

Central Valley Redevelopment Project

Rutgers, the State University of New Jersey

Advanced Landscape Architecture Studio Fall 2007



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Rutgers, The State University of New Jersey
Department of Landscape Architecture
Fall 2007

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1.0 Introduction

Central Valley Redevelopment





1.0 Introduction

From Hats to Houses

Dr. Wolfram Hoefer
Kyle Beidler, PhD

Originally derived from a Britan settlement, the Central Valley became a center of hat manufacturing in North America due to excellent traffic connections. By 1892, 21 firms were engaged in hat manufacturing, employing over 3,700 people. The early twentieth century saw a decline in hat production with the last manufacturing plant closing during 1960. A second major revenue producer in Orange was beer brewing. However, the last remaining brewery (Liebmann Breweries which bottled Rheingold) closed in 1970.

The suburbanization in post WW II America hit the Oranges hard. Interstate 287 made the commute easier and people left the urbanized areas. The 1967 racial riots in Newark added to that trend.

Today the Central Valley is characterized by an uncomfortable mix of underutilized real estate, abandoned industrial buildings and nineteenth century working class housing.

Streetscapes and open spaces do not invite active uses. Fifteen brownfield sites, which need remediation, add to the complex challenges for urban renewal.

The Goal of the design studio was to develop an integrated concept for housing, commercial uses and open space that generates innovative solutions with regards to the existing social, economic and ecological situation.



An essential starting point for planning and long-term decision making is substantial knowledge of the existing conditions. For our project the "Central Valley BDA Application" provided profound information. Every member of the group worked with this document carefully. The information was utilized under two perspectives:

From a participatory perspective, the community goals and objectives the citizens of Orange were considered as outlined in the application document. From the perspective of a professional expert additional goals for the masterplan were defined that may not be currently perceived by the residents and leaders of the community.

Having defined these two sets of goals each group had to develop their own priorities and describe a program for inventory and analysis.

We thank the City of Orange, The Municipality of West Orange and the New Jersey Department of Environmental Protection for their kind support.



Central Valley Brownfield Development Area, City of Orange-Township of West Orange

2.0 International Workshop

Central Valley Redevelopment





2 International Workshop

Cooperation:
University of Applied Sciences
Lausitz, Architecture Program

Ilija Vukerop, FH Lausitz
Dr. Wolfram Hoefer

An international and interdisciplinary design charrette will address five defined sites. Students will form 10 groups (1 German Architect + 2 American Landscape Architects) and each group will develop a design for one chosen site. The goal is to enhance the creative process through an intercultural exchange that will highlight different approaches to postindustrial landscapes.

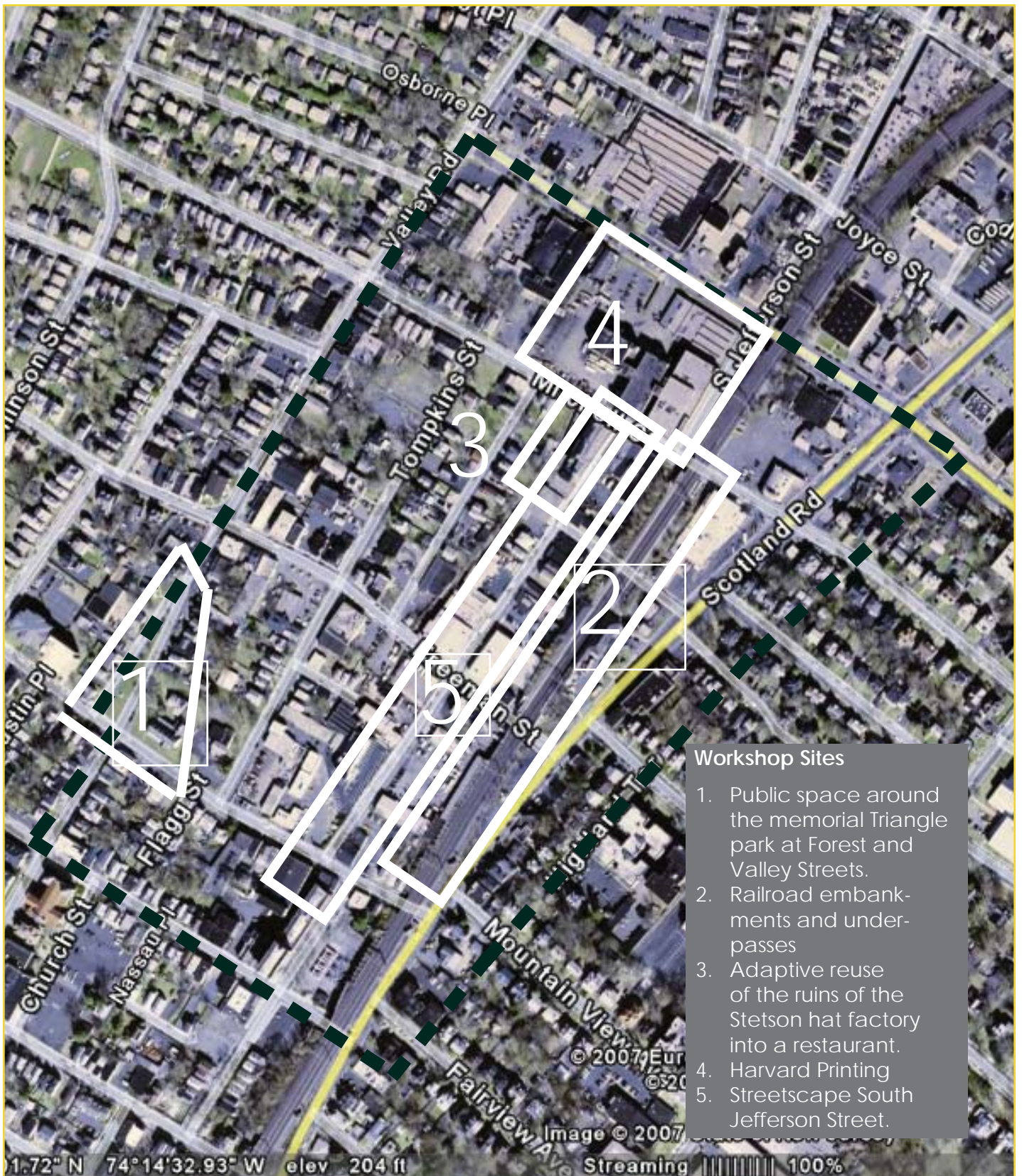
The Central Valley BDA serves as an excellent case study for the transformation of formerly industrialized sites. This phenomena appears in both countries, however conditions and approaches are different. New Jersey is driven by economic pressure for redevelopment and the need of space.

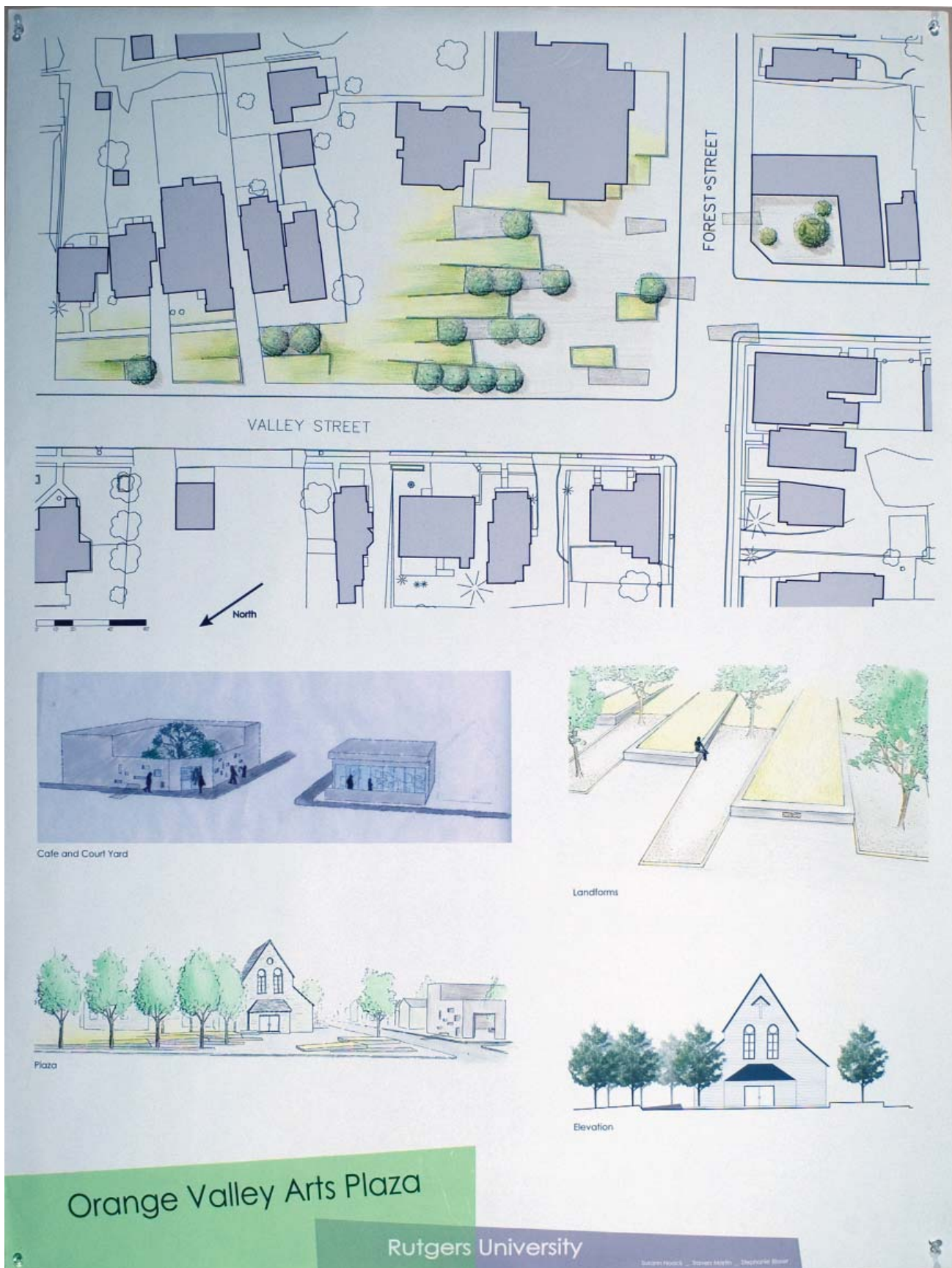
The situation in the home region of our German guests is very different. The Lausitz can be described as a shrinking region with loss in population and commercial activity. In addition to sharing different ideas the students will complement each other professionally.

The Lausitz students offered a background in architecture while the Rutgers students major in landscape architecture.

| | Sunday | Monday | Tuesday | Wednesday | Thursday | Friday |
|-------------|----------------------------------|-------------------------------------|--------------------|----------------|-------------------------|---------------|
| 9:15-10:35 | | introduction presentation by guests | studio work* | studio work* | guests are on excursion | studio work* |
| 10:55-12:15 | | | | | | |
| 12:35-1:55 | pick up EWR 12:50 | drive The Oranges | | | | |
| 2:15-3:35 | welcome pizza, guests meet hosts | welcome Mayors | | | | presentation |
| 3:55-5:15 | | walk around selected locations | | common lecture | studio work* | |
| 5:35-6:55 | | | lecture Prof. Fein | studio work* | | closing party |
| 7:15-8:35 | | | studio work* | | | |
| 8:45-10:05 | | | | | | |

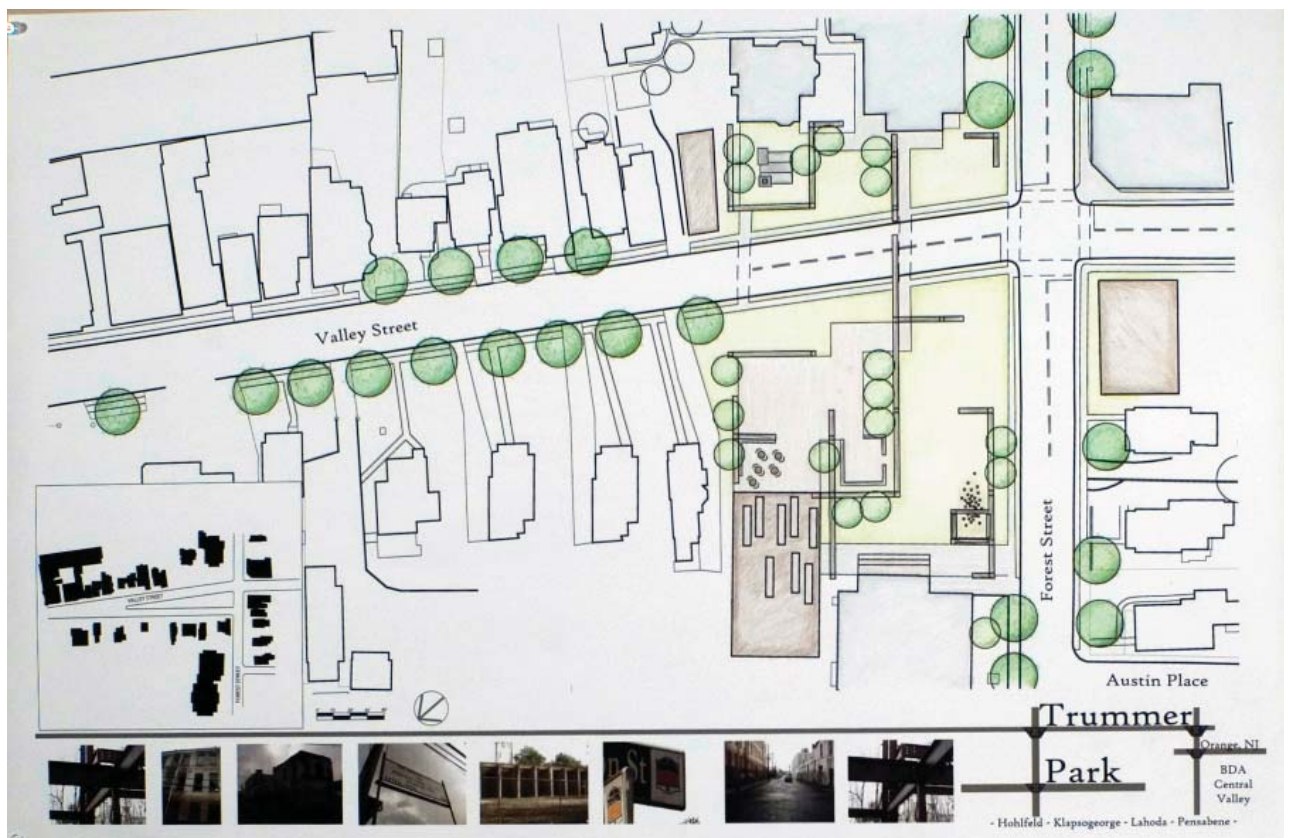
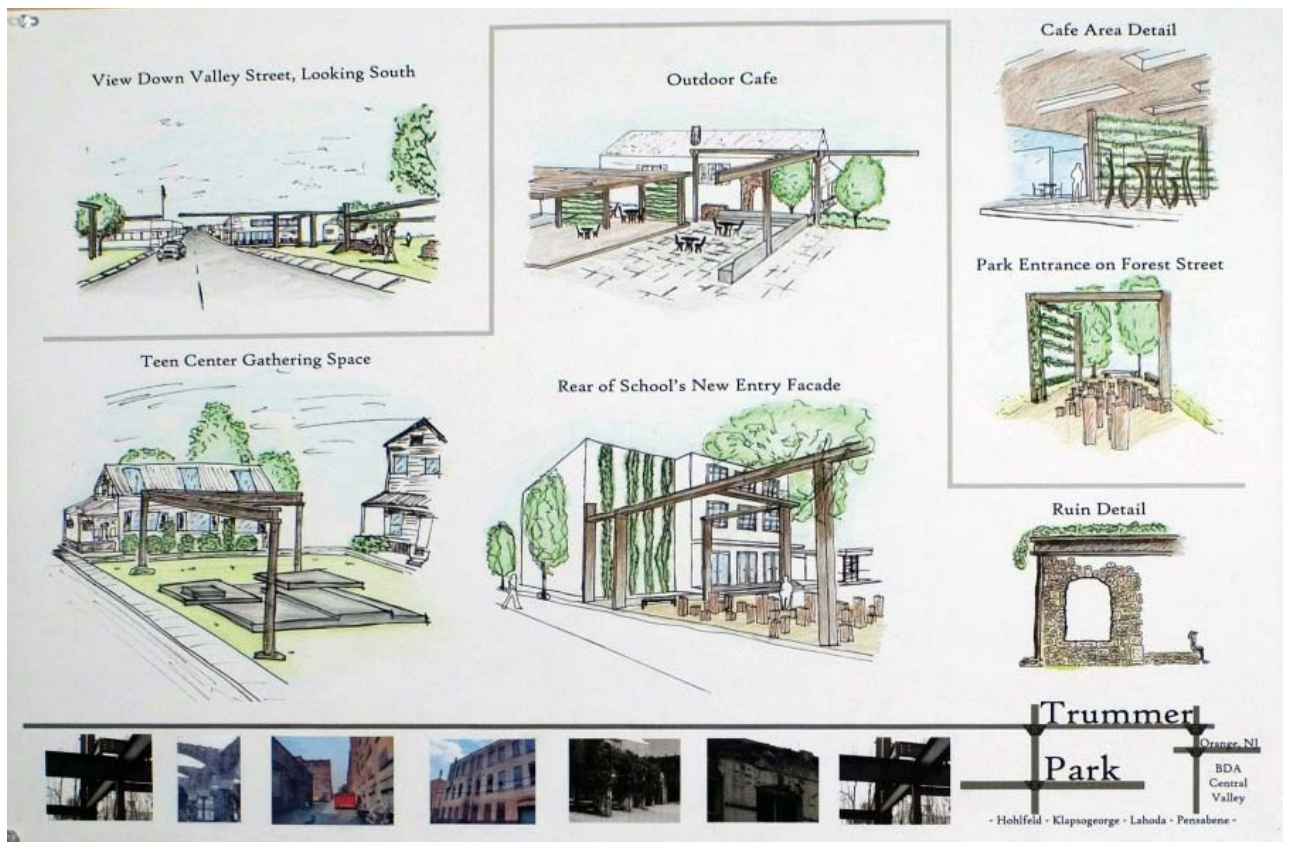
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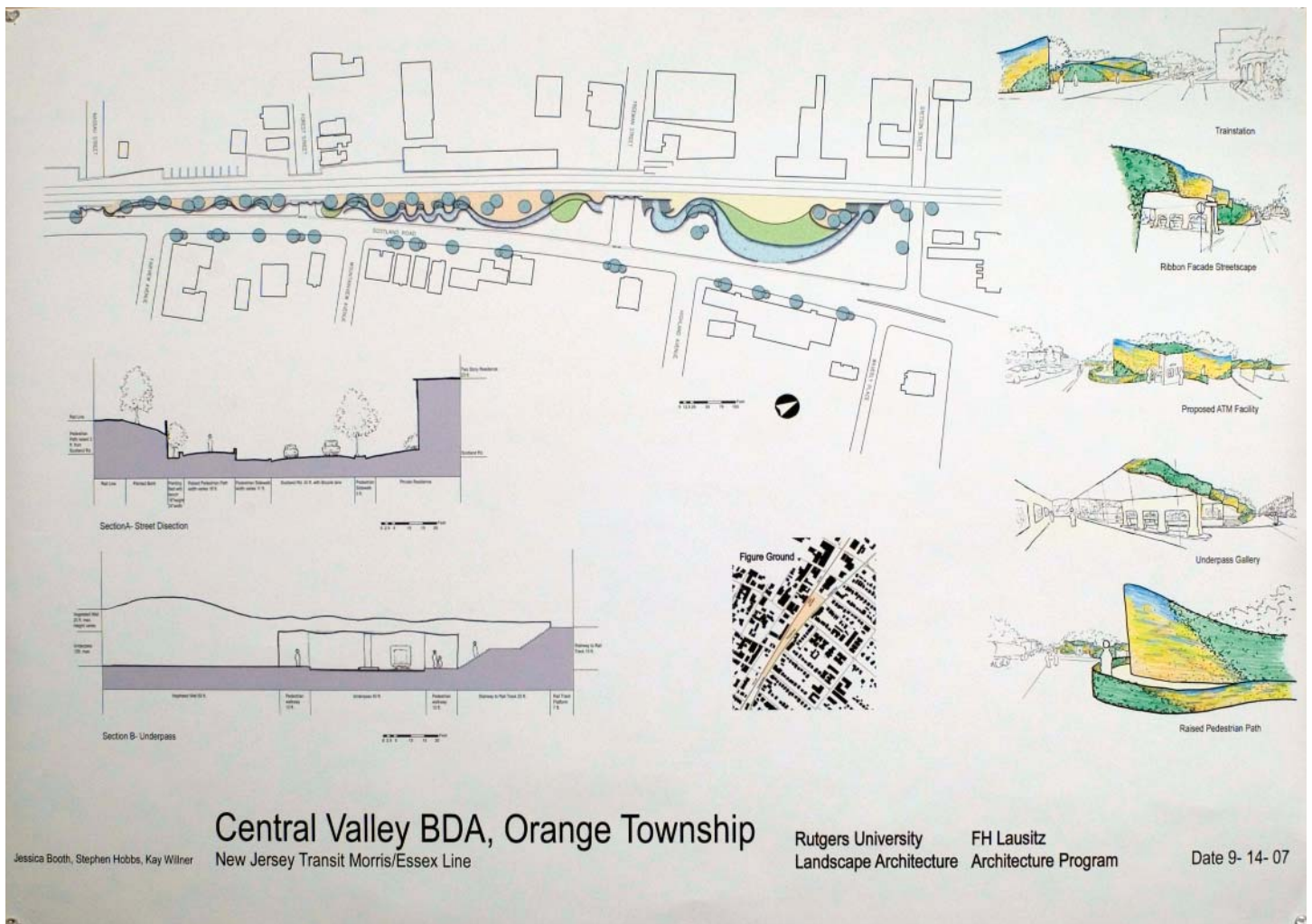


Group 1, Site 1, Susanne Noack, Travers Martin, Stephanie Blaser

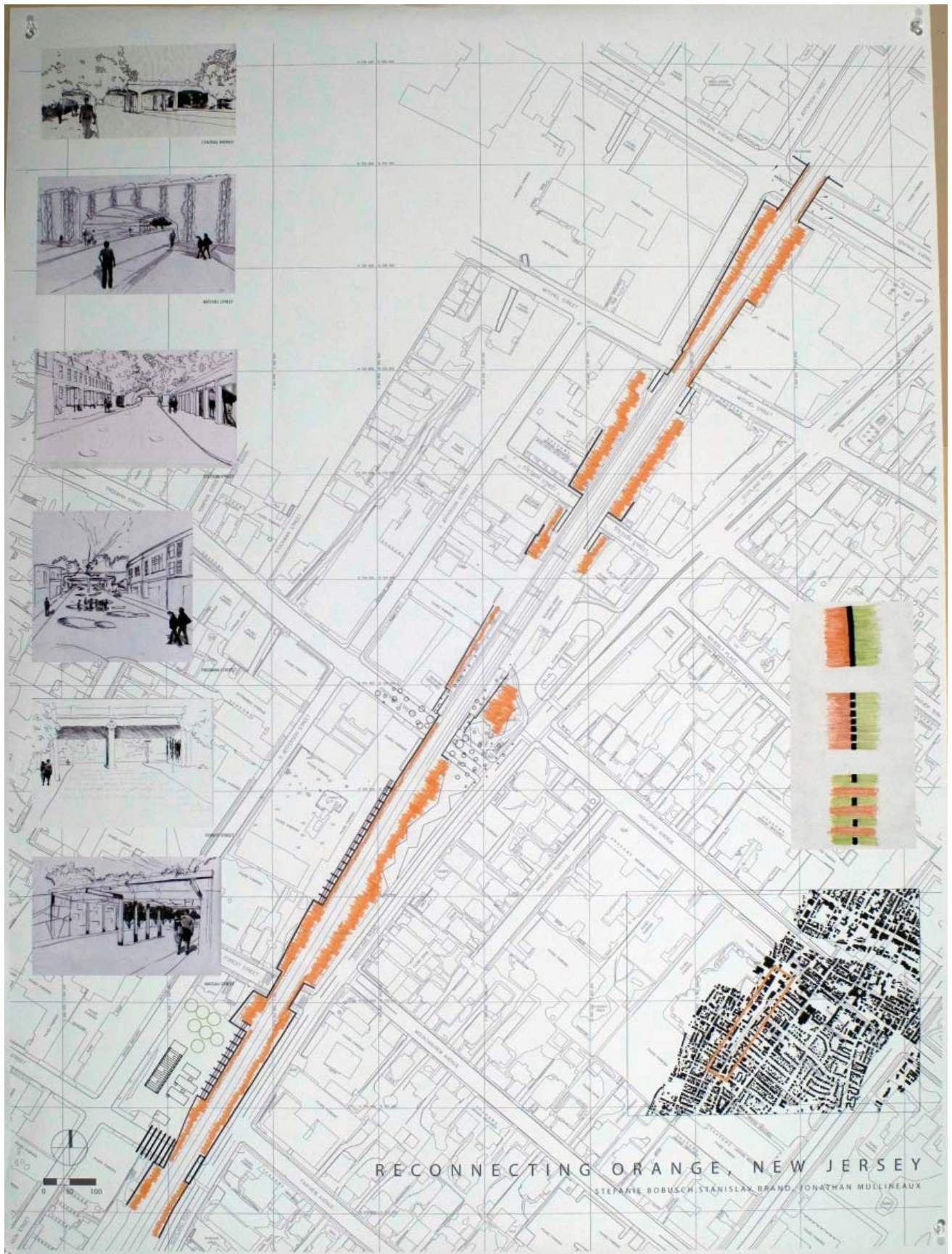
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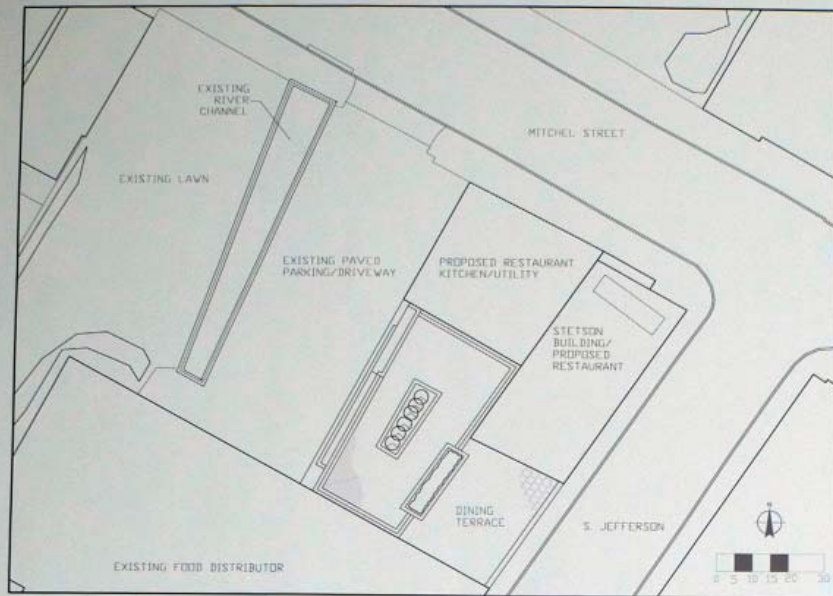
Group 2, Site 1, Johanna Hohlfeld, Pete Klapsgeorger, Jon Lahoda, Dominik Pemsabene



Group 3, Site 2, Kay Willner, Stephen Hobbs, Jessica Booth



Group 4, Site 2, Stefanie Bobusch, Stan Brand, Jonathan Mullineaux



STETSON

In the 1800's, the Stetson Hat Factory thrived at the corner of Mitchell and South Jefferson streets in Orange, NJ.

This historic building fell victim to fire in 2003.....

Now, Stetson rises from the ashes as a symbol of urban renewal and the rebirth of Orange.

Finding Our Form:



Indoor and outdoor seating area for proposed restaurant



A pedestrian's view from South Jefferson St.



Inside the plaza

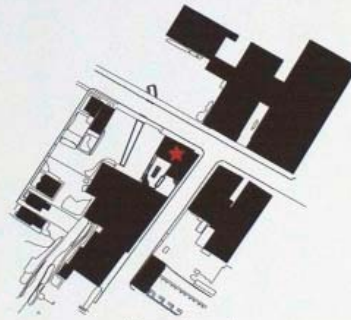
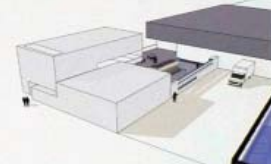


Figure Ground



View from the intersection of Mitchell St. and South Jefferson



View from Mitchell St.



View from South Jefferson St.



The Plaza's cascading water feature

Reinventing the Stetson Factory of Orange, NJ

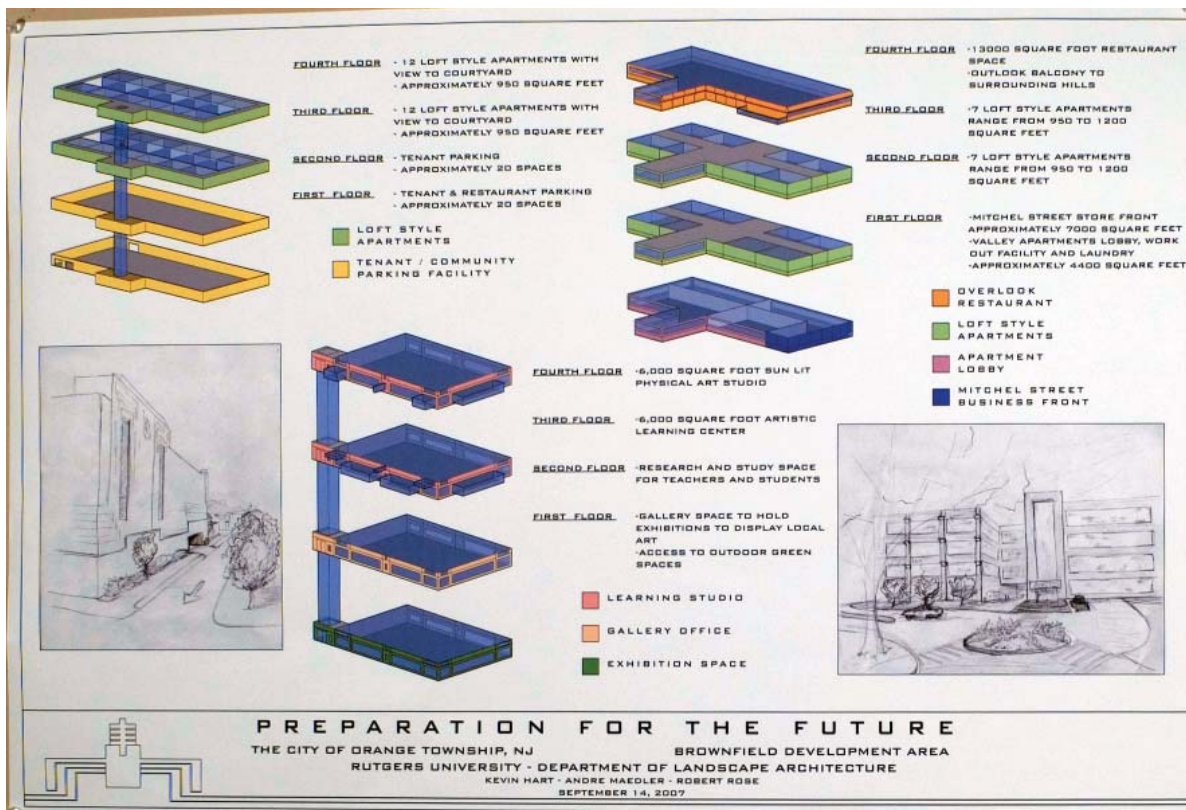
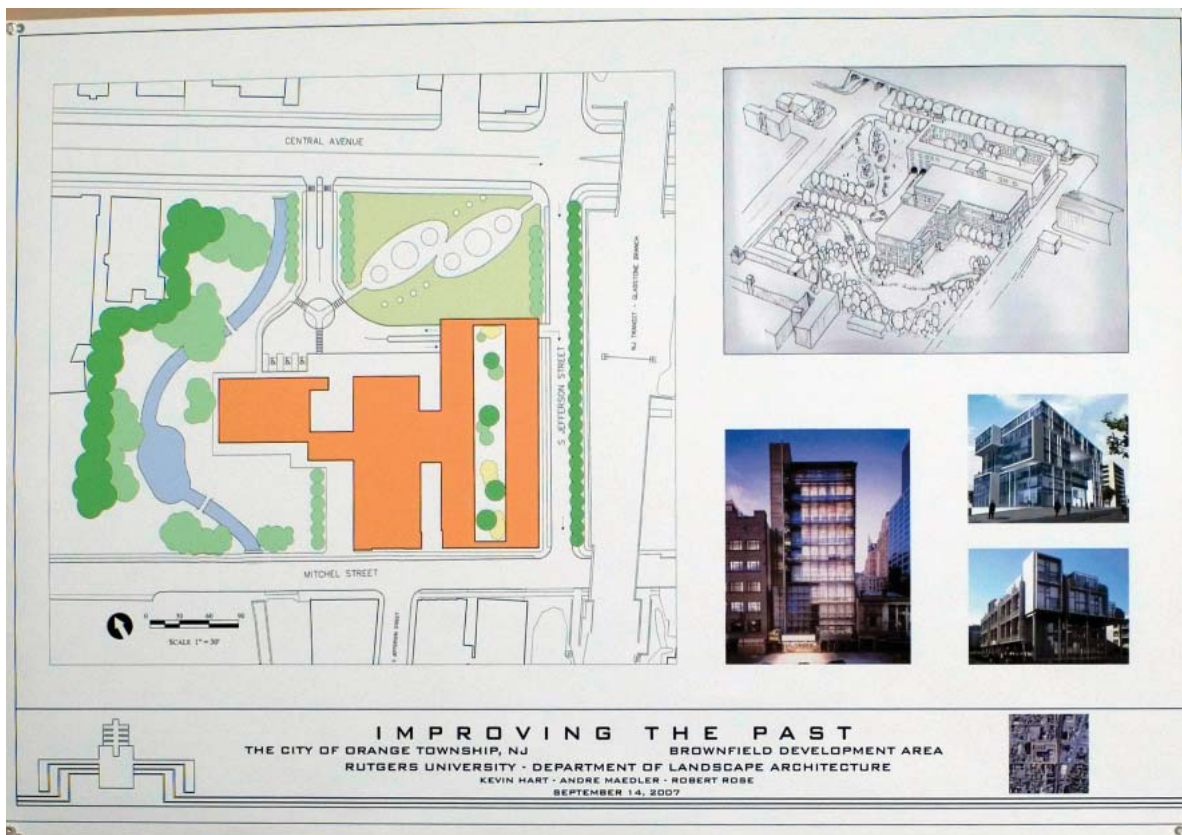
Karsten Gerhardt
Brian Shankle
Dan Melick
Daniel Strommen

Group 5, Site 3, Karsten Gerhardt, Brian Shankle, Dan Melick, Daniel Strommen

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Group 6, Site 3, Olaf Jahn, Sarah Clark, Jessica Edge, Kevin McConville

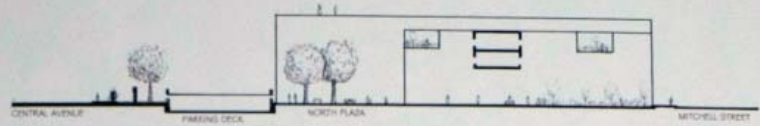


Group 7, Site 4, Andre Maedler, Kevin Hart, Robert Rose

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STUDY MODEL



SECTION THROUGH NORTH / SOUTH AXIS SCALE 1" = 20'



SITE PLAN SCALE 1" = 20'

A post industrial landscape, revisited. The design concept addresses this landscape, and revitalizes gems from the past. We have created A unique environment to live, work and play. The creative detailing and architecture expressively highlight the sites industrial treasures.



LOCATOR MAP



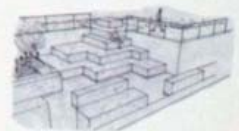
NORTH ENTRY COURT



PLAZA PASSAGE



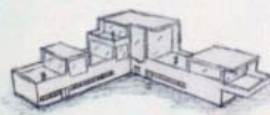
CORNER APARTMENTS



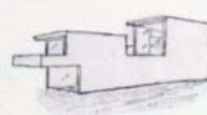
STREAM SEATING



TERRACE APARTMENTS



APARTMENT FRONTAGE



APARTMENT REAR



REVITALIZED ART-DECO

HARVARD SQUARE PROJECT
ORANGE, NEW JERSEY

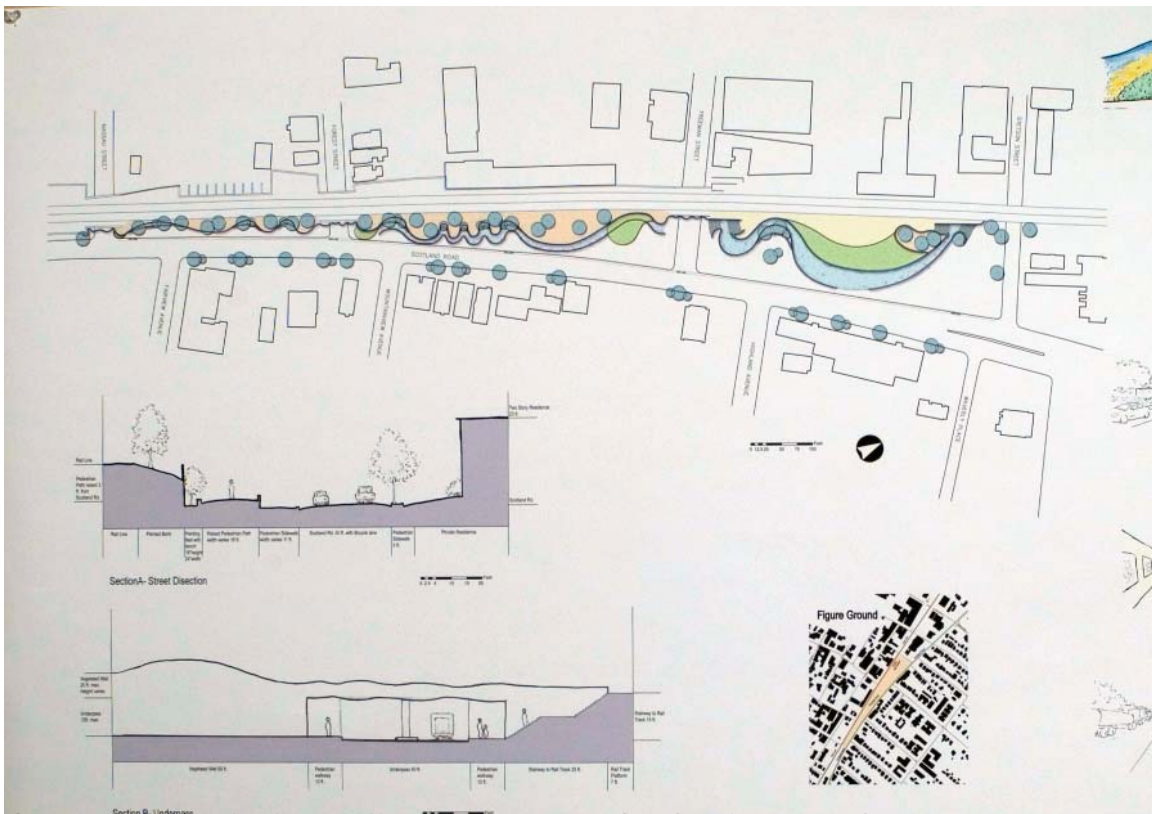
REMEDICATION / REVISIONING

RUTGERS UNIVERSITY, NEW BRUNSWICK, NEW JERSEY LAUSITZ HACHHOCHSCHULE, UNIVERSITY OF APPLIED SCIENCES JUELICH - SITLER - SOBOLEWSKI

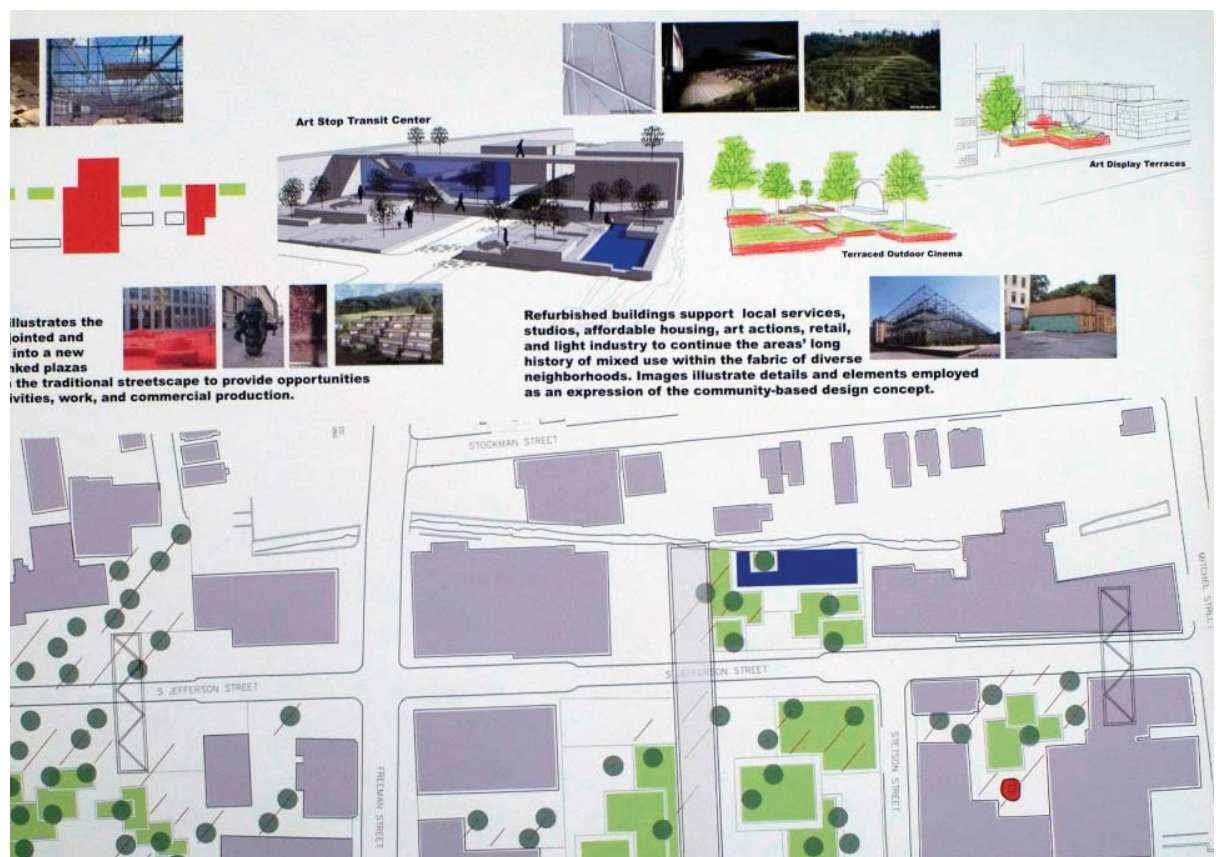
Group 8, Site 4, Mario Sobolewski, Wes Juelg, David Sitler



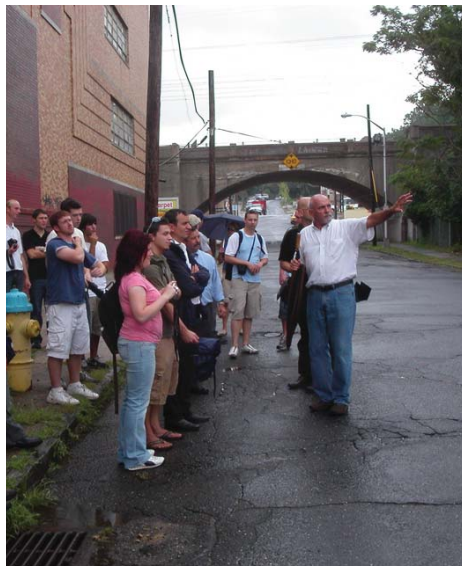
RUTGERS
UNIVERSITY



Group 9, Site 5, Stefan Hoffmann, Marc McCarthy, Scott Mathesius



Group 10, Site 5, Stefan Restemeier, Zac Caruolo, Allana Deecken, Christine Reimer



3.0 Context and Site Analysis

Central Valley Redevelopment



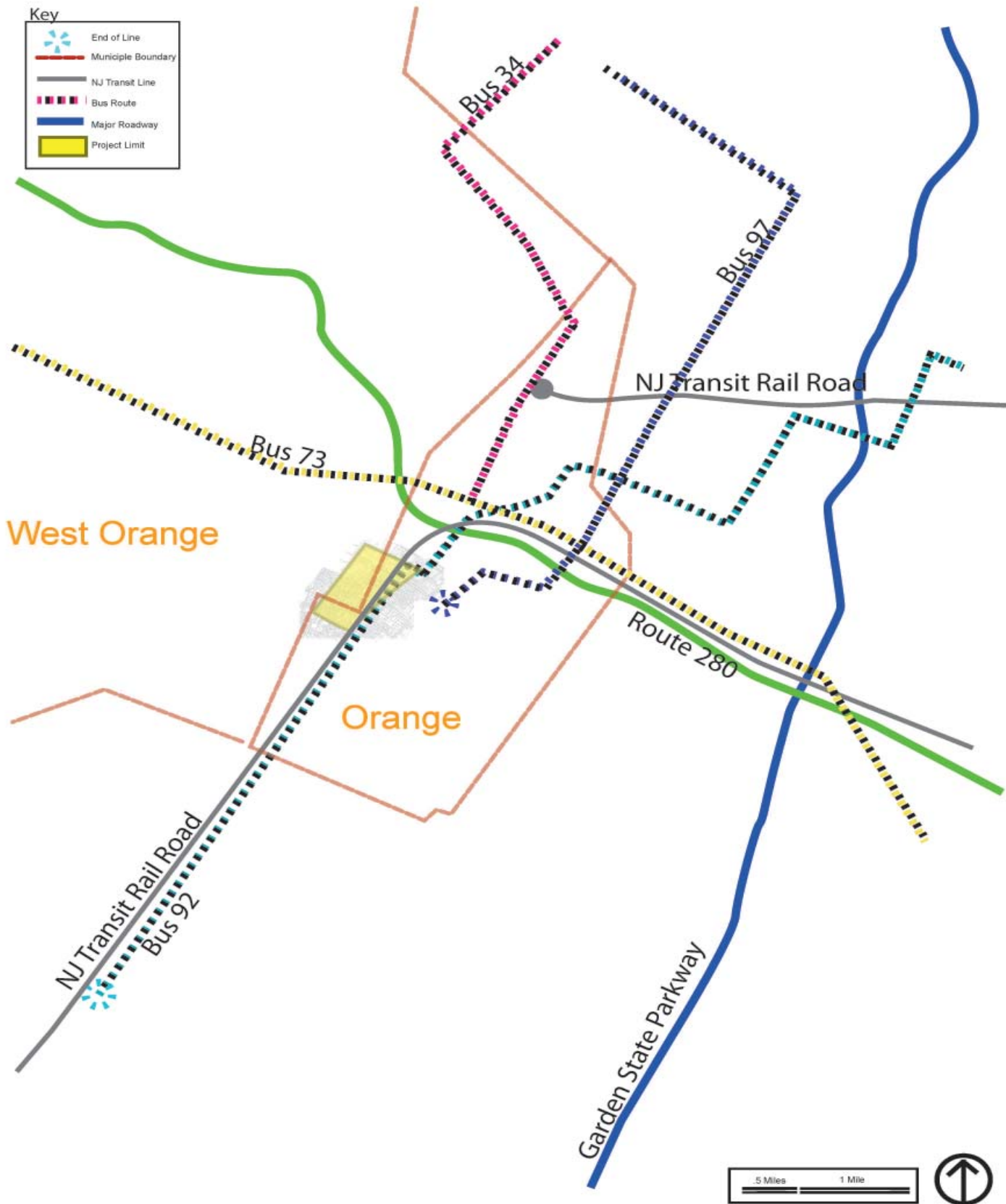


3.1 Regional Context of Central Valley

3.1.1 Regional Transportation

Jon Lahoda

The City of Orange and the Township of West Orange are both intersected and in close proximity to major arteries of transportation for Northern Jersey. Major highways such as Route 280 as well as The Garden State Parkway are within a five minute drive. Many bus routes zig-zag through the surrounding area for easy access to all parts of the city. There is only one bus line that is within walking distance (5-10 min.) of the Valley Site, however there is a NJ Transit Rail station also within walking distance that is a direct connection to New York City. The Valley BDA site is in a prime location for transportation and accessibility throughout the region.



