

**The spatial concepts of the Incheon port vicinities
Redevelopment project**

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TERMINAL PROJECT

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ABSTRACT

The purpose of this project is to design spatial concepts for the Incheon port vicinities so that Incheon can revitalize its downtown and develop its waterfront as an open space for its citizen.

Most of the study area is occupied by the industrial factories, however, the area has had increasing opportunities for redevelopment since the creation of the Incheon Free Economic Zone, which surrounds the area; some redevelopment is currently underway: the function of the inner port can be relocated to other place, resulting in the inner port becoming a clean port; and improvements have been made to the transportation system, such as a subway from Incheon to Suwon, the second airport railway plan connecting Incheon Airport and Incheon Railway Station, and the second capital outer circulation highway, which will deliver convenience of transit to the area; and especially, Incheon Asian Game, that will be held in 2014, would accelerate the redevelopment of the area.

The premise of the spatial concepts of the project is as : The main urban function will be tourism related to the Walmi tourism special district; Tourism and cultural industries such as video technology will be the main industries; The projected population will be similar to that of the present by the time of complete redevelopment; Focus will be placed on open space, waterfront along the bay, and waterways in the middle of the area; The density of the area will be a combination of low and high, with especially low density in commercial areas.

The spatial concepts of the project can be summarized as: the connectivity of open space, waterfronts, and parks along the bay and waterway, the zoning of commercial areas to the maximum and residential areas kept to a minimum, the skyline which has low buildings on either sides of the area and high buildings in the central area, and the creation of a water park, a world cuisine mall, a video culture district, and a museum that will reuse old factories.

In designing spatial concepts for downtown Incheon, while some details are specific to Incheon, the project adopts a series of literature review of the U.S, and case studies of San Francisco bay, Most of the information about redevelopment strategies and programs in this project can be applied to other cities in any states and countries.

I . Introduction

1. Statement of problem and purpose

Redevelopment becomes a controversial issue not only in the United States but also in South Korea. In most cities, downtown areas have lost a great deal of activity to the suburbs. As a result, Cities across the United States have been striving to balance growth pressures with community amenities. Growth pressures put strain upon infrastructure, public services and citizen demands. Furthermore, downtown areas have been gradually devastated and even become slums by the phenomenon.

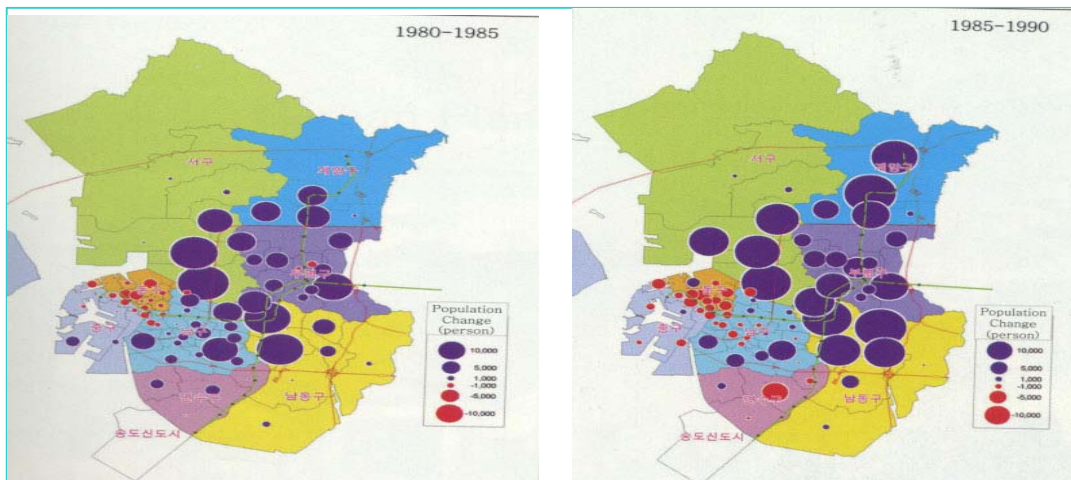
Redevelopment generally involves the development or improvement of a previously developed area that presently suffers from real or perceived physical deficiencies, such as blight, or environmental contamination, or was developed for uses that have become obsolete or inappropriate as a result of changing social or market conditions. It encourages new development, jobs, and generates tax revenues in declining urban areas by developing partnerships between public and private entities. The private sector may initiate redevelopment projects without any active public involvement beyond the government's traditional regulatory role. However, the term "redevelopment" is meant to describe one or more public actions that are undertaken to stimulate activity when the private market does not provide sufficient capital and economic activity to achieve the desired level of improvement. This public action usually involves one or more measures such as direct public investment, capital improvements, enhanced public services, technical assistance, promotion, tax benefits, and other stimuli including planning initiatives such as rezoning. Public agencies typically offer a combination of incentives and undertake redevelopment programs according to a statutory system for creating, financing, and operating redevelopment areas. However, the term goes beyond the redevelopment efforts that are carried out under such statutory plans to encompass a broad range of public activities intended to stimulate reinvestment. Government-initiated redevelopment activities serve a valid public purpose when the public agency can demonstrate through an adopted plan or other public process that existing conditions make it impractical or impossible for market forces to act in the public's best interest.¹

Downtown Incheon, South Korea, which played an important role in the city's

¹ American Planning Association policy guide on public redevelopment, adopted by the legislative and policy committee, December 11, 2003.

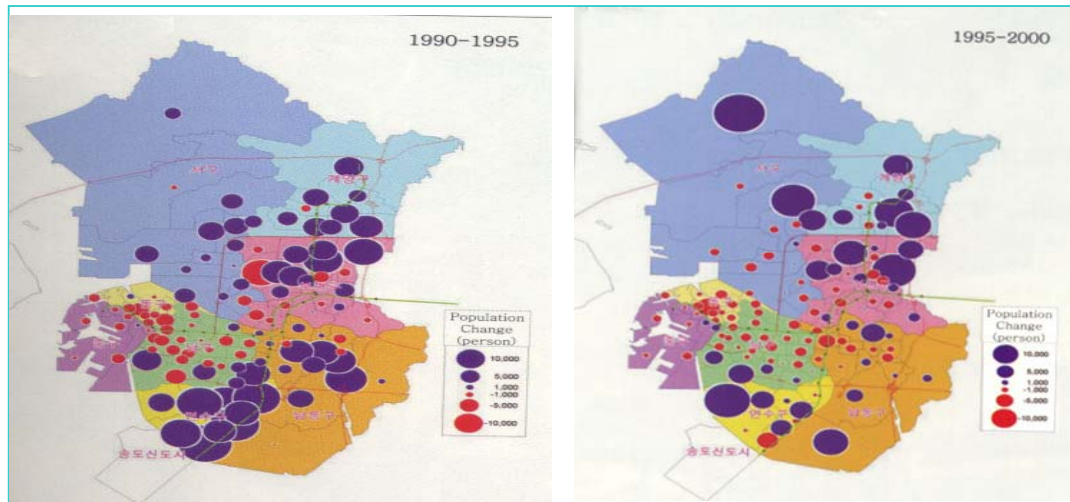
economic growth and pivotal international trade through Incheon port, has been impoverished. The population of Downtown Incheon has decreased over the last 20 years while that of the suburbs has increased rapidly. The downtown area has suffered from loss of vitality and the decline of local economy. There are two types of blight: physical blight and economic blight. Examples of blight include high vacancy rates in existing commercial space; Aging, deteriorating, and poorly-maintained buildings, sometimes interspersed with well maintained buildings; depreciated or stagnant property values and other evidence of disinvestments; hazardous waste and other negative environmental conditions; and an aging society. For example, the population of Incheon has increased 23.8% from 2,070,790 in 1990 to 2,562,321 in 2000, however, that of the downtown area has decreased 25.8% from 201,460 to 149,505 during the same period. The figure shows the population change of Incheon between 1980 and 2000 how the population has shifted from the downtown Incheon area to the suburbs.²

Figure 1. Population change since 1980-2000³



² Urban Planning in Incheon 1883-2001, Incheon Metropolitan City, 2004, p. 18.

³ Urban Planning in Incheon 1883-2001, Incheon Metropolitan City, 2004, p. 19.



My project will be focused on the suggestions that the Incheon city government may apply towards designing the spatial concept of the Incheon port vicinities if the area can be improved. I will give an overview of the city of Incheon and the study area, and I will research desirable redevelopment concepts through a literature review and the redevelopment case of the U.S. For example, many cities in the U.S have adopted representative projects and programs developed in conjunction with the community to support the revitalization and alleviation of blight in the project area. I will adopt and develop projects and programs which Incheon city agencies may find to be desirable for the redevelopment of downtown Incheon.

2. Research Questions

There are three specific research questions that this paper seeks to answer:

What reviews of empirical studies in the U.S say the key components of urban redevelopment strategies?

What are the representative projects and programs of metropolitan cities for urban redevelopment in the U.S?

What kinds of spatial concepts might Incheon city agencies find to be desirable for the redevelopment of downtown Incheon?

3. Methodology

My research will be based upon a series of literature reviews, case studies of U.S cities and interviews with Incheon city agents and developers in Incheon.

I will determine the strategies that the study area should adopt in order to become a successfully redeveloped area through literature reviews of the U.S. The literature reviews will be focused on tourism, consumerism, smart growth, and density.

Case studies of San Francisco will be very helpful in developing concepts of the study area because San Francisco is famous for its tourism, and my study is focused on redeveloping coastal area just as San Francisco has been redeveloped.

Besides the literature reviews and data collection of Incheon and U.S cities, some interviews will be conducted with local planners and local developers in Incheon about the spatial concepts of the study area.

II. Overview of the city of Incheon

1. General information

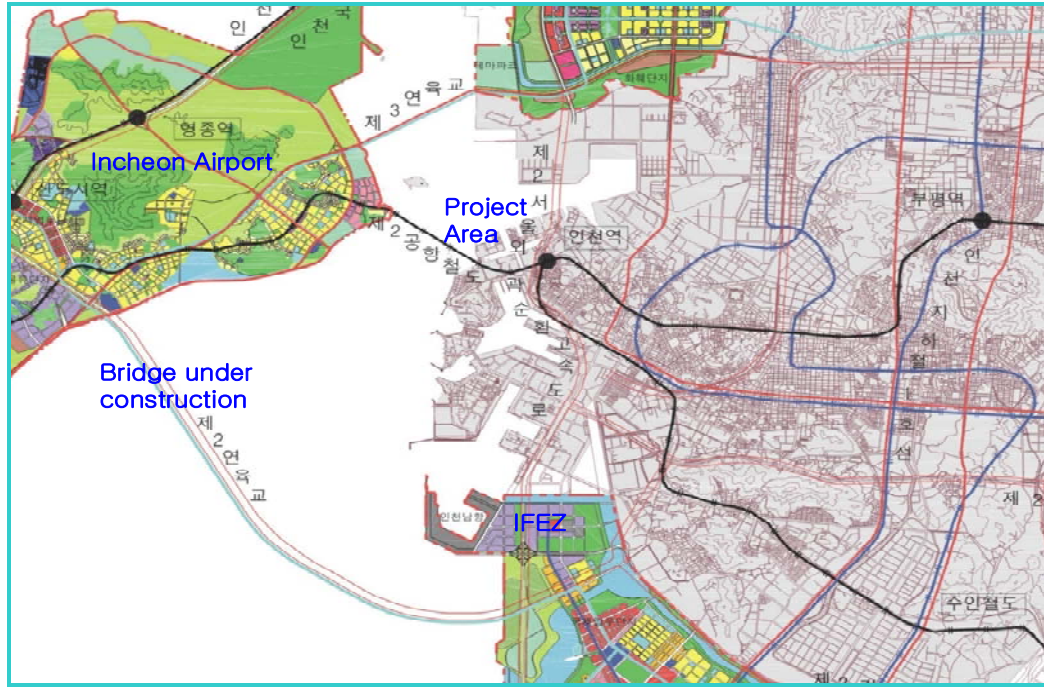
- **Geographic Characteristics⁴**

- Location*

A gateway to Northeast Asia with both an international port and an international airport, Incheon is located in the mid-western Korean peninsula on the Yellow Sea, Located 28km from the nation's capital, Seoul, Incheon lies at 126° 37' East longitude and 37° 28' North latitude. San Francisco, Washington DC, Madrid, and Teheran are all found at the same latitude.

Figure 2. Map of the study area

⁴ The City of Incheon Homepage (<http://english.incheon.go.kr>), About Incheon: General Status.



Source: Incheon planning map

-Climate

The Incheon area has a relatively dry climate. It is affected greatly by seasonal winds. The Northwesterly wind hits the region in the winter, while the Southwesterly wind blows in the summer. The average annual temperature is around 53°F (11.4°C), while the average temperature during the month of January is around 26°F (-3.1°C) and around 77°F (24.9°C) during the month of August. The yearly temperature range is 82°F (28°C).

-Area and Population

The city covers a total area of 986.45km², or 0.98% of the entire area of South Korea. It is made of eight districts, two counties, and 140 smaller units. As of September 2005, the city had a total population of 2,628,000 with more than 872,000 households. Incheon is now rapidly developing into the third largest city in South Korea after Seoul and Busan.

-Topography

Except for Mt. Manisan (469m) and Mt. Gyeyangsan (395m), most mountains in the Incheon area are not taller than 300m. Most streams flow into the Han-River and the Yellow Sea. It has a many bays, inlets, and numerous islands. There are 152 islands altogether off the coast of Incheon, 113 of them uninhabited.

• The history of the community

-Modernization

The city's present name, Incheon, was given to it in the third King of the Chosun dynasty, Taejong (1413). Due to the geo-political merits of Incheon such as an international port and convenient access to capital, the city took the role of gateway for the introduction of western civilization. Subsequently, foreign settlement was created and advanced urban facilities were set up. Early Incheon gradually developed into an international city demonstrating the color of western culture.

