

Redevelopment of The Sacramento Railyards — The Jewel of Sacramento



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APPROVAL

A Senior Project Presented to the
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Accepted and Approved by

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ABSTRACT

The purpose of this project is to transform the face of Sacramento's downtown by redeveloping the vacant Sacramento Union Pacific Railyards.

The redevelopment will provide jobs, housing, public open spaces, and aquatic recreation to increase the local economy and transform the site into a dynamic urban environment.

The final result of this project will provide a conceptual master plan of a park system, which not only concentrates on the redevelopment of an urban treasure, but also focuses on rehabilitating the site's natural and cultural resources.

CONTENT

Approval	I	Case Study	16
Abstract	II	Design	18
Acknowledgement	III	Opportunity	18
Introduction	1	Constraints	19
Context	1	Master Plan (Conceptual)	20
Background of Project	2	North Park: The Cal Expo Park	22
Goals	3	East Park: The Botanic Park	24
Site Analysis	4	South Park: The Arena Park	26
History	4	West Park: The Riverfront Park	28
Transportation	6	Greenways	30
Land Use	8	Elevation	32
Attractions	10	Railyards Plaza	33
Field Observation	12	Conclusion	34
Green Space	13	Bibliography	36
Decision Making	15	List of Figures	38

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INTRODUCTION

CONTEXT

The Sacramento Railyards is located north of Downtown Sacramento, east of the Sacramento River, south of North B Street and west of the federal courthouse and the Alkali Flat neighborhood. It is also located between the confluences of the Sacramento River and the American Rivers. The Railyards is also close to Old Sacramento, where the California State Railroad Museum is located.



Figure 1.0 Context Map. Google Maps

BACKGROUND OF PROJECT

The original design of this project is to transform the face of Sacramento's downtown by redeveloping the 244-acre vacant Sacramento Union Pacific Railyards and knit the surrounding areas to the new district. The redevelopment will provide jobs, housing, public open spaces and aquatic recreation; it will allow the downtown circulation grid to extend to the Railyards, increase the local economy, and transform the site into a dynamic urban environment.



GOALS

- Creating an alternative landscape design proposal for the Sacramento Railyards that is suitable for the surrounding community and the need of the site
- Connecting California State Railroad Museum with Historical Locomotive Shops to celebrate and educate visitors about the historical background of Sacramento Railyards
- Using part of the Locomotive shops as the new Transit Hub, and design a new circulation system for the site
- Having parks and greenways in the site, and connect them to create a “natural necklace” for Sacramento, and provide safe travel within the site at the same time
- Improving the on-site riverfront in order to bring city residents closer to nature
- Developing downtown housing to reduce commutes and improve the region’s air quality
- Introducing different functions of business to the site to bring up the economy for Sacramento

SITE ANALYSIS

HISTORY

Analysis: The Sacramento Railyards was built during mid-19th century. It was the birthplace of the transcontinental railroad in the West. Earlier settlers worked to connect the West with the rest of the nation.

Inspiration: As a historical site, it's meant to celebrate Sacramento's transcontinental rail history. Keeping this historical site is important to the design of the project because it is in close distance with The California State Railroad Museum.



Figure 2.0 Railyards Historical Picture

Design: In this project, most of the large Locomotive shops in the Railyards will remain. The shops on West side will be redecorated for exhibition, Railyards Technology Museum, and market use. The shops on the East side will be designed to the new transit hub, The North Station. This historical site will not only function for educational uses, but also will become a center of the entire Railyards. It will be renamed as “Railyards Plaza.”

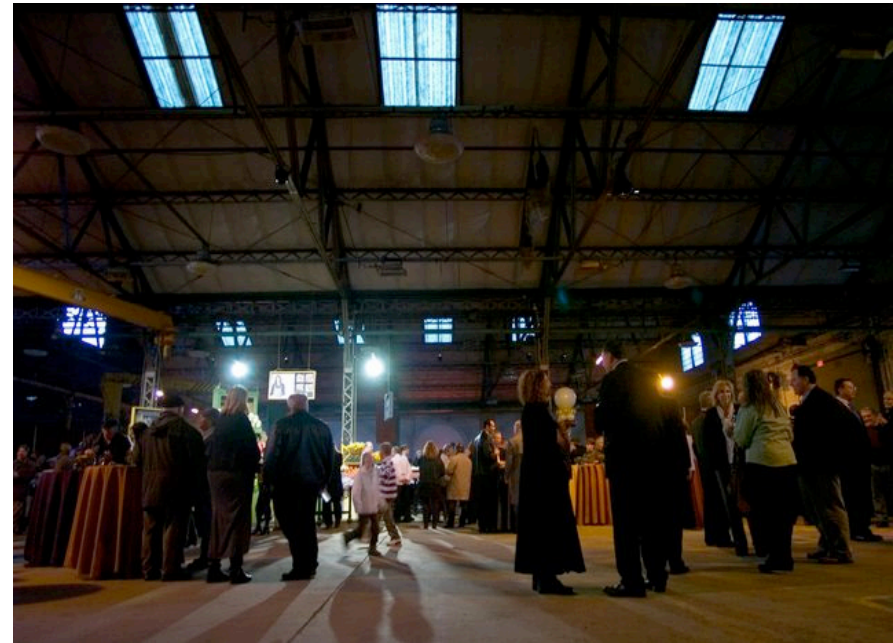


Figure 2.1 Railyards Locomotive Shops

TRANSPORTATION

Analysis: The site is located in a busy urban region. It is close to downtown Sacramento, and near a riverfront. The I-5 freeway crosses through the site connecting Redding and Los Angeles, Highway-50 connecting to San Francisco and Interstate-80 connecting to East Coast near by, and two bridges (I Street Bridge and Tower Bridge)



Figure 2.2 Transportation Map. Google Maps

connecting to the West Sacramento. All of these transportation elements will bring a significant number of visitors to the site from the surrounding areas everyday.

Inspiration: Therefore, creating convenient accessibility with better circulation in the site can prevent the site entrances from traffic issues during event time and busy hours.

Design:

1) Some roads that already exist in downtown Sacramento will be extended to the Railyards site.

