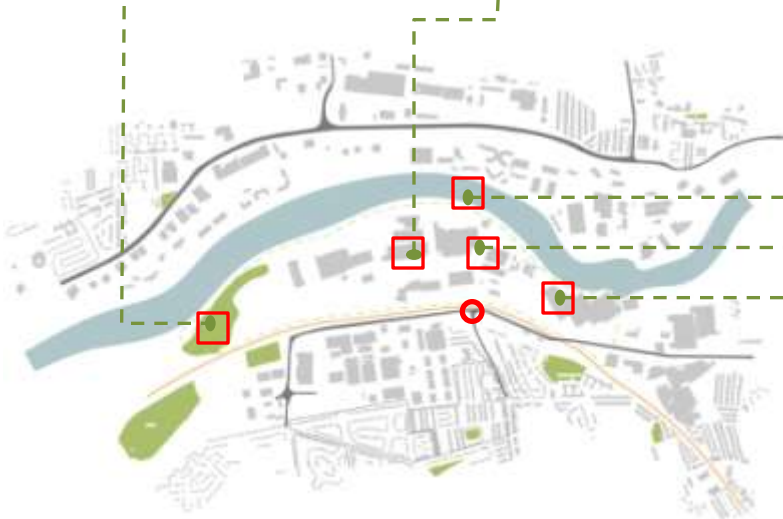
Grove's and Pallion has a clear demarcation of riverfront followed by Pallion industrial estate towards the south and the Pallion village further more.

The site however is easily accessible by European way and the metro rail running parallel. The metro rail stop at the Groves point marks an important gateway to the site.

The river and the two main roads on its either side run parallel without any physical and visual connection and form two long bands of industrial stretch.

The Grove's site currently sits in isolation has seldom has a chance to be integrated with adjacent surrounding as well as on the other side of the river.





The notable feature of the Grove's site is its hilly terrain, a mix of used and underused land plots, built forms differing in quality and spaces around and its derelict waterfront.



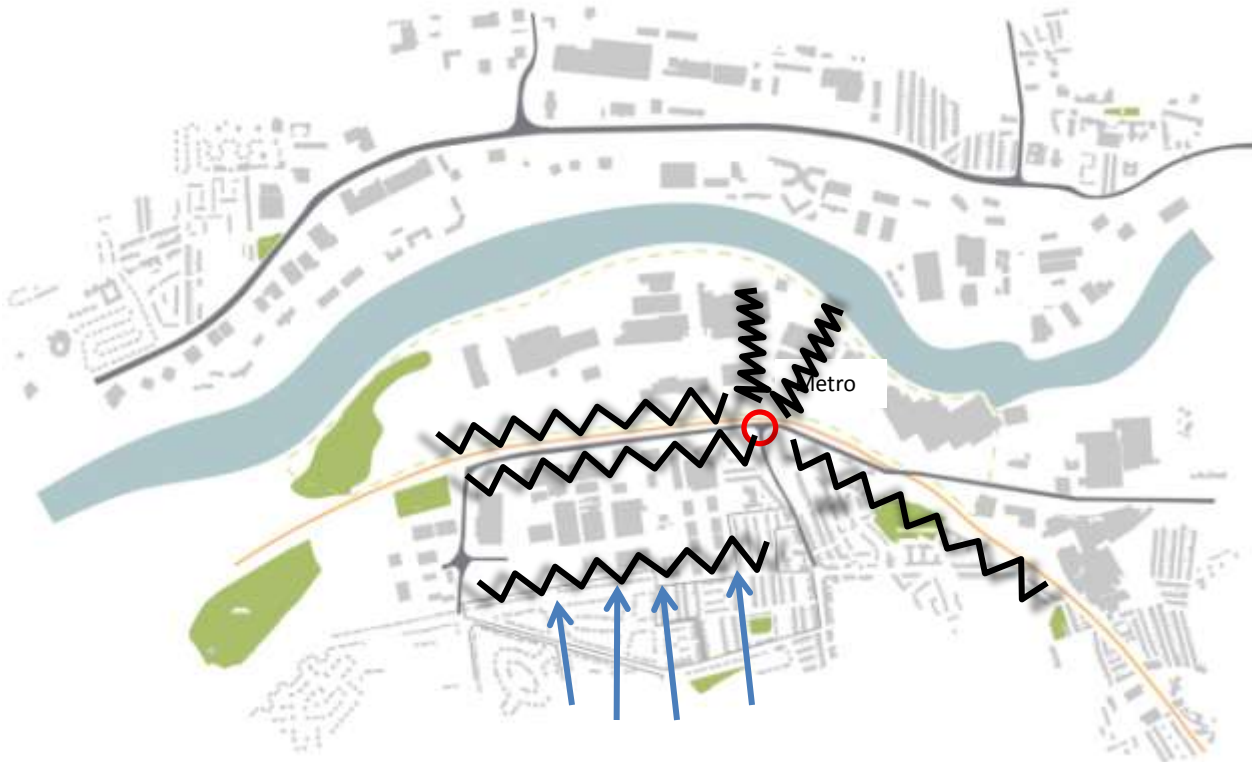
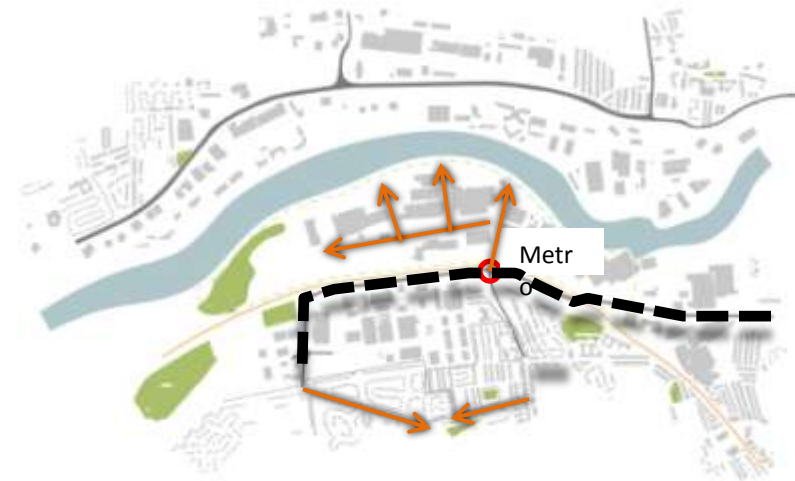
Movement

The main route from the city centre is the European way and the Metro Rail.

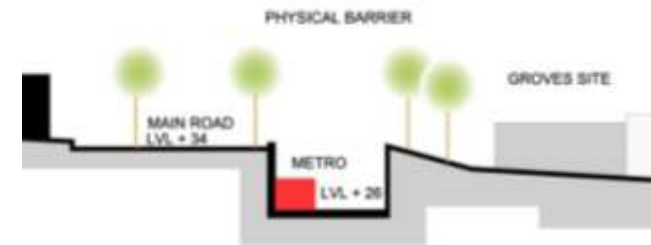
It further branches out into only two routes leading to the Pallion village.

The Groves site has only one route leading to the riverfront. The industrial district is accessed by single route and the riverfront is very much privatized for the industrial activities.

The metro rail stop is highly inefficient in terms of opening out into its two adjacent districts since it is sunken by 8 meters below road level.



Barrier



The European way and metro rail act as the main physical barriers completely separating the Groves site and waterfront from the Pallion village

The Pallion industrial estate acts as a strong physical as well as visual barrier leaving no access from the European way to the Pallion village and leaves less scope to integrate the residential sprawl with the riverfront.



Diagram showing existing plateaus

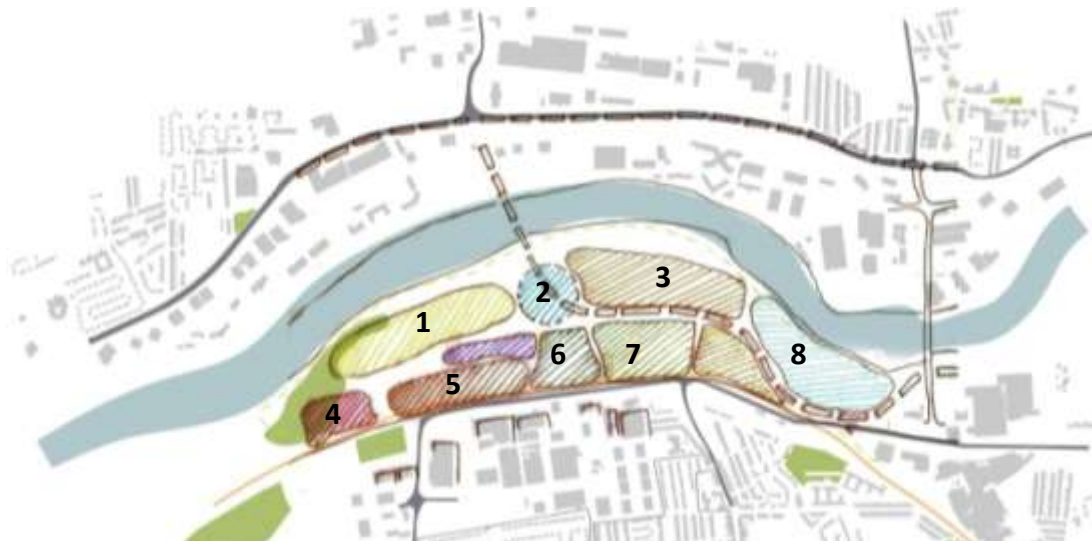


Diagram showing plateau characteristics

Terrain

The Groves site has a steep terrain towards the river front with a level difference of 34 meters in a distance of 200 meters. It has a central belt which has a very steep gradient and any development in that belt seems difficult. The site can be broken down into plateaus which represents the usable land for development.