An increase in the number of passengers and quantity of exported and imported goods urged the completion of the wharf facilities. In 1883 a customs office was established to collect custom duties. Also, a quarantine station was located in the vicinity of the wharf. The Seoul-Incheon railroad (1899), meteorological observatory (1899), Yongwha Primary School (1892), English Tobacco Company (1899), French Hotel (1899), Seoul-Incheon Telegraph Service (1855), The First Bank (1902), lighthouse on Palmi Island (1903), and water supply facilities (1906) were major modern urban facilities and installations completed around the first decade of the 20th century.⁵

-Development of Harbor

In 1914 the foreign settlement was abolished and Japanese colonial rule enforced a new administration system on Incheon. The boundary of the city was diminished to 605.6 *ha* with a population of 30,000 inhabitants. Beginning then, the Japanese authority controlled planning and construction projects for city facilities.

The volume of trade began increasing after Russo-Japan war. Harbor facilities were extended with a sluice dock and pier by the Japanese government general in 1911 to facilitate the passage of ships and cargo works. Thus, the harbor ensured the capability of simultaneously berthing three ships of 4,500 tonnages. In 1936, the administrative area was expanded to 2,712 *ha* with an increased population of 100,000. It was in 1937 that the first city plan of Incheon was established according to the Japanese governor's Act of Town Planning in Korea, formulated in 1934. According to the city plan, housing, scenic and green area zones with street networks, parks and squares were laid out by introducing a zoning system. The Act also provided a system of city development through land readjustment projects.⁶

The City boundaries was extended in the late 1940's when the Bupyong district - including the railroad station and bases of Japanese war industries- was added to the original old town center around the port. The old town and Bupyeong districts were separately developed until a mountain penetration road was completed and connected the two parts into one urban area. In the 1970's, the opening of the Seoul-Incheon Expressway turned the orientation of the city's development eastward towards the Juan and the Guwol districts. Sea reclamation gave way to the construction of the South port along with the installation of dock facilities for the original port.⁷

• Current economic characteristics

-Economic situations

The local GNP for Incheon is 25.5 billion dollars, 4.7% of the national GNP. More than 1.2 million people in the region participate in various economic activities. Incheon displays an urban-type industrial structure, which is characterized by a tertiary industry relatively larger than primary or secondary industries. There are seven industrial complexes in the region, including Namdong and Bupyeong, which host more than 7,400 companies altogether (Incheon city statistics).

Figure 3. Gross regional domestic product by industry of Incheon⁸

⁵ Urban Planning in Incheon 1883-2001, Incheon Metropolitan City, 2004, pp. 8-9.

⁶ Urban Planning in Incheon 1883-2001, Incheon Metropolitan City, 2004, p. 10.

⁷ Urban Planning in Incheon 1883-2001, Incheon Metropolitan City, 2004, pp. 16-17.

⁸ Incheon Statistical Yearbook, 2006.

Source: Incheon Statistical Yearbook

-The change of economy structure

The City of Incheon is changing into a global informational and technological city. It led 1970 and 1980 economic developments with the manufacturing industry, and now, Incheon takes charge of innovations in software industries. The number of IT companies in Incheon is 1,021, the third most in South Korea. IT industry is developing around the Incheon Information Business Promotion Unit, Incheon Soft Town, and Incheon IT Tower Buildings in Downtown Incheon. The Information Business Promotion Unit was established by the central government and the City of Incheon in 2002, and it has undertaken special strategies matching local characteristics. The items are basic Ubiquitous-City constructions which create the interconnectivity through the information superhighway, video game development in digital contents industry, and a robot industry, which is the strong point of the existing manufacturing enterprise. The

Gross Regional Domestic Product	(Million \$)				
Year	1998	1999	2000	2001	2002
Gross regional domestic product (at current prices)	19,950	20,937	22,377	25,547	25,547
(Composition to whole country)	4.7	4.5	4.4	4.8	4.9
Economic growth rate(at 1995 constant prices)	-13.2	15.1	8.5	2.9	4.1
Agriculture, fishery and fishing	1.4	1.6	1.6	1.5	1.5
Mining quarrying and manufacturing	43.3	42.7	43.2	37.9	35.3
(Manufacturing)	43.1	42.5	42.9	37.7	35
Electricity, gas and water	3.5	2.5	3	2.8	3
Construction	11.3	10.3	8.5	8.1	8.3
Services and other	33	43	36.3	42.1	44.2
Population	2468	2514	2522	2557	2586
(Composition to whole country)	5.3	5.4	5.4	5.4	5.4

boom of the U-City, even from the other domestic areas consideration, is very compatible to Incheon, which equips the condition of optimum U-City from the creation of Songdo, IFEZ.

Incheon aims to become the IT-Hub for northeast Asia. IT industry takes charge of the same role as the artery of all industries, It can save the traditional manufacturing industry which falls into to the stagnation flag, the alternative which is only there is a possibility of job creation

2. Analysis of Constraints & Opportunities

• Opportunities

Northeast Asia is a dynamic region and has great potential to become an area of significant global economic power. The growth of China is creating a new network of production and services in Northeast Asia.

Incheon has many advantages as a coastal city equipped with a high standard of international airport as well as a seaport that is the main entry point to South Korea. It is

possible to reach 51 major cities with populations of over 1 million within a three and a half hour flight from Incheon.

Furthermore, Incheon is expected to be developed as a world class city with holding 2014 Asian Game, whose venue cleared away on April of 2007. Holding the Asian Game makes it possible to raise Incheon brand value on a large scale, and to consolidate statue of Incheon as its hub of Northeast Asia.

-Incheon International Airport

The airport was opened when the first stage of the two stage plan was completed on March 1st, 2001. The site of the airport was reclaimed from the water surface between two islands. The total area of the site is 5,610 *ha*.

Incheon International Airport is equipped with the most up-to-date facilities that permit the commission of future hypersonic speed airliner. It is an all-weather airport operating 24 hours a day, equipped with four 4,000m runways, allowing simultaneous take-off and landing of four aircrafts, aided by the facilities of the best quality control tower, passenger terminal, transportation center, freeway and express railway systems dedicated exclusively to the airport.

-Incheon Port

The inner port lock-gate facilities are designed with 10 to 14 meters of water in order to secure passage of vessels in and out of the port and to facilitate berthing and cargo works of freighters a maximum of 50,000 tons, regardless of the changing level of the tide up to 10 meters.

In 2002 the external port outside of the inner port of the docking area - embraced three more ports including a coastal port, south port and north port. The berthing capacity of the Incheon port is now 72 holds in total, including 45 vessels in the inner port, while the handling capacity of cargo is 56.6 million tons.

-Incheon Free Economic Zone

According to a government policy aimed at raising South Korea as a center for international business among Northeastern Asian countries, the Incheon Free Economic Zone (IFEZ) was established in March of 2003 making it the first FEZ in South Korea. The IFEZ is a unique zone designated for the promotion of free economic activities where special regulations are applied for the benefit of participants. The IFEZ consists of the three urban cores of Songdo, Yeongjong and Cheongna, forming a triangular framework. Its total area is 20,900 *ha* with projected population of 487,000.

Transformation of Incheon into an international metropolis is now under way with the international airport and sea port as its hubs, rapid progress in the creation of Incheon as an international business center, distribution center, center of high tech information and industry complexes and sightseeing and leisure destination was allowed the city to realize its futuristic vision as a 21st century city.

• Constraints and Limitations

-Downtown impoverishment

Downtown Incheon, which played an important role in its economic growth and pivotal international trade through Incheon port, has become impoverished. A survey which was conducted by the city in 2006 shows that 71.5% of the respondents think that

downtown impoverishment is a severe problem⁹. It has suffered from a rapid decrease in population, loss of vitality, and decline of local economy as the economy of the suburbs has developed.

The downtown can be seen as an area of previous industrial and manufacturing boom. There are large warehouses and old factories along the railroad tracks. The industrial structure, focused on manufacturing mixed with residential, has caused various problems such as environmental pollution, under standardized housing, deficiency of public and cultural facilities, and a lack of open space as seen in other large cities.

The 1980's were a period of vigorous promotion in land development projects. It brought a remarkable increase of built-up area of the city. As of the end of 2001, a total of 22 projects measuring 1,767 *ha* have been undertaken, six of them still is being under way. However, this suburban development created a difference in quality of living between those new areas and typical existing core areas. The differences in the entire living circumstances between the two have been deepened by not only infrastructures such as roads, parks, and open spaces, but also residential environment, education, culture, economy, and even consumer patterns. The downtown is a culturally and historically accumulated product. Therefore, the way in which the downtown's resources can be used effectively will be essential for sustainable urban development.

3. The 2020 Incheon City Plan

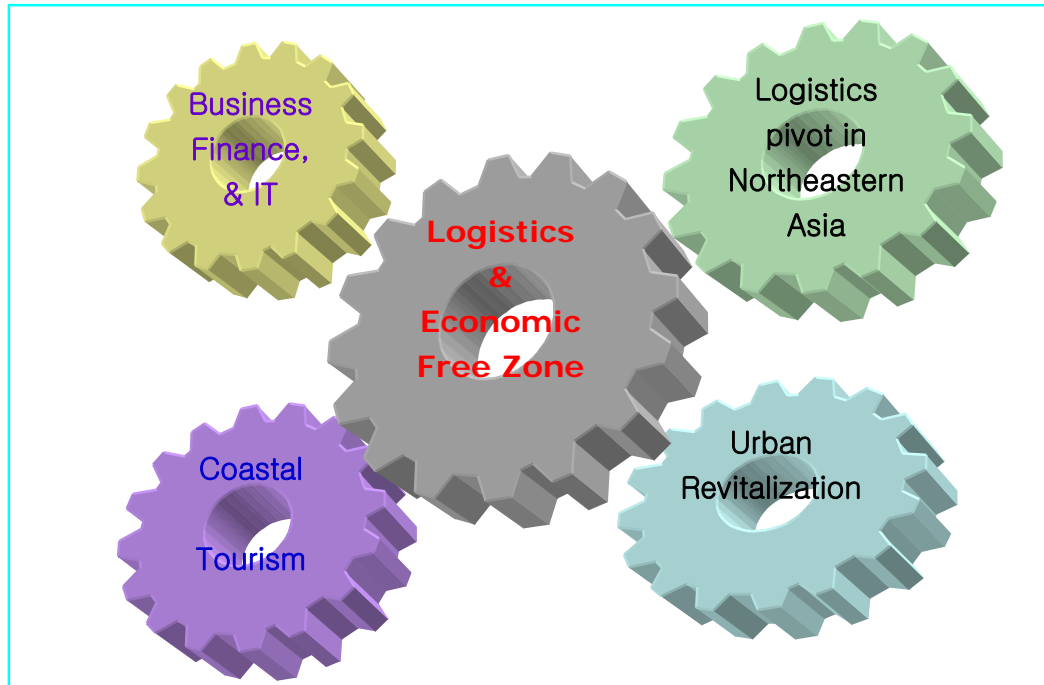
The 2020 Incheon City Plan is the city's master plan for when population will be 3,500,000. The vision of the city is classified in two ways in this plan. One is the creation of a center of business and distribution for Northeastern Asia, and the other is the creation of environmentally friendly urban amenities through urban revitalization. The IFEZ is playing a major role in boosting South Korea's competitiveness by transforming Incheon into Northeast Asia's international business, logistics, and tourism hub for the 21st century. For example, Songdo hub will be developed for multinational companies' Asia Pacific headquarters, including cutting-edge knowledge-based industries such as information and communications technology and biotechnology. Yeongjong is the logistics and distribution hub which will feature a residential area for airport staff and visitors, as well as logistics, commercial and distribution facilities linked with Incheon Airport. Cheongna leisure hub will feature a residential area, entertainment, sports, and a business area specially designed for international finance services. The plan promotes that the IFEZ, Incheon Airport, and Incheon Port be connected to each other in order to develop these hubs.

The plan also supports the function of the downtown area to be expanded to commerce, tourism, historic preservation, and culture. Incheon's inner port -located downtown- has discharged pollution while transporting freighters. The pollution has been a barrier to redeveloping the downtown area. The function of the inner port can be relocated partially to Songdo's new port and North Port, and it will result in a clean inner port which will enable development along the coast. The waterfront can be developed to have various amenities such as a museum, conference hall, aquarium, export exhibition hall, shopping mall, hotel, and logistics center.

Zoning of the northern area of Walmi Park, close to the study area, is planned to be changed from residential to commercial in order to promote developing a tourism

⁹ The city of Incheon, 2020 Incheon city plan, 2006, p.323.

Figure 4. The vision of 2020 Incheon City Plan



Source: 2020 Incheon City Plan, p.41.

III. Profile of the study area

1. Boundary

The difference between Incheon port vicinities urbanized before 1980 and the new town has expanded in residential amenities, education, culture, and economic vitality. Moreover, the differences will increase greatly between the IFEZ -which aims to be a world-class city- and the old town. The city of Incheon has made urban redevelopment plans to reduce the differences between the towns. One of the city's redevelopment plans which promote port city through waterfronts is applied to this area.

There are some residential and commercial facilities near the Incheon station, but most of the area is occupied by the industrial factories. The population of the area is 9,466 with 3442 households

Figure 5. Study area boundary map



Source: Research of the Incheon station redevelopment plan (IDI, 2003)

The size of the area is 1,420,567 square meters (351 Acres). There is waterway whose size is about 65Acres running through the middle of the area. The waterfront using this waterway will be emphasized in this project.

Figure 6. Central waterway in the study area



Source: Research of the Incheon station redevelopment plan (IDI, 2003)

2. Background of the area

The South Korean government designated the coastal eastern region south of the study area as a tourism special district in 2001. The region is very convenient for foreigners to visit through Incheon International Port and Airport. Incheon Port is the harbor that opened in the 19th century when Korea began modernizing. Western civilizations came into the region through Incheon Port at the end of the 19th century, resulting in various cultural heritages that have become fixed in Incheon area. Chinese, Russian, and German buildings are preserved in the region. Besides these, there are many tourism resources such as the waterfronts, Walmi Park, the fish market, and China town.