(Figure 2.3)

2) Several new roads will be created to connect with surrounding transportation system. (Figure 2.3)

3) Rail track will be relocated to the South side of Locomotive Shops due to the current conflict between trains and passengers at grade. (Figure 2.4)

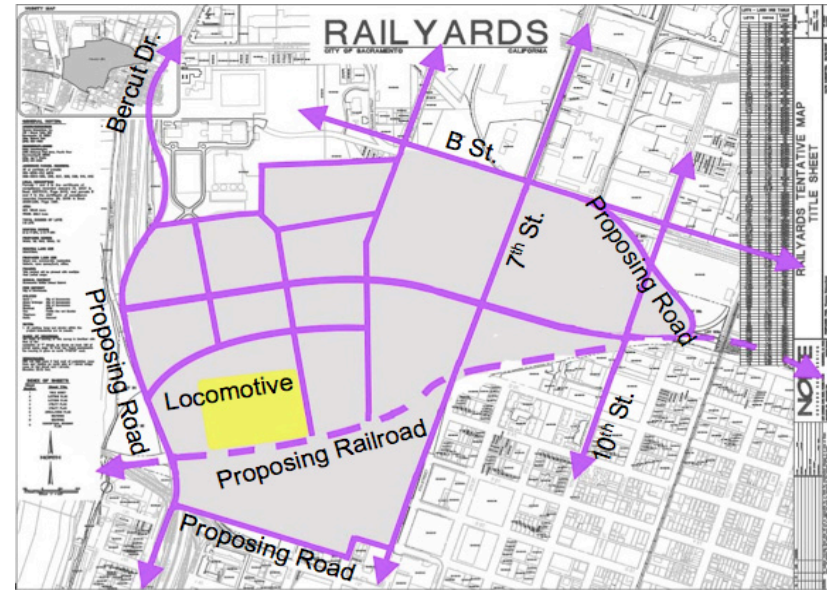


Figure 2.3 Proposed Circulation Map



Figure 2.4 Track Relocation Map (Sac. Railyards Specific Plan)

LAND USE

Analysis: The Railyards is surrounded by different types of land uses. On the North side, it has been used for industrial. The South side is where downtown Sacramento is located. Sacramento River sits on the West side of the Railyards; a large range of residential neighborhood and Parks of West Sacramento exist on the West side of Sacramento River.

Inspiration: Land use of the site suggests the types of users that would come to the site. Therefore, the land use of the Railyards should be designed to integrate with the surrounding environment.

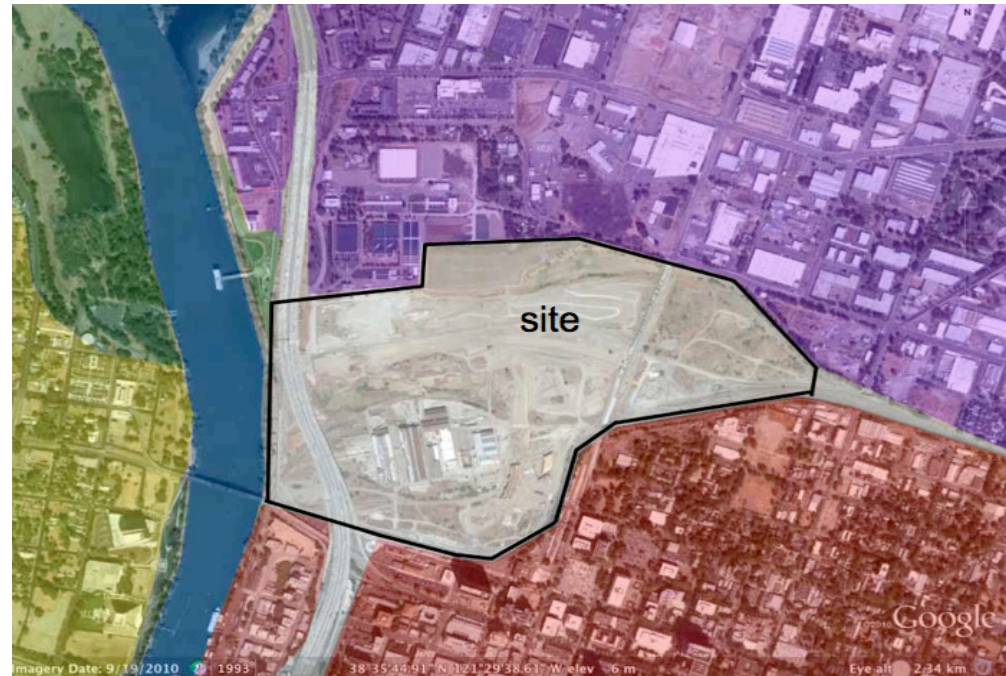


Figure 2.5 Land Use Map. Google Maps

Design: A general land use design of the Railyards will include: having a residential region on the upper North side of the Railyards, mix-use building of retail and offices will be designed around the center of Railyards, the new Arena Sport Center will be located at the lower South side of the Railyards. In this way, the redevelopment will create about 20,000 permanent jobs. It not only builds the Economy of Sacramento, but also creates a people friendly environment on the site.

