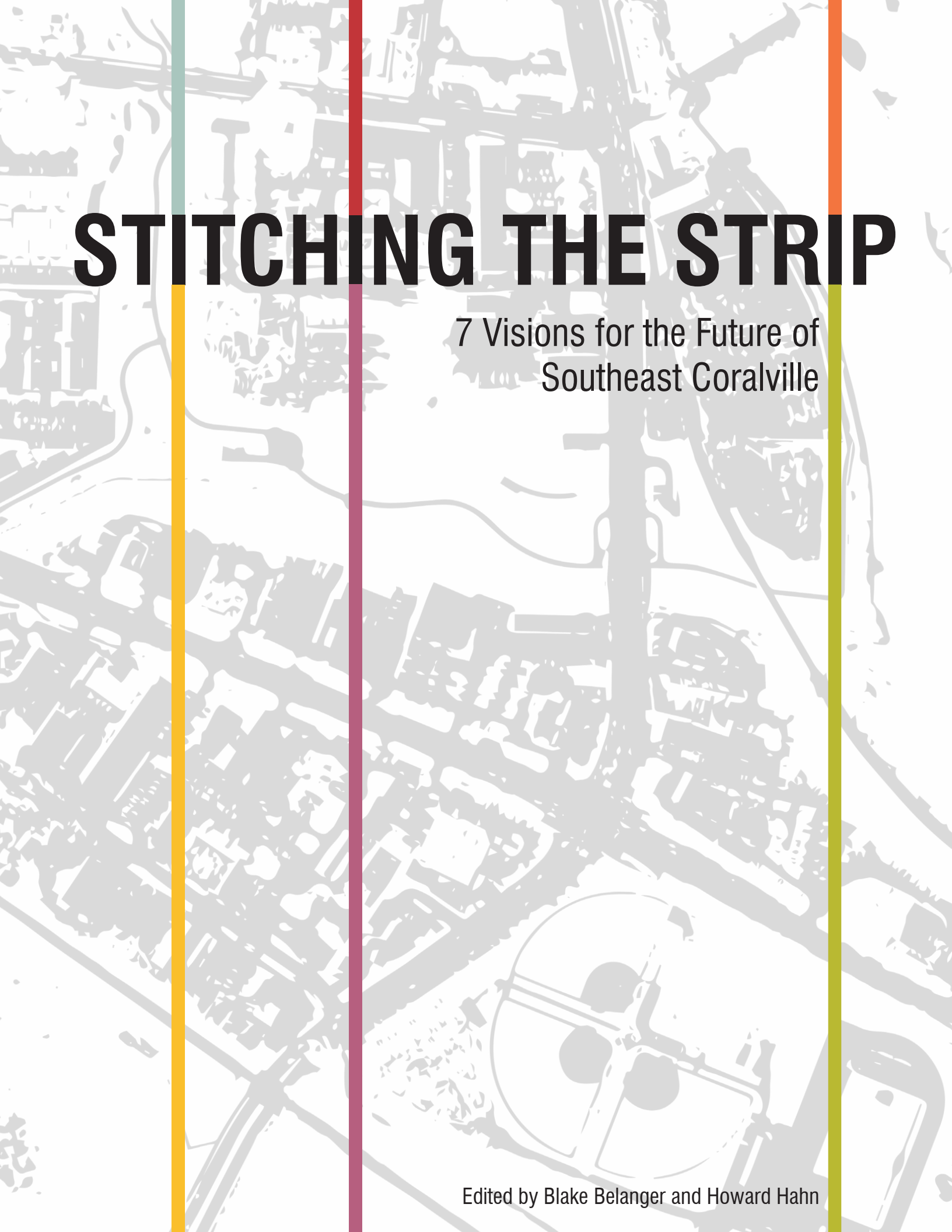
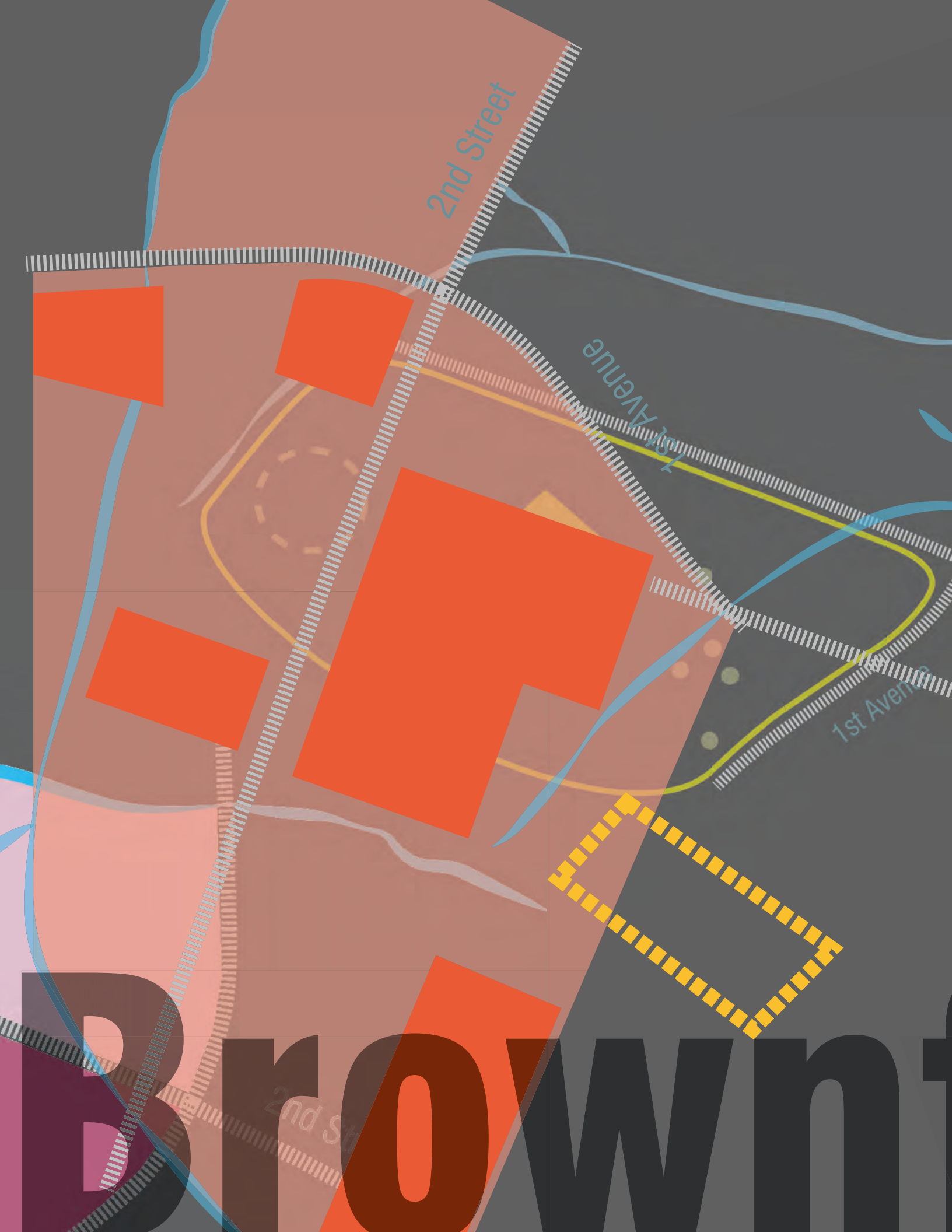


STITCHING THE STRIP

7 Visions for the Future of Southeast Coralville

Edited by Blake Belanger and Howard Hahn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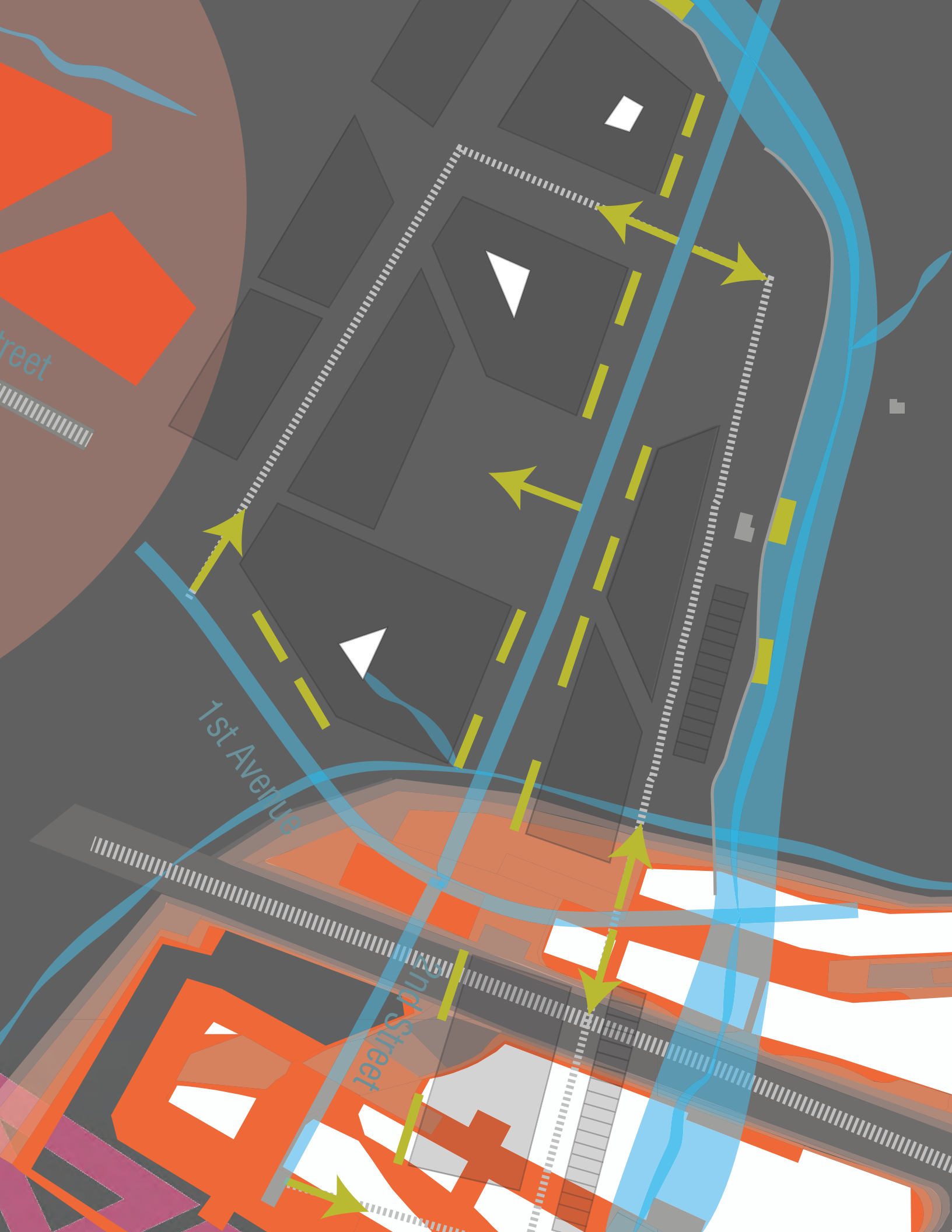
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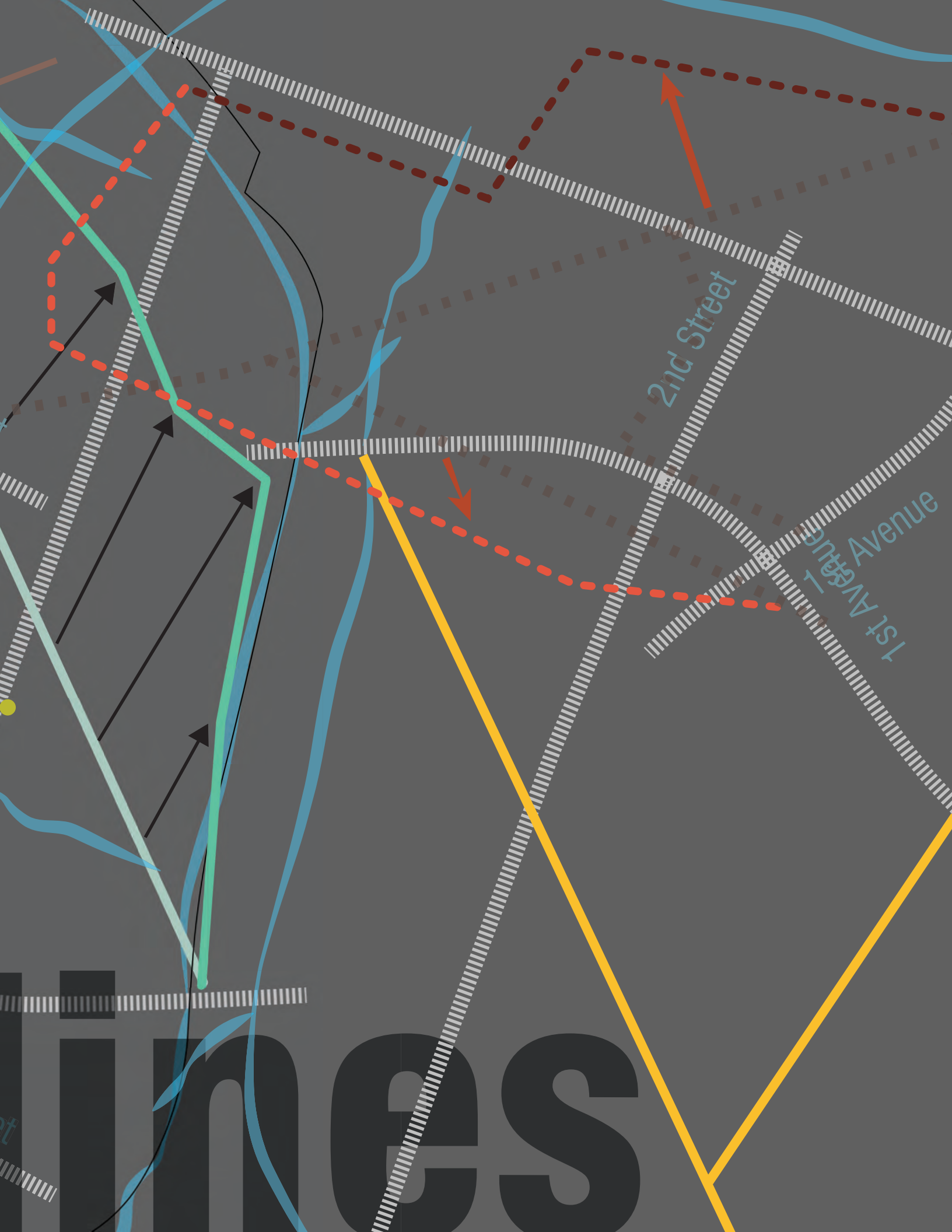
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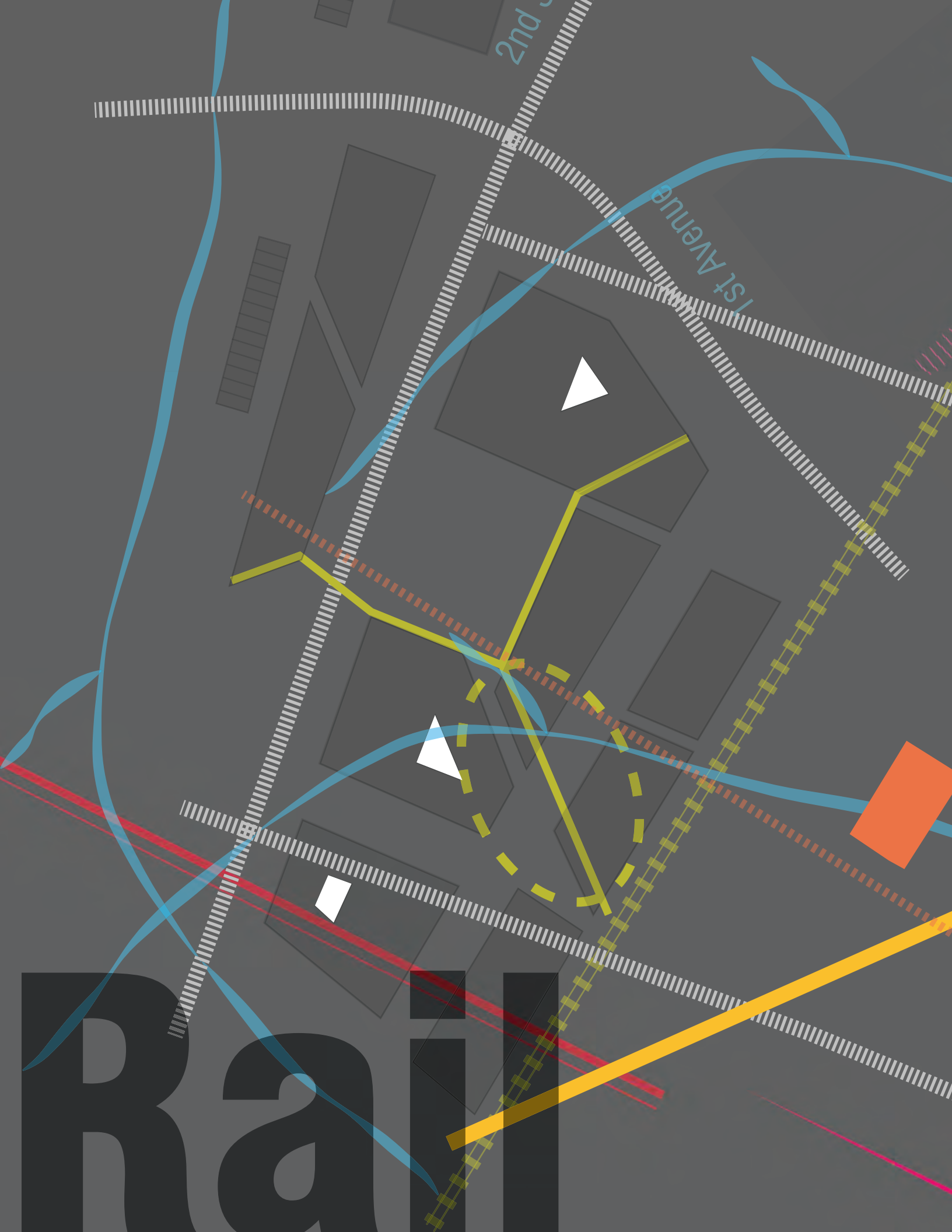
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STITCHING THE STRIP:

7 Visions for the Future of Southeast Coralville

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LAR 646: Community Planning and Design Studio, 2018