Figure 7. Tourism Resources around the Incheon Port



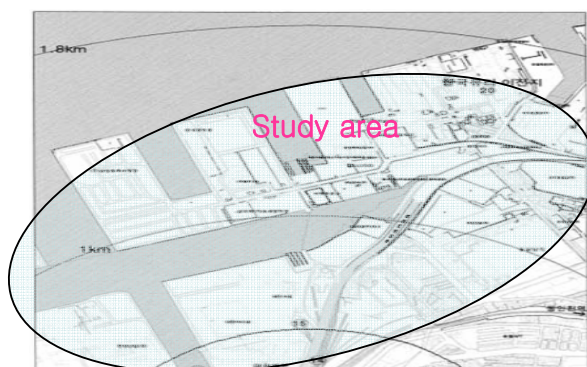
Source: Research of the Incheon station redevelopment plan (IDI, 2003)

3. Transportation network

• Incheon Railway Station

Incheon Railway Station is a starting point to Seoul. It is located in the middle of Downtown Incheon, and plays a significant role as the portal of the region from Seoul, and capital region including Kyunggi province. A subway from Incheon to Suwon, the capital city of Kyunggi province, will open in 2013. It will also become the portal from other countries through Incheon Airport when the second airport railway plan which will connect between Incheon Airport and Incheon Railway Station is implemented. Incheon Railway Station will connect not only to Seoul, but also to areas south of capital region, which has a population more than 20 million.

Figure 8. Distance between the Incheon Station and the study area



Source: Research of the Incheon station redevelopment plan (IDI, 2003).

My study area is within 1 mile from Incheon Railway Station; therefore, my study must be connected with the Incheon station redevelopment plan, which the City of Incheon intends to undertake.

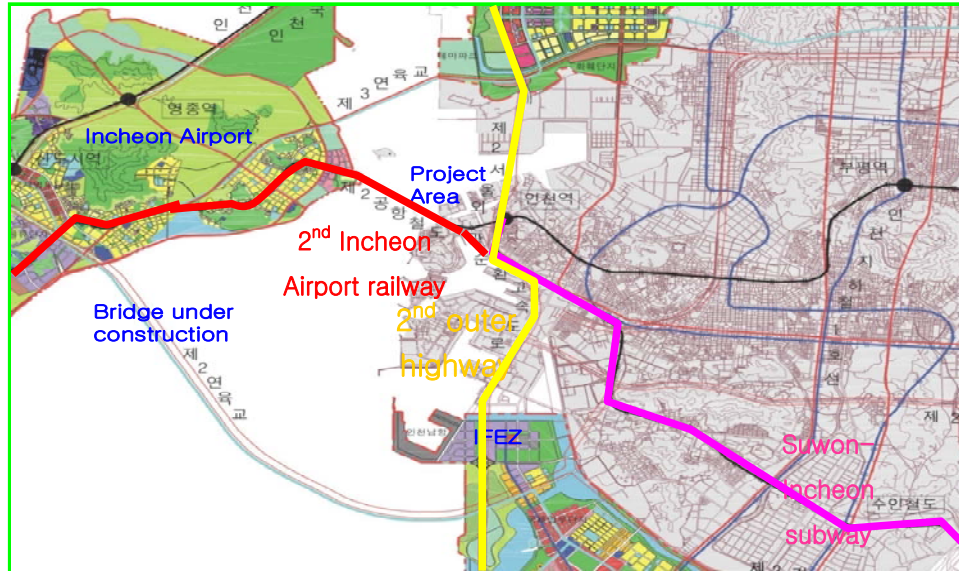
- **The second Incheon airport railway**

The plan will connect Incheon Airport with Incheon Railway Station with a sea bottom tunnel by 2016. The existing Incheon Airport railway encourages only the connection from Incheon Airport to Seoul. However, this plan considers the connection with the southern capital region, and strengthens the connection between downtown Incheon and Incheon Airport.

- **The second capital outer circulation highway**

This highway will connect the northern region of Kyunggi province with the southern region directly by 2020. The highway will pass through downtown Incheon and the north port. The highway will strengthen the connection between downtown Incheon and northern and southern Kyunggi province.

Figure 9. Incheon transportation network map



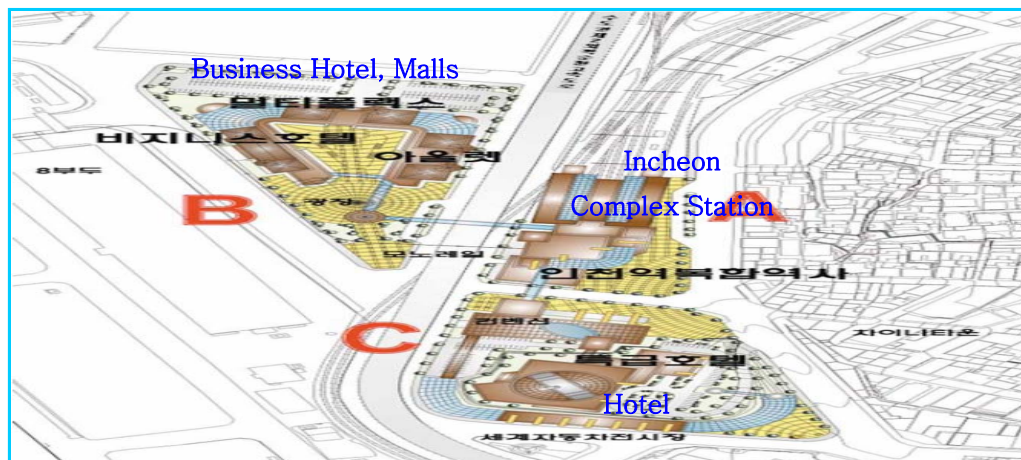
Source: Incheon planning map

4. Incheon Station redevelopment plan

The city of Incheon will undertake the station redevelopment plan to balance the differences between the old town and the new town by 2013 when the Suwon-Incheon railway will be opened. The Incheon Station vicinity has abundant tourism resources such as Chinatown, modern historical architectures, and Wolmi City Park. The plan is to develop Incheon Station as a complex that supports convenient transit and the formation of a commercial belt. The strategies of the redevelopment plan are: redevelop the station as the central land mark connecting Incheon Airport with the capital region; revitalize the Incheon Station vicinity through transit-oriented development; and create attractive cultural exchanges through rebuilding the historical heritage of downtown.

The concept of the plan is to create pedestrian-friendly sidewalks with underground square, and complex redevelopment combining residential, commercial, business, tourism, and consumer functions.

Figure 10. Design of the Incheon Station redevelopment plan



Source: Research of the Incheon station redevelopment plan (IDI, 2003)

IV. Literature Review

1. Introduction

In this chapter, the direction and strategy of urban redevelopment and structural formation of city space are prime concerns in redeveloping the study area. As previously stated, the direction and strategy of redevelopment of this study area will be for tourism. I will include literature about tourism, the entertain machine, and other topics in the U.S in my study as a direction and strategy of urban redevelopment, and Smart Growth as a structural formation of city space.

2. Literature about direction and strategy of urban redevelopment

- **Historic preservation, gentrification, and tourism**

In the United States, historic preservation is frequently associated with gentrification. The term historic preservation implies the maintenance of both the social environment and the physical environment. Gentrification, on the other hand, implies the improvement of the physical environment at the expense of the existing social environment. Historic preservation reflects the social perception that single structures or entire neighborhoods are culturally significant.

The relationship between culture and capital is an important consideration in the redevelopment process. The capital-intensive nature of gentrification often requires “cultural validation” in the form of a historic designation (Zukin, 1987). Historic designation raises property values and displaces less affluent residents. Historic designation may also lead to increased tourism, another form of urban redevelopment.

As a case study, Charleston, South Carolina has become a successful tourist destination for a number of reasons.¹⁰ It has hosted an annual arts festival, Spoleto Festival USA, since 1977. The preservation of both the architecture and the culture of the Old South mean that Charleston offers a unique blend of history and regional culture. Distinctions such as “most polite” and “best mannered” city contribute to this image and reflect the strong service economy that is a necessary element of tourism. In addition, Charleston is situated on the South Carolina coast, a short drive from a number of barrier islands. For those who tire of the historic atmosphere, beaches, golf and tennis resorts are a 30 minute drive away.

Gentrification emerged as a consequence of historic preservation. The expansion of Charleston’s historic district led to gentrification, increased property values and taxes, and increased racial and economic segregation. Recently, economic and political

¹⁰ This section is drawn from the article: “*Historic preservation, gentrification, and tourism: the transformation of Charleston, South Carolina*” written by Regina M. Bures.

support for historic preservation have accelerated the gentrification process and contributed to the growth of tourism as a major industry in the city.

The historic preservation movement in Charleston originated in efforts to preserve the residential character of the downtown peninsula. In 1920, Society played a major role in the formulation of the first historic zoning ordinance in the United States and in shaping population movement in peninsular Charleston in the decades to follow. During the period 1920-1990, the population of Charleston underwent a net decrease of 44%. Much of this decrease was neighborhood-specific. After increasing slightly between 1920 and 1940, the white population of neighborhoods north of Calhoun Street decreased steadily between 1950 and 1980. Blacks moved into the areas left vacant by the declining white population, expanding the already existing Black neighborhoods.

These changes reflect the significant impact of gentrification on the social environment in Charleston. As the preservation movement grew and gentrification became profitable, lower-income homeowners, often Black, were displaced, and the historic neighborhoods became increasingly segregated. The rejection of an historic designation by East Side residents in 1989 was the consequence of this ongoing shift in the racial distribution of Charleston, which had resulted from the historic preservation movement and its legacy of gentrification.

Historic preservation and gentrification can change communities. While the early preservation efforts in Charleston sought to maintain community, the long-term consequence of preservation has been the maintenance of the physical façade of the city and the displacement of the social one. An indirect consequence of the continued success of the historic preservation movement in Charleston is the growth of tourism and the displacement of native families to other sections of the city. This represents one of the contradictions often inherent in preservation. Preservation can appeal to a broader proportion of the population and offer them an opportunity to regain a sense of community identity that is often lost in the process of urbanization.

To fully understand the consequences of urban redevelopment, urban scholars must consider the interdependence between the physical and social environments of a city. Clearly, as preservation and gentrification occur, changes in the physical environment will affect the social environment as well. In Charleston, the establishment of the Old and Historic District has played an important role in shaping both the physical and the social environment within the city.

It is important to remember that urban redevelopment is a social process that evolves over time. Two of the key issues in the urban renewal debate, neighborhood succession and involuntary dislocation, follow from the ecological and political-

economic perspectives. The changing ecology of communities leads to neighborhood succession, while changes in the political economy of an area may result in the dislocation of residents. The case of Charleston illustrates multiple dimensions of the impact of restoration efforts on the social environment, particularly the social and the political contexts of historic preservation. While change is an important part of the urban environment, we need to consider more innovative approaches to maintain the community and social environment while preserving the physical environment. As we learn more about the relationship between maintaining and restoring communities, urban sociologists and planners should seek to balance preservation and redevelopment with the interests of the community.¹¹

I learned some lessons for Incheon from this article. Since the preservation of both the architecture and the culture of an old city can offer a unique blend of history and regional culture, some old buildings including factories in my study area must be preserved and reused as a reminder of the area's history and culture. In addition, redeveloping an area may bring its gentrification together, and as a result, would displace minorities. Planners must consider more innovative approaches to maintain a community and social environment while redeveloping the physical environment.

- **The city as an entertainment machine - consumerism**

Cultural activities are increasingly crucial to urban economic vitality. Loss of heavy industry impacts the dynamics of urban growth, increasing the relative importance of the city both as a space of consumption and as a site for production.¹² Even in a former industrial power like Chicago, the number one industry has become entertainment, which city officials define as including tourism, conventions, restaurants, hotels, and related economic activities (Clark, 2000). New urban growth sectors like information technology and FIRE (Finance, Insurance and Real Estate) change the occupational structure of cities. Workers in the elite sectors of the post-industrial city make "quality of life" demands emphasizing aesthetic concerns.

Clark and Lipset point to the decline of class cleavages in the traditional Marxist sense (1991). One approach is to posit a "new class" of workers, with more education and new political and lifestyle concerns. Typically, this group is called Yuppies. Yuppies presumably share: relative youth, high education, the absence of children, and

¹¹ Regina M. Bures, *Historic preservation, gentrification, and tourism: the transformation of Charleston, South Carolina*, 2001, Critical perspectives on urban redevelopment, Gotham, Kevin Fox edition, Amsterdam; New York, JAI.

¹² This section is drawn from the article: "*The city as an Entertainment Machine*" written by Richard Lloyd and Terry Nichols Clark.

relatively high disposable income. Such individuals are disproportionately employed in growth sectors of the global economy. This new class spurs gentrification which is a key aspect of the Entertainment Machine, creating amenity-rich neighborhoods for affluent urban residence.

Although changes in transportation and communication technology make possible the dispersal of major industries, cities offer distinct cultural advantages that appeal to key members of the post-industrial workforce and resist deconcentration. This motivates firms, particularly in creative enterprises, to retain metropolitan addresses. The growth of the entertainment machine produces large scale, spatially contained, consumption driven developments including alternative art galleries, poetry readings, independent theater and film, and a proliferation of trendy bars and restaurants. These offerings are not themselves highly profitable; however they are linked to gentrification and facilitate other types of economic development. Cultural diversity is an urban amenity, central to cosmopolitan identification even if a given individual uses only a small fraction of the available culture. Size, density and heterogeneity influence the provision for such cultural diversity over competing social environments. Moreover, the cultural diversity of the city attracts human capital with a cosmopolitan amenity profile.