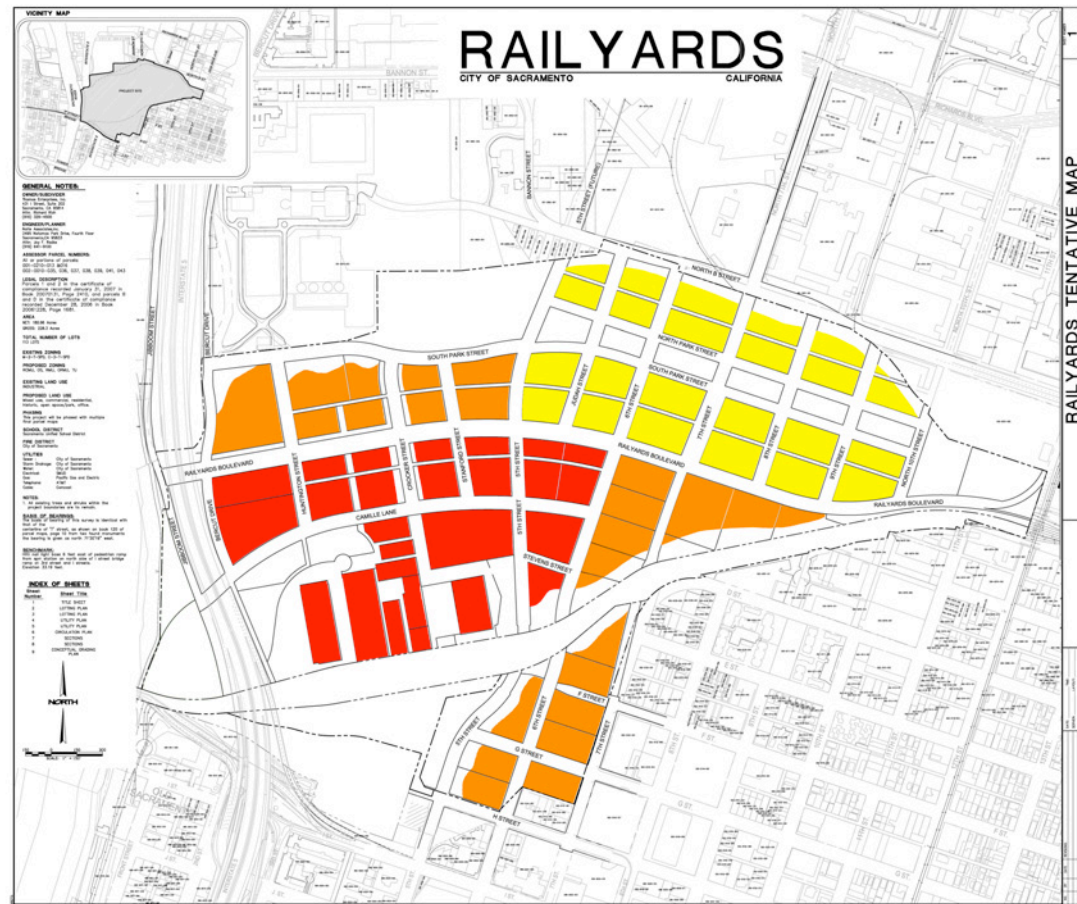


Figure 2.6 Proposed Land Use Map

ATTRACTIONS

Analysis: There are more than twenty-five museums that exist within a short distance of the site. Also, the California State Railroad Museum is located in Old Sacramento within one mile to the Railyards site. These existing museums attract visitors to the city, but all of them are disconnected to our site.

Inspiration: Create a connection between the Railroad Museum and the Locomotive Shops.

(Key: A. Crocker Art Museum; B. California Military Museum; C. California Railroad Museum; D. Old Sacramento Schoolhouse Museum; E. Wells Fargo History Museum; F. Sacramento History Museum; G. State Capital Museum; H. California Automobile Museum; I. Leland Stanford Museum; J. California Museum.)

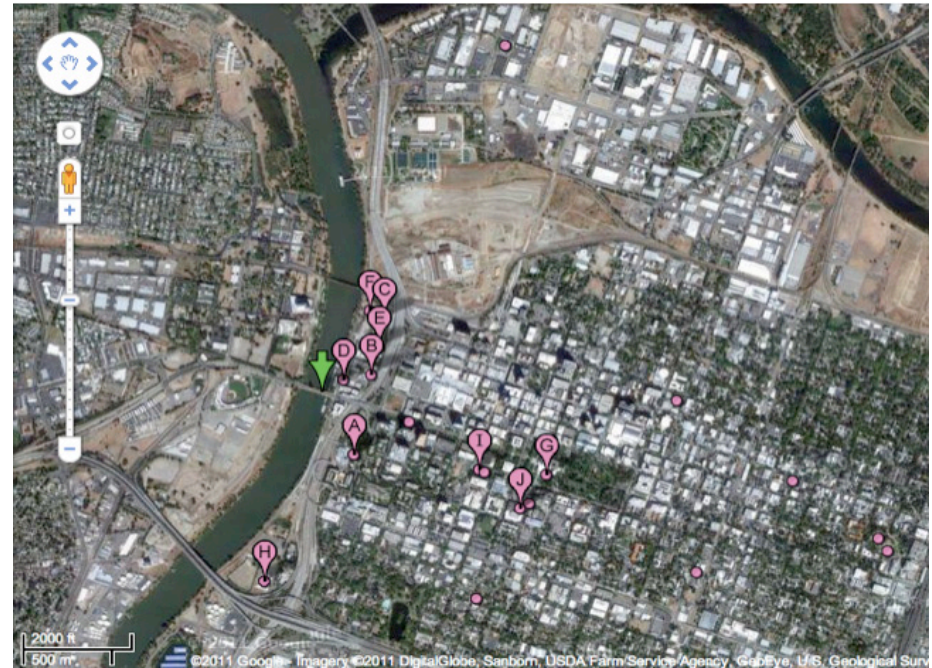


Figure 2.7 Museum Attractions Map. Google Maps

Design: A mini train running from Old Sacramento to the Railyards will be added as an entertainment. In this way, it draws more people to participate in the new activities and connect the two sites.



Figure 2.8 Mini Train Track Location

FIELD OBSERVATION

Due to the current onsite construction, the field observation is limited. The only open place from the site is the riverfront area.

This riverfront area is very close by the I St. Bridge; it attracts people to come and watch the bridge operation during the day. However, the maintenance of the riverfront was not under any supervision.

When standing on the riverfront, there were no any public amenities, city facilities nor electricity and lighting besides a bike path.



Figure 2.9 Riverfront

GREEN SPACE

Analysis: There are many parks surrounding the Railyards. The largest one is the Discovery Park on the North side of the site along the American River. Most of the small community parks are located in the downtown Sacramento area. There is also an existing American River Bike Trail linking the site to other green spaces. All of these features provide safe travel for bicycle riders to reach the site.



Figure 2.10 Green Space Network Map. Google Maps

Inspiration: The people who will be using the redeveloped Railyards also need safe travel within the site. Since the Railyards did not restore much vegetation, it is important to design several green spaces in the site, which will provide connections with green ways.

Design: In this project, there will be four parks, including the riverfront area, distributed into four orientations: **North park as Cal Expo Park, South park as the Arena Park, West park as the Riverfront Park, and East park as Botanic Park.** All of these parks will be connected to the center Railyards Plaza. In this landscape design, it not only makes a friendly environment to the site, but also creates a natural jewel, a green necklace, in Sacramento's landscape.

