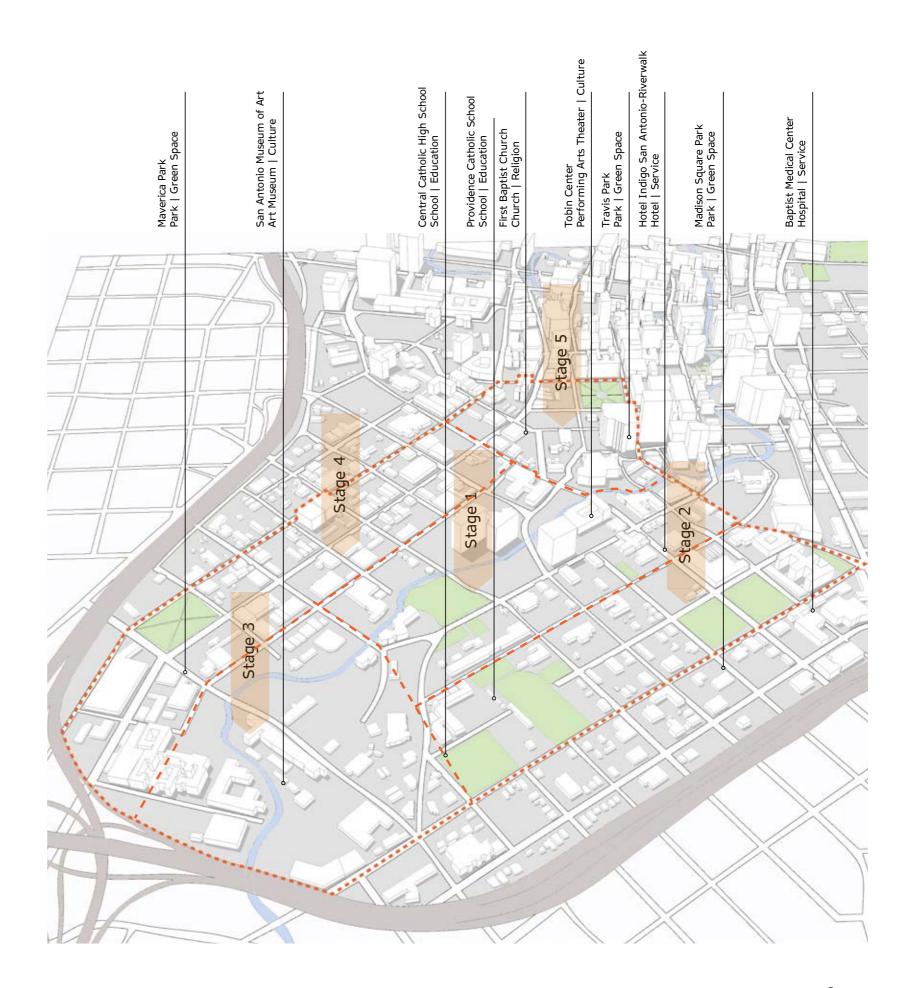


# CONTEXT

San Antonio is located in the south-central part of Texas, Southern United States - latitude 29.5° N and longitude 98.5° W. As a metropolitan area, San Antonio combines Austin and Fort Worth together to play an important role for the Texas Triangle Megaregion. This city has an area of nearly 412 square miles which includes 98 per cent of land and 2 per cent water. For the past few years, this city was the fastest growing of the top 10 largest cities in the United States from 2000 to 2010. Historically this city has great racial and cultural diversity. With the abundant tourism facilities, such as Riverwalk, the Art Museum; the city is visited by nearly 32 million tourists per year. The development of San Antonio is continuous and alongside the characteristics previously mentioned, the planning in this city should adjust measures to better suit local conditions.



## SITE ANALYSIS

#### **ISSUES**

During recent decades, San Antonio's people moved to surrounding areas, causing the population density in central area to remain unchanged. But with many attractions in this city, the existing development is too limited to cater for the large number of tourists in downtown area. The massive number of tourists which are congested in the downtown area will lead to urban issues; such as transport accessibility and attractions maintenance, which both have a negative influence on the quality of living and tourism.