The link between the city and aesthetic innovation is not new. As Harvey points out, cultural modernism has, since the middle of the 19th century, been very much an urban affair phenomenon demonstrates that it existed in restless but intricate relationship with explosive urban growth (Harvey, 1989, p. 25). Elites recognized the importance of culture and spectacle on advancing urban centrality, even during the past periods of industrial growth. But such concerns were not central in past years. The new class of talent workers, employed in an increasingly aestheticized economy, is so much in demand that it can make increased and highly differentiated niche demands on the city's aesthetic dimensions.¹³

Contemporary cities, which are in loss of heavy industry, have become entertainment machines in order to survive and increase the importance of the city both as a space of consumption and as a site for production. Even the derelict spaces of the industrial production economy are selectively re-valORIZED in former industrial powers as sites for consumption, or for knowledge industry production. In San Francisco, for example, loft spaces, whose aesthetic rehabilitation was initiated by artists, are also

¹³ Richard Lloyd and Terry Nichols Clark, *The City as an Entertainment Machine*, 2001, Critical perspectives on urban redevelopment, Gotham, Kevin Fox edition, Amsterdam; New York, JAI.

popular office locations for the technological artistry of Internet site and software producers. In Chicago, warehouse spaces in the old manufacturing zone along the Central Business District's western fringe now house the nightclubs and restaurants of the postindustrial glamour circuit. The mix of industrial grit, high tech, and exotic consumption is a distinctive urban experience of the Entertainment Machine (Simpson, 1981; Zukin 1982).

Redevelopment strategies focus on the new class that pursues cultural diversity and aesthetic urban amenity, and preoccupies itself with exploring new reaches of consumerism and staying abreast of the trends. Globalization encourages an aesthetic cosmopolitanism, impacting consumer demands and motivating the direction of economic strategies toward quality of life and entertainment in large cities. Urban leisure is no passive project; practical political and economic actions produce it, which in turn changes the occupational structure. Consumers must no longer travel vast distances to experience a magnificent diversity of consumption opportunities. For their convenience, flourishing districts of urban entertainment concentrate objects, or at least their facsimiles, from the world over. In a few square blocks of Chicago's Gold Coast, one encounters Thai, Japanese, Mexican, Indian, French, Cajun and Italian cuisine. In the desert creation of Las Vegas, unencumbered by indigenous cuisine or culture, casino entrepreneurs entice tourists with their distinctive versions of Paris, Monte Carlo, New York, and ancient Rome. In this way, residents increasingly act like tourists in their own cities (Lash & Urry, 1994).

I took away some ideas for Incheon from this article. A contemporary city should aim at creating a space for consumption rather than for production. For example, even in a former industrial powerhouse like Chicago, the number one industry has become entertainment, as Clark pointed out. Distinctive urban amenities of the entertainment machine, such as cultural activities, aesthetic innovation, and urban leisure should be supported by a city agency in order to promote urban economic vitality. Furthermore, redevelopment strategies for Incheon should focus on the new class that pursues cultural diversity and aesthetic urban amenity in our global era.

- **The “Disneyfication” of Times Square: Back to the Future**

Many of the issues that are at the core of current theories about the redevelopment of American central cities have also been raised in recent discussions about Times Square, the symbolic heart of New York City. These issues range from the construction of a themed fantasy city that is geared towards pleasure and profit, to the transition from an industrial to a postindustrial service and information economy, to the hegemony of middle class consumerism, globalized cultural tourism, and the

spectacular commodification of cityscapes.¹⁴

Eeckhout demonstrates in particular that the social space of the new Times Square differs from the old one in several aspects: (1) by offering a consumption and entertainment district primarily catering to the middle classes at the expense of the earlier working classes; (2) by being constructed on the basis of fears of largely low income minority groups using the area; (3) by its attraction of a group that was largely missing from the earlier population of visitors: middle class women (and their children); and (4) by virtually disabling the survival of a wide variety of sexual subcultures and practices to which Times Square, for more than three quarters of a century, owed at least part of its fame.

The Times Square Business Improvement District (BID), which was established in 1992 by the 404 property owners in the area, plays an important role in various tasks. These include administering tourist services and sanitation works. To understand the rise of the BID, we should know how the industrial metropolis lost its manufacturing base in the course of the twentieth century and turned into a postindustrial metropolis rooted in consumption more than production. In order to survive, high-profile cities like New York have had to tap into other economic opportunities, principally those offered by a service and information economy. They have come to capitalize on their functions as nerve centers for the worlds of finance, banking, insurance, and real estate; on their aura of cultural producers and art capitals; on the services offered by the restaurant, fashion, entertainment, and media industries; and on their tourism potential. In less than a decade, the area has risen from its position of seedy and sleazy underbelly of the city to the prime symbolic embodiment of this American Fantasy City. From a place no honorable entertainment company or media corporation wanted to be associated with, it has evolved into the number one site for corporate self promotion.

The Disney Company is the major investor and power player behind the transformation of Times Square in the 1990s. the redevelopment of Times Square was launched and steered in the first place by municipal and state authorities in a decision making process that reaches back all the way to the fiscal crisis of the mid-1970s. To this crisis a number of business elites and pro-business politicians responded by focusing on the redevelopment of economically strategic and largely unresidential sites with high symbolic capital. The urban renewal projects began to realize the possibilities of a new, ostensibly more cultural strategy based on historic preservation and the arts. The Times Square area appeared to offer one of the choicest locations for

¹⁴ This section is drawn from the article: *“the “Disneyfication” of Times Square: Back to the Future”* written by Bart Eeckhout

massive office construction that could be sold to the public by linking investments directly to the restoration of a number of historic Broadway theaters and the cultural life that went with them. To be sure, the tangle of organizations that have steered the redevelopment efforts beginning in the late 1970s is complicated, but it does not include the Disney Company. In terms of tourism-boosting and the active management of streets, the area has been in the hands of the local Times Square BID. Then, the Disney Company began adding its own share of private investments to the area. And yet the name of Disney stands out and resounds most strongly among political authorities, non-profit organizations, investment partners, and commercially competing players.

The Disneyfying redevelopment of Times Square is part of a much wider movement that has made changes in the urban fabric by striving to revive the past. Since the beginning of the current redevelopment in the late 1970s, the policy of local developers has been to legitimate their efforts by mobilizing historic images and redefining and repackaging the area's cultural history. The adaptation to modern uses has consistently relied on a simulation of the area's history.

Although the transformation of Times Square during the 1990s has been most eye-catching and spectacularly visible at the material level, the area has also been radically reconfigured as a social space. From a place that uncomfortably mixed heterogeneous, and at times conflicting uses, it has changed to one that comfortably accommodates more homogeneous, less combustible uses. Its target audience by the turn of the millennium was clearly that of fun-loving visitors who have the spending power to satisfy their consumerist desires and to participate in the various types of mainstream entertainment offered by Broadway theaters, high tech games arcades, and national or global chains. Women as well as families with children are welcome, and so are members of all ethnic groups, but they will only be inclined to return and participate in the local life on a regular basis if they are in no immediate financial distress.

This profile corresponds to the patrons of Disney's amusement parks. Disney's parks are obviously still more children and family oriented; they strictly demand consumptive participation; and they attract fewer adult adventurers in search of a modicum of metropolitan excitement. What's more, Disney's parks are considerably more coercive, since as privatized spaces they are able to keep out all unwanted visitors and to prohibit all undesirable types of behavior. And yet, a space like Times Square, in its more complex and more appealing ways, does seem to share at least a tendency with Disney's amusement parks.¹⁵

¹⁵ Bart Eeckhout, *the "Disneyfication" of Times Square: Back to the Future*, 2001, Critical perspectives

I learned some valuable lessons for Incheon from this article. Since the Times Square BID plays an important role in various tasks including administering tourist services and sanitation works, and if the study area aims to promote tourism, then, a non-profit-organization should be established and should administer tourism, sanitation services, and regulations in the area. In addition, just as the Disneyfying redevelopment of Times Square has promoted tourism through various types of mainstream entertainment offered by Broadway theaters, high tech games arcades, and national or global chains, Incheon should strive to invite mainstream entertainment offered by national or global chains into the area as well.

3. Literature about the structural formation of city space

• Planning for Metropolitan Sustainability

Wheeler investigates the origins of the sustainability concept and its meanings when applied to urban development. He asserts that many aspects of sustainable development are best addressed at the metropolitan regional scale. Subjects benefiting particularly from regional coordination include land use, transportation, air quality, water quality, ecosystem protection, affordable housing provision, and social equity.

In the late 1980s and early 1990s, the sustainable development concept entered the mainstream internationally with the publication of the report of the World Commission on Environment and Development (the Brundtland Commission) in 1987 and the United Nations “Earth Summit” in 1991. The tide of international literature on the subject grew rapidly at this time.

He finds that few sustainability advocates focused on cities or patterns of urban development until the early 1990s. However, during the 1990s, “sustainable city” programs began to appear in many parts of the world—some resulting from grassroots activism, some based on municipal initiatives, some supported by national governments, and some facilitated by multilateral entities such as the European Community, the World Bank, and UN agencies.

He asserts that particular objectives of urban sustainability can be seen in compact urban form; preservation of open space and sensitive ecosystems; reduced automobile use; reduced waste and pollution; reuse and recycling of materials; creation of livable and community-oriented human environments; decent, affordable, and appropriately located housing; improved social equity and opportunities for the least advantaged; and development of a restorative local economy.

In my project, I will apply some objectives of sustainability focusing on reduced

automobile use, reuse of materials, and creation of livable and community-oriented human environments.

- **Smart Growth as urban design strategies**

Urban redevelopment is closely related to Smart Growth. Since Smart Growth focuses a larger share of regional growth within central cities, urbanized areas, inner suburbs, and areas that are already served by infrastructure, it will be very useful to apply the theory in redeveloping my study area. According to the American Planning Association, core principles of Smart Growth include: efficient use of land and infrastructure and central city vitality.

Efficient use of land and infrastructure includes high-density development, infill development, redevelopment, and the adaptive re-use of existing buildings, resulting in efficient utilization of land resources and more compact urban areas. Efficient use of public and private infrastructure starts with creating neighborhoods that maximize the use of existing infrastructure. In areas of new growth, roads, sewers, water lines, schools and other infrastructure should be included as part of comprehensive growth and investment strategies. Regional cooperation is required for large infrastructure investments to avoid inefficiency and redundancy. Central city vitality is the idea that every level of government should identify ways to reinvest in existing urban centers, to re-use former industrial sites, to adapt older buildings for new development, and to bring new development to older, low-income and disadvantaged neighborhoods.

While many Americans may have benefited from the effects of rapid suburbanization- large yards, proximity to open spaces, new schools, increased mobility, and the financial appreciation of home values, these benefits have not been universally shared. Professional planners acknowledge that the social, economic, and environmental costs of urban dispersion can be more effectively managed, if not avoided entirely. The U.S is now experiencing a heightened concern over the social, environmental, and fiscal quality of its communities arising from development practices that aggravate the decline of many urban communities and older suburbs, congest streets and highways, accelerate the loss of natural resources and the deterioration of the natural environment, and limit opportunities for the retention and creation of affordable housing. Often these problems are simply and collectively labeled, “sprawl.” In response, the Smart Growth Movement emerged.¹⁶

Many communities embrace specific aspects of Smart Growth, such as urban service boundaries, pedestrian- and transit-oriented development, sprawl control, compact mixed uses, and the protection of agricultural and environmental resources.

¹⁶ American Planning Association Policy Guide on Smart Growth: Chapter2. The Smart Growth Issue, 2002

Lin Ye and others find six major components that make up the smart growth after comparing the definitions and principles of Smart Growth of different organizations such as the U.S. EPA, HUD, USDA, APA, Smart Growth Network, Smart Growth America, Sierra Club, etc. These elements show just how substantial the variation really is between organizations, even when they share an interest in housing, planning, or economic development policies.¹⁷

1) Planning for smart growth encompasses six broad areas: comprehensive growth planning, mixed land use zoning, design and planning for increased residential density, design for street connectivity, innovation in water infrastructure provision, and enhancement of public service facilities, including recreational areas. Comprehensive planning is deemed to be “smart” in light of its utilization of existing infrastructure and its potential contributions to reducing automobile use and energy consumption; its inclusiveness and inherently regional logic and character; and integrating housing, economic development, and transportation elements. It is thus a key element in promoting sufficiently mixed land use, so that “residents provide a market and employees for businesses, and, in turn, businesses provide desired amenities and employment opportunities for residents” (Hirschhorn and Souza 2001, 18). The social and economic interaction of residents and businesses in a neighborhood requires increasing density. Density, in turn, promotes more open space and natural land; offers economies of scale in public transit, schools, and emergency services; and decreases automobile dependency. The design and construction of public infrastructure is also part of the planning process for smart growth, with street connectivity design to avoid dead ends, and integration of new roads within the existing street network. The logic is as follows: “Gated communities, private road systems, and the introduction of disconnected cul-de-sac systems promote disconnections. Proper street connectivity, on the other hand, reduces miles traveled, increases non-motorized trips, and supports transit use” (APA 2002b, III-B-7).

2) “Transportation choice means providing residents with multiple, safe and connected options—driving, rail and bus transit, bicycling, walking—to get from one place to the other”, rather than being automobile dependent (EPA n.d.a, emphasis added). Pursuing this objective involves, “better coordinating between land use and transportation, increasing availability of high quality transit service . . . [and] ensuring connectivity between pedestrian, bike, transit and road facilities” (SGN 2002, 62). The common goal across all smart growth efforts in this dimension is simply the pursuit of reduced reliance on cars and, therefore, fewer miles traveled, lower road budgets, and

¹⁷ This section is drawn from the article: “What is Smart Growth-Really?” written by Lin Ye et al.

less pollution.

3) Economic development, whether as a goal to be promoted or as a process to be managed, is arguably a central concern of planning efforts, smart or otherwise. In the smart growth context, development promotion efforts involve three threads: encouraging neighborhood business, infill development, and downtown redevelopment. Encouraging neighborhood business reflects, first, building communities in which people can live, work, shop and recreate and, second, revitalizing depressed neighborhoods by encouraging new economic activity, thus supporting continued use of available infrastructure. Infill development involves using vacant and abandoned spaces, both for housing and new non local businesses, in order to avoid urban area spatial expansion while promoting economic growth. Downtown redevelopment policies involve efforts to change the status of city centers to destinations and development targets by promoting more housing (often purposefully mixed income), employment, and public amenities as attractions for residents and recreational activities.

4) Housing policies generally encompass offering more options in order to provide households of all income levels with the ability to live in a home that meets their needs. Smart growth housing policies tend to promote alternatives to the postwar standards of the stand-alone single family home in income-segregated areas. The smart growth housing orientation is intended to create “opportunities for communities to slowly increase density without radically changing the landscape” (SGN 2002, 18).