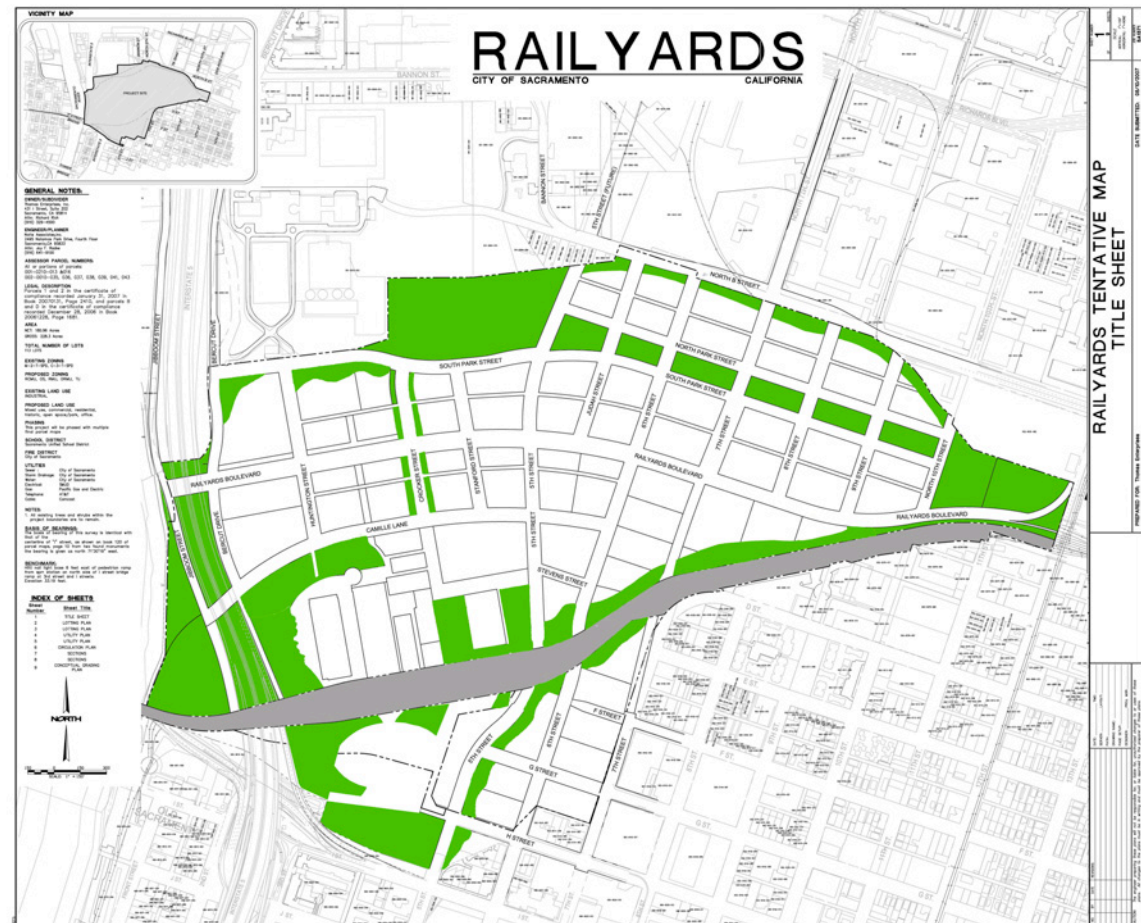


Figure 2.11 Proposed Green Space Network

Decision Making:

After extending the existing streets to the site horizontally and vertically, there are four areas that cannot fulfill the expansion of downtown grid. These places have odd shapes and distributed surround the site North, South, East and West, and therefore, they are the most suitable places for urban parks.