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Stitching the Strip

7 Visions for the Future of Southeast Coralville

Edited by Blake Belanger and Howard Hawn

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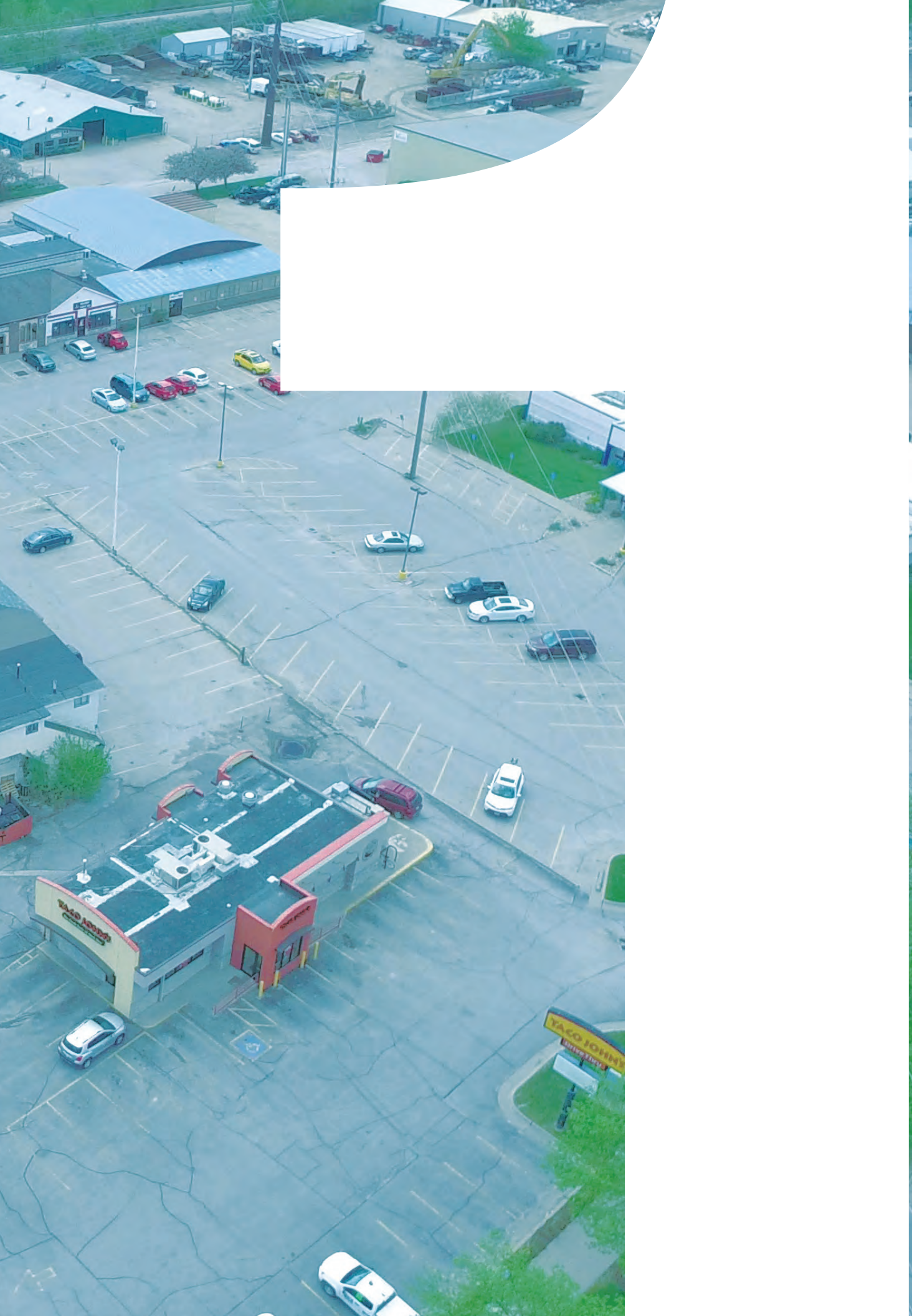
Introduction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Executive Summary

Introduction

Executive Summary

"The Strip" in Coralville is iconic of mid-century American strip retail development. Highway 6, also known as 2nd Street, is a 5-lane arterial street with the highest volume of traffic in the metro area. Buildings are located far from the street edge, and the vast majority of the area is covered with paved parking lots. While 2nd Street's sidewalks are adequately wide and established street trees provide shade and enclosure, there are few crosswalks, creating unsafe conditions for pedestrians crossing the street. The Southeast Commercial District, located at the intersection of 2nd Street and 1st Avenue, is comprised of multi-family residential housing, retail, commercial, and industrial uses. Many of the buildings are functionally obsolete and some parcels exhibit evidence of neglect. Creative planning and design proposals envision alternative futures for the district, but existing conditions present several significant challenges. Towering electrical transmission lines bisect the district, some parcels are known to be contaminated and others potentially contaminated, and all new inhabited structures must be elevated above the FEMA 100-year flood plain to be insurable. At the same time, some conditions present opportunities: The Clear Creek and Iowa River waterfronts are underutilized and two rail lines with public transit potential bookend the district, and with any urban design proposal, there are opportunities for creating a sense of identify and place.

Stitching The Strip: 7 Visions for the Future of Southeast Coralville presents urban design ideas for the Southeast Commercial District in Coralville, Iowa. Twenty-three mid-level landscape architecture graduate students enrolled in an intensive 8-week Community Planning and Design studio completed the work during the summer of 2018. The studio was co-led by Associate Professor Blake Belanger and Associate Professor Howard Hahn. The effort was supported with funding from Kansas State University's Technical Assistance to Brownfields (TAB), and would not have been possible without support and engagement from Maggie Egbarts, TAB Services Coordinator (EPA Regions 5 and 7). We are also grateful for the support and guidance from Dan Holderness, Coralville City Engineer and Scott Larson, Coralville Assistant City Engineer, as well as our visiting design critic Associate Professor Carl Smith who delivered both exceptional insights and humor.

The idea for the collaboration emerged from discussions at the 2017 National Brownfields Training Conference in Pittsburgh. Goals of the collaborative service-learning studio included providing students with first-hand experience working with a community, generating creative ideas for advancing the dialogue about planning the future of southeast Coralville, engaging residents and stakeholders and responding to their input, and supporting the mission of the project partners. The studio's process included rigorous mapping of various conditions, a community planning workshop, design development through an iterative process, a final presentation to project partners and the Coralville Community Advisory Panel, and a public open house exhibiting posters of student proposals.

In Chapter 1, we introduce Coralville's Southeast Commercial District and present eight influential site and contextual factors identified in our research. We detail the studio's methods and process, and introduce the seven student design proposals. In the following seven chapters, we present specific urban design strategies for establishing a new mixed-use district.

In contrast to a singular master plan, the collection of ideas presented in *Stitching The Strip* provides a multitude of ideas that can be compared, evaluated, prioritized, and perhaps hybridized. We aspire that *Stitching The Strip* will contribute to the ongoing dialogue about the future of the Southeast Commercial District, and serve as an enduring legacy project for Coralville.

Studio Intent + Methods

Introduction

Studio Intent

Introduction

This book was produced by Kansas State University students in the Community Planning and Design Studio and Seminar courses administered in the summer of 2018. Twenty-three Kansas State students, led by professors Blake Belanger and Howard Hahn, teamed with Kansas State University Technical Assistance to Brownfields (TAB) and the City of Coralville to generate a set of strategic urban design ideas for the future of Coralville's Southeast Commercial District. As a gateway between Coralville and Iowa City, the study area presents a tremendous opportunity to create community identity, generate economic vitality, and introduce a new district to live, work, and play. The agreement is mutually beneficial: Coralville stakeholders, leaders, and decision-makers will receive fresh ideas for community planning, and students will gain "real world" experience engaging with project partners and community members on a service learning project.

Figure 1.1
Student Mid Review
Students presented to the City of Coralville via Zoom meeting from Manhattan.
(Hahn, 2018)

Goals and Objectives

The Community Planning and Design course provided the City of Coralville with multiple design proposals for the redevelopment of the Southeast Commercial District. Design proposals featured mixed-use developments that will improve the area economically and aesthetically in order to establish a district that provides new opportunities to live, work, and play for community residents, stakeholders, and visitors. Three goals guided the Studio's design process and final design proposals:

- Develop complementary, viable concept alternatives to contribute to Coralville's planning dialogue on the Southeast Commercial District
- Integrate meaningful public participation in the design process
- Address influential site and contextual conditions

Community Planning and Design Studio Timeline

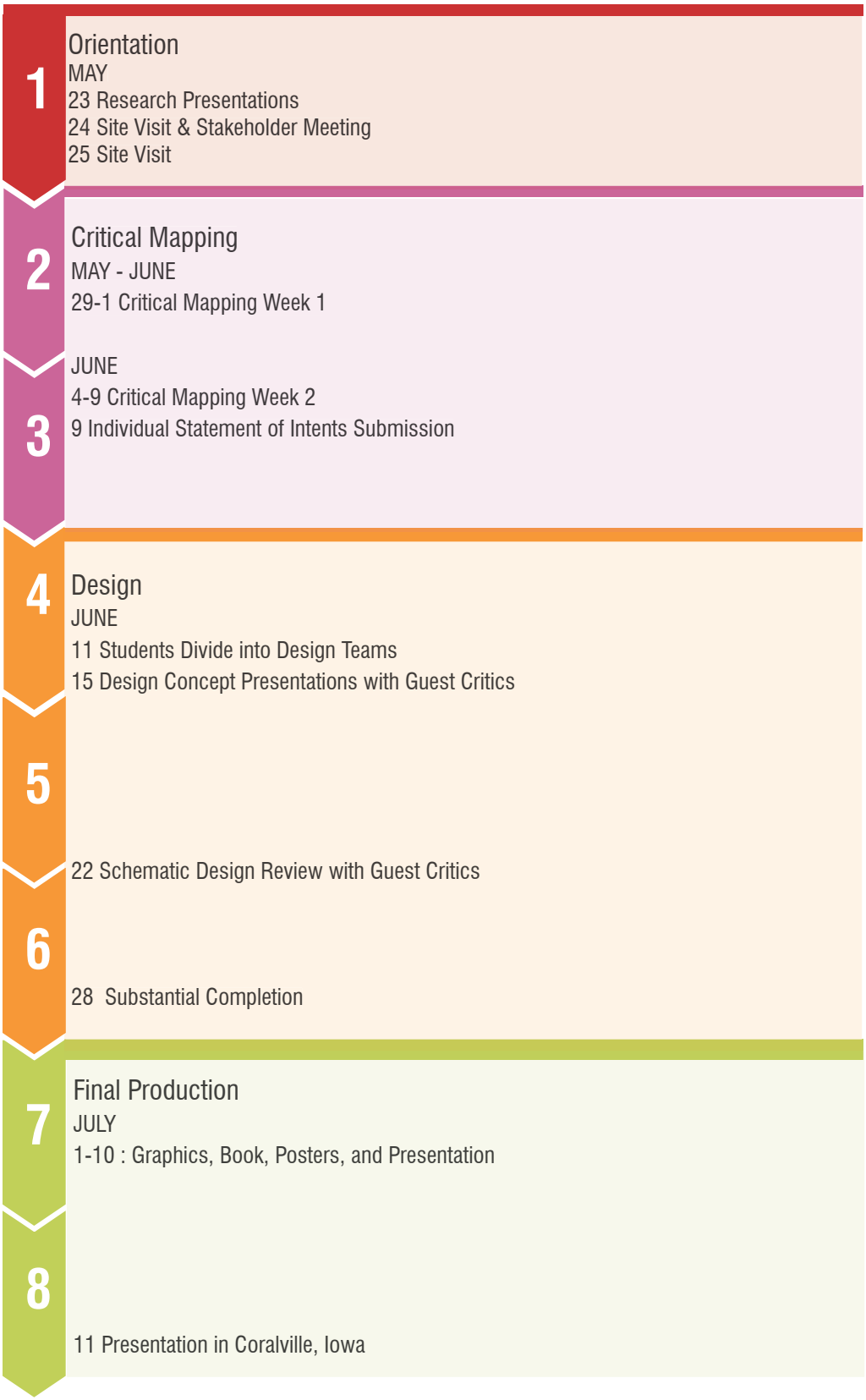


Figure 1.2
Community Planning and Design Studio Timeline
(Barragree, 2018)

Methods

The Community Planning and Design studio performed a variety of methods in order to fully understand the conditions of the Southeast Commercial District as well as the wants and needs of the community. The information was synthesized and used to provide sensible and responsive design proposals. Initially, the studio researched the Southeast Commercial District, Coralville, and Iowa City to establish a collection of information pertaining to the site. Research topics included ecology, hydrology, economy, infrastructure, context, history, culture, demographics, health, transportation, and existing developments. Precedent research was also performed to identify successful mixed-use developments, riverfront projects, and brownfield sites. Additional research informed studio members of the existing comprehensive plan currently in place for the City of Coralville. From the beginning of the studio, a series of questions were asked about the site which guided students through critical mapping and design proposals. The esearch inquiries can be found on the Critical Maps in Appendix A.

Site Visit

Following initial background research, the studio embarked upon a site visit to Coralville, Iowa to become acquainted with the city, specifically the Southeast Commercial District. In an effort to approach the site with purpose and intention, Chistophe Girot's (1999) "Four Trace Concepts in Landscape Architecture" was utilized for guidance. The reading presents four concepts used as tools for navigating the investigation of a new place. The four trace concepts are as follows:

- Landing: initial reaction to the site
- Grounding: discovering and understanding the site after initial visit
- Finding: the act and process of searching the thing discovered
- Founding: synthesizing landing, grounding, finding to bring new ideas to the surface

Figure 1.3
Southeast Commercial District
(Google Maps, 2018)

Seminar Readings

Aforementioned, the students are also enrolled in a seminar course which complements the studio. The first three weeks of the course are spent reading a variety of literature pertaining to landscape architecture and urban planning in an effort to introduce students to new concepts and frameworks. Figure 1.4 provides documentation of the seminar readings and a brief summary of the major ideas and concepts.

Figure 1.4
Seminar Reading Summaries
(Barragree, 2018)

Mapping	"The Agency of Mapping" Corner, 1999	Provides a basis for understanding the roles of mapping in the planning and design process.
Placemaking	"Critiques and Urban Components" Krier, 2007	The text is a critical examination of methods of planning and designing at a city-scale. Krier looks at a variety of aspects from zoning to street grids to block-by-block urban form.
	"In the Street: A Quintessential Social Public Space" Vikas 2013	An analysis of streets and how they influence not only vehicular circulation but social interaction and community design.
	"Re-Framing Urban Space" Cho, Heng, and Trivic 2015	The authors emphasized why density and intensity are important factors while planning for the success of any urban space and how these two factors influence the comfort and usability of a space.
Urban Revitilization	"The New Urbanity: The Rise of a New America." Nelson, 2009	An analysis of how the shifting demographics and preferences of the American population impacts housing, infrastructure, and amenities.
	"Suburban Retrofits, Demographics, and Sustainability" Dunham-Jones 2005	An analysis of how existing developments can be revitalized to serve new and innovative purposes.
	"Principles of Brownfield Regeneration" Hollander, Kirkwood, and Gold 2013	Description of what a brownfield site is and outline for remediation techniques and processes.
Social Considerations	"From Place to Site: Negotiating Narrative Complexity" Beauregard, 2005	Dissecting how planners and designers approach space and begin to place labels on them which may or may not respect the previous narrative of the site.
	"Landscapes as Social Infrastructure" Hood, 2004	The text is the development and explanation of a system of hybrid modifications: "sweeping, weaving, lumping, and stratifying."
	"Place Analysis and Planning Methods" Sepe, 2013	Presents a variety of mapping strategies for placemaking and design.

Community Meeting

In addition to the Four Trace Concepts exercise, the studio also led a community engagement workshop on the initial site visit. Primary workshop participants were members of the Community Advisory Panel (CAP), a group of people representing a diversity of interests related to the commercial district. Other attendees included some local residents, the City of Coralville Engineering Department, Technical Assistance to Brownfields (TAB) through Kansas State University, and professors and students of Landscape Architecture and Regional & Community Planning (LARCP).

The purpose of the community engagement workshop was to document and summarize needs and desires of the community. The primary goals of the workshop were to address two major questions regarding the Southeast Commercial District and surrounding area:

How are the residents and stakeholders feeling about their the district and surroundings right now?

What are their ideas for creating a bright future for the district?

After an initial introductory presentation, the participants were taken through a three-part process of small discussion. The small group discussions were led by the students dispersed around the meeting room at tables which held clusters of 2-7 workshop participants. The first 10-minute discussion asked participants what were the points of excitement and points of concern related to the district. In the second discussion, the participants were asked to identify the best reasons to be in the Southeast Commercial District and which places were most important to them. Finally, participants were asked to envision what they would like for the district in the next five years as well as possibilities for the next five to twenty years.

Thereafter, participants recorded their five most important ideas and grouped them with responses from the other groups. The final activity was asking participants to vote on five concerns or opportunities they viewed as being most pressing, in order to synthesize the developed ideas. The results of this meeting are shown in Figure 1.5.

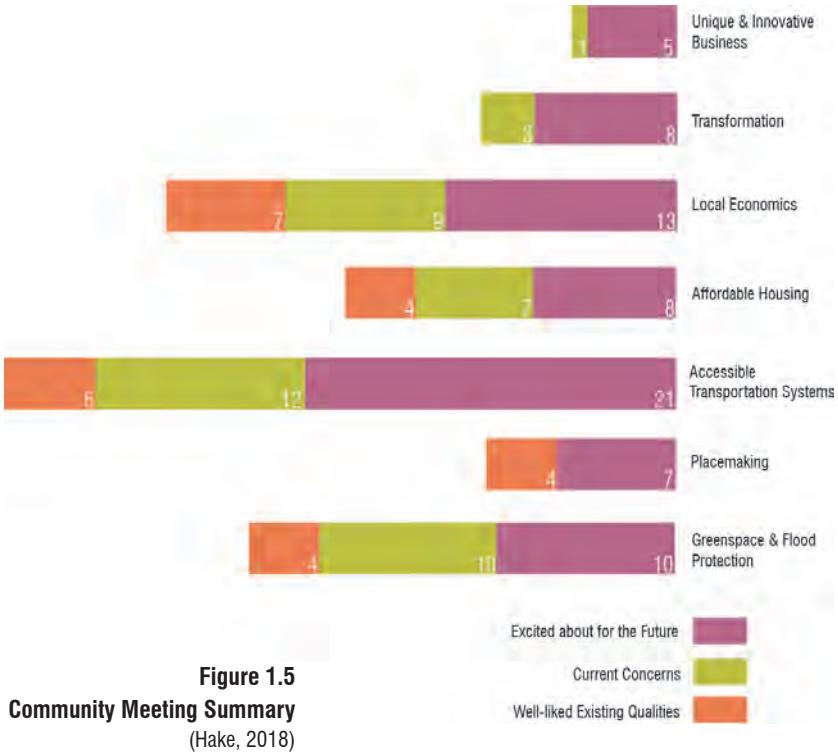


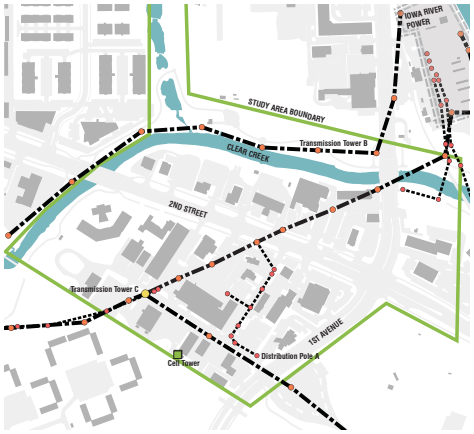
Figure 1.5
Community Meeting Summary
(Hake, 2018)

Figure 1.6
Collection of Images from Coralville Community Meeting and Site Visit
(Belanger, Cooke, Hahn, Mader, Quincke, 2018)

Critical Mapping

In response to the Founding exercise and knowledge gathered thus far, the studio then embarked on critical mapping. Critical mapping is a method of investigating the potential opportunities of an area through analyzing, synthesizing, and graphically representing spatial data (Figure 1.7). The initial maps created explore existing conditions through classification, correlation, and comparative analysis. Additional maps are created to explore dilemmas and opportunities uncovered in the first phase then the final phase is the creation of maps that outline strategies to leverage knowledge uncovered in the first two phases of mapping. A complete set of critical maps are presented in Appendix A-1. Figure 1.7 provides an example of a critical mapping sequence.