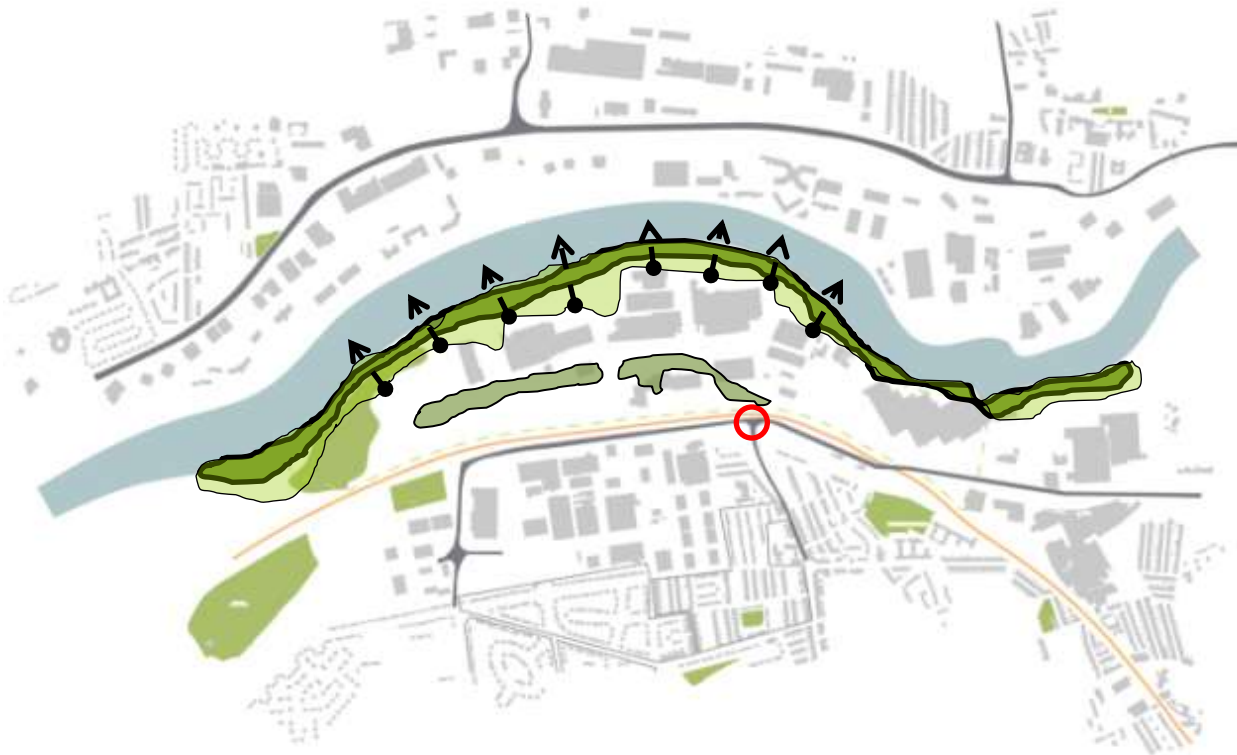
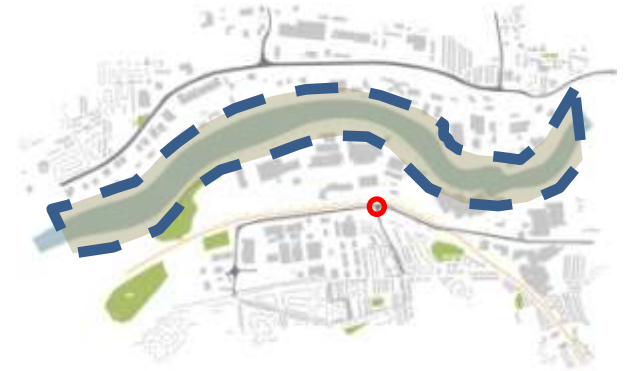


Plateau characteristics

1. Enjoys good view across the river. Adjacent to mud flats . Ideal for low rise housing.
2. Acts as a gateway to the site and draws maximum gravity
3. On a similar plateau to no.2 an can have higher integration with Pallion road.
4. Acts as a buffer and can be treated with dense vegetation
5. Is more quite in nature and has a good view of the river and proximity to the existing residential zone.
6. Acts as a buffer or release zone and not much development is foreseen.
7. Enjoys instant access from Pallion road and metro station
8. Has a good enclosure and enough depth to accommodate high density accommodation and leisure uses

Flood Zone

Considerable part of Grove's waterfront comes under flood zone thereby restricting and permanent built structure under this zone. Proposing a green belt which can have positive environmental impacts and proposing leisure activities with temporary shades becomes more suitable.



Environmental aspects

The whole site is a part of Wild life corridor for various types of birds as well as salmon trout and otters.

The Grove's bank is the most ecologically sensitive part and some parts of woodland acting as habitats for Badgers.

The Groves site has some of the widest mudflats amongst the entire riverfront and is highly sensitive to birds.

Riverfront of a city marks its edge, an edge where a city ends and a city begins, a place where one can walk down leaving the wholeness of the city behind as the beauty of the edge reveals itself to you.

The edge of the Grove's site is a complete misfit for the aspirations of Sunderland city and its people however the other side of the river offers a calm and tranquil picturesque image to take pleasure in.

It has a very low and modest skyline that quietly merges into the residential landscape up north and can compliment the new proposed riverfront edge and skyline in contrast.



Regeneration initiatives by the Council

Regeneration Sites

Highlights and key objectives of these proposals:

- To transform the derelict industrial belts into an organized business sector.
- To structure an unmarked economic environment in the finance, service, knowledge based and software sector.
- To attract potential foreign opportunities and build recognized platform for commerce.
- To transform the residential environment to suite the new aspirations of Sunderland.
- To enhance to social and physical structure of the existing communities by regeneration of these sites.

The council has identified the entire riverfront belt and some strategic sites for regeneration and to shape up a new image for Sunderland. Sunderland arc has devised strategic objectives to re-invent the regeneration sites to bring in a paradigm shift in Sunderland's economy, commerce and lifestyle of the people.



The council has proposed a new transit corridor called SSTC linking all the proposed regeneration sites and emphasizing on the new vision of linking the prospective business and residential sectors.

The new corridor involves a new proposed bridge from the Grove's site connecting the other side of the river and the existing industrial districts of Sunderland.

Prospects

Other notable transformations and regenerations taken place.

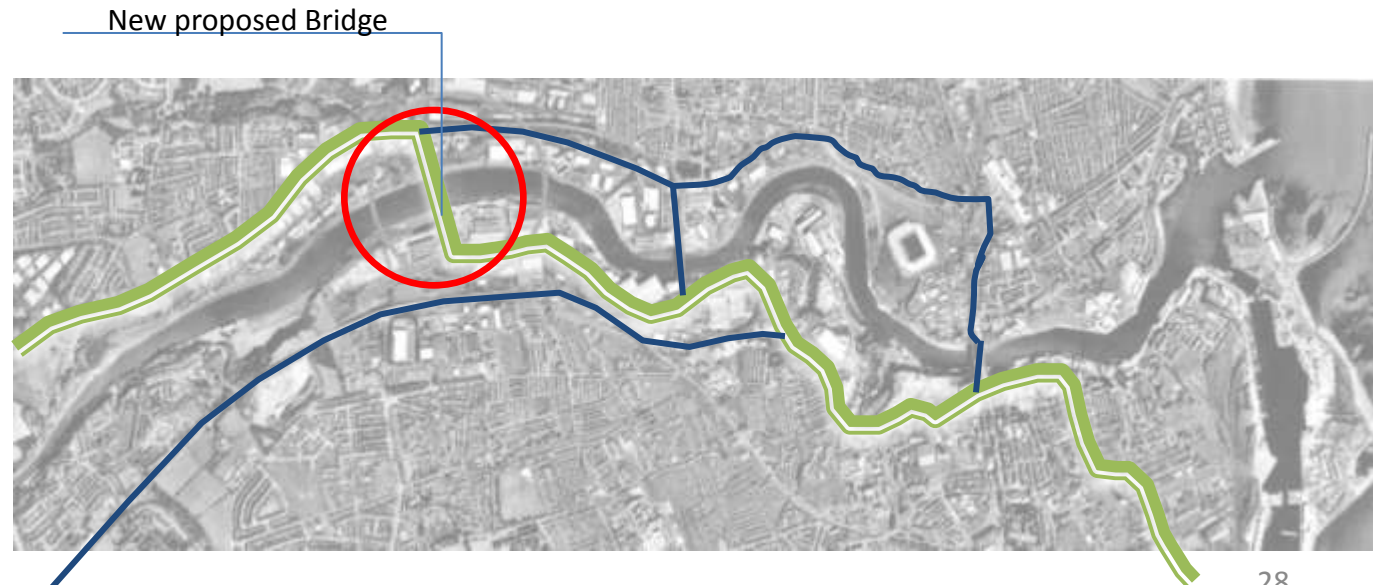
Bridges Shopping Centre has been expanded.

New aquatic centre has been completed beside the modern Stadium of Light football stadium.

Sunnyside Gardens is an important landmark public space.

The new Bridge will act as a gateway to the regeneration sites from the other side of the river. The residential and work setup will get an immediate connection across the river and shall draw more vitality in public and business activities.

The transit corridor and the Bridge shall draw a notable shift in land value and demand. Eventually it can structure a energetic work and living environment along the corridor and its adjacent parts.



Waterfront Principles

City edges are important since they convey first visual impressions. They can present a welcoming atmosphere or can be indifferent and even threatening.