San Antonio has a transitional humid subtropical climate, the city experiences hot weather throughout 40 per cent of the year. The vast area of flat land without enough vegetation in the site cannot provide a habitable environment for people. Moreover, the vast flat space reduces the travel opportunities and social activities in the public space.

Riverwalk is one of the attractions in this city, whilst the majority of tourists gather around downtown area. The river in the site is close to the central area but it has a low level of development in order to create efficient communication between people and the site. In addition, the river in the site cannot provide an aesthetic landscape for the people who live or work there.

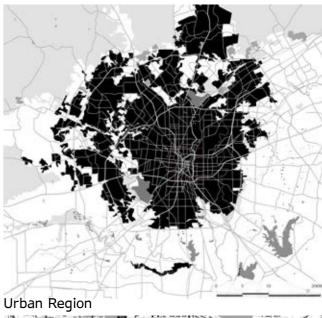
The low density building and the vast area of ground car parking and waste land both have a negative effect on the land utilisation rate. In other words, it means part of the land is abandoned.

The development of the site is limited and it cannot provide effective service for people. The lack of public transport alters the personal mobility of people to a position where they rely on the private car.



Proposed Public Realm





Urban District



# **URBAN DESIGN FRAMEWORK**

#### **OBJECTIVES**

To increase the residential population in the downtown neighbourhood of San Antonio by 5000 people and the commercial and retail population in the downtown neighbourhood by initially 1000 people.

To cater for the city policy: TIRZ (Tax Increment Reinvestment Zone) scheme, to assist finance and infrastructure improvements for River North.

To increase cultural and tourism facilities, to enhance the Riverwalk favourable mode to the river north area.

To increase the public transport infrastructure: Light Rail. Moreover, to maximise access to public transport.

To restore pedestrian movement and create a walkable neighbourhood. To increase the open space with the implantation public green belts along the river and improve the open green space in the community. Meanwhile, the sustainable communities could build through the integrating transit service and green system.



Section A-A'— Looking South West across Museum Reach of the Riverwalk



Section B-B'— Looking North East across Riverwalk





# **PERSPECTIVES**



Bird View Looking West



Widthen Riverwalk Corridor, mid-block Museum Reach



Plaza of Tobin Centre

#### **STRATEGIES**

TheTOD(transit-oriented development) is a mixed-use area with average 2,000-foot walking distance of a transit stop. The mix residential, retail, office, open space and public uses in a walkable environment. This design could maximise access to public transport, and incorporates features to encourage transit ridership. The neighbourhood is located on a local or feeder tram line within 400 meters transit travel distance from a trunk line transit stop.

Near the tram station, the buildings are designed with mixed-use. The buildings combine the commercial and residential elements together, and it increases the land utilisation and provides more convenience to the people. For the network along the river, its emphasis on ecological controls and improvements, as well as trail improvements to support both hiking and biking. In green neighbourhoods, the urban fabric allows for people to rely primarily on active and public transportation. The housing stock offers a variety of dwelling types and the population is socially and economically mixed. Designing more sustainable cities, where walking, cycling, skateboarding and public transportation become the main means of transport in daily life. Establishing green areas for the residential neighbourhoods, with native vegetation, could provide a comfortable environment for residents in the hot weather.

For the river improvement, its transformation is a positive solution for floods. What's more, with the Riverwalk mode in downtown area, it could alleviate the number of tourists in central area. Further more the commercial and retail buildings could provide more finance and employment opportunities. The location and facade of the buildings along the river could provide an aesthetic townscape for people.