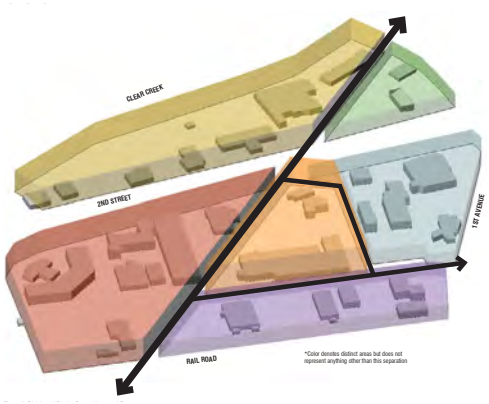
Figure 1.7
Critical Mapping Sequence
(Mader, 2018)



Classification Map

Overhead Transmission Lines and Poles Vary in Type and Size

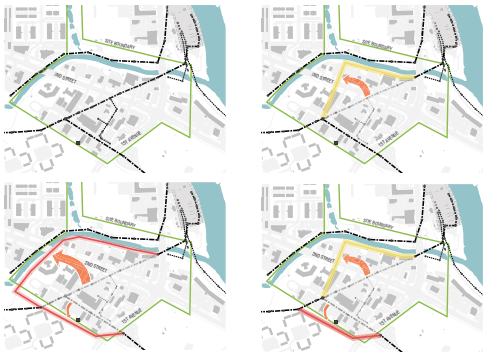
The student began the critical mapping process through identifying existing power lines within the site boundary.



Opportunity/Dilemma Map

Multiple Sets of Overhead Power Lines Define Spatial Organization

Then, the student investigated the dilemma posed by fragmentation created by power lines on the site.



Strategy Map

Moving or Burying the Overhead Transmission Lines Allows for More Usable Space

Finally, the student identified the 4 most viable strategies to solve the dilemma created by the power lines

Design Phase

At the end of Week 3, each student wrote a statement of intent identifying their particular interest within the studio project. The statements of intent allowed for the studio to be divided into seven groups to design the study area through seven unique perspectives. At the end of Week 5 and 6, students were given the opportunity to present their schematic designs to project partners for feedback and direction. Week 7 and 8 were reserved for the production of the final deliverables. The studio produced posters, presentation slides, and a book which includes background analysis, maps, and design proposals.

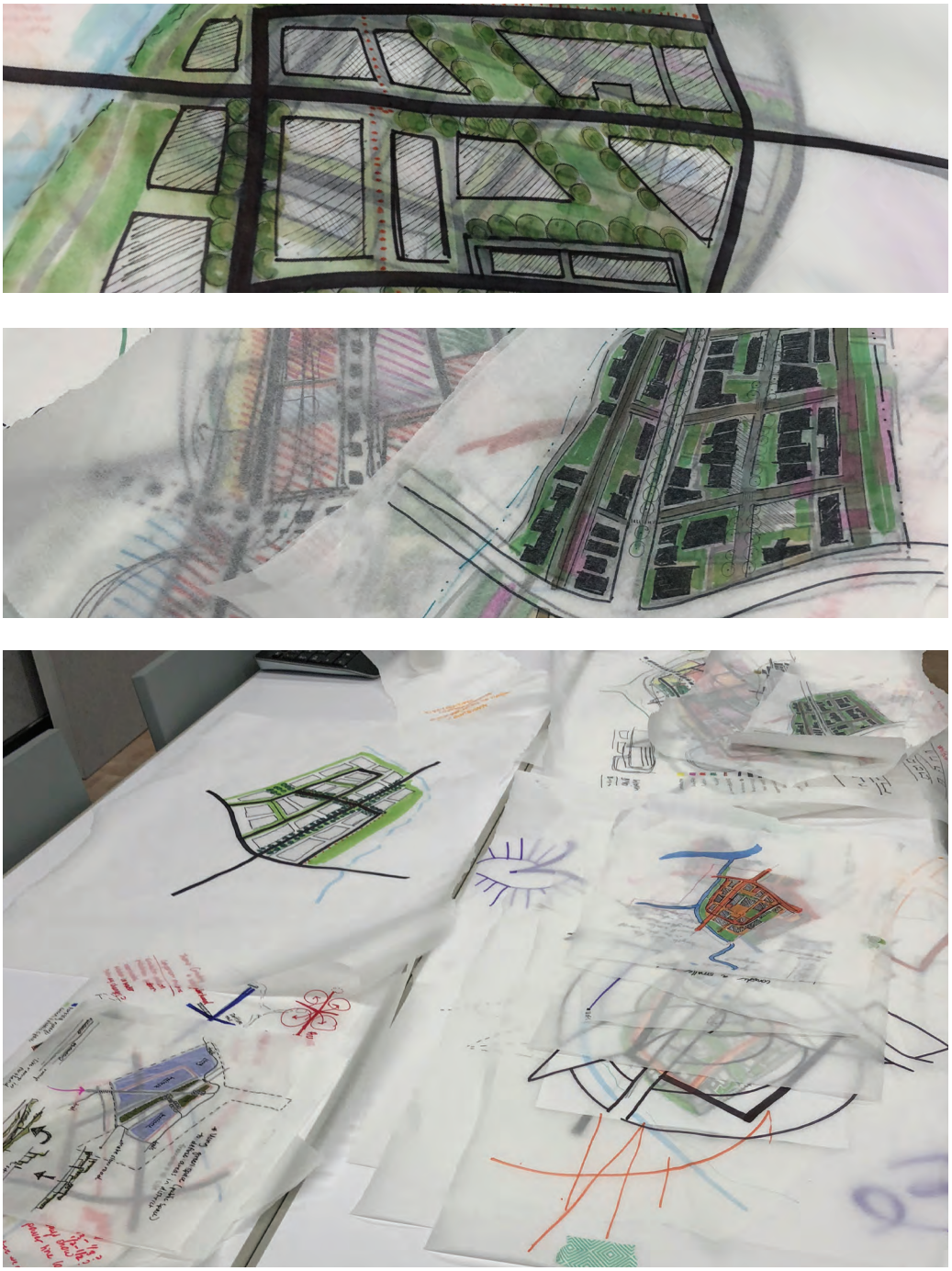


Figure 1.8
Team Process Work
Students work by hand on trace paper through the design process.
(Hahn, 2018)

Contextual Analysis

Introduction

Brief History

The City of Coralville was born as a small town after the dam along the Iowa River was constructed in 1843. The town quickly made use of the dam to power new mills in Iowa City which prospered for decades. Coralville quickly became a bustling location with a population over 300 in 1873. The city's relationship with Iowa City and the influx of Mormon immigrants contributed to its growth. In 1866, the town was given the name "Coralville" after Louis Agassiz, a Harvard zoologist, spoke at the University of Iowa about the fossilized coral that was found in the limestone along the Iowa River. In recent history Coralville is transitioning and developing more urban cultural hubs, such as the Iowa River Landing and the commercial corridor along 2nd Street known as "The Strip". A growing emphasis has been placed on connecting citizens to frontage along the Iowa River and increasing outdoor recreation opportunities, as Coralville and the Southeast Commercial District continue to establish their identities.

The Iowa River acts as the northeastern boundary for Southeast Commercial District. Clear Creek is a tributary of the Iowa River that runs along the west and north sides of the district. The Coralville dam, completed in 1958, controls the Iowa River four miles north of the city. The southern edge of Clear Creek (the Southeast Commercial District) is projected to be in the 100-year floodplain. Completed in 2014, the Federal Emergency Management Agency (FEMA) assisted the city to develop a floodwall around the district in addition to pump stations to minimize future flooding of the district. The presence of the Clear Creek and Iowa River waterfront was an integral part of the studio project and design concepts.

Figure 1.9
Mormon Handcart Expedition
The Mormon Trail brought many Mormon immigrants through the city of Coralville.
(Marshall, 2015)

Figure 1.10
Coralville Strip in 1993
Past flooding has devastated the strip within Coralville.
(Brown, 2014)

Figure 1.11
Coralville Resevoir
The Iowa River Dam north of Coralville has failed, causing severe flooding downriver several times in the past.
(USACE, n.d.)

Influential Conditions

Brownfields

Assessments indicate soil and groundwater contamination within the study area. Some parcels have not been assessed, but may be contaminated. Redevelopment proposals will require remediation.

Figure 1.12
Existing Brownfield Contaminations
(Parker, 2018)

FEMA

Although engineered flood-protection systems protect the study area from a 500-year storm event plus 1 foot, occupied building space must be designed above the 100 year flood plain plus 1 foot.

Figure 1.13
100 and 500 Year Floodplain Levels
(Stoffel, 2018)

Placemaking

The study area is located at a gateway location to Coralville where identity, placemaking, and multiple connections converge. The district is envisioned as a vibrant hub that is important to Coralville's future.

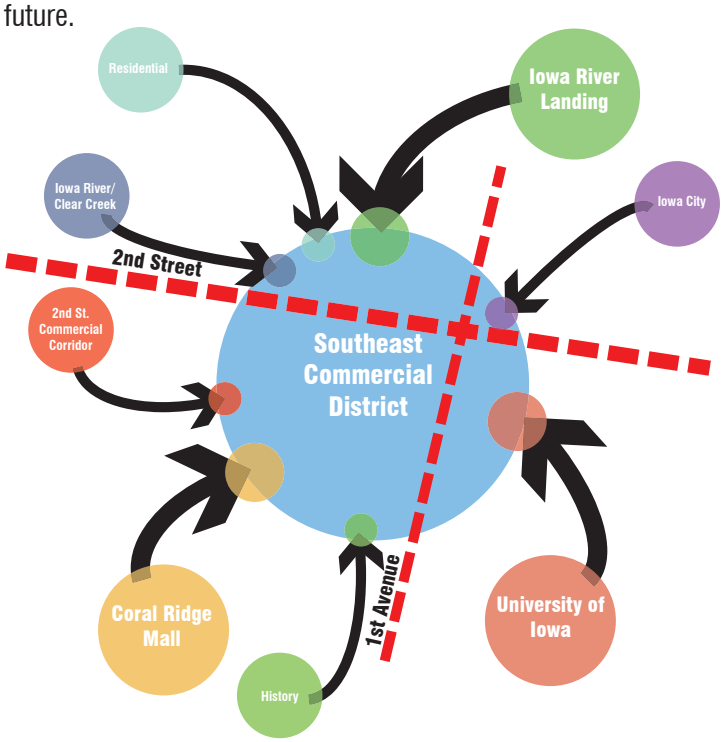


Figure 1.14
Identity
(Barragree, 2018)

Mixed Use

The community has expressed a desire for a diversity of uses and business types, a mix of market-rate and affordable housing, and a variety of public spaces. Redevelopment proposals will identify a range of options.

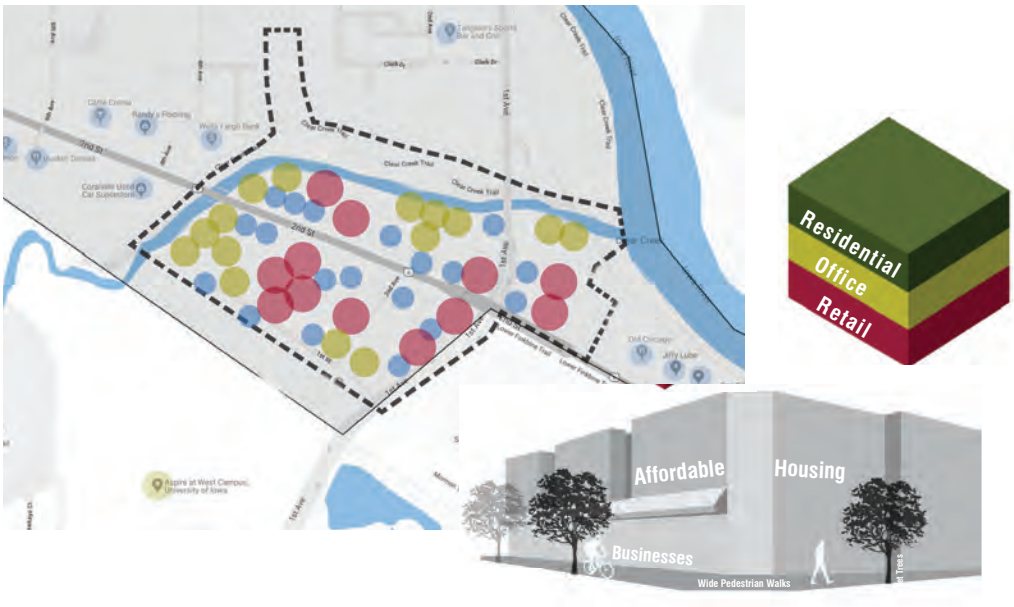
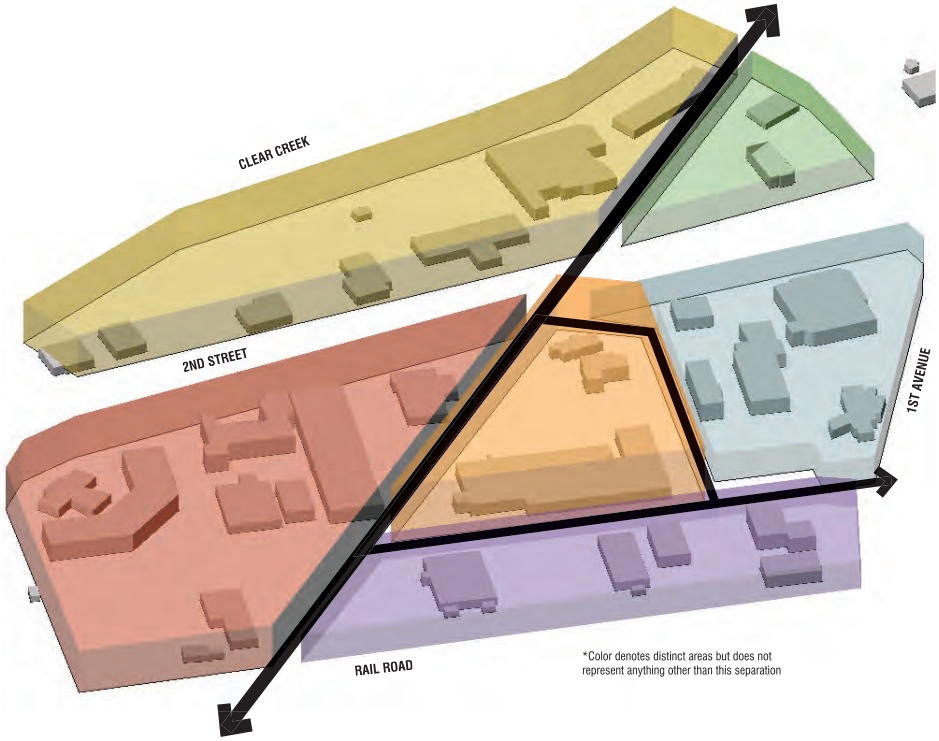


Figure 1.15
The SE Commercial District Envisioned as Mixed-Use
(Hake, 2018)

Powerlines

High voltage transmission lines dissect the site in two directions. Redevelopment proposals must either work around the powerline alignments, relocate them, or bury them.

Figure 1.16
Divisions of Site by Powerlines and Easements
(Mader, 2018)



Rail

Two rail corridors pass through the study area. One carries seasonal commuter trains, and planners are studying regional light rail transit on the other. Redevelopment proposals can consider transit-oriented-development and potential linkage between the two lines. Both lines are elevated well above the FEMA 100-year flood plain.

Figure 1.17
Proposed Transit Stops
(Larkin, 2018)

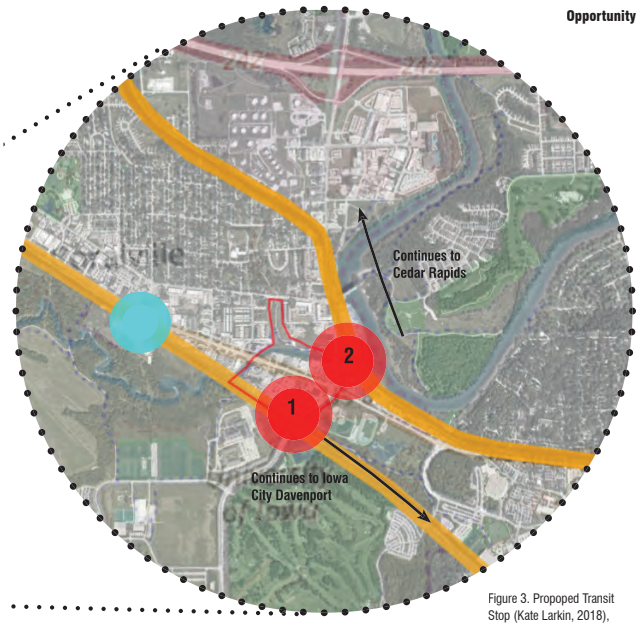


Figure 3. Propoped Transit Stop (Kate Larkin, 2018),

Streets

2nd Street and 1st Avenue in the study area carry a high volume of traffic, have relatively high design speeds, and are oriented for vehicles. There is a need for more pedestrian crossings (at grade or elevated) and vehicular connections linking parcels across the streets.