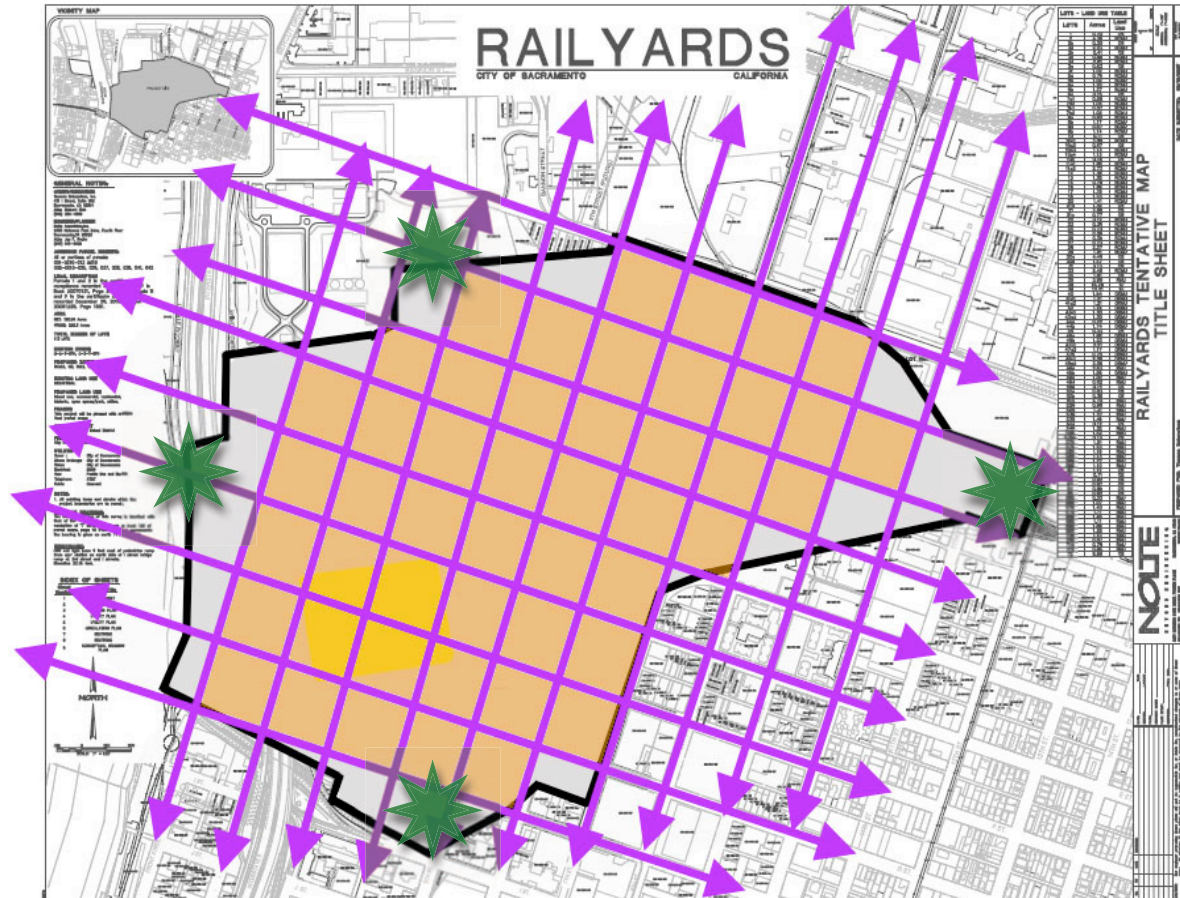


Figure 2.12 Decision Making Diagram

CASE STUDY

The Emerald Necklace: Boston's Green Connection:

The Emerald Necklace was designed by Frederick Law Olmsted. It is a 1,100-acre chain of parks that links both parkways and waterways in Boston and Brookline, Massachusetts.

It contains nine major parks in the chain and the total distance is approximately seven miles by walking or bicycling throughout the park. These major parks are: Boston Common, Public Garden, Commonwealth Avenue Mall, Back Bay Fens, The Riverway, Olmsted Park, Jamaica Pond, Arnold Arboretum, and Franklin Park. Each of them has different identifications, for example, the Public Garden is a large garden-looking park, and it is planted with a wide arrange of native trees and flowers; The Riverway is the parkway linking through the Emerald Necklace system of parks and parkways; The Jamaica Pond is the largest fresh water body in Boston, and also the largest natural freshwater body in the lower Charles river watershed, etc.

The main reason of having the Emerald Necklace is to provide a ground to the people who can easily go after

their day's work is done, and where they may stroll for an hour, seeing, hearing nothing from the streets, it will be all about nature! So far, there have been more than 300,000 people living within this park system, and the design of the Emerald Necklace perfectly fits the needs of Boston citizens.



Figure 3.0 Map of Emerald Necklace, Boston

Implications:

My implication from this case study is the unique parks and greenways system design. The redevelopment of the Railyards will introduce different function uses, such as office, retails and residential. Having this “linked” park system on the site not only will provide a natural open space to the people on the site, but also will become a “natural jewel” to Sacramento. The Railyards will be separated by its different functions, but will be united by this necklace-shaped park system. It will play a significant role in linking the citizens of Sacramento together through nature!

DESIGN

OPPORTUNITY

- River access and activities attract visitors and draw visitors close to nature.
- Historical locomotive shops provide educational opportunities and celebrate the Railyards' history with the California State Railroad Museum close by.
- Existing 7th Street includes a train over-path going through the site, which connects with downtown Sacramento and sets the main road for the Railyards.



Figure 4.0 Opportunity Map. Google Maps

CONSTRAINTS

- Noise from freeway bridge and train station.
Keep the residential region away from the downtown center.
- Existing railroad stopped the on-site transportation circulation.
- Industrial region on the North side of the Railyards generates toxins to the surrounding soil.
- Vegetation on the Railyards site is not restored.



Figure 4.1 Constrain Map. Google Maps

MASTER PLAN (CONCEPTUAL)