3.1 Regional Context of Central Valley

3.1.2 Regional Infrastructure

Kevin Hart, Wes Juelg, Jonathon Mullineaux

1. Hospitals of Orange/ West Orange

The current and predicted trend as outlined in the Orange master plan tells the story of an acceptable level of hospital services for all of Orange and the Central Valley BDA site. The pattern shows a movement away from long term hospital use and care, and the increase of private doctor offices and out patient care facilities. In 2004 the former Hospital Center of Orange was closed down. Across the United States during the 1900's, 440 hospitals in a similar setting as Orange were closed as well. We believe a new hospital is not needed to support redevelopment in the BDA, however doctor offices and out patient care facilities should be encouraged and an adequate space for these offices should be considered.

2. Police

Currently, the cities of Orange and West Orange have one police station within each of their boundaries. The City

of Orange's police station is located approximately 15 blocks and the City of West Orange is located approximately 9 blocks from the Central Valley BDA site. With the redevelopment of the BDA site, it may be necessary to increase the size of the police forces, however the addition of another police station within the site would probably not be necessary.

3. Fire

Currently, The City of Orange has one fire station which is located approximately 2 blocks from the Central Valley BDA site. The City of West Orange contains 4 fire stations, with the closest being approximately 4 blocks away from the site. With the redevelopment of the BDA site, it may be necessary to increase the size of the fire squads, however the addition of another fire house within the site would probably not be necessary.

4. Education in Orange

Starting in the mid-1990's a major capital program was

started to replace or upgrade all of Orange's public schools as stated in the Orange master plan. New construction plans for expansion are in the process of development for the Lincoln Avenue and Park Avenue Elementary schools. Currently the elementary schools are on or close to the state averages according to the greatschool.net website, which gives the most recent information distributed by the state. With the new additions planned for the future there will be sufficient room for new students created by the addition of residential properties within the BDA area. These new expansions are important for Orange due to the decreased role of private schools in the overall educational system. Orange High and Middle schools are both below states averages for class size, therefore should be able to handle the new student demand created by the BDA redevelopment project.



3.1 Regional Context of Central Valley

3.1.3 Greenspace

Kevin McConville

Our research indicated the immediate areas of both Orange and West Orange simply do not contain sufficient amounts of useable greenspace. We examined areas roughly located inside a five mile radius. We found nine green spaces totaling roughly 34 acres. Seven were inconveniently located for the residents of Orange Valley and inaccessible by public transportation. The two largest green spaces within our research were privately owned golf courses. Simply put in order for the Oranges as a community to prosper in the future, the situation of adequate green space must change.

REGIONAL GREEN SPACE



3.1 History of Central Valley BDA

Stan Brand, Jessica Edge, Pete Klapsogorge

Looking to the past was an important venture in gathering a better understanding of Orange Valley and its character. Being able to see patterns of growth and development in these maps aided each design group towards their individual foci. Each map was created mostly as a figure ground to see the spacial changes through the years. This spacial awareness is reinforced by the present day grid represented in light gray. If there was additional information about building uses available, this was also added.

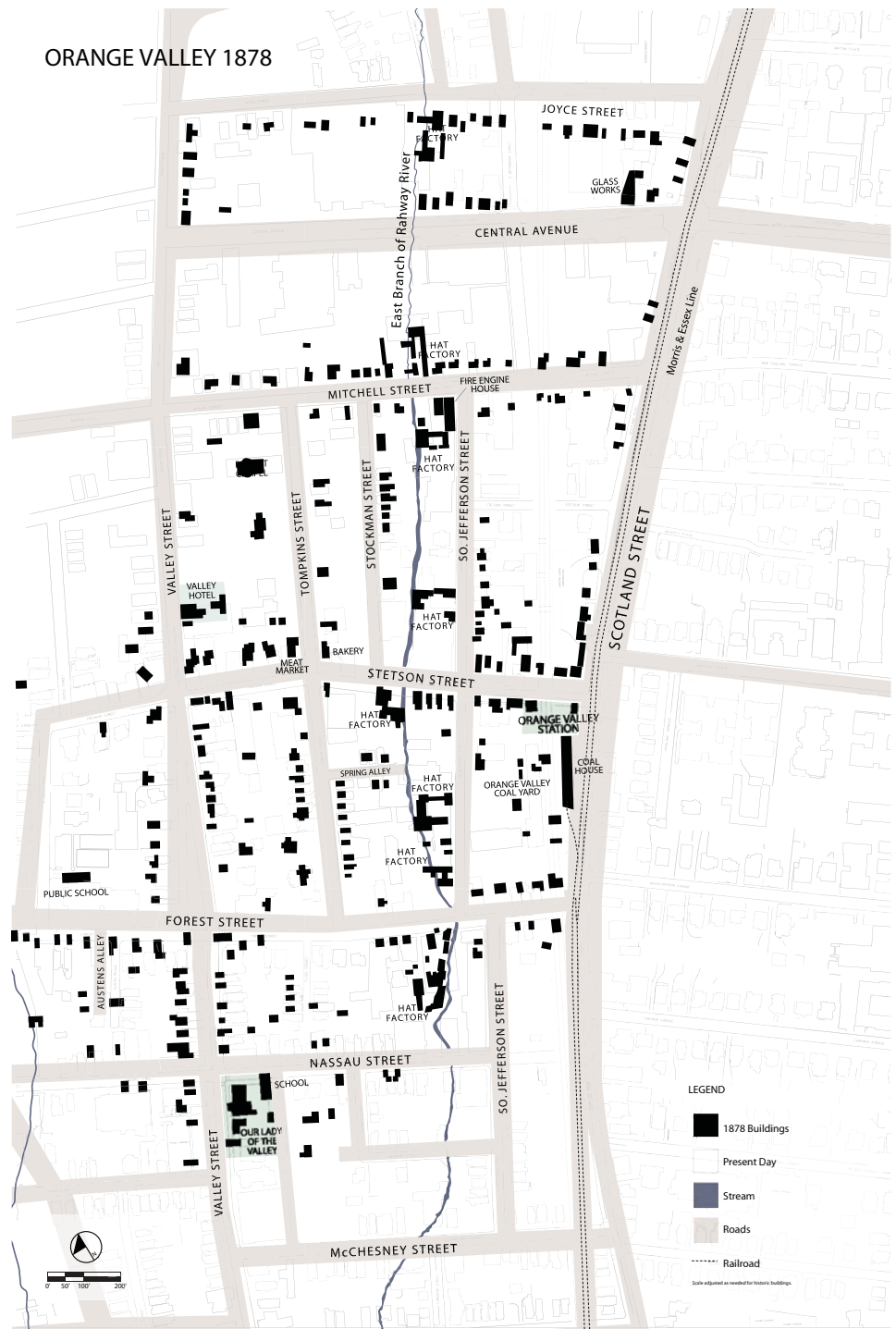
1856

This map provides a look into the early development of Orange Valley. There are only a few of the now existing streets and there are very few living here. You can begin to see the beginning stages of the hat factory development.



1878

The most telling things about this map are the two streams running parallel through the site. Today it is difficult to see the direction of the streams' system because they are no longer visible in one stretch. This map also shows the boom of hat factory development along the stream. The rail line is also introduced, however, note that it ran along Scotland Road. The embankment came later (Hopkins, 1878).



1911

Here you begin to see the streams have gone mostly underground. Iconic buildings such as the elementary school and Our Lady of the Valley, and the large Berg building are also present (Mueller, 1911).



1924

There is an interesting change in density along the stream. But more interesting you can see the train embankment as it exists today (Sanborn Map Company, 1924).



3.3 Building Inventory

3.3.1. Figure Ground

Dan Melick, Brian Shankle,
Dan Strommen

Figure ground maps generally show us how buildings create spaces. They highlight the constraints and opportunities of spaces between built structures. A figure ground image can define areas with weak connections, poor accessibility, and locations in need of further development. The use of figure-ground maps can help a viewer easily distinguish built structures with the surrounding spatial environment. Black represents the buildings and white is the void spaces.

The Orange Valley figure-ground map (on the right) shows a haphazard pattern, without any relation to the surrounding context. The present disconnected layout lacks defined spaces. Towards the southern portion of the site, many of the single family homes follow the street grid, creating a potentially promising place to live. The rest of the site loses this type of definition.

Such a map helps us to see where building voids could to be filled, blocked, or removed to create new more cohesive spacial characteristics.



FIGURE GROUND



3.3 Building Inventory

3.3.2 Building Use

Dan Melick, Brian Shankle,
Dan Strommen

There are a variety of building uses in the Central Valley. The buildings are being used for a variety of reason including retail, residential, mixed-use, industrial and public use. Retail is situated at street intersections and close to the outskirts of the site. The majority of the residential homes are situated along the western edge. Mixed-use buildings are located sporadically throughout the site, typically consisting of retail businesses on the first floor along with apartments on the upper floors. Between the western residential community and the train embankment lies an expanse of industrial activity. Many of these industrial buildings were abandoned causing them to deteriorate over the years. The industries still operating today are loud, very overbearing, and unpleasant to the surrounding neighborhood. Public uses for buildings consist of numerous churches, a community center, and a vacant train station. The building use map helps us see how the community is poorly functioning at its present state.

1. Multi-Unit Apartments
2. Bravo Supermarket
3. Thrift Store
4. Bank
5. Beauty Salon/Deli
6. Auto Shop
7. Metal Works/Welding
8. Librettis Restaurant
9. Berg Hat Factory
10. Body Shop
11. Razor Blade Factory
12. Electric
13. Pav Con
14. Health Center
15. Pools
16. Restaurant/Apartments
17. Mitchell Fuel
18. Compucate
19. Valley Arts/Apartments
20. Bar/Apartments
21. Tryco Tool MFG
22. Box Co.
23. G+S Electrical Motor Repair
24. Pub/Apartment
25. Lagniappe Food Distributor
26. Stetson Hat Factory
27. Harvard Printing
28. General Contractors
29. Metal Fab
30. Auto Repair
31. Ironworks
32. Deli
33. El Rancho Restaurant
34. Restaurant/Apartments
35. Outlets
36. Event Planning/Barber/Hair Care/Pizza/China King/Apartments
37. Diner/Salon/Hardware/Apartments
38. Bus Depot/Apartments
39. Carwash
40. Deli/Salon/Hardware/Apartments
41. Travel/Insurance/Apartments
42. Krauzers/Cleaners
43. Personal Lettering
44. Selecto Flash
45. Automotive
46. Contractor
47. Trainstation
48. Lumber
49. Self Storage/Auto trader
50. Community Center

INVENTORY OF BUILDING USE

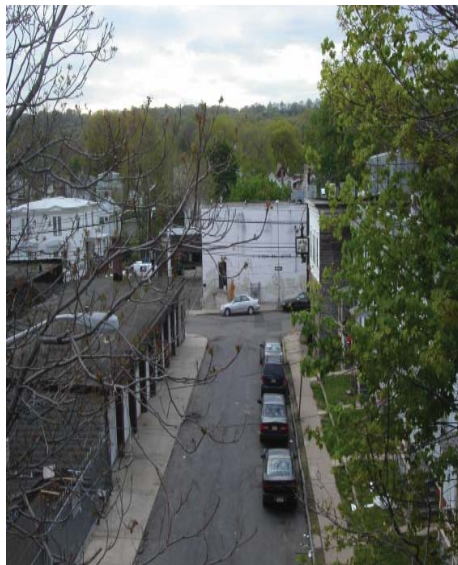


3.3 Building Inventory

3.3.3 Building Height

Dan Melick, Brian Shankle,
Dan Strommen

An inventory of heights was done in order to see relationships around and between buildings. The scale of a particular building could sometimes be overbearing to the smaller surrounding ones. Industrial buildings typically are one to two stories tall. Residential homes are two to three stories tall. Old abandoned factories are roughly four stories and up. This inventory is useful in determining spatial organization of streetscapes and building height transition zones.



INVENTORY OF BUILDING HEIGHT



3.4 Demographics

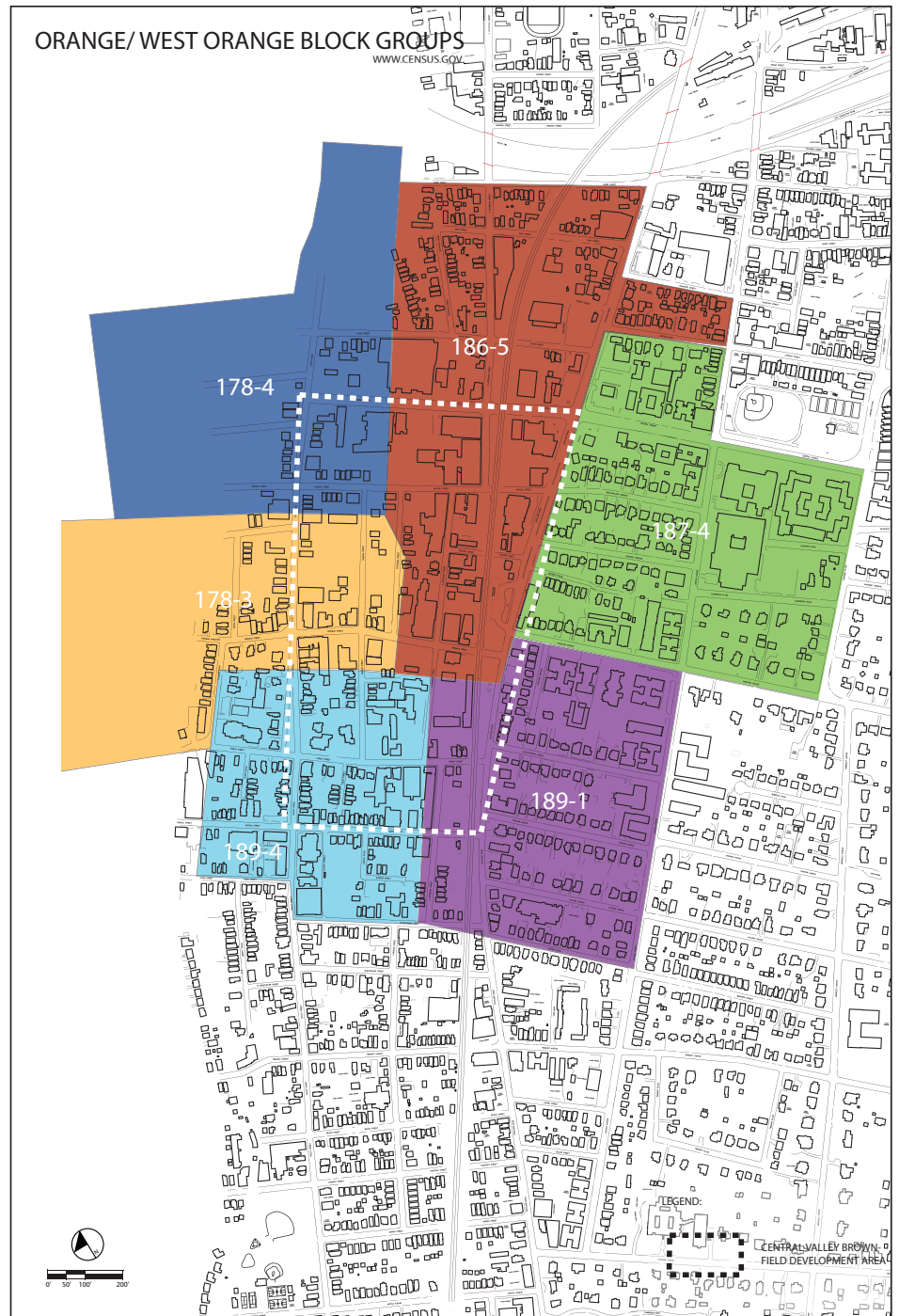
3.4.1 US Census Data

Zac Carulo, Stephen Hobbs

In this portion of the analysis phase our study of US Census data informed our work by providing important information about the existing inhabitants of our site.

The Orange West Orange Census Block Diagram along with the Us Census Data Analysis illustrate the relationship between the data analyzed and our site. Each of the six census blocks and their data are represented in corresponding colors. The limits of our site are shown by the dashed line which serves to show the varying proportions of each block represented within.

The importance of this analysis became apparent once we were able to visualize some of the striking differences between data collected from West Orange represented by blocks 178-4, and 178-3 and the data collected in Orange represented by blocks 186-5, 187-4, 189-1, and 189-4. For example, there is a much higher home owner occupancy in West Orange compared to a low home



ORANGE/WEST ORANGE DEMOGRAPHIC DATA ANALYSIS U.S. CENSUS DATA

owner occupancy in Orange Valley.

We chose to focus our analysis of the six US Census blocks on four variables represented in each column:

The first column (Occupancy Status) illustrates the relationship between occupied and vacant housing in each of the six blocks.

The second column (Tenure) illustrates the relationship between owner occupied and rented housing.

The third column illustrates the (Race of Householder) present in each block.

The forth Column illustrates the (Age of Householder) present in each block.



3.5 Contamination

3.5.1 Site Contamination

Martin, Blaser

Brownfields and forgotten urban land can be promising places for redevelopment, and they offer sites of renewal in our post-industrial environments. Unfortunately, many of these sites are ridden with chemical contaminants left behind by a industrial past. This diagram shows a visualization of the contamination documented in the Orange/West Orange Central Valley, Brownfield Redevelopment Area.

The areas of greatest contamination are mostly clustered around the river and are present in the very same plots of land that define Orange Central Valley. Many of the contaminants sited in the application are only assumed based on prior industrial practices, and it is highly possible that many more contaminants may actually be present.

Identifying where specific contaminants are likely to be found makes it possible to categorize the lots by each of the chemicals present. This is very critical in creating strategies for future remediation. Lead, mer-

cury and other heavy metals must be physically removed or drawn out of the soil by plants, who absorb contaminants through the roots, and then are later harvested and disposed. Certain petroleum-related contaminants, such as benzene and polynuclear aromatic hydrocarbons, must be remediated through the use of bioremediating bacteria.

In shaping a successful new future for the community, much attention must be paid to zoning and contamination. Based on the Central Valley BDA we suspect some plots are currently unsuitable for residential use, and require intense remediation before any redevelopment can occur.

POSSIBLE SOIL CONTAMINATION: ORANGE/WEST ORANGE CENTRAL VALLEY



3.5 Contamination

3.5.2 Community Welfare

Martin, Blaser

In an attempt to bridge the gap between what has been documented in the Brownfield application of Orange Valley and what still remains unknown, a walk-through of the site provided the data for Central Valley's contamination on a physical, rather than chemical, level. These are situations that are clearly visibly or audibly detrimental to the community. Data concludes that there are multiple areas omitted from the Central Valley Brownfield Redevelopment Area that certainly detract from the well-being of the community.

This diagram indicates where there is currently contamination in Central Valley that can be stopped in its tracks before further remediation is required. It is evident that some existing businesses lack appropriate ecological practices, permitting gasoline, oil and other waste products to flow into the main storm water system. Visual contamination detracts

from local pride and, unless acted upon, diminishes the hope for a flourishing community. Noise contamination from local machine shops and the train can break the neighborhood aura. These elements are certainly important aspects of the community, however, and thought must be given to better plan and arrange the neighborhood to cooperate with these elements.

COMMUNITY WELFARE



3.5 Contamination

3.5.3 Soil Types

Martin, Blaser

Once contamination is pin-pointed on the surface, deeper investigation must be taken to understand how contaminants actually work in the soil. To do this we must begin to understand the soil and its makeup. This diagram depicts information from NRCS (Natural Resources Conservation Service) and USDA (United States Department of Agriculture) showing the slope and soil types present in Orange's Central Valley. Understanding these characteristics will allow us to create more specific relationships between the flow of contaminants to the East bank of the Rahway River and the site's natural aquifer.

The flow of each individual contaminant differs due to soil composition, compaction, and slope. This map offers a greater understanding of these characteristics, and aids in better decision-making regard-

ing remediation tactics and planning. Soil types and their structural stability may dictate what is appropriate for building. Our site, specifically, is primarily composed of Dunellen Substratum, a loamy stream outwash, and Boonton Substratum, a more coarse, red sandstone-based, silty stream outwash soil. Both of these soil types allow water to drain through the soil quickly. Unfortunately, this means the contamination will also move freely through the soil. Aqueable contaminants will be carried with the water and deposited onto soil particles. Non-aqueable contaminants will percolate through the soil on their own, also clinging to the aggregates of soil. Aside from the contamination factor, learning about the soil characteristics gives planners a greater understanding of the vegetation that would flourish in the Central Valley. Understanding

soil is important for all aspects of design, dictating groundwater flow, building footprints, vegetation and remediation. It is about letting the land tell us what's best for it.

SOIL TYPES ORANGE/WEST ORANGE CENTRAL VALLEY



3.6 Regional Context of Central Valley

3.6.1 Transportation

Sarah Clark, Jon Lahoda,
Christina Reimer



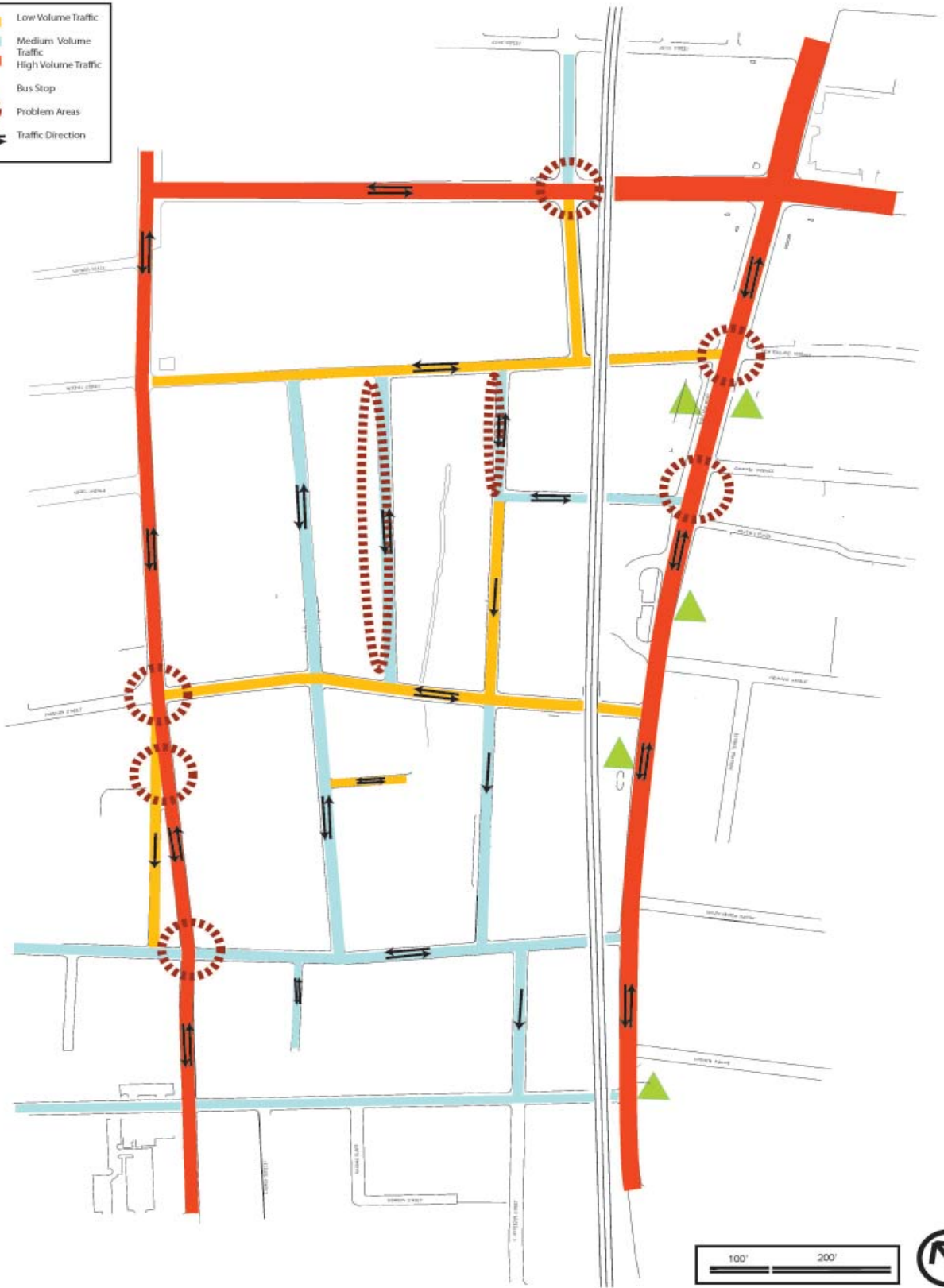
The analysis of street parking in the Central Valley region of Orange was critical to the understanding of current land use and an important indicator of current versus projected parking needs. On-site inventories were conducted with these criteria:

- Location of current on-street parking and the associated parking regulations.
- The location of dedicated parking lots (public and private) and their associated use.
- Documentation of parking in semi-private areas.
- Documentation of illegal street parking.
- Comparison of mid- morning vs. evening.
- Weekday vs. weekend street parking patterns.
- Traffic volume and areas of conflict (vehicular-vehicular, pedestrian-vehicular) were noted to obtain an understanding of pedestrian circulation and of local vehicular circulation within a regional context.

We studied the volume of traffic on the surrounding streets to find where the majority of cars traveled. There were noticeable cut throughs on Mitchel and Freeman Street. Strong connections on Valley and Scotland gave way to regional transportation. Central Avenue was also a heavily used road. Each main road was also filled with several 'dangerous areas' highlighted in a red dashed circle. For example some area lack signage or pedestrian crosswalks. The main roads created a type of boundary that made it hard for a pedestrian to access the Valley.



Key



3.6 Regional Context of Central Valley

3.6.2 On Street Parking

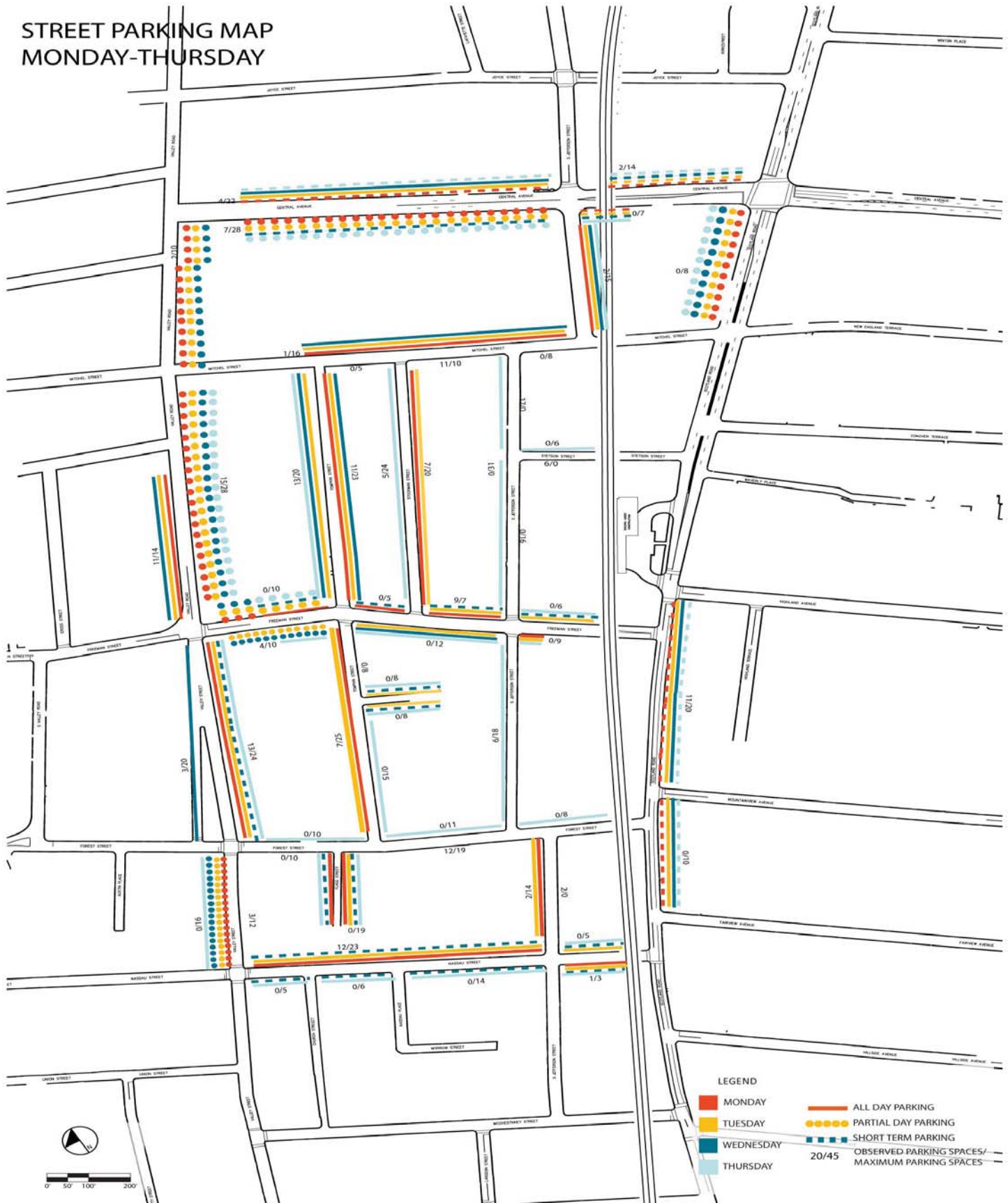
Sarah Clark, Jon Lahoda,
Christina Reimer

Analysis of street parking showed patterns typical of many urban areas: short-term parking was associated with retail and commercial stores located along major perimeter roads (Scotland and Central Avenues, Valley Road), regulations being utilized to limit street parking on major roads during rush hours, regulations to control overnight parking of non-residents in residential areas, signs prohibiting weekend parking, and alternate side parking on narrow residential streets. Because parking stalls were not painted on streets, calculations for available parking spaces were based on a 22' long stall dimension. In general, observed parking patterns and calculated spaces indicated parking was sufficient to meet existing needs.

When evaluating on street parking during the week-day, Monday through Thursday, a general trend of cars parked compared to potential cars parked was found. On each street hourly or specific time parking regulations kept most

streets clear either at night or during the day. It was determined that during the week there is adequate parking for the amount and greater of people living and working in the valley area.

STREET PARKING MAP MONDAY-THURSDAY



3.6 Regional Context of Central Valley

3.6.2 On Street Parking (continued)

Sarah Clark, Jon Lahoda,
Christina Reimer

Weekend parking patterns did not differ markedly from weekday use except for a reduction of alternate side street parking and Sunday parking on streets normally dedicated to limited weekday uses.

DAYTIME STREET PARKING MAP FRIDAY - SUNDAY



RUTGERS
UNIVERSITY

3.6 Regional Context of Central Valley

3.6.3 On Street Parking (continued)

Sarah Clark, Jon Lahoda,
Christina Reimer



The parking efficiency map shows which parking lots are used to maximum efficiency and which ones consume more land area than needed.

Existing parking lots were located and parking observations were made on both weekday and weekend mornings and evenings. The area of the lots was computed and divided by the square footage required per parking space to obtain the total parking capacity of the lot. Standard parking stall dimensions are typically 10' x 20', with a 20' aisle width. We felt this standard was overly large for an urban environment, and was especially inappropriate in Orange since few lots were ever observed to be full. Our calculations were based on an 8' x 16' stall with a 14' aisle, giving 240sf needed per space.

Each parking lot on the map lists an average of the observed number of cars parked over the calculated total lot capacity. We found that few parking lots were ever filled to maximum capacity.

Furthermore, the legend shows sample lot sizes and associated total lot capacity, i.e. the maximum number of cars that can park in that given amount of square footage. The sample lots are color coded for easy reference to existing parking lots on the map. Comparing the sample lot size needed for a given number of cars with the existing lot sizes and number of cars actually observed parked shows most parking lots were much larger than necessary to accommodate the observed number of cars parked there.

We concluded that there was an overabundance and underutilization of existing parking lots. Decreasing stall sizes, reducing the overall size of lots, and emphasizing streets as a parking option would be important measures to reduce the amount of impervious coverage and wasted space in the Central Valley.



EXISTING PARKING ON NON-PUBLIC LOTS COMPARED WITH TOTAL LOT CAPACITY TO SHOW EFFICIENCY OF USE.



3.7 Open Space

3.7.1 Vegetation

Jessica Booth

The Central Valley Redevelopment site of Orange/West Orange is at first glance an urbanized post industrial zone with limited vegetation. With more in depth analysis Central Valley has great potential for green space development. The vegetation in the diagram is labeled as turf grass, pioneer plants, or residential landscape. Each category has its own function in the ecosystem of the site. The turf grass zones show areas that have the ability to be planted. Turf grass is an impervious plant material that is prone to increasing runoff. Turf grass can affect the surface runoff in surrounding areas by shedding the water onto them. By creating an inventory of impervious planted areas, we are pinpointing the spots that can be amended to limit storm water problems. The spaces with pioneer plants are located in or around vacant areas, such as near the train tracks and in abandoned industrial sites. Some of these pioneer plants are often exotic invasive plants that take advantage of

desolate areas. By establishing in those areas they are able to reproduce and spread to other open areas. The residential landscape plants are located on private property or near residences. The landscaped areas show a connection of vegetation. They are spaces that are affected or can affect other open vegetated areas. When walking along the street vegetation appears fragmented but from a bird's eye view the vegetation may be linked together. The connected zones show the areas with the potential of being affected by redevelopment.



Pioneer plants invading the stream canal.



Pioneer plants and landscape plants in a forgotten landscape area.

VEGETATED SPACE



3.7 Open Space

3.7.2 Street Trees

Dominick Pensabene

Trees have a very beneficial role in the world we live in. At first thought, trees provide beauty and shade. When looking more closely at the benefits of trees and in particular street trees, you begin to learn that they do a lot of good for people and the environment.

Trees have many social benefits, one being the idea that we like trees around us because of their beauty which makes our lives more pleasant. More importantly trees are a very large environmental benefit. Trees have the ability to moderate climate, improve air quality, conserve water and provide a home for wildlife. By planting deciduous trees on the south side of a building, they provide shade and in turn, cool the building in the summer. In the winter, when the leaves fall off, the bare trees allow the sun's rays to penetrate and heat a building. Trees also uptake water and therefore help reduce storm runoff. Knowing that trees provide shade, by planting them in an urban city, they can moderate the heat-island effect

caused by pavement and buildings. Air quality can be improved by trees. Leaves help remove dust and other bothersome particles from the air we breathe from. Leaves also absorb harmful chemicals such as carbon dioxide, carbon monoxide and sulfur dioxide from the air and then give off oxygen. With all that being said, trees have an economic benefit. Direct economic benefits are usually recognized at the individual home, and are usually associated with energy costs and increased value property by landscaped homes. Indirect economic benefits of trees are even greater in which trees help power companies spend less money in various situations (International Society of Arboriculture, 2007).

In addition, street trees in particular have specific benefits. First, cars drive more slowly on streets with trees. "In the March 14th edition of the Seattle Times Pacific Northwest magazine, former Seattle city arborist Marvin Black points out that traffic moves more slowly on street lined with trees. Trees have a calming effect, and drivers are at least subconsciously aware that where there are trees, there are often pedestrians and children playing" (Dunn, 2007). Street trees also help with reducing the amount of traffic noise. One because the driver will be going slower, and secondly, the leaves of a tree absorb noise. Lastly, residents walk more on streets with trees which is very beneficial in help forming a community atmosphere (Dunn, 2007).

Looking at this inventory of all the street trees in the

Central Valley BDA, you can see that the amount of street trees is somewhat deficient. There are some streets filled with trees and provide a great benefit to the residents that live on that street but, there are some streets have very few trees. In addition, there is no clear planting plan for the majority of the area; species seem to be haphazardly planted. In addition to the many reasons mentioned above; with a clear planting plan of street trees for every street, streets would become more defined, have unique characteristics and the residents and visitors of the Central Valley BDA would benefit as well as the larger environment.

Street Tree Inventory:

- Acer platanoides- Norway Maple
- Acer rubrum- Red Maple
- Acer saccharinum- Silver Maple
- Aesculus hippocastanum- Horse Chestnut
- Ailanthus altissima- Tree of Heaven
- Albizia julibrissin- Mimosa
- Cedrus atlantica 'Glauca'- Blue Atlas Cedar
- Fraxinus pennsylvanica- Green Ash
- Ginkgo biloba- Ginkgo
- Gleditsia triacanthos- Honey Locust
- Juniperus virginiana- Eastern Red Cedar
- Liquidambar styraciflua- Sweetgum
- Malus hupehensis- Tea Crabapple
- Morus alba 'Pendula'- Weeping Mulberry
- Morus alba- White Mulberry
- Picea abies- Norway Spruce
- Platanus occidentalis- Sycamore
- Prunus cerasifera- Purple leaf Plum
- Prunus serrulata 'Kwanzan'- Kwanzan Flowering Cherry
- Pyrus calleryana- Bradford Pear
- Quercus palustris- Pin Oak
- Sophora japonica- Japanese Pagoda Tree
- Taxus baccata- Yew Tree
- Tilia cordata- Littleleaf Linden
- Tsuga canadensis- Canadian Hemlock
- Zelkova serrata- Japanese Zelkova

STREET TREES



3.7 Open Space

3.7.3 Sidewalks

Mark McCarthy, Robert Rose,
Dave Sitler

The sidewalk is an often overlooked element in the landscape that strongly impacts a pedestrian's experience. The sidewalk is a connection between public and private space. This landscape element can represent the current state or even give a glimpse into the past.

The sidewalks of Orange today vary greatly in their appearance and condition. This observation is directly connected to the state of the community itself. Whether you look up or down you will see the aging character of Orange.

Small patches of blue stone peppered throughout the landscape speaks of a greater time that Orange once knew. The remaining bluestone cast a handsome tone for the pedestrian, however its quality is lost due to the amount of concrete

surrounding it.

Through the time as conventional construction materials prevailed, concrete replaced the more expensive bluestone walkways of the past. These concrete materials prevail into the present and are in different states of weathering. Sidewalk conditions range from extremely poor to fairly new depending on its time of installation. This method of construction has created a dissected identity that adds a bleak shadow to the pedestrian experience.

The pedestrian pathway conditions are clearly representative of the communities lack of stewardship. The sidewalk has become a forgotten element that the community is reminded of everyday they step foot out of their home and onto the street.