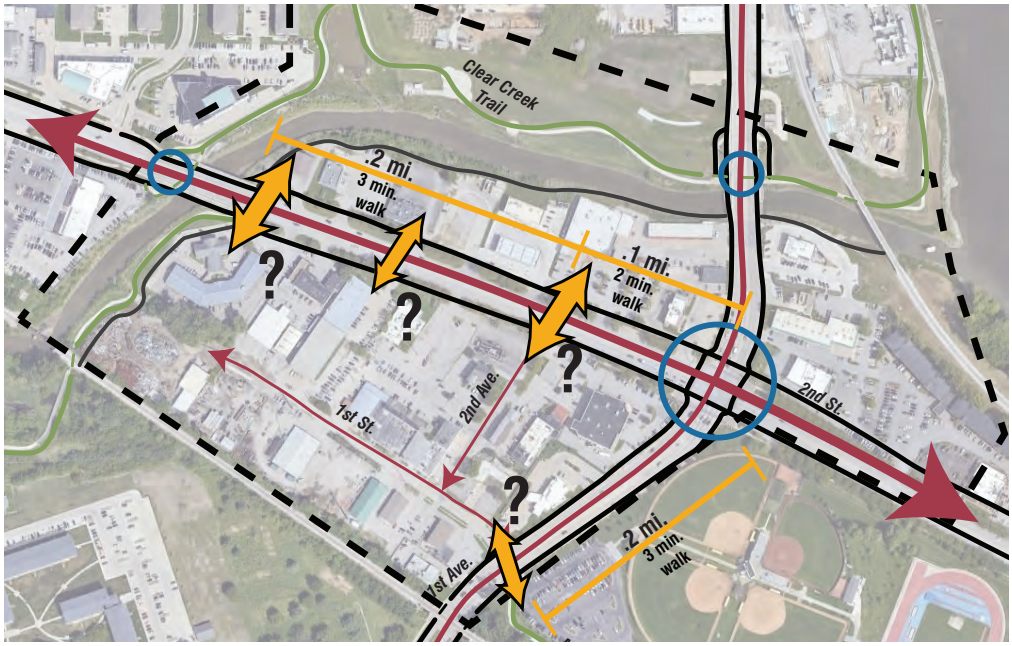


Figure 1.18
Potential Crossings to Connect Site Across 2nd Street and 1st Avenue
(Cooke, 2018)

Waterfront

The existing strip development largely turns its back on Clear Creek and the Iowa River. There are opportunities to engage the waterfront with vibrant mixed-use buildings and public space.

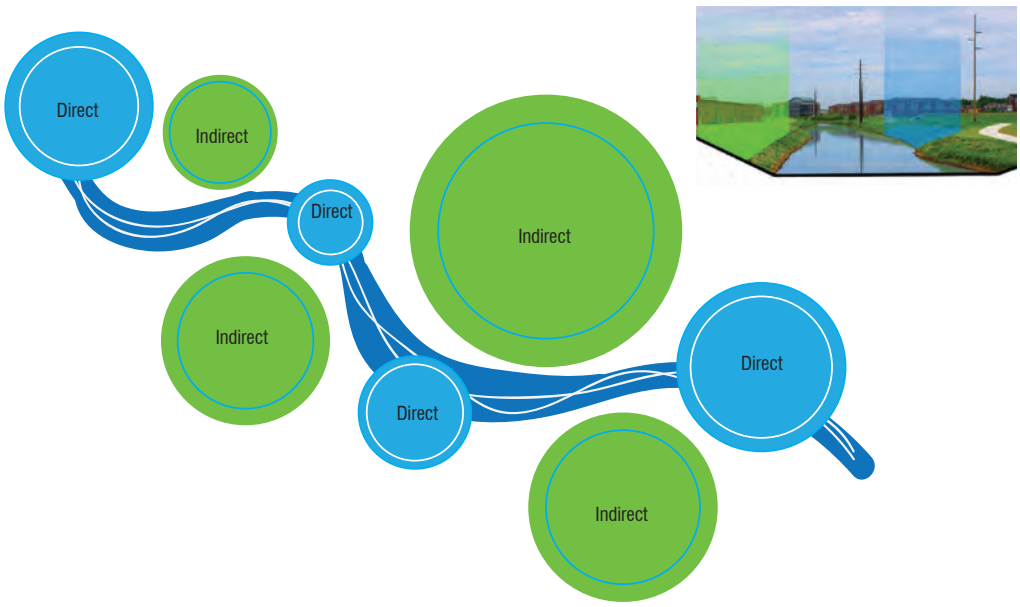


Figure 1.19
Direct Interaction vs Indirect interaction with Clear Creek
(Dirks, 2018)

Design Teams

Introduction

Regional Hub

Using Transit to Promote Social and Economic Connections Within a Wide Range of Communities

Marcos Aleman | Kate Larkin | Elsa Stoffel | Miles Updike

Concept

The vision for "Regional Hub" is to utilize public transit and the metro-significant 2nd St./1st Ave. intersection location to support transit-oriented development within Coralville's Southeast District. There are currently two underutilized rail lines that adjoin the district that provide an opportunity to connect the district to the region. Connecting to the rail lines will serve as a key catalyst for bringing more people and businesses to Coralville from Iowa City, Cedar Rapids, and other neighboring cities. Creating a dense urban environment at this influential location provides a lively destination for visitors to live, work, and play.

Figure 1.20
Agassiz Axis Corridor Activity
(Stoffel, 2018)

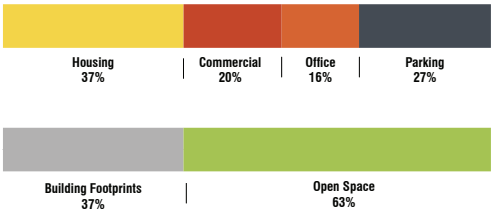
Goals + Objectives

- Increase regional accessibility with various modes of transportation
- Create a central axis to promote organizational hierarchy and placemaking within the site
- Attract a diverse group of people and communities to the space
- Increase resilience to flooding
- Improve commercial and recreational presence as a "live, work, play" space
- Retain cultural presence on the site
- Eliminate hazards of harmful pollutants on-site with brownfield remediation

Figure 1.21
View Down 2nd Street and the Agassiz Axis
(Stoffel, 2018)

Land Use Metrics

Residential Summary	
Total Residential SF	1,116,624
Total DU	1,396
Avg DU/ Acre	32
Total Residents	2,792
Parking Stalls Needed	977
Commercial Summary	
Total Commercial SF	619,536
Employees	826
Parking stalls Needed	868
Office Summary	
Total Office SF	495,954
Employees	992
Parking Stalls Needed	695
Parking Summary	
Total Stalls Needed	2,539
Parking Stalls Provided	2,539
Surface Parking Stalls	80
Streetside Parking	32
Structure Parking	2,427
FAR (Excluding ROW)	1.16



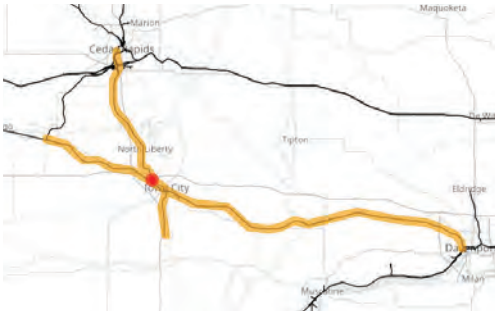


Figure 1.22
Existing Rail-Line Connection
(Larkin, 2018)

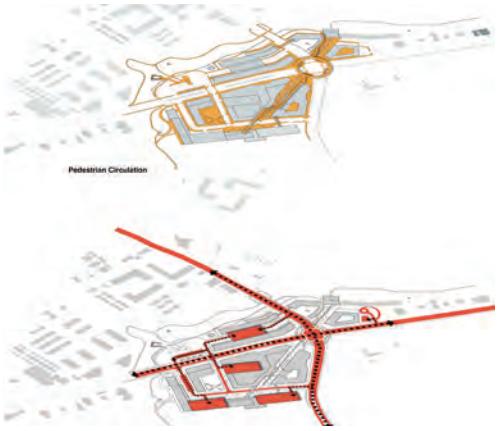


Figure 1.23
Vehicular and Pedestrian Circulation
(Aleman, 2018)

District 1

Creating a Continuous Urban District Between Iowa River Landing and the Southeast Commercial District

Josh Barragree | Rachel Cross | Allyssa Gray

Concept

The intent of District 1 is to establish a continuous urban district between the developing Iowa River Landing (IRL) and the proposed Southeast Commercial District (SCD). Currently, Coralville lacks a complete district which brings together residential, commercial, and office space in an efficient and beautiful way. District 1 unifies two major urban communities by promoting connectivity, identity, and activity within the SCD and along 1st Avenue. Improved pedestrian and bicycle circulation moves people in and around the SCD and north along 1st Avenue and the Iowa River. Traffic flow along 2nd Street and 1st Avenue is maintained by creating internal street systems bringing vehicles and proposed businesses into the site. A strong sense of identity is established within District 1 by creating a series of plazas and green spaces joined together by a continuous sculpture walk. Consistent materiality and plant types also contribute to the overall sense of place. District 1 activates not only Coralville, but Iowa City and the Iowa River. Commercial, office, and residential uses are mixed throughout District 1 urbanizing and stimulating growth. District 1 ties together multiple segmented areas within Coralville and Iowa City establishing a single unified district that serves community members and visitors alike as a gathering space, a shopping area, an eating destination, and a cultural landing.

Figure 1.24
Pedestrian Main Street
(Barragree, Cross, and Gray, 2018)

Goals + Objectives

Create **CONNECTIVITY**:
- Improve Vehicular Access
- Enhance Pedestrian Access
- Enforce Cyclist Transportation
- Reinforce Public Transportation

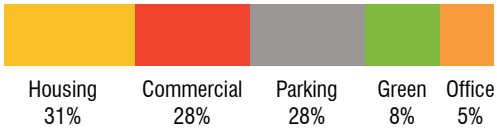
Enhance the **IDENTITY**:
- Establish a Sculpture Walk
- Enhance the Cultural Representation
- Approve Artistic Seating
- Cohesive Materiality

Bring **ACTIVITY**:
- Link community to the Iowa River
- Enhance the streetscapes
- Increase the quality of the Southeast
- Commercial District

Figure 1.25
Axial View of Pedestrian Corridor
(Barragree, Cross and Gray, 2018)

Land Use Metrics

Residential Summary	
Total Residential SF	713,617
Total Dwelling Units (DU)	892
Avg DU/Acre	51.8
Total Residents	1,784
Parking Stalls Needed	951
Commercial Summary	
Total Commercial SF	557,061
Employees	742
Parking stalls Needed	1479
Office Summary	
Total Office SF	107,201
Employees	214
Parking Stalls Needed	284
Parking Summary	
Total Stall Needed	2,715
Parking Stalls Provided	2,686
Surface Parking Stalls	0
Streetside Parking	84
Structured Parking	2,602



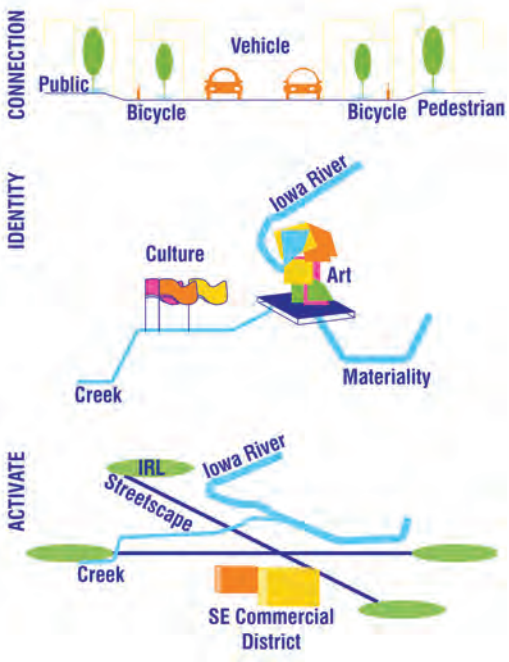


Figure 1.26
Concept Diagram
(Gray, 2018)

Industrial Greenway

Preserving Local Identity and Creating Opportunities Through Greenspace and Transit

Logan Baker | Danielle Hodgson | Spencer Sanders | Mackenzie Yeager

Concept

The existing Southeast Commercial District is undoubtedly filled with unique character and has easily visible hints of the area's industrial past. While Coralville continues to transform to a more connected and accessible extension of Iowa City, the current site infrastructure supports a high volume of vehicular traffic with wide intersections that leave the area divided and disconnected.

The intent of this design is to not only unify the site, but also utilize the existing rail corridors as economic and social drivers that will connect this district to the surrounding area. Public green space serves as a link to the transit lines and an amenity for residents as they follow along the existing and visually dominant powerlines. These powerlines offer opportunities for recreation, socialization, and relaxation.

Figure 1.27
Power Park at Night
(Baker, 2018)

Goals + Objectives

- Connect Area With Transit
- Increase Access to Green Space
- Maximize Pedestrian Experience and Emphasis On Site
- Emphasize and Maintain Elements of Existing Character and Identity

Figure 1.28
Balcony View
(Baker, 2018)

Land Use Metrics

Residential Summary	
Total Residential SF	919,012
Total DU	1,148
Avg. DU per Acre	52.5
Total Residents	2,298
Parking Stalls Needed	1,608
Commercial Summary	
Total Commercial SF	553,092
Employees	737
Parking Stalls Needed	1,549
Office Summary	
Total Office SF	187,733
Employees	408
Parking Stalls Needed	526
Parking Summary	
Total Stalls Needed	3,756
Parking Stalls Provided	3,805
Surface Parking	73
Structure	3,732
Parking	1.17

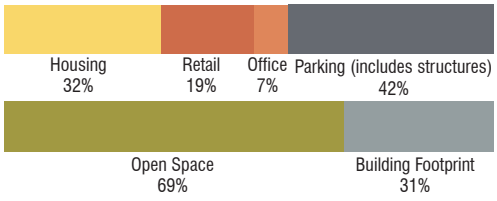


Figure 1.29
Linear Green Space Along Powerlines
(Hodgson, 2018)

Figure 1.30
Transit Hub
(Yeager, 2018)

Horizontal Flows

2nd Street and Clear Creek

Julie Benyshek | Shelby Cooke | Scott Randall

Concept

Horizontal Flows addresses the opportunities on site to activate Clear Creek and unify the north and south sides of the Southeast Commercial District across 2nd Street. Clear Creek becomes oriented to the proposed residential and commercial development with a new trail, a pedestrian bridge, Clear Creek Plaza, and several opportunities for recreation and gathering. The street is unified by bringing businesses closer to the street and utilizing terraces to attract customers to the storefronts. The goal of the design is to create a more activated, unified, safe, and walkable place for the Coralville community which is highlighted with a view corridor that orients the site to its historical past.

Figure 1.31
Primary View Corridor
(Cooke and Randall, 2018)

Goals + Objectives

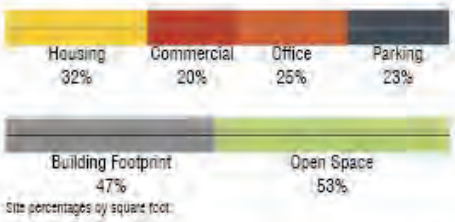
Our goal is to activate and connect the Southeast Commercial District utilizing 2nd Street, Clear Creek, and key views to create a unified space for the Coralville community. This encompasses:

- Providing a variety of programming to activate the outdoor environment
- Creating a more walkable district to improve access and connectivity
- Activating the waterfront to attract more businesses and users
- Utilizing building mass for spatial and cultural definition
- Establishing key views across the site to create a sense of identity and unify the Southeast Commercial District

Figure 1.32
Aerial of New SCD
(Cooke, 2018)

Land Use Metrics

Residential Summary	
Total Residential SF	609,062
Total DU	762
Avg DU Area	197
Total Residents	1,523
Parking Stalls Needed	1,067
Commercial Summary	
Total Commercial SF	380,449
Employees	508
Parking Stalls Needed	1,066
Office Summary	
Total Office SF	481,452
Employees	963
Parking Stalls Needed	1,248
Parking Summary	
Total Stalls Needed	3,379
Parking Stalls Provided	3,353
Surface Parking Stalls	0
Streetside Parking	313
Structure Parking	3,040
FAR (excluding ROW)	1.88



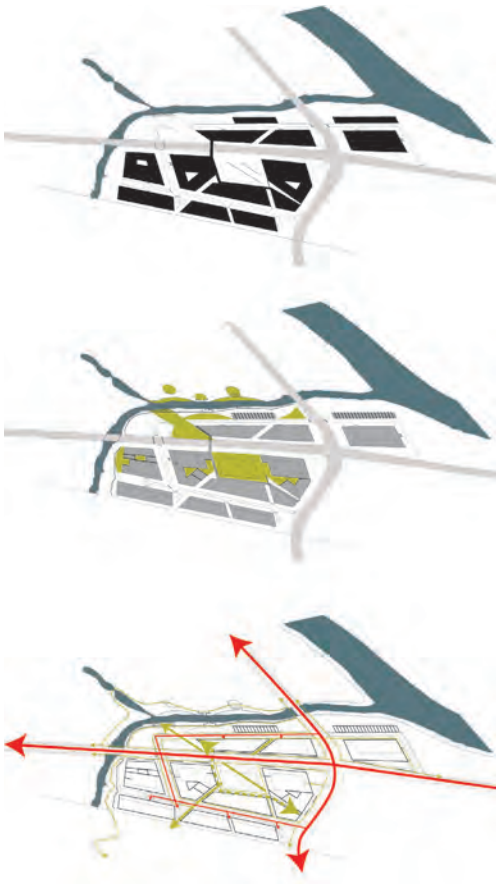


Figure 1.33
Site Design Diagrams
(Benyshek, 2018)

Negotiating Boundaries

The “SOFT” and “HARD” Treatment for Coralville, IA

Si Chen | Yingyi Zhong

Concept

The existing boundaries are often barriers that separate the site into an internal and external parts; they reduce physical connectivity between parts and they disconnect functions. Working with ‘found objects’, the proposal grounds the design in its place, strengthening identity and connectivity. Re-imaging the areas next to these boundaries with very specific programmatic typologies that resolve the ecological and social concerns. With time, it will attract programs that are not disadvantaged by the disturbed conditions created by existing highway, industrial areas and warehouses (noise, pollution, disconnection, and etc). The design will give back the land that is trapped in parking lots, unreachable spaces and car interchanges to the pedestrians.