# **SUMMER TERM, 2016-2017**

# HUDSON BOULEVARD & HELL'S KITCHEN NEW YORK 40°42'N

Group Member: Bai ChenYang, Ding Shitao, Wu Di, Yan Wenxiao

# CONTEXT



The site is located in the Hudson Yards redevelopment area. It also belongs to Manhattan's Hell's Kitchen South, a neighbourhood bounded by 33rd and 42nd Streets, 9th Avenue and the 11th Avenue. This site is caught between two kinds of urbanism, one regional and one local. At the regional scale, the Port Authority Bus Terminal (PABT), the Javits Center, the Penn Central rail yards, and the Lincoln Tunnel join the area to the economy and social life of the metropolitan region and beyond, which creates an extraordinary and fragmented landscape. In contrast, tucked among the regional institutions and roadways, Hell's Kitchen South is also home to a vibrant community and shares its iconic identity in New York City. Hell's Kitchen South and its surrounding neighbourhood have already transformed. However, unlike other neighbourhood districts, this site is still occupied by many vacant lots and poor quality of landscape. Therefore, it could be considered as an underdevelopment area with huge potential values.





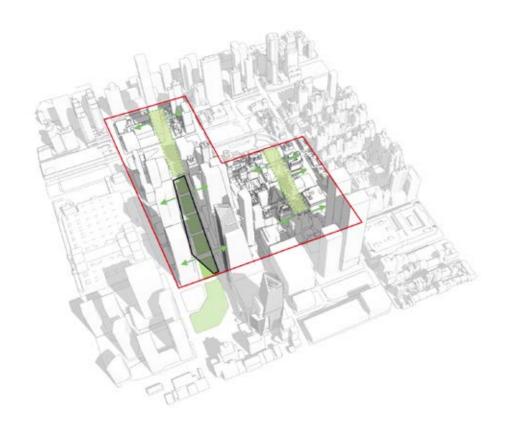


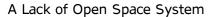


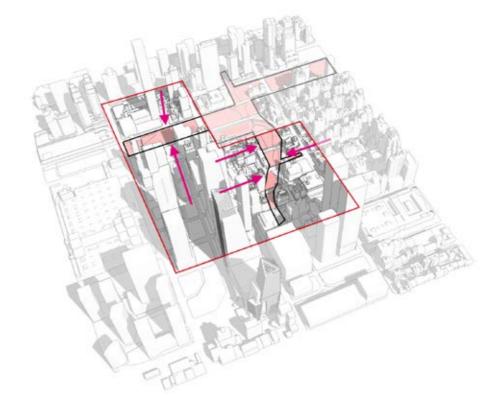




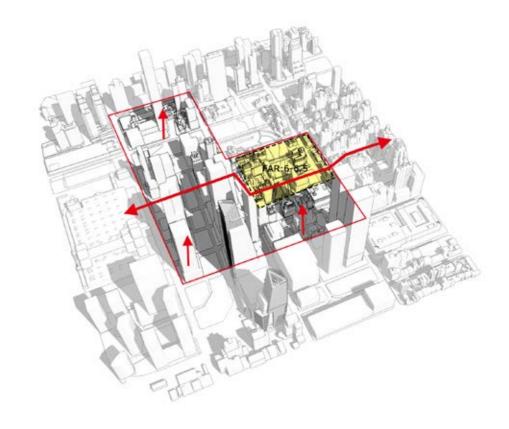
# SITE ANALYSIS







A Lack of Connectivity



Development Challenge

#### **OPEN SPACE**

The main challenge faced by Hudson Boulevard is from the shadow of surrounding skyscrapers. Moreover, how to terminate the boulevard is another main concern relating to the relationship between the public spaces and the buildings. In addition, it also lacks open spaces and landscape in the midblock of small-scale residential areas. Therefore, how to design the high quality landscape in this area with limited lands is the most significant challenge.

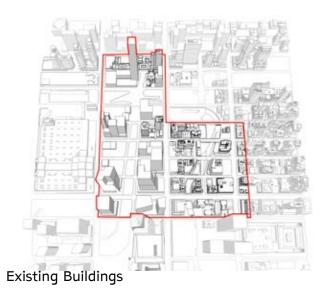
#### TRANSPORTATION INFRASTRUCTURE

The large-scale transportation infrastructure could be considered as the most significant barrier, resulting in many fragmented sites and disconnected pedestrian access. This leads to a lack of continuity and connectivity.