3.7 Open Space

3.7.4 Stream Channel

Mark McCarthy, Robert Rose,
Dave Sittler

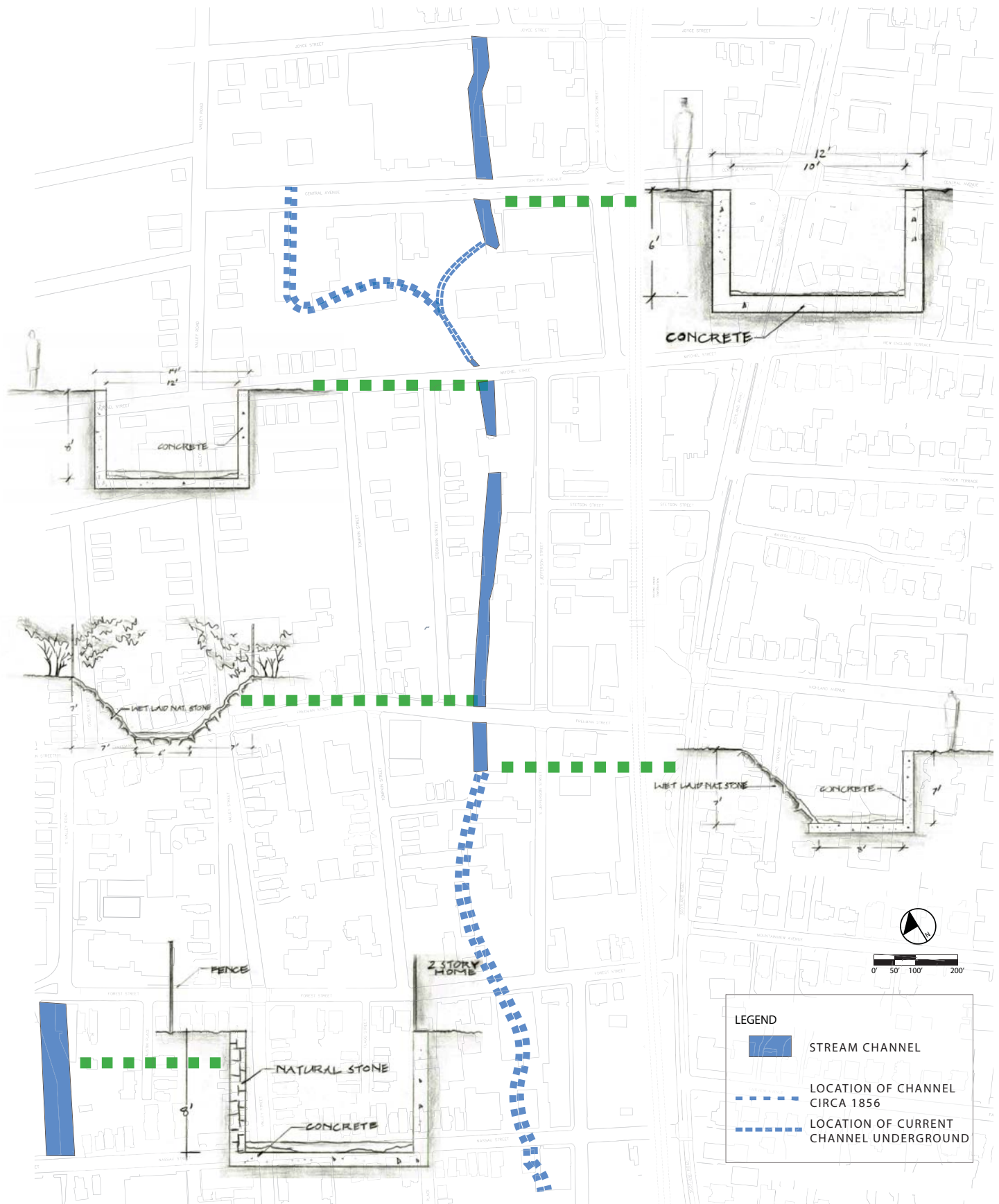
drops and no safety rail or fencing to prevent accidents.

The issues regarding the stream are many, however opportunity's for revitalization are lying in wait. The central valley's stream corridor can and must be reutilized for the benefit of the city and it's inhabitants.

Prior to mass industrial development, Central Valley possessed a quaint natural stream. Through the development of the industrial core, the stream was slowly channelized and built upon with large industrial structures. It is now nothing more than a concrete tube that collects a small amount of nearby surface runoff.

In the past, the stream was used to handle stormwater. However, the stormwater is now collected in a combined sewage/stormwater management system that leaves the stream channel as an unused piece of history that is all but forgotten. The scattered open sections of the channel have varying characters ranging from straight concrete walls with no vegetation to sloped sides with massive thickets of invasive plants. Some of the sections of the stream have barbed fences, and large buildings very near or on top of it which further disassociates the community from a vital asset. In contrast, the sections of stream that are accessible have sheer





3.7 Open Space

3.7.5 Existing Social Space Walking Distance

Zac Carulo, Stephen Hobbs

In order to develop an understanding of what dictates a potential social space, it is first necessary to define the qualities of a social space. What exactly is it that brings people together and how do they interact? With inspiration from the Project for Public Spaces website, we are able to derive criteria for analyzing Orange, New Jersey. Among the topics for analysis are accessibility, activities, sense of security, sense of comfort, and people present.

Accessibility to a site is key; walking, biking, and driving are all relevant means of transportation in an urban setting and need to be taken into account for analysis. At each site, we are able to determine the ease of walking to, from, and within each site based on the presence of sidewalks and cross walks within. Furthermore, we can observe the use of bicycle lanes if present, and the intensity of local traffic driving through the site. Each of these means of transportation play an important role on the pedestrian's safety

within the site: is it easy to get to and is it safe once within?

Local activities within the site can become a major reason for attraction of people. Does the city provide adequate shopping and dining districts? Are their adequate playgrounds and community events for children and young adults? While visiting the site we can observe the relationship between the congregation of citizens with and the local retail and commercial stores.

Sense of security and comfort follow hand in hand in this analysis. To attract citizens to a site, it needs to be visually inviting. Adequate seating, shade and lighting are essential in developing a local urban gathering space. This provides opportunity for interaction among citizens.

By taking these topics and applying them to the existing site, we are able to verify the validity of these specific spaces and note them on the map as a shaded circle. From each of these points, we can then derive a 5 minute walking radius comparison to the rest of the site.

These radii indicate proximity of social spaces to each other and to connections such as major access roads and the train station. The overlaps in walking radii can begin to show areas of possible redevelopment due to proximity to existing social spaces.

POTENTIAL SOCIAL SPACES

LEGEND

CORRIDORS OF ACTIVITY

HOT SPOTS OF ACTIVITY

1/4 MILE WALKING DISTANCE

3.7 Open Space

3.7.6 Viewsheds

Pete Klapsogearge



Based on impressions of the site, many different views exist within the Central Valley, each with their own unique quality. Valuable views to the surrounding hills towards West Orange are present from the train platform. This commanding view over much of the Valley also has major buildings seen within it, mainly the old Berg Hat Factory building complex, Our Lady of the Valley, and Valley View condominiums.

A second commanding view is also at the northern end of the train platform. However, this view is obstructed by heavy vegetation along the opposite side of the tracks. From this position, the only visible landmarks are the Art Deco building and the Harvard Printing building. The height of the buildings makes them stand out in the Valley.

Each street perpendicular to Scotland Road has unique street-level views. Major viewsheds on this ground plane are along Central Ave., facing Valley Street. The prominence of the historic Bittleman tower and

Harvard Printing buildings give a sense of place to the area. A poor viewpoint at the intersection of Central Ave. and Valley Street is the terminus of one of the major street-level viewsheds. This view has the potential to be of great importance.

A predominantly residential viewshed exists down Nassau Street. This viewshed is framed by the supports of the train bridge and Our Lady of the Valley is a major focal point at the end of this street.

Freeman Street, in proximity to the train station, lacks a main viewshed, partially due to the slight curve in the road at the intersection with Thompkin Street.



3.7 Open Space

3.7.7 Image of Central Valley BDA

Stan Brand

According to Kevin Lynch in his book *The Image of the City* the existing physical forms and structures within the urban context are part of a greater category of elements; junctions, edges, districts, and landmarks.

The Junction is a break in transportation. It is a location where heightened attention is needed to make a decision of movement. The identified areas occur on corners of streets and train station where various forms of transportation and pedestrians intersect.

The Edge consists of linear elements that act as boundaries between two parcels of land. For example, the train embankment is an edge that divides the Central Valley from the rest of Orange.

Districts are the sections of the city where there is a central theme or character recognized as unique. South Jefferson Street would be considered a district because it is primarily industrial.

The Landmarks are another form of reference and

are defined external objects. Throughout Orange Valley there are various landmarks such as the Highland Avenue Station, Our Lady of the Valley Church, Berg Hat factory building, Art Deco building and Biddleman smokestack. (Lynch, 1960)

THE IMAGE OF ORANGE



4.0 Community Interest

Central Valley Redevelopment





4. Community Interest

4.1 PPS Workshop

Christina Reimer and Sarah Clark

Project for Public Spaces (PPS) led a workshop for residents of the City of Oranges' Central Valley region on Saturday, September 15, 2007. Also present were Valerie Jackson, Pat Morrissy (HANDS Housing Organization), and other political members.

The workshop began with a presentation by PPS to introduce their planning philosophies and to explain the structure of the workshop. PPS believes that soliciting community input at planning inception provides a framework for creating great public spaces that are successful because they reflect the needs and meet the desires of the residents. Based on extensive evaluations of thousands of public spaces, PPS has identified four key attributes they believe most successful public spaces share:

- 1) They are accessible and well-connected to other important places in the area.
- 2) They are comfortable and project a good image.
- 3) People are drawn to partici-

pate in activities there.

- 4) They are sociable places where people like to gather and visit, again and again.

Each of these qualities has intangible features associated with them. A place can feel vital, special, spiritual, charming, connected, interactive, welcoming, and friendly. A place can also be useful, sittable, walkable, convenient, diverse, and sustainable. To assess the performance of a public space, social, economic, transportation, and environmental measures are quantified. Traffic data and parking usage patterns, for instance, are measurable components of Access & Linkage. Human behavior in a place is therefore a complex interaction of design, site management, and sociological context (PPS.org, 2007). PPS has devised a system to capture, record, and categorize vague and often intangible public input into a manner that can be utilized for community-based planning.

The "Place Game" followed the presentation, where smaller groups formed to visit various sites across the Valley. Each group was to report site observations and suggestions back to the larger group. Low workshop turnout was a problem. As a result, residents were systematically divided into groups to increase randomness and diversity of input, and site visits were combined. Residents filled out a survey to rate the city on the aforementioned key attributes of public spaces, then headed out to specified sites. Citizens were asked to think about limitations of the sites, and how they

could be improved.

The workshop concluded with groups creating and sharing a visual map of issues on their site, along with a written list of community assets, and short and long-term recommendations. The following is an overview of workshop conclusions:

1) "Identified Potential" Themes: Restaurants; historic buildings; building architecture; community pride (well-tended yards, vegetable /flower gardens, general absence of trash); benefits of racially diverse community (food, lifestyles, culture, language, religion) proximity and accessibility to NY Metropolitan area (mass transit); large population of contractors, and skilled artisans; large, historic trees; historical and underutilized sites as anchors for neighborhood.

2) "Identified Deficits/Suggested Improvements" Themes: slow down vehicular traffic (speed signage, traffic calming); create and optimize pedestrian passage areas between "nodes"; maintain lines of sight to prominent buildings; expand Triangle Park to create a destination within a corridor of activity nodes; improve quality of local amenities (no more dollar stores); reuse abandoned buildings to promote local services for local residents (spend our money in town); increase train service (Midtown Direct) and improve community connections (pedestrian, biking) to mass transit; start programs that support sustainable, green community; create paths, bike lanes, spaces for benches; implement measures (not identified) to integrate im-

migrant community; methods to acknowledge diverse cultures within the community; create sense of welcome and of place (signs, information, etc); develop after-school programs in church/ community centers to reduce crime; provide adequate and consistent night lighting to reduce crime and to promote safe night time use of spaces; support police but limit their visibility; open spaces for farmers/ flea markets; dog park.

PPS's program does offer a valid planning framework built upon issues important to the ultimate users of spaces: the people. Their strategy: go simple. Take complex issues out of the professional's heads and check in with the people who best know the inner workings of a site. This methodology promotes site-specific designs and supposedly successful spaces.



4. Community Interest

4.2 HANDS

Pete Klapsogorge and Travers Martin

HANDS, Housing and Neighborhood Development Sevices, Inc. was founded by a group of clergy and concerned members of the community in 1986 to ensure Orange and East Orange continue to be safe places to raise a family. Their focus has grown and initiatives have been taken to become part of the process of community development through revitalization and redevelopment of vacant, derelict properties. HANDS accomplishes these goals through increased home ownership, improving community organizations and leadership, promoting citizen involvement, creating imperative partnerships, and creating public and private policies and initiatives.

HANDS has not only been successful in creating worthwhile communities, but has also inspired state legislation to create the "Abandoned Properties Rehabilitation Act" to address the renovation and revitalization of once-forgotten properties. This legislation, along with community pride, has led to many suc-

cess stories for the Valley. Most recently, the Department of Environmental Protection has given the approval for the redevelopment of the Berg Hat Factory for residential use. Additionally, a HANDS' partnership, Harvard Redevelopment Associates, received an approval for their Jefferson Art Walk proposal to develop from South Jefferson Street from Central Avenue to Nassau Street.

Community organizations have flourished as a result of the many initiatives created by HANDS. ValleyArts, a group of committed parents, educators, artists, community members, and other volunteers, develops and identity for the area through cultural and artistic celebrations.

Thanks to the initiative of informed community members and executive director Patrick Morirssy, their successes have led them to focus attention to a new vision for the Central Valley. They intend on redeveloping five blocks, creating mixed-use development of housing, commercial, arts, and educational

spaces. With a focus of community and family, HANDS initiatives for the redevelopment of the Valley inspires growth for neighborhoods and greater good for the community (www.handsinc.org 2007).

ValleyArts is one of the community organizations that has flourished from the hard work of HANDS.

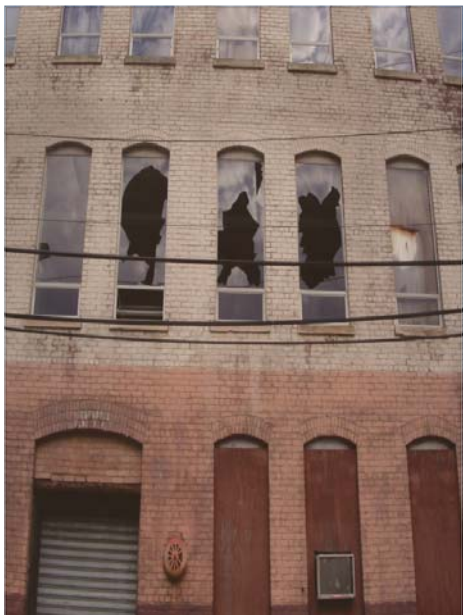


Sustainable, low cost housing and rehabilitation of derelict properties, creates neighborhood communities essential to the HANDS vision.

5.0 Projects

Central Valley Redevelopment





5.1 Education Community

5.1.1 Analysis

Jessica Booth and Dave Sitler

During our site visit to Central Valley BDA we came across a couple of school age boys. We inquired if they had any after school activities in which they participated. Their response was an opinionated no. The boys' response gave us the idea to research the concept of educational spaces as a redevelopment model. We first analyzed the surrounding educational facilities. The facilities included many elementary schools, one high school, a middle school, and a beauty school. The analysis of the surrounding area did not prove to have sufficient forms of alternative education, which reasserted our concept and brought us to the next step of our process.

The current division of the area indicated an underutilization of the viable real-estate. The industrial landscape of the valley is a strong vacant footprint on a densely populated area. The mixed commercial use and residential properties are weaved in to the abandoned clusters of factories and industry.

5.1.2 Process

The design intent for this project was focused on creating community through educational opportunities. The mixed landscape allowed us to define and locate areas that have the highest potential for adaptive reuse. The industrial areas were good candidates for adaptive reuse and educational opportunities. The location of the stream corridor provided a strong linear connection that would tie the community to its context.

STATUS-QUO



CONCEPTUAL POTENTIAL SPACES



OUTCOME: SEQUENCE OF SPACES





utilized by students as an outdoor laboratory and lecture space.

B. The industrial education structure acts as host to a plaza and stream feature accompanied by a cluster of small commercial shops and dining services. The transit center across South Jefferson connects and utilizes the plaza. It is a true center to the industrial core of orange.

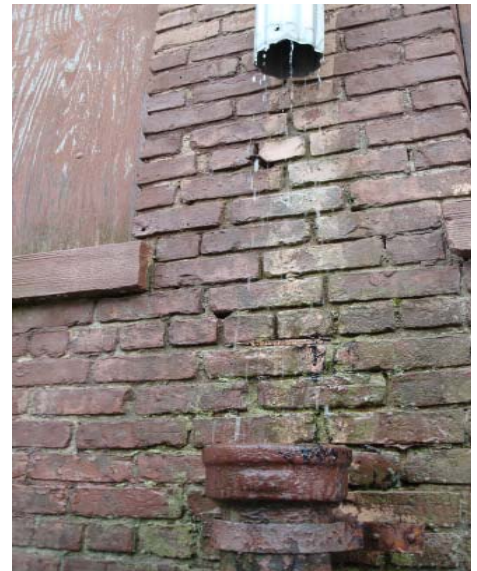
C. The public art walk utilizes the transit platform as a basis for a community art display terrace, featuring local sculpture and large wall murals. The walk is supported by the new arts college and local artisans in existing local businesses such as valley arts.

D. The proposed satellite arts college completes the community walk. The area almost totally retains the existing vacant industrial structures for adaptive reuse. The college is accompanied by student housing in the existing homes within the block. The students of the college have easy access with the proximity to the new train station.

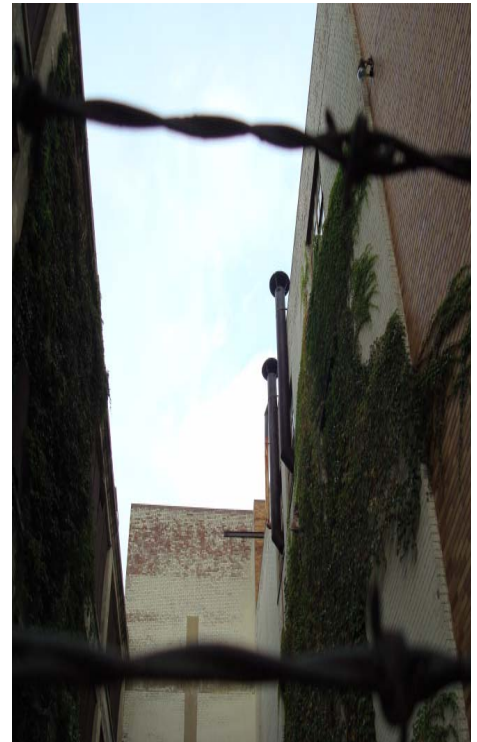
5.1.3 Redevelopment Plan (cont.)

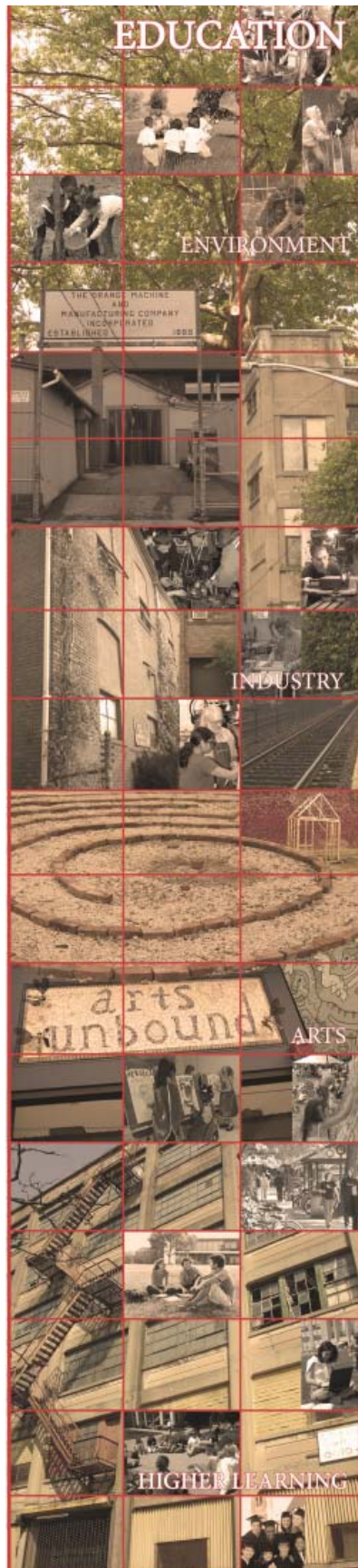
This redevelopment proposal sets its focus on creating a more socially and culturally sensitive community. Through the overlying concept of education, all ages of community denizens will gain a greater sense of ownership and involvement. The educational areas are weaved into the existing fabric of the town and create the basis of a pedestrian corridor through the central valley. The transit station acts as a central node along the pedestrian way to service local residents, shoppers, and commuter workers and students. The plan strives for community pride and long term success through involvement and interaction.

A. The beginning of the community walk starts with the environmental education center that regains a large open space from a vacant industrial site. The open space restores a mistreated area and simulates a native successional riparian flood plain. The area will be

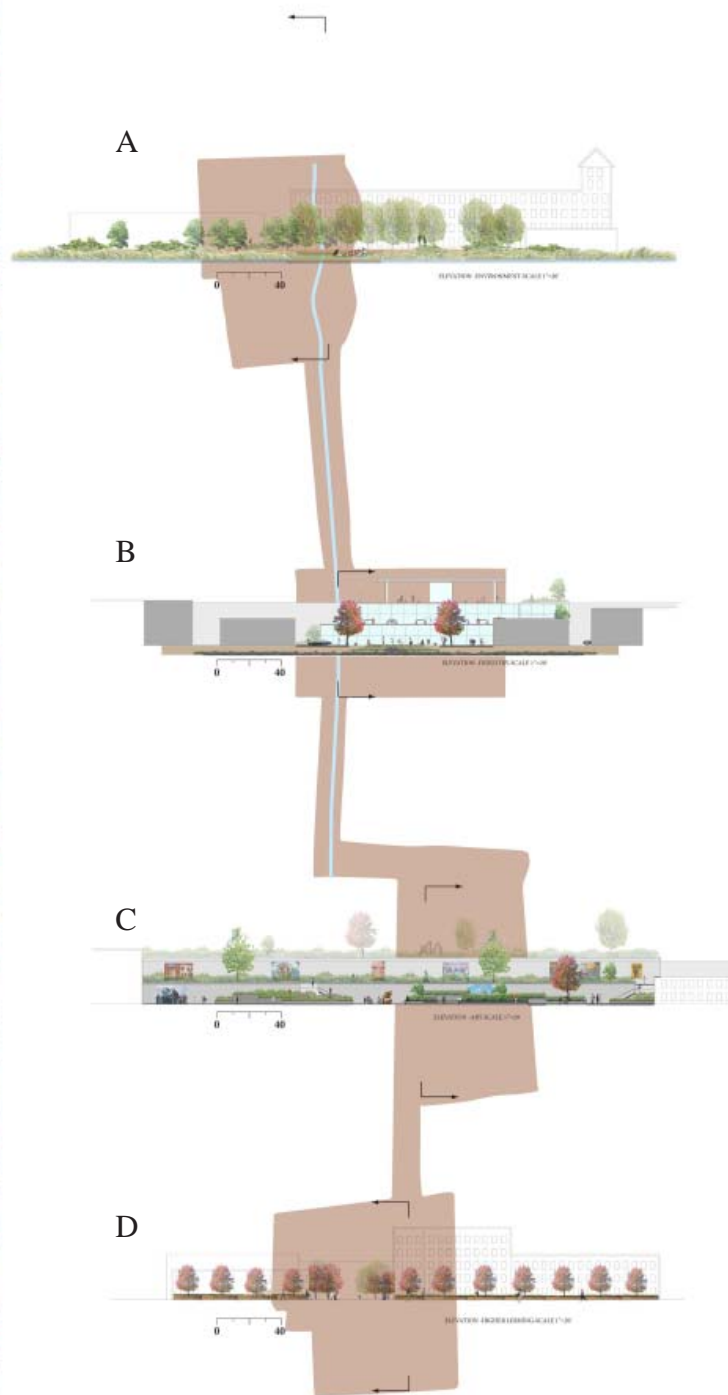


Based on our analysis and design process, our team learned that a community can benefit from a program that utilizes existing infrastructure and hidden assets that may often be overlooked or forgotten. This realization is extremely crucial in urban planning and design.





COMMUNITY



5.1 Education Community

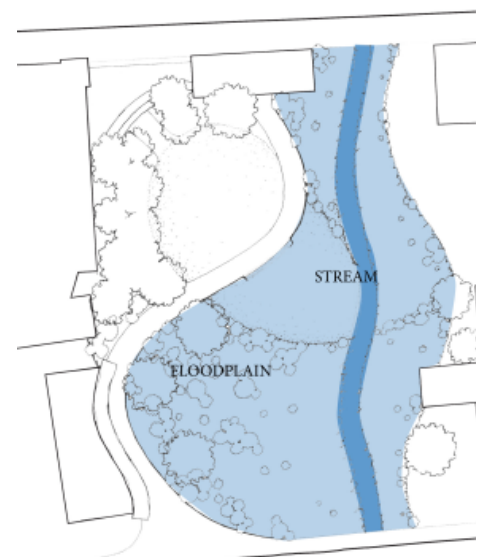
5.1.4 Educating with the Environment

Jessica Booth

An ecological remediation educational center is the proposal for the Harvard Printing lot. The site is located between Central Avenue and Mitchel Street. Harvard Printing, Selectoflash and an automotive company are situated in the area.

There are grants and stewardships available to aid the redevelopment of post-industrial urban areas. The Environmental Protection Agency has a Brownfields Program which empowers local communities, states, and developers to work together to remediate, safely clean up, and sustainably reuse brownfields. The job training program provides local residents in the community of the impacted brownfield with the education and ability to assess and remediate brownfield redevelopment. The grant can help members of the community to clean up and effectively use the contaminated site.

The Harvard Printing buildings are to be turned into a parking garage and an apartment building. The Selectoflash building will house educational programs to focus on the remediation project and store offices for workers on the site. The additional function of the building will be to hold classes for local residents that wish to learn more about their environment, the classes include urban garden design, and science classes based on conserving energy and ways to reduce energy bills, as well as local job training such as construction workers, landscape contracting, remodeling, and interior design. The automotive building will be removed and replaced by two buildings proposed for the site. A science laboratory and a visitor center will be used to teach students the importance of ecology. The visitor center will be an example of a working sustainable building. The building will be equipped with a solar panel as well as other energy



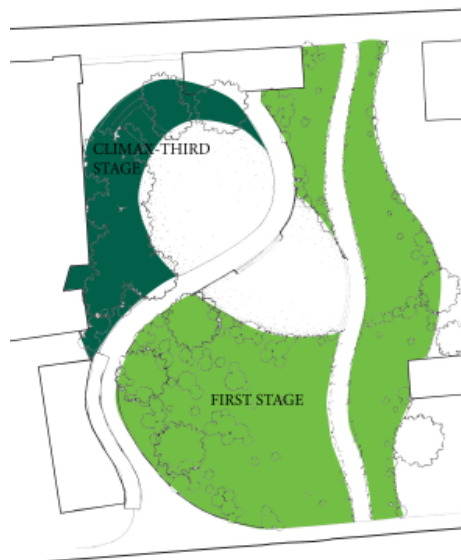
saving techniques. The ecology laboratory will be used by students to test the biological health of the stream and make observations of the ecological succession fields. The west side of the stream is treated with a 4' retaining wall. The wall will act as a floodplain line, preventing the higher level from flood damage during a storm.



5.1.4 Educating with the Environment (cont.)

The ecological succession fields are divided on both sides of the stream. The Harvard Printing Apartments will hold a first stage ecological field. The field will be maintained by being mowed once a year, along with the disturbance of possible flooding the field will remain in the grass-sedge stage of succession. The ecological education fields will be separated from the private apartment by the stream. Students will be able to access the stream but not be able to cross. The two sides of the stream are connected through concept but isolated from each other by access. The lower level of the ecological fields will contain the first and second stages of succession. The upper level will be planted with trees to simulate a climax-tree stage.

The shape of the fields is inspired by the Fibonacci sequence or the golden ratio found in all aspects of art and nature. The paths lead you



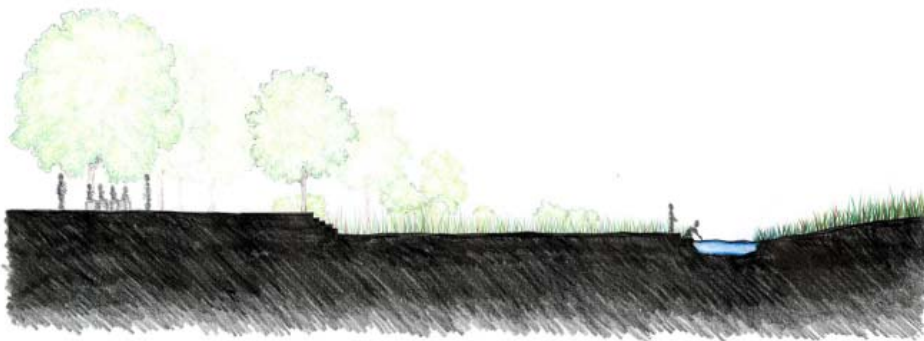
<http://www.ground-works.org/images>

through the fields into the open space while they inform with ecological facts painted on signs done by the areas local artists.

The Sections show the ecological succession in a riparian floodplain from sedge grass stage to tree-climax stage.

The students will be able to learn about nature and their environment in a hands on way. Their new knowledge of ecology will give them a greater appreciation for their environment.





Ecological Succession

5.1. Education Community

5.1.5 Industry, Transit, Community

Dave Sitler

Spatial Figure Ground status quo



Spatial Figure Ground Initial Ideas



The industrial-transit plaza sited in the heart of the valley's industrial district hosts a multitude of functions, and acts as the center piece of the community; a space where industry, transit, shopping, and education meet to stitch the community together. The site is placed along the pedestrian stream corridor which connects the major education-community spaces. This corridor leads people in to the plaza which directly connects the new tiered transit center which allows commuters (industry workers) to get to and from orange. There is also a new found commercial aspect to the space which will add vitality to the area. A civic structure is also cited in the plan as the industrial liaison building which connects and educates the local students with the local industry. The plaza acts as a unifier of these functions and also retains open space for temporary non programmed activities and services.

Spatial Figure Ground Development

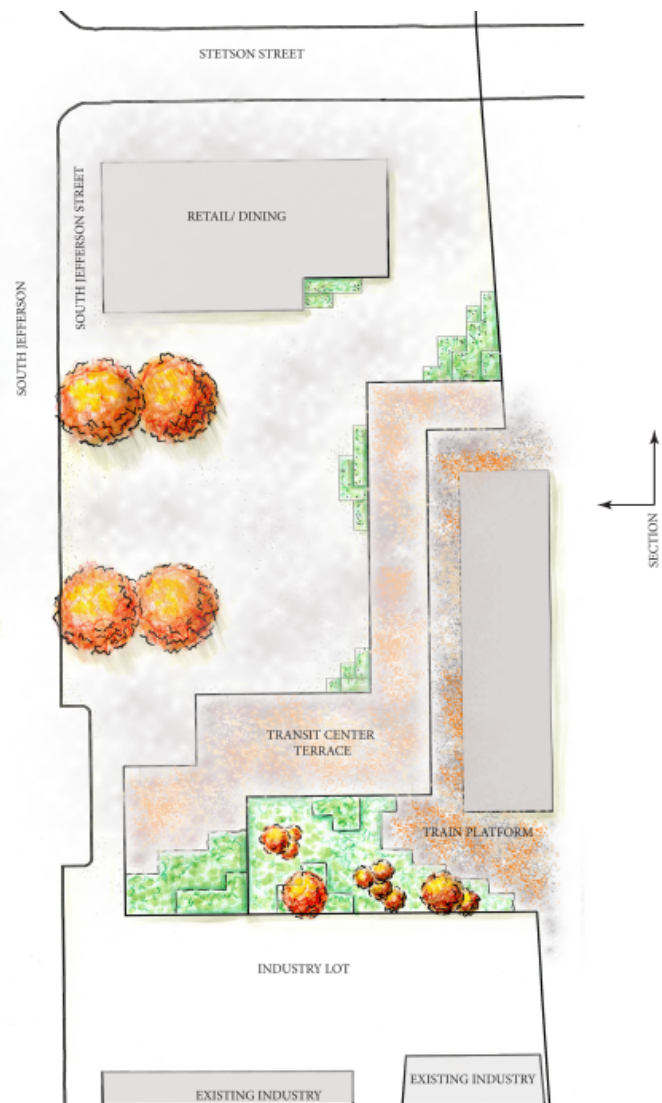


Spatial Figure Ground Final



Circulation Figure Ground





5.2 Centering The Valley

5.2.1 Analysis

Stephanie Blaser, Stephe Hobbs,
Travers Martin and Jonathan
Mullineaux

In an attempt to respect what exists, we decided to begin our analysis with our site's history. We found its industrial past to be very significant as it dramatically influenced the community which grew around it. We then began to look further at what brought the industry to the site and found that it grew from the east bank of the Rahway River. After dedicating our focus on the river, we decided to create a 40 foot clear zone to accommodate for a reasonable open space.

The impact of clearing many buildings within the river's clear zone displaced a small amount of the communities's residential buildings. Our clear zone removed an unfavorable amount of valuable industrial buildings. After identifying significant industrial buildings we found that they could enhance and define the spaces within the river corridor.

The lack of vegetation and usable green space along the river corridor suggests that it is in great need of revitalization.

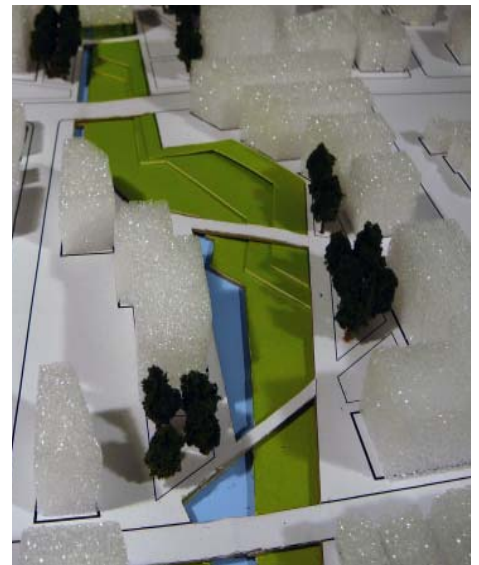


Our first model organized our buildings and green space, allowing us to refine our spatial arrangements. Our second model experimented with the verticality of trees and subtle grade change to further strengthen and define our spaces. Our process has led to a densely arranged Urban layout with a variety of public, private and semi private spaces within close proximity to one another.



5.2.2 Process

Continuing our efforts on the new Orange Valley's central axis we decided to accommodate the pedestrian, by increasing the access through our green space. We then defined negative spaces and voids surrounding our central "green backbone" and began to connect them throughout the design.



5.2.3 Redevelopment Plan (cont.)

Upon arrival in the Central Valley of Orange, New Jersey we were struck by the uniqueness of the area. But, there is a tension that is there are well. The neighborhood lacks a sense of identity. The cultural and financial base of the area was the hat making industry. This base has since left and left the area without an identity. The hatting industry has also left a series of unused factories and work yards that are a hazard to the public. These are the main constraints that are dealt with in our master plan.

Our aims are to increase regional connections, pedestrian scale, and creation of distinct district identities while remediating the post industrial landscape.

Creating a strong framework will accomplish our goals. Empowering the existing community allows them to continue the process. This is best done by addition and not subtraction. In dealing with the concept of dis-

placement of the existing population we believe that a small gesture would have the greatest effect on the existing community. Destroying what is there to replace it with a poor answer is not very sustainable. Our approach to sustainable has two prongs. We aim to address social sustainable as well environmental sustainable.

A holistic approach is best for the site. Social and environmental sustainable are complimentary. In addressing the unique history of the site we are not attempting to recreate "nature". In the context of a highly distressed landscape, like the Central Valley of Orange, an attempt to create a natural setting would not honor the spirit of place. But, this area is home to many people and they deserve to have a vibrant and safe neighborhood.

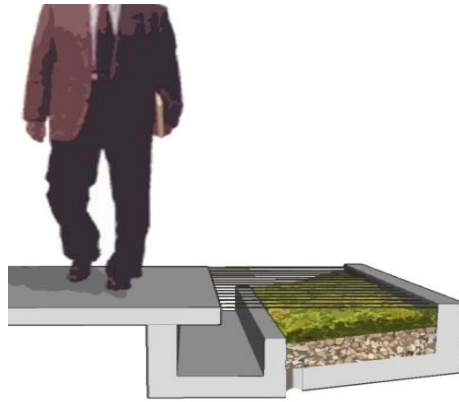
The contrast between the urban built space and our proposed ecological back bone complements each other. This close relationship between the two gives an ecological mod-

ern aesthetic to the valley and creates an identity which acts as an armature for the rebirth of the Central Valley.

The ecological backbone would be a connecting space for the community. This would give citizens much needed open space. In an urban environment this green space is highly valued land. This would strengthen the community by providing valuable public land and creating an environment where the community can interact.



C E N T E R I N G T H E V A L L E Y
ORANGE / WEST ORANGE NEW JERSEY



inction between pedestrian, bicycle and vehicular corridors. By creating a central pedestrian network along the proposed Rahway Stream Corridor other local communities could be linked to Orange in an attempt to promote greater connectivity of the area.

A very dynamic environment mixing of private, semi-private and public space increase the diversity of uses within the close proximity to the stream corridor. Separation of spaces around the stream will be accomplished through subtle grade change and the use of vertical elements. As a sign of ecological improvement are small drainage channels that filter the run off from pavement. These would be located next to all walkways and streets.

We found that a dynamic mix of uses, connected through a central public space creates and exciting and intimate urban environment.

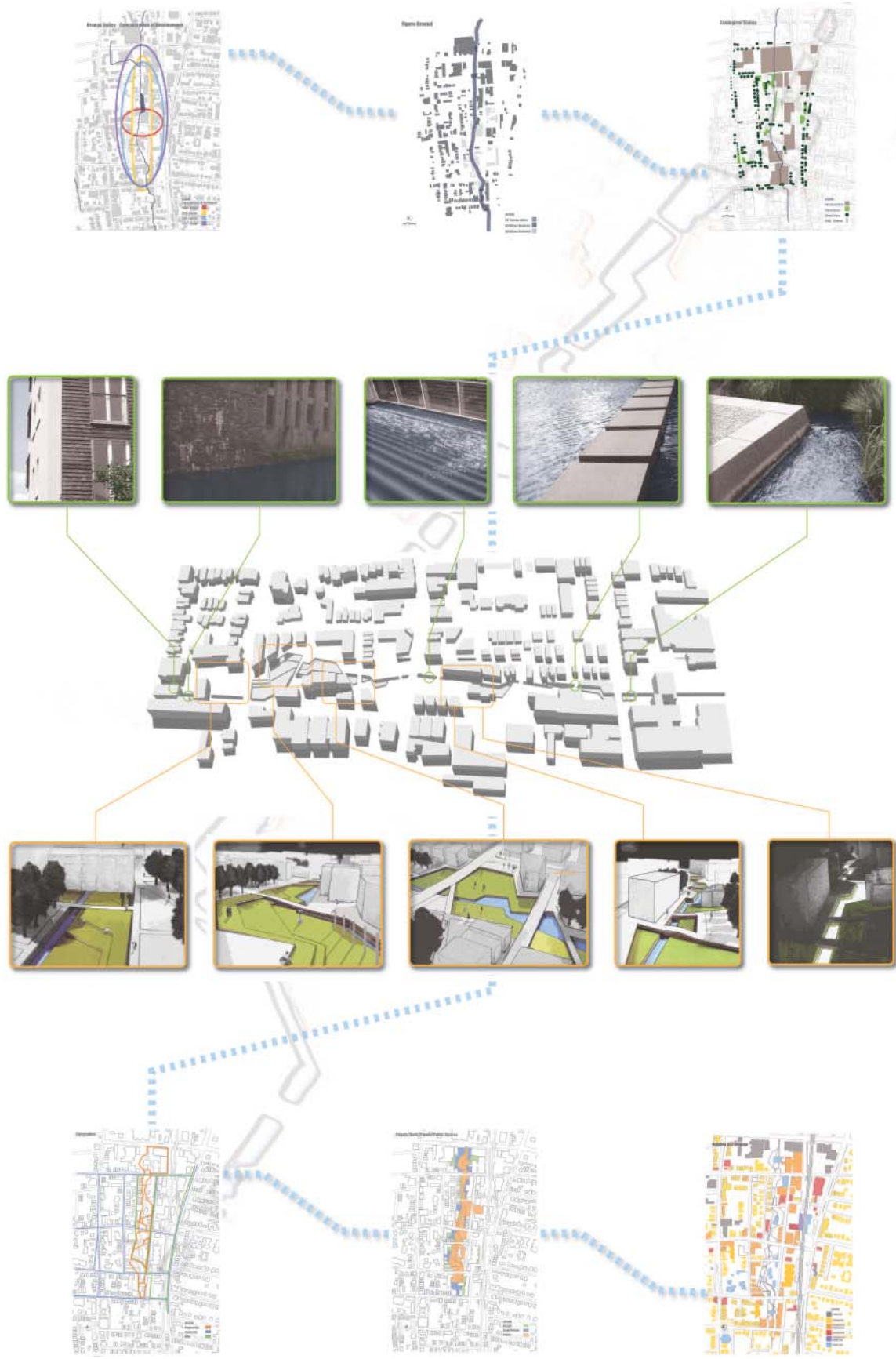
5.2.4 Outcome (cont.)

In analyzing the site a trend became apparent; the historic center of development has been around the Rahway Stream. This discovery began to inform our design as well. The Rahway stream was the heart of the hating industry. Using a historic map of the stream we found a large percentage of the industrial infrastructure was located close to the stream. Working with a buffer of 40 feet we found that most of the buildings where industrial.

Looking at the adjacent relationship of the stream we also found that the large majority of the contaminated sites where close to the stream. This highlighted the complex and delicate relationship the stream has with its surrounding context and the importance that this unused land has to the valley. This contaminated area is highly desirable and should be remediated in holistic approach.

This new back bone acts as a proposed circulation corridor and provides a clear dis-





5.2 Centering the Valley

5.2.5 Unfolding the River

Stephanie Blaser

Sometimes, the common notion of "Out with the old, in with the new," is not necessarily appropriate for every situation. Too often we as humans are plagued with the idea that in order to improve something, it must be shiny and new. In the case of Orange Valley, there is a fabulous collection of history at the fingertips of the community. Great historic buildings with notable pasts dot the Valley, and most of them are unused or underutilized. This site is a small, humble peice of that history.

Attached to a noisy, ugly new machine shop building, the building which now houses the Cross-Country Box Company is a great example of a history clip forgotten. With rusticated stone walls, bluestone window sills, and an occasional section of brickwork indicative of the early twentieth century, it is a unique collection of architectural styles. The building is a mere one story, with its north edge circumscribing the stream, and a tall stone chimney in the center that helps to identify it as a landmark.

To increase the integrity of the neighborhood, the noisy machine-shop building was removed. The stone walls to the featured building remain intact, and the insided is transformed into an enclosed park, complete with plantings, seating, public restrooms, and even the daily newspaper. The chimney becomes a fireplace in the center, for nighttime commnity-planned events,



© Patrick J. Alexander

The entire plaza steps down to the stream in several locations. Parts are lined with steep embankments of phytoremediation grasses. A patio, with ornamental plantings, steps down from the plaza to a level interactive with the stream. The water is shallow here, and moving fast for aeration. Long, shaded tiers of turf step down to where the stream becomes again more deep and narrow.