- New waterfronts should be conceived as an integral part of the existing city and contribute to its vitality. Water is a part of the urban landscape and should be utilized for specific functions such as waterborne transport, entertainment and culture.
- Waterfronts should celebrate water by offering a diversity of cultural, commercial and housing uses. Those that require access to water should have priority. Housing neighbourhoods should be mixed both functionally and socially.
- Waterfronts should be both physically and visually accessible for locals and tourists of all ages and income. Public spaces should be constructed in high quality to allow intensive use.
- Waterfront buildings should be permeable, open to views and public access and designed with consideration of the scale, form and character appropriate to the public orientation of the waterfront.
- Create multi modal corridors of transportation along the water edge.
- Design streets as spaces rather than traffic interchanges.

Neighborhood design principles

- Local streets to be relatively short and designed to reduce vehicle speed. Some streets to be designed for local play. Encourage on-street parking where appropriate (avoiding off street parking in front of houses). Provide trees in street parking areas.
- To address methods of enclosure, scale, height, massing, diversity of building types and uses, materials, colour palette, shop front design, signage, lighting etc.
- Offering Choice-There should be a choice and mix of uses. Proposals should offer a variety of types, sizes, designs and, in housing, tenures for all sectors of the community. Provide a clear and coherent spatial structure offering potential for diversity and vitality.

We all walk through this world together and it feels we don't really notice each other most of the time. We are all just faceless people that become part of this urban landscape.

Principles for an pleasant walkthrough.

Places must be easy to get to and well integrated both physically and visually with their surroundings so people can move around without effort and direct links between new and existing developments should enhance integration .

Clear and permeable layouts- A clear access network, a coherent spatial structure (see next principle), appropriate building spacing and vistas to focal points help people to orientate themselves. Developments should connect with, extend or improve the local street structure.

Landmarks and meeting places - Too many new developments lack civic space, landmark buildings or public uses to mark their centres. Good focal points give activity and 'life', 'punctuation' in built form to the wider context and convenient access to public transport.

Stimulating, enjoyable and convenient places meet a variety of demands from the widest possible ranges of users, amenities and social groups.

“Successful urban space is defined and enclosed by buildings, structures and landscape. The relationship between buildings on a street, and between buildings and the street, are the key to this”(By Design, DETR).



Literature

Addressing The Economic Scenario.

Anyou Wang and Jicong Yu present a study on economic transformation of Fuxin city and highlight the need for investment environment of the city. It is also expressed from that their study that a city that has undergone degradation in economic and social structure requires to setup a development strategy that can bring in a continuous process of investment opportunities and growing economic prospects which can be considered on a national and international level. This can eventually lead towards coordinating relationships between public utilities, common wealth sectors, and local employment prospects, and allocating resources in terms of labour and skills. They also emphasize on an important aspect of characteristic economy, which means using particular strengths and resources of a city to establish an identity that other cities would find difficult to imitate. Sunderland has seen a decline in economic and social structure in a series of events however its strength has been its expertise in automotive industry that has helped the city sustain in the international market. However Sunderland and its waterfront sites put up an optimistic economic forecast towards service economy and growing opportunities for Finance, IT and other business services. This calls for a new image of the city that can portray itself as pioneering model of characteristic economy based on service sector, automotive industry, manufacturing, software and communication.

Waterfront As the Edge.

Being the edge of the city it holds the capacity to pull a series of events, opportunities, and activities for various reasons that a city's core region might refrain from offering. The edge condition of the city can set the momentum of all business, social, political, and economic activities for a much larger area around. Its evocative and symbolic value brings notable prospects and attention. Richard Marshall states, "By focusing on urban Waterfront we are able to isolate and focus specific responses to the problems of urban disorder and confusion. It is here a city can consolidate the expression of itself and attempt to give form to a city of an unparalleled growth". North-American models of waterfront regeneration like Baltimore and Florida epitomise urban renewal through waterfront regeneration.

Waterfront As An Epitome of Life . Culture . Society .

Chunsong Wang (2008) states that the relations between city and waterfronts are interwoven both physically and economically. The downturn of economic activities, trade and commerce put enormous pressure on the inner city which is what Grove's site in particular is facing right now with a series of consequences on the standard of living of the people. He also draws inferences from European models of waterfronts comparing with North American ones. He highlights some positive features from models of Barcelona, Amsterdam stating that construction of centrality and economic re-conversion of business models for that place can draw lot of sustainability in the long run for the regeneration project as well as areas around. These models take Land-use pattern, public access and city context into account successfully. Richard Marshall (2008) draws inferences from urban waterfronts in china stating that along with new commercial models the waterfronts need to be people friendly in terms of public activity amalgamated with favourable work environment. A venture that can support the needs of the community both economic and social is most suitable.

Grove's site gets its subsidiary centrality through the new transport corridor and becomes very essential to establish footprints that can serve the needs of the new economic model which is towards service economy, finance and software and adopt a collaborative development model for other projects in the pipeline.

Using Art and Culture as a catalyst for regeneration.

Pallion village particularly has an unfriendly environment mainly due to the economic conditions of the community and partly because it endures an environment which is not conducive to any social activity and interaction. With no pubs, restaurants, public space in the Pallion village does not offer any public interaction and the social environment get even worse since the community feel and cultural significance has been wiped off since the economic decline. Wansborough and Mageean (2000) argue that art and cultural activities generate community feel and a sense of identity in the community but also generate economic activity for themselves. One of the suitable examples would be Newcastle Gateshead.



Public Spaces and Their Integration with The Surrounding.

A city's waterfront holds the potential to be a landmark public space by itself. It is a place where people can be momentarily transmuted from the city life to a land of likelihood, recreation, leisure and physical and visual comfort. As suggested by Caroline Holland and Andrew Clark (2007) in their study of public spaces, different age groups, social, economic groups associate themselves with a space differently at different hours of time. It becomes highly crucial to understand the facets that a public space can address to the interest and needs of all these groups. A public space should be an opportunity to reinvent themselves in their own strength, to remodel their likes and dislikes in an environment which closely associates with their culture, daily activities and social model of interaction.

They also suggest that high-street and town-squares can be a major catalyst for wider community and economic enhancement. These elements seem mainly lacking in the Pallion district and calls for a notable intervention in the district.

They also draw inferences from their study on local neighbourhood models and suggest that a neighbourhood district cannot be treated in isolation. It has to be well associated with activities that people live with. Having a strategic interplay and relation between residential, public, private and semi-private activities and spaces and this can be further emphasised with efficient land-use. Land-use patterns that can not only suite but also enhance the social and economic structure of the local population.



Auckland's waterfront regeneration Strategy

Auckland's waterfront regeneration site demonstrates a very similar scenario illustrating that to bring in a positive revision in the socio-economic framework of the city it should aim for some key aspects namely, getting the right amount and type of open space, efficient transport network, introduction of favourable land-use patterns and infrastructure. In order to bring regeneration of Auckland waterfront and surrounding areas it also aims at :

- Achieve a rich mix of activity and vitality by providing living, work and entertainment opportunities.
- Encourage "people places" including public attractions, entertainment and leisure activities that promote the waterfront area as a destination



Detroit Riverfront initiative

Detroit riverfront lands is undergoing a phase where communities and businesses in Greater Detroit are redefining their relationship to the river and the city context through 14 green way projects. It incorporates a bold link between the city's changing business scenario and life and culture of the city. The aim is to reinforce the social, political and economic changes through a new vision setting out serene parkland settings integrated with vibrant urban functions.





Lujiaui Park

Lujiaui Park in Shanghai, China is a bold example of how a central landmark space that caters to variety of functions and recreation can form an oasis in the desert. the scenario is similar to Sunderland where the dense urban grain needs to merge in a serene environment with important axes, nodes and controlled built form and open spaces. It illustrates that riverfront is a place where a person can transcend to a new realm of harmony, culture, comfort and hopes as one walks away from the city to the edge.



Millennium Park, Chicago

Millennium Park is located in the heart of downtown Chicago. Located in downtown Chicago on Michigan Avenue between Randolph and Monroe Streets, the 24.5-acre park is an unprecedented centre for world-class art, music, architecture and landscape design, where you can experience everything from interactive public art and ice skating to al fresco dining and free classical music presentations by the Grant Park Orchestra and Chorus. This is a bright example to breathe life and aspirations through a release space in a dense urban fabric that can have a notable impact on the life, culture and activities of the city.

Waterfront Promenades



Darling Harbour

Darling Harbour is one of the famous and successful waterfronts boasting a vibrant atmosphere and active night life. Transformed in 1980's from a derelict dockyard into one of the worlds greatest waterfront destinations. The area is well connected to the rest of the city and offers a lively pedestrian experience through an interplay of mixed use activities, lively street frontages and an atmosphere for recreation, leisure, shopping.



The Louisville Tennessee waterfront

The Louisville Tennessee waterfront park is a recent development. In 1999 the first phase of the park was completed. It replaced an industrial landscape of wharfs and warehouses. This large Ohio River park is focused on several different areas with different themes and was developed by the city to host large public and private events. Park theme areas include the plaza area, several awns, a wharf area with vendors, a mile long linear park, and a garden area.



Chattanooga waterfront

Chattanooga was a former industrial centre and now stands as a successful urban design venture as the riverfront development has made a positive impact on the surrounding, giving an active promenade and land uses successful performing in their capacity. Some of the riverfront's urban design challenges included reconnecting the waterfront to downtown, and redesigning its public spaces so that the waterfront would become a pedestrian-friendly district.

Place Culture People

Sunderland is standing at a crossroad. Much has been achieved, transformed yet holds great opportunities and vision that can flourish for many years to come. Considering the existing scenario in terms of density and monotony in housing and industrial environment, social and economic structure, the approach is more of a reaction to the existing scenario.

Structuring a new image for Sunderland through all the regeneration sites, Grove's site being one of them calls for a dynamic strategy to re-invent the true essence of Sunderland's lifestyle and culture in a visionary configuration of efficient land use, remarkable housing and work environment.

The idea is to create a dynamic magnet to attract and support local and foreign entrepreneurship by creating an iconic business environment which eventually will act as catalyst to revolutionize the social spirit and local economic conditions. This shall also be supported by a significant shift in housing environment which will not only attract foreign work force to settle in districts like Pallion but also stop the loss of local population of Sunderland.