#### FAR DEVELOPMENT CHALLENGE

According to the new land use zoning map the only area that cannot increase its FAR is the midblock which has a base FAR of 6:1. Only by providing community facilities there would an opportunity to permit an increase in the FAR to 6.5:1. This results in large gaps between surrounding areas/blocks. Therefore the key issue is, how to encourage new investments in this area without removing its historic values and preserving the local community are the key issues.

# **OBJECTIVES**





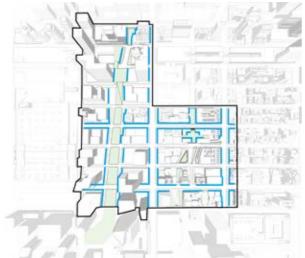
Proposed Buildings

#### **BUILDINGS**

Retain the character, low density, and mix of uses within the core area in the midblock between 9th and 10th Avenues. Increase the residential population by augmenting affordable housing, community facilities in the core area while providing Inclusionary Housing Bonus (IHB) in surrounding areas to increase FAR for further investments.



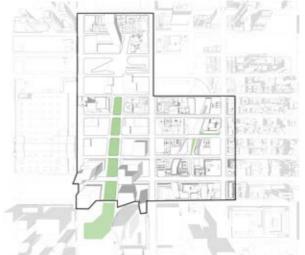
Existing Active Street Frontages



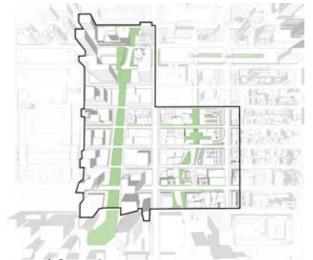
Proposed Active Street Frontages

#### STREET FRONTAGES

Enhance and preserve the Main Street character of 9th Avenue while creating new local character of Dyer Avenue. Provide higher density residential areas and services on 34th and 42nd Streets to better relate to the neighbourhoods to the north and south. This could enhance the New York City urban form features, which include high rise development along perimeter blocks, low rise development within the neighbourhood core.



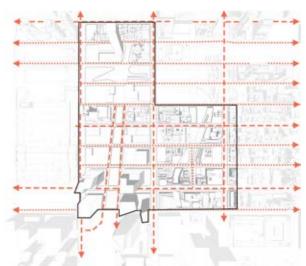
Existing Open Space



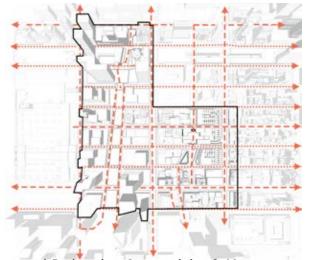
Proposed Open Space

#### **OPEN SPACE NETWORK**

Create effective public open spaces within the neighbourhood and set up the open space system connecting Hudson Boulevard and Hell's Kitchen core in the midblock; improve access and street quality to the waterfront, Times Square, and Penn Station corridors.