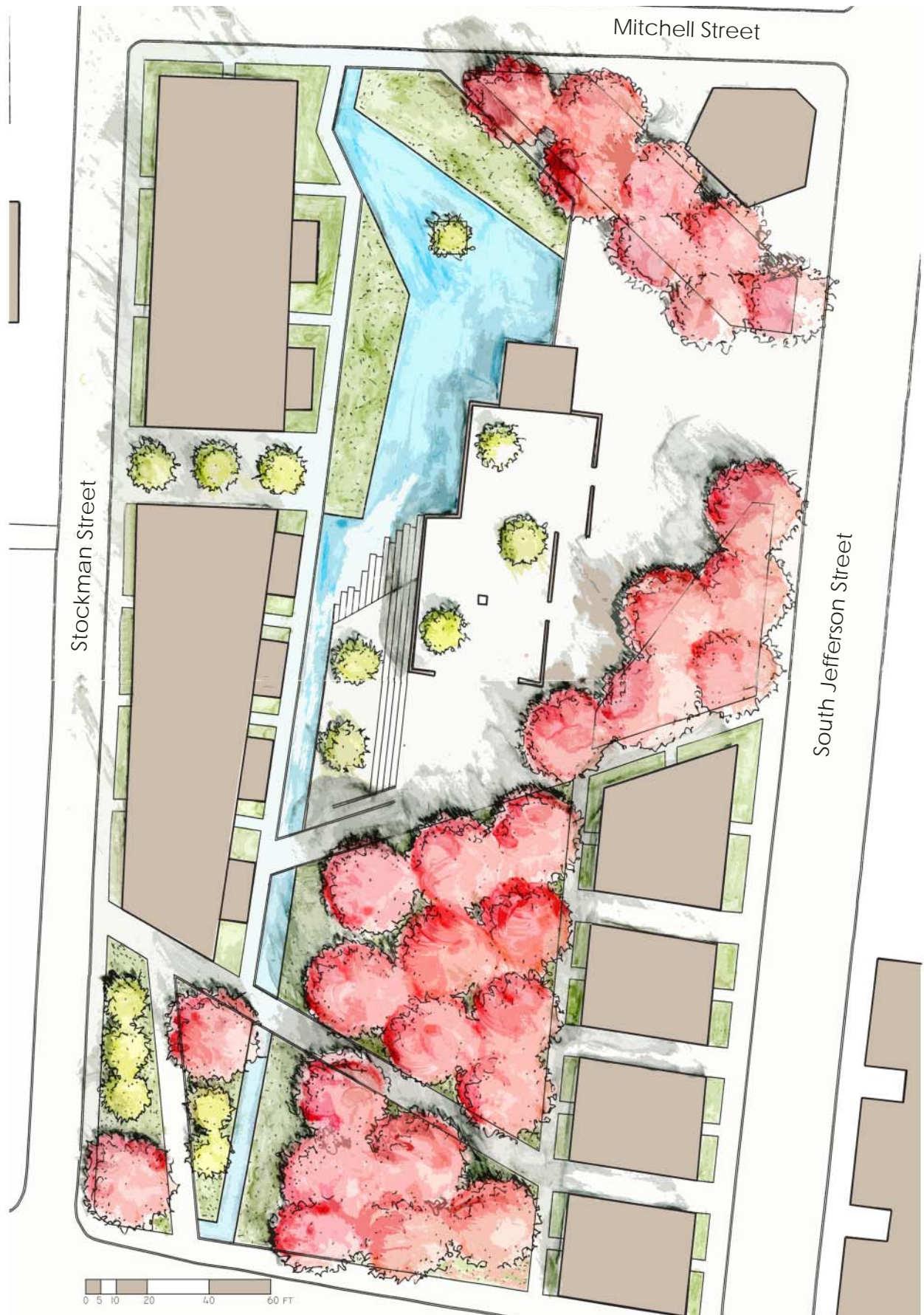


© Elaine Haug

All existing on-site buildings have been replaced. On South Jefferson Street, four three-story buildings are proposed that host retail on the ground level and apartments above. At Mitchell and South Jefferson Street, there is a proposed corner cafe, for early morning commuters headed to the train station across the way. Along Stockman Street, there are two two-story apartment buildings. The buildings are separated by a communal courtyard with ornamental plantings. The residents have designated space behind the building for private space, and the units above have balconies. Retail may occupy the first floor of the apartment building on the corner of Stockman and Mitchell Street.



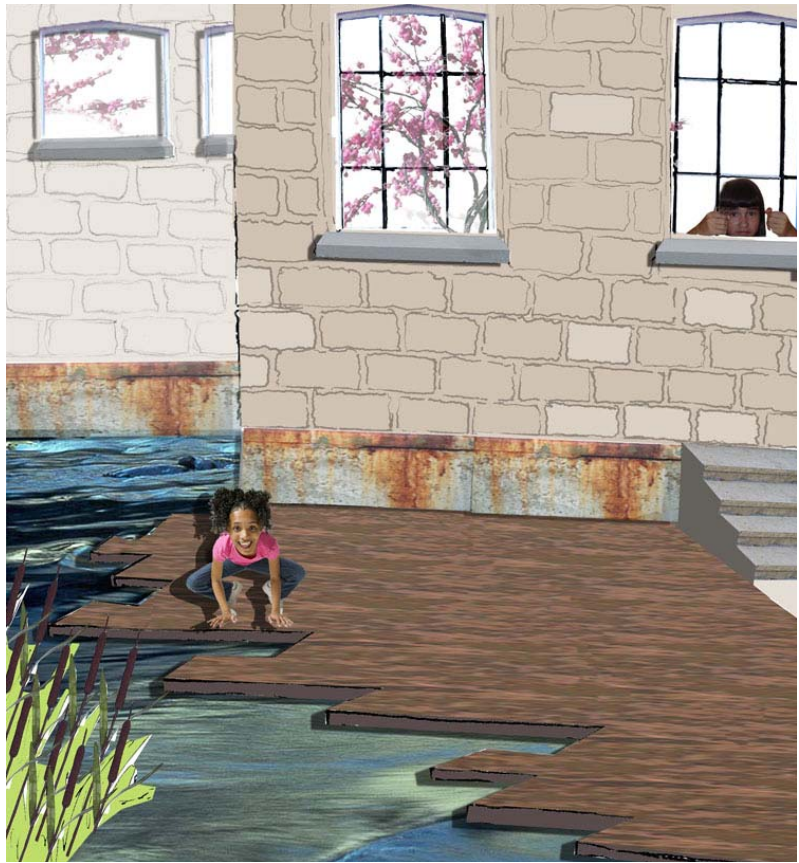
For shade, Red Maples are proposed. These are native trees, with full canopies and an outstanding display of fall color. The dispersal of trees around the site provides both areas of dappled shade and full sun. The ornamental trees around the site are mainly *Cercis canadensis*, the Eastern Red Bud. They add a beautiful texture to the plaza, with unique leaves and bright buds and blooms in early spring.



5.2.5 Unfolding the River (cont.)

A series of diagrams were produced to emphasize the major aspects of the site.

The Proposed Building diagram highlights in red the footprints of all proposed buildings on the site. The Circulation diagram gives an idea of the expected major vehicular routes and pedestrian patterns. The Proposed Vegetation diagram exposes in green where turf or trees will be planted.

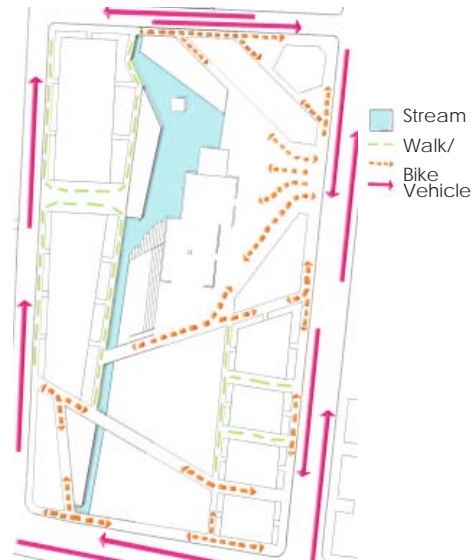


In this rendering, the stepped-down patio aside the stream and building walls can be a fun, interactive site. The water runs quick and shallow, turbulent along a sculpturally fragmented

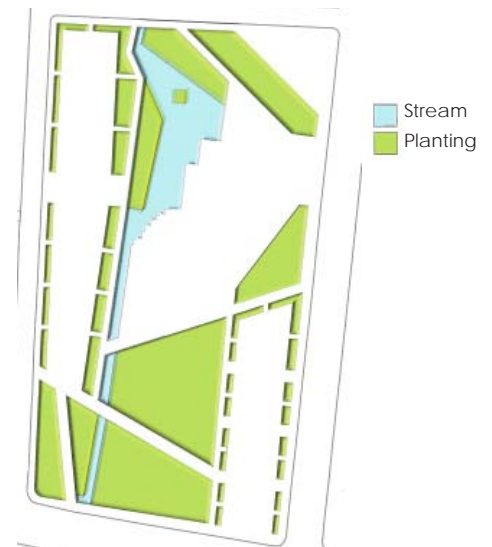
edge constructed of oxidized metal, reminiscent of the industrial history of the Valley. The building is roofless and full of windows, allowing sunlight to penetrate the whole structure.



Proposed Building Diagram



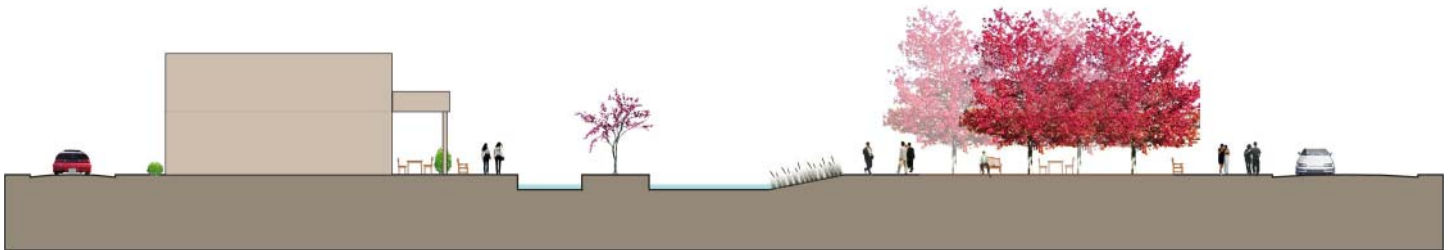
Expected Circulation Diagram



Proposed Vegetation Diagram

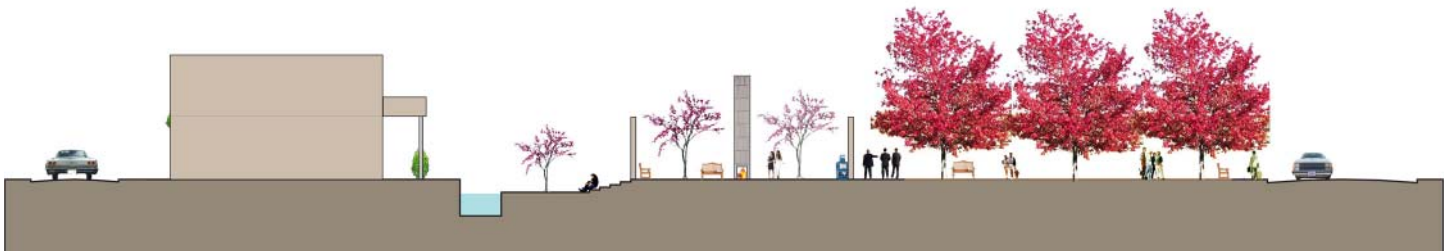
Section cuts through the two-story apartment building on the corner of Stockman Street, along with its designated private space. A unique planter

is situated in the shallow water and a grass embankment slopes up from the river. Maples shade the plaza behind the new corner cafe, and seating is available.



Cutting through the same apartment building, this section also shows the stepped-down patio aside the modern urban ruins and fireplace. Ornamental

plantings dot the plaza inside and out of the building walls. There is a stand of Maples that extends up to S. Jefferson, seating, and even a place to get the paper.



This section is showing the pedestrian bridge over the stream, and along the sidewalk that delineates the edge to the grand grass steps and Maples.

The section also cuts through one of the four proposed three-story mixed-use residential/retail buildings along S. Jefferson. The balconies offer private space.



5.2 Centering The Valley

5.2.6 individual design

Stephen Hobbs

My individual plan is located on a 1.54 acre site in a prominent area of our group redevelopment plan, bordered by Freeman Street to the North, S. Jefferson Street to the East, Tompkin Street to the West, and a proposed Paper Street to the South.

Our initial proposal for the redevelopment plan was based on the concept of creating a distinct identity for the Central Valley. To achieve this objective we proposed a to develop an existing central stream corridor that would run parallel to Jefferson Street and Tompkin Street functioning as a dynamic pedestrian link to opposite sides of the site.

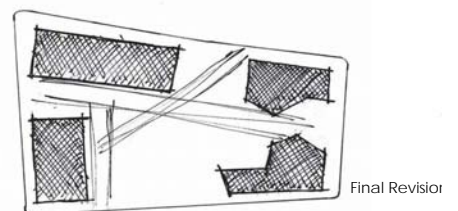
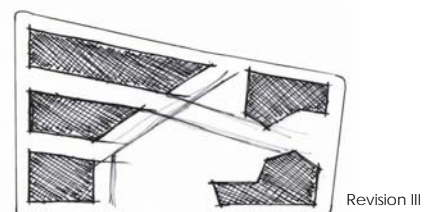
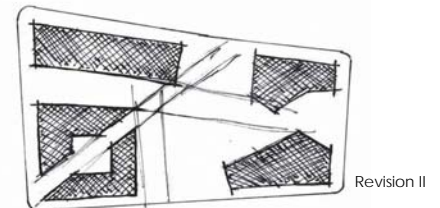
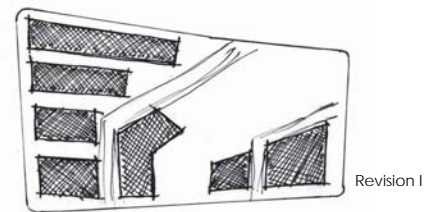
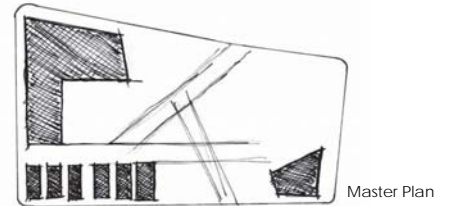
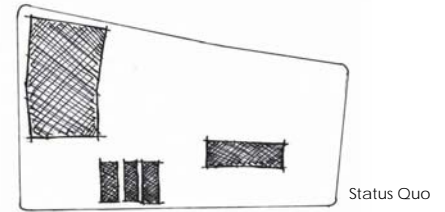
There were many important variables to consider during the design process. Such as: connectivity, building use, parking, service access, pedestrian circulation etc. However, the main issue that I faced with re-designing this portion of the site was the relationship between public, private, and semi-private space. Pursuing this design

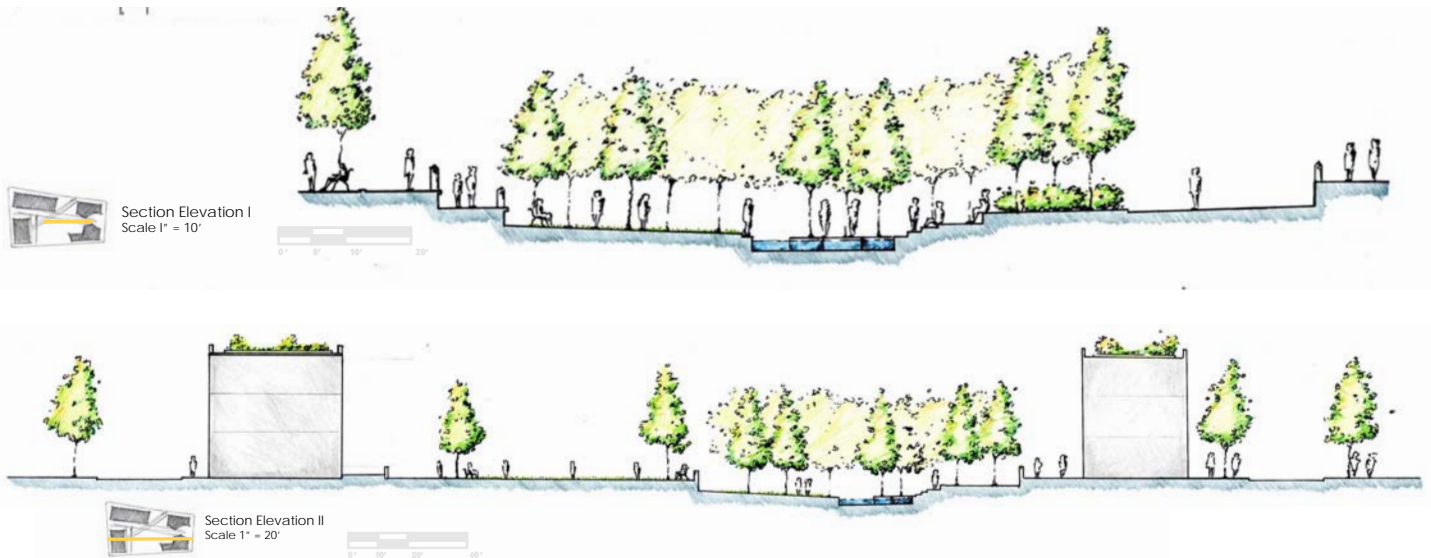
challenge meant that it was necessary to rework the footprints of proposed buildings to better define open space, while at the same time modifying the open spaces to reflect different types of uses.

Consequently, the design process was dominated by a copious amount of figure ground studies. The series of diagrams to the right begins with a figure ground of the existing buildings on the site. It becomes apparent when looking at this diagram that the spaces created by the existing buildings have no dialogue with one another. The next figure ground of the series is from the first revision of the redevelopment plan, and shows the beginnings of the sites general organization and the need for further refinement of building placement. The following four diagrams in the series show the progression of spatial organization and development in the site design.

In addition to developing the relationship between public, private, and semi private spaces, these studies aided in creating a unifying geometry that was used to organize all of the site design elements.

On the whole, the design attempts to promote the use of shared common spaces while also celebrating the sanctuary of private space in a thoughtful way.





5.2 Centering the Valley

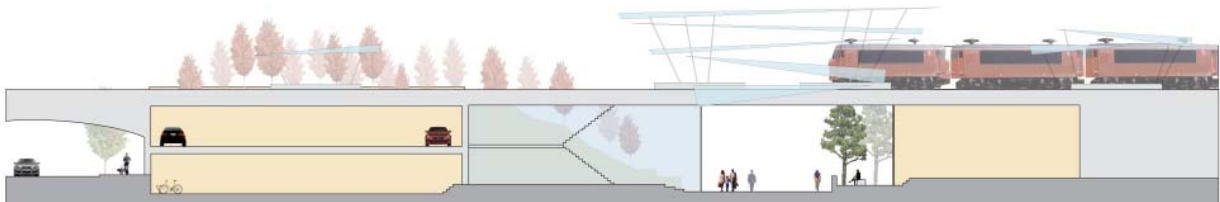
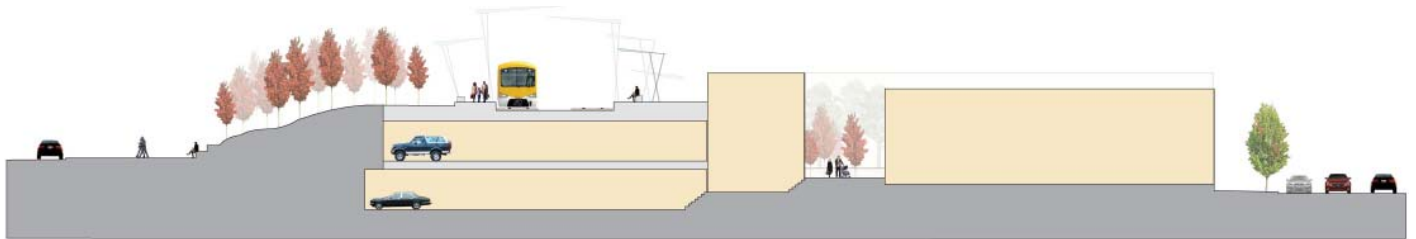
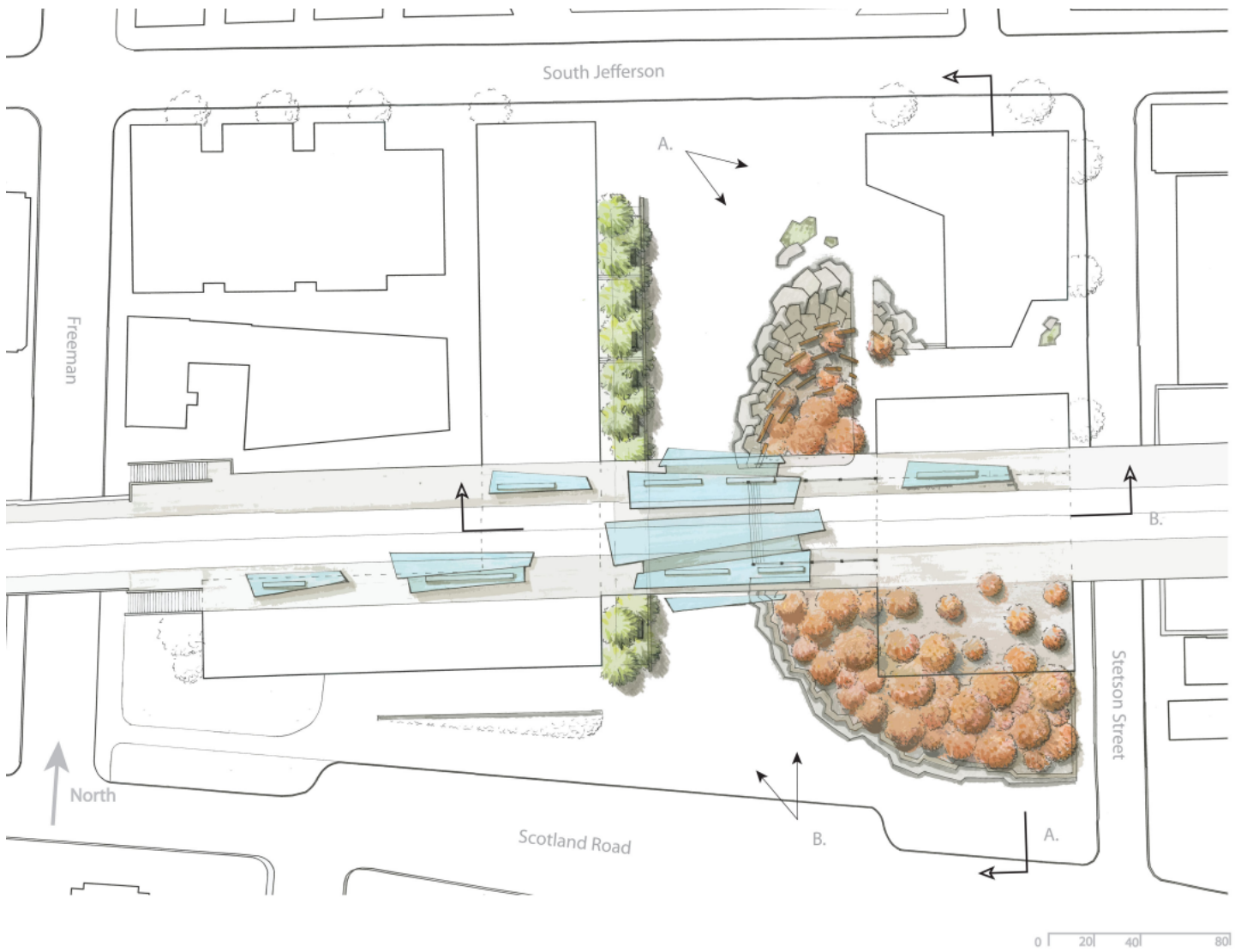
5.2.7 Maple Station

Travers Martin



Many modern cities are defined by their vibrancy and life rather than their sheer aesthetic value. The Kinetic flow which the public brings to a space takes on a powerful characteristic that transforms our built spaces. This energy has its own nature, and ebbs and flows like a river. Maple Station is inspired by the “erosion” and “sedimentation” of transportation.

Bold lines of the commercial center oppose a fractured stone outcropping which draw visitors through the plaza and to the train station. A new modern train station emerges from beneath the rail overpass and compliments the organic forms which define it. Native stone and plantings create seasonal interest and a diversity of textures. Steel, brick and concrete modern buildings showcase the materials which shaped the industrial past.

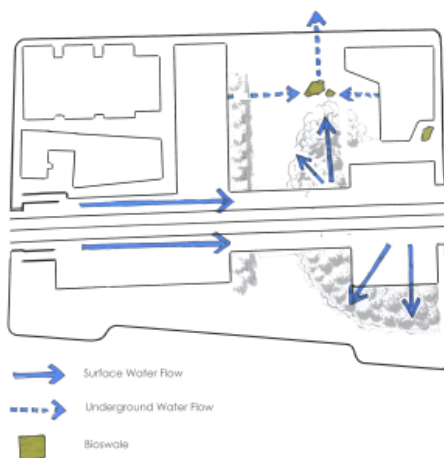
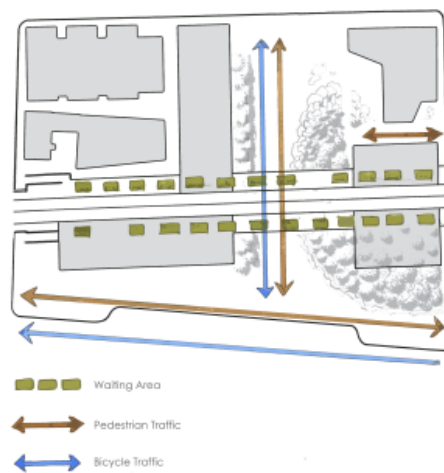
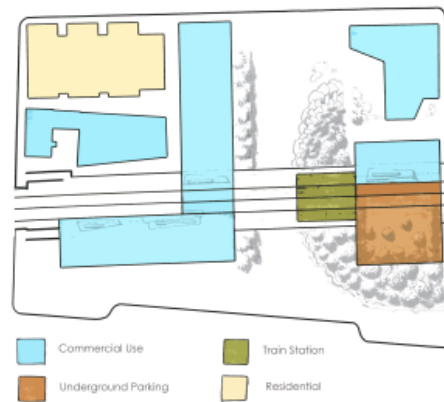


5.2 Centering the Valley

5.2.7 Maple Station

Travers Martin

The clean lines of the buildings compliment the irregular plantings within the plaza and create a straight forward axial circulation. Bicyclists may ride on any of the major vehicular streets, however, a main bike route along Scotland road is suggested along with the plaza's central axis. Pedestrian flow along the entire block is withheld, and the new design allows for a dramatic gateway into the Orange Central Valley area. The density of the buildings clearly suggest the public accessibility of the streetscape, and the privacy of the easily gated alleyways.



The placement of the train station within a highly dense commercial setting allows visitors and residents to interact with an active plaza space at all hours of the day. Displays from within an art gallery at the northeast corner of the block may be viewed from all sides. Underground parking utilizes the voids beneath the rail overpass, and allows for approximately 100 parking spaces and 50 bicycle spaces while bridging the grade between the road and the train platform. The train station allows for a transition from the platform to the Valley below.

The flow of water is very critical in maintaining a clean and efficient urban environment. The redevelopment of the Orange train station will utilize simple methods of storm management to filter runoff. Water will be directed from the train embankment through the soil of the Maple plantings, where it is then lead to the bioswales of the plaza. This along with runoff from the surrounding building's green roofs, will be held in the bioswales allowing for attractive wet-site plantings. Finally, excess water will be sent underground to the east branch of the Rahway River after going through the system.



Presently, the train station lacks the appropriate space needed for gathering, and acts simply to serve a singular function. Proposed commercial buildings, along with the overhead rail, frame and define the plaza while creating a large enough negative space for gatherings and festivals. The planted element adds interest while allowing for a number of passive areas, out of the way of the flow of pedestrian traffic. Rock outcroppings along with rough cut log benches suggest motion and serve as unique seating areas in the plaza. At night, a new interest will be given to the plaza by dramatically up-lighting trees and light radiating from under the layers of fractured stone.

Currently Scotland Road is very separated from the Orange Central Valley due to the obstruction of the train embankment. The Maple Station design allows a drastic redevelopment allowing the train station to act as a gateway from Scotland Road to the unique space behind it. The new train station will be nestled under the rail overpass. Its glass walls and stone stair will allow a close connection to its environment. The Softness of the red maple trees and bold movements of the native stone suggest the more ecologically friendly identity of the new Orange Central Valley behind it. Additionally, visitors from the train are immediately welcomed to Orange as they view the Valley through Maple trees and glass panels.



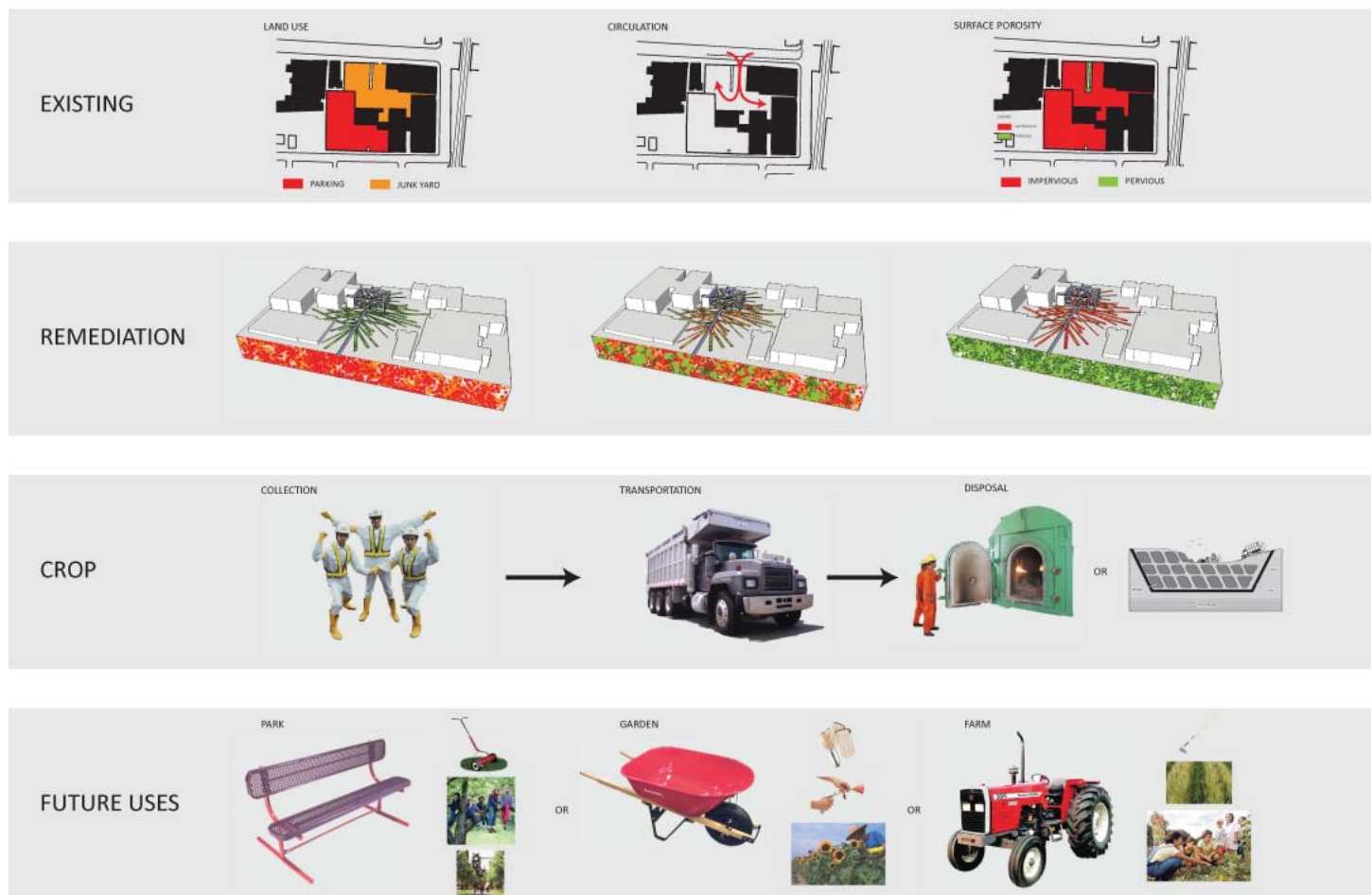
5.2 Centering the Valley

5.2.8 Harvard Printing Company

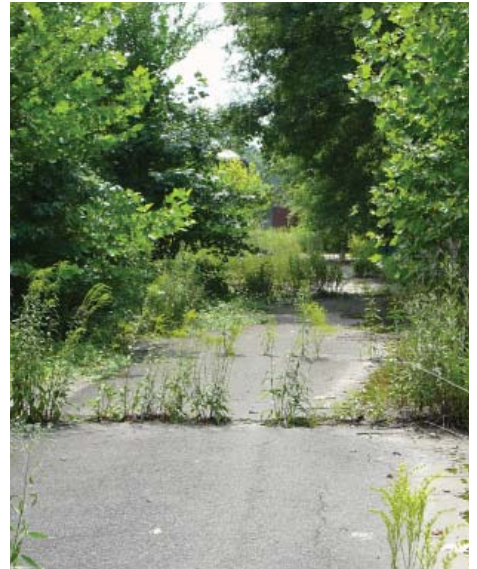
Jonathan Mullineaux

The industrial foundation of the Central Valley and the it's subsequent collapse has created places that are ruins of the past. Left in a state of disrepair this land becomes a hazard to the surrounding area and a danger to the inhabitants. It becomes the designers responsibility to act as a mediator between the denuded landscape and those who live there. The design should return the land to the inhabitants by transforming the industrial past to a usable future.

Understanding the present conditions of the site, the historic industrial contaminants and the remediation process creates a framework that beings to shape the site for the future. Using this framework my design creates an understanding of the processes at work and uses these constraints as a vehicle to create a future use for the city of Orange.



The concept of the design is a transformation that is observed when plants colonize highly urban conditions.



Actually growing through the impervious cap of asphalt. The "weed lines" begin to break up the asphalt as they grow larger.



These "weed lines" demonstrate how natural processes can reclaim highly altered landscapes.



5.2.8 Harvard Printing Company (cont.)

Using the “weed lines” as inspiration I began to create different geometries that break up the dead end asphalt pad. This begins to create a design that communicates the complexity and history of the sites past and the process to create its future.

The “weed lines” translate to saw cuts in the existing asphalt. Acting in a dedicated linear manner the lines create planting areas for phytoremediating plants. When duplicated and crossed the lines begin to break up the asphalt. The more the lines cross the greater the asphalt is transformed.

Beginning with the largest transformation of the asphalt the strength of the geometries are lost. Muddled in too many lines the design suffers from a lack of clarity. Exploring different iterations that took away lines began to reveal the geometry. Playing with the number of intersections and the hierarchical size relationships between the lines are created. These relationships are

linked to levels of contamination in amount of impact based on the effect on humans. The greater the negative effect on people the larger an area was given to that particular contaminate. Creating an visual connection between contaminate and phytoremediation.

To better understand how these lines could be “stacked up” the children’s game of pick up sticks was used in a exercise to explore possible interactions. The game created an understanding of how the individual lines of plants could best be overlaid to preserve and illustrate the geometry in the interactions of remediation.

During the remediation process the plants themselves take up the toxins into their plant tissue removing the contaminate from the soil. In this process they become toxic themselves. To protect the public during the remediation process an elevated walkway and fence will keep out the public until it would be safe. In an effort for full disclosure of the site processes at work the adaptive reuse of an existing building would create an observation tower allows the geometries of the design to be viewed at multiple angles.

When the remediation is complete the fence will come down opening the area to the Central Valley. Depending on the success, in terms of safety, of remediation different uses would be accommodated.

TRANSFORMATION OF COURSE:

remediation of harvard printing company Orange, New Jersey

CENTRAL AVENUE



5.3 Central Valley Redevelopment

5.3.1 Analysis

Zac Caruolo, Mark McCarthy,
and Christina Reimer

The Central Valley Region of Orange developed around a interior corridor of industry located along the East Branch of the Rahway River. This industry supported the city and allowed housing and commercial activities to grow and thrive within the central core.

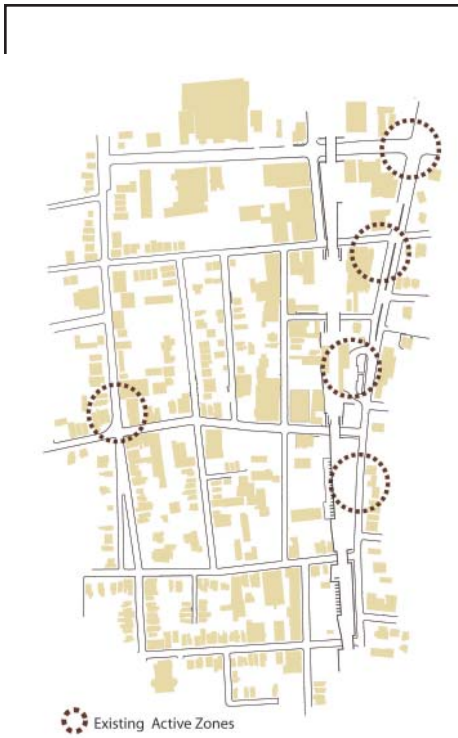
By the mid 1920's, industrial changes and the rise of a vehicular dominated city resulted in a changed region where housing and local businesses had relocated to the perimeter of the valley. While the interior still retained a strong industrial presence, the character now reflected smaller manufacturing operations scattered about the area. This trend continued until the present day, with remnants of abandoned and underutilized buildings paying testimony to the areas' manufacturing heritage. This analysis reveals conditions which contribute heavily to Orange's present day situation in which there is very little penetration of people and activity to bring people into the former center of the historic town.



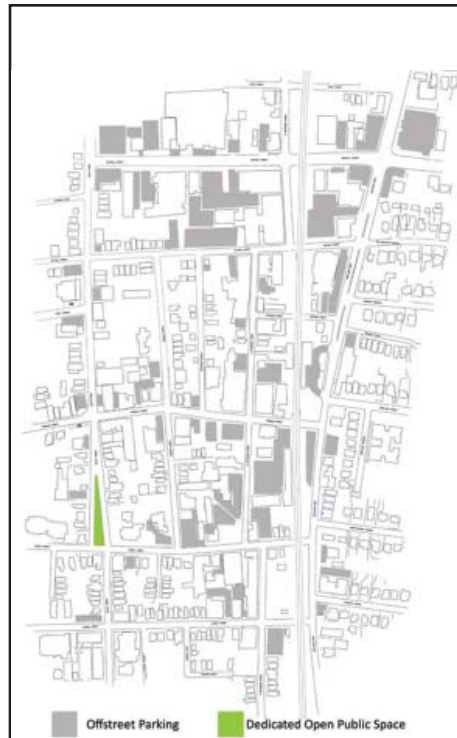
Existing Figure Ground Diagram



Proposed Figure Ground Diagram



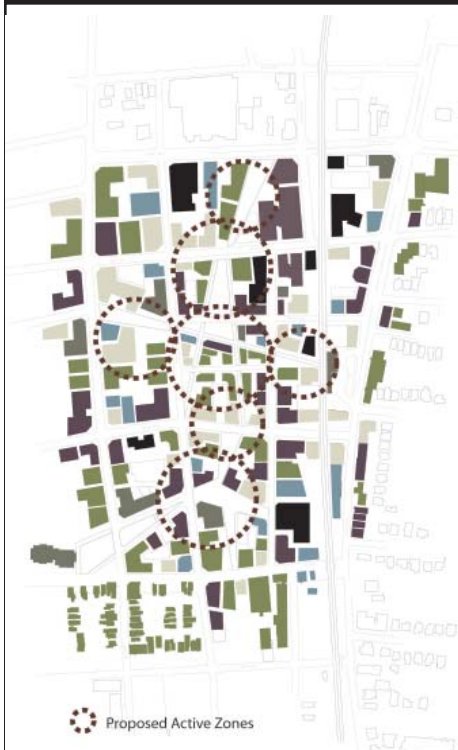
Existing Activity Zone Diagram



Existing Spatial Quality Diagram



Existing Building Use Diagram



Proposed Activity Zone Diagram



Proposed Spatial Quality Diagram



Proposed Mixed Use

5.3.2 Process (Cont.)

Our redevelopment concept is to reestablish the interior Central Valley core by integrating mixed building use within an extensive framework of dedicated open space. This design results in a network of linked areas activated by the utilization of building types within an urban density that encourages extensive day and night use. The triangulating open space network reflects existing dynamic forms created by the compression of the square grid with the arching railroad bed. A reinterpretation of the New Urban Village, our deconstruction of the traditional grid penetrates and reinvigorates the historic core at the center of Orange while honoring and retaining the diversity of the community.

Criteria for building use allowed our team to develop activity zones of related buildings within the overall mixed use framework. Retail-residential buildings required road frontage, with a preference near open space. Main artery roads

and intersections support office buildings while industrial facilities take advantage of spaces with adequate parking and vehicular access, much as land adjoining the railroad provides. The final design component is the placement of structures along the corridor that provide spaces for much needed civic and community services, resulting in the creation of a truly revitalized, community-based, urban city.

The challenges we faced with our proposed Master Plan design were many. By attempting to stimulate an inactive core through a dense urban design, we were forced to acknowledge the importance of several key elements. The need to identify criteria for building uses was essential for the development of a successful mixed use plan. The recognition of street frontage or open space needs create zones of use unique to individual sites. In addition, building placement provides spacial definition critical to defining outdoor areas that feel comfortable for people to be in. An additional challenge

in the design process was the recognition that dense, urban environments often lacks dedicated open space. Finding land dedicated for open recreation is a challenge in itself. The need for this space, however, is often better suited by providing areas with less design and more open programming. Such areas are often more dynamic than heavily programmed spaces in that they can readily shift to meet the needs of a diverse community. Thus, simple, yet bold moves can greatly impact the outcome of social spaces, particularly within dense urban contexts.



5.3 Central Valley Redevelopment

5.3.3 Activating the Core

Christina Reimer



My individual plan began with identifying issues within the group Master Plan that were not successful. These include a need to rework the footprint of proposed buildings to better define open space, provide spatial definition, and appropriately reflect an urban density that supports our desired activity level.

Identifying adequate access to proposed buildings and to the street was necessary to ensure the necessary flow of circulation (vehicular, pedestrian, bicycles, emergency) throughout the area.

Initial changes included a tightening of buildings to define and increase density around open space while providing a balance of mixed-use to promote strong activity within the area. Individual building uses were identified and paired with access and openings to street and/or to open space as needed. Buildings were also positioned to create opportunities for semi-private spaces as transition thresholds from private to public areas.

Open space was adjusted to reflect different uses: the north, south, and east legs function as public green corridors converging onto a central gathering area. This dedicated urban plaza is left open to accommodate farmers markets, art displays, and other community uses and functions as the springboard for the open space network system.

Bringing the community into the space from the west is a large elevated observation meadow. Reflecting pools and light walls within this space replace the non-functioning triangle park and act as a metaphor for the historical birth of Orange: the river within a valley. The distribution of light walls throughout green space provides unifying night illumination, as well as providing spatial definition, seating, and vertical video screen displays. One way vehicular traffic is allowed to penetrate around the meadow triangle to provide vehicular proximity to retail stores, the library, and parking garages.



Master Plan not to scale

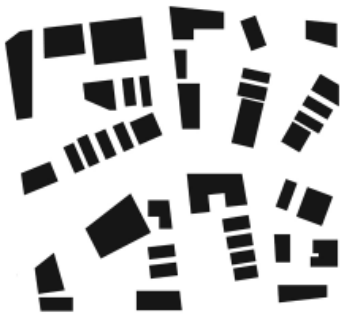
5.3.3 Activating the Core (Cont.)

This progression of figure ground diagrams shows the refinement of an urban village footprint. Image one reveals the breakdown of the urban core as a result of industrial and manufacturing fragmenting. The Master Plan shows the need for further spatial definition through building placement, with Revisions 1 and 2 encompassing increasing density, the defining of open space and semi-private areas.

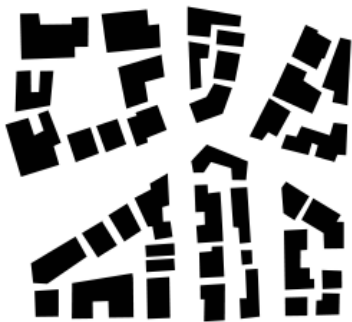
A central component to the urban plaza and connecting green corridors are the light walls, which provide seating and additional spatial definition to open public spaces. Made of perforated light steel, these walls are relatively transparent during the day, then function as significant multi-colored light and video image elements when night falls.