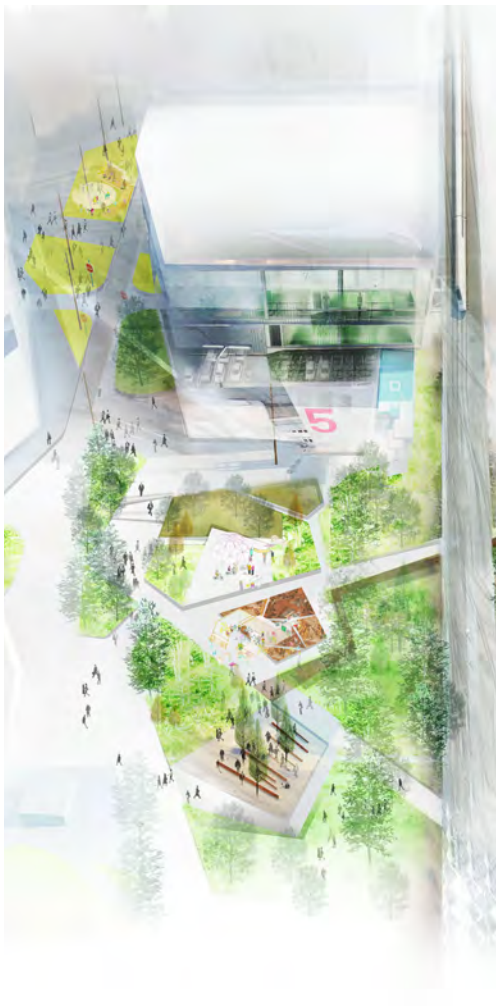


Figure 1.34
Industrial Themed Park
(Chen, 2018)

Goals + Objectives

The goal of this project is to rejuvenate the connectivity, functionality, and identity of the site as something more than a “gateway” through the revitalization of the hard and soft boundaries of the site. Facing pressing environmental concerns as a central dilemma, we envision a feedback loop of green spaces that serve as ecological and social infrastructure and corridors, boosting the stewardship and care for the site’s landscape and reconnecting the city’s population to the nature, strengthening the ecology of place, and thereby its identity.

The guiding strategy of the proposal is to integrate a new fluidity into the urban loop by stretching and negotiating both the hard and soft “boundaries” of the city’s public realm and natural landscape; easing the transition between spaces that are previously segregated and even inaccessible.

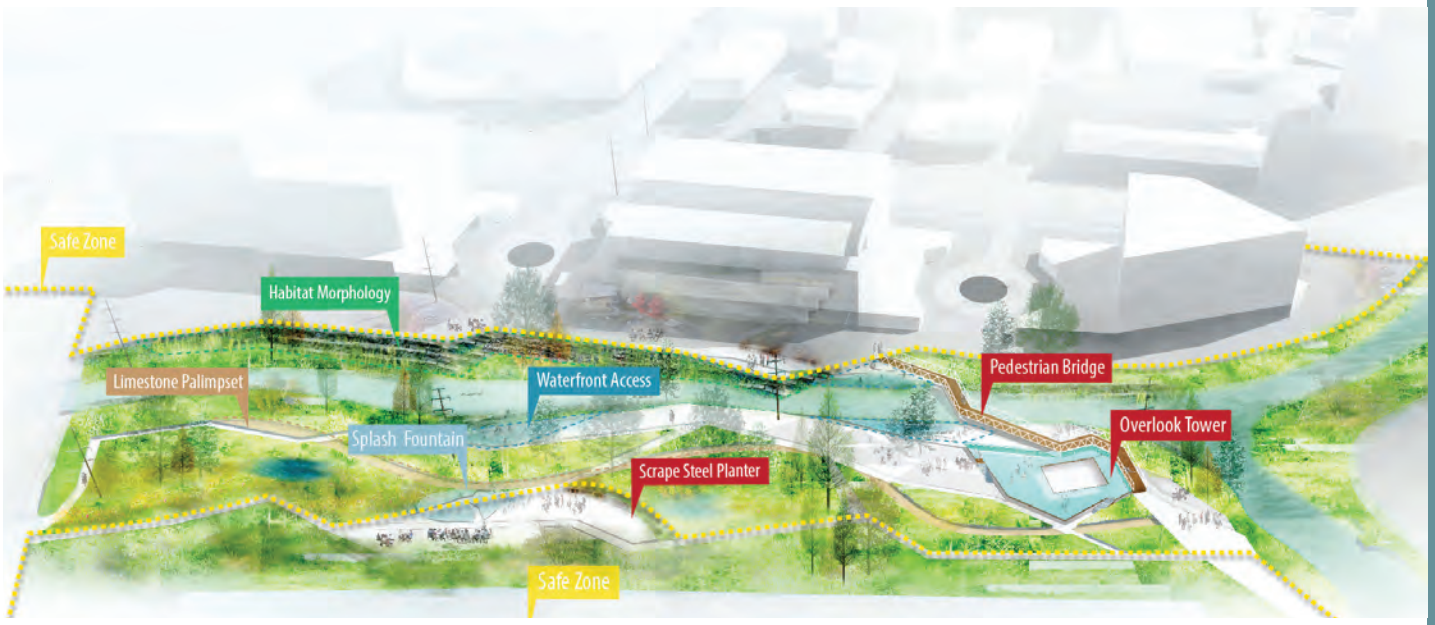


Figure 1.35
Habitat Morphology
(Zhong, 2018)

Land Use Metrics

Residential Summary:

Total Residential SF	863,116
Total Dwelling Units (DU)	1,127
Avg DU/Acre	33.2
Total Residents	2,258
Parking Stalls Needed	1,579

Commercial Summary:

Total Commercial SF	632,697
Employees	1,685
Parking Stalls Needed	2,360

Parking Summary:

Total Stall Needed	6,199
Parking Stalls Provided	5,843
Surface Parking Stalls	635
Streetside Parking	55

Office Summary:

Total Office SF	843,210
Employees	1,685
Parking Stalls Needed	2,260

Total FAR (Excluding ROW): 1.85

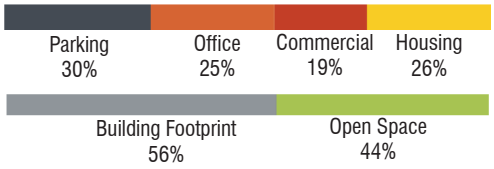


Figure 1.36
Place Making
(Chen, 2018)

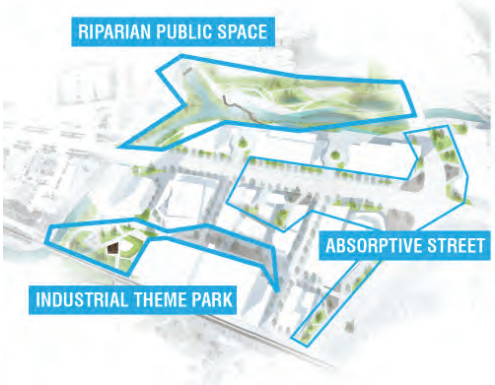


Figure 1.37
Mixed Urban Ecology
(Chen, 2018)

Strip Zipper

Integrating Resilience

Harrison Dirks | Caleb Parker| Konner Pendland

Concept

As Coralville's Strip, it is necessary to create a strong connection along the north and south sides of 2nd Street accommodate shared pedestrian and vehicular circulation. The Zipway, a large green space designed for play and relaxation, is the main space that connects the two sides of 2nd Street. The street is also fronted by commercial and retail activating the street. The site evokes a strong sense of community through mixed use development and provides a variety of activities such as entertainment space, a transit hub, a boardwalk, green roofs, and a waterfront that provides access to Clear Creek. All of these elements create a cohesive site that connects both sides of 2nd Street.

Figure 1.38
Boardwalk Along Waterfront
(Dirks, 2018)

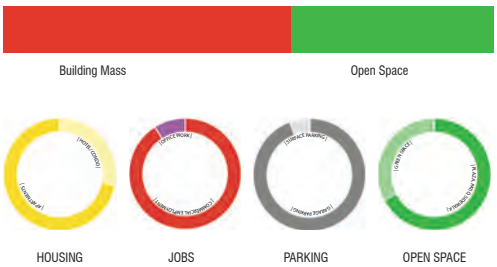
Goals + Objectives

- Provide more pedestrian access to clear creek
- Create more mixed use areas to bring people into the site to live, work and play
- Activate the streetscape of 2nd street in order to draw people into the site who could be just driving through
- Increase resilience to flooding
- Improve commercial and recreational presence as a "live, work, play" space
- Restore Clear Creek
- Implement green infrastructure

Figure 1.39
Site Aerial
(Dirks, 2018)

Land Use Metrics

Residential Summary	
Total Residential SF	609,940
Total Dwelling Units	762
Average Dwelling Unit Per Acre	23.5
Total Residents	1,525
Parking Stalls Needed	1,067
Commercial Summary	
Total Commercial SF	954,385
Employees	1,273
Parking Stalls Needed	2,672
Office Summary	
Total Office SF	95,548
Employees	192
Parking Stalls Needed	268
Parking Summary	
Total Stalls Needed:	4,007
Total Dwelling Units:	4,024
Surface Parking Stalls:	224
Streetside Parking:	125
Structure Parking:	3,674
FAR (Excludes ROW)	**1.7**



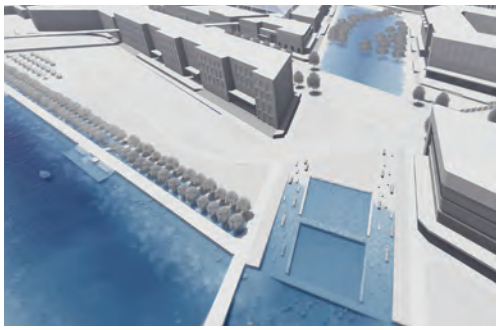


Figure 1.40
100 Year Flood Event
(Dirks, 2018)

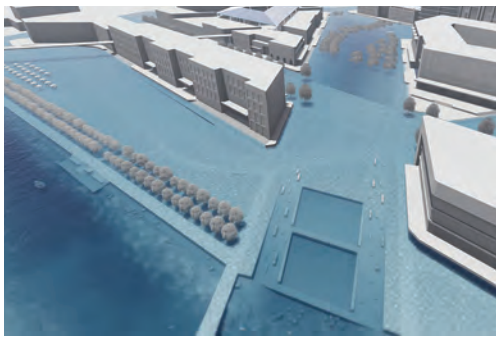


Figure 1.41
500 Year Flood Event
(Dirks, 2018)

Figure 1.42
Transit Center
(Dirks, 2018)

Building Up

Community | Economy | Terrain

Morgan Dunay | Bridget Hake | Grace Mader| Madison Quincke

Concept

Building Up is proposing to create a framework for public space within the SE Commercial District in Coralville. Located along the strip, the redevelopment provides pedestrian and vehicular access to, and around, the site while simultaneously creating a unique and identifiable place within the community. The district will continue to provide affordable housing and commercial opportunities, allowing existing and future residents and business owners to prosper. The design uses a variety of open spaces alongside mixed-use building developments to create a highly organized neighborhood.

Figure 1.43
Creekside Walk
(Quincke, 2018)

Goals + Objectives

- Enhance the cultural identity of the community with local art, businesses, and neighborhood events
- Implement phasing strategies to encourage existing tenants and business owners to remain in the neighborhood after the project
- Reorganize the site to provide spaces within the public and private realms focused various activities
- Provide vibrant gateways into the district at proposed intersections and pedestrian entrances
- Create a clear circulation system throughout the district and to surrounding areas

Figure 1.44
Core Activity Space
(Hake, 2018)

Land Use Metrics

Residential Summary

Total Residential SF	910,527
Total DU	1,029
Avg DU Acre	25
Total Residents	2,057
Parking Stalls Needed	1,029

Commercial Summary

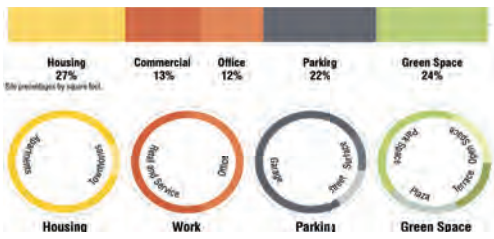
Total Commercial SF	440,247
Employees	587
Parking Stalls Needed	616

Office Summary

Total Office SF	415,485
Employees	831
Parking Stalls Needed	582

Parking Summary

Total Stalls Needed	2,227
Parking Stalls Provided	2,237
Surface Parking Stalls	250
Streetside Parking	295
Structure Parking	1,941



Plaza Hardscape
Green Space

Figure 1.45
Open Space
(Mader 2018)

Wrap & Enclose
Activate & Experience
Support & Frame

Figure 1.46
Building Performance
(Mader, 2018)

Citations

Book Cover Image
Cooke, Shelby and Danielle Hodgson. 2018. “Cover Image.” Kansas State University LAR 646 2018. Adobe Illustrator. Source Image:
- Google Maps. 2018. http://bit.ly/2N8j388

Brownfield Spread
Barragree, Josh. 2018. “Team Brownfield Diagram Abstraction.” Kansas State University LAR 646 2018. Adobe Illustrator and Photoshop Diagrams.

FEMA Spread
Barragree, Josh. 2018. “Team FEMA Diagram Abstraction.” Kansas State University LAR 646 2018. Adobe Illustrator and Photoshop Diagrams.

Placemaking Spread
Barragree, Josh. 2018. “Team Placemaking Diagram Abstraction.” Kansas State University LAR 646 2018. Adobe Illustrator and Photoshop Diagrams.

Mixed Use Spread
Barragree, Josh. 2018. “Team Mixed Use Diagram Abstraction.” Kansas State University LAR 646 2018. Adobe Illustrator and Photoshop Diagrams.

Powerlines Spread
Barragree, Josh. 2018. “Team Powerlines Diagram Abstraction.” Kansas State University LAR 646 2018. Adobe Illustrator and Photoshop Diagrams.

Rail Spread
Barragree, Josh. 2018. “Team Rail Diagram Abstraction.” Kansas State University LAR 646 2018. Adobe Illustrator and Photoshop Diagrams.

Streets Spread
Barragree, Josh. 2018. “Team Streets Diagram Abstraction.” Kansas State University LAR 646 2018. Adobe Illustrator and Photoshop Diagrams.

Waterfront Spread
Barragree, Josh. 2018. “Team Waterfront Diagram Abstraction.” Kansas State University LAR 646 2018. Adobe Illustrator and Photoshop Diagrams.

Chapter Heading
Drone Footage Aerial. 2018. “Photograph of Study Area.” Courtesy of the City of Coralville, Iowa.

Figure 1.1
Hahn, Howard. 2018. “Students Mid Review.” Kansas State University LAR 646 2018.

Figure 1.2
Barragree, Josh. 2018. “Community Planning and Design Studio Timeline.” Adapted from Samantha Estabrook, 2017 in Delano’s Turn. Kansas State University LAR 646 2018.

Figure 1.3
Google Maps. 2018. “Southeast Commercial District.” Accessed July 2018. http://bit.ly/2meuslg

Figure 1.4
Barragree, Josh. 2018. “Seminar Reading Summaries.” Adapted from Samantha Estabrook, 2017 in Delano’s Turn. Kansas State University LAR 646 2018.

Figure 1.5
Hake, Bridget. 2018. “Community Meeting Summary.” Kansas State University LAR 646 2018. Adobe Illustrator. Data gathered in Coralville, Iowa.

Figure 1.6
Belanger, Blake, Shelby Cooke, Howard Hahn, Grace Mader, and Madison Quincke. 2018. “Collection of Images from Coralville Community Meeting and Site Visit.” Kansas State University LAR 646 2018

Figure 1.7
Mader, Grace. 2018. “Powerlines Critical Mapping.” Kansas State University LAR 646 2018. Adobe Illustrator, Photoshop, and Rhino 3D Diagrams.

Figure 1.8
Hahn, Howard. 2018. “Team Process Work.” Kansas State University LAR 646 2018.

Figure 1.9
Marshall, John P. 2015. Mormon Pioneer Overland Travel. Pioneers. In Bloomfield Hills Michigan Stake. Accessed May 23, 2018. http://bit.ly/2JhoKOZ.

Figure 1.10
Brown, Tricia. 2014. “A Trip Back in Time: Coralville Strip during the Flood of 1993 #jocoflooding.” Coralville. Twitter. Accessed May 23, 2018. http://bit.ly/2Jld3Xu.

Figure 1.11
U.S. Army Corps of Engineers. n.d. “Coralville Resevoir.” Accessed July 2018. Public Domain. http://bit.ly/2NPVsdF

Figure 1.12
Parker, Caleb. 2018. “Brownfield Contaminants.” Kansas State University LAR 646 2018. Adobe Illustrator Diagram.

Figure 1.13
Stoffel, Elsa. “100 and 500 Year Floodplain Levels.” 2018. Kansas State University LAR 646 2018. ArcGIS and Adobe Illustrator Diagram.

Figure 1.14
Barragree, Josh. 2018. “Identity.” Kansas State University LAR 646 2018. Adobe Illustrator Diagram.

Citations (cont.)

Figure 1.15
Hake, Bridget. 2018. “The SE Commercial District Envisioned as Mixed-Use.” Kansas State University LAR 646 2018. Adobe Illustrator Diagrams.

Figure 1.16
Mader, Grace. 2018. “Divisions of site by Powerlines and Easements.” Kansas State University LAR 646 2018. Adapted from ArcGIS.

Figure 1.17
Larkin, Kate. 2018. “Proposed Transit Stops.” Kansas State University LAR 646 2018. Adobe Photoshop Diagram.

Figure 1.18
Cooke, Shelby. 2018. “Potential Crossings to Connect Site Across 2nd Street and 1st Avenue.” Kansas State University LAR 646 2018.

Figure 1.19
Dirks, Harrison. 2018. “Direct Interaction vs Indirect interaction with Clear Creek.” Kansas State University LAR 646 2018. Adobe Illustrator Diagram.

Figure 1.20
Stoffel, Elsa. 2018. “Agassiz Axis Corridor Activity”. Created using Photoshop and Lumion. 3D Model. Created using Rhino. 2018.

Figure 1.21
Stoffel, Elsa. 2018. “View down 2nd St. and the Agassiz Axis”. Created using Photoshop and Lumion. 3D Model. Created using Rhino. 2018.

Figure 1.22:
Larkin, Kate. 2018. “Existing Rail-line Connection” Kansas State University LAR 646 2018. Created with Adobe Photoshop

Figure 1.23
Aleman Marcos. 2018. “Vehicle and Pedestrian Circulation”.
Source Data: ArcGIS, CAD work by Elsa Stoffel. Created Using Adobe Photoshop, Illustrator

Figure 1.24
Barragree, Josh. Cross, Rachel. Gray, Allyssa. 2018. “View of the Pedestrian Main Street.” Kansas State University LAR 646 2018. Created in Sketchup, Lumion, and Adobe Photoshop

Figure 1.25
Barragree, Josh. Cross, Rachel. Gray, Allyssa. 2018. “Pedestrian Corridor.” Kansas State University LAR 646 2018. Created using Lumion, Adobe Photoshop, and Sketchup.

Figure 1.26
Gray, Allyssa. 2018. “Concept Diagram.” Kansas State University LAR 646 2018. Created using adobe illustrator

Figure 1.27
Baker, Logan. “Power Park at Night”. Kansas State University LAR646 2018. Created with Adobe Photoshop, Lumion 8.0, Rhino 6, and SketchUp.

Figure 1.28
Baker, Logan. “Balcony View”. Kansas State University LAR646 2018. Created with Adobe Photoshop, Lumion 8.0, Rhino 6, and SketchUp.

Figure 1.29
Hodgson, Danielle. 2018. “Linear Green Space Along Power Lines”. Kansas State University LAR 646 2018. Created Using Adobe Photoshop.