Existing Pedestrian Connectivity & Movement

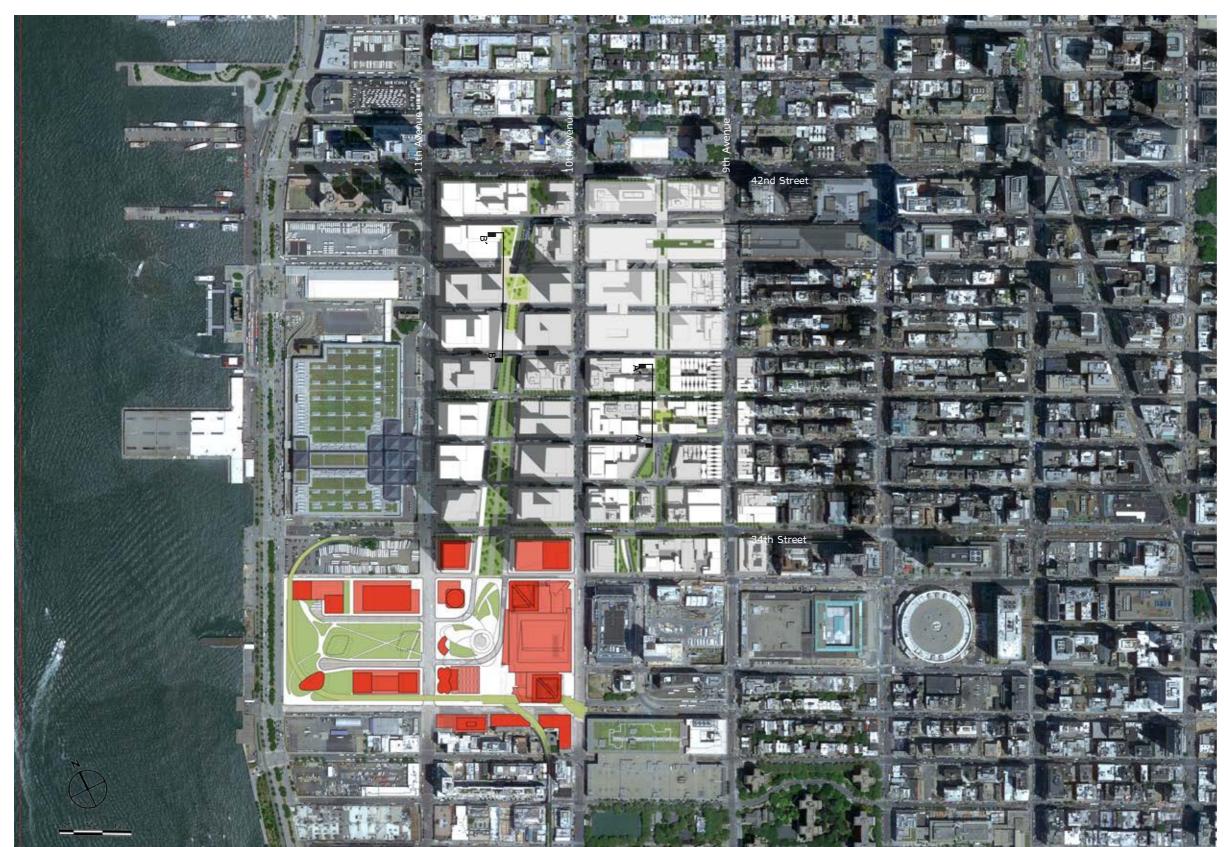


Proposed Pedestrian Connectivity & Movement

#### **MOVEMENT**

By developing an air rights development at the PABT, the landscape podium and public park provide opportunities to enhance pedestrian connectivity. This also contributes to 42nd street, 37th street, and 34th street as an economic corridor. An enhanced liveable condition could attract more investments in this area.

# **URBAN DESIGN FRAMEWORK**



#### VISION

Enhance and revive the Hell's Kitchen neighbourhood identity. Encourage new investments while preserving the historic physical fabric and local community, creating an integrated open space network connecting to the historic community and surrounding districts, improving the living and street quality.

(Source:Google Earth)

# **CONTEXTUAL DESIGN**

The physical fabric of Hell's Kitchen community represents a unique opportunity to preserve elements of the neighbourhood's immigrant history. This history is embodied in the rich mixture of buildings that have served immigrants as places to live, work and worship in the late 19th and early 20th centuries. Because of its historic values presenting the strong local identity, preserve existing buildings and protect local business are the most significant concerns. Thus, new buildings must conform to local scale and context. Therefore, insert infill mixeduse buildings that must match the existing neighbourhood character. For this concern, the primary principle is to adopt the contextual design. There are three types of this development which are New Construction, Additions, and Redevelopment. These approaches could allow the development achieve socially, contextually and ecologically engaged architecture.