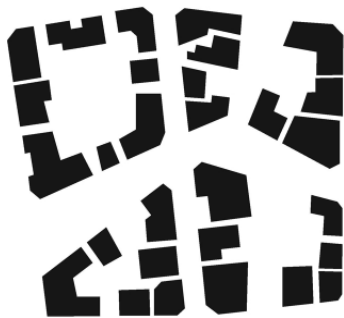
Existing Conditions



Master Plan

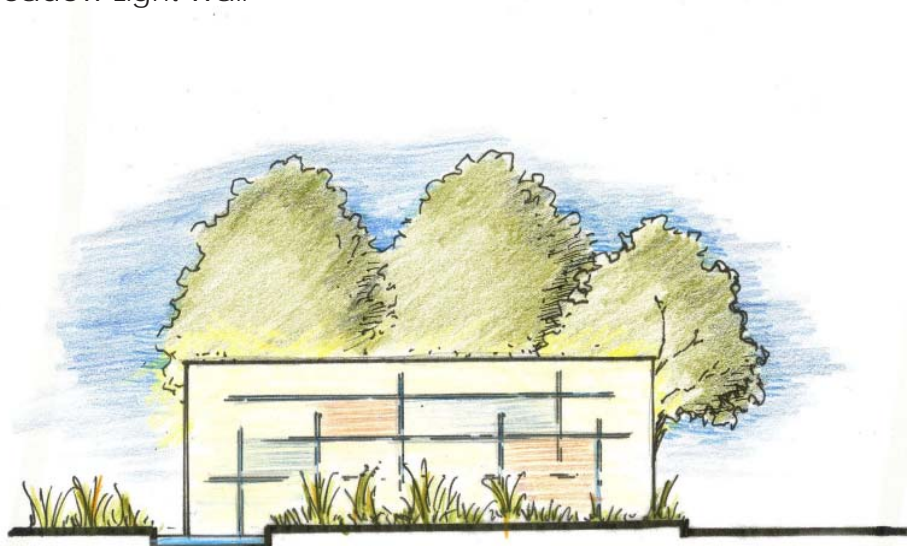



Revision 1





Final Plan

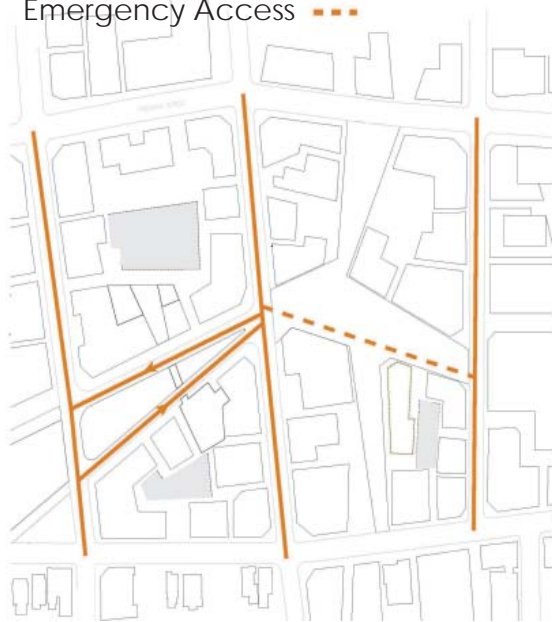
Meadow Light Wall





Vehicular Circulation 


Parking Structures 

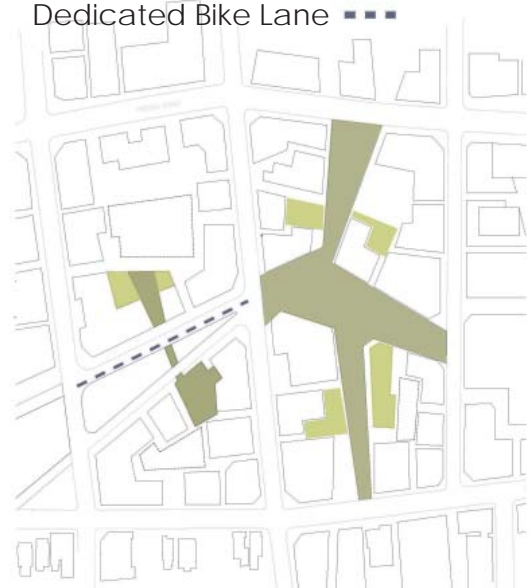
Emergency Access 



Dedicated Public Open Space 

Semi-Private Spaces 

Dedicated Bike Lane 



Urban Plaza Activities

5.3 Central Valley Redevelopment

5.3.4 The Urban Plaza

Zac Caruolo

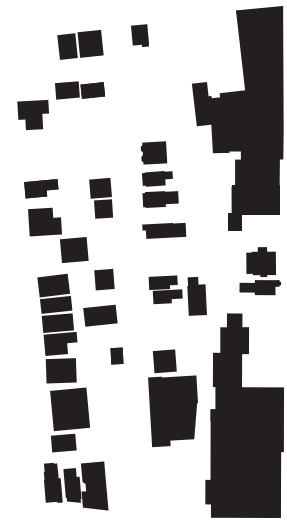
In reviewing the existing and proposed figure ground diagrams, it became obvious where the redevelopment plan went wrong within this block of development. While trying to create these cores of activity, our initial response was to propose a central community building within the block, acting as a focal point to bring people in. There are many issues involved with this solution including access, lack of connection to the street, and lack of spatial definition.

Access for one, is a major constraint. By orienting buildings to respond to the network of green space, we limit the available vehicular access to each building. It is imperative to maintain this access for practical reasons such as resident parking and commercial delivery. The design must reflect adequate parking for areas and therefore appropriate road access.

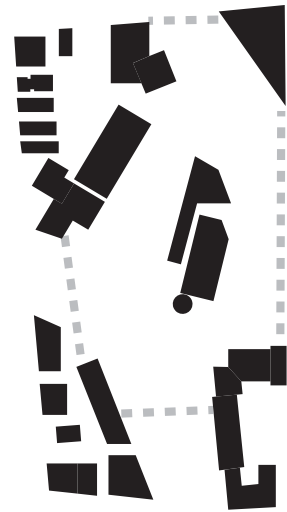
During the semester studio, we studied the importance of a streetscape as a public place. The proposed design

attempts to establish cores of activity within city blocks, removing pedestrians from the streets. This lack of street connection will create a segregation of activity from street to open space. By orienting buildings to face the open space, they will obviously be neglecting the streetscape, an ideal component to thriving businesses and activity. These strictly pedestrian green spaces will never fully succeed without direct access to the street.

As shown in the set of figure ground diagrams, the proposed figure ground demonstrates a severe lack of spatial definition as constructed by the buildings. A very large gathering space was developed, and then divided with the placement of a central building. The buildings on the perimeter do not provide enough facades to enclose the space. The gray dashed line is drawn to show this lack of spatial definition.



Existing Figure ground



Proposed Figure ground



Revised Figure ground



Plan: Not to Scale

5.3.4 The Urban Plaza (cont.)

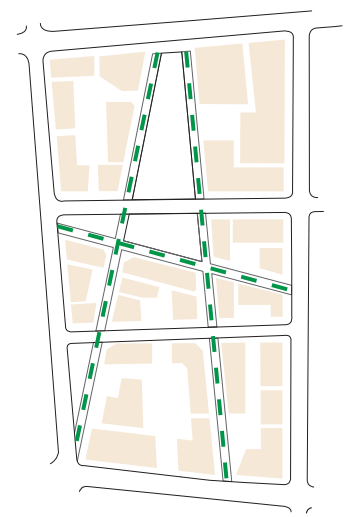
The revised design begins to re-establish a new central gathering space by addressing the issues previously discussed. The scale of the block is rather large and therefore can only be successfully penetrated if subdivided by major pathways and streets. By introducing additional through streets, we can increase the amount of area within the block that receives frontage to the street, prime locations for commercial and retail stores.

In order to reconnect activity back to the street, the central gathering space was relocated to straddle over a road. This creates a direct connection of open space with the urban streetscape. By adding in a mix of building uses, we can develop a core that remains active well into the night. Building facades begin to appropriately define this urban space while additional landscape elements further enclose the space.

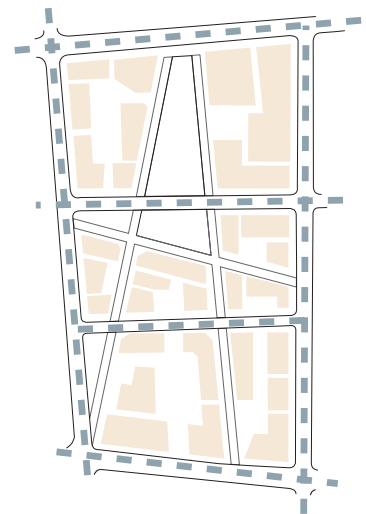
On the northern end of the plaza, a large wall is installed in order to provide a visual back-

drop as well as add a sense of scale to the plaza space. Horizontal views are cut out of the wall to hint at the natural landscape that can exist within an urban context.

Though the plaza is visually dissected by a street, it manages to remain one single space by eliminating the grade change associated with the curb in the road and maintaining a consistent paving pattern across the street. Cars are restricted from entering the plaza space by a sequence of light posts and benches that line each side of the street. The southern end of the plaza is left relatively open for community gathering events and if needed, the street can be closed to accommodate larger crowds.



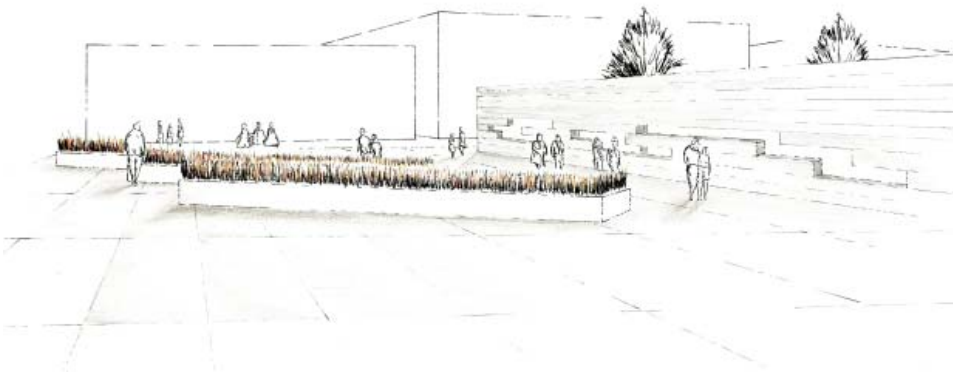
Pedestrian Circulation



Vehicular Circulation



Urban Landscape Architecture by Lorenc Bonet



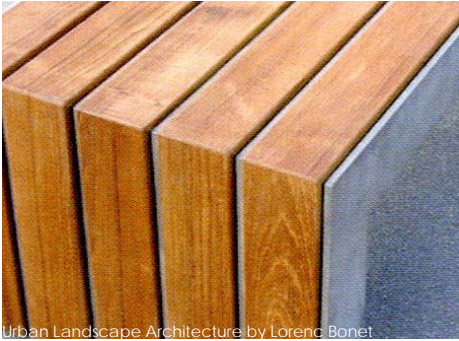
View of North Plaza & Wall



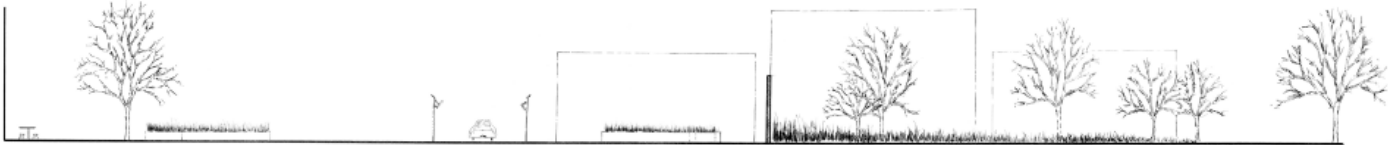
View of South Plaza



<http://flickr.com/photos/hyfen/394822932/>



Urban Landscape Architecture by Lorenc Bonet



Elevation: Not to Scale

5.3 Central Valley Redevelopment

5.3.5 An Urban Corner

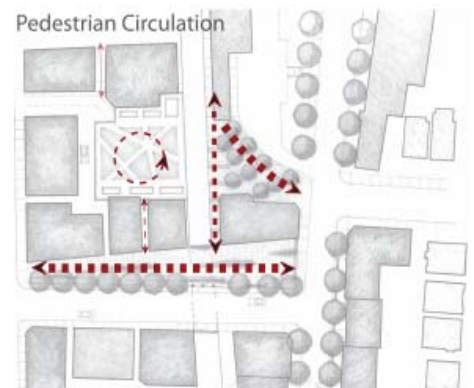
Mark McCarthy

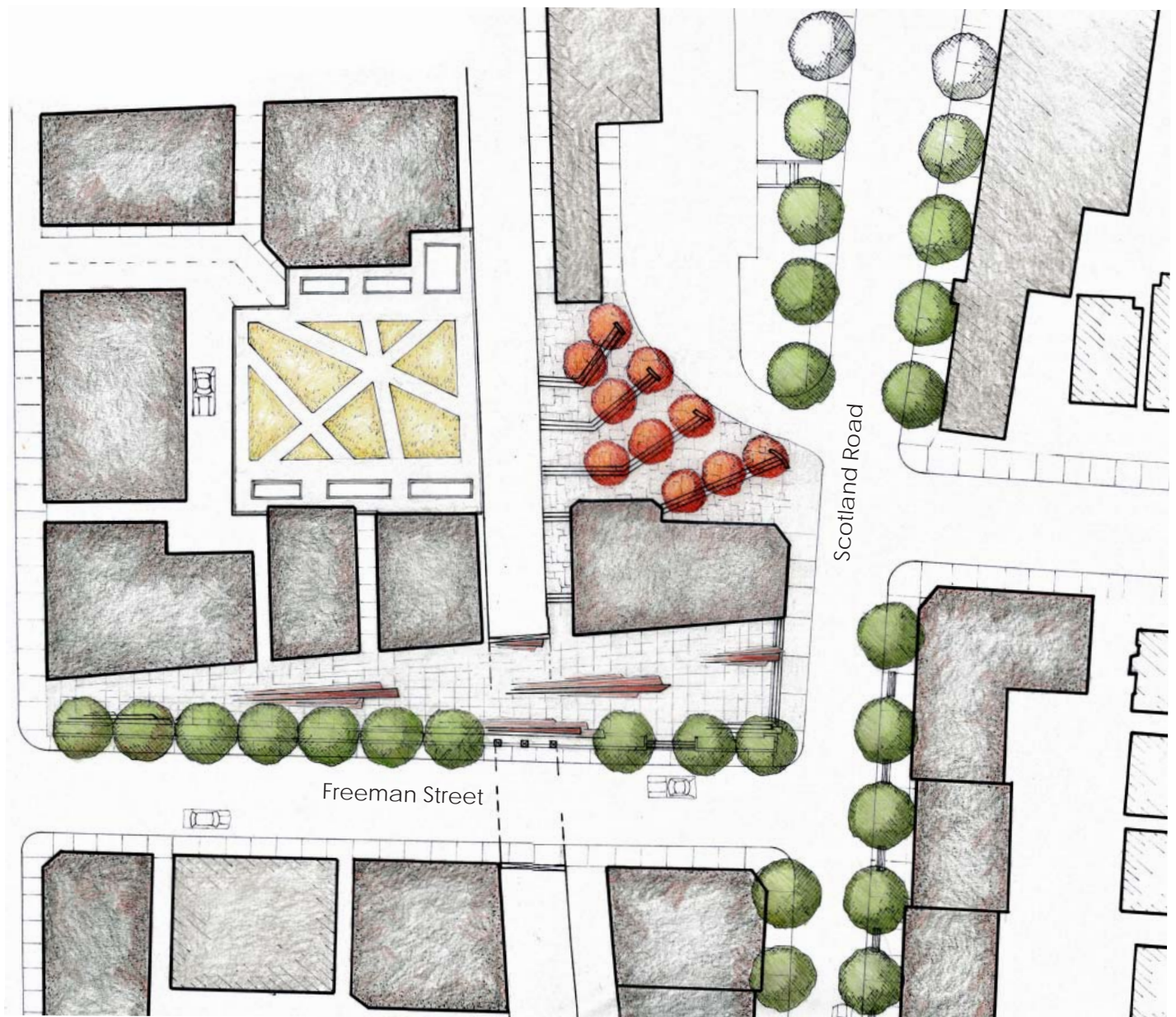
With our group redevelopment project we established a network of triangular shaped open spaces connected throughout the Central Valley. When the time came to re-think the space on the corner of Freeman Street and Scotland Road a variety of things came to mind. It was important to keep the overall vision of the group redevelopment plan, while addressing issues that had occurred during our design development.

It was first recognized that this area possessed multiple spaces within it and it was important to define these spaces through built structure as well as vegetation. The first space recognized was the Scotland Road corridor. Buildings were sited along the street on both side as well as street trees to establish a pedestrian oriented street environment.

The next spaces developed was the spaces along Freeman Street. In accordance with the redevelopment plan, the triangular space along Freeman Street was upheld, creat-

ing two different spaces along Freeman Street; The Freeman Streetscape, and the Freeman Street plaza. The plaza was reinforced through raising the elevation of the space at Scotland Road. Traveling down the plaza toward South Jefferson Street, the plaza begins to get smaller as well as the elevation lesser until the space is reunited both spacial and topographically with Freeman Street. Within this plaza space, large granite wedges extrude from the plaza offering visual interest as well as a curious place to sit. These wedges attract visitors into and through the space both two and from the Central Valley oward the Scotland Road train station.



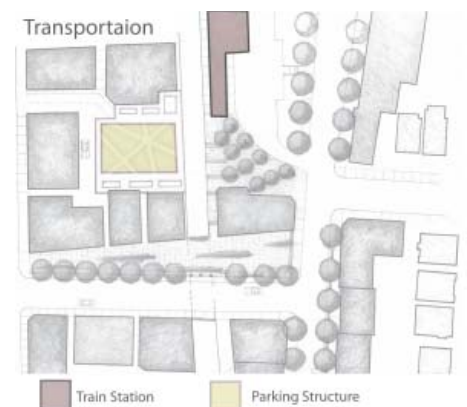
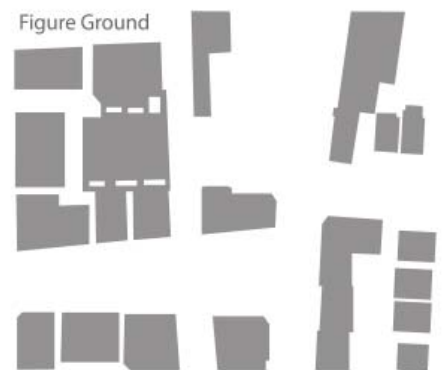


The Freeman Street Plaza

5.3.5 An Urban Corner (cont.)

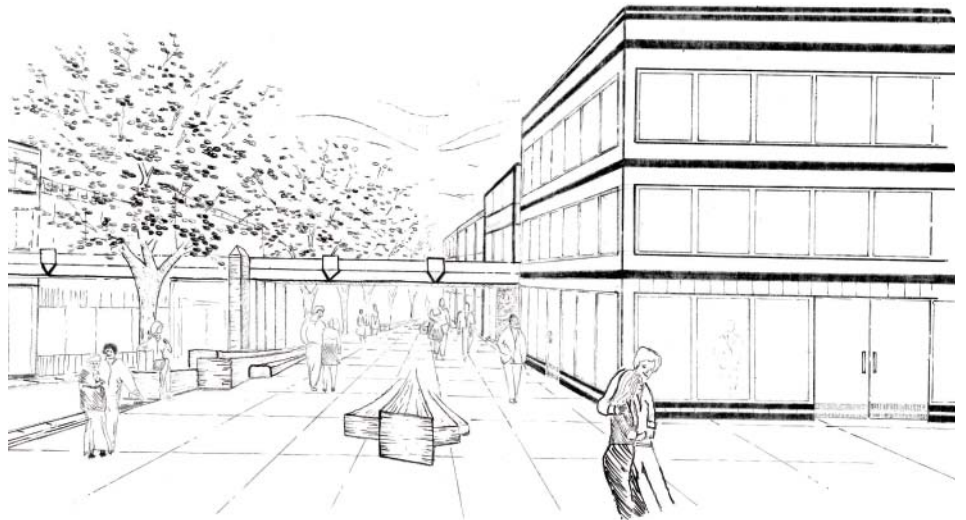
The Scotland Road train station services the Central Valley as well as Orange as a whole. It is an important asset to the redevelopment of the Central Valley. Currently, access to the Train station is limited from Freeman Street due to grade changes. This grade change needed to be addressed with it's relationship to the proposed Freeman Street plaza. The grade change was used as a asset by terracing the space down from the elevated train station to the much lower Freeman plaza. The space is further accented by architecturally planted trees to create an interesting transition space from the train station to the plaza.

In addition to the the train station serving the commuter population of the Central Valley, a parking deck was sited along the train tracks behind the Freeman plaza. The parking deck service the surround buildings as well as second floor acces to the buildings it borders.





Scotland Road Streetscape



Freeman Street Plaza



Freeman Street Plaza

5.4 Central Valley Brown Field Redevelopment

5.4.1 Redevelopment Plan

Sarah Clark, Jessica Edge, and Dominick Pensabene

5.4.1 Analysis

Culturally relevant buildings and open space create social spaces.

Our redevelopment plan for the Central Valley BDA was driven by a concept statement informed by participation in a community workshop, analysis of the site's historical and regional context, and several site visits. This analysis led to identification of several buildings that were significant in terms of history, architecture, or community service. We realized there was a vibrant community in the Central Valley that would benefit from improved organization of social spaces.

Our research on public open spaces led us to the city of Vancouver, which has encouraged people to live and work in the heart of the city by making the urban lifestyle attractive to all ages and incomes. It has done this in part by implementing a 'Living First' strategy, in which the organizing principles of urban design are redefined. Priority is given to non-vehicu-

lar transportation, developing neighborhoods at the pedestrian scale where commercial centers and public amenities support one another, creating a diversity of dwelling types, and ensuring open spaces and green linkages are preponderant (Girling and Kellett, 2005). The findings of our research and site analysis led us to believe increasing the amount of public space would be the best way to support the local community. We concluded that the most appropriate location for new public spaces would be conjoined with existing culturally relevant buildings (CRBs), which would give the community a sense of culture, history, and place.

We began by diagramming the existing open spaces in Central Valley, which included inefficient parking lots, vegetated areas, and semi-private undeveloped space. When combined with a diagram of existing CRBs, we realized there was a vast amount of underutilized space adjacent to these significant buildings (Figure A).

Figure 1 shows walking distances around the CRBs. The overlap of these circles indicates a higher volume of pedestrians traveling to and from these buildings. We determined these overlaps are current nodes of activity on the site, and would be the best locations for busy, lively, public uses, while the less active nodes are the best locations for quieter, less programmed uses.

5.4.2 Process

We developed several alternative spatial designs based on the diagram of CRBs and ex-

isting open spaces. Some alternatives drastically changed the city layout, some were highly sensitive to existing zoning, yet all tried to structure the neighborhood by connecting the existing large cores of open space. The preferred alternative was selected because it met the requirements of our concept statement in that it preserved the feel of an urban city grid, maintained open space around CRBs, and kept city neighborhoods and streets intact.

The conceptual design was then examined as a three dimensional figure ground by creating a study model which enabled us to further define the open spaces around our CRBs. We infilled a diversity of buildings to enhance the character of existing neighborhoods (Figures B and C). Once we had a finalized spatial layout, we began to program uses that respected as much of the existing community as possible (Figure D).



Figure 1



Early Conceptual Drawing



Figure A



Figure B



Figure C

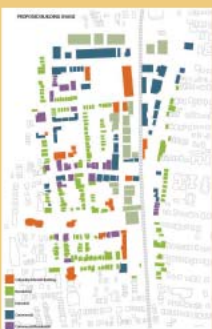
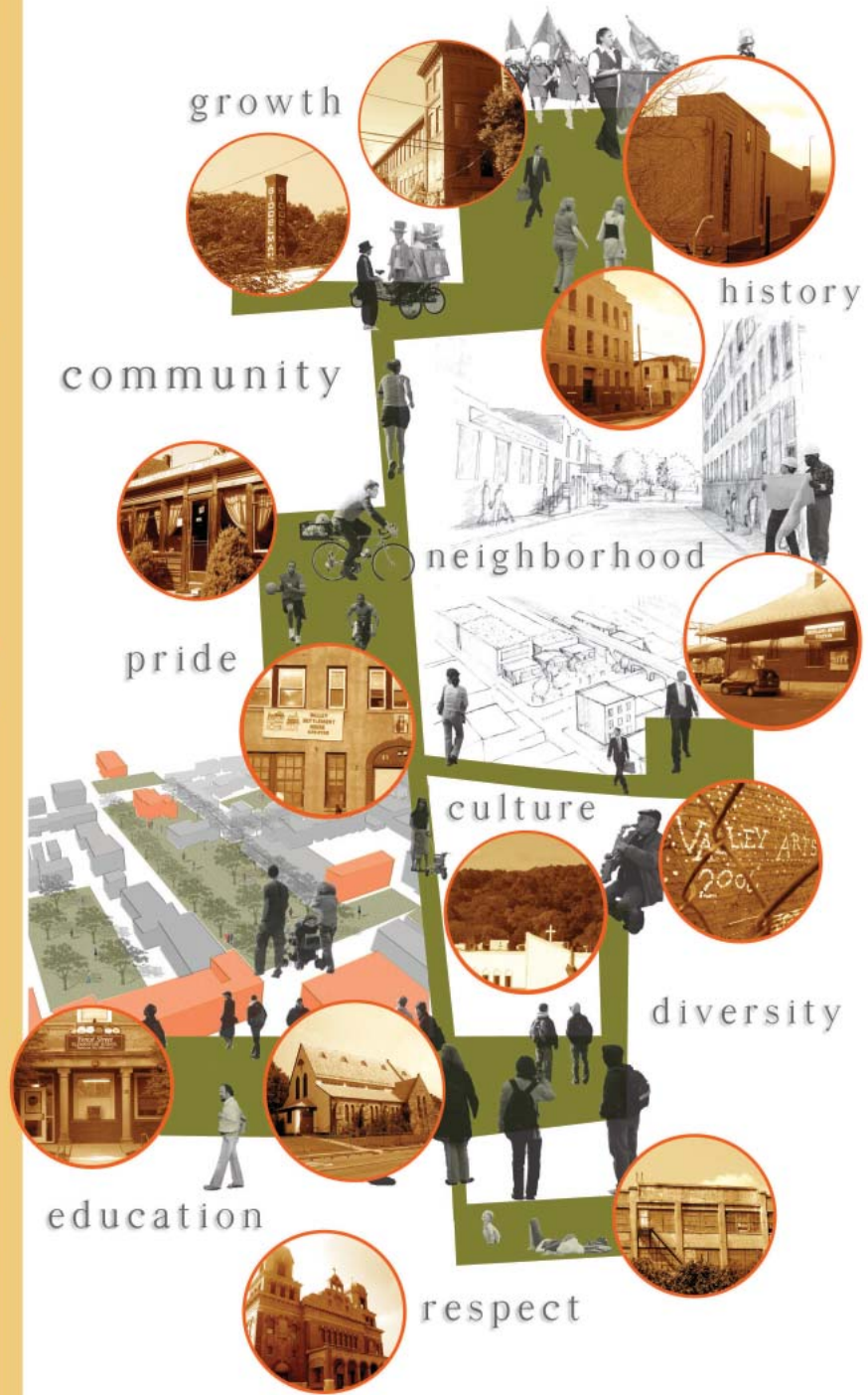


Figure D

CENTRAL VALLEY BROWN FIELD REDEVELOPMENT SARAH CLARK, JESSICA EDGE, DOMINICK PENSABENE



5.4 Central Valley Brown Field Redevelopment

5.4.1 Redevelopment Plan

Sarah Clark, Jessica Edge, and Dominick Pensabene

5.1.3 Redevelopment Plan

Our design decisions were driven by our concept statement to preserve and enrich the existing community fabric

By connecting the school, a proposed community center at Forest Street, and a new industrial building with a long expanse of green space, we created a much-needed space for kids to safely play, for church picnics and outings, and for local residents to decompress from urban life.

Tompkins Street becomes an important pedestrian thruway allowing safe and convenient movement through the Northern and Southern sections of the neighborhood. The end result is a walkable community where residents are less likely to drive to local destinations and more likely to run into friends and neighbors while running errands, going to work, or heading to a restaurant.

Freeman Street becomes a major intersection for the community. Buildings would resemble the three story brick dwellings



like the Valley Arts studio, with retailers on the first floor. The strategic placement of these smaller shops, studios, and boutiques provides easy shopping for residents arriving from the train station, and also draws visitors from the station down into the Valley. A newly created plaza space at the base of the Highland Avenue station becomes an ideal location to showcase local art exhibitions, cultural events, and local farmer's markets.
















South Jefferson Street acts as a major link to the northern half of the neighborhood and through strategic restructuring of the existing warehouses and parking lots, we were able to create a functioning industrial street that is hospitable to pedestrians. By moving the front of the industrial buildings to the edge of the street we could hide the more unsightly parking lots and delivery/storage spaces behind the buildings. Countering the industrial uses with commercial and retail buildings gives people a reason to be on the street, and thus it doesn't become a liability in our network of community open space.

The northern end of South Jefferson is anchored by three CRBs. By reclaiming land that is now occupied by vacant buildings and cars, we are able to compliment the great examples of Valley architecture with a fabulous new civic green space that balances the scale of the buildings with an equally impressive open space. Finally, Central Avenue becomes home to larger commercial office buildings, bringing new jobs, revenue, and opportunities to the Valley.

In closing, we feel that the communities of Orange Valley can be best served by supplementing the existing culturally significant buildings with public open spaces that are as active, vibrant, and expressive as the community itself. A massive overhaul is not needed to achieve this end. Rethinking the spatial organization of the neighborhood by consolidating vacant lots and reorganizing spatial uses reinforces the presence of the culturally relevant buildings.



-  Proposed Buildings
-  Existing Buildings

1. Biddeman Smokestack 
 2. Selecto Flush 
 3. Art Deco Building 
 4. Station Hat Factories 
 5. Diner 
 6. Valley Settlement House 
 7. Highland Avenue Station 
 8. Valley Arts Center 
 9. Christ Church 
 10. Forest Street Elementary School 
 11. Vacant Church 
 12. Berg Hat Factory 
 13. Our Lady of the Valley 
 13. Central Valley Theater 
- 

5.4 Central Valley Brown Field Redevelopment

5.1.4 Grounded

Sarah Clark

The design of the proposed open space along Forest Avenue between Valley Road and South Jefferson Street began with an analysis of vehicular circulation. One important factor to consider was the bisection of the site by Tompkins Street. It was important to our overall concept that the park space be one large contiguous open space, open to multiple uses by multiple social class and ethnic groups. Several design alternatives for redirecting cars were considered, including closing Tompkins to vehicular traffic, splitting traffic to run along the northern edge of the park, and redirecting traffic through existing buildings north of the park. The existing street layout was chosen because it was least destructive and preserved the most amount of open space.

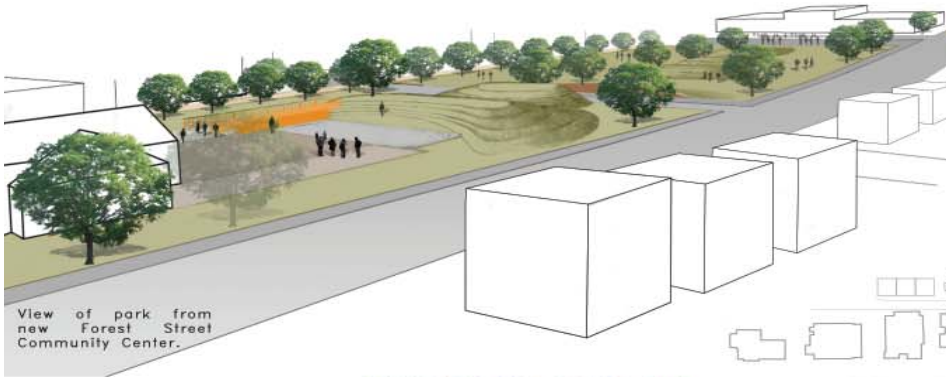
The challenge then became enhancing the pedestrian experience along Tompkins Street. Major considerations included making it safer, improving the environmental quality of the neighborhood, and enhancing

the green connection between two important open spaces in our redevelopment master plan. The City of Portland Department of Transportation has reduced low-traffic residential street widths to 20'-32', depending on the number of travel and parking lanes (Skinny Streets, 2007). Reducing the width of an urban residential street has been shown to reduce traffic speed as well as collision frequency, especially when one car is forced to pull into a parking lane to allow another car to pass (Girling and Kellet, 2005). Reducing the overall width of Tompkins Street to 24 feet allows an 8 foot vegetated bioswale to filter and reduce runoff. Tompkins Street was reduced to 16 feet through the park space, with no on-street parking. These changes reclaim space lost to vehicular traffic by providing more street space for residents and pedestrians to engage in community building.

The design concept for the open space became linked to the rehabilitation of the site. Contaminants from ma-

chine shop operations and hat manufacturing contaminate the soil and surrounding watershed. Capped landforms are proposed to contain the hazardous soil, and also provide a physical expression of continuity from one end of the park to the other. Stormwater overflow from the Tompkins Street vegetated swales flows into the larger swale flanking the north side of the park. Lined with a boardwalk connecting visitors to the space as well as with one another, the swale also serves to define the line between the public park space and the private yards of the buildings fronting the park. Plaza spaces anchor each end of the park, and outdoor reading, lounge, and recreation areas are located at the community center.

Through these proposed changes, contaminated land finds new life as a meaningful space grounded in community, culture, and rehabilitation.

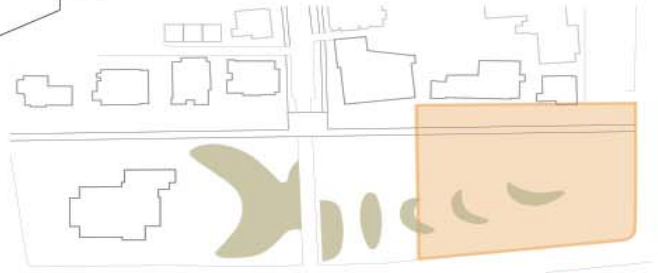


G R O U N D E D

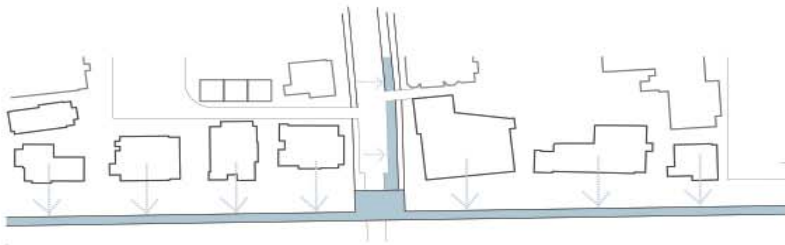
CONTAMINATED LAND FINDS NEW LIFE AS A MEANINGFUL SPACE GROUNDED IN COMMUNITY, CULTURE, AND REHABILITATION.

Contaminants from machine shop operations and hat manufacturing currently contaminate the land and the surrounding watershed.

Capped landforms are proposed to contain the hazardous soil, while at the same time integrate an open green space grounded by a new community center.



Section through landforms facing North.
Scale: 1"=30'-0"



Reducing the width of Tompkins street to 24 feet allows a bioswale to run the length of the street collecting stormwater. Overflow drains to a larger swale flanking the northern perimeter of the park. Run-off from nearby buildings is directed to the swale. Increases groundwater re-charge as well as irrigating the planted elements in the swale.



Section along Tompkins Street facing West.
Scale: 1"=30'-0"



Scale: 1"=30'-0"

5.4 Central Valley Brown Field Redevelopment

5.4.5 Connecting Community

Dominick Pensabene

From our group's underlying concept and the decision that the Central Valley Settlement House was a culturally relevant building (CRB), I decided to look more closely at this space in regards to the individual site design. I started off by looking at the existing conditions of the Central Valley Settlement House and its immediate area. I first became aware that a large amount of the open space surrounding the settlement houses' semi-private space was undeveloped and under utilized as an open space. I also noticed the somewhat heavy or quick traffic on Tompkins Street (Figure 1). From here I looked back to see what our group had proposed for the space in our redevelopment plan. We proposed a couple of buildings on Tompkins Street, which was transformed into a pedestrian only street. We also proposed the whole area to the north of the settlement house would become public open space (Figure 2). Based on several figure ground studies I began to realize that the space

we had proposed spatially and functionally would not work.

From this past analysis and our group's concept statement, I started to focus on my individual site design and impression of the space. I felt that this space should become an active, small scale, dynamic public gathering space for all ages. Now that I had the concept of the space I had to develop it in order for it to become a repeated destination for the local residents. I looked into several different ways to attract people to a space and learned that this space needed better spatial definition as well as better access and more active person-to-person interactions.

Based on this analysis and new concept I developed several different alternative designs. By looking closely into each one, some drastic and some not, I chose the one that applied best to the criteria for my design concept.



Figure 1. Analysis of Existing Conditions

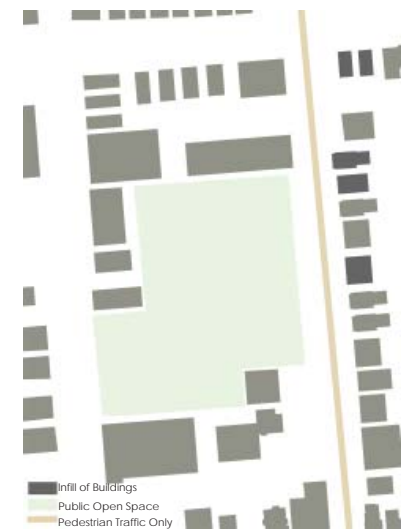


Figure 2. Mid-Term Master Plan

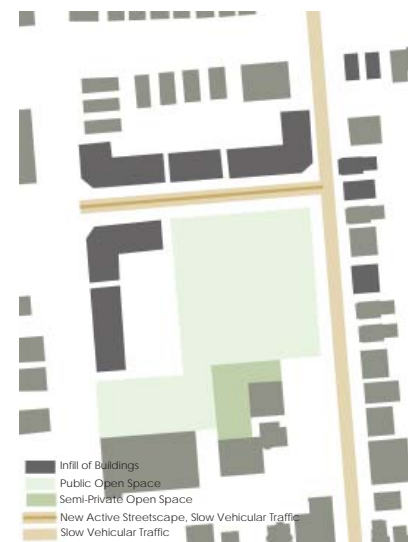


Figure 3. Individual Site Design



5.4.5 Connecting Community (cont.)

When looking at my new proposed site plan, you see a new road called New Street, to the northern end of the site that connects Valley Road and Tompkins Street. New buildings are placed on this street as well as on the corner of New Street and Valley Road. Small scale restaurants, cafes, and other local businesses could occupy these buildings would attract visitors and provide jobs for the neighborhood. The settlement house maintains its successful identity and programming but is further enhanced with a larger semi-private outdoor space. The settlement house is now flanked by a revitalized theater and small entrance plaza to the west and a large public green space to the north. The public green space gently slopes up toward the sidewalk with small retaining walls along New Street and Tompkins Street. These walls provide for a defined space and allow for key entrances into the green space. These small hills provide an aes-

thetic quality as well as function for a person to lounge back and look onto the green space.

With the addition of New Street accompanied by several small businesses, a new revitalized theater with an inviting entrance plaza, an enhanced Central Valley Settlement House outdoor space and large public green space the area becomes a new improved block. The space is easily accessed, well defined and becomes an active destination where community members can repeatedly meet and interact with each other day in and day out.

A view from the middle of the large public open space looking toward the corner of New Street and Tompkins Street. This shows the relationship between the small hills and two of the main entrances to the space. Community members can meet here and enjoy the space together in various ways.



Looking from Valley Road into the entrance plaza at the newly revitalized theater towards the Central Valley Settlement House. This space is a public open space and can be used at any time of the day whether or not a performance is going on.

This section / elevation drawing shows the horizontal and vertical proportions of New Street, the new retail and commercial buildings and the adjacent public open space.



5.4 Central Valley Brown Field Redevelopment

5.4.6 Reinventing Art Deco

Jessica Edge

The goals of this site design were to showcase and define the uses of the buildings, remediate and incorporate the canal, control storm water and create a multifunctional dynamic space.

The Art Deco building is the most prominent on the site and posed the biggest challenge. The true front of the building faces the train embankment to the east on South Jefferson Street. The back of the building faces the proposed plaza. The solution to this was to create different uses within the building. The additional three story proposal is to become residential and the private entrance for this would reside on South Jefferson. The bottom two levels of the building are to be retail and the remaining levels for offices and businesses. This commercial entrance (Image 1, next page) of the Art Deco combined with the remaining part of Harvard Printing becomes the "new front". Doors would be located on Central Avenue as well as along the plaza.

The interior space of these joined buildings would be similar to the feel of Quincy Market in Boston. When you enter the center of the Art Deco building it would be like an atrium. There would be large glass panels and several doors to the exterior plaza that would be conducive to indoor/outdoor markets as well as large scale events.

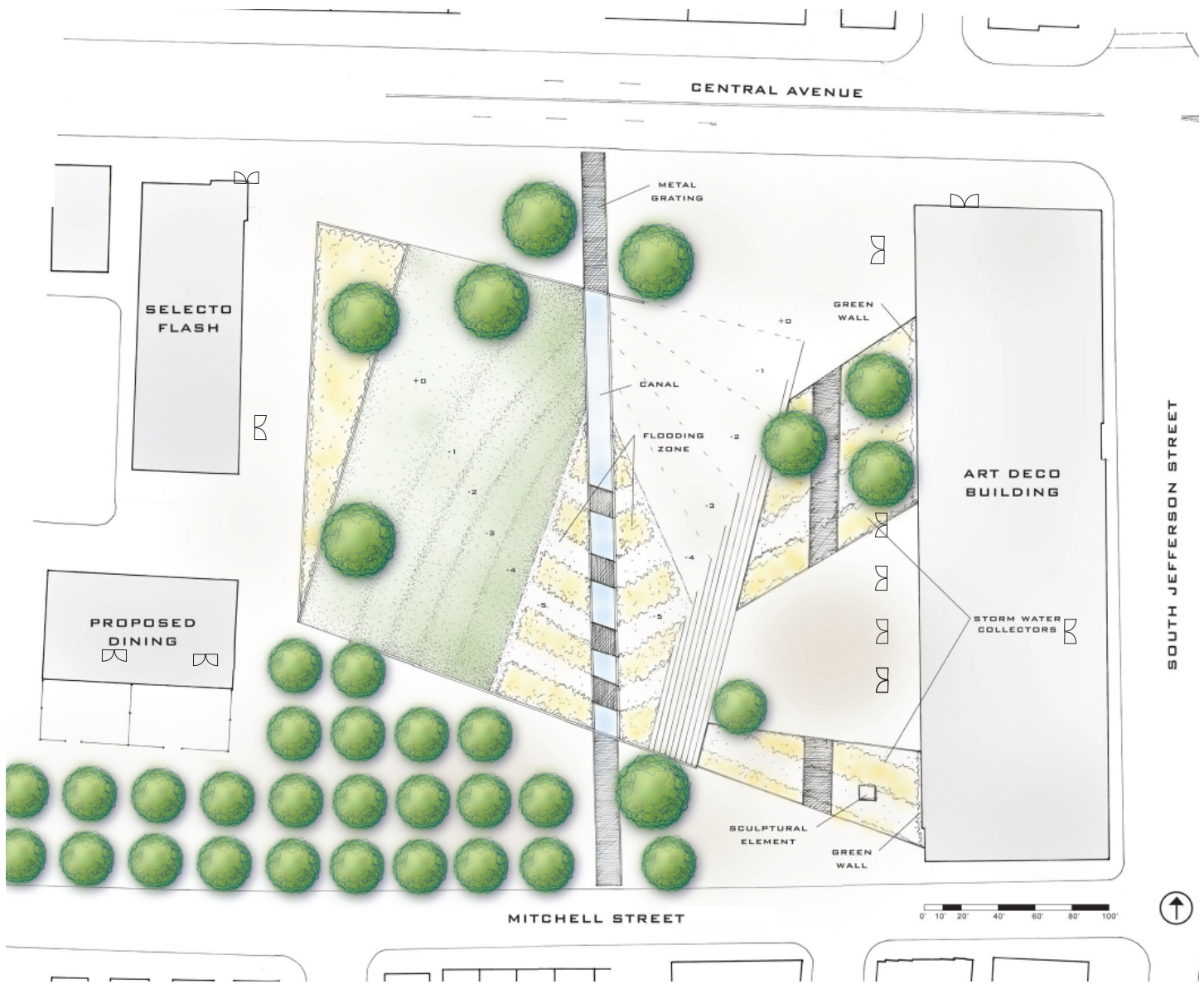
The planting features of the plaza are designed to manage the storm water coming off the site and from upstream. They are planted with mixed perennials and grasses and are all lined with a gravel base for drainage. The plants would be able to handle being very wet or very dry. The beds that are closest to the buildings are designed to hold large amounts of water and with slow release drainage into the canal. (See Diagram 1 and Section 1, next page)

The central feature that lines the canal itself would be of similar planting as the above mentioned. In the event of a storm, the area floods filling to the edge of the planting beds.

The metal grating seen across the planting beds and the canal are to maintain pedestrian flow throughout the site even when the beds are flooded. They also provide a full view down into the canal.

The large turf area would be for passive and active recreation, but is sloped for two reasons. One is to keep moving towards the canal and two is to make it more comfortable for view performances or movies (Image 3).

The rows of trees were placed specifically to be a transition from the neighborhood on Mitchell Street. The area would be filled with chairs, tables and benches and perhaps a children's play area. Not only does it soften the line of the plaza but is a shady retreat for eating lunch or spending time with friends.