A city is known by its people's identity and vice versa which has gone astray over the years of social tension and unfavorable living environment on the outskirts. The aim is to re-invent the spirit in a new iconic configuration of dynamic public spaces sparkling with public activities, alluring landscapes, housing environment that appeals on a physical and emotional level and giving its natural assets of a beautiful waterfront and landscapes back to the city.

Through a radical change in the Grove's site, have a notable impact on the life of Pallion village, breathe in a new life, a life full of hope, pleasure and a moment of pride to be a part of that urban landscape.

Economy

Workforce

Local Market

Sunderland has seen a continuous shift in commerce and its economy has been a sensitive aspect since the workforce of Sunderland is inward looking.

The vision is to structure an efficient composition of land use in the Grove's site which can attract entrepreneurship, through business districts and elegant housing for the new software sector and thereby attracting businessmen, foreign workforce, support companies to settle in the Grove's and Pallion district. Since the other regeneration projects do not have a predominantly housing vision, the Grove's site has great opportunity to create an up market lifestyle for all the new and old working population .

Thereby it can have a significant impact on the local market , retail, sales and services and the local residents can benefit from this scenario by starting more local businesses . This will not only create new jobs but foster the possibilities of uplifting the lifestyle of unskilled labor. Unskilled labor, housewives, retired population can benefit from the local jobs and business possibilities that can arise out of this scenario.

Currently people cannot afford to spend a luxurious lifestyle hence recreational functions like pubs, restaurants, cinemas, theatres do not work in the current framework. With the change in local market, recreational function and retail can grow as and how people's standard of living increases.

Grove's site can trigger a long term chain of growth, prosperity and delight through a reciprocating cycle of market growth and people expenditure supporting local sales and business.

Place Image Design

Sunderland has a peculiar urban grain of loose industrial waterfront, and monotonous residential sprawl breeding social distress and disharmony. Being the edge of the city it holds the capacity to pull a series of events, opportunities, and activities for various reasons that a city's core region might refrain from offering. The edge condition of the city can set the momentum of all business, social, political, and economic activities for a much larger area around. Its evocative and symbolic value brings notable prospects and attention.

In reaction to the existing scenario the first thing that comes to mind is to release the urban space politely merging into gracious landscapes and make this released space usable and compensate for all the aspects that the Pallion village is devoid of.

Creating a balance of a serene parkland setting and compact urban setting to balance the beautiful expanse of landscape yet a safe environment to walk through even in the dark. So creating strategic pedestrian walkways fronted with buildings and activities can keep the setting livable and crime free at all hours

This site needs to have an impact on the social, emotional, and physical structure of people and Pallion, so creating a landmark open space instead of a landmark building or monument can address the issues on a human scale and give a sense of gravity to the whole setting.

As the Pallion setting gradually comes to an end at the riverfront, the edge should represent the life, culture, activities of the people. So there is one place that every Pallion resident can long to visit each day as it represents his identity amidst serene landscapes and communal environment.

The aim is to consider the social and anti-social aspects in the existing setting and create a harmonious environment that can start having a positive influence on the troubled districts of Pallion.



Events

SILHOUETTES

Culture

Drama

Image

Stories



Identity



TAKING
INSPIRATION
FROM SILHOUETTES

Hope

aspirations

Strength

A new venture

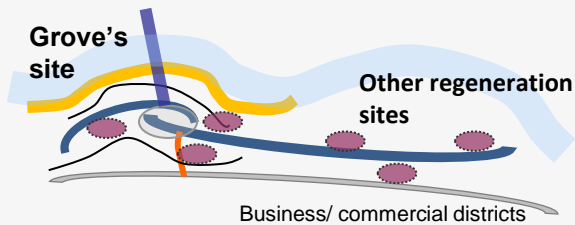
Assets

Sunderland's Silhouette

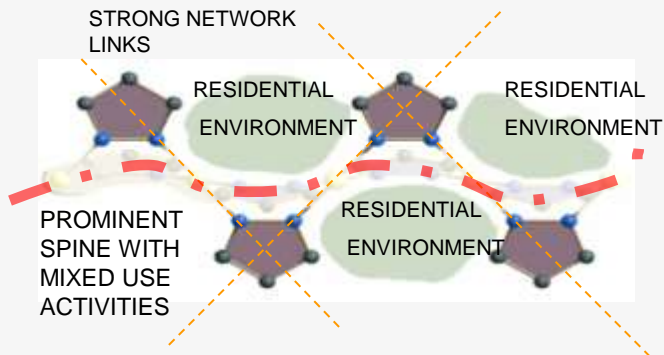
Approach



Creating a landmark urban spaces that merges into a riverfront green belt



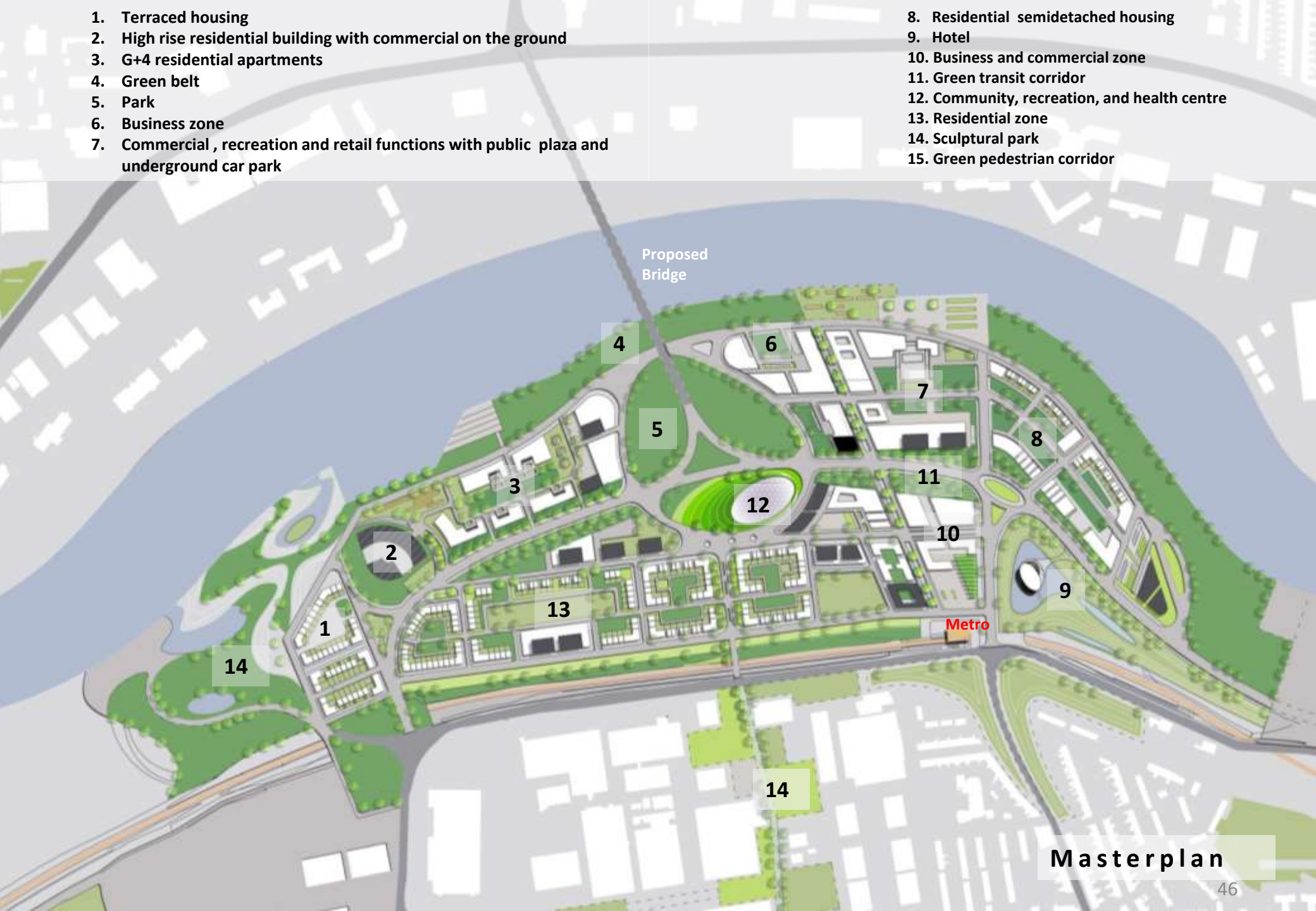
Setting up the momentum to develop cohesive business and commercial network through new transport corridor



The approach aims towards structuring the right balance between a parkland setting and a safe organized urban environment with the right interplay of built and open spaces, land uses and enhancing community life on a physical and emotional level.

1. Terraced housing
2. High rise residential building with commercial on the ground
3. G+4 residential apartments
4. Green belt
5. Park
6. Business zone
7. Commercial , recreation and retail functions with public plaza and underground car park

8. Residential semidetached housing
9. Hotel
10. Business and commercial zone
11. Green transit corridor
12. Community, recreation, and health centre
13. Residential zone
14. Sculptural park
15. Green pedestrian corridor



Masterplan



Land use

The aim is to structure an efficient configuration of land use pattern such that every function can flourish in the capacity of its location, plateau characteristics, land value and scenic benefits.

The business zones get proximity to the main corridor as well as a right blend of recreational and public spaces.

The capacity of the existing Pallion shopping is distributed into mixed use buildings on the ground floor to create an extrovert shopping experience as well as breathe a new vibrant atmosphere in the streets. The shopping and entertainment zone also has proximity to the riverfront and transit corridor and can gain maximum attention from people.