5) Community development as a concern represents an acknowledgment that people remaining in place create locally specific socio cultural values that need to be protected and enhanced in the face of change. Different communities have their own cultural, historical, and economic values. This uniqueness can be supported by efforts to build consensus in each community about how it wants to pursue smart growth. Policies under this category emphasize the specific community characteristics and historical values that will help maintain existing communities and the need for community participation in local planning efforts. The approaches tend to stress identifying diverse resources that different community groups possess and setting up a platform through which a range of organizations can participate in policy making and implementation.

6) Natural resource preservation may be at the heart of smart growth from a purely environmental perspective, with the resources in question covering animal habitat, farms, ranch land, wetlands, and other places of “natural beauty” and “critical environmental value.” Major tools that are being widely used include strict land use and preservation regulations and “the use of market-based mechanisms such as

donated conservation easements, transfer of development rights (TDR), and purchase of development rights (PDR)” (SGN 2002, 44-45). In essence, the Authors suggest main elements of Smart Growth policies in the following table:¹⁸

Figure 11. Main Elements of Smart Growth Policies

Planning	Transportation	Economic Development
Comprehensive planning	Pedestrianization	Neighborhood business
Mixed land uses	Facilities for bicycling	Downtown revitalization
Increased density	Public transit promotion	Infill development
Street connectivity	Systems integration and nodal networks	Using existing infrastructure
Alternative/innovative water infrastructure and systems		
Public facilities planning		
Housing	Community Development	Natural Resource Preservation
Multifamily housing	Popular participation	Farmland preservation
Smaller lots	Recognizing/promoting the unique features of each community	Subdivision conservation
Manufactured homes		Easement conservation
Housing for special needs and diverse households		Transferable development right
		Purchase of development rights
		Historical preservation
		Ecological land preservation

Source: Lin Ye et al, what is Smart Growth-Really? Table2.

I learned some important lessons for Incheon from this article. As previous stated, urban redevelopment has a close relation with Smart Growth, and main elements of Smart Growth are classified six policies: planning, transportation, economic development, housing, community development, and natural resource preservation. My concern is planning, transportation and economic development among them.

Incheon may apply mixed land uses, increased density, and street connectivity as a planning policy, and pedestrianization, facilities for bicycling, public transit promotion as a transportation policy, and neighborhood business, downtown revitalization as an economic development policy.

• **Disentangling the concept of density**

A better understanding of density will result in more effective density-related planning.¹⁹ Density is a term that represents the relationship between a given physical area and the number of people who inhabit or use that area. It is expressed as a ratio of population size or number of dwelling units (the numerator) to area units (the

¹⁸ What Is "Smart Growth?"—Really? Lin Ye, Sumedha Mandpe, and Peter B. Meyer, *Journal of Planning Literature*, 2005; vol. 19: pp. 301 - 315.

¹⁹ This section is drawn from the article: “Disentangling the Concept of Density” Written by Arza Churchman.

denominator). Density is an objective, quantitative, and neutral term. It is neutral in the sense that one cannot know immediately whether a given density level is positive or negative.

The vision of the compact city, embraced by the European community, has had a significant effect in many countries. Its basic principles include the intensification of the use of space within the city through higher residential densities and centralization, mixed land uses, and limits on development beyond the periphery of the city. Proponents of the compact city approach assume that concentrated development will reduce the need to travel by car, thereby reducing vehicle emissions and leading to energy savings (Thomas and Cousins 1996). The approach combines concerns about how urban growth affects the environment and concerns about the future quality of life in urban areas (Breheny 1992a).

Churchman argues that higher density goals that are related to transportation systems are reducing the frequency of use of private vehicles and shortening routes to various land uses (Woodhull 1992), encouraging the use of public transportation by improving the quality of public transit systems and by providing easy access to mass transportation systems through high-density development (New York City Planning Commission 1993; Berridge Lewinberg Greenberg, Ltd. 1991a), and increasing the incidence of walking and cycling (Berridge Lewinberg Greenberg, Ltd. 1991a).

Higher density goals that are related to economic factors includes promoting the critical mass necessary to support local retail and service areas (New York City Planning Commission 1993); attracting businesses, hotels, shopping, and upscale residential development to urban areas (Faludi and van der Valk 1994); improving a city's economic efficiency (Frost and Dingle 1995; Troy 1995b); enabling the construction of low cost, middle density housing (two- and three-story row houses with unenclosed parking and no elevator) in neighborhoods in which this is appropriate (New York City Planning Commission 1993); and enabling the use and extension of necessary urban services in an efficient and economical manner (New York City Planning Commission 1993).

He also asserts that higher density disadvantages that are related to potential transportation systems include the following; traffic congestion (Jenks et al. 1996; Rydin 1992) and an increased number of traffic accidents (Troy 1996); pedestrian congestion and congestion in public transportation facilities if pedestrian and public transportation systems have not been developed to accommodate high densities (Ruback and Pandey 1992; Roberts 1978); high-rise, high-density construction as a major point source of congestion at the street level (Troy 1996).

High density has potential economic disadvantages. Very high-density construction

may be more costly than medium- or low-density construction (Alexander 1993). The operational energy costs of buildings increase for taller high-density construction (Troy 1996). High-rise, high-density buildings frequently cost more to build and maintain (Ewing 1997; Haughton and Hunter 1994). The value of land in the city center may soar as the result of high-density development (Alexander 1993). High density in the city may have a detrimental effect on economic development in surrounding rural regions (Breheny 1992a). Land absorption for high-density projects takes longer than for low-density projects because more units must be sold to absorb each acre of land (Preiser 1992). Higher density development in inner-city areas may require the very costly upgrading of existing infrastructure (Troy 1992).

Woodhull (1992) contends that automobile traffic associated with high density is disliked by most people. He argues that, at present, much is done to make high density living unbearable by, for example, locating high-density developments near freeways or not providing adequate services or green space. Converting a significant portion of the spatial resources consumed by the car to other land uses may increase the positive effects of high density and reduce the negative effects.²⁰

I took away some important lessons for Incheon from this article. Higher density has such advantages as reducing the frequency of use of private vehicles, shortening routes to various land uses, encouraging the use of public transportation, supporting local retails, and attracting businesses, hotels, shopping, etc. However, it has disadvantages like traffic congestion, pedestrian congestion, and congestion in public transportation facilities as Churchman states. Incheon may increase the positive effects of high density locating high density developments away freeways and providing adequate services and green space just as Woodhull argues.

4. Summary

In this chapter, I learned some valuable lessons about the direction and strategy of urban redevelopment and structural formation of city space for Incheon from previous articles. The direction and strategy of urban redevelopment for Incheon is as followings:

- Since the preservation of both the architecture and the culture of an old city can offer a unique blend of history and regional culture, some old buildings including factories in my study area must be preserved and reused as a reminder of the area's history and culture. In addition, redeveloping an area may bring about its gentrification, and as a result, would displace minorities. Planners must consider more innovative

²⁰ Arza Churchman, *Disentangling the Concept of Density*, Journal of Planning Literature 13: 389-411, 1999.

approaches to maintain a community and social environment while redeveloping the physical environment.

- A contemporary city should aim at creating a space for consumption rather than for production. Distinctive urban amenities of the entertainment machine, such as cultural activities, aesthetic innovation, and urban leisure should be supported by a city agency in order to promote urban economic vitality. Furthermore, redevelopment strategies for Incheon should focus on the new class that pursues cultural diversity and aesthetic urban amenity in our global era.

- If the study area aims to promote tourism, then, a non-profit-organization should be established and should administer tourism and sanitation services and regulations in the area. In addition, Incheon should strive to invite mainstream entertainment offered by national or global chains into the area as well.

Structural formation of city space for Incheon is as follows:

- Urban redevelopment has a close relation with Smart Growth, Incheon should apply mixed land use, increased density, and street connectivity as a planning policy, and pedestrianization, facilities for bicycling, public transit promotion as a transportation policy, and neighborhood business, downtown revitalization as an economic development policy.

- Higher density has such advantages as reducing the frequency of use of private vehicles, shortening routes to various land uses, encouraging the use of public transportation, supporting local retails, and attracting businesses, hotels, shopping, etc. However, it has disadvantages like traffic congestion, pedestrian congestion, and congestion in public transportation facilities as Churchman states. Incheon should increase the positive effects of high density locating high density developments away freeways and providing adequate services and green space just as Woodhull argues.

V. San Francisco case study

–The San Francisco Mid Market plan and the Mission Bay project

1. Introduction

As previously stated, it is very important to research the direction and strategy of urban redevelopment and structural formation of city space in redeveloping the study area. The San Francisco Mid Market Plan is very useful in getting information about the direction and strategy of redevelopment in this study. The San Francisco Mission Bay Plan is very helpful to me in design my study area's structural formation of city space. I will include the two plans in my study, because the size and location of the redevelopment area are so similar that they can be applied directly to my study area. For example, the size of the Mission Bay area is 303 Acres, and that of my study area is 351 Acres. Furthermore, the two areas both have bays, ports, and waterways.

2. San Francisco Mid Market project

The project applies redevelopment strategies through some representative projects and programs which describe such categories as Arts, Culture, and Entertainment; Community Identity and the Built Environment; Community Services and Public Safety; Economic and Business Vitality; Housing and Neighborhood; and Transportation and Parking.²¹

- **Revitalization Goals and Objectives**

- 1) Diversity and Social/Economic Equity**

A cohesive central city district that is truly representative of the full range of San Francisco's many communities -- of all cultures, income levels, and backgrounds -- which focus the benefits of economic growth to their needs without causing their displacement. This is the primary and overarching goal of the redevelopment plan and should be addressed with all projects and programs.

- 2) Arts, Culture & Entertainment**

A unique and diverse theater, arts, cultural and entertainment district that celebrates Mid-Market's historic theaters, intermingles new complementary arts and cultural facilities, and caters to the needs of both the local and regional populations.

- 3) Community Identity & Built Environment**

A community with a multitude of possibilities that celebrates its historic past and builds upon its unique qualities through the integration of historic preservation, development controls, public space development, new streetscapes, and other civic/community facilities.

²¹ This section is drawn from the Mid Market Redevelopment Plan designed by the San Francisco Redevelopment Agency in 2005.

4) Community Services and Public Safety

A community that is safe and clean -- and perceived to be safe and clean -- for residents, employees, business owners, and visitors. This effort shall include community services for youth, economically disadvantaged residents, and the homeless population.

5) Economic Vitality

A revitalized commercial business core that attracts the patronage of Mid-Market residents, employees, and visitors through the presence of desirable, and vibrant day and nighttime activities, as well as an attractive, safe, and clean environment.

6) Housing & Neighborhood

A community with a range of housing types which includes opportunities at all economic levels.

7) Transportation and Parking

A community that promotes public transit use, bicycling, walking, carpooling and car sharing by its residents, employees, and visitors; provides short-term parking options for visitors of retail and entertainment establishments, for other desired uses, and for visitors of project area residents; and provides for the safety and convenience of transit passengers, pedestrians, cyclists in the Mid-Market project area.

- **Representative projects and programs**

The followings are representative projects and programs developed in conjunction with the PAC (Project Area Committee) and the greater Mid-Market community to support revitalization and the alleviation of blight in the project area during the development of this Plan.

1) Arts, Culture, and Entertainment

- **Theater/Performing Arts Facilities.** Rehabilitate, restore or adaptively reuse historic theater/performing arts facilities along Market Street complemented by the development of new theater/performing arts facilities throughout the project area, and develop small to mid-scale visual arts and multi-use arts facilities with a special emphasis on community-oriented venues.

- **Jessie Street/Old Mint Public Art Plaza.** Coordinate a design process to explore the closure of Jessie Street and the Old Mint right-of-way in order to develop a pedestrian-oriented thoroughfare and an art-programmed plaza in collaboration with area stakeholders and appropriate city departments.

- **Museum and Cultural Center Development.** Support and encourage the development of museums and cultural centers in the project area. The San Francisco Redevelopment Agency will participate in community coordination, fiscal feasibility and other analyses related to museum and cultural center development.

- **Nighttime Entertainment Development.** Support and encourage the

retention and enhancement of existing nighttime entertainment uses, the adaptive reuse of existing facilities for new nighttime entertainment uses, and the development of new nighttime and entertainment uses, including nightclubs. This includes, but is not limited to, working with project developers to establish vibrant ground floor, basement, and mezzanine level uses that support active nighttime use in Mid-Market.

2) Community Identity and the Built Environment

- **Mid-Market Design Guidelines.** Develop a comprehensive set of urban design guidelines for Mid-Market's streetscapes, open spaces, storefronts, buildings and signage. The guidelines must consider the district's historic resources and set standards for building restoration, rehabilitation, adaptive reuse, and new construction. The guidelines should also encourage the restoration of existing, and the creation of new, marquees.

- **Streetscape Improvements.** Develop and implement streetscape plans in coordination with the Department of Public Works and community stakeholders taking into consideration issues of public safety. Streetscape improvements for Market Street, Mission Street and major cross streets are a priority. Streetscape plans should include infill tree planting on Mission Street and major cross streets, and include the re-installation of tree uplighting along Market Street.

- **Old Mint Reuse and Revitalization.** The Old Mint stands out as an important building in the urban fabric of Mid-Market. The San Francisco Museum and Historical Society is leading reuse and revitalization opportunities for this property. The Agency will coordinate with and support the revitalization effort.

- **Building Lighting Program.** Develop a building lighting program aimed at lighting historic façades in coordination with the Department of Public Works and property owners. Encourage owners of historic buildings to uplight their buildings through government incentives such as low interest loans.

3) Community Services and Public Safety

- **Office Space for Non-Profit Organizations.** Develop or rehabilitate at least 130,000 square feet of long-term, affordable, nonprofit office space in and around the Mid-Market Redevelopment Project Area.

- **Pedestrian Street Lighting on Key Pedestrian Streets and Alleys.** Coordinate with appropriate City departments to install and/or supplement pedestrian street lighting on key pedestrian arterials such as Mission Street, major cross streets and on smaller side streets and alleys.