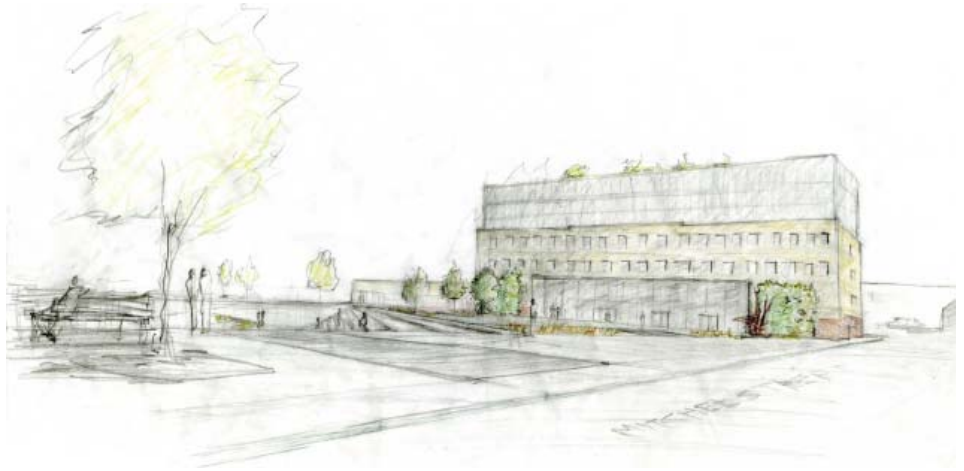


Image 1 - "New Front of Art Deco"

5.4.6 Reinventing Art Deco (cont.)

The site design strives to maintain the integrity of the industrial buildings surrounding it, be sensitive to the neighborhood, be innovative with storm water management, and finally to create a beautiful space full of activity for the community of Orange Valley to enjoy.

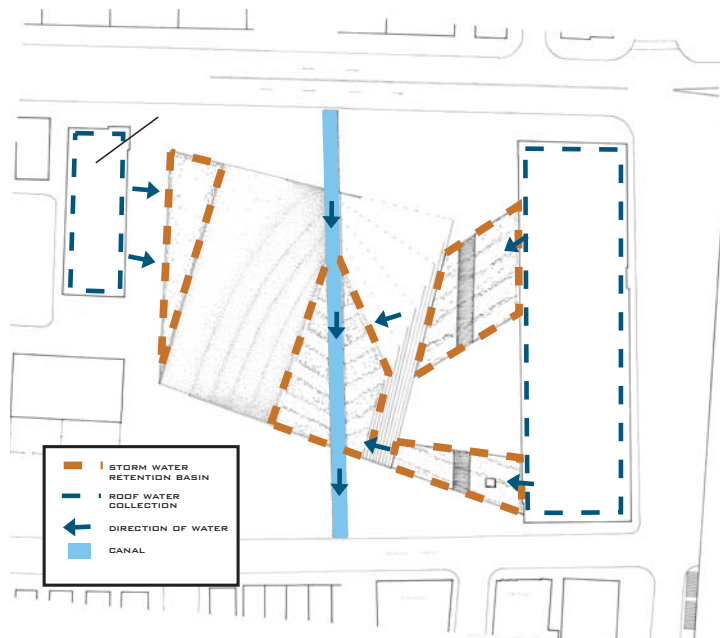


Diagram 1 - Water movement

Section 1

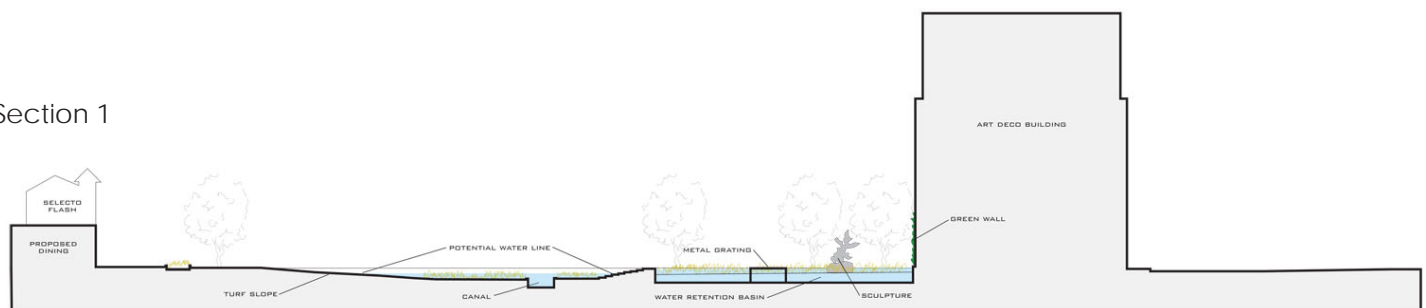




Image 2 - Selecto Flash as viewed from Central Avenue

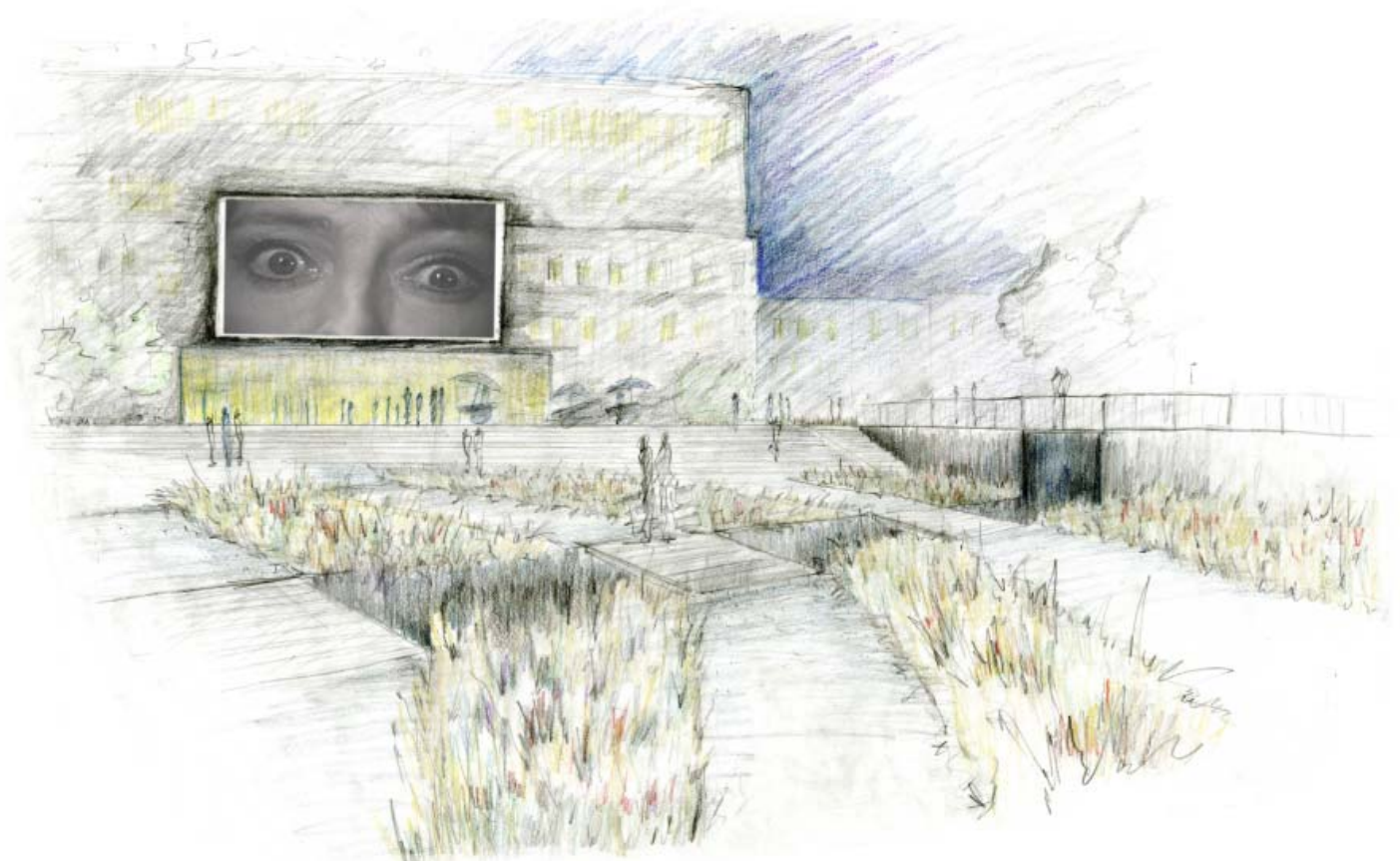


Image 3 - Enjoying a movie on a summer evening; view from the canal

5.5 Redeveloping Orange Valley

5.5.1 Analysis

Pete Klapsogearge, Jon Lahoda, and Brian Shankle

Our team's analysis began with visits to Orange's Central Valley neighborhood. Walking the streets of our site, we were able to collect notes and photos that would later inform our analysis. Since we visited the Valley as an entire class, our very conspicuous presence had an unexpected result: the curiosity of local residents and business owners was heightened and conversations were started. Not only were we able to gather the obvious information on circulation, building uses, greenspaces, and the like, we were also able to get a feel for the people for whom we would be designing. After two days of site visits, we were prepared to take our data back to the studio to perform the analysis. After team meetings and layers of trace paper, we began to see some of the patterns that existed in the neighborhood. Spatial arrangements and development patterns became apparent and we began to see problems and opportunities that could be addressed using smart design and planning.

Existing Building Uses:

Factories, workshops, businesses, residences, and some remnants of the above are intermingled among each other in a seemingly random fashion. Family residences, factories, and businesses are located in proximity to each other creating a dangerous and noisy environment. Others are located on or very near historical industrial sites that have now been designated as brownfields.

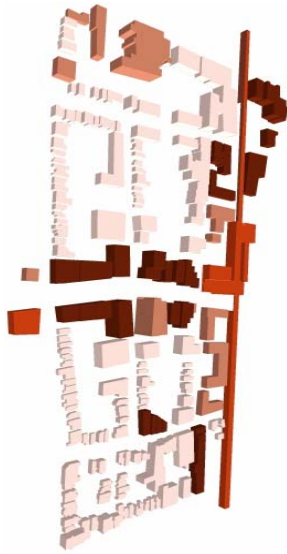
Existing Greenspace:

Existing greenspaces are nearly nonexistent in the current neighborhood arrangement and its surrounding areas. Small park space is observed at the intersection of Valley Road and Forest Street, with the Triangle Park, and the adjacent lawns of the vacant church next door. Other greenspaces are mostly limited to small lawns of private residences.

Existing Connections:

Currently there is a limited connectivity between points in this neighborhood. Valley Road and Scotland Road are major through streets, and there is the benefit of the New Jersey Transit Morris and Essex line that stops regularly at the Orange Train Station. Freeman street is currently underutilized as a cross axis of the neighborhood.





5.5.2 Process

Proposed Building Uses:

With the new arrangement of existing commercial and industrial buildings, we are faced with an enormous opportunity to increase green space for the neighborhood. Businesses and residences alike are moved toward the sidewalks, creating spaces behind them to be shared by all. The historic stream that bisects the neighborhood has been reopened and the park space that surrounds it has been designed for sustainable storm runoff management. Attention has been given to those spaces surrounding residential areas, with additional greening occurring between Tompkin and Valley, and between Central and Mitchell.

Proposed Greenspaces:

Valley Road and Scotland Road are retained as major thoroughfares. Proposed is the development of Freeman Street as a major cross axis through the neighborhood. This new axis accents the train station and will serve to pull thru-traffic out of the residential zones and keep it in this new commercial core. This new axis gives the opportunity for additional connections. A new green connection is established on both sides of Freeman at the former Stockman Street intersection. This green connection establishes a pedestrian thoroughfare from the proposed neighborhood green spaces to the core.

Proposed Connections:

Now we see a completely different building arrangement. The major commercial entities have been located along Freeman Street, creating a new commercial core between the train station and the intersection of Valley Road. Industrial uses have been clustered near the NJ Transit tracks, to keep the major noise-producers together and away from residential zones. Large signature buildings in the center of the new commercial core will provide new office and residential space from which new development will spring.

5.5.3 Redevelopment Plan (cont.)

One main concept that drove our design for the redevelopment of the Central Valley was to provide a linear connection along Freeman Street between the train station and Valley Street. This connection is the nucleus of activity in this neighborhood. The central part of the connection, between South Jefferson and Tompkin streets, would be the activity core, visually accentuated with taller buildings. The tallest buildings provide a visual significance to the core not only from street level, but also from the train line. The core will consist of an orderly arrangement of mixed-use buildings with commercial properties on the lower floors and apartment-style living in the upper floors. The commercial properties will consist of restaurants, markets, delis, coffee shops, retail, and the arts. Residential areas will consist of both single and multi-family homes, as well as apartment-style buildings. These areas diffuse the energy from the central core.

Next, we used a network of shared community green-spaces as the main linkage between the core and the rest of the Valley. This union of spaces will allow the Valley to be more accessible for pedestrians, decreasing the reliance on automotive traffic and encouraging interactions among residents to develop neighborhood communities. Also, the Valley will become one cohesive urban area.

The form of the buildings, in conjunction with a vibrant street atmosphere, will provide the core with activity around the clock. The presence of the residents of the area and the pride developed for their neighborhood will contribute to a safe, meaningful sense of community.

When standing back and looking at our final product, we realized the valuable importance of urban form. The scale, shape, and overall mass of buildings significantly contribute to the success of spaces that begin to emerge around these

buildings. We felt that it was very important to respect the history of the Valley, cherishing buildings we felt were important, and integrating them into the Redevelopment Plan.

Overall structure of an area can greatly contribute to a city's success. The central gathering area an urban core creates adds a great value and economic potential to a city. Not only does such an area provide activity for the city's residents, it also helps to bring in people from nearby cities and neighborhoods.

Remediation of contaminated areas is of great importance to a city with a long industrial past, such as Orange. Recognizing our impacts on the environment should always be considered to prevent the accumulation of future contaminated areas in our cities.



5.5 Redeveloping Orange Valley

5.5.4 The Green Corridor

Pete Klapsogearge

The stream that runs through Central Valley has had significant value to the industrial past. However, with the heavy development along the stream and heavy modifications to its profile, it has become severely degraded. The stream has lost its flow, is very stagnant, and is concentrated with pollutants from direct street runoff.

To address the current situation of the stream, an ecologically-minded storm water management system was implemented into the center section of our plan, called the Green Corridor. The stream will be partially day lighted, allowing sections of the stream to be visible. The stream will be fed by storm water captured from homes in proximity to the stream to bring back a source of flowing water to the stream. Linear troughs two feet deep and one foot across will act as gutters to channel the captured storm water to the stream. Figure 1 shows a representation of the layout of the stream and stormwater gutters.

Trees were then planted in an abstracted grid, as represented by the green bands in Figure 2. The design of the tree plantings is reminiscent to the urban street layout of Central Valley. The meandering sections of the stream break up the formality of the tree grid, similar to the way a stream meanders through the landscape. The tree grid then contributes to the formation of smaller areas within the Green Corridor that are further defined by undulating landforms and pathways.

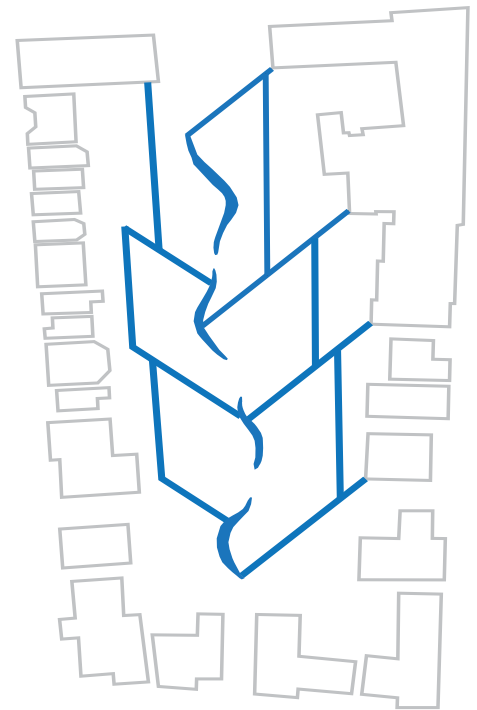


Figure 1

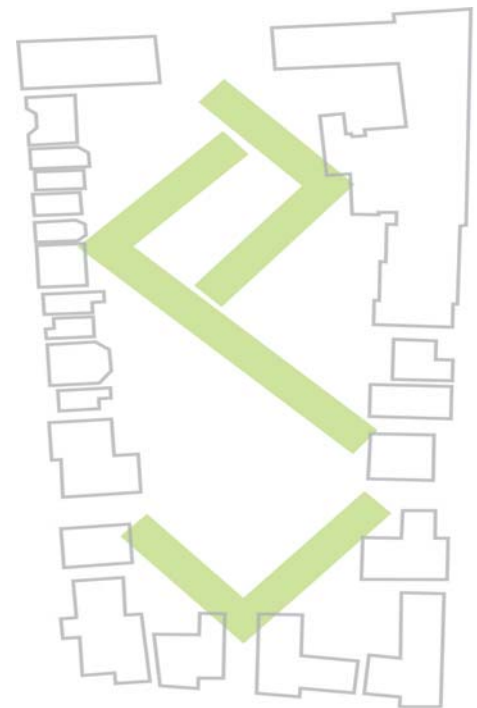
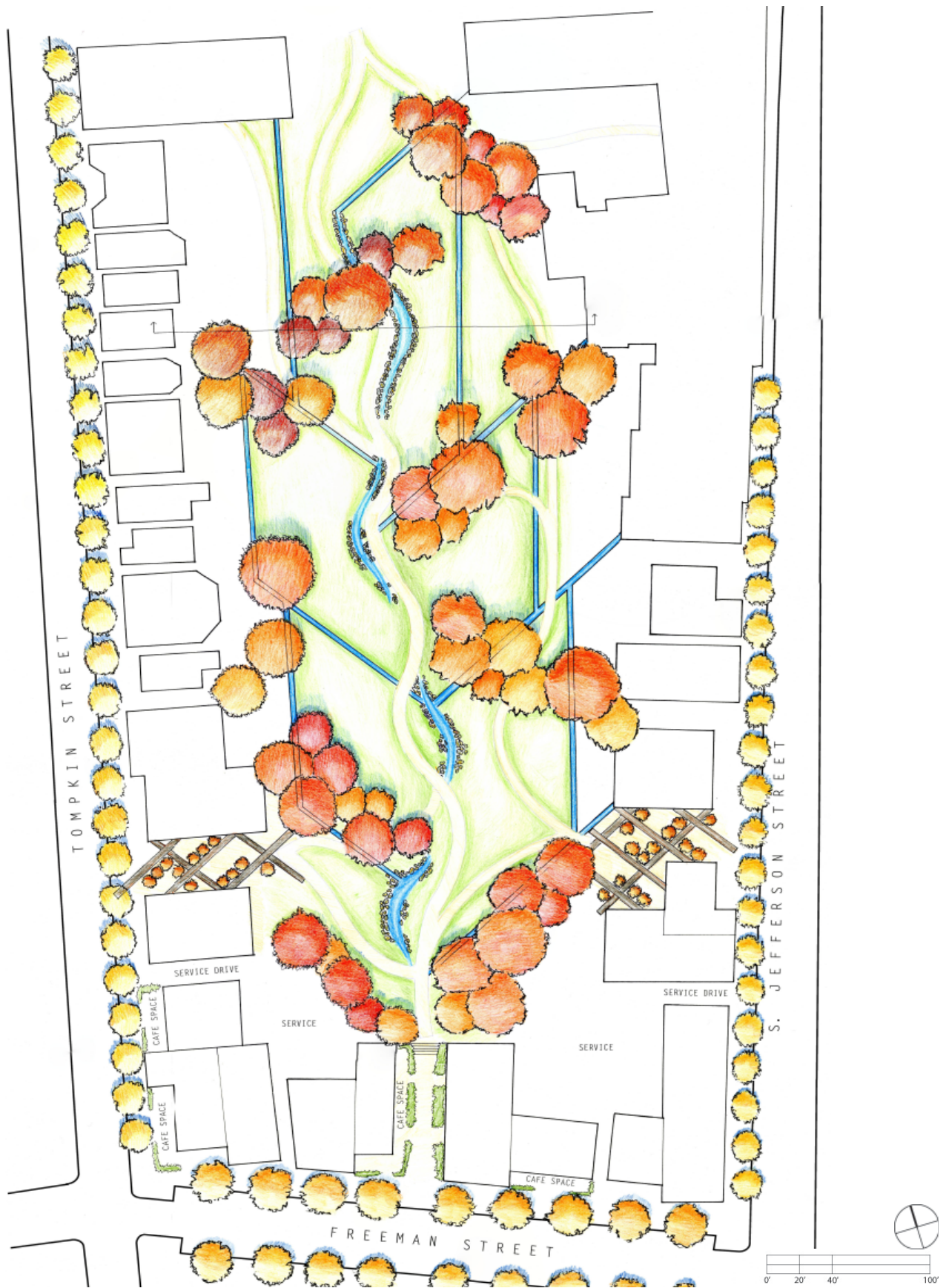


Figure 2



5.5.4 The Green Corridor (cont.)

Three major entrances were designed into the program for this site. The most significant entrance is in the middle of the core on Freeman Street. A cafe-lined plaza leads the visitor from the urban environment of Freeman Street to the green space of the Green Corridor. Two minor entrances, one on Tompkin Street and one on South Jefferson Street, are defined with a steel overhead structure, evidence of the Valley's industrial past. A network of pathways then lead people through the Green Corridor to private residences and apartment buildings. Figure 3 shows a diagrammatic representation of the circulation patterns in the Green Corridor.

market

Upon further examination and analysis of the Redevelopment Plan at a more refined scale, the corner of Freeman Street and South Jefferson Street was changed. The buildings were decreased in mass, and have frontages facing Freeman Street. The decreased scale

of the buildings give Freeman Street a pleasant, and interesting, human scale. Varying offsets from Freeman street provide space for cafes, outdoor market spaces, and informal gatherings. Building facades will vary to give each storefront, restaurant, or business its own, unique appearance. The increased street life will contribute to the lively atmosphere created along Freeman Street.

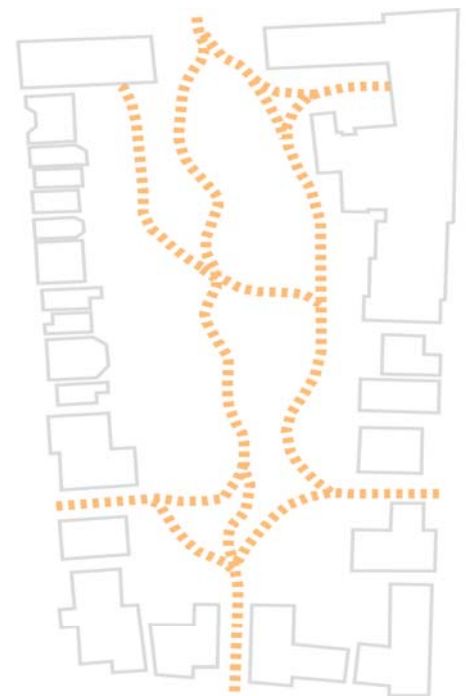
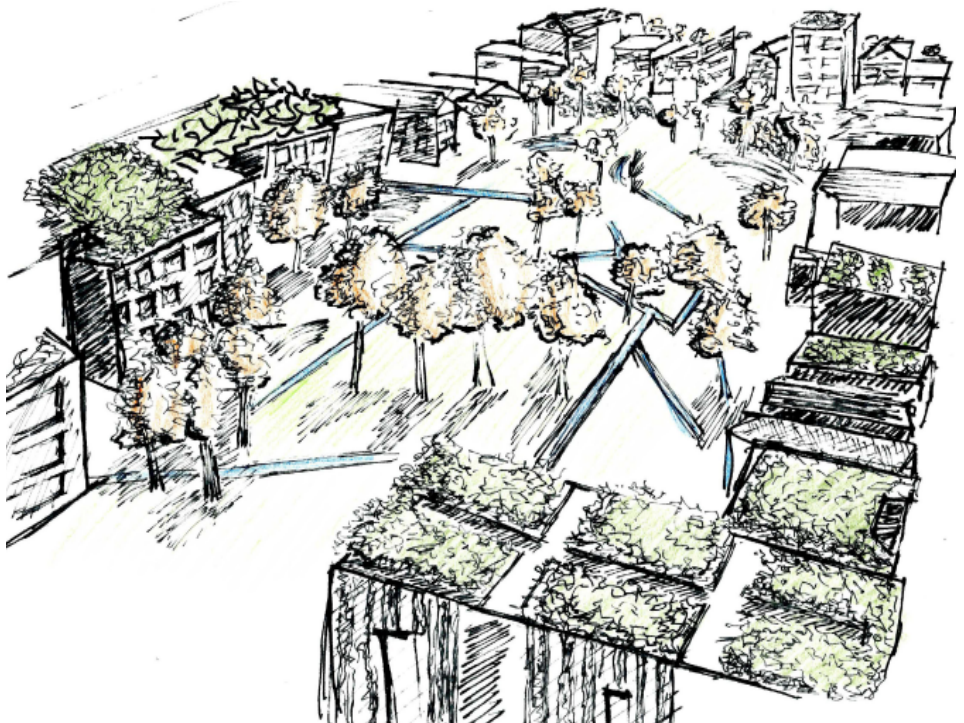


Figure 3

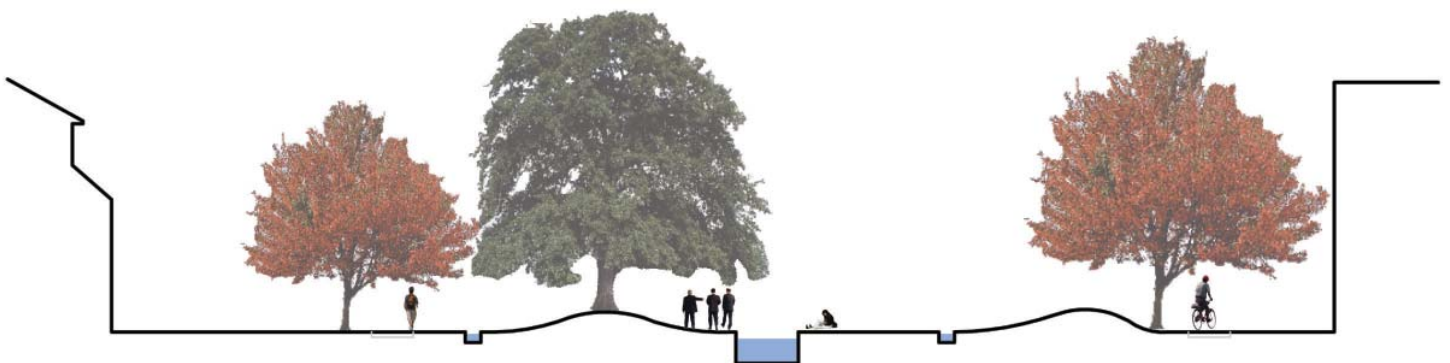
A conceptual sketch, left, of the core section along Freeman Street from Tompkin Street to South Jefferson Street.



This conceptual sketch shows a bird's eye view of the Green Corridor with buildings designed with green roofs and rain gutters collecting storm water from groups of houses. These gutters, in turn, feed the partially daylighted stream.



This section through the middle of the Green Corridor, below, explains the structure of the storm-water management system. Two feet deep troughs feed the stream. Pathways along the perimeter of the space and undulating hills and stream features delineate spaces.



5.5 Redeveloping Orange Valley

5.5.5 Creating the Valley Core

Jonathan Lahoda

The site provided several opportunities to more adequately attract people into the core from surrounding streets and communities. The original rough design of the site was located on the corner of Tompkins Street and Freeman Street. Certain key issues such as maintenance, walking patterns, public versus private space, and even delivery access were used as a lense to view the original rough design. Through careful analysis and revision the design began to encompass the full vision of the overall redevelopment.

The emphasis on the pedestrian experience was placed more on Freeman Street from the Train Station to the Community Center and back rather than from Freeman to Tompkins or even South Jefferson. The access into the site would become primarily on the street. Two parks now become side connections from farther areas in the Valley. The park connections are used as main route of travel for a passing through and as a social recreational

area that will eventually lead you into the core on Freeman Street. My site acts now as a gateway into the central core of the Valley.

The street life of Freeman Street is enhanced by the presence of the signature office building on the corner of Tompkins and Freeman. Lined with street trees and lively shops and restaurants, the central core on Freeman Street has a vibrant feeling that will attract visitors from all over the area as well as investors and residents. Anchored with the train station and community center on the ends there is a progression through the space of different activities and social events that increase the diversity of the core. The increased residential and commercial space brings economic opportunity to the now struggling and unconnected Valley. The stepped green roofs welcome in residents from Orange and the train station into the diverse and charming downtown of the Valley. Pocket parks are rest areas to step back from the street life

and enjoy a cup of coffee, morning paper, and even the outdoor dining of the restaurants between shopping or strolling through Freeman Street.



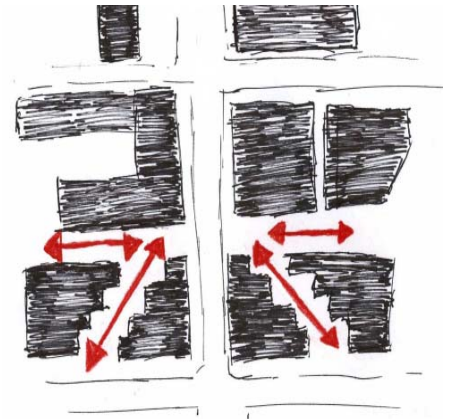


5.5.5 Creating the Valley Core (cont.)

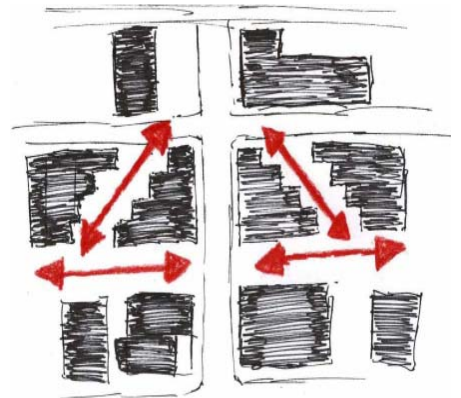
Developing a design that integrated pedestrian movement and specific space for social interaction, was crucial to the success of the Valley core. To develop the space, the building height and size as well as the space between must be at the best ratio to avoid feelings walled in or too open and exposed. The size passage ways between the buildings and through the streets will deter or encourage people to walk through.

I began to play with the original desire for direct visual connection as a means of directing traffic, however the direct visual connection would require a focal point of sorts, which was lacking in the space. A progression of narrowing space between buildings as well as specific building use led to a shift in building location. The connection between the train station and Valley Street was seen as a crucial route to focus on rather than peripheral streets to the direct center of Freeman Street. To the right are three steps in the design development process that resulted in the final design. Each concept diagram shows the pedestrian movement and how the building location, size, and space between affect the overall flow and direction of traffic. The final design shows how the stepped buildings direct a person from the train station onto Freeman Street, which is the central spine of the Valley.

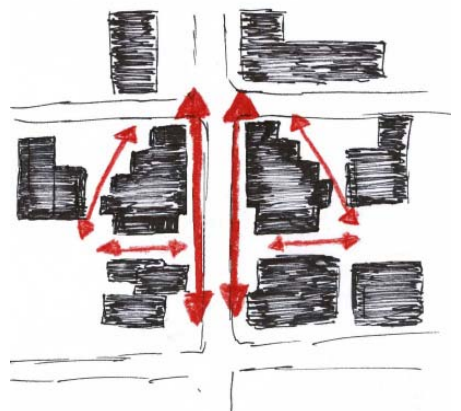
Early design that brought pedestrian traffic into the middle of Freeman Street yet it negled the central core.



Later the design that shifed the movement to utilize the train station access. The design misdirects the pedestrian traffic to the outer parks rather than through the central core down Freeman Street.

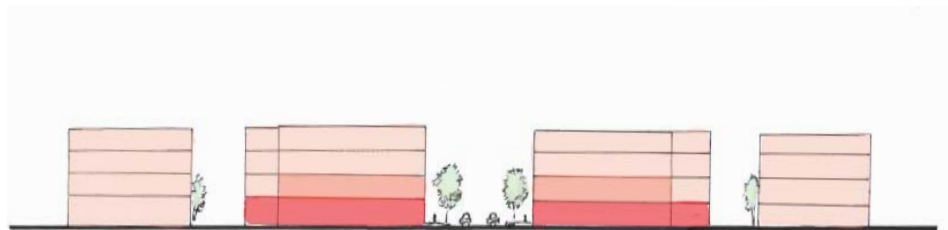


The final design narrows the connection to the green-space to direct pedestrian from the train station through the central core down Freeman Street.



Stepped mixed use buildings with green roofs stand as an entry into the core. With retail and restaurants on the first floor, offices on the second floor, and residential on the third floor, there would be continual use and social interaction creating a vibrant corner that bustles with activity all day long. When leaving the train and entering into the core, the pedestrian is led through the space lined with trees and wide sidewalks that give a comfortable scale and feel to the site. With two hints of the park behind, the stepped buildings are angled to give a small opening that allows for access into the park directly. These areas also provide adequate access for deliveries for the restaurants and shops. The space is scaled down by river birches and vined trellises that bring the pedestrian experience to a more comfortable height and feel. The visitor or resident is given a small off street experience away from the street in two small pocket parks. These parks offer a quieter setting as well as access into the larger parks. Sections help provide a clearer view of how the space works when walking into the pocket park (top), and walking down Freeman Street (bottom).

The main core creates cohesion for the Valley development giving a sense of place and comfort that has been absent for a long time.



5.5 Redeveloping Orange Valley

5.5.6 Individual Design

Brian Shankle

When arriving at the train station in Orange, passengers leave their train and scatter about, conducting their business and living their lives. Primary views consist of a closed and locked train station building, a large, mostly abandoned art deco style building, and in the distance, the other side of Orange's Central Valley. Some taller buildings are interspersed within this view shed. Walls, trees, and fences block all except the tallest of the neighborhood buildings. Most of the attention of the train's passengers is focused toward Scotland Road, where automotive traffic can create quite a commotion. There are few clues to suggest that just below the level of the tracks and the platform exists a historic New Jersey neighborhood. Passengers have the ability to leave the train platform via one of several long staircases that flank the railroad tracks, leading to the streets below. Freeman and Mitchel cross under the tracks, but overall the tracks create a dividing line between the Central

Valley of Orange and the rest of the city. Crossing under the tracks using the avenue provided can be a scary experience. This design proposes a restructuring of the existing train station platform and surrounding area. The addition of a plaza promotes new activity and increases the possibility of positive community activity in these spaces. While the existing train station is to remain, it is proposed that it is once again opened to the public. Ticket sales, coffee shops, and even local information sources could be housed here. Increased round-the-clock activity will promote safety and security for the trains' passengers and for the surrounding neighborhood. The existing train platforms have been lengthened to better interface with the plaza below. Crossing from one side of the tracks to the other is no longer the potentially dangerous proposition that it once was. The new platforms end with glass enclosed staircases and elevator banks that bring passengers to the lower level and into the plaza.

The train overpass has been enlarged to not only include space for Freeman street and its sidewalks, but now is to include the new plaza space. Adjacent to the plaza space, a new building is proposed to support both the plaza and the train station above. This building services the plaza with two new storefronts. These stores will provide not only much needed commerce to the neighborhood, but will also provide services to train passengers. Round-the-clock activity and increased human presence will promote a safer environment for all. The roof of this new building is no ordinary flat building roof. This roof has been planted in accordance with modern accepted green roof standards and not only looks nice, but helps to manage storm water and decrease the amount of runoff that would otherwise spill into surrounding catch basins and storm sewers. As this roof is at the same grade as the railroad tracks, the opportunity exists to use this as a possible park space in the future.



5.5.6 Train Station (cont.)

The Process of Design:

Initial instincts were to design a mass transit element that interfaced with Freeman Street, as this reinforces the connections seen at the intersections of Scotland Road and Valley Road.

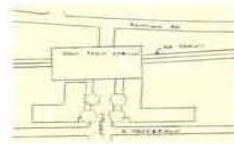
A plaza at the intersection of two busy streets has the potential to be a dangerous place if not separated from street level. Here we see steps to create this grade change

The plaza now tunnels under the tracks and includes spaces on both sides. Elevators and stairs now create a safer way to reach street level. The green roof is further developed here.

Further exploration of the steps is seen here and tree placement is explored.

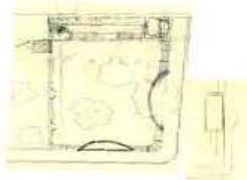
The vast expanses of steps are now broken up into smaller sections with the addition of seat and planter walls. These also reinforce the barrier between street and plaza.

The final design incorporated many of the elements explored in the previous steps. The green roof, plaza space, seats and steps, all come together in one complete package.



NOVEMBER 17, 2007

INITIAL CONCEPT



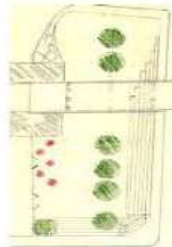
NOVEMBER 25, 2007

STEP/WALL
DEVELOPMENT



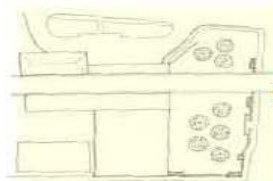
DECEMBER 2, 2007

PLAZA EXPANSION



DECEMBER 8, 2007

FURTHER EXPLORATION



DECEMBER 9, 2007

STEPS/SEAT WALLS



DECEMBER 10, 2007

FINAL DESIGN

Diagram 1: Vehicular Circulation

Vehicular circulation is limited to the streets surrounding the plaza. Two-way traffic is preserved on Freeman Street, with the addition of a right-hand turn lane on Freeman Street at its intersection with South Jefferson. The drop-off zone is two-way traffic, with

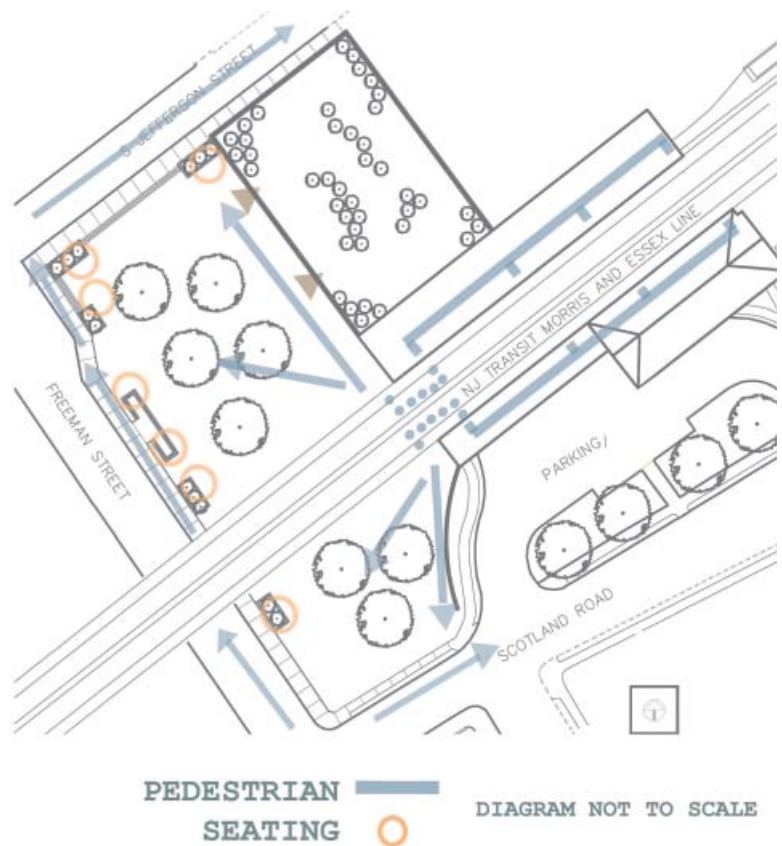
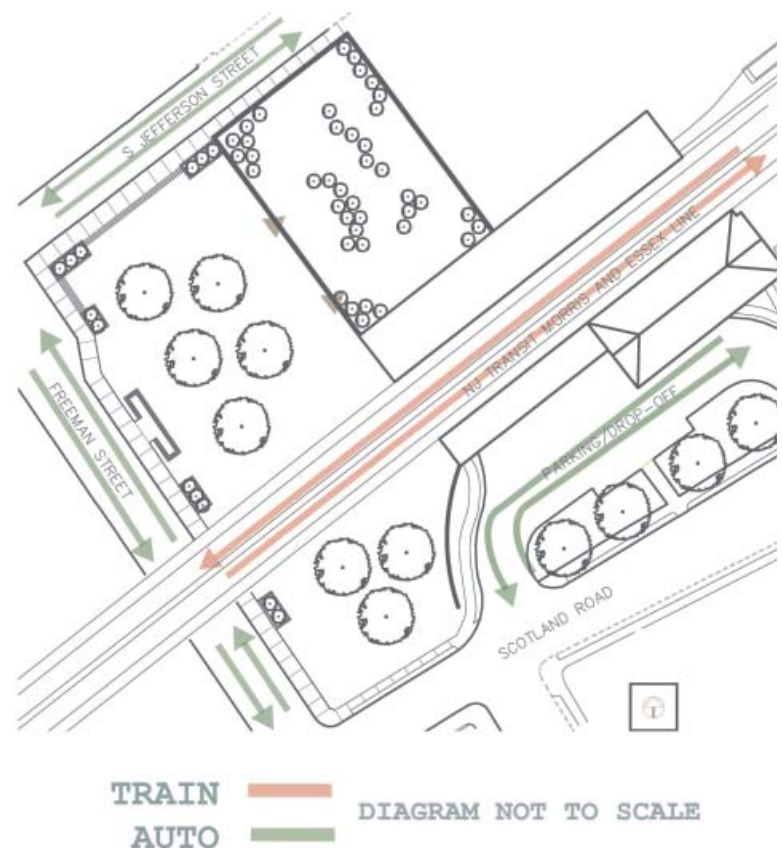


Diagram 2: Pedestrian Circulation

Pedestrians are encouraged to take advantage of the new, longer train platform that extends to the edges of the green roof on the upper level. Platform egress can be accomplished by utilizing either stairs or elevators provided, then going in any direction across the plaza. Sidewalks are provided along the perimeter of the plaza.



5.6 Freeman Street Business Corridor

5.6.1 Analysis

Kevin Hart, Dan Strommen
Stan Brand, and Wes Juelg

The success of the redevelopment of the Central Valley BDA site rests on the ability of the cities of Orange and West Orange, developers, and all involved parties to develop parts of the site into a commercial business and residential community. This redevelopment must be done through intelligent and informed decision making which includes issues such as maintaining much of the existing industrial uses and residences that provide necessary jobs for the local communities.

Analysis of existing commercial type business in and around the Central Valley shows a buildup along the Central Avenue and Scotland Road intersections with Freeman Street. These businesses run parallel to the BDA site and only minimally enter the edge. The analysis of local and region transportation reveals an extensive network of mass transit including bus lines along Scotland Road and a rail line with train station located on Scotland Road between Freeman and Stetson Streets. The lo-

cation of both existing businesses and mass transit systems make Freeman Street the ideal commercial connection between Orange and West Orange, and the best location for the core of the business district.

5.6.2 Redevelopment Plan

The need for revitalization of a tired community is self evident. The most cost effective and successful short and long term solution is diversifying the population and providing opportunity for current and future citizens. A walkable business district will connect existing businesses, have direct connection to and from the Central Valley via the existing rail line and bus routes, be supported by local residential development, create jobs and opportunities for locals, and increase the tax base through mid to high end residential units and local businesses. In addition to the HANDS residential proposal, we propose mix used commercial and residential buildings along the Freeman Street business corridor to den-

sify the area and thus give the businesses a greater opportunity to succeed and thrive. Business is reliant upon people purchasing a product and people need to be offered those products locally. If one looks at the current infrastructure along the industrial South Jefferson Street, you begin to notice that there were some successful restaurants and bars that acted as a social space for the workers of the hat factories of a bygone era. That same concept of social space can be achieved once again with the inception of our redevelopment plan, and begin the social redevelopment and enlightenment of the Central Valley, something which has been undermined by years of neglect and physical degradation of the surrounding area.