The residential zones differing in the quality and type of housing are located in quite zones to benefit from their own private environment and yet be integrated with mixed use at strategic locations.

the pedestrian streets and main streets leading to the riverfront have building frontages with an interplay of residential and commercial use on the ground floor to create a safe and organized street experience.

High rise buildings are located at strategic locations to get best possible view yet create urban landmarks at desired locations.

Red line indicates a vibrant pedestrian experience to the riverfront with a continued commercial frontage and nodes with public activities.

- RESIDENTIAL
- RESIDENTIAL + COMMERCIAL
- OFFICE + COMMERCIAL
- COMMERCIAL + ENTERTAINMENT
- RECREATION + COMMUNITY SPACES
- HIGH RISE RESIDENTIAL
- PUBLIC SPACES
- PUBLIC PARKS
- EXISTING INDUSTRIAL

Over 1500 homes x Business Districts x Cultural hubs x Commercial x Recreational x Leisure x Community zones

The riverfront buildings have a mixed use on the ground floor at specific locations to create an efficient interplay of private and public street frontage so that visitors can benefit from a serene yet a vibrant streetscape. The commercial and business zones at the riverfront open out into small semiprivate courtyards and open spaces for the public to offer a hierarchy of open public spaces. These spaces are ideal to have coffee shops and small pubs giving a cozy ambience at the riverfront.

BRIDGING THE GAP

The Groves site is totally segregated from the Pallion village due to the transport corridors. The main roads leading to river edge from the village have a minimal commercial and retail activity. One of the aims is to strengthen these corridors in its retail by strategic commercial routes leading to the heavy commercial and business activity proposed in the groves site. Only then the impact of interventions can infiltrate in the village and boost up local market and job opportunities. The new proposed transport routes cuts through the site and bridges across the river onto the other side of business districts. Tapping on this opportunity the main transport corridor can be treated the main spine of business, commerce, recreation, leisure and entertainment to set a momentum for further developments along that corridor. Since we are aiming at business from service, finance and computer, the corporate infrastructure would be more appreciated in terms of commercial viability along the main spine and can set up the momentum for neighbouring developments.

The business districts are introduced with the intention to establish a collaborative and cohesive economy with the neighbouring regeneration projects and boost commercial and local employment prospects, which in turn can have positive impact on sales and retail. This in turn can uplift the living standards of Pallion village dwellers which is the root cause of social and cultural degradation. Bringing economy in Pallion village can underpin the entertainment, recreation and cultural activity that we dream for those people. A new start, with bright prospects, better living standards and socially sound environment can support upmarket housing scheme in the Grove's site.

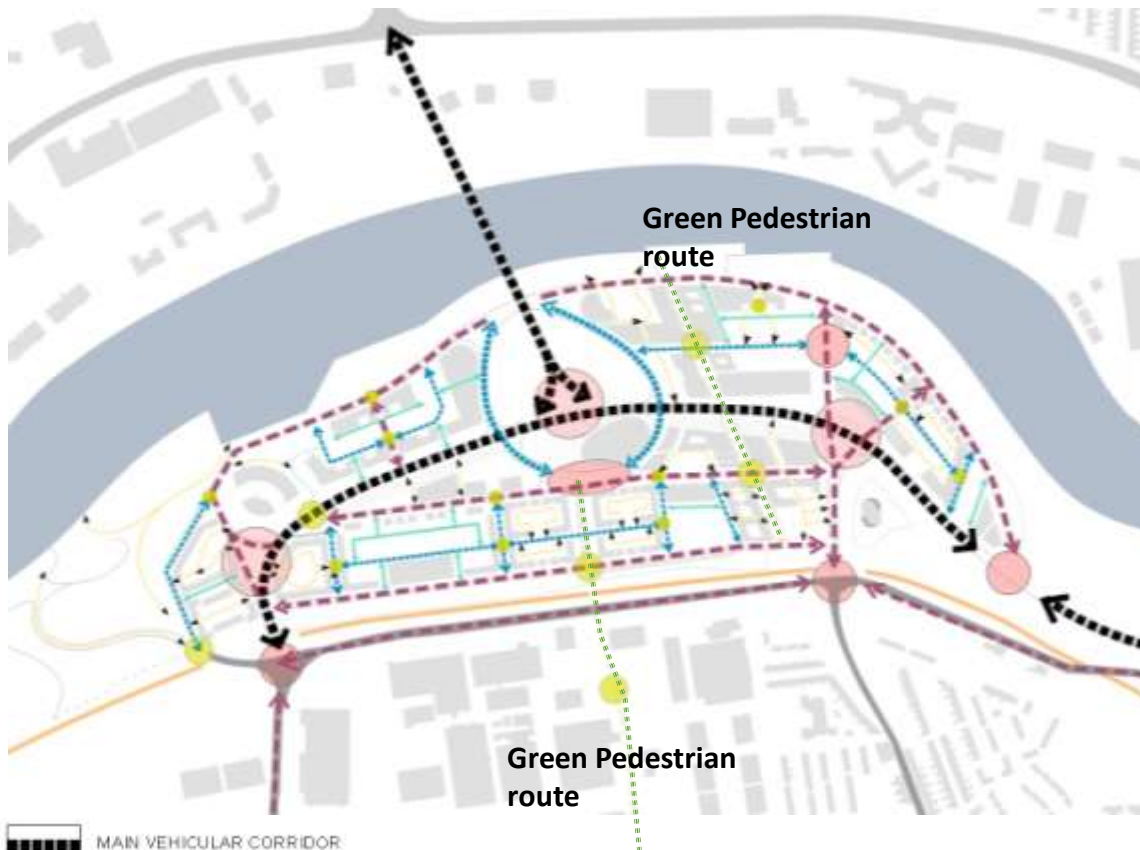
Introducing strategic nodes with public utility spaces and commercial spaces can add a new dimension to the main spine. It can aspire to be a path full of lust, enthusiasm and flooded with public activities at different times of the day. This path can draw people from Pallion village and elsewhere to avail the vibrant social life proposed in this regeneration scheme.









The spine can continue with the bridge across the river connecting two thriving districts in the future. So the people coming from the other side get a good sense of connectivity and visual pleasure along the spine and can draw more local business for Pallion village.

EVENTS

CORRIDORS

IMPACT



-  MAIN VEHICULAR CORRIDOR
-  SECONDARY VEHICULAR + PEDISTRIAN ROUTE
-  TERTIARY VEHICULAR + PEDISTRIAN ROUTE
-  INTERNAL ROUTE
-  PEDISTRIAN WALK WAYS
-  MAIN VEHICULAR NODES AND LANDMARKS
-  VISUAL NODES
-  PEDISTRIAN GREEN ROUTE

Movement hierarchy

The main transit corridor is aimed to be a green corridor with elegant building frontages and landmark nodes created by strategic junctions and open spaces.

It branches out into secondary routes which are designed to be more serene and pedestrian friendly with the right mix of commercial and residential land use.

The configuration has two main corridors penetrating into the site which create a node through built form, physical junction, land use and visual expanse.

A green pedestrian route is proposed cutting through Pallion industrial estate which currently acts as a barrier. It leads directly into the central landmark space confronting the vibrant gateway of the site.

The metro is an important gateway to the site and Pallion village. It is welcomed by a vibrant pedestrian green route fronted with public and commercial activities.

The secondary routes break down into semi private tertiary routes and pedestrian walkways, elegantly landscaped and leading to different internal zones and fronted with semi private open spaces.

Permeability has been one of the most important issues in the site as the European way could not penetrate into the site through more than one route.

The transit corridor acts as a great opportunity to use it as a primary route and break it down into several vehicular and pedestrian routes complemented by nodes and public spaces.

The addition of a corridor on the west end and the central pedestrian route structures a sense of direction and nodes. The pedestrian routes offer a sense of gentle ambience integrating with public activities, shopping, recreation as one walks towards the riverfront. The central landmark space acts as a prominent gateway and eventually the density of traffic can be distributed into vehicular and pedestrian corridors in a much quite environment.



Proposed Figure ground

The proposed figure ground aims at supporting the reaction to the dense urban grain that lies on the south and acts as a relief zone merging into gracious landscapes towards the riverfront. This contrast aspires to compensate for the physical drawbacks of the monotonous urban pattern and can form an iconic configuration to blend with other regeneration sites.