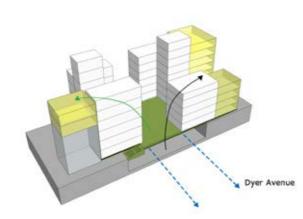


Bird's-Eye View Looking West to Hudson River

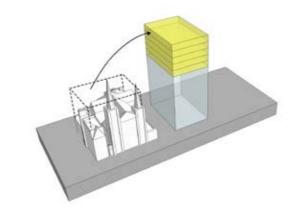
## **URBAN RULES**

#### TRANSFER AIR RIGHTS

Due to the FAR restriction, constraint of the transport infrastructure of the PABT and Lincoln Tunnel, the site has lacked major development in Hell's Kitchen South. The area contains a number of underbuilt and vacant parcels, as well as subsurface streets over which platforms could be built to provide new opportunities for residential and mixed-use development. Unlike the MTA Rail Yards and the area between10th and 11th Avenues, the potential opportunities in the area between 9th and 1oth Avenues do not provide significant opportunity for large-scale commercial uses. The potential development sites are small because of existing residential and commercial uses. Therefore, development rights from PABT and historic areas will easily transfer to new development sites, thereby allowing the preservation of the neighborhood fabric and architectural integrity.



Transfer From PABT

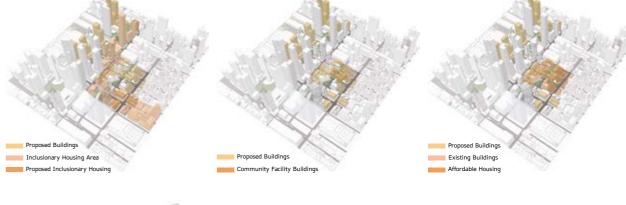


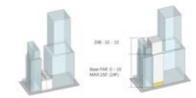
Transfer From Historic Buildings

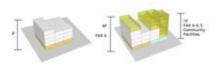
# Air Rights Transfer Analysis

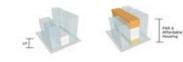
#### AFFORDABLE HOUSING

One of the stated objectives is to reinforce the existing residential neighbourhood and encourage new housing opportunities. This must include providing affordable housing at low to middle-income levels, as well as market-rate housing. Not less than 30% of all housing units constructed in the rezoned area must be permanently affordable. The rezoning must include specific mechanisms to accomplish this goal. Every effort should be made to capture some of this value toward creating affordable housing on this site through such means as tax exemptions, help in acquiring suitable property and low-cost funding, modification of existing affordable housing programs by providing social services such as community facilities, and mandatory inclusionary housing. Indeed, this should be general City policy.









Inclusionary Housing Bonus Community Facilities

Affordable Housing

# **LANDSCAPE**

#### **OPEN SPACE SYSTEM**

To address the challenges mentioned above, a new open space network should be formed. This network seeks to extend Hudson Boulevard and midblock green space to the 42nd street, a major crosstown street known for its theatres. The proposal also extends to 37th street and 34th street as two main green streets linking Hudson Boulevard and midblock green space. The network covers not only the precinct but also surrounding neighbourhoods and major infrastructure, which can service the whole Hudson Yards district. The open space system consists of the different scales and functions green space provided for people's activities. The result is to improve livability of Hudson Yards.

#### **DESIGN PRINCIPLE**

Hudson Boulevard phase 1 occupied 3 blocks from 33rd to 36th street. This area mainly focuses on large-scale commercial use. In addition, the 7th line train stations are located on 33rd and 34th streets. It is considered that spaces will be very crowded once peripheral buildings are constructed. Therefore, more formal open spaces need to be designed for this area.

Hudson Boulevard phase 2 also occupied 3 blocks. The basic principle is to offer much more informal open space served for residential.

Hudson Boulevard phase 3 is the key element of this framework. It occupies the last 3 blocks, which provide a landscape podium that connects to the theatre and beyond to the plaza on the 42nd street corridor. It not only addresses the disconnecting issues but provides a better option of terminating the Boulevard.

Section B-B' Podium in Boulevard





Aerial view of Subway Station North Entrance



Aerial view of Subway Station North Entrance