- **Street/Sidewalk Cleaning/Maintenance.** Assess existing street and sidewalk cleaning, maintenance, repair, and graffiti removal efforts in coordination with the Department of Public Works with the aim of developing an ongoing long-term

maintenance strategy. Develop a long-term strategy that does not rely on tax-increment funding and extends past the life of the Plan. Public/private partnerships should be actively considered. Encourage existing owners of property, and require new owners and owners who renovate properties, to include the installation of hose bibs near or at street façade.

4) Economic & Business Vitality

- **Arts, Culture and Entertainment Development.** Develop and encourage theater, arts, cultural and entertainment uses and their associated complementary uses through development incentives associated with the Mid-Market Special Use District, the Mid-Market Business Assistance Program and close coordination with project developers.

- **Façade Improvement Program.** Develop a Façade Improvement Program that enables property and business owners to secure matching funds and technical support to improve façades, storefronts, and signage in accordance with Mid-Market Design Guidelines.

- **Community Benefits Program.** Encourage local hiring programs in conjunction with all major development initiatives. Seek retention and recruitment of businesses willing and able to commit resources towards the development of local hiring programs. Establish partnerships between area employers and community serving employment organizations.

5) Housing and Neighborhood

- **Market-Rate, Low-Income, Moderate-Income, and Mixed-Income Housing Development Incentives.** Encourage market-rate, low-income, moderate-income, and mixed-income housing developments through the utilization of development incentives associated with the Mid-Market SUD.

- **Supportive/Transitional Housing Program.** Develop supportive and transitional housing facilities that co-locate housing with needed support services. Co-location includes service provision on-site and in the direct vicinity of the housing site.

6) Transportation and Parking

- **Transportation Demand Management (“TDM”) Program.** Develop a comprehensive TDM program to maximize efficient use of existing facilities, including on-street parking, parking accessory to non-residential daytime uses, and existing public and private short-term parking facilities, with the goal of expanding availability of short-term parking as the district grows. Solutions to consider include shuttle programs, valet parking from garages with door service at cultural venues, carpooling, charter bus services, marketing of transit services, transit use incentives, and others.

- **Way finding Signage Program.** Participate in public planning efforts to

develop a way finding signage program to direct visitors of the area, as Mid-Market represents the confluence point between Civic Center, Tenderloin, South of Market, Yerba Buena Center, and the Union Square Commercial Retail District.

- **Transit Service and Routing Improvements.** Participate in public planning efforts with the city's transportation, parking and traffic agencies to provide for needed transit services and transit routing improvements on an ongoing basis. Supportive services and programs that promote increased public transit use, such as car-sharing, shuttles, and carpooling should also be encouraged.

- **Bicycle Lanes for Major Thoroughfares.** Facilitate community input toward the implementation of needed bicycle lanes in the project area. All efforts will be accomplished through coordination with the city's transportation, parking and traffic agencies.

- **Pedestrian Safety Improvements.** Implement pedestrian safety improvements in coordination with appropriate city departments, including encouraging direct pedestrian pathways at intersections, installing countdown crosswalk lights and dedicated right-turn only lights for automobiles on Market Street, clearly demarcating crosswalks through better painting, and expanding islands to make street crossing safer. A special emphasis should be placed on Market Street, Mission Street and major cross streets.

- **Lessons for Incheon**

I learned valuable lessons for Incheon from the San Francisco Mid Market Plan. The plan suggested the direction and strategy of redevelopment which Incheon may apply, through its Representative projects and programs of the Mid Market Plan.

Incheon should encourage the development of museums and cultural centers, the adaptive reuse of existing facilities for new nighttime entertainment uses, and the development of new nighttime and entertainment uses, including nightclubs, just as the Mid Market Plan suggested through its arts, culture, and entertainment program.

Incheon should improve its streetscape, create reuses for old buildings, and improve its building lighting program just as the Mid Market Plan suggests through its community identity and built environment program. Streetscape plans should include infill tree planting on streets and major intersections, and include the re-installation of tree uplighting along these streets. Some old factories stand out as important buildings in my study area. Incheon should provide reuse and revitalization opportunities for these properties. A building lighting program aims at lighting historic façades in coordination with property owners. Incheon should encourage owners of historic buildings to uplight their buildings through government incentives such as low interest loans.

Incheon should adopt façade improvement and community benefits programs just as the Mid Market Plan suggests through its economic and business vitality program. A façade improvement program enables property and business owners to secure matching funds and technical support to improve façades, storefronts, and signage. Community benefits programs encourage local hiring in conjunction with all major development initiatives. Incheon should seek retention and recruitment of businesses willing and able to commit resources towards the development of local hiring programs, and establish partnerships between area employers and community serving employment organizations.

Incheon should also create a way-finding signage program, as well as bicycle lanes for major thoroughfares, as suggested by the Mid Market transportation and parking project. The city should develop a way-finding signage program to direct visitors, and facilitate community input toward the implementation of needed bicycle lanes in the study area.

3. San Francisco Mission Bay project

This project can imply structural formation of city space in redeveloping my study area.²² Mission Bay is over 300 acres bounded by I-280 to the East San Francisco Bay, the Caltrain tracks and station to the north, and Mariposa Street. It *was* an actual bay, and when Mission Dolores was dedicated in the late 1700s, you could have canoed between them. Little by little, it was filled in to become wharves and railroad yards. After World War II, the flight of jobs and housing to the suburbs, the movement of industry to cheaper locations, and the replacement of train traffic by truck and air left San Francisco, like virtually every other North American city, with underutilized railyards. The neighborhood now known as Mission Bay, is built on flat and possibly toxic fill of unknown quality, and is surrounded by disused piers and other neighborhoods whose industries dead or dying.

The Mission Bay Plan calls for 6,000 new homes, 28 percent of them made affordable through subsidies generated by the project; over 50 acres of parks; 6 million square feet of flexibly zoned commercial space; and a 43-acre University of California San Francisco campus, the overall land use plan and building sites currently completed or under construction.

Adoption of the Mission Bay Plan in 1998 was the beginning of a projected 30-year build out, with the rate of development to be determined by market demand. Parks and other public improvements (such as transit links, police and fire station, and a public

²² This section is drawn from the Mission Bay South/North project designed by the San Francisco Redevelopment Agency in 2004.

school) are to be triggered by the rate of development. Progress has been extraordinary. The neighborhood north of the channel and the new campus are well underway, with more growth planned for the next few years. Site preparation began on the first non-campus housing development south of Mission Creek last year.²³

- **Land Use Plan**

The Mission Bay Land Use Plan is mainly concerned with open space, hotel, and university, residential, commercial, and industrial areas. The characteristics of the plan include: open space along the bay, residential and commercial areas adjacent to the water; and UCSF in the middle of the area.

Figure 12. Mission Bay Land Use Plan



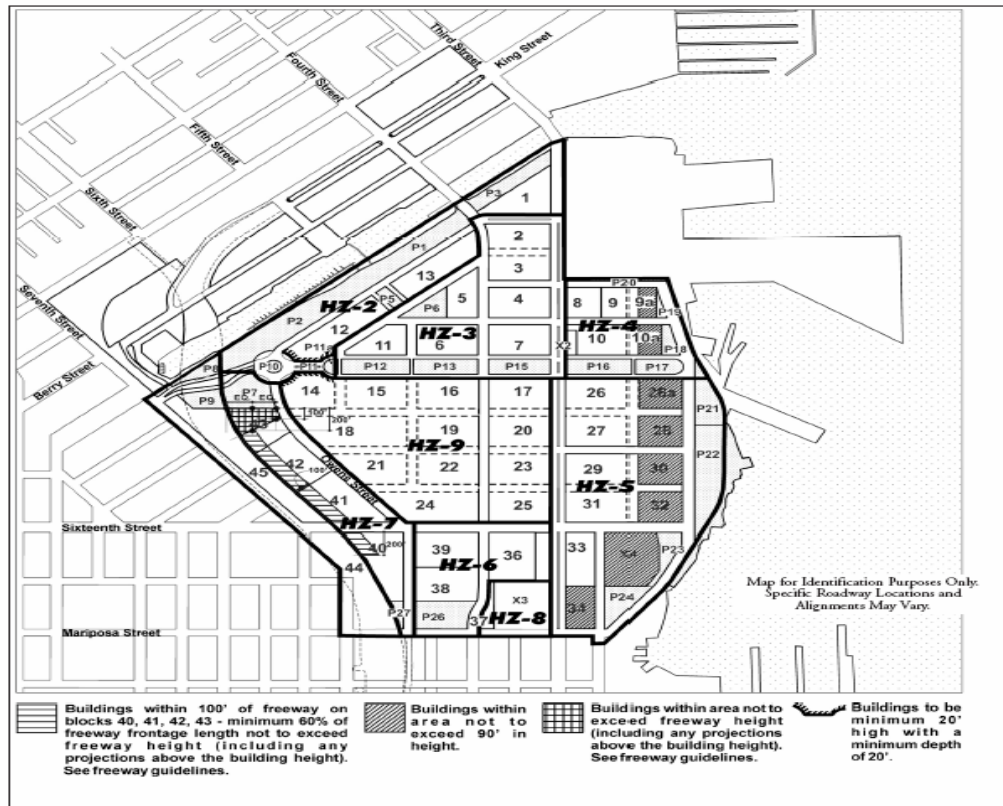
Source: Design for Development for the Mission Bay South Project Area, 2004.

- **Height Plan**

For the purposes of establishing height limits within the plan area, height zones are established as generally illustrated on the following height zone chart. The purpose of the height plan is to limit building height close to the coast, bay, and highway.

²³ David Prowler, *From Railyard to Neighborhood: The Rise of Mission Bay*, San Francisco Planning + Urban Research Association, 2005.

Figure 13. Mission Bay Height Plan



Map 4

Source: Design for Development for the Mission Bay South Project Area, 2004.

• Open Space Guidelines

The Mission Bay south open space program creates a linked system of parks, plazas, and play areas providing a variety of public amenities and spaces for passive and active recreation which are appropriate in their location and respond to adjacent uses.

The system is reinforced by its visual and physical connections to features and activities within Mission Bay south, ties into the minimum 8 acres of publicly accessible open space provided by UCSF within its campus, and integrates into the city-wide distribution of public open space both existing and proposed. Existing and proposed bicycle and pedestrian pathways connect the Mission Bay south open space and street system with adjacent uses, surrounding neighborhoods, and the city-wide network of bicycle and pedestrian routes.

- Mission Creek Park - South Channel:

Develop the south side of the channel, consistent with regulatory requirements, as a primarily green space with pedestrian pathways, children's play area, gardens, and water-oriented viewing and seating areas.

- **Owens Field:**

Develop Owens Field to accommodate a variety of zones for active recreation such as a softball field, and in areas under the freeway, compatible recreation such as skateboarding, rollerblading and basketball.

Figure 14. Owens Field



Source: Design for Development for the Mission Bay South Project Area, 2004.

- **Triangle Square:**

Develop Triangle Square as a symbolic center for the community, where a central green space accommodates flexibility in programming and use, including uses for children and families that invite daily and active use.

Figure 15. Triangle Square



Source: Design for Development for the Mission Bay South Project Area, 2004.

- **Mission Bay Commons**

Design the Commons as a focal point of activity similar to South Park and as a meeting ground between UCSF and Mission Bay neighborhoods.

Figure 16. Mission Bay Commons



Source: Design for Development for the Mission Bay South Project Area, 2004.

- **Bayfront Park**

Develop the park along the Bayfront, both within and adjacent to the project area, with a character predominantly defined by water-oriented activities and open flexible-use lawn areas which can accommodate a variety of passive, active and major recreation uses, such as soccer or other field related sports or informal performance areas.

Figure 17. Bayfront Park



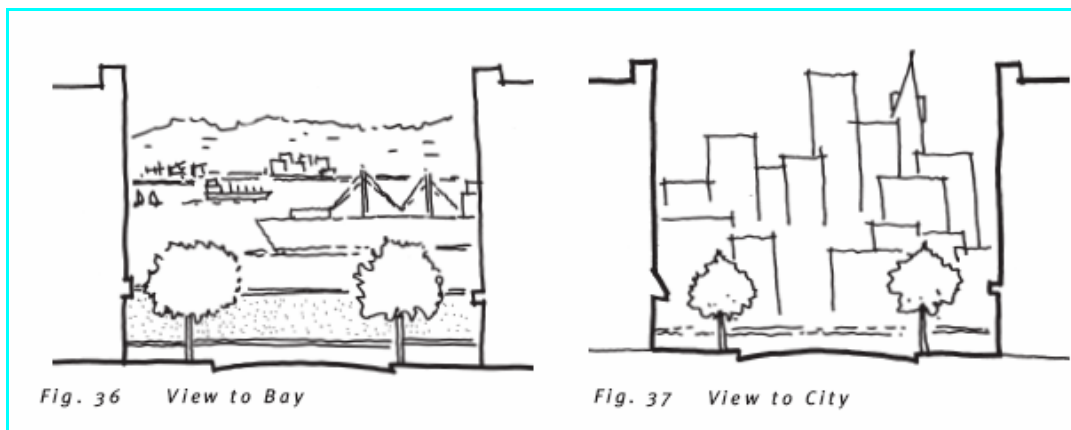
Source: Design for Development for the Mission Bay South Project Area, 2004.

- **Commercial Guidelines**

Commercial guidelines refer to uses such as office, research and development, light industrial, general commercial and retail uses in commercial areas. It is anticipated that these commercial uses will contribute to the mixed-use vibrancy of the Mission Bay community. The guidelines encourage an active and visually interesting pedestrian environment and building placement and character that will give the commercial areas a distinctive identity and one that will complement the overall visual perception of the Mission Bay.

View corridors are defined by the Mission Bay street grid. No building, or portion thereof, shall block a view corridor established by that grid of streets and dedicated right-of-ways. The view corridors serve primarily to retain views to the Bay, the Channel, and the downtown skyline, and to reinforce visual linkages between the UCSF campus and surrounding development.

Figure 18. View corridors



Source: Design for Development for the Mission Bay South Project Area, 2004.