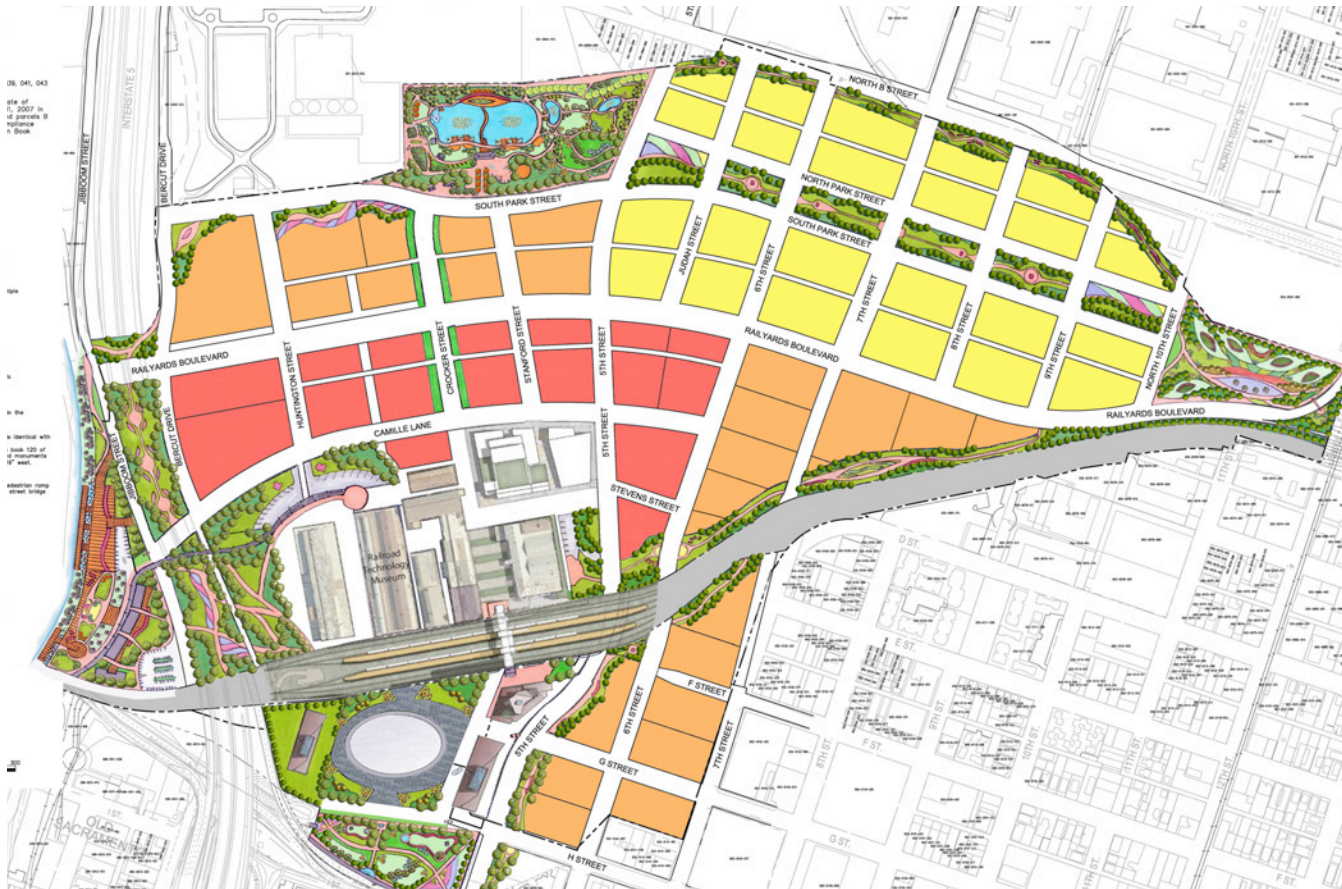


Figure 4.2 Conceptual Master Plan (please see the enlarged picture on the right)

NORTH PARK

The Cal Expo Park (North): Serve as an event holding center that include walk-able street, large public open space for public event, featuring a potential exhibiting event facility.



Figure 4.3 North Park

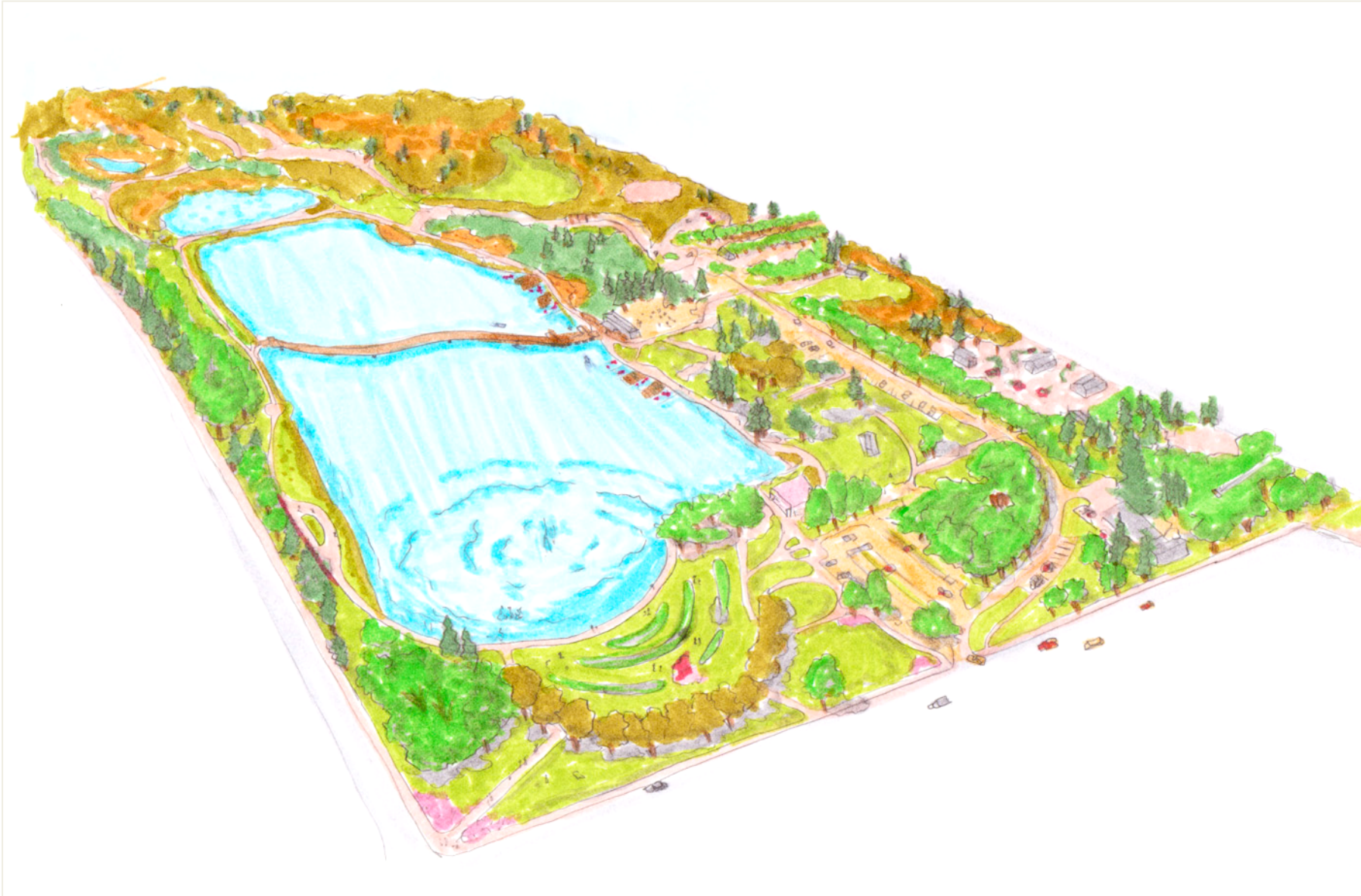


Figure 4.4 Perspective of North Park

EAST PARK

The Botanic Park (East): Responds to the existing toxic soil, which will help take out toxic from the soil, and provide a plant garden to the exhibit different plants and its function with different toxics.