Figure 1.30
Yeager, Mackenzie. “Transit Hub”. Kansas State University LAR646 2018. Perspective created with Lumion and Adobe Photoshop.

Figure 1.31
Cooke, Shelby and Scott Randall. 2018. “View of Primary View Corridor” Kansas State University LAR 646 2018. Photomontage created with SketchUp 2018 and Adobe Photoshop by Cooke with pencil on trace by Randall.

Figure 1.32
Cooke, Shelby. 2018. “Aerial of New SCD.” Kansas State University LAR 646 2018. Photomontage created with SketchUp 2018 and Adobe Photoshop.

Figure 1.33
Benyshek, Julie. 2018. “Site Design Diagrams.” Kansas State University LAR 646 2018. Diagram created with Adobe Illustrator.

Figure 1.34
Chen, Si. 2018. “Industrial Themed Park.“ Kansas State University LAR646 2018. Google Sketchup and Adobe Illustrator.

Figure 1.35
Zhong, Yingyi. 2018. “Habitat Morphology.” Kansas State University LAR646 2018. Adobe Illustrator.

Figure 1.36
Chen, Si. 2018. “Placemaking.“ Kansas State University. LAR646 2018. Adobe Illustrator.

Figure 1.37
Chen, Si. 2018. “Mixed Urban Ecology.“ Kansas State University LAR646 2018. Google Sketchup, Adobe Illustrator and Photoshop.

Citations (cont.)

Figure 1.38
Dirks, Harrison. 2018 “Boardwalk Along Waterfront.” Kansas State University LAR 646 2018. Digital Image created with Lumion and Adobe Photoshop.

Figure 1.39
Dirks, Harrison. 2018 “Site Aerial.” Kansas State University LAR 646 2018. Digital Image created with Lumion and Adobe Photoshop

Figure 1.40
Dirks, Harrison. 2018 “100 Year Flood Event” Kansas State University LAR 646 2018. Digital Image created with Lumion and Adobe Photoshop.

Figure 1.41
Dirks, Harrison. 2018 “500 Year Flood Event” Kansas State University LAR 646 2018. Digital Image created with Lumion and Adobe Photoshop.

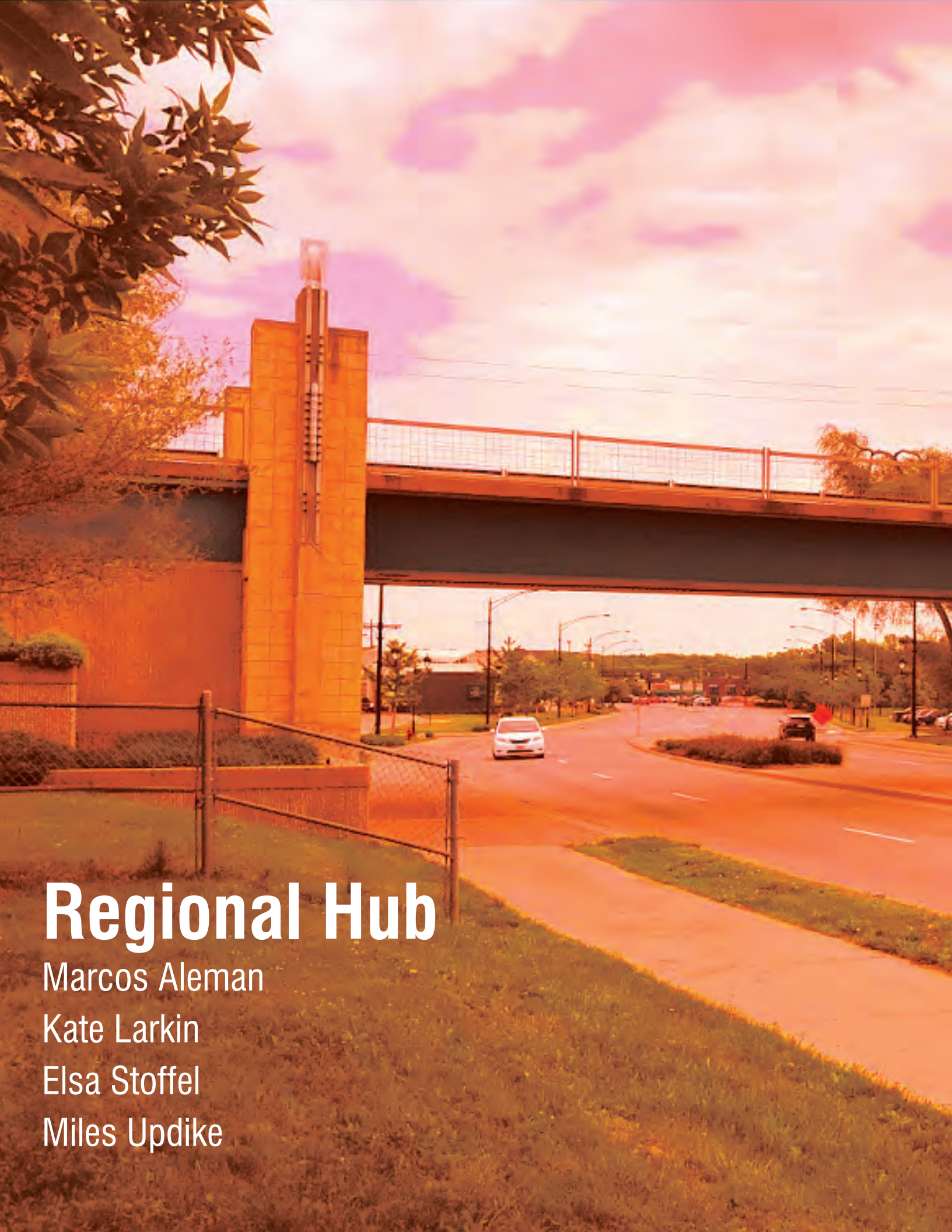
Figure 1.42
Dirks, Harrison. 2018. “Transit Center.” Kansas State University LAR 646 2018. Digital Image created with Lumion.

Figure 1.43
Quincke, Madison. 2018. “Creekside Walk.” Kansas State University LAR 646 2018. Photoshop Rendering.

Figure 1.44
Hake, Bridget. 2018. “Core Activity Space.” Kansas State University LAR 646 2018. Photoshop Rendering over Lumion and Rhino 3D.

Figure 1.45
Mader, Grace. 2018. “Open Space.” Kansas State University LAR 646 2018. Illulstrator Diagram.

Figure 1.46
Mader, Grace. 2018. “Building Performance.” Kansas State University LAR 646 2018. Illulstrator Diagram.



Regional Hub

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Kate Larkin
Elsa Stoffel
Miles Updike

Regional Hub

Using transit to promote social and economic connections within a wide range of communities

A high density and transit oriented district that promotes connections at the regional scale while catalyzing local economy.

Abstract

Coralville is a vital transition point between Iowa City and the various cities surrounding it. Our vision is to enhance this identity by creating a transitional hub within the southeast end of Coralville's commercial corridor. This key intersection serves as a gateway between Coralville and Iowa City. There is remarkable potential to generate a greater sense of place and provide a safe and experiential destination for residents and visitors; what we call a "Regional Hub", as it will strengthen the ties between Coralville and its neighboring communities.

A key catalyst for this development is the close proximity of two rail lines that border the district. By refitting these underused rail lines for transit purposes, the Regional Hub becomes the gathering point for visitors, commuters, and residents. The rail line's area of service stretches as far as Cedar Rapids to the north and to the central core of Iowa City. Creating a dense urban environment at this influential district provides a destination for visitors to work, play, shop, and live.

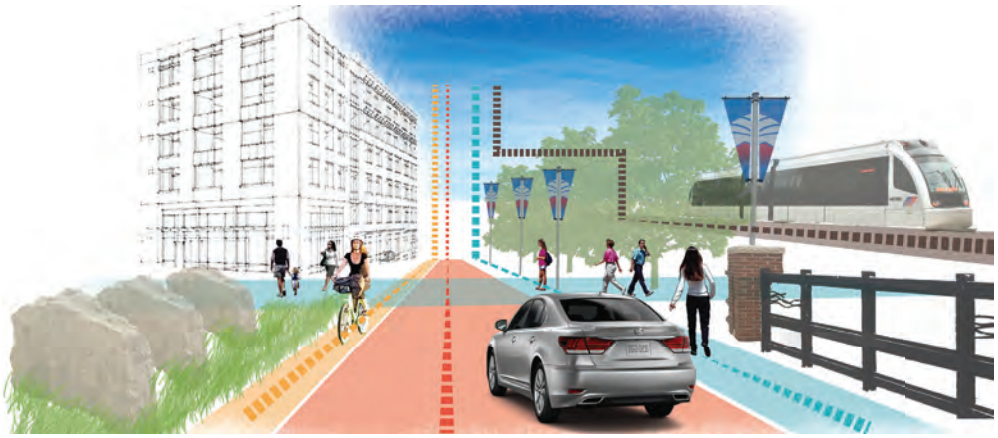


Figure 2.1
Transit-Oriented Concept
A collage of images representing a variety of transportation methods within a district of high-density buildings.
(Aleman, 2018)

Goals and Objectives

- Increase regional accessibility with various modes of transportation
- Create a central axis to promote organizational hierarchy and placemaking within the site
- Attract a diverse group of people and communities to the space
- Increase resilience to flooding
- Improve commercial and recreational presence as a "live, work, play" space
- Retain cultural presence on the site
- Eliminate hazards of harmful pollutants on-site with brownfield remediation

Background Information

Historical and Community Context

Coralville, Iowa was established as a city in 1857. The name Coralville is derived from the coral fossils found within the limestone along the Iowa River. The city has seen significant growth since its foundation, partially due to its location along the railroad in the late 19th century, and then to the University of Iowa in the 20th Century (coralville.org).

In 1958, the city built a dam along the Iowa River, creating Coralville Lake and preventing many flood scenarios. Since the dam's construction, Coralville has experienced two major flood events, one in 1993, and another in 2008. Both floods took a heavy toll on Coralville's economy, but the city has since recovered and still thrives to this day (coralville.org).

Coralville hosts many community events such as farmer's markets, landmark tours, and various annual festivals. Since the community has many ties to Iowa City and the University of Iowa, local sporting events bring many visitors and fans to the city each year.

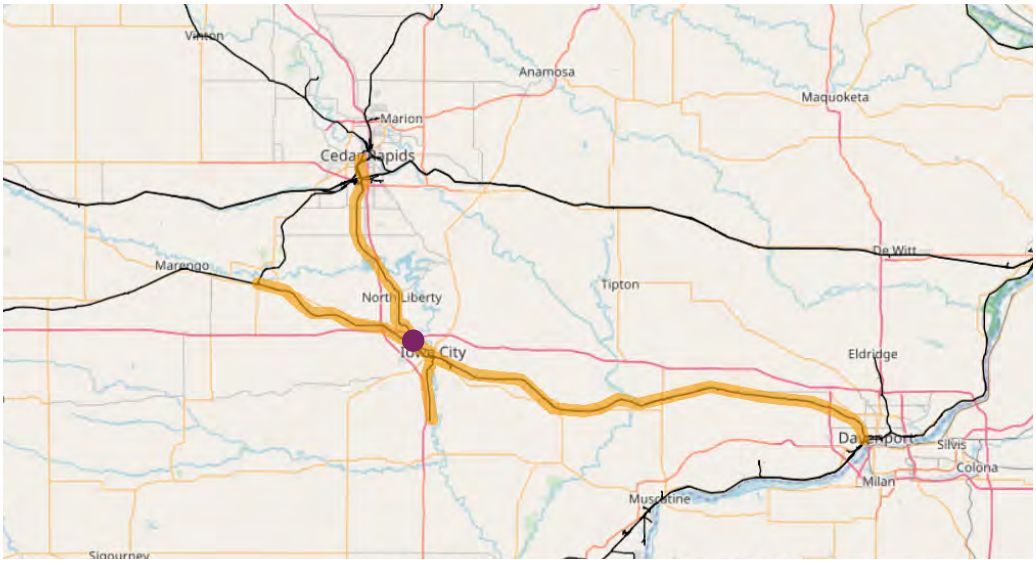


Figure 2.2
Existing Rail Line Connection
Two rail lines, the CRANDIC Railway and Iowa Interstate Railroad, cross through the Southeast Commercial District and continue to the surrounding region.
(Larkin, 2018)

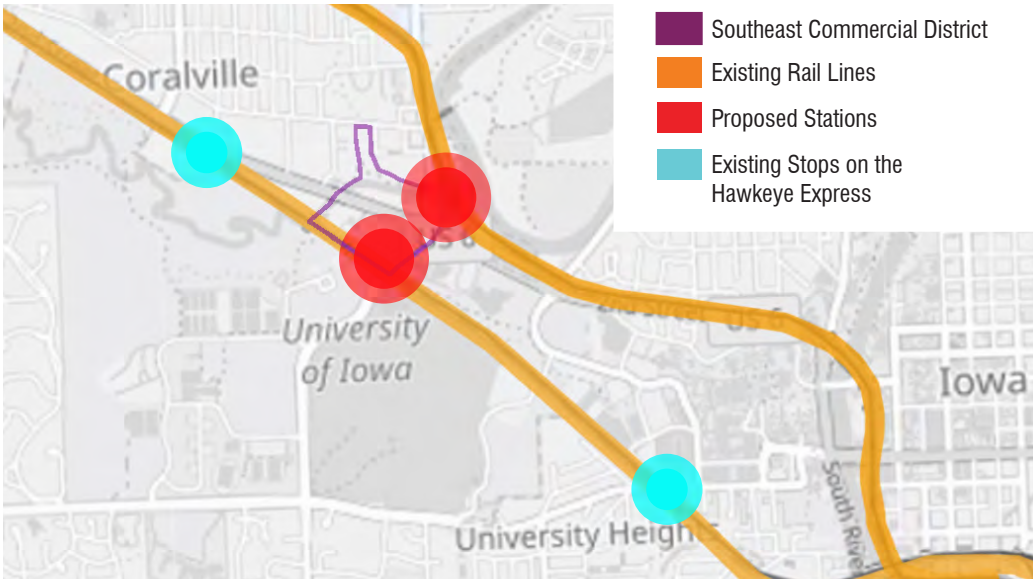


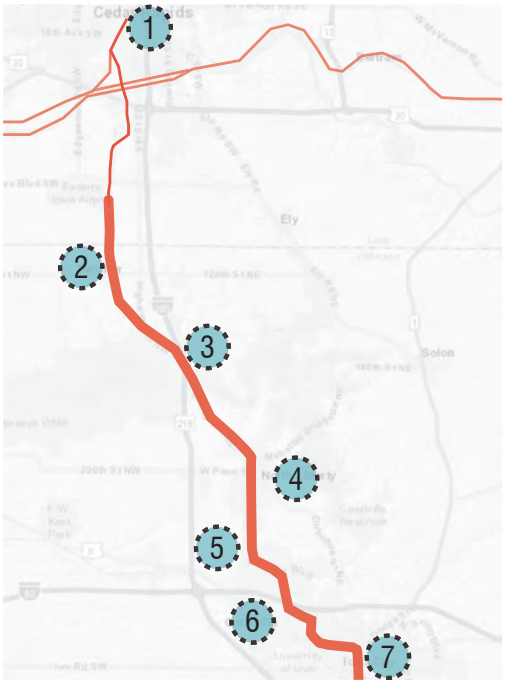
Figure 2.3
Existing Stop Integration
Two stops along the Iowa Interstate Railroad, also called the Hawkeye Express, currently bypass the Southeast Commercial District. There is an opportunity for two rail stops in close proximity to the district.
(Larkin, 2018)

Background Information

Existing Land Use

The land is currently used for small commercial use and some residential use. The businesses vary from locally owned restaurants to chain fast-food establishments. Current conditions of the existing infrastructure are deteriorating.

The site is an important transition area, as it lies on the boundary of Coralville and Iowa City. It is the beginning of Coralville's main commercial corridor along 2nd Street and provides access into the city for many people who commute by vehicle every day. While the rail lines are currently underused, there are proposals for a new transit system (See Fig. 2.4 and 2.5).



Proposed Stops Along the Cedar Rapids and Iowa City Rail Lines

1. Cedar Rapids
2. Swisher
3. Cou Falls
4. North Liberty
5. Oakdale
6. Coralville
7. Iowa City

Figure 2.4
Regional Connections
Possible railway stops along the CRANDIC railroad serving the Cedar Rapids and Iowa City region.
(Updike, 2018)

Figure 2.5
Coralville Stop Proposals
Suggested railway stops within Coralville were determined by proximity to major cultural, ecological, residential, and commercial centers.
(Updike, 2018)

Main Issues Being Addressed

Transmission Lines

The transmission lines must be moved to provide service to each building and to meet city standards for setbacks and utility access. The current locations of transmission lines greatly reduces the ability to increase density and fill the vacant spaces of the district (See Figure 2.6).

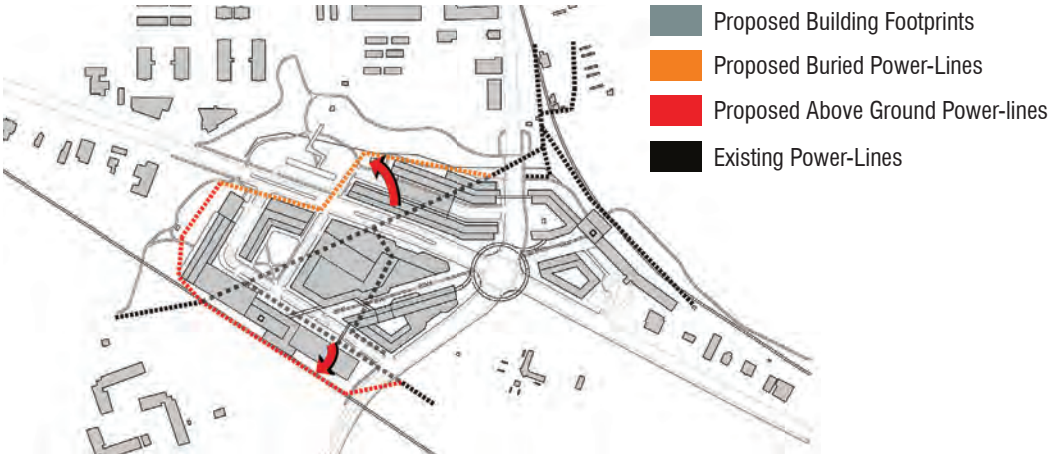


Figure 2.6
Power-line Strategy
To facilitate a high-density development, existing power-lines at the site will be moved and buried.
(Aleman, 2018)

Elevation Change and Floodplain

A significant factor limiting use of this district is its location within the Iowa River floodplain. In the last 30 years, the area has experienced two large floods, which caused many businesses to leave the district. In 2015, engineering controls were implemented, such as a flood wall, berms, and pump stations at key locations to mitigate flood issues. All new buildings in the floodplain must be built at an elevation one foot above the 500-year floodplain (See Figure 2.7).