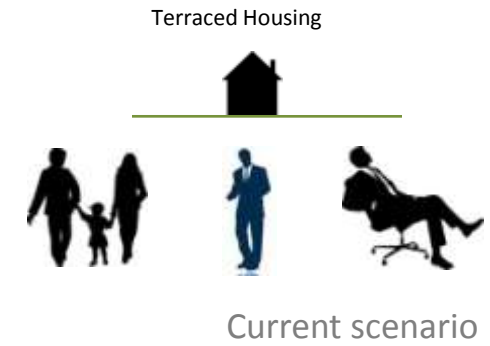
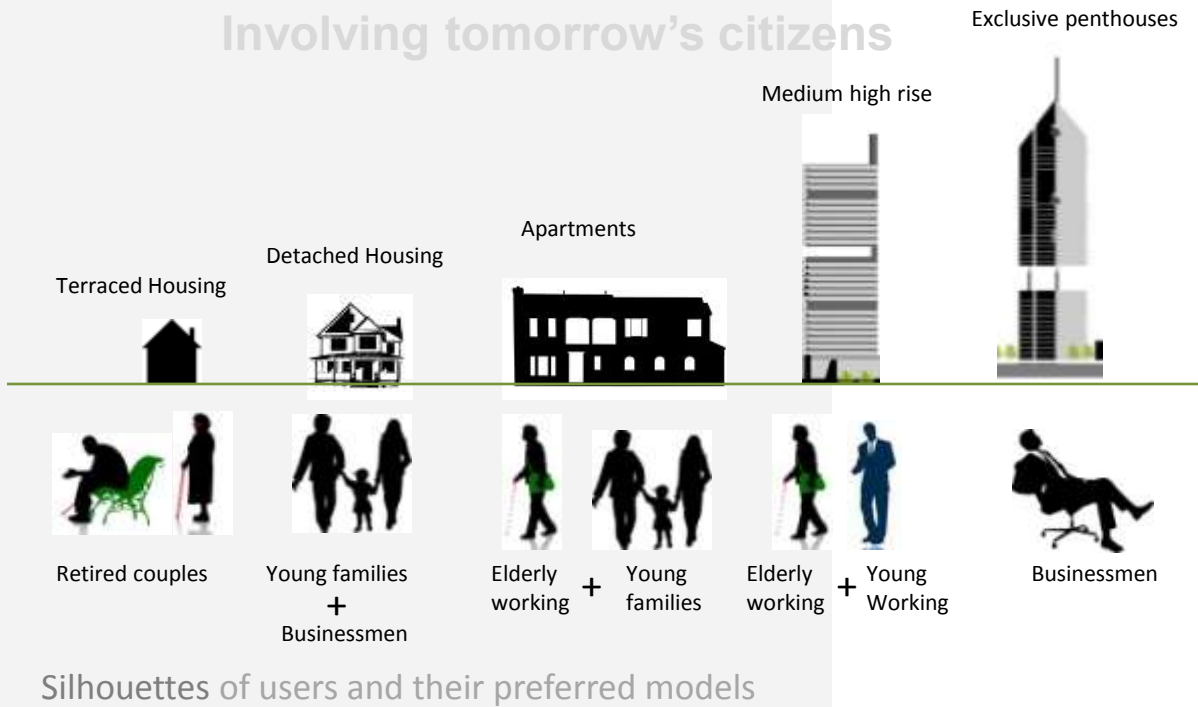


Green Space

The green space configuration is an attempt to release much of the site into private and public green spaces complementing the historic waterfront of Sunderland. Sunderland's waterfront has witnessed a continuous transformation and it is time to envision a new beginning that can have a radical impact on the city's existing framework. The green spaces are broken down into strategic private and semiprivate areas to enhance the neighborhood feeling integrated with vibrant public spaces for all age groups and purposes.

Configuration Of Built Form As Per Users

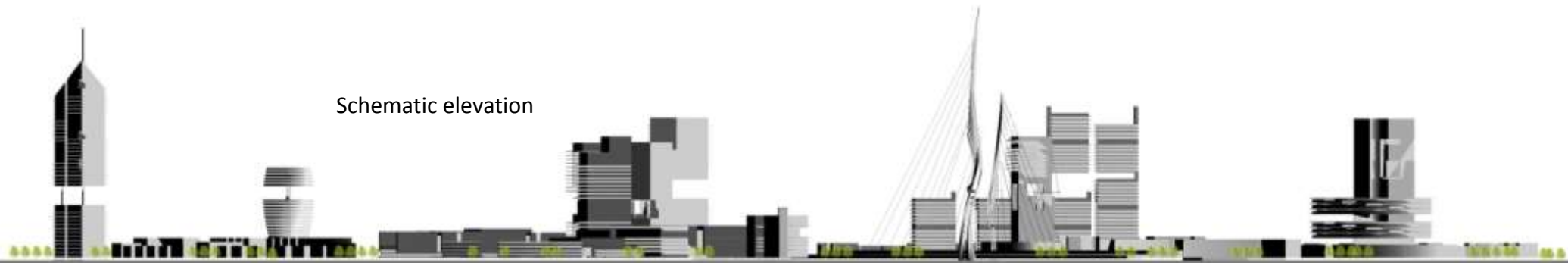
Involving tomorrow's citizens

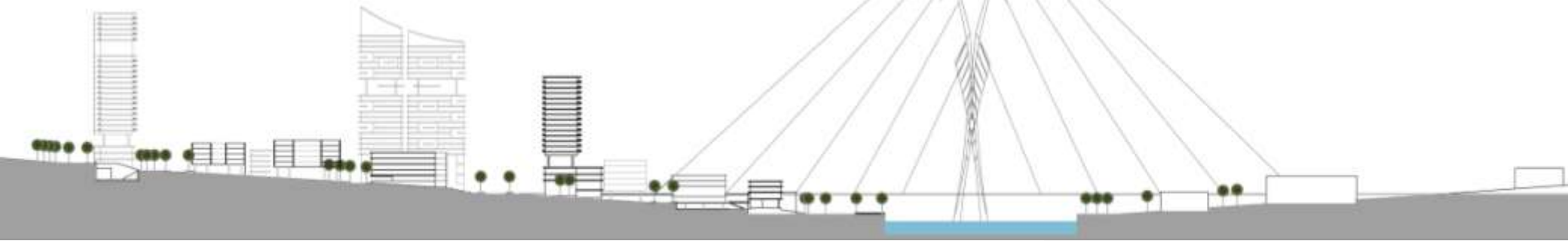


Significant residential communities, infrastructure, business and cultural landmarks can support into a dynamic and interconnected contribution to the wealth and significance of Sunderland's unified dream, a dream every resident would identify with.

The housing schemes can have a mixed quality houses catering to different classes but designed in a pattern that every scheme is supported with amenity spaces and healthy living standards with private community interaction spaces and proximity to public activity areas.

Schematic elevation

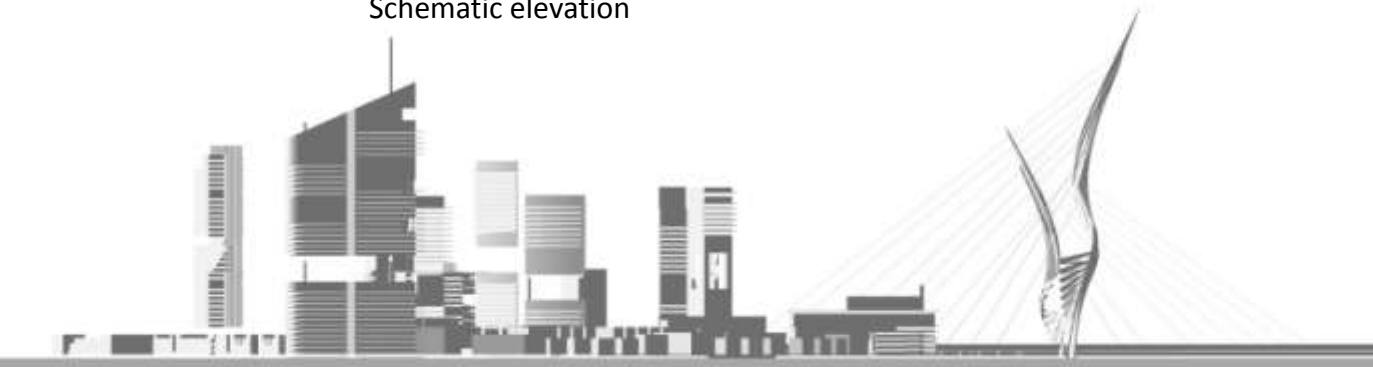




Schematic section through Grove's site

The vision for the waterfront is of a world-class destination that excites the senses and celebrates the culture of the northeast UK. It supports commercially successful and innovative businesses and is a place for all people, an area rich in character and activities that link people to the city and River

Schematic elevation



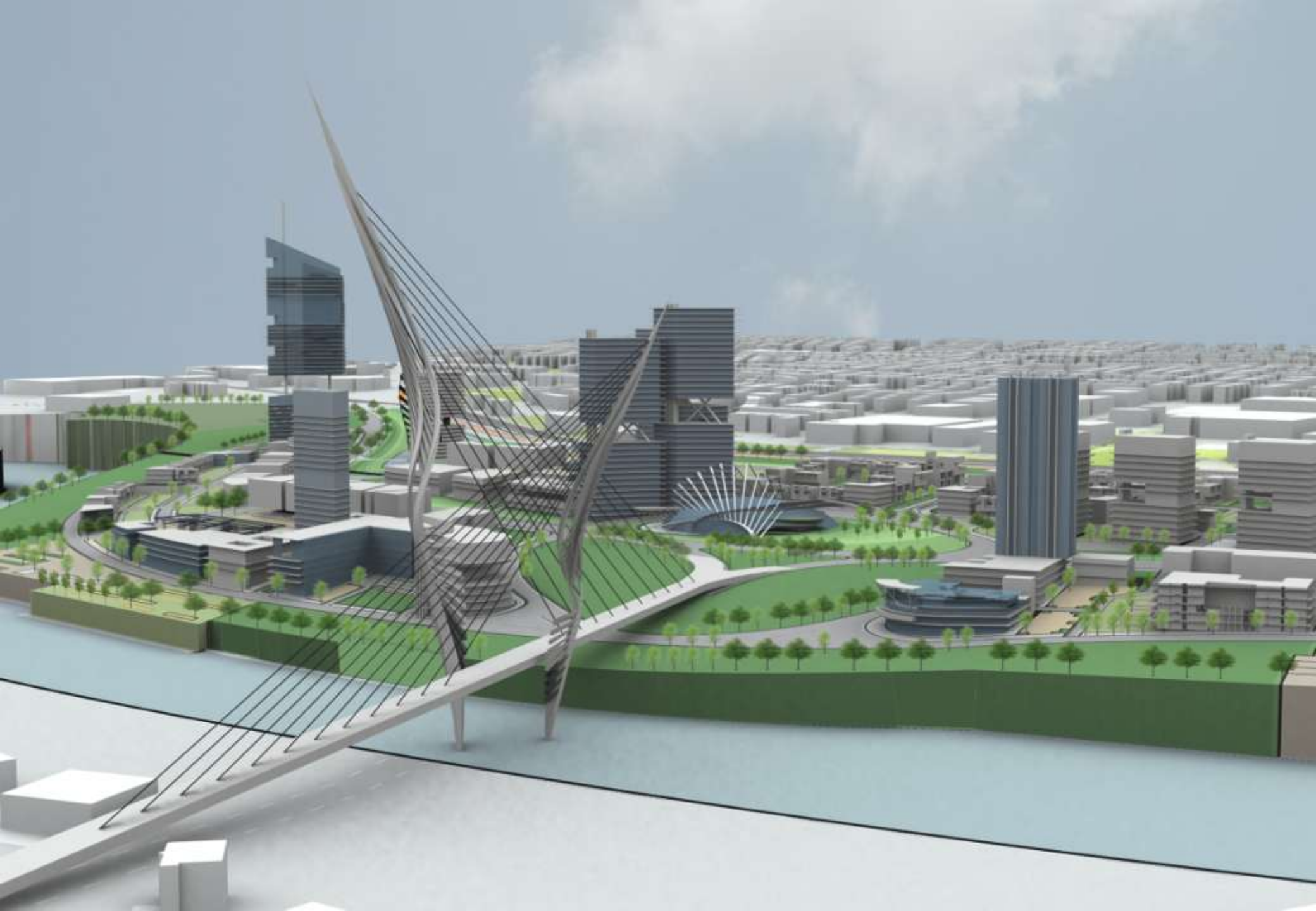
A mix of attached, semi detached housing, apartments and medium high rise buildings In different character areas form a vibrant spatial interplay