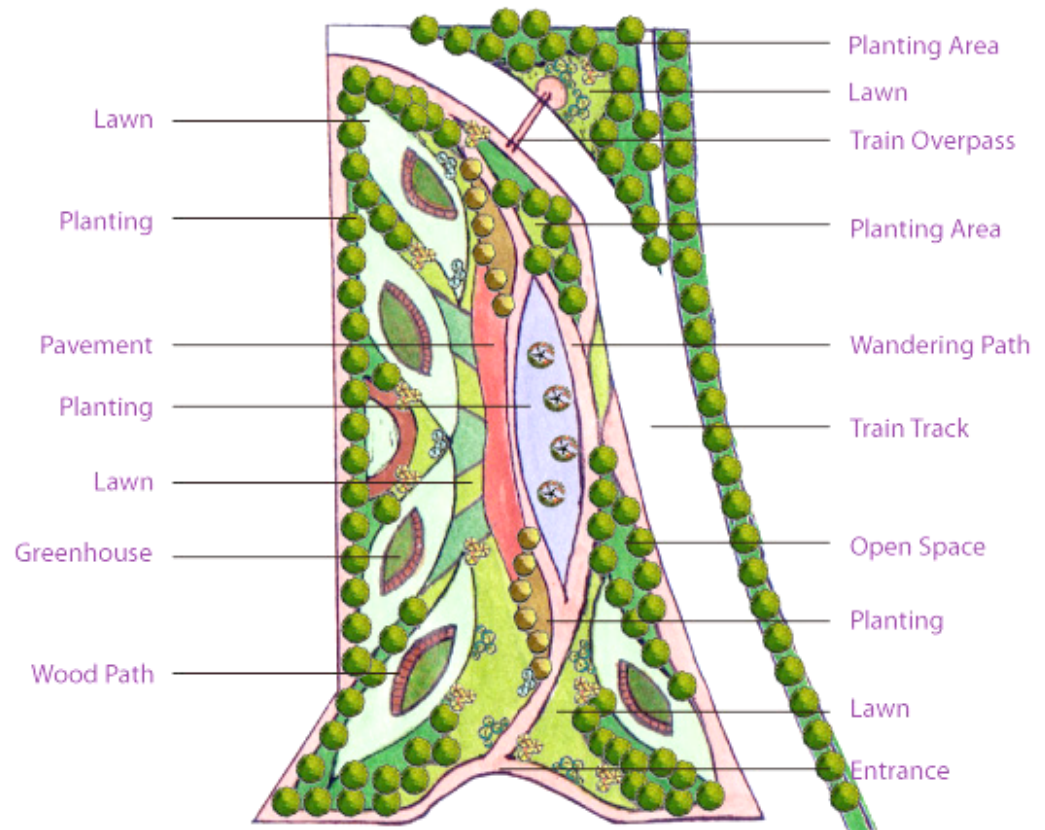


Figure 4.5 East Park



Figure 4.6 Perspective of East Park

SOUTH PARK

The Arena Park (South): Provide a grand public open space that not only functions as civic entry feature to Arena Sport Center, but also connects between the Railyards with Downtown Sacramento.

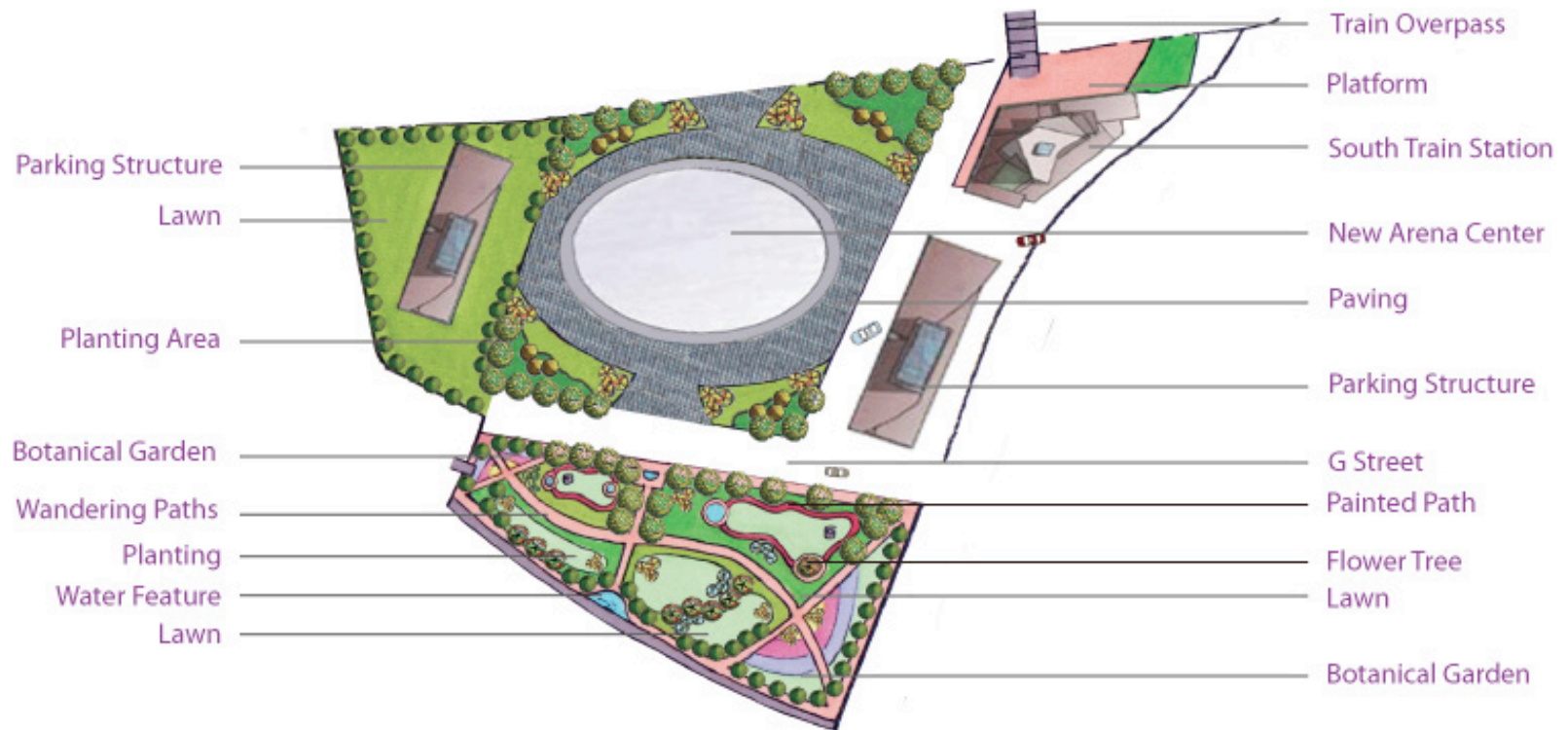


Figure 4.7 South Park



Figure 4.8 Perspective of South Park

WEST PARK

The Riverfront Park (West): Connect the Railyards with the riverfront, and create additional paths leading to the California State Railroad Museum. This convenient accessibility not only draws people closer to the riverfront park, but also encourages water activities. In addition, it creates a riverfront deck that extends out from the riverbank, giving visitors closer views to the trains on I Street Bridge, and to West Sacramento.