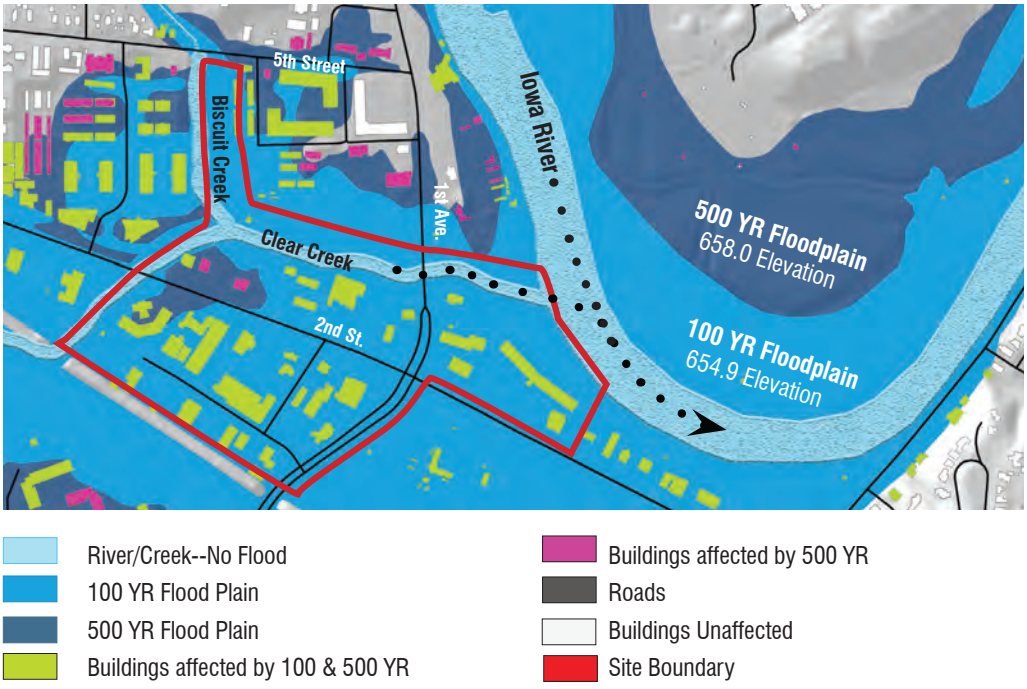


Figure 2.7
Floodplain Dilemma
A delineation of the 100-year and 500-year floodplains and how the Southeast Commercial District is affected.
(Stoffel, 2018)

Main Issues Being Addressed

Brownfields

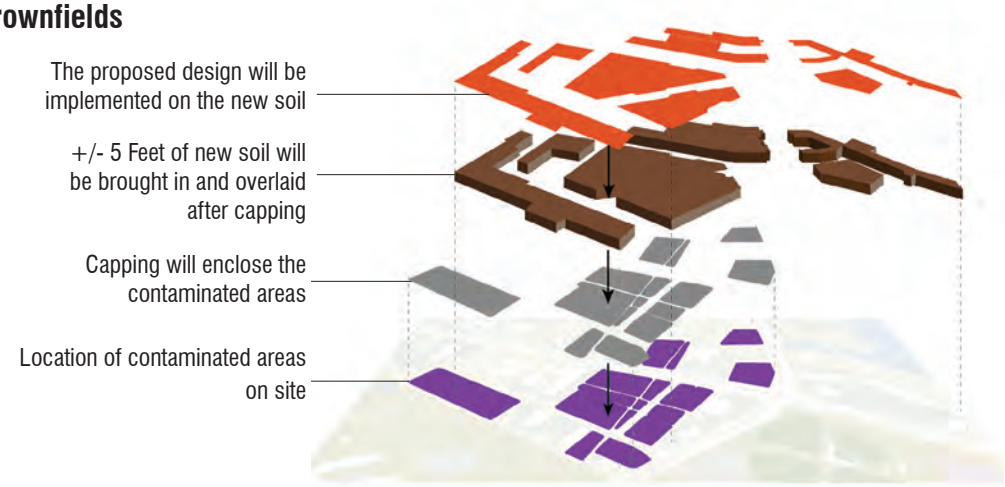


Figure 2.8
Brownfield Remediation Strategy
Contaminated areas within the site will be capped and overlaid with fresh soil.
(Larkin, 2018)

Transit Connections

The site is disconnected from most modes of transportation except for personal vehicle traffic and a single bus route. Two railroads connect to the district, one along the southwest edge and one on the northeast corner. Both of these rails are used for freight shipment to local businesses.

The goal for this design is to provide safe and easy access for all modes of transportation, including pedestrians, bicycles, bus systems, and proposed rail systems to bring prosperity to the district. (See Fig 2.9 and 2.10)

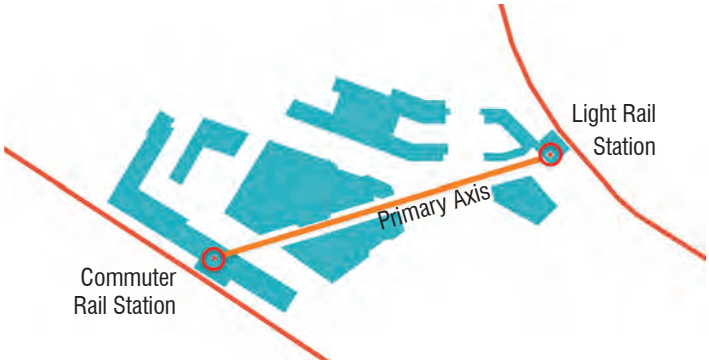
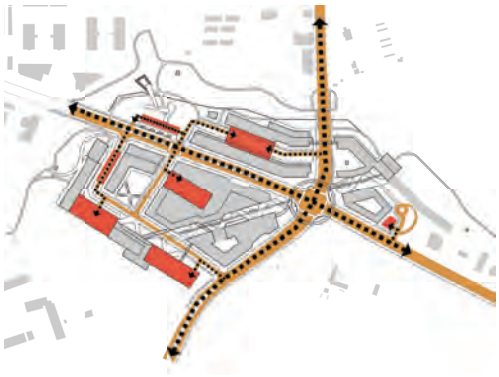
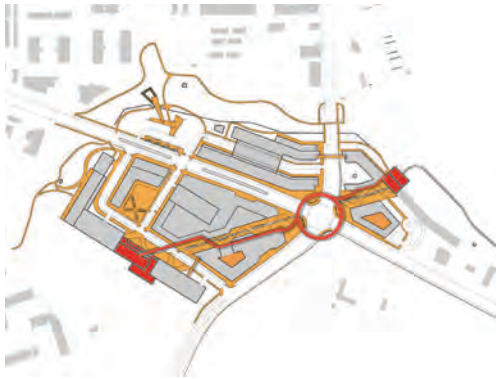


Figure 2.9
Station Axis Strategy
Building footprints are arranged along an axis between the two proposed train stations, providing visual connection between stops.
(Larkin, 2018)



Parking
Building Footprints
Major Roads

Figure 2.10
Vehicular Circulation
Both the northern and southern portions of the site will provide access to parking structures and street-level parking.
(Aleman, 2018)



Elevated Pedestrian Walk
Ground Level Pedestrian Circulation
Building Footprint

Figure 2.11
Pedestrian Circulation
Pedestrians will have access to circulation opportunities at the ground level and an elevated walkway between the stations that spans the intersection of 1st Street and 2nd Avenue.
(Aleman, 2018)

Design Framework

Major Design Ideas

Strategy #1 - Design Through Transit
Focusing on transit oriented development promotes accessibility. Vehicles, public transit, and pedestrians are all considered while forming a safe and efficient environment.

Strategy #2 - Increased Density
Density generates a wide range of activities within a compact area. Generating a high density core will attract local business and service a larger population of residents and visitors.

Strategy #3 - "Live-Work-Play"
Balancing space with residential, office and recreational uses promotes healthy living and efficient use of space on site. Time spent traveling to different activities is drastically reduced.

Strategy #4 - Flood Prevention
Flooding is one of the largest concerns for businesses in the district. Elevating buildings out of the floodplain by ground terracing ensures that business can endure future flooding events and generate a more stable economic presence.

Figure 2.12
Opportunities and Dilemmas
The Southeast Commercial District presents a variety of constraints and opportunities in the form of busy surrounding roads, a high concentration of impermeable surfaces, nearby rail lines, and contaminated land parcels.
(Larkin, 2018)

Illustrative Site Plan

Figure 2.13
Site Plan
Design for the Southeast Commercial District
(Larkin, 2018)

Continues to IRL and Cedar Rapids
Continues to Davenport
CRANDIC Railway
Iowa River
Creek Lookout
Clear Creek
C
C
P
P
P
B
B
Ripple Park
Agassiz Axis
Welcome Walkway
1st Avenue
CRANDIC
Commuter Stop
A
nterstate
uter Stop
Continues to Iowa City

Transit Oriented Design: Proposed Train Stations

Putting the “regional” into ‘Regional Hub’

The existing site has limited access to current transit systems. Private vehicles dominate the site, and reduce the site into a transitional intersection The proposal of two new transit stations in the district serves as a catalyst for both cultural and economic prosperity. The northernmost station will connect Coralville and its commercial hub to neighboring cities, including Iowa City and Cedar Rapids. The southernmost station will promote the use of the “Hawkeye Express”, which invites sports fans and festivities throughout Coralville. Commuters can utilize both transit systems on a daily basis and visitors can use them to explore local businesses, experience various cultures of Coralville and see its neighboring cities.

Figure 2.14
Section A-A:
East Coralville Stop Axis
Section showing elevation changes across the site and how the rail stations integrate with landforms. (Larkin, 2018)

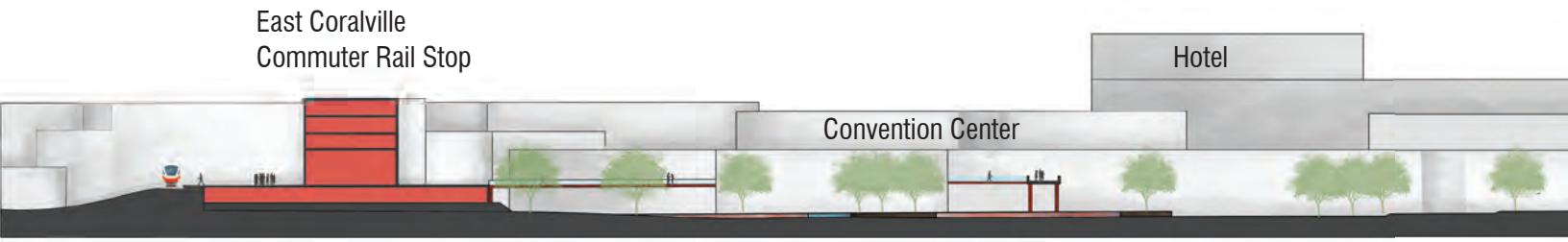
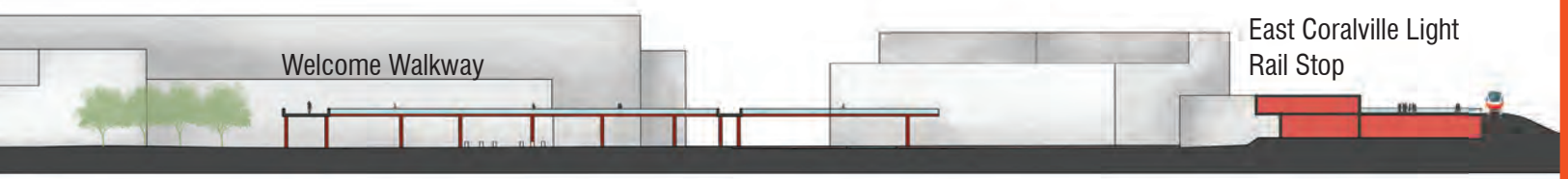


Figure 2.15
View of the Connection Between the East Coralville Rail Stops
Showing the axis between the transit stations of the existing CRANDIC Corridor and the Iowa Interstate Railroad.
(Stoffel, 2018)



Density

Increasing density within the district will provide spaces for more opportunities

The current businesses and residences are scattered and disorganized across the district and parking lots fill remaining spaces. Increasing activity and site development density will increase space for new businesses, residents, and other recreational activities. High density buildings also help create a strong sense of place and a stronger cultural identity for the city. This new commercial core could act as a catalyst for the rest of Coralville's commercial "Strip".

Figure 2.16
View Down 2nd Street and the Agassiz Axis Corridor
This shows the density of the site through two main axes.
(Stoffel, 2018)

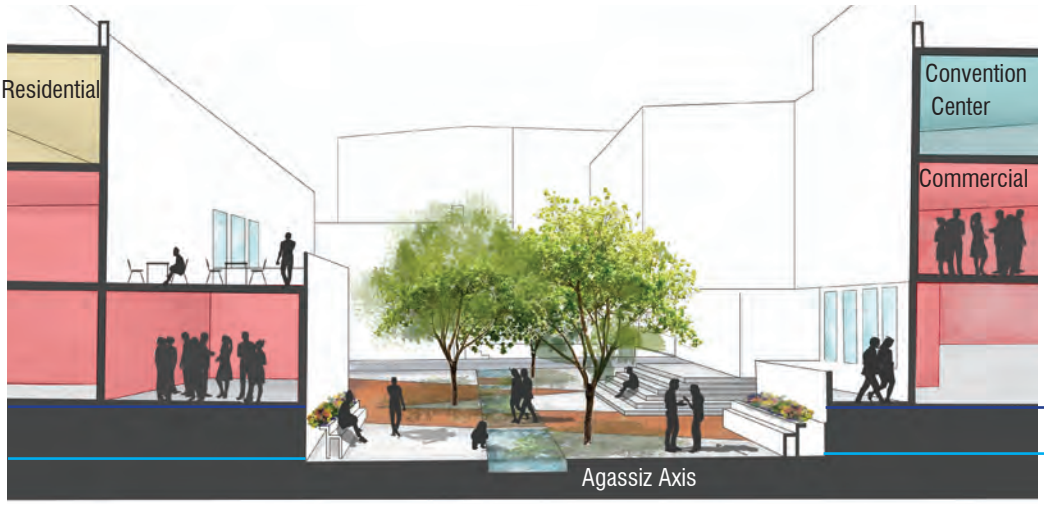


Figure 2.17
Section B-B:
Agassiz Axis and Land Use
Section showing elevation changes between pedestrian walkways, building masses, and balconies. (Larkin, 2018)

Live, Work, Play Environment

Enhancing recreational, living, and economic activity throughout the site

The idea of a Live, Work, Play environment focuses on new urbanist ideals of efficient spatial use and healthy living. Many cities have used this idea to design compact communities to service large numbers of residences and businesses. The close proximity of all elements of daily life reduces an individual's time traveling long distances to different activities. The convenience of close amenities reduces the stress and hassle of travel and reduces pollution and traffic of dense urban environments.

The Regional Hub design applies the idea of this efficient environment by creating a balance between residential, commercial, and recreational activity, while still focusing on commercial prosperity. The design applies active green spaces and civic spaces to the dense urban environment. Residents and visitors can shop, eat, play, and work without having to travel long distances by vehicle.

Although the central core of the design is a mix between high density residences and commercial uses, it holds a strong connection to Clear Creek. Manipulation of the creek itself is strictly limited, but the proposed design still utilizes it as a visual and spatial amenity to enhance the urban environment. Shops and apartments have direct views of the creek and a pedestrian trail system follows along the flood wall and even pushes out above the water. This exposure to nature balances out the tall buildings and busy streets of the central core of the design and promotes recreational and active lifestyles.

Figure 2.18
Agassiz Axis Corridor Activity
This images shows the levels of activity that can occur within this common space.
(Stoffel, 2018)

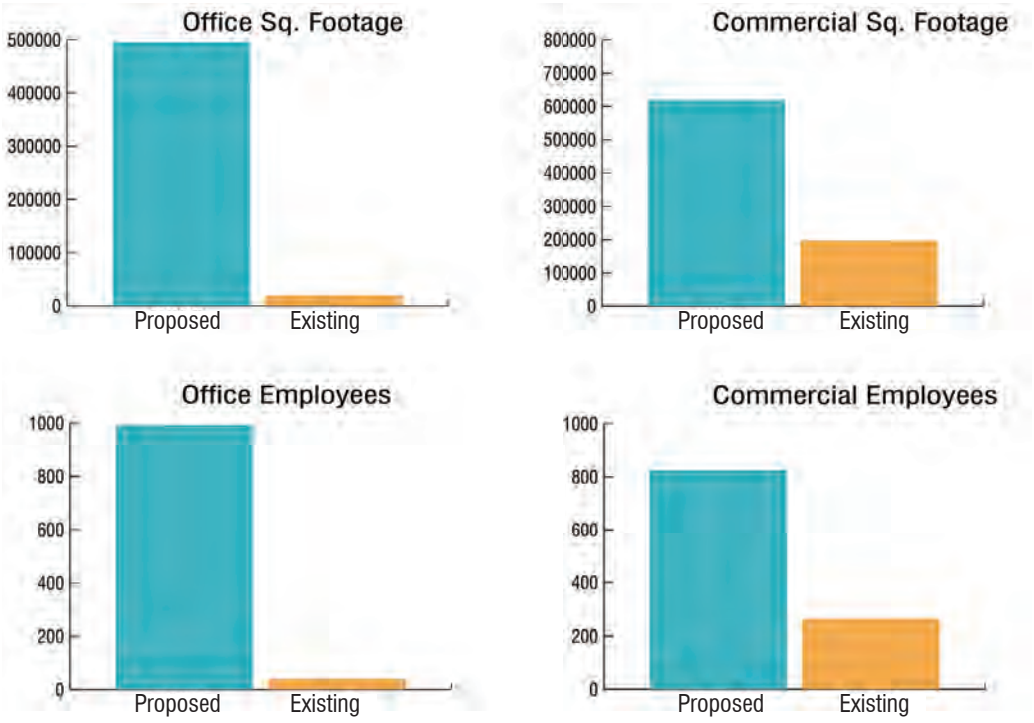


Figure 2.19
Economic Benefits
Comparison of existing and proposed square footage and projected employees in commercial settings and offices.
(Updike, 2018)

Strategy 4 - Future Flooding Mitigation Strategy

Protecting the critical infrastructure from future risk

Flooding is one of the largest concerns for business owners within the site. It has caused many owners over the years to relocate their business entirely or seek other opportunities. Many of those previous businesses have created brownfields, further deterring future businesses to establish on site.

These factors have led to the proposal of increasing the elevation of a large portion of the site. This brings the buildings out of contaminated areas while simultaneously reducing the risk of flood damage.

The Regional Hub proposes that all building footprints should be raised to the designated elevation that is the 500 year floodplain + 1 foot. This would increase the elevation to 660.0 (Scott Larson, 2018). Greenspaces and streetscapes are largely kept at existing elevations to reduce costs, grant easy access to a majority of the site, and provide amenities that relate closely to Clear Creek. This elevation change will show that the Regional Hub can serve as a catalyst for economic growth and attract a more permanent commercial presence.