The project encourages the development of publicly-accessible open spaces at ground level. Where feasible, design these open spaces in relation to local serving retail such as cafes and to the public open space network.

Walkways are encouraged to enhance the pedestrian experience in the Commercial Industrial area.

Commercial areas in San Francisco are noted for streets with buildings at the property line where there is little or no space between buildings. This historical pattern of development gives San Francisco its intense urban quality and should be a model for Mission Bay development. Commercial Industrial buildings should be continuous at the property line on streets, except for occasional breaks in the streetwall.

Recognizing that Mission Bay building roofs may be visible from higher surrounding locations, they should be designed consistent with the distinctive

architecture of the building.

To mitigate the scale of development and create a pedestrian friendly environment, building massing should be modulated and articulated to create interest and visual variety. A selection of architectural details and devices such as vertical and horizontal recesses and projections, changes in height, floor levels, roof forms, parapets, cornice treatments, window forms, and location of garage entries, as appropriate to each site can create shadows and texture and add to the character of a building.

- **Residential Guidelines**

The Mission Bay South Residential District, located in the northern portion of the plan area, is a mix of market-rate and affordable family units and neighborhood retail, forming a tightly knit urban community in the heart of an emerging, vibrant mixed use district of San Francisco.

Situated along major access routes and bordered by UCSF to the south and the channel to the north, the district combines the excitement of living in a bustling city with the potential for respite through orientation towards the channel, neighborhood parks, the bay front, and lively mid-block open spaces.

It is envisioned as a district of walkable streets with a network of private and public open spaces. It is a district that is built to the street edge with a lively pedestrian-friendly ground level of residential entries, neighborhood stores, and well designed sidewalks. It is a district of buildings that are sensitively scaled and that accommodate variations in design features and materials, providing interest and character in a way that is reminiscent of the best architecture of San Francisco.

- **Pedestrian Scale**

At the ground level, the design and scale of building facades and sidewalks should enhance the pedestrian experience by being visually interesting, active, and comfortable. Neighborhood-serving retail, where feasible, is encouraged on the ground floor of residential buildings.

Figure 19. Residential and Retail at Street Level



Source: Design for Development for the Mission Bay South Project Area, 2004.

- Skyline Character

Skyline character is a significant component of the overall urban composition of San Francisco, and the guidelines encourage developments that will complement the existing city pattern and result in a new, attractive viewing element as seen from nearby vantage points.

• Retail and Mixed Use Guidelines

Retail/mixed-use guidelines refer to the range of retail and mixed-use development that is anticipated throughout the plan area development. Much like other neighborhoods in San Francisco, the plan area will have a wide variety of retail services for its residents, workers, and visitors, including shops that serve the needs of residents, stores that attract residents from throughout the city, and retail/entertainment facilities that are regional destinations. The goal of the guidelines is to guide the design and successful integration of entertainment, city-serving facilities, and neighborhood retail with a vibrant residential neighborhood, and act as an important new retail destination in the city.

- Neighborhood Retail Locations

Neighborhood retail uses are permitted throughout the Mission Bay South area, and are encouraged near major intersections, open spaces, and at transit stops.

Figure 20. Neighborhood Retail Sidewalks



Source: Design for Development for the Mission Bay South Project Area, 2004.

- Facades

Neighborhood retail facades should be compatible with the proportions and design features of the residential and commercial facades and the facades of adjacent buildings.

• Street Guidelines

The design of the streetscape is an essential element that will determine the public character and pedestrian quality of the Mission Bay neighborhood. Streetscapes should be designed to create an attractive and pleasant walking environment, minimize pedestrian obstructions, promote pedestrian safety, unify sidewalk details, and establish a neighborhood commercial street with consistent pedestrian-scale retail frontages and

wider sidewalks where feasible. The street should be designed with bicycle and pedestrian connections through out the area, including to UCSF. Street trees should be planted at consistent intervals and with adequate spacing that responsibly address the issues of site context including, but not limited to, the dimensions of the roadway and parking lanes, the width of the sidewalk, and the heights of adjacent buildings.

- **Lessons for Incheon**

I learned valuable lessons for Incheon from the San Francisco Mission Bay Project. The project is different from my study area in focusing affordable housing, office, UCSF research campus, but it implies structural formation of city space, and Incheon may adopt it into its redevelopment project.

The Mission Bay Land Use Plan is mainly concerned with open space, hotel, and university, residential, commercial, and industrial areas. Incheon could adopt many characteristics of this plan, such as open space along the bay, and residential and commercial areas adjacent to the water.

Height zones should be established for the purposes of limiting building height within the plan area. Incheon should have a height plan in order to limit the height of buildings that are close to the coast, bay, and highway.

Open Space Guidelines of the project are very useful to design my study area. First of all, open space must be created as a linked system of parks, plazas, and play areas. The purpose of open space varies according to its location. Each side of the channel can be developed as a primarily green space with pedestrian pathways, gardens, and water-oriented viewing and seating areas. Areas under the highway should be developed for a variety of recreational activities such as skateboarding, rollerblading, and basketball. Open space adjacent to residential areas can accommodate flexibility in programming and use, including uses that invite daily and active use by children and families. Incheon should design a central park as a focal point of activity and a meeting place for the neighborhood. The park should be developed along the waterfront with a character predominantly defined by water-oriented activities and open flexible-use lawn areas which can accommodate a variety of passive, active, and major recreational uses, such as field related sports or informal performance areas.

Commercial areas will be encouraged to maintain view corridors, open space, walkways, and a continuous property line. The view corridors serve primarily to facilitate views of the bay, the channel, and the downtown skyline. The city should encourage the development of publicly-accessible open spaces at ground level. Where feasible, these open spaces should be designed in relation to local retail businesses such as cafes and to the public open space network. Walkways are encouraged to enhance the pedestrian experience in the commercial area. Commercial buildings

should be continuous with property lines on streets, except for occasional breaks in the streetwall.

Residential areas will be encouraged to become districts of walkable streets with a network of private and public open spaces. These will be districts that are built to the street edge with a lively pedestrian-friendly ground level of residential entries, neighborhood stores, and well designed sidewalks. The districts will be comprised of buildings that are sensitively scaled and that accommodate variations in design features and materials.

Neighborhood retail centers are encouraged near major intersections, open spaces, and at transit stops. Their façades should be compatible with the proportions and design features of residential and commercial façades and the façades of adjacent buildings.

Incheon should support and encourage streetscapes designed to create an attractive and pleasant walking environment, minimize pedestrian obstructions, and promote pedestrian safety and wider sidewalks where feasible. The streets should be designed with bicycle and pedestrian connections throughout an area. Street-lining trees should be planted at consistent intervals and with adequate spacing.

4. Summary

In this chapter, I learned some valuable lessons about the direction and strategy of urban redevelopment and structural formation of city space for Incheon from previous case studies.

Incheon should support and encourage the development of museums and cultural centers, the adaptive reuse of existing facilities for new nighttime entertainment uses; improve Streetscape, old buildings reuse, and building lighting; adopt façade improvement and community benefits programs for its economic and business vitality; and accept a way-finding signage program, and bicycle lanes for major thoroughfares.

The city should apply such a land use plan as open space along the bay; residential and commercial areas adjacent to the water; design a height plan to limit the height of buildings that are close to the coast, bay, and highway. Open space must be created as a linked system of parks, plazas, and play areas. Commercial areas will be encouraged to maintain view corridors, open space, walkways, and a continuous property line. Residential areas will be encouraged to become districts of walkable streets with a network of private and public open spaces, and neighborhood retail centers are encouraged near major intersections, open spaces, and at transit stops. The streets should be designed with bicycle and pedestrian connections throughout an area, and street-lining trees should be planted at consistent intervals and with adequate spacing.

VI. The spatial concepts of the Incheon port vicinities

1. Introduction

The Incheon port vicinities have had increasing opportunities for redevelopment since the creation of the IFEZ, which surrounds the area, and some redevelopment is currently underway: the function of the inner port can be relocated to other place, resulting in the inner port becoming a clean port; and improvements have been made to the transportation system, such as a subway from Incheon to Suwon, the second airport railway plan connecting Incheon Airport and Incheon Railway Station, and the second capital outer circulation highway, which will deliver convenience of transit to the area.

The purpose of the redevelopment of this area is so that Incheon can revitalize its downtown and develop its waterfront as an open space for its citizen.

In this chapter, I will first and foremost establish an urban function fitting for this area, and study what industries will be invited in order to develop the economy of the area. My interview with Incheon city planners and a developer will be helpful in studying the above mentioned topics. After that, I will design the direction and strategy of urban redevelopment, structural formation of city space, and spatial concepts of the area considering the literature review, San Francisco case study, and the result of my interview.

2. Interview with Incheon city planners and a developer

This Interview was conducted with local city planners and a developer in Incheon over the course of one week in April 2007 about the spatial concepts of the downtown redevelopment area.

Questions from the interview on urban redevelopment are as listed below:

- What urban functions do you think would be desirable for the study area to keep during and after its redevelopment?
E.g: residential, business, commercial, culture, leisure, tourism, etc.
- Which structures will you stress the improvement of if you redevelop the site?
E.g: open space, waterfront, water park, cultural facilities, tourism facilities (tourism, lodging, shopping), residential units, parking lots, etc.
- What do you think will be a desirable density for the whole study area?
E.g: low, high, skyscraper, etc.
- What industries will be introduced in the area in order to develop its economy?
E.g: tourism, logistics, IT industry, media culture industry, etc.

- What will be the best way to improve urban amenities?
E.g: skyline, street, waterfront, building design, etc.

- What is your own spatial concepts suggestion for the study area?

Respondents of the interview are 3 local city planners and a developer involved with the Incheon Urban Development Corporation. I think that their opinions can be representative of Incheon policy towards my project.

The result of the interview will be reflected later in this chapter, but general opinions of the respondents are listed below:

- What urban functions do you think would be desirable for the study area to keep during and after its redevelopment?
 - Tourism related to the Walmi tourism special district.
- Which structures will you stress the improvement of if you redevelop the site?
 - Open space and waterfront.
- What do you think will be a desirable density for the whole study area?
 - A combination of low and high density, with low density in commercial areas.
- What industries will be invited in the area in order to develop its economy?
 - Tourism.
- What will be the best way to improve urban amenities?
 - Skyline and waterfront.

3. Target of the project

- **Main urban function**

Tourism related to the Walmi tourism special district will be the main urban function of the study area. As previously stated, The South Korean government designated the coastal eastern region south of the study area as a tourism special district in 2001. The region is very convenient for foreigners to visit through Incheon International Port and Airport. Incheon Port is the harbor that opened in the 19th century when Korea began modernizing. Western civilizations came into the region through Incheon Port at the end of the 19th century, resulting in various cultural heritages that have become fixed in the Incheon area. Chinese, Russian, and German buildings are preserved in the region. Besides these, there are many tourism resources such as waterfronts, the Walmi Park, fish market, and the China town. Therefore, the study area including the Walmi tourism special district can be developed as a tourism belt along the coast of Incheon port.

The result of the interview suggests that tourism will be the main urban function of the area. Jongseung Lee, a director of planning for the city of Incheon, suggests that the study area should become a recreational space for citizens since it has a waterfront along the bay, and it should promote a commercial function for the area. Jongwon Lee, a director of urban redevelopment for the city of Incheon, asserts that it is desirable to promote water-oriented tourism, including commercial spaces and lodging, and cultural functions, enabling tourists to enjoy the waterfront. Duyong Jung, a director of urban design for the city of Incheon, suggests that the area should be converted from its port-related function to one for leisure and tourism, considering the area's location close to water and a current decline in a port activity. Seungchan Hong, a director of urban development for the Incheon Urban Development Corporation, asserts that the main function of the area should become tourism in order to revitalize the local economy, and that the area should be developed with connections to the Walmi tourism special district, Chinatown, and Incheon Station.

- **Main industry**

Tourism will be the main industry of the study area, because tourism related to the Walmi tourism special district will become a main urban function for the study area. The results of the interview also suggest that tourism will be the main industry of the area. Jongseung Lee suggests that the industry of the study area should focus on water-friendly tourism, because Incheon has little waterfront space despite the long bay in its boundary. Jongwon Lee asserts that it is desirable to promote tourism as the main industry targeting visitors to the IFEZ and tourists from China, because the study area is very close to the IFEZ, Incheon Port, and Incheon Airport. He also suggests focusing on culture-related industry. Duyong Jung suggests that the main industry of the area should be tourism in order to revitalize the local economy and to create more jobs for residents in the area. Seungchan Hong also asserts that the main industry should be tourism. Recently, Incheon had a plan to revitalize Incheon Station, but the plan was limited by residential and commercial development. He contends that tourism in the study area will be very helpful in revitalizing Incheon Station, as well as the study area.

Cultural industry like video technology, in association with tourism, can become an important industry of the area. The city of Incheon is changing into a global informational and technological city. As previously stated, Incheon takes charge of innovations in software industries. The number of IT companies in Incheon is 1,021, the third most in South Korea. The boom of the Ubiquitous-City is very popular in Incheon, which creates the conditions for an optimum U-City through the creation of Songdo, IFEZ. A survey which was conducted by Incheon in 2006 shows that 75% of the respondents think that deficiency of cultural facilities is the cause of downtown

impoverishment.²⁴ Jinbum Shim asserts that cultural facilities should be expanded around the Walmi tourism special district. He conducted a survey on tourist's perceptions of cultural facilities in 2002. The survey shows that 46.4% of the respondents think that there are no cultural facilities at all, while only 7.1% of the respondents think that there even are cultural facilities.²⁵ In this way, cultural facilities should be largely expanded in downtown Incheon. I suggest that encouraging cultural industries in association with tourism will be a solution to the problem, one way to do this is by establishing high tech game arcades, and allowing fun-loving visitors participate in various types of mainstream entertainment.

- **Projected population**

There are some residential and commercial facilities near Incheon Station. The population of the area is 9,466, with 3,442 households. The projected population will be similar to that of the present by the time of complete redevelopment, because residential areas must be kept to a minimum. Most of the area is occupied by industrial factories. If we implement this project, great expenditures may be needed in order to move the factories to other industrial parks. Therefore, more commercial areas will be planned in order to manage the funds for moving factories, as well as to revitalize the local economy.