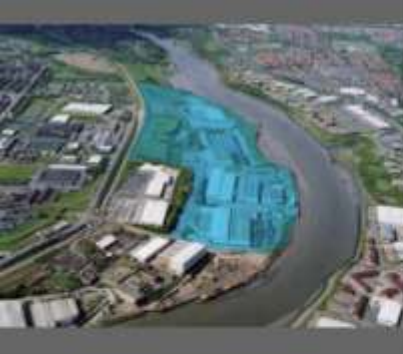


Exclusive detached penthouse apartments fronting the river form some high value zones with some semi private spaces.



Vibrant mixed use commercial and entertainment areas front the riverfront with plazas, active street frontages to set up different moods in different spaces.





Grove's Riverfront

Grove's site holds the potential to have a visible impact on the life of Pallion village, breathe in a new life, a life full of hope, pleasure and a moment of pride to be a part of that urban landscape.



Grove's and Pallion District

Introduction

Sunderland's urban character varies considerably in its age, style, and the scale of its built form; this reflects the city's heritage of glass, steel, and coalmining.

Sunderland flaunts a long continuous industrial belt both on the north and south of the river and the residential districts start spreading further south and north of the industrial belts in a monotonous land use pattern which does not keep them as a sustainable community.

The 36 hectare Grove's site is located towards the end of Sunderland city centre and on one of the prominent riverside industrial stretch of Sunderland. It has been a notable part in Sunderland's automotive sector but with a large volume of underused land and a derelict waterfront.

The Pallion village is a huge residential sprawl to the south of this site and currently deprived of a healthy community feel and social activities. The degrading employment opportunities over the years for the Pallion residents has increased a rising social tension and loss of habitable environment and population.

Pallion village is dependent on the city centre for much of its employment, retail, recreation and leisure activities. Because of its rigid setup Grove's and Pallion district has not attracted potential investors, buyers, retail business and the local market remains stagnant.

Urban Character And Landuses



- Residential
- Mixed use commercial
- Commercial
- Industrial
- Community spaces



The only street in Pallion with commercial and public activity

Monotonous streetscapes

Monotonous residential districts



Sunderland has a peculiar urban grain of loose industrial waterfront, and monotonous residential sprawl breeding social distress and disharmony.

The unemployment stress has been magnified since the workforce is not trained to adapt to the change in skilled jobs.

Permeability has been one of the most important issues. In the site as the European way could not penetrate into the site through more than one route.



Section showing the metro cut and the European way as a barrier



Monotonous plateau streetscapes



Physical barriers

The Grove's site has a steep terrain towards the river front with a level difference of 34 meters in a distance of 200 meters.

It has a central belt which has a very steep gradient and any development in that belt seems difficult. The site can be broken down into plateaus, which represents the usable land for development.

Environmental Aspects

The whole site is a part of Wild life corridor for various types of birds as well as salmon trout and others.

The Grove's bank is the most ecologically sensitive part and some parts of woodland acting as habitats for Badgers.



Districts

Further south the huge residential sprawl can be identified in different districts illustrative of different age. Each residential district indicates a different quality and type of housing. These districts can be identified as different sectors however they do not integrate with open spaces and are devoid of a favourable mix of land use.



Movement hierarchy

The main roads connecting roads are the European way on the south of the river and Westington way on the north. These transit corridors are further linked by Queen Alexandra bridge and Wear mouth bridge on the east.

Aims and Objectives

To structure a new image for Grove's and Pallion district that can radically transform the socio-economic and physical framework of the derelict industrial lands and monotonous Pallion village.

To contribute to the aspirations of Sunderland in terms of economic transformation.

To attract entrepreneurs, foreign workforce and local residents in an alluring environment of work, leisure, recreation and high living standards by providing a high quality mixed use urban environment with great working places, a range of housing options, local business and supporting infrastructure.

To give the waterfront back to the city and its people in a new configuration of spaces, activities and lifestyle.

To create an environment through built form, activities and events that can form the identity of its people which they are currently devoid of.

To give a bold gateway to the city through the proposed bridge across the river and efficiently distribute the vehicular and pedestrian traffic in an organization of routes, spaces and events.

To have a concentration of arts and cultural activities can represent the life of Sunderland and Pallion village.

To convert the waterfront into a memorable place for community events and envision an edge and skyline that can be a pride of Sunderland's new signature.

Auckland Waterfront

Auckland's waterfront regeneration site demonstrates a very similar scenario to that of the city. It should aim for some key aspects namely, getting the right amount and type of open space, efficient transport network, introduction of feasible land-use patterns and infrastructure.

Detroit riverfront

Detroit riverfront is undergoing a phase where communities and businesses in Greater Detroit are redefining their relationship to the river and the city context through 14 green way projects. It incorporates a bond link between the city's changing business scenario and the end culture of the city.

Lujiaui Park

Lujiaui Park in Shanghai, China is a bold example of how a central landmark space that caters to variety of functions and recreation can form an oasis in the desert.

WATERFRONTS

Chattanooga waterfront

The design recaptures the site of the original founding of Chattanooga and reconnects the city to its waterfront, incorporating 83 acres of open space and infrastructure and 86 acres of new mixed-use development, making the city's goal of "living, working, playing and learning at the river", a reality.

Darling Harbour

Darling Harbour is one of the famous and successful waterfronts boasting a vibrant atmosphere and active night life. Transformed in 1980's from a derelict dockyard into one of the world's greatest waterfront destinations. The area is well connected to the rest of the city and offers a lively pedestrian experience through an interplay of mixed use activities, lively street frontages and an atmosphere for recreation, leisure, shopping.

CONCEPT



Introducing a green pedestrian route through historic industrial sites and linking the old low-rise and proposed high-rises to the waterfront.



The aim is to create a stark contrast in reaction to the existing urban grain of Pallon district which is currently only representing lost culture, fear, anxiety and loss of serenity in the dense monotonous urban environment.

The approach aims towards structuring the right balance between a parkland setting and a safe organized urban environment with the right interplay of built and open spaces, land uses and enhancing community life on a physical and emotional level.

To structure an efficient composition of land use in the Grove's site which can attract entrepreneurship, through business districts and elegant housing for the new software sector and thereby attracting businessmen, foreign workforce, support companies to settle in the Grove's and Pallon district.

The aim is to re-invent the spirit in a new iconic configuration of dynamic public spaces sparkling with public activities, alluring landscapes, housing environment that appeals on a physical and emotional level and giving its natural assets of a beautiful waterfront and landscapes back to the city.

An Urban Landmark, a congregation of People, activities and lifestyle

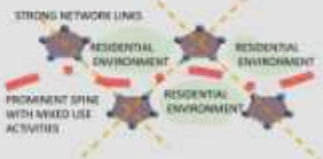


APPROACH

Considering the existing scenario in terms of density and monotony in housing and industrial environment, social and economic structure, the approach is more of a reaction to the existing scenario.



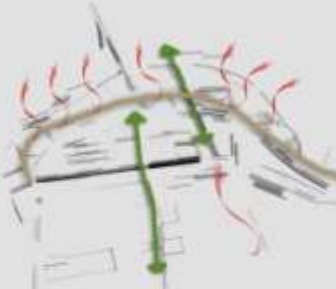
To release the urban space through an open landmark space politely merging into gracious landscape belt along the riverfront



structuring an effective interplay of residential areas supported by strong network links, private and semi-private spaces.



Setting up the momentum to develop cohesive business and commercial network through new transport corridor



Bring in more permeability through the new proposed corridor and make the site and riverfront more approachable.

Introducing green pedestrian friendly routes with active frontages creating a safe vibrant atmosphere and linking different zones through strategic nodes and pathways

Masterplan

1. Terraced housing
2. High rise residential building with commercial on the ground
3. G+4 residential apartments
4. Green belt
5. City Park
6. Business zone
7. Commercial, recreation and retail functions with public plaza and underground car park

8. Residential semidetached housing
9. Hotel
10. Business and commercial zone
11. Green transit corridor
12. Community, recreation, and health centre
13. Residential zone
14. Sculptural park
15. Green pedestrian corridor



The aim is to create a place where people can be momentarily transported from the monotonous city environment to a land of likelihood, recreation, leisure and physical and visual centers where different age groups, social, economic groups can celebrate life, culture and a new identity at different times of the day.