Site Analysis:

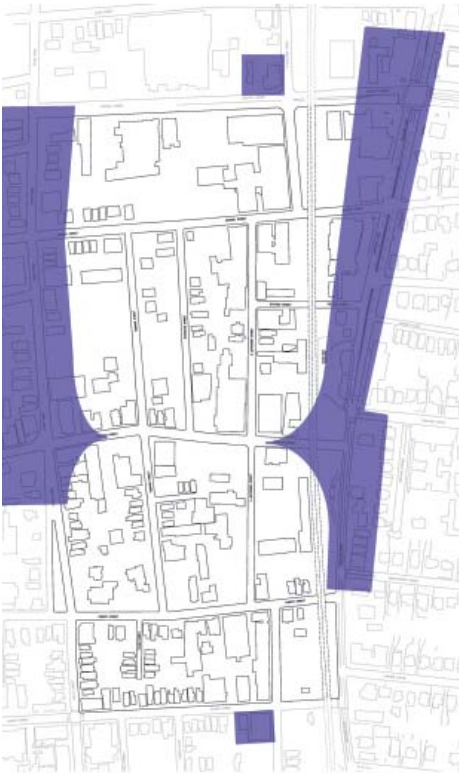


Figure 1. Existing Commercial Business
Highlights the existing functional businesses located along Central Avenue on the left, and Scotland Road on the right.



Figure 2. HANDS Residential Proposal
Highlights the two proposed hat factory areas to be redeveloped into residential condominium units.

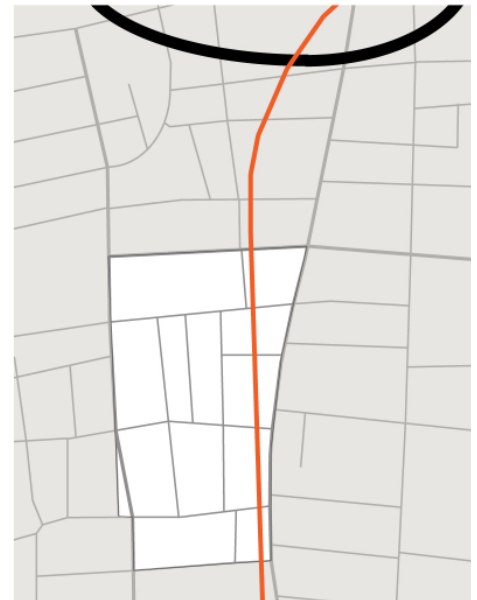
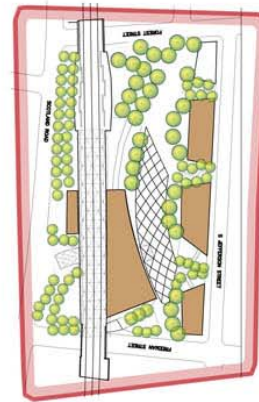


Figure 3. Regional Rail Transit
Highlights the location of the rail line as it passes through and stops within the Central Valley BDA site.

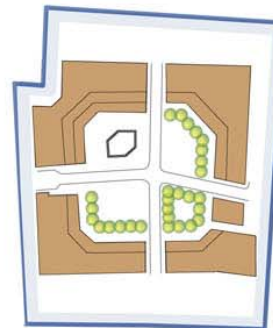
Central Valley BDA
Orange Township, New Jersey



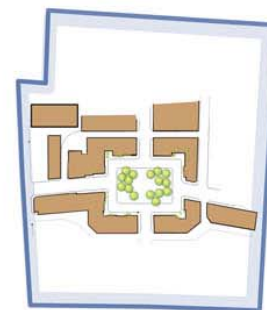
Train Station



Pedestrian Mall



Central Plaza Options



Juelg Strommen Hart Brand

Central Valley BDA

Orange Township, New Jersey



Juelg Strommen Hart Brand

5.6 Freeman Street Business Corridor

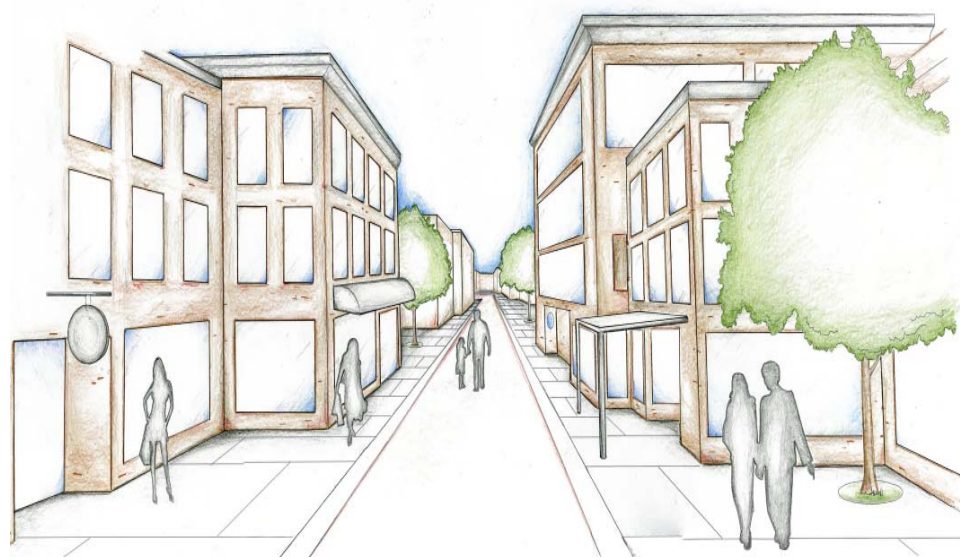
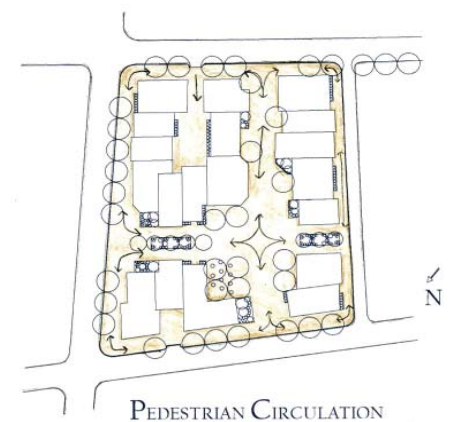
5.6.3 Orange Valley Site Development

Daniel J. Strommen

Introducing a central business core could potentially improve the Orange Valley's image and make it an attractive place to live and work. This core would feature an outdoor pedestrian mall.

The first floors would feature family owned businesses, shops, and restaurants. Restaurants would be located on street intersections for increased visibility while providing outdoor dining in a shaded environment. Shops would line the streets as well as the interior portion of the pedestrian mall. Parking is provided along Freeman Street, Tompkins Street, and on South Jefferson Street. The nearby train station deck also provides ample parking. For convenience purposes, all proposed shops and restaurants have delivery access roads and multiple entrances. The center of the mall features an open plaza which may be used for special events, public meetings, and memorial services. Apartments and office space line the second and third floors of all mall buildings.

This pedestrian mall was designed to attract people into the space and explore what Orange has to offer. This concept could benefit the entire community by providing a place for people to socialize and introducing business opportunities for the locals. This isn't your normal everyday strip mall. The general area would become a destination as well as a hub for business growth. A newly proposed pedestrian mall could bring more life to the center.



SOUTH JEFFERSON ST.

FREEMAN ST.

TOMPKINS ST.

N
SCALE: 1" = 20'



5.6 Freeman Street Business Corridor

5.6.4 Freeman Square Plaza

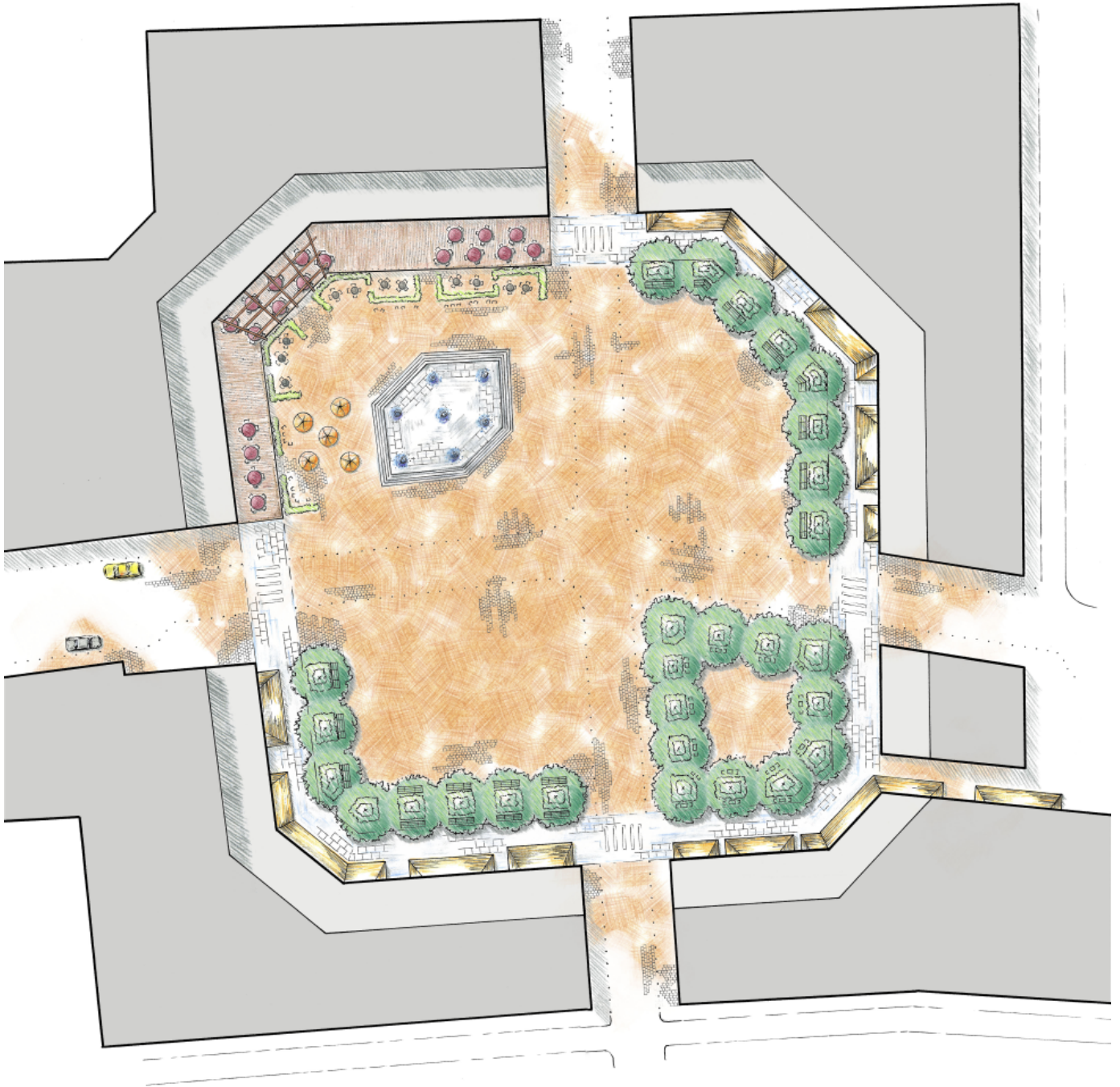
Kevin J. Hart

The critical analysis and evaluation of the Freeman Street and Tompkins Street intersection of our walkable commercial Freeman Street corridor redevelopment plan, provided results inconsistent with a functional commercial business development. Mainly the buildings at the intersection possess a "Front Side" issue due to the public's complete access to the entire periphery of the buildings, as show in the original redevelopment plan. This situation creates issues concerning which way these businesses front the public, as well as how services including deliveries, storage, and trash function at the site. Scale issues concerning the building area and sizes, and their relationship to the roads also revealed the need for the alteration of the redevelopment plan in the form of the removal of the intended buildings at the Freeman Street and Tompkins Street intersection. The result was a large open area defined by mixed use commercial building that has a vehicular intersection bisecting

the site into four areas. This new site was redesigned to maintain the original walkable mixed-use commercial corridor connection of Orange to West Orange concept.

The newly defined open space was developed into an open public plaza called the Freeman Square Plaza. The concept of this area was to make one continuous plaza from the four quadrants created by the intersection of the roads. Daily life would allow the four quadrants to act as individual areas with the overall linkage of these spaces by the building faces and a bluestone walkway along the front of all of the buildings, and continuous paving style throughout the interior of the plaza. The streets are lined with removable bollards to keep vehicles from entering into the plaza space, and roads are narrowed to allow vehicles one lane of traffic in each direction resulting in slower and safer travel. During special occasions ranging from markets, fairs, festivals, concerts, and holiday events, the roads can be

closed off and bollards removed for one continuous open pedestrian plaza. Currently Orange and West Orange lack a shared social place for events like these, and it would be in the best interest for both communities to develop a social forum and rein-vigorate a sleeping community.



5.6.4 Freeman Square Plaza (cont.)

The four quadrants and building usage were designed and directly related to the function of the space. The northern quadrant is the active area, with an elevated platform that serves multiple functions based on the activities occurring within the plaza at any given moment. Daily use includes and interactive water fountain. This allows the public to walk throughout the fountain, cool down on a hot day, as well as give the surrounding areas spatial definition. These fountains can be shut down and the platform can then function as a stage for concerts as well as an area for holiday displays. The edge of the plaza contains moveable seating and tables located in and around small areas defined by shrubbery. This allows people to pick and choose what type of setting they feel most comfortable sitting in. The first and second floors of these buildings are programmed with active social uses including restaurants, a microbrewery, and comedy

club which are intended to interact with the plaza. The second floor businesses have an outdoor deck that overlooks the plaza below. The deck also doubles as a covered walkway for the businesses on the first floor, and a shady place to go to when the heat of the sun is too intense out in the open plaza. The third and fourth floors are designated as user owned and occupied residential condominium units. This is to encourage active participation in the preservation of a high quality living condition due to

the vested nature of ownership in the unit and property.

The southern quadrant of the plaza is designed for passive social uses. The area is defined by a surrounding row of trees with small tables and chairs within. This creates and defines a more secluded area that allows people to get out of the main flow of pedestrian traffic and slow down a little bit. The first floor of the buildings in this area is programmed for uses including a coffee shop, bakery, and art galleries. The second floor is re-



served for business office spaces for budding companies as well as established companies looking to establish themselves in a new environment. The third and fourth floors are programmed for user owned and occupied condominium units.

The eastern and western quadrants have a cross use of undefined passive and active social programs. Trees and building faces define the promenade space in front of the building which opens up into an open air plaza. Benches along the path and inside the plaza allow a place for people to sit down, relax, and take in the activities that occur around them. These two plaza areas are linked to the northern plaza by uninterrupted sight lines and a continuous paving pattern. The space can accommodate nearly any use at any time depending on who decides to take advantage of the space. The bollards which separate the daily plaza space and road are also removable in the event of festivals, markets, or any large scale public activity. The

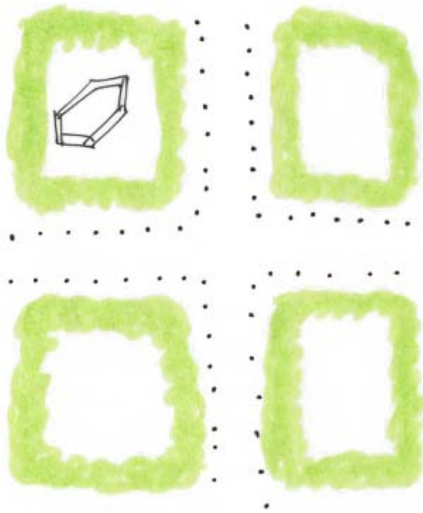
intended building programming includes a first and second floor community center and high end retail shopping. The second floor will service office space for business, and third and fourth floors are programmed as user owned and occupied condominium units. The community center is a vital addition to the space, and should be utilized as a uniting factor between the new and old Oranges.

The Freeman Square Plaza begins the redevelopment of the Central Valley BDA site and rejuvenation of a community in desperate need of change and opportunity. In conjunction with the HANDS residential development proposal and the close proximity to a train station as well as a dense suburb, the people are available to make this space thrive. The community needs a place to go and unite. Developing a safe, walkable, mixed-use commercial business and residential redevelopment plaza is vital in this initiative. Business needs people and people need businesses to grow in harmony.

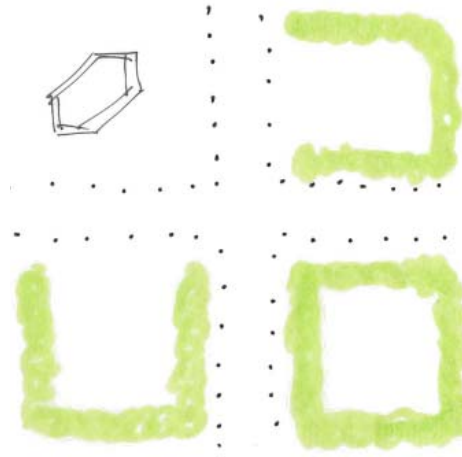
The business initiative also looks to link existing businesses along Central Avenue and Scotland Road and creating the connection past the existing rail line. The community needs the base work for a positive social experience, and the Freeman Square Plaza begins to address the issue.



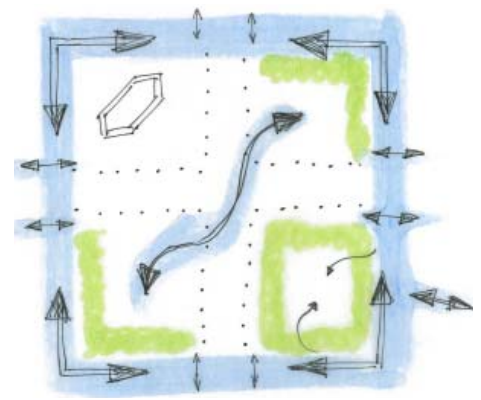
5.6.4 Freeman Square Plaza (cont.) Plaza Definition Process



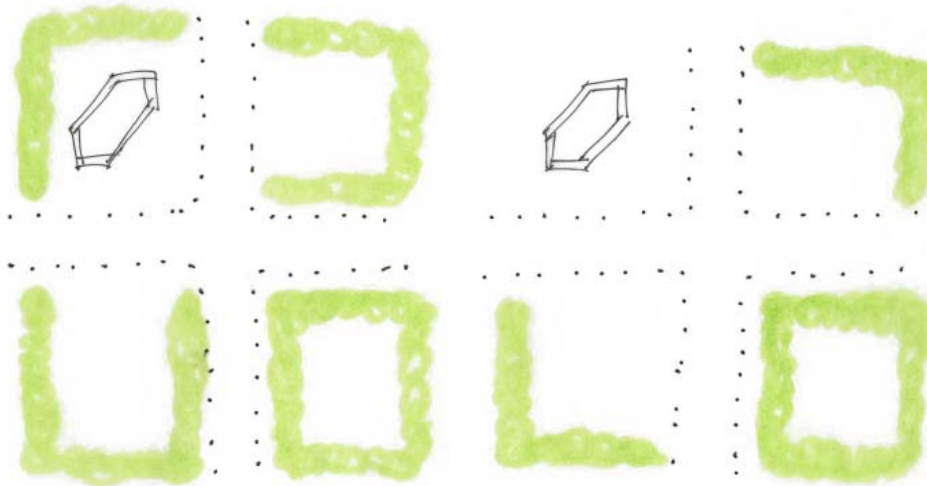
Stage 1: Development
Four quadrants, each surrounded with trees. Multipurpose elevated platform in northern quadrant.



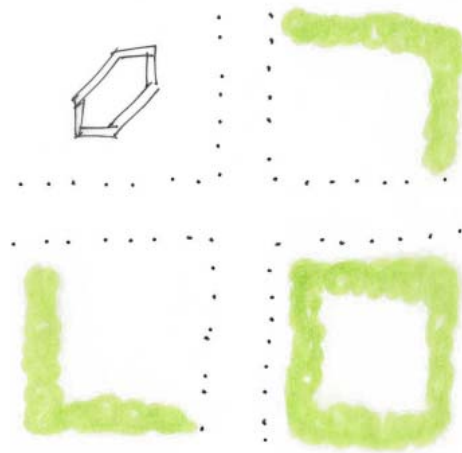
Stage 3: Development
Four quadrants, the outer perimeter trees are removed in northern quad to fully open up the platform area.



Stage 5: Circulation Overlay
Pedestrian circulation into, around and throughout the plaza.



Stage 2: Development
Four quadrants, trees define the outside perimeters, and the east and west quadrants open up to respect the platform and events that would occur there.



Stage 4: Final Definition
Four quadrants, the road defining trees are removed in eastern and western quads to allow for more uninterrupted festival and market space.

Dynamic Plaza Usage

1. Daily Usage

- Socialization
- Interactive Fountains
- Restaurants
- Shopping
- Comedy Club
- Relaxing
- Public Forum



2. Event Usage

- Concerts
- Festivals
- Farmers Market
- Car Shows
- Fairs
- Rallies
- Community Center Events

3. Holiday Usage

- Christmas Tree
- Channukha
- New Years
- Fourth of July Fireworks
- Easter Egg Hunt
- Veterans Day Memorial
- Ethnic Holiday Awareness



5.6 Freeman Street Business Corridor

5.6.5 Commercial Square

Wes Juelg

A pedestrian friendly business core is a vital part of any community. This Pennsylvania style square gives an aesthetic retail and commercial zone as well as a safe place for people to shop and carry out their day to day activities. The large square in the middle with shade trees, moveable seating and a landmark fountain slows traffic drastically creating a safe environment for pedestrians. The center square also serves as a passive place for people to sit and relax off the street.

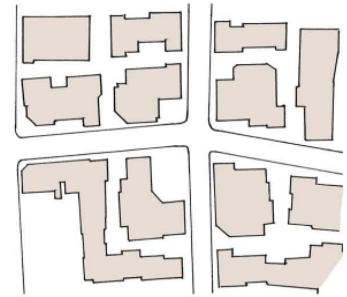
The outside of the square at the pedestrian level is with filled with restaurants and a verity of different shops. Above the retail level is loft style residential apartments with views into the center square and the actives carried out within. The square is also lined with a ten foot path at its narrowest part giving a unique

area with the relation between building, sidewalk, street and center square.

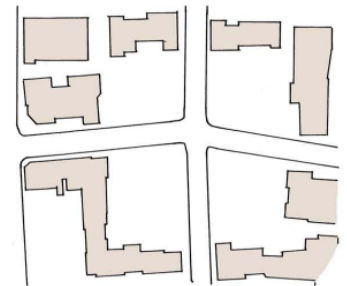
Access roads are located behind the buildings. This gives a calmer environment in the front of the buildings having the drops off zones in the rear. The comers of the square are able to be driven on top of by emergency vehicles with sloped curbs, grass pave, and a wide enough turning radius for emergency vehicle to have easy access to any part of the square.

This square will be special places people enjoy being in adding to people's lives by giving them a safe, aesthetic and working place to live and work around.

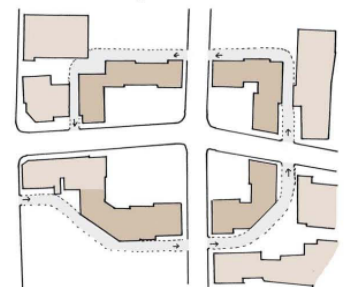
Original Master Plan



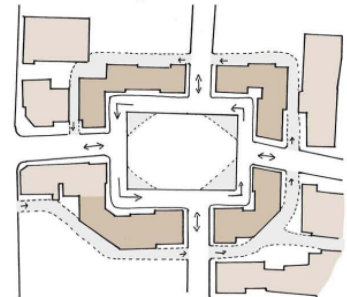
Revision Step 1

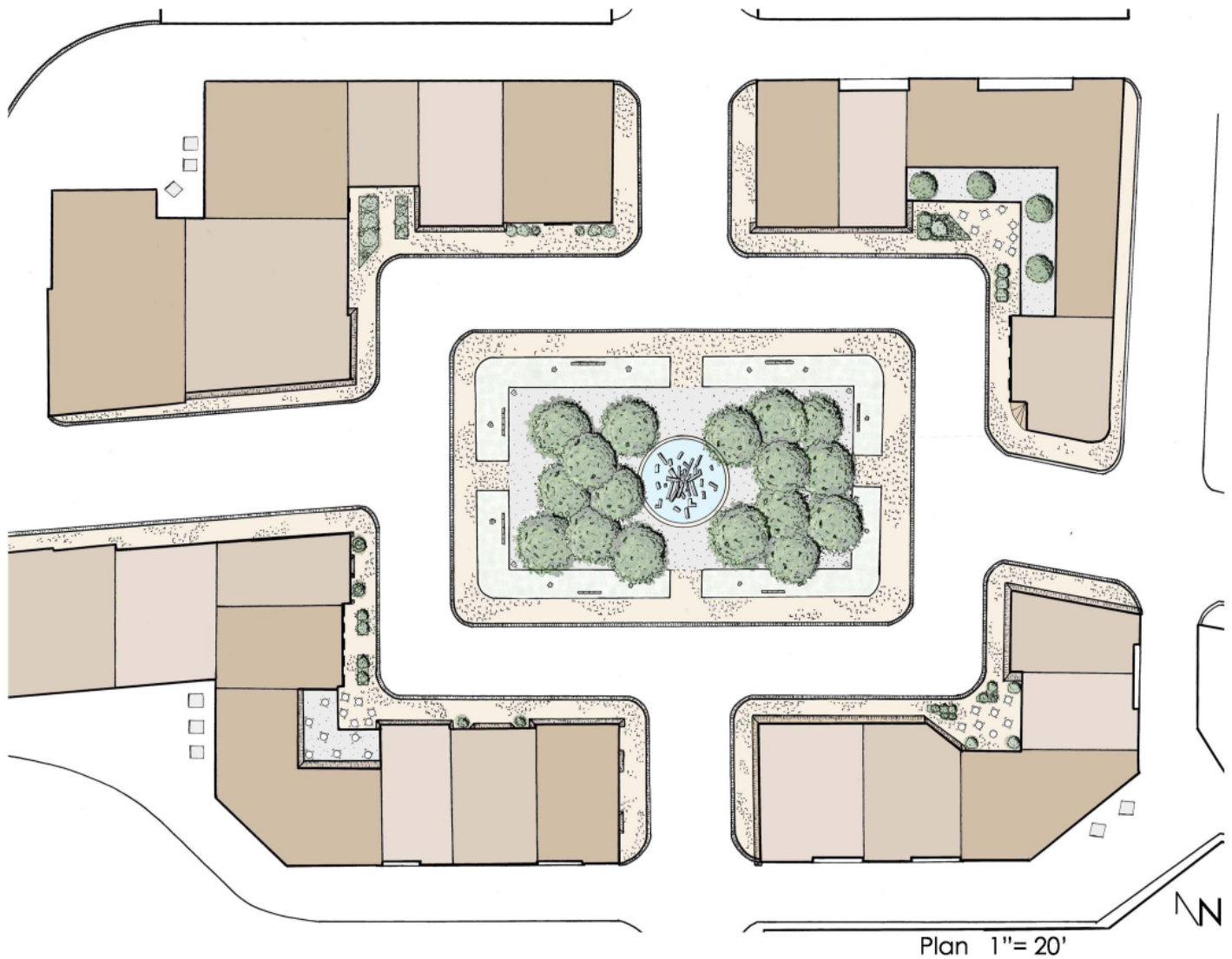


Revision Step 2



Revision Step 3





5.6 Freeman Street Business Corridor

5.6.6 Freeman Train Station

Stand Brand

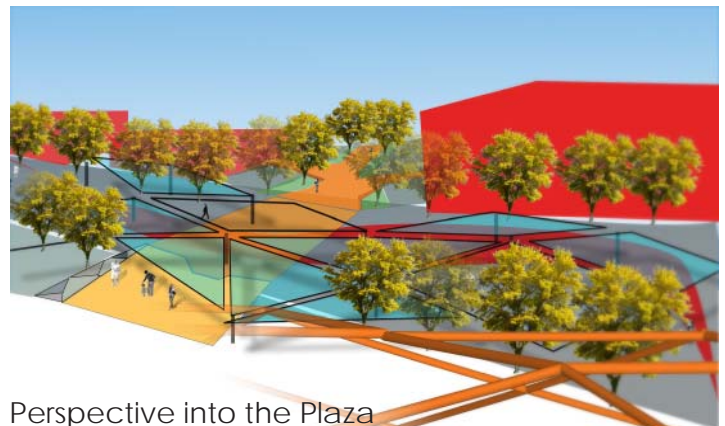
Edges in urban cities are linear elements not often used or considered as path for pedestrians. They are the boundaries between two places that break continuity of the overall space. Therefore the railroad causes a problem in pedestrian flow and pushing pedestrians toward the edge of the blocks to cross the railroad.

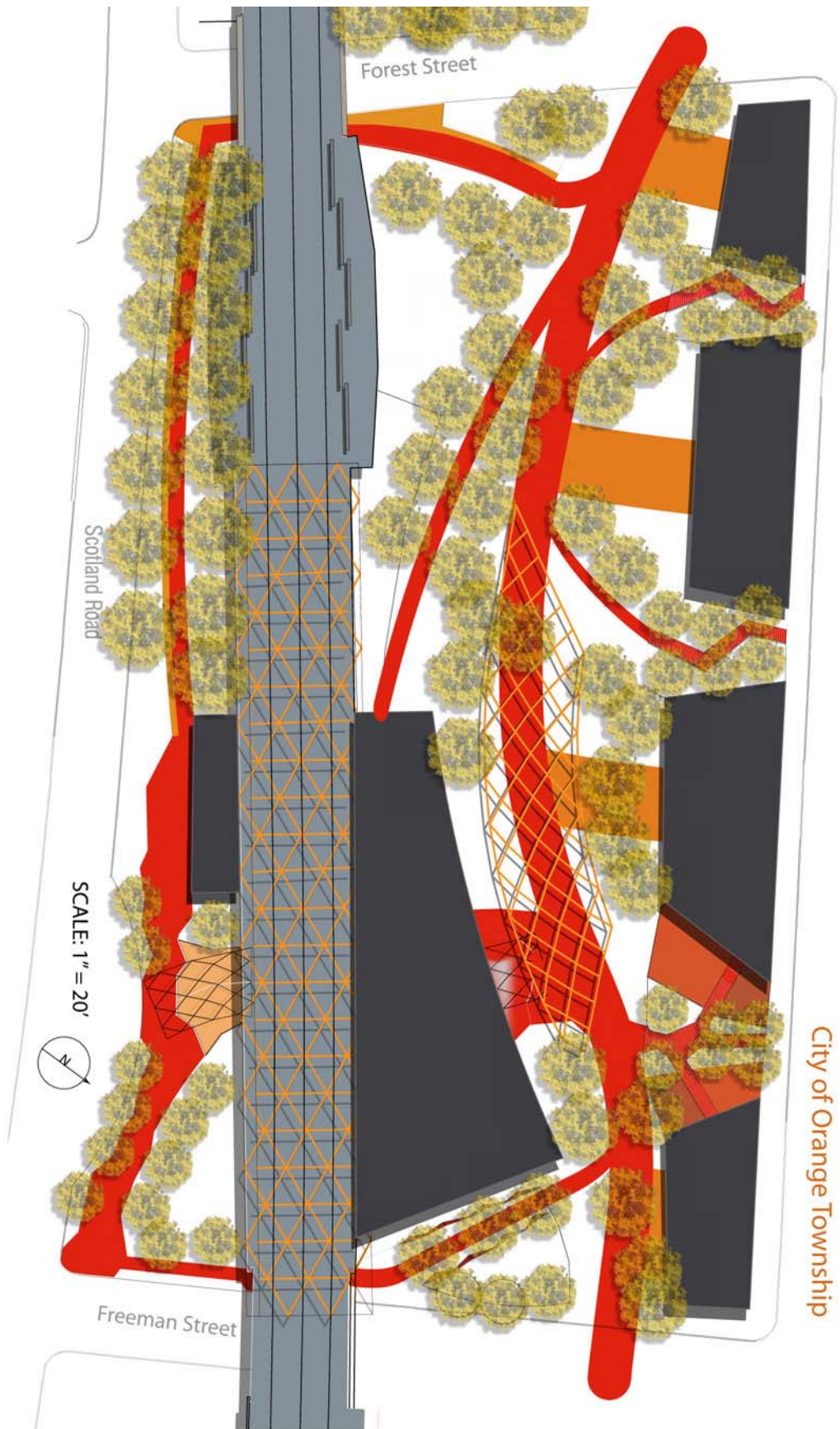
Within the planning phase of the design, it was in every intention to attract pedestrians toward the train station on Scotland Road toward interior of the proposed plaza promenade. This idea was further developed through the inspiration of stents used in human hearts that help increase the blood flow and prevent heart attacks. The stents were developed in the design to do the same thing they do in the human body by protecting and stimulating pedestrian flow through the central promenade and the underpass of the railroad.

Within the open space of the plaza there are various paths that lead into the train sta-

tion, promenade walk, or various mixed retail areas. The promenade is meant to create a vast area for pedestrians to relax and grab a coffee or getting some shopping done for themselves or their loved ones in the retail stores. The largest path across the promenade is one leading across the whole site and is meant to attract the attention of the pedestrian to walk forward and explore the open space.

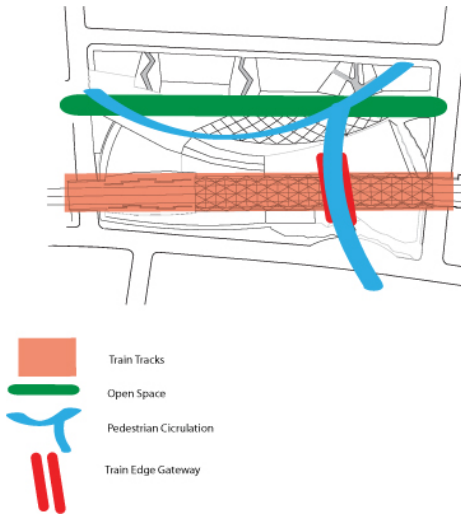
The intention of this design was to create various small medium and large spaces to be explored by pedestrians to relax and grab a cup of coffee, sit down to meet up with friends or just meander to explore the vast open space.



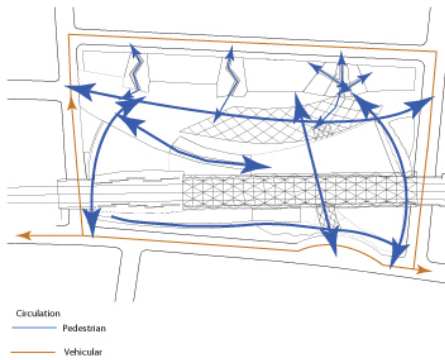


5.6.6 Freeman Train Station (cont.)

The initial design development concept was to pierce through the railroad tracks to connect Scotland Road Region within the interior of Freeman and Forest Street. This implementation makes the area more unified and more pedestrian friendly.

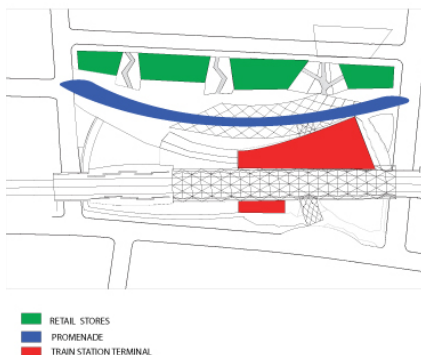


Circulation



The circulation goals were to make clear paths of crossing and to create a strip for car free, pedestrians walk . In regards to car traffic, the driving pattern is the same. Nonetheless the overall open space circulation has been changed toward more pedestrian circulation around the open space.

Program



Within the train station, the program consists of a hub. On the lateral sides of the train terminal consists business buildings that include restaurants, bars and retail business area. The support of the buildings anchors the space to create unique district in Central Valley that will create a successful interactive area during the day and night.

Conceptual Drawings



The concept for the train station was developed from this loose drawing the idea was to draw these "Stent structures" that enclosed the area within and made the scale of the place feel more intimate for pedestrian walk. The bold color are meant to show how bold this design can be with various unique structures encapsulating the area

5.7 Project Green-Space

5.7.1 Analysis

Kevin McConville, Dan Melick,
and Robert Rose

As we look at Orange in its current state, we see a highly developed city once reliant on industry and transportation. Now as the residences no longer rely on the operations of these declining industries, the oh so predictable future is becoming a present reality in Orange.

Walking down each block and side street we began to appreciate important features on site such as the Stetson Hat Factory, the Art Deco facade and the dried up stream channel. We found a neighborhood detached from the surrounding areas. Separated from the train station, from its close neighbor of West Orange and most notably its inhabitants. Most importantly we gained a sense of reality and how time has affected this area.

Through detailed analysis and research we examined how Orange has become the Orange that we see today.

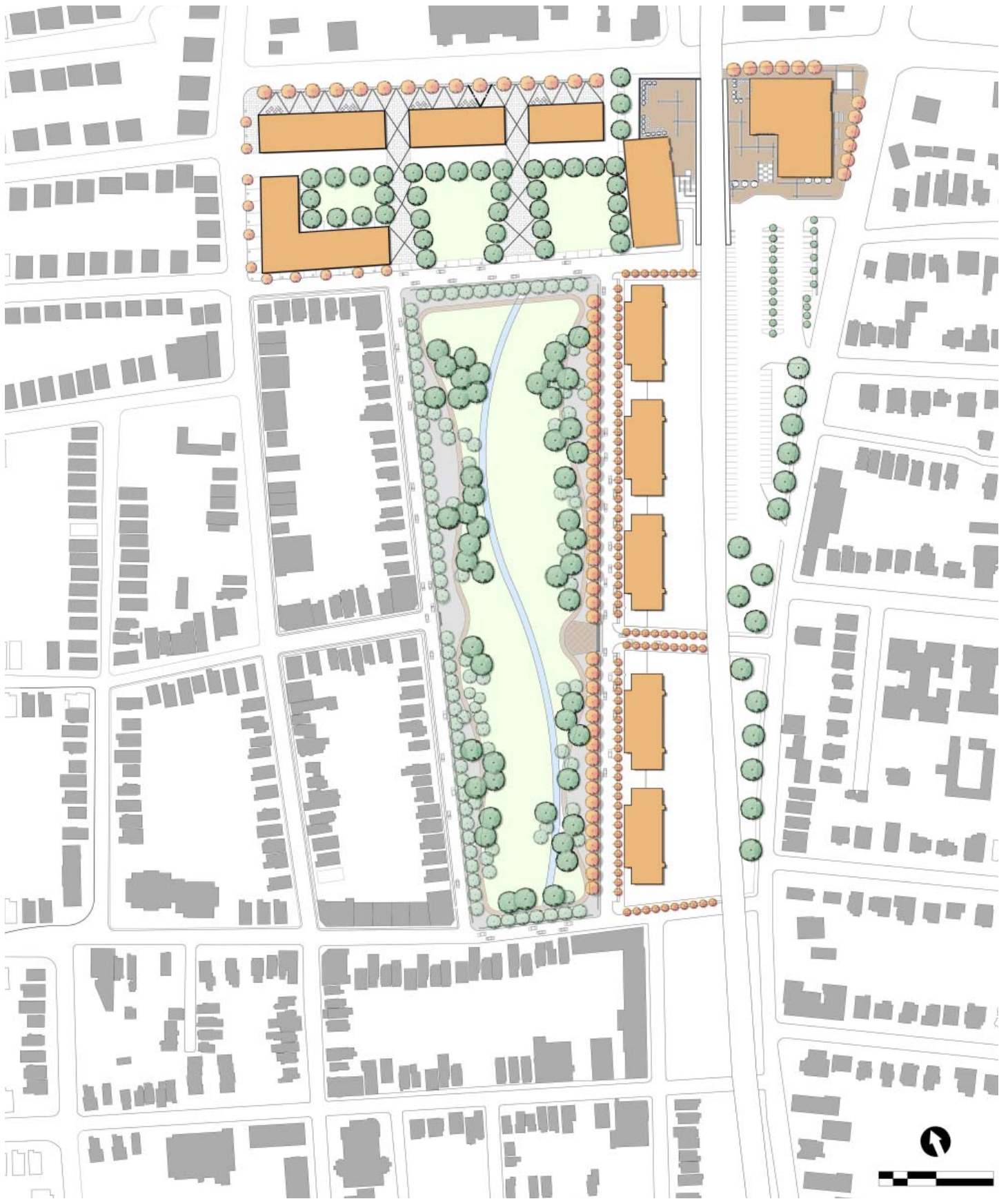
Two obvious distinctions became evident through our analysis. Examining the site through a broader scale we see

Essex County as a whole. It is apparent through this observation that green space throughout this region is hard to come by. On a regional scale the only dominant green spaces are golf courses. Secondly as we look closer into the building uses we noticed the industrial trend developed along the side the train tracks.

As our analysis progressed further, we put a value on the existing industrial core. We saw it as a barrier between the train, which is now used for transportation of people, and the residences. The industrial buildings no longer served the same purpose that they once did. It seemed appropriate to experiment with the removal of a large percentage of the existing core of the valley. With the help of a another large greenspace in a highly dense neighborhood, Central Park, we asked ourselves why did New York need such a large greenspace. The answer was obvious. As space to live became rapidly unavailable, New York needed a place for people

to escape the fast paced world of city life and get back to nature. It provided a space for people to relax, exercise, and experience the complete opposite of their lives during the busy work week.

What happened in New York needs to happen in Orange. Space is coming as a premium and it needs to be utilized where it becomes available. To make this work for Orange, the development of large park like green space, a prodimant transportation hub, a center for shopping and fine dining and appropriate living conditions are needed to support the future of Orange.



RUTGERS
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EXISTING BUILDING USE



5.7.2 Process (cont.)

When investigating the existing building use diagram the first significant observation that we recognized was the strong central core of industrial style buildings. This strong centralized core became even more evident as we began analyzing numerous figure ground studies.

We used this strong centralized axis as the basis for our new central park boundary. Our methodology was that since the industrial backbone of this community has long since past their was no need to retain the integrity of unified industrial core.

Our new building proposal is designed to both support and strengthen the park's physical boundary. Implementation of new high end residential units, condominiums and townhomes, along the rail road embankment and parts of Central Avenue, will allow for a new economic situation to occur within community of Orange. Numerous single family residential units have also been added strategically along both Valley Road and Thompkin

Street thus allowing the existing residential fabric to blend nicely with the newly proposed park space.

(These two figure ground studies can be found in a green-scaled diagram).

PROPOSED BUILDING USE



Our overall master plan design concept was derived from the existing regional open space analysis.

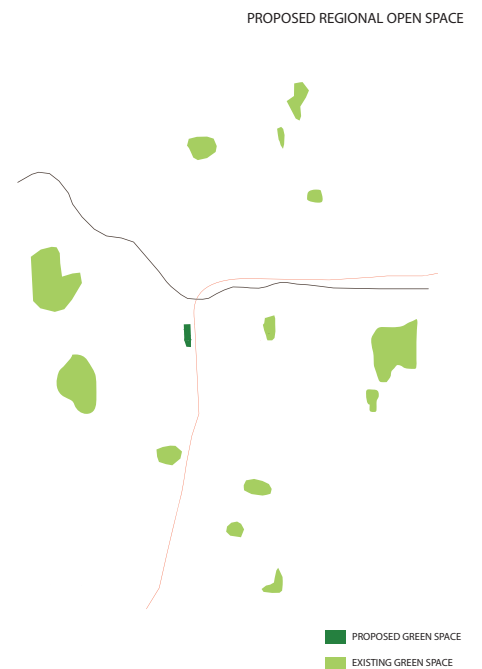
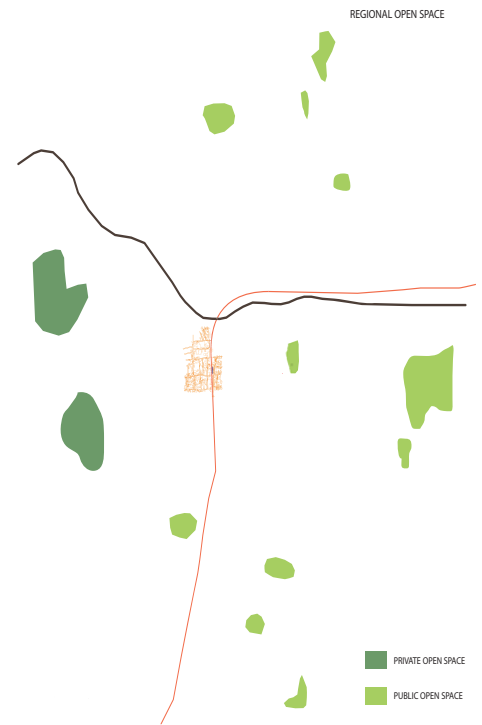
When observing the current condition of insufficient public green space our team realized that this situation must be addressed above all other conditions.