Becoming a city geared towards entertainment, it must be accompanied by a new class including mostly young people, as Clark and Lipset pointed out. The population of the area is aging at present, so housing needs created by the influx of a new class may be naturally offset by transfer of housing.

According to the Mission Bay North and South Redevelopment Project, the projected number of housing units is 6,000. Considering the similarities between the two areas, the amenities of the study area are much better than those in Mission Bay, because the projected population of the study area is half that of Mission Bay.

- **Focal structure**

Focal structure of the study area will be open space and waterfront areas along the bay and waterways in the middle of the area.

The results of the interview also suggest that open space and waterfront areas will be the main structure of the area. Jongseung Lee suggests that open space is indispensable for the area, and it focuses on promoting walkability and convenience for pedestrians. Jongwon Lee asserts that it is desirable to connect green parks and waterfront network from the study area with the Walmi tourism special district.

²⁴ The City of Incheon, 2020 Incheon city plan, 2006, p.323.

²⁵ Jinbum Shim, *Tourist's Satisfaction raise plan for the Wolmi tourism special district*, Incheon Development Institute, 2002, pp. 137-142.

Duyong Jung suggests that it is desirable to design waterfront areas along the bay, and open space for cultural activities. Seungchan Hong asserts that the main structure will be waterfront, since existing waterways in the middle of the area can be used as such, and two wharfs close to the area will also be used as tourist attractions, just like Pier 39 in San Francisco.

- **Density**

The density of the area will be a combination of low and high density, especially low density in commercial areas.

The results of the interview suggest that the density of the area will be relatively low. Jongseung Lee suggests that the area should be developed mainly as an area with commercial buildings and low density, with some minimal low density residential, so it does not become hollow at night. Jongwon Lee asserts that it is desirable to have a combination of low and high density, considering the skyline and view of the city from the sea. For example, coastal areas will have low density, and the other areas far from the water will have high density; seen from the sea, either side of the area will have low density, central area will have high density. Duyong Jung also suggests that it is desirable to have lower density in areas close to coast. Seungchan Hong asserts that the area should be developed mainly for commercial buildings with low.

I suggest that Incheon should have a height plan to limit the height of buildings that are close to the coast, bay and highway.

4. Direction and strategy of the project

- **Historic preservation**

Since the preservation of both the architecture and the culture of an older city can offer a unique blend of history and regional culture, some old buildings including factories in my study area must be preserved and reused as a reminder of the area's culture and history. Incheon should support and encourage the development of museums and cultural centers, the adaptive reuse of existing facilities for new nighttime entertainment uses, and the development of new nighttime and entertainment uses, including nightclubs, just as the Mid Market Plan in San Francisco suggested through its arts, culture, and entertainment program.

In addition, redeveloping an area may bring about gentrification, and as a result, would displace minorities. Planners must consider more innovative approaches to maintaining a community and social environment while redeveloping the physical environment.

- **Enhance consumerism**

A contemporary city should aim at creating a space for consumption rather than for

production. For example, even in a former industrial powerhouse like Chicago, the number one industry has become entertainment, as Clark points out. Distinctive urban amenities of the entertainment machine, such as cultural activities, aesthetic innovation, and urban leisure, should be supported by a city agency in order to promote urban economic vitality. Furthermore, redevelopment strategies for Incheon should focus on the new class that pursues cultural diversity and aesthetic urban amenities in our global era.

In addition, Just as the Disneyfying redevelopment of Times Square has promoted tourism through various types of mainstream entertainment offered by Broadway theaters, high tech games arcades, and national or global chains, Incheon should strive to invite mainstream entertainment including high tech games offered by national or global chains into the area as well.

- **Establish an organization for administering tourists**

The study area aims to promote tourism, therefore, a non-profit-organization should be established and should administer tourist and sanitation services and regulations in the area, just as the Times Square BID does.

A tourist center housing this organization may be built at the center of the area not only to administer tourism, but also to provide information for tourists.

- **Improve streetscape plans**

Incheon should improve its streetscape, create uses for old buildings, and improve its building lighting program just as the Mid Market Plan suggests through its community identity and built environment program. Streetscape plans should include infill tree planting on streets and major intersections, and include the re-installation of tree uplighting along these streets. Some old factories stand out as important buildings in my study area. Incheon should provide reuse and revitalization opportunities for these properties. A building lighting program aims at lighting historic façades in coordination with property owners. Incheon should encourage owners of historic buildings to uplight their buildings through government incentives such as low interest loans.

- **Improve façade and community benefits programs**

Incheon should adopt façade improvement and community benefits programs just as the Mid Market Plan suggests through its economic and business vitality program. A façade improvement program enables property and business owners to secure matching funds and technical support to improve façades, storefronts, and signage. Community benefits programs encourage local hiring in conjunction with all major development initiatives. Incheon should seek retention and recruitment of businesses willing and able to commit resources towards the development of local hiring programs, and

establish partnerships between area employers and community serving employment organizations.

- **Improve the way-finding signage program**

Incheon should also create a way-finding signage program, as well as bicycle lanes for major thoroughfares, as suggested by the Mid Market transportation and parking project. Incheon should develop a way-finding signage program to direct visitors, and facilitate community input toward the implementation of needed bicycle lanes in the study area.

5. Structural formation of the project

- **Smart Growth**

In my project, I will apply some objectives of urban sustainability which Wheeler asserts can be seen in compact urban form, focusing on reduced automobile use, reuse of materials, and creation of livable and community-oriented human environments.

Urban redevelopment has a close relationship with Smart Growth. Using Smart Growth theory, Incheon should introduce mixed land use including residential and commercial complex housing, and account for street connectivity, taking into consideration walkability, pedestrian-oriented pathways, street-lining trees, and bike ways. Public transit should be promoted in conjunction with Incheon Railroad Station.

- **Land Use Plan of the project**

The Mission Bay Land Use Plan is mainly concerned with open space, hotel, university, residential, commercial, and industrial areas. Incheon could adopt many characteristics of this plan, such as open space along the bay, and residential and commercial areas adjacent to the water. As previously stated, residential areas have to be planned to a minimum, and more commercial areas will be planned in order to manage the funds for moving factories as well as to revitalize the local economy.

A height plan should be established for the purposes of limiting building height within the plan area. Incheon should have a height plan in order to limit the height of buildings that are close to the coast, bay, and highway.

A city design plan may also be set up in conjunction with a height plan. The results of the interview suggest that a city design should focus on buildings, skyline, and waterfront. Jongseung Lee suggests that the shape, color, and scale of buildings should be controlled in order to keep a clear view of the sea and Walmi Park (mountain). Jongwon Lee asserts that the skyline should maintain a balance of low and high buildings, considering the view from the sea. In other words, buildings near coastal areas should be low, and the areas far from the coast should have taller buildings. Duyong Jung suggests that it is desirable to focus on the waterfront and skyline. The

waterfront and walking corridors should be planned along the bay, and buildings along the bay should be regulated by building design guidelines which control the shape, material, color, and roof types of new buildings. Seungchan Hong asserts that the city design plan should be focused on the waterfront, and it should have continuity in order for the wharfs near the area to be connected to the Walmi tourism special district.

- **Open space guidelines**

First of all, open space must be created as a linked system of parks, plazas, and play areas. The purpose of open space varies according to its location. Each side of the channel can be developed as a primarily green space with pedestrian pathways, gardens, and water-oriented viewing and seating areas. Areas under the highway should be developed for a variety of recreational activities such as skateboarding, rollerblading, and basketball. Open space adjacent to residential areas can accommodate flexibility in programming and use, including uses that invite daily and active use by children and families. The city should design a central park as a focal point of activity and a meeting place for the neighborhood. The park should be developed along the waterfront with a character predominantly defined by water-oriented activities and open flexible-use lawn areas which can accommodate a variety of passive, active, and major recreational uses, such as field related sports or informal performance areas.

- **Commercial guidelines**

Commercial areas will be encouraged to maintain view corridors, open space, walkways, and a continuous property line. The view corridors serve primarily to facilitate views of the bay, the channel, and the downtown skyline. The city should encourage the development of publicly-accessible open spaces at ground level. Where feasible, these open spaces should be designed in relation to local retail businesses such as cafes and to the public open space network. Walkways are encouraged to enhance the pedestrian experience in the commercial area. Commercial buildings should be continuous with property lines on streets, except for occasional breaks in the streetwall.

- **Residential and retail guidelines**

Residential areas will be encouraged to become districts of walkable streets with a network of private and public open spaces. These will be districts that are built to the street edge with a lively pedestrian-friendly ground level of residential entries, neighborhood stores, and well designed sidewalks. The districts will be comprised of buildings that are sensitively scaled and that accommodate variations in design features and materials.

Neighborhood retail centers are encouraged near major intersections, open spaces, and at transit stops. Their façades should be compatible with the proportions and

design features of residential and commercial façades and the façades of adjacent buildings.

Incheon should support and encourage streetscapes designed to create an attractive and pleasant walking environment, minimize pedestrian obstructions, and promote pedestrian safety and wider sidewalks where feasible. The streets should be designed with bicycle and pedestrian connections throughout an area. Street-lining trees should be planted at consistent intervals and with adequate spacing.

6. Spatial concept of the project

Spatial concept is a little different from land use plan, because it should be set up prior to establishing land use plan, therefore it may be more abstract. I will design the spatial concept of my project using the literature review, the San Francisco case study, and my interview results. Before I designed my project, respondents of my interview suggested their own ideas about my project area. It will be very helpful to apply their suggestion to my project, because their opinions are representative of Incheon policy towards my project. Jongseung Lee suggests that the area should be designed to become the best waterfront in South Korea, of which all visitors to Incheon cannot miss, that the area must be connected to many surrounding tourism resources such as Walmi Park, the fish market, and China town; and that Incheon should strive to promote entertainment in the area. Jongwon Lee suggests that tourism, commercial, lodging, and cultural facilities should be placed in the eastern and western parts of the study area, that these areas may be developed stage by stage considering the time, it takes to move factories, and that a network of open space and waterfront is indispensable from the area and for the Walmi tourism special district. Duyong Jung suggests that it is desirable to focus on various functions such as tourism, residential, business, culture, and recreation utilizing waterfront and open space in the area. Seungchan Hong asserts that a tourism belt should be constructed including the Walmi tourism special district and wharfs near the area, and that the area should be redeveloped in conjunction with Incheon Station redevelopment.

The premise of the spatial concepts of my project is as follows:

- The main urban function will be tourism related to the Walmi tourism special district.
- Tourism and cultural industries such as video technology will be the main industries.
- The projected population will be similar to that of the present by the time of complete redevelopment.

- Focus will be placed on open space, waterfront along the bay, and waterways in the middle of the area.
- The density of the area will be a combination of low and high, with especially low density in commercial areas.

Spatial concepts of the project are as follows:

- Some old buildings, such as the silos of the Daehan Flour Mills Company will be preserved and reused as a museum.

Figure 21. Daehan Flour Mills Company²⁶



- Mainstream entertainment will be invited into the area to enhance consumerism, including high tech games offered by national or global chains, a world cuisine mall, and nighttime entertainment.
- A tourist center should be built in the center of the area not only to administer tourism, but also to provide information for tourists.
- The city should enhance mixed land use, including residential and commercial complex housing, promote street connectivity including a street grid, and take into consideration walkability, pedestrian-oriented pathways, street-lining trees, and bike ways.
- The Land Use Plan will include the following points:
 - Residential areas have to be planned to a minimum, and more commercial areas should be planned.
 - Incheon should introduce a height plan to limit the height of buildings that are close to the coast, bay, and highway.
 - A city design plan should also be set up in conjunction with the height

²⁶ An old factory built more than 50 years ago, it has the biggest silos in South Korea, holding 40% of the grain supply for the country.

plan. The skyline should have a combination of short and tall buildings, considering the view from the sea. In other words, buildings in coastal area should be low, and the other areas far from the sea should have tall buildings, so that, seen from the sea, either side of the area should have low buildings, and the central areas should have tall buildings.

- Open space must be created as a linked system of parks, plazas, and play areas. The city should design open space on each side of the channel, along the waterfront, adjacent to residential areas, under the highway, and along the railway. It should design a central park as a focal point of activity and a meeting place for the neighborhood.
- The area must be connected to many surrounding tourism resources such as Walmi Park, the fish market, and China town, and Incheon should strive to promote entertainment in the area just as Jongseung Lee suggests.
- Tourism, commercial, lodging, and cultural facilities should be placed in the eastern and western parts of the study area, and a network of open space and waterfront should be constructed between the area and the Walmi tourism special district as Jongwon Lee suggests.
- Commercial areas should be encouraged to maintain view corridors, open space, walkways, and a continuous property line.
- Incheon should encourage streetscapes to be designed in order to create an attractive and pleasant walking environment, minimize pedestrian obstructions, promote pedestrian safety, and wider sidewalks where feasible. The streets should be designed with bicycle and pedestrian connections throughout the area. Street-lining trees should be planted at consistent intervals and with adequate spacing.
- Incheon should adopt a façade improvement program and a community benefits program. A façade improvement program would enable property and business owners to secure matching funds and technical support to improve façades, storefronts, and signage. A community benefits program encourages local hiring in conjunction with all major development initiatives.
- Incheon should also create a way-finding signage program and bicycle lanes for major thoroughfares.

The spatial concepts of the project are like in the following figure.

Figure 22. Spatial concept of the project



7. Conclusion/limitation of the project

The whole concepts of my project can be summarized as: the connectivity of open space, waterfronts, and parks along the bay and waterway, the zoning of commercial areas to the maximum and residential areas kept to a minimum, the skyline which has low buildings on either sides of the area and high buildings in the central area, and the creation of a water park, a world cuisine mall, a video culture district, and a museum that will reuse old factories.

This project is designed only for the spatial concepts of the study area, so it does not include detailed designs of the area or strategies such as smart growth strategy, streetscape plans, façade and community benefits programs, way-finding signage programs, and commercial, residential, and retail guidelines. These strategies and programs may be applied at later stages when the project is implemented.

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