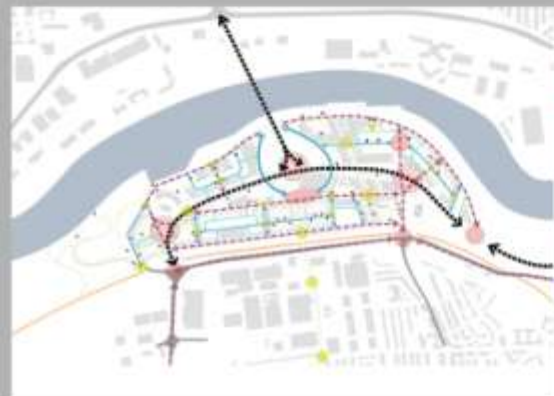




- Residential
- Residential + Commercial
- Office + Commercial
- Commercial + Services
- High Rise Residential
- Existing Industrial

Land use

Red line indicates a vibrant pedestrian experience to the riverfront with a combined commercial heritage and retail with public activities.



- Main pedestrian Corridor
- Secondary pedestrian + Pedestrian
- Tertiary pedestrian + Pedestrian
- Internal Route
- Pedestrian Walkways
- Main pedestrian Nodes & Landmarks
- Visual Nodes
- Pedestrian Green Route

Movement hierarchy

The main transit corridor is aimed to be a green corridor with elegant building frontages and landmark nodes created by strategic junctions and open spaces.



- Private Green Space
- Public Green Space

Green Space

The green spaces are broken down into strategic private and semi-private areas to enhance the neighborhood feeling. Integrated with vibrant public spaces for all age groups and purposes.



West Elevation



Existing Figure ground

The proposed figure ground aims at triggering the reaction to the dense urban grain that lies on the south and acts as a relief zone merging into gracious landscapes towards the riverfront. This contrast helps to compensate for the physical drawbacks of the mono-tonous urban pattern and can form an iconic configuration to blend with other regeneration sites.



Proposed Figure ground

Corridors

The pedestrian streets and main streets leading to the riverfront have building frontages with an interplay of residential and commercial use on the ground floor to create a safe and organized street experience.

The new proposed transport routes cut through the site and bridge across the river onto the other side of business districts. Tapping on this opportunity the main transport corridor can be treated the main spine of business, commerce, recreation, leisure and entertainment to set a momentum for further developments along that corridor.

The business districts are introduced with the intention to establish a collaborative and cohesive economy with the neighbouring regeneration projects and boost commercial and local employment prospects, which in turn can have positive impact on sales and retail.

The Zones

The business zones get proximity to the main corridor as well as a right blend of recreational and public spaces.

The capacity of the existing Mallon shopping is distributed into mixed use buildings on the ground floor to create an extroverted shopping experience as well as breathe a new vibrant atmosphere in the district. The shopping and entertainment zone also has proximity to the riverfront and transit corridor and can gain maximum attention from people.

The residential zones differing in the quality and type of housing are located in quiet zones to benefit from their own private environment and yet be integrated with mixed use at strategic locations.



B : Section Through Commercial/ Entertainment area and Plaza 2

Introducing strategic nodes with public utility spaces and commercial spaces can add a new dimension to the main spine. It can argue to be a path full of lust, enthusiasm and flooded with public activities at different times of the day. This path can draw people from Pallon village and elsewhere to avail the vibrant social life proposed in this regeneration scheme.

The spine can continue with the bridge across the river connecting two thriving districts in the future. So the people coming from the other side get a great sense of connectivity and visual pleasure along the spine and can draw more local business for Pallon village.

Strategic public open spaces are located in the form of Plaza and parks to give activity and 'liv', 'punctuator' in built form and serve to the wider context and create an interactive environment.

Configuring a series of events and activities from the city to the edge through landuses performing in the capacity of their desired location.



B : View showing Plaza 2

The metro is an important gateway to the site and Pallon village. It is welcomed by a vibrant pedestrian green route fronted with public and commercial activities.



A : Section Through Metro and Plaza 1



Configuration Of Uses In Built Forms

The capacity of existing shopping mall is distributed on the ground floor frontages of mixed use buildings creating an vibrant shopping and pedestrian experience and using the deep terrain car park as located behind the active frontages.

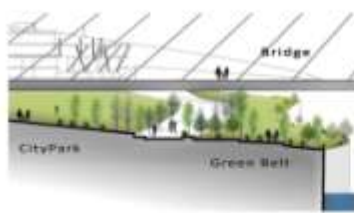
Active street frontages create interactive social atmosphere and safe and crime free routes to walk through.

The Proposed offers a variety of typologies, designs and, in housing, features for all sections of the



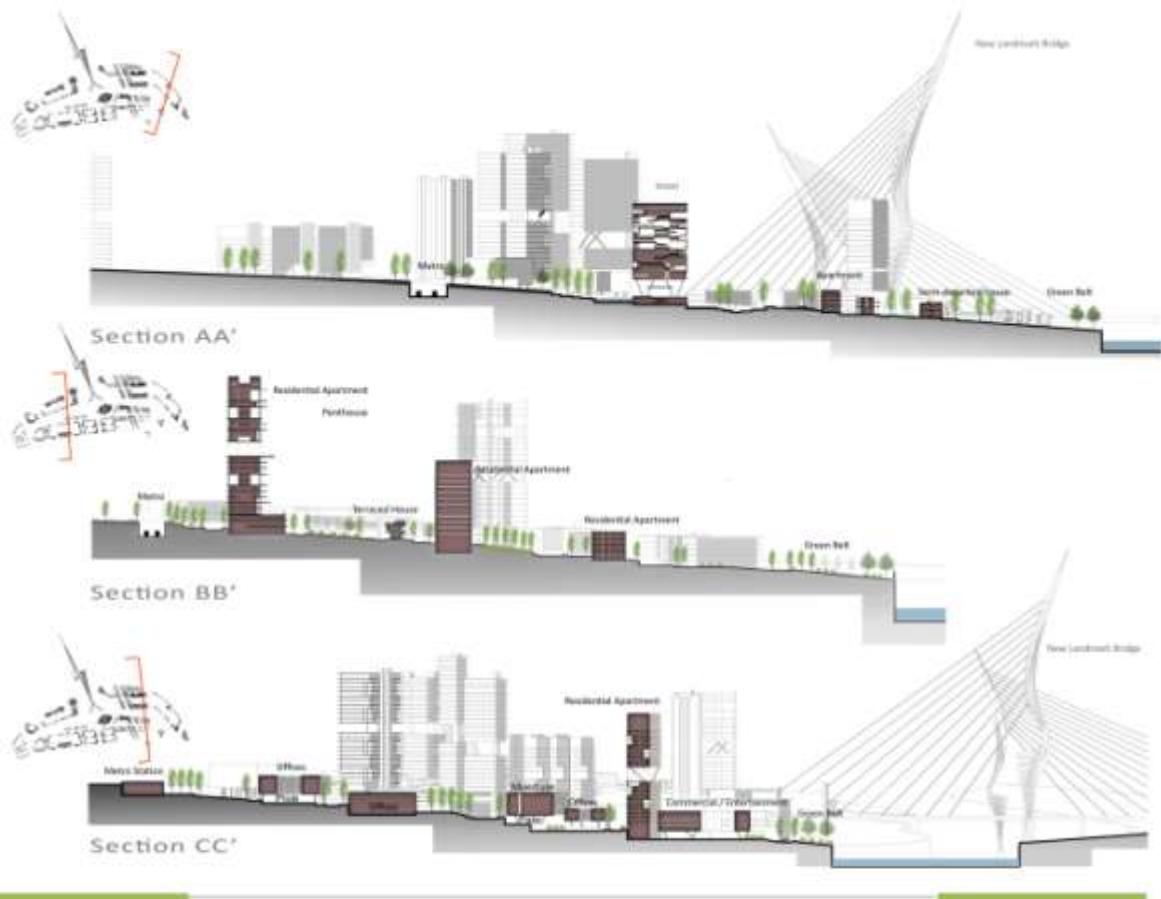
The vision for the waterfront is of a world-class destination that excites the senses and celebrates the culture of the northwest ITC. It supports commercially successful and innovative businesses and is a place for all people, an area rich in character and activities that link people to the city and River

Celebrating the RiverFront

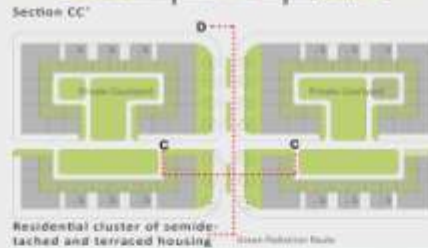


Section Through Green Belt

Riverfront of a city marks its edge, an edge where a city ends and a city begins, a place where one can walk down leaving the wilderness of the city behind at the beauty of the edge reveals itself to you.



Creating a balance of a serene parkland setting and compact urban setting to balance the beautiful aspects of landscape yet a safe environment to walk through even in the dark. So creating strategic pedestrian walkways flanked with buildings and activities can keep the setting livable and crime free at all hours.



Configuration Of Built Form As Per Users

Involving *Tommorows*



Proposed Landuse:
Over 1500 homes x Business Districts x Cultural hubs x Commercial x Recreational x Leisure x Community zones

The residential zones differing in the quality and type of housing are located in quiet zones to benefit from their own private environment and yet be integrated with mixed use at strategic locations.

The secondary routes break down into semi private tertiary routes, and pedestrian walkways, elegantly landscaped and leading to different internal zones and flanked with semi private open spaces.

A mix of attached, semi detached housing, apartments and medium high rise buildings in different character areas form a vibrant spatial interplay.

Exclusive detached penthouse apartments flanking the river form some high value zones with some semi private spaces.

The green spaces are broken down into strategic private and semiprivate areas to enhance the neighborhood feeling integrated with vibrant public spaces for all age groups and purposes.

A green pedestrian route is proposed cutting through Pellen industrial estate which currently acts as a barrier. It leads directly into the central landmark space reinforcing the vibrant gateway of the site.

Silhouettes of users and their preferred models





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