From this map we realized that the addition of a large public green space would not only benefit the communities specifically pertaining to Orange and West Orange. But more importantly aid in relieving the lacking amount of public space found in the surrounding areas.

As one can see, within a roughly five mile radius surrounding Orange only a handful of public green spaces actually do exist. Many of these however are simply too far for residents to reach that rely on public transportation. To make matters worse, two large green spaces located near Orange are programmed as private golf courses, and therefore not open to the general public (see map

upper right).

From this general analysis our team proposed our new central green space corridor within the newly vacated industrial axis. As we were designing the overall size and dynamics of the site we kept in mind how much this implemented green space would benefit the community much more than just on a recreational basis. We feel that our newly proposed green corridor will be so significant that it will draw numerous and frequent visitors from as far as New York City courtesy of our revitalized transit system and specifically the programming of our new signature train station building. (see map lower right).



intersects with Central Avenue. The reason for this relocation was simple. The intersection of Central Avenue and Scotland Road is literally the center where Orange and West Orange meet. We felt that this building could would act as more than just a cornerstone icon. But rather the binding thread that finally connected the otherwise independent community fabrics of Orange and West Orange together.

This relocation train station site pertaining to viewshed analysis is much stronger than its predecessor. Both pedestrian and vehicular sight lines have been improved and increased. Not to mention a traveler would be able to see the new 5 story building from nearly two miles away while actually riding on the train.

Since now it would be located directly across from the area's tallest building and cultural icon itself, the 1930's Art Deco Building, they would become "sister buildings" if you will.

As you can see (in the diagram on the right) the relocation of the Orange Train station is not only essential to our overall master plan design, but it will also become the source of future economic prosperity for the entire Orange community as a whole.

5.7.3 Redevelopment Plan

The location of the existing train station at Orange we felt would not support our overall master plan concept.

With the location of the green space entrance nearly three blocks away from the existing train station site, we felt that a sense of disconnectivity would be evident to any potential visitor. In addition to this our master plan proposal of a train station would be programmed much more in depth than just an ordinary transit hub. In fact it would become a signature, iconic symbol as well as a gateway to both the park space and to the city of Orange. As you know the current siting of the train station allows for very poor visibility for visitors. Its existing location on Scotland Road and along side the train embankment would simply not work as a signature beacon but rather an afterthought.

With this site location analysis we proposed relocating the train station three blocks down on Scotland Road to where it



The circulation proposal for our green space was designed allowing for easy entering and exiting of the park.

While inside the park space visitors are greeted by organic, curvilinear pathways winding their way naturally through large shade trees and native grasses. Strategically placed ornamental flowering trees add both beautiful spring color and fragrances making a stroll through our park that much more enjoyable.

Numerous entrances to the park exist at all major intersections and corners of the space, reinforcing the concept of entrance with ease. Since the park is linear in shape and quiet lengthy we felt the need to implement bridges that span the newly daylighted canal allowing convenient cross axis travel. Whereas the park circulation system represents a casual organic design the pattern pertaining to the newly implemented train station is just the opposite. Sidewalks follow the existing rectangular street grid allowing for recognizable paths of travel for newcomers to the site.

When getting off of the train or simply trying to “catch one” a new visitor or everyday user will appreciate the new train station's circulation design. Open plazas allow for large pedestrian flow to and from the train that will occur at peak hours and are conveniently designed around all modes of vehicular transportation routes.

A newly added public bus stop is placed alongside Scotland Road allowing public transportation to be readily avail-

able. Keeping the car in mind, a new parking lot has been designed also located along Scotland Avenue and directly adjacent to the side entrance to our train station. It contains parking for some 200 vehicles and also allows public tour bus parking, that we feel will soon be arriving from the greater New York City area. We feel that in order for both our large green space park and our new urban transportation to work together, the circulation strategy must be the binding element that allows the site's visitors to access the community at their own pace and leisure.

Our in depth analysis and investigation into the existing site conditions specific to Orange, led us to believe that the implementation of a large well programmed public greenspace was a necessity. This concept with a redesigned and revitalized public transit and circulation system has become the catalyst for constructing a new, dynamic, and forward thinking community that will be able to sustain its identity for years to come.



5.7 Project Green-Space

5.7.4 Streetscape Plan

Robert Rose

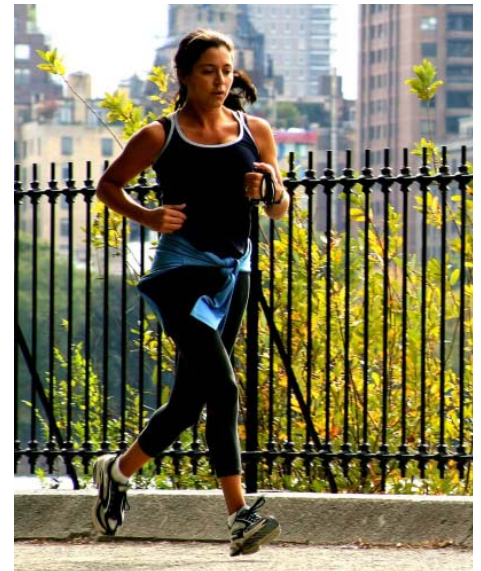
When dealing with a park design such as this one, you first have to see the two separate spaces within the design, the streetscape and the park. Each one needs to be treated as a single element. The connection between the two becomes a major interaction between two different spaces. On one hand we have a streetscape aimed towards shopping and dining for both natives to Orange and visitors. On the other hand a park that is a space that gives people the opportunity to become more active and at the same time it allows them to detach themselves from their busy lives.

Streetscapes have the ability to become so many different spaces with the additions of different landscape elements. As elements are added and subtracted from the landscape we start to see how relationships form between buildings, streets and pedestrians.

The purpose of this streetscape for Orange is to provide an experience for pedestrians. An experience where they can go shopping in clothing boutiques, shop at fresh markets, grab a coffee or boost of energy throughout the day and even enjoy a pleasant evening outside under the stars at a fine restaurant. While all of this excitement occurs on the first level, the remaining 6-7 stories act as prime real estate for young and older professionals alike. Providing loft style apartments that overlook Central Valley's central park will entice new money to flock towards Orange making it a desirable place to live.

The design of the park space is meant to be a functional space that allows all who visit it to make the best of what's around. Entrances are located at each corner of the park with two main entrances in the middle. The main entrance to the park is located on South Jefferson Street. This entrance is a large gathering space for people to meet, and artists to perform or display their work. This is also a place where people can become active again. Using this area as a stretching area, runners, joggers, walkers, bikers and rollerbladers can enjoy the winding path that takes you all over the park in and out of the shade and over the channel.

For people who are looking for a different physical experience they can jump off the main path and jump into an activity node. These nodes are located randomly off the path, which allow people to utilize the outdoor gym equipment and better help the users to become more physically fit. The activity path lets people exercise and enjoy being outdoors in a safe and beautiful place. For leisure activities people can step onto the open green. Here they can play Frisbee or kick around a soccer ball. They can lie out under the sun or sit at the water's edge. This park allows you to escape the pressures of the outside world and enter a new state of happiness.





5.7.4 Streetscape Plan (cont.)

As different elements are added to the landscape, these elements begin to break up the whole streetscape into separate spaces for people to experience. This section shows the relationship between a 3 story apartment complex that has its entrance on the sidewalk. There are no street trees to buffer the traffic and no on street parking either.



This section shows how a single street begins to break up the sidewalk and give the pedestrian a different experience as they shop. They feel more comfortable in that space just because a tree buffers them from the traffic. As the building becomes taller in height, the ratio between the building and the street creates a different feeling as well.

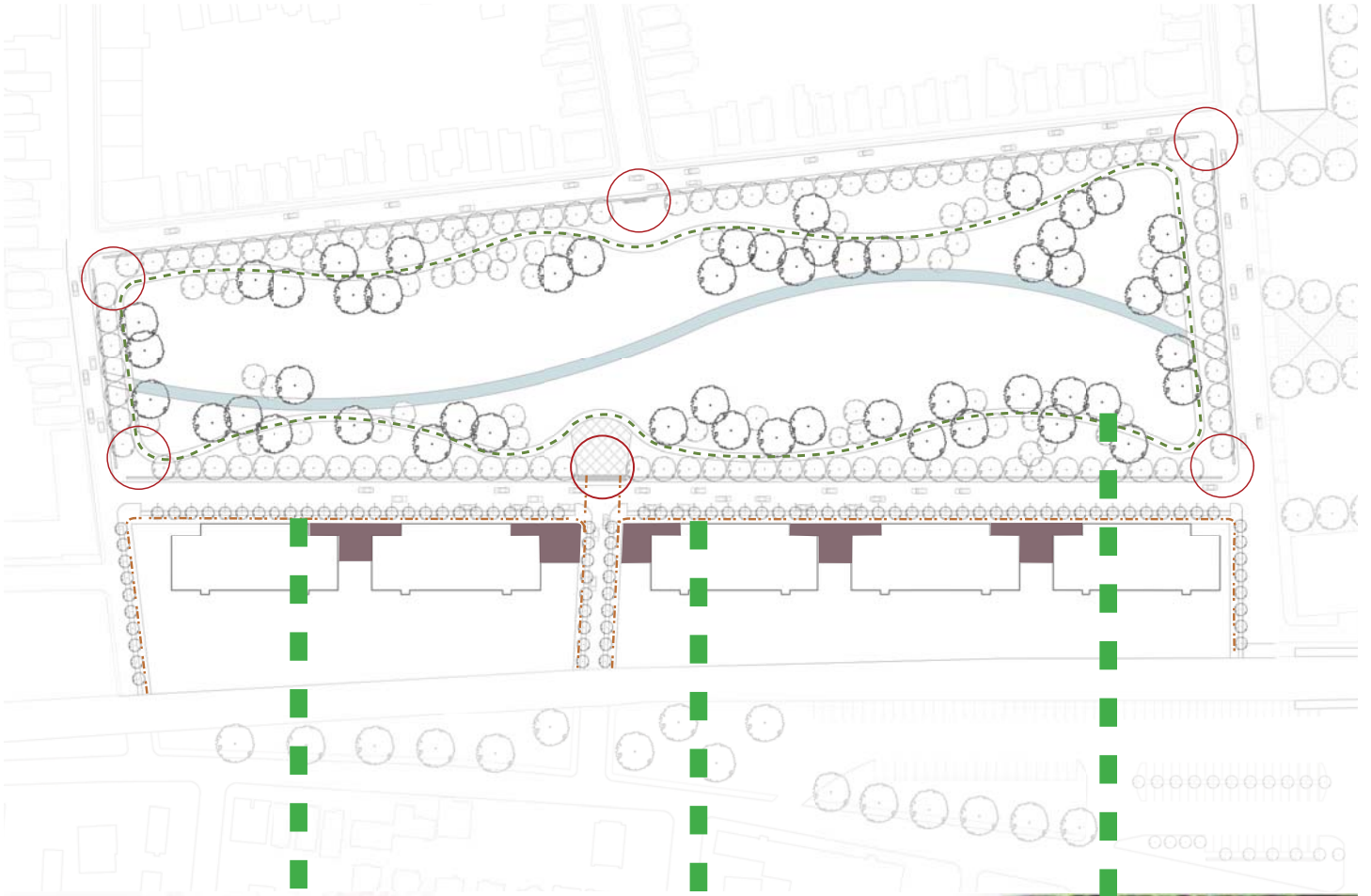


What we come to in the end is with a 7 story building, a street lined with trees and on-street parking the space really breaks down into separate spaces. The shopper's experience becomes most pleasant now that the ratio relationship between the building and the street is broken down.



Along with street trees, on-street parking and a wall along the park the streetscape becomes a very intimate experience. The dynamics of this space have evolved into a functional space.





5.7 Project Green-Space

5.7.5 Intersecting Orange and West Orange

Kevin J. McConville

Our overall master plan concept explored the implementation of a new large central green space that would elevate obvious lack of necessary open space currently existing in both Orange and West Orange. We came to this conclusion that what the Orange needed over anything else was green space when we began our research into the surround area's regional green space.

After dissecting numerous maps, as well as actually being on the site, we realized that the surrounding areas pertaining to Orange were in dire need of additional green space as much as Orange and West Orange were. Thousands of residents that call this place home simply have nowhere outside to relax, decompress or take part in community recreation activities.

Supporting this main design concept was our secondary concept of revitalizing the existing mass transit system that is located within our site design boundaries. We felt very strongly from the beginning

that in order for our very large and dynamic green space to "function" and truly benefit the community. We would need an equally large number of both local and "outside" residents that would frequent the green space often and during all seasons.

The location of the green space is located perfect for all the local Orange and West residents, in fact its only a few block walk. However as I mentioned before the design of this site was to enable outside visitors the ability to access this public park with ease, and this starts with the train station location.

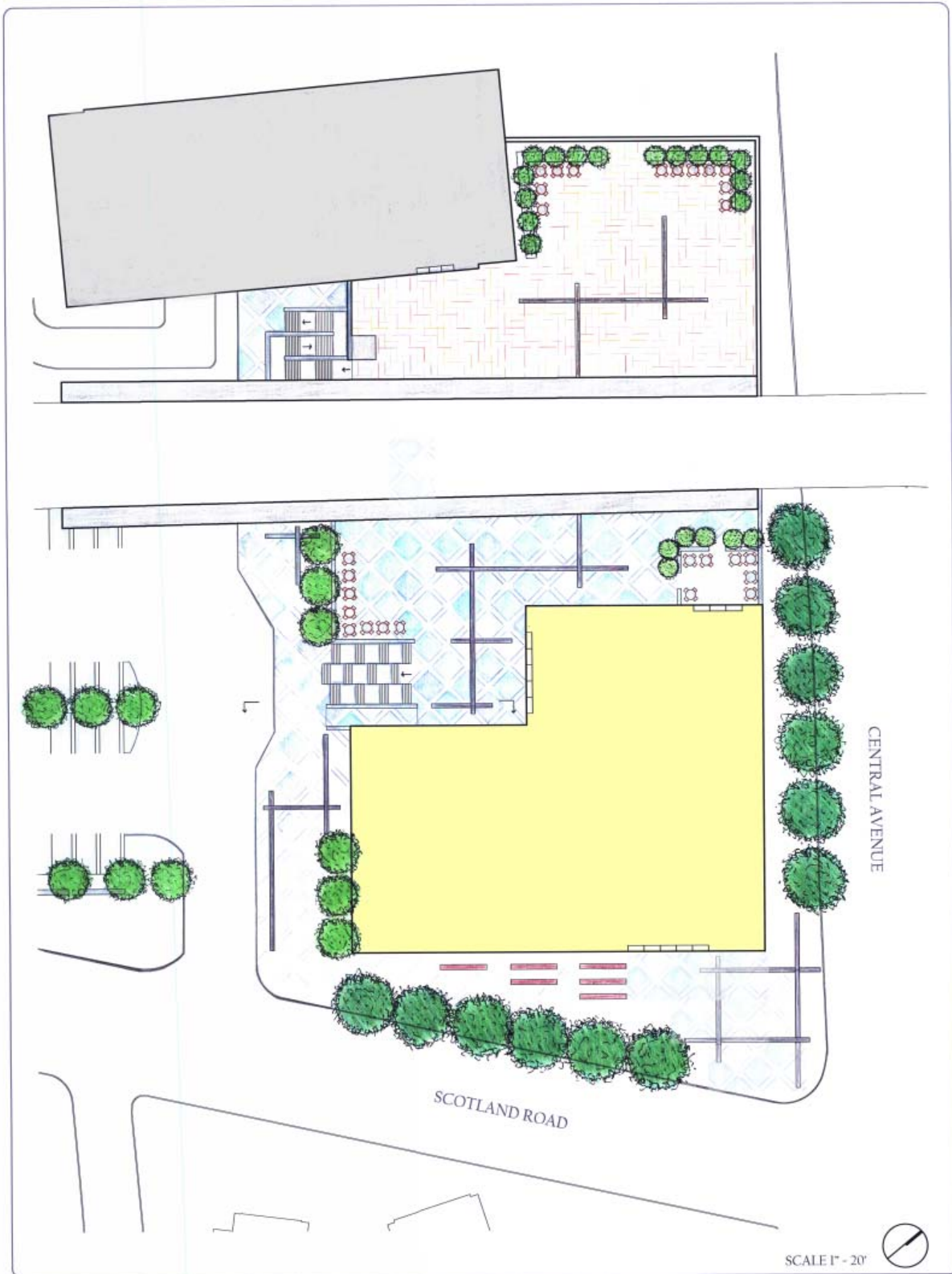
The current location of the train we felt was sited very poorly. It is located on Scotland Road, and would be nearly three blocks away from our main entrance to our new park. We felt that the building should be relocated three blocks down on Scotland Road, to where it meets at the intersection of Central Avenue.

Our methodology for this transition is simple. The intersection of Scotland Road and Central Avenue truly is the center of Orange and West Orange. This location supports the future location of the Orange Art walk, since the train station is now located directly across from the Art Deco Building.

Our new Train station building is designed to act both as the new park's signature entrance, but more importantly as the Iconic figure that would bind together the broken fabric that is current day Orange and West Orange. This new signature building standing about 5 stories tall would be visible from roughly a 1 mile radius, almost tripling

the current visibility of the existing train station (since it is located where the train embankment is very high and out of site from across the tracks). Thus acting as both a self locating device but more importantly a directional beacon for all new visitors that are otherwise unfamiliar with the Orange and West Orange community. This relocation allows for our new building to stand side by side with the Art Deco building helping to literally frame the new Art Walk and Green Space at the same time (the twin towers of Orange if you will). Interior programming of the train station will include both retail, and commercial stores, shops and restaurants allowing for both an inviting and entrance and memorable exit for all visitors who have chosen to travel to our newly designed central park, and revitalized art deco section of Orange. We feel that with the implementation of both our new park as well as a revitalized mass transit system and signature visitor station, Orange will become the 6th burrow of New York City in the very near future. Thus bringing even more cultural diversity and economic prosperity to the immediate Oranges and their surrounding communities.

TRAIN STATION MASTER PLAN



5.7.5 Intersecting Orange and West Orange (cont.)

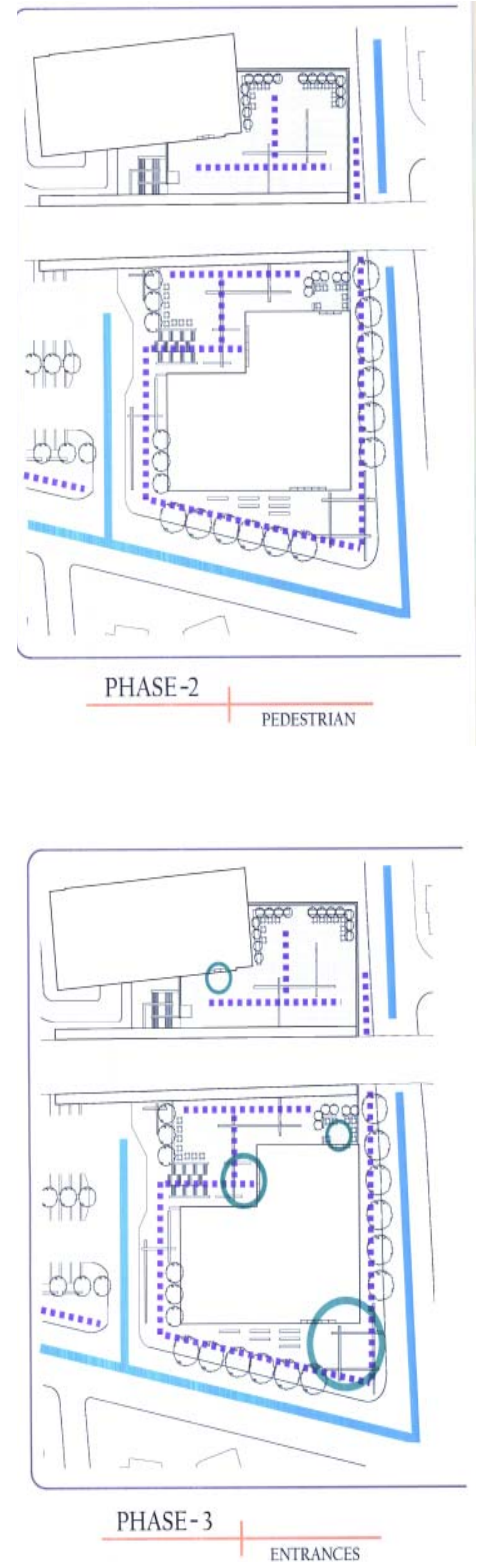
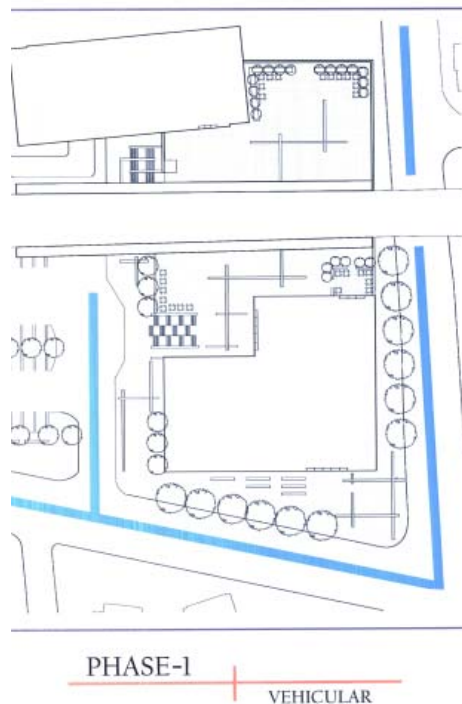
The new train station building's footprint was derived from an in depth study of all local and possible future circulation patterns that would exist on this site, specifically considering; pedestrian, bike, car, bus and the mass transit rail lines. We started with our "fixed" circulation specifically the transit rail line, Central Avenue and Scotland Road (found in dark blue). We added nearly 200 parking spaces in a newly designed parking lot located along Scotland Road and directly adjacent to the new train station. This will allow for easy resident motorists to access the train.

From this point we recognized the communities need for public transportation, particularly the local rotary bus route and thus added a conveniently located bus stop along both sides of Scotland Road. Pedestrian and bike circulation soon followed the existing sidewalk framework (found in dotted purple).

Supporting this design our new building was created with two main entrances, one for Scotland Road and Central Avenue pedestrians which is located on the facade literally facing the signature corner intersection of these two respective streets. It contains an hardscape entry plaza with I-beam sculpture, (I beams playing into the historical flare of the industrial core that once thrived there).

The building's other main entrance would be located along the side of the building facade perpendicularly facing Scotland Road containing a

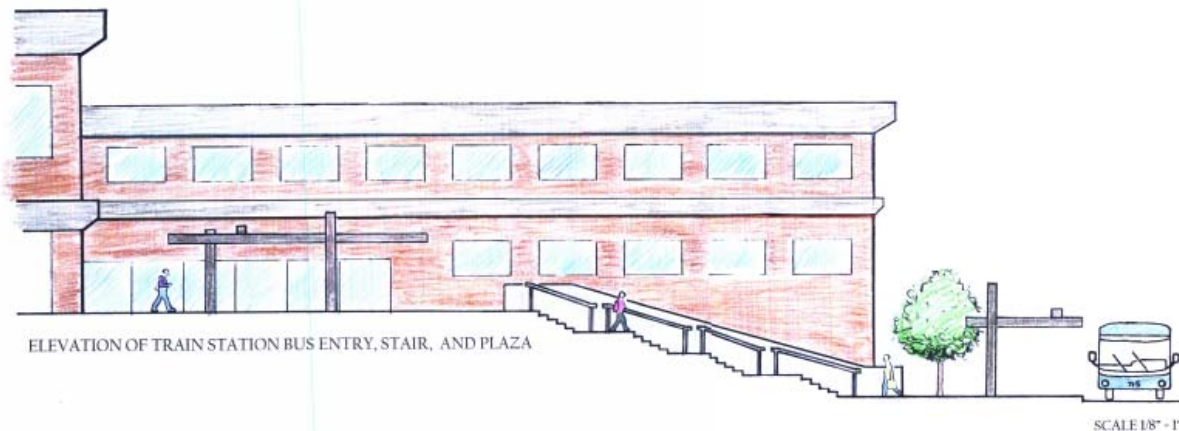
large entry stair and hardscape plaza with repeating I-beam sculptures as traffic flow directors. The space also contains moveable seating and chairs with an outdoor cafe space. This would address heavily anticipated traffic flow created from both our newly designed parking lot and public bus drop off (found in light green circles).





PERSPECTIVE OF ENTRY STAIR AND TRAIN PLATFORM PLAZA

SCALE 1/4" = 1'



ELEVATION OF TRAIN STATION BUS ENTRY, STAIR, AND PLAZA

SCALE 1/8" = 1'

5.7 Project Green-Space

5.7.6 Retail Residential Development

Dan Melick

Central Avenue and Valley Road are two of the major thoroughfares that are apart of the Oranges. When these two roads intersect, it creates a vital area for having a well developed space. Creating a major retail and residential area at this intersection would be best suitable for an intersection like this. Not only will this bring people into the area it would raise revenue for the entire city. Being in close proximity to the train station, this area would not only be easily accessible to vehicles.

This design starts off by adding in four buildings into the site. These buildings would line Central Ave. and Valley Rd. The buildings would be eight stories high and would contain a mixed use of retail and residential areas. The retail areas would be on the first floor allowing easy access.

In bringing such a high density of people into this area a major pedestrian walkway was then needed. The pedestrian walk was placed along Central Ave. because there was

such a high volume of buildings and would give direct access to the proposed train station. The walkway would create spaces for outdoor dining, general seating or just acting as a thoroughfare. The main feature of this area would be the overhead structures that intersect along the walkway. This overhead structure would resemble steel beams that stretch over the walk.

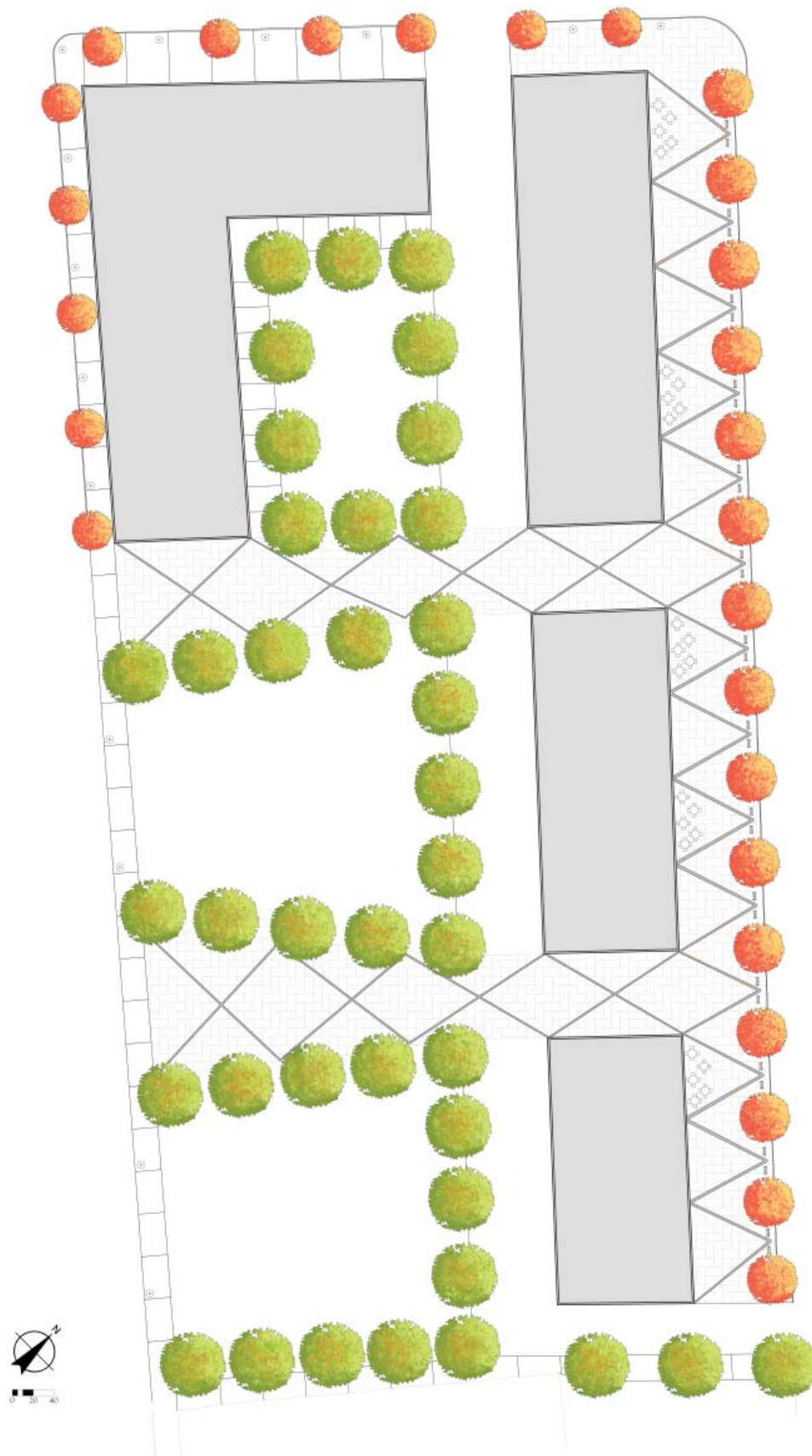
Since Central Valley has such a large industrial core and most of the buildings that are currently on the site are industrial, these steel beams would represent the long history of what this area used to be. These overhead structures would not only lead you through the space but give a feeling of scaling down the large buildings along the walkway. This pedestrian walkway not only takes you down Central but can bring you into the spaces behind the buildings. The walkway breaks off in two areas and gives direct paths to the central greenspace of the redevelopment plan. The paths

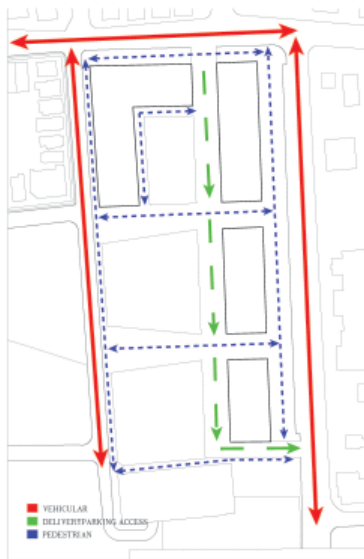
leading towards the greenspace flare out to create views into the park. Small open spaces flank the walkway which start the beginning of the overall creation of the greening of this area.

Being that there will be a high density of people coming into this area parking is a major concern. There will be parking along Central Ave. for visitors coming into this area but the major parking would be located in the buildings themselves. Each building would house below ground parking. Entrances into these parking lots would be located in the back of the buildings which would double as delivery access to the retail centers.

The idea behind this design was to bring people into this area and give them a place to want to come back to. Having a high density retail and residential area here is essential in doing just that. It will be a place that the entire community and surrounding areas would benefit from greatly.

After working on this design, the main aspect learned was how major mixed used buildings fit into the context of a city grid. Dealing with fronts and backs of these buildings was a challenge in giving access to the building along with creating ways for deliveries and waste removal. Creating these types of buildings give a city a valuable asset to their surrounding context.



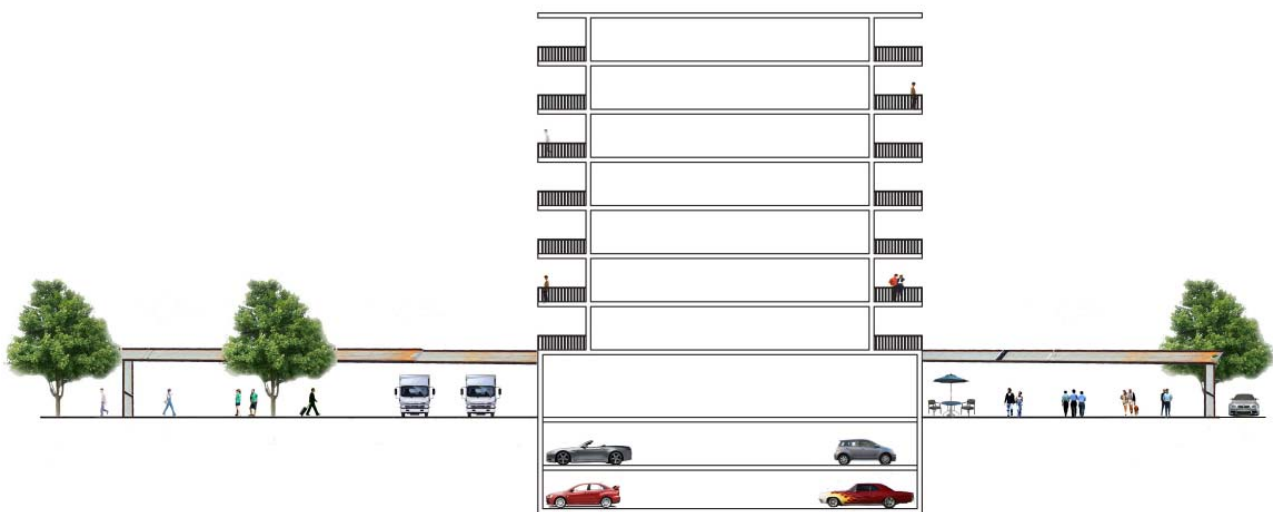


5.7.6 Retail Residential Development (cont.)

Major vehicular circulation for this site is Central Ave. and Valley Rd. This gives direct access to the site using these roads. A small access road runs behind the buildings which is used for deliveries and to enter the parking decks below the buildings. The major pedestrian circulation for this site is located on Central Ave. This is the main pedestrian walkway. The walkway then breaks off through the buildings giving direct access to the main central greenspace.

There are a few different programmed uses for this site. The main buildings are programmed to be mixed use buildings. The mixed use includes retail on the first floor, residential on the above floors and parking below ground. There are two small greenspaces which begin the central green corridor for the overall master plan. There is also a small open space that is programmed to be a playground for the residents of the surrounding buildings.

The tall of this site buildings create some breath taking views. Living in these buildings will allow you to get some great views overlooking the entire green corridor. This alone will generate great interest for people to come and live in these new buildings. There are also some great view that can be seen from the ground. The pathways going to the central park gradually flare out. This will force a perspective of the greenspace straight ahead.



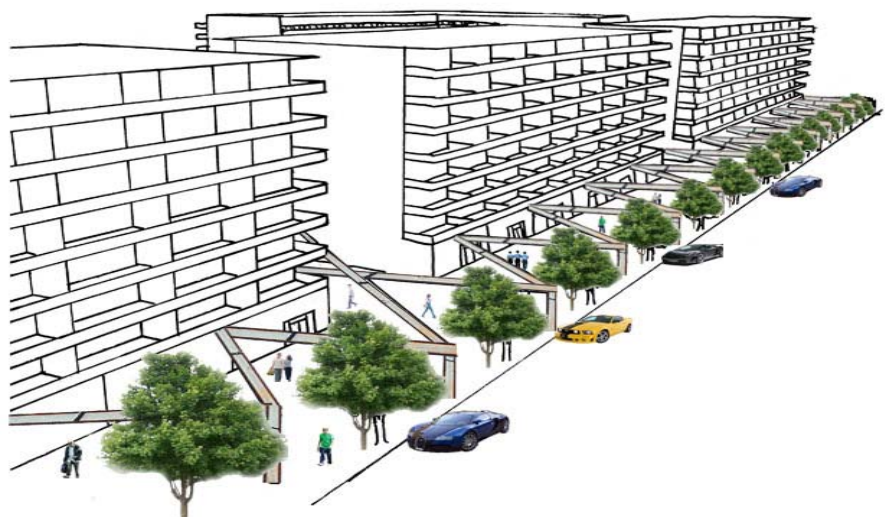
This first perspective gives a view of the main pedestrian walkway. The walkway is programmed to hold a high amount of pedestrian traffic. Outdoor dining and seating line the walkway allowing for people to stop and relax along the way. The walkway gives easy access to the retail shops in the building as well as the newly proposed train station.



This view shows the pedestrian walkway that is behind the buildings. This walkway gives direct access to or from the central greenspace. The flaring pathway is lined with trees forcing a perspective in each way. Coming from the park, as shown in this view, you are drawn through the buildings as the pathway becomes more narrow.



This view gives a birds eye look at the major pedestrian walkway. It depicts how the overhead structure runs the entire length of the path. This view also gives a scale of how the buildings relate to the walkway and to the adjacent street.



6.0 Conclusion

Central Valley Redevelopment





6.1 Conclusions

Dr. Wolfram Hoefer
Kyle Beidler, PhD

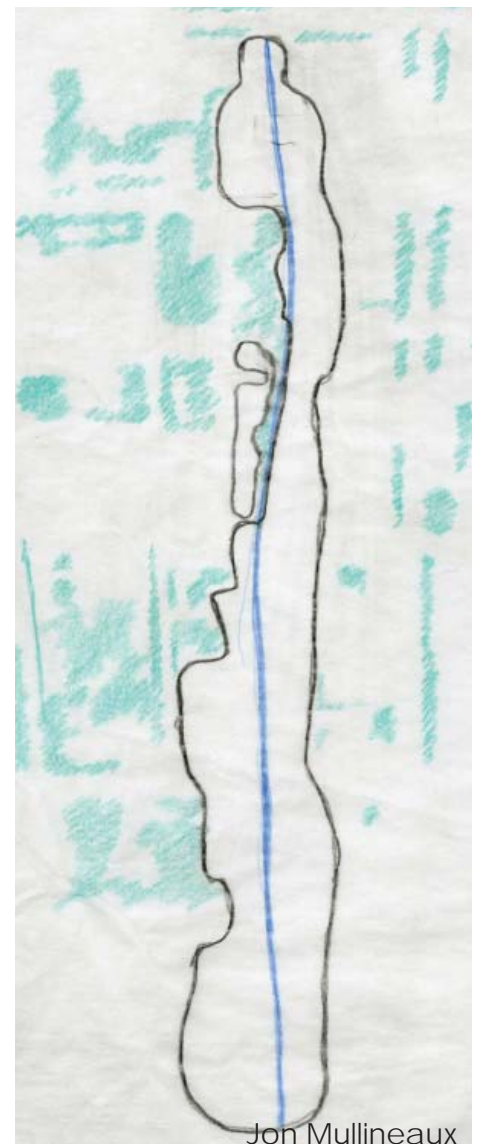


The design, planning and development issues that face the State of New Jersey are universal concerns that have been amplified by an increasingly limited volume of available land. Like many other states, New Jersey is pressured by continuing population growth and demographic change. However, the amount of available land for new construction, or “greenfield” development, has nearly been exhausted. These current planning issues are complicated by decentralized community growth within the state and the associated abandonment of existing urban centers. Therefore, the professionals, leaders, and citizens of the state must look toward new opportunities within our historical urban centers for redevelopment and revitalization.

Beginning in the late summer of 2007, the senior Landscape Architecture studio at Rutgers University completed a visioning process of analysis, planning and design to reveal redevelopment opportunities that typically have been

overlooked. Specifically, the students produced proposals for the Orange- West Orange Central Valley Brownfield Area based on a systematic investigation of the existing conditions. In the end, the students found that the post-industrial landscapes of the Central Valley have great potential to accommodate the needs of current and future generations.

A number of student projects focused on the importance of the existing rail service as a catalyst for the redevelopment of the Central Valley. As opposed to a mechanism that exports commuters, the train station was envisioned as importing consumers who could fuel an economic transition and foster a regional center of activity. Other proposals evaluated the existing lack of public open green space within the urban context of the Central Valley. These projects reflected how the addition of either traditional or nontraditional park space in conjunction with the remediation of the existing creek could contribute to both the char-

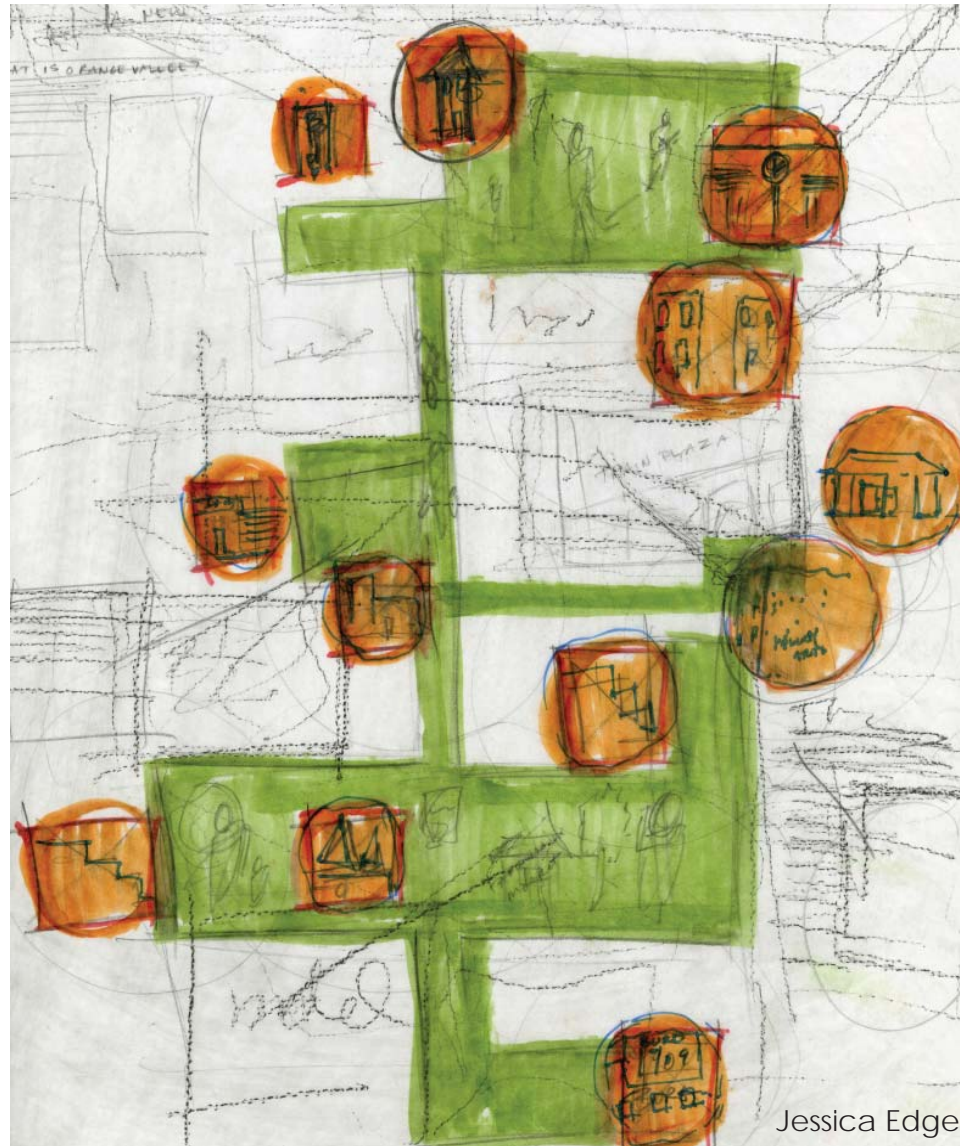




Kevin Hart

acter and sustainability of the region. A third group of projects celebrated the existing cultural buildings, nodes of activity and the opportunities latent in the current industrial land uses. By linking these significant features to proposed educational opportunities and nontraditional urban forms, these innovative proposals all attempted to strengthen what is, in fact, already present in the Brownfield Redevelopment Area.

The students took from this project an increased appreciation of good urban form and design. They learned that a critical awareness of one's surroundings is essential in identifying elements such as, street trees, spatial volumes and mixed uses which need to be sensibly interwoven in successful place making. All of the student projects also took into account the delicate balance required between public and private space in the urban environment and responded with bold proposals that accommodated variable potential uses.



Jessica Edge

Each student was also individually faced with the complexity urban design problems. Most projects responded by attempting to balance the needs of redevelopment without displacing current populations. Others recognized the importance of taking small steps and the significance such initial projects can have on the larger context. However, the big lesson learned in the Central Valley is that soil contamination is not a barrier to redevelopment. Rather, brownfield remediation

was interpreted as an opportunity for the state to meet some of its most pressing planning issues. It is this perspective that begins to question current assumptions and biases that categorize the postindustrial landscape simply as blighted and underutilized. Furthermore, in the twenty-first century, it is this visioning process and critical perspective that will allow Landscape Architects to contribute to address the pressing issues that face our contemporary communities.