Figure 4.10 Perspective of West Park 1



Figure 4.9 West Park



Figure 4.11 Perspective of West Park 2

GREENWAYS

Greenways: Connect between parks, which provide safe travels within the site, and make separations between the residential and the industrial region at the same time.



Figure 4.12 Greenways



Figure 4.13 Perspective of Greenways

ELEVATION

An elevation view of greenway—Bio swale



Figure 4.14 Section Drawing of Greenways

RAILYARDS PLAZA

Railyards Plaza: Connecting to the Railroad Museum, and serving not only as an educational district that contains culture and entertainment values, but also creating a mixture of urban features such as shops, night clubs, and restaurants to provide a dynamic movement in urban environment.

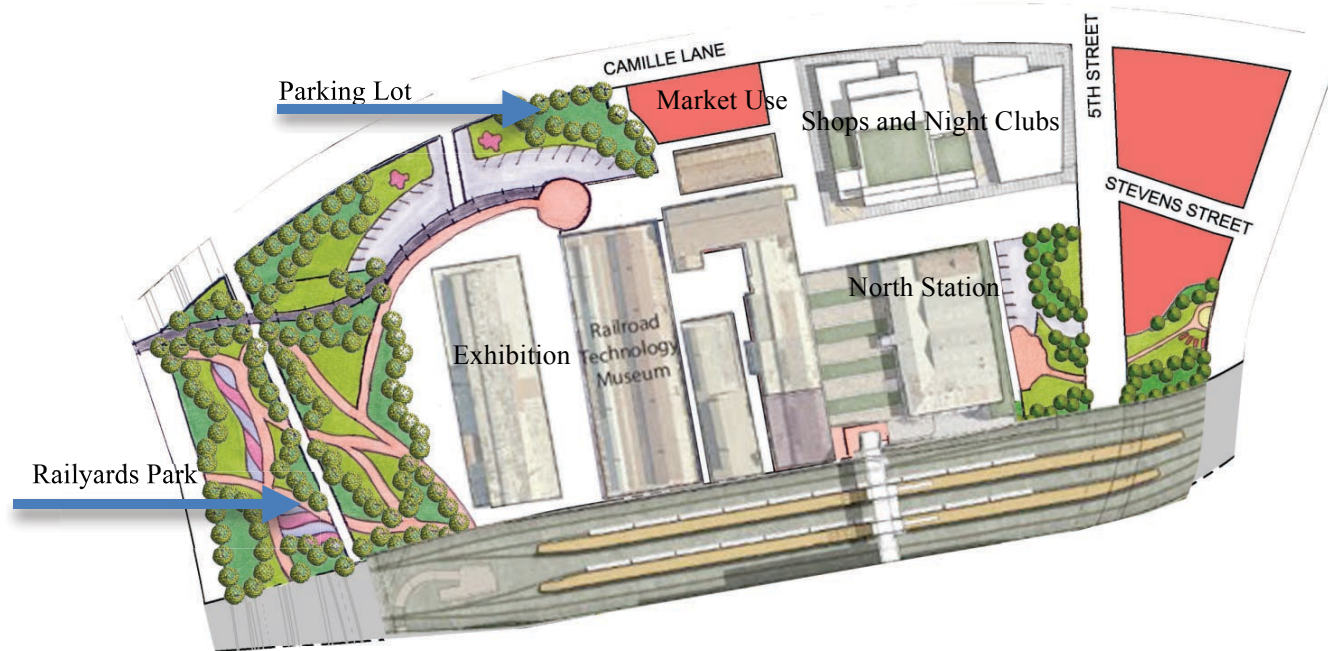


Figure 4.15 Railyards Plaza

CONCLUSION

Due to the location of the site, this redevelopment project is more significant compared to other urban infill projects in the area. Its original purpose is to improve the economy of downtown Sacramento by providing thousands of jobs, which can generate \$9.4 billion for the Sacramento Region.

In addition to the economy development, this project also emphasizes on the history celebration and landscape design. The unique connections between parks provide safe travels within the site locally, and also becomes a “natural jewel” to Sacramento City a larger context.

Overall, this project contains a program that provides diversity for education, entertainment, and environmental stewardship. It transforms an urban vacant land into a dynamic urban region, where ecological and social characteristics are molded to be in harmony with each other, leaving the visitors with a special impression of not only a useful “space,” but also a beautiful “place!”



Figure 5.0 Perspective of Old Town Sacramento and The Railyards

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LIST OF FIGURES

Figure 1.0 Context Map. Google Maps	1
Figure 2.0 Railyards Historical Picture.....	4
Figure 2.1 Railyards Locomotive Shops	5
Figure 2.2 Transportation Map. Google Maps	6
Figure 2.3 Proposed Circulation Map	7
Figure 2.4 Track Relocation Map	7
Figure 2.5 Land Use Map. Google Maps	8
Figure 2.6 Proposed Land Use Map	9
Figure 2.7 Museum Attractions Map. Google Maps	10
Figure 2.8 Mini Train Track Location	11
Figure 2.9 Riverfront	12
Figure 2.10 Green Space Network Map. Google Maps	13
Figure 2.11 Proposed Green Space Network	14
Figure 2.12 Decision Making Diagram.....	15
Figure 3.0 Map of Emerald Necklace, Boston	17
Figure 4.0 Opportunity Map. Google Maps	18
Figure 4.1 Constraints Maps. Google Maps.....	19
Figure 4.2 Conceptual Master Plan	20
Figure 4.3 North Park	22
Figure 4.4 Perspective of North Park.....	23
Figure 4.5 East Park.....	24

Figure 4.6 Perspective of East Park	25
Figure 4.7 South Park	26
Figure 4.8 Perspective of South Park.....	27
Figure 4.9 West Park	28
Figure 4.10 Perspective of West Park 1	28
Figure 4.11 Perspective of West Park 2	29
Figure 4.12 Greenways	30
Figure 4.13 Perspective of Greenways	31
Figure 4.14 Section Drawing of Greenways	32
Figure 4.15 Railyards Plaza	33
Figure 5.0 Perspective of Old Town Sacramento and the Railyards	35