Figure 2.20
Elevation of Building Masses
In order to build structures out of the floodplain, existing grades will be elevated.
(Aleman, 2018)

Figure 2.21
Engineering Controls
Pump stations and a flood wall are currently present on the site to mitigate the threat of flooding.
(Updike, 2018)

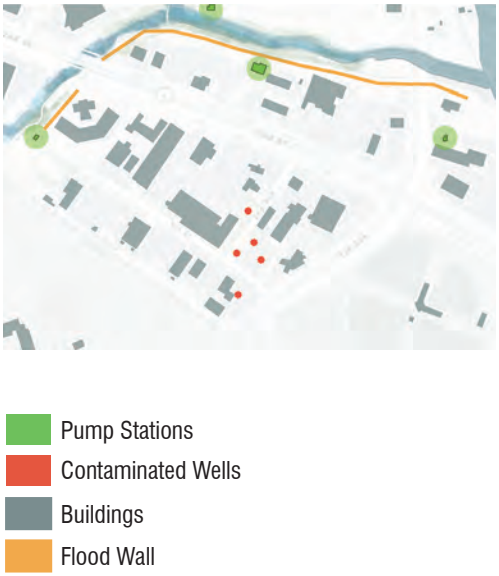
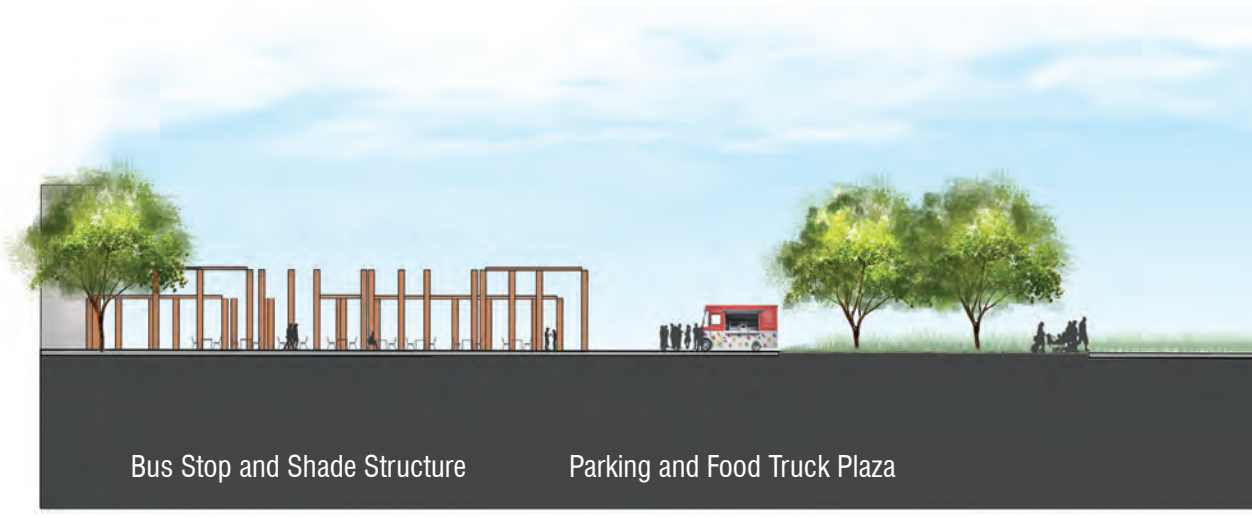


Figure 2.22
Section C-C
Clear Creek Lookout Section
Section of boardwalk over Clear Creek at northwest portion of site.
(Larkin, 2018)



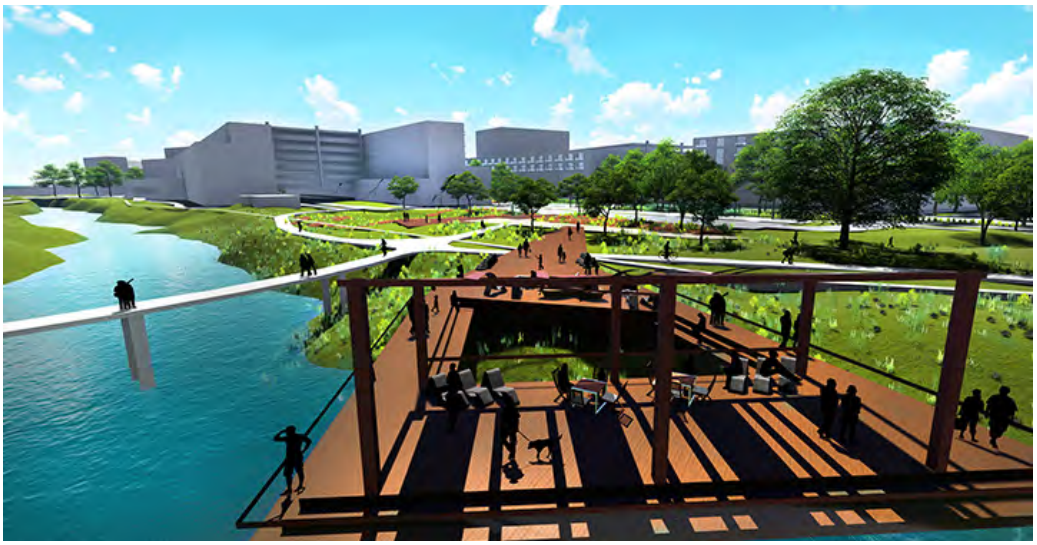


Figure 2.23
Clear Creek Lookout--No Flood
View of the boardwalk and creek during normal water levels with no evidence of flooding.
(Stoffel, 2018)

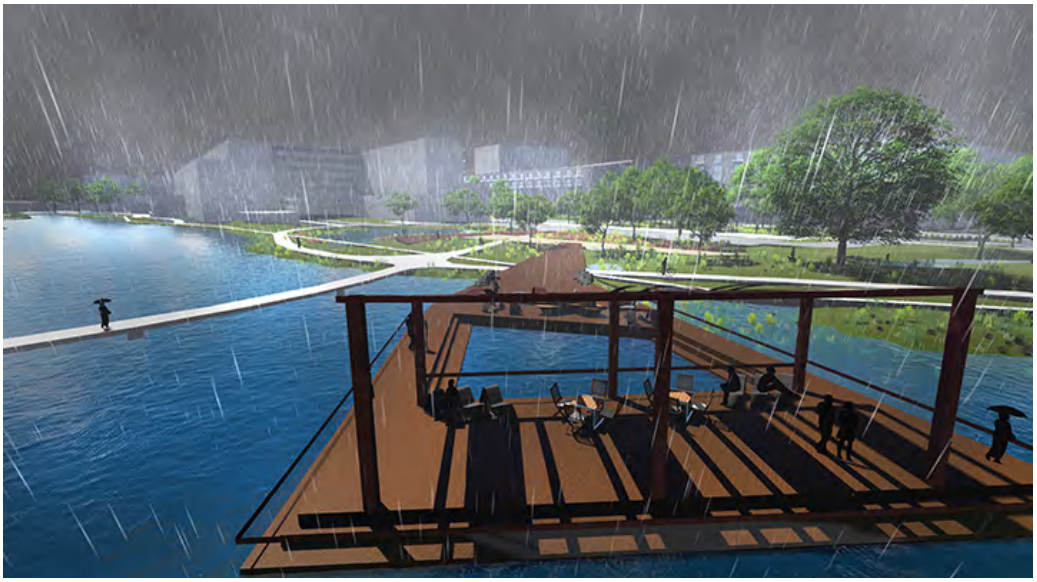


Figure 2.24 Clear Creek Lookout--100 Year Flood Level
Water level during a 100 year flood storm.
(Stoffel, 2018)

Land Use Plan

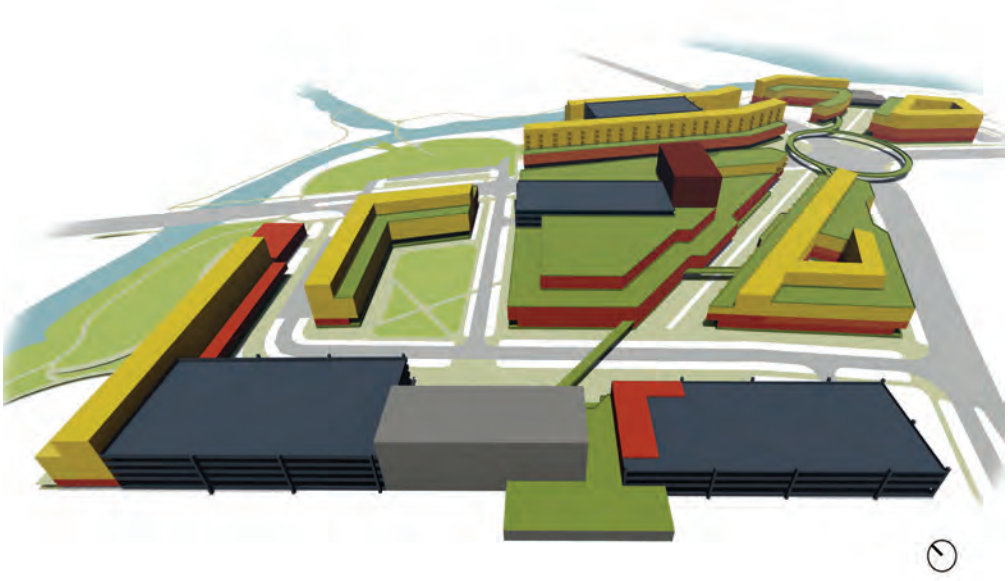


Figure 2.25
North View of the Southeast Commercial District
(Stoffel, 2018)

There is a substantial amount of parking proposed near the southern commuter rail line to provide accessibility to the transit stop.

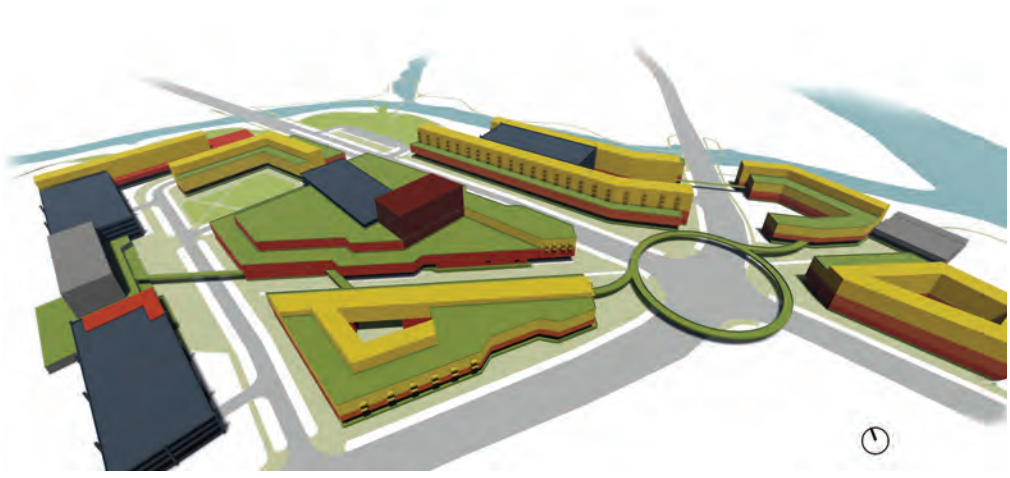


Figure 2.26
East View of the Southeast Commercial District
(Stoffel, 2018)

Commercial use (Red) on the first level of each building provides activation of the street and increases interest for businesses.

Legend

High Density

Medium Density

Hotel

Retail and Service

Office

Transit Station

Parking Garage

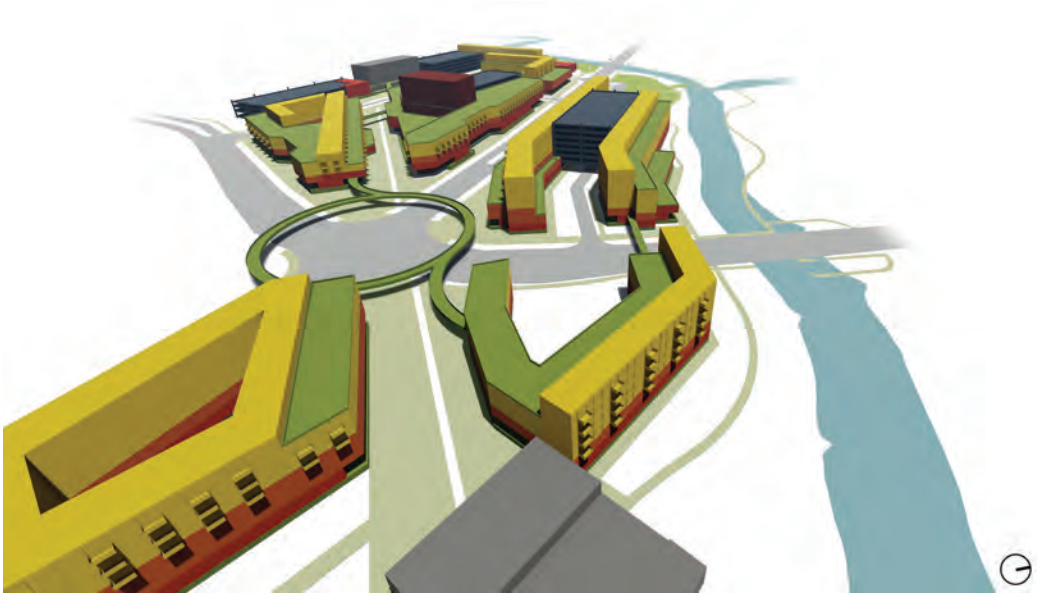


Figure 2.27
South View of the Southeast Commercial District
(Stoffel, 2018)

Terracing and an elevated walkway connects the transit stations on a new level.

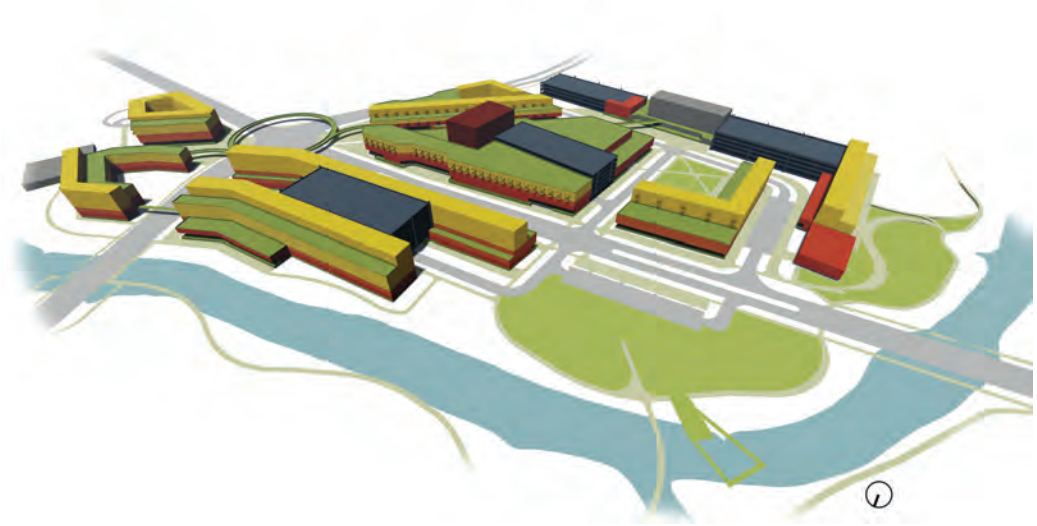


Figure 2.28
West View of the Southeast Commercial District
(Stoffel, 2018)

Greenspace along clear creek activates the waterfront.

Parking Lot | Open | Park Space | Terrace | Streets | Water

Land Use Strategy

Retaining and creating culture one step at a time

The site is home to a number of local businesses and organizations. Due to drastic changes in land use in the Regional Hub proposal, there is concern for the displacement of these existing businesses. To minimize impacts to business owners, the design will be implemented through multiple phases, to provide opportunity for these businesses to remain and benefit from site additions for a smooth transition. This strategy is divided into three distinct phases, each focusing on a different aspect of the previously stated design goals.

The first and most ambitious phase focuses on fabricating the core of the Regional Hub, establishing both of the transit stations, major pedestrian spaces, and a large portion of the dense building masses. This phase sets up service access to the future phases, and becomes the identifiable entrance to the city, implementing a new convention center, hotel, and pedestrian mall. The first phase also leaves many of the existing buildings unaffected to ensure that business can continue functioning during implementation.

The second phase works directly off of the first, expanding the density of the central core to the outer edges of the Hub. It is at this point that all businesses have the opportunity to transition to newer spaces on site. This phase brings additional housing options and a park beginning the idea of the live, work, play environment to the Regional Hub.

The last phase further brings the element of play and recreation into the Regional Hub. This phase aims to activate the creek corridor and bring more opportunity for recreation to the visitors and residents. Open spaces and paths are balanced by designated spaces for temporary stores, small markets, and food trucks. Lastly, an elevated pedestrian walkway creates another strong connection between the transit stations and the dense, urban corridor. The verticality of the walkways promotes safety across the busy intersection and access to more areas of the site.

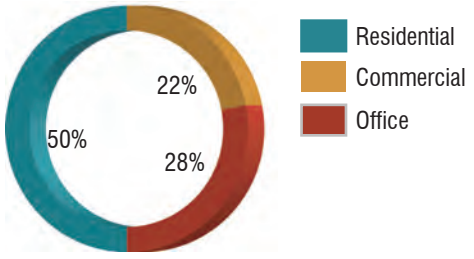


Figure 2.29
Land Use Metrics
Land-use metrics showing percentages of intents of use on site.
(Updike, 2018)

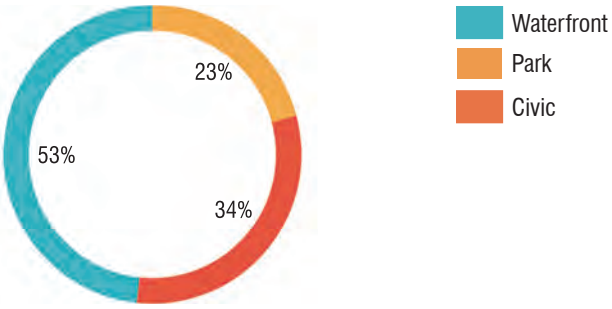


Figure 2.30
Land Surface
Land-use metrics showing percentages of intents of use on site.
(Updike, 2018)

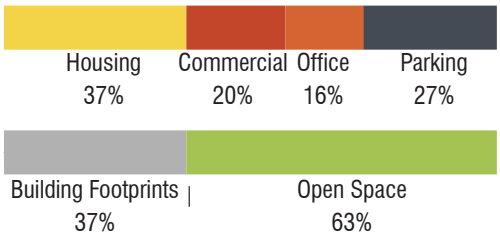


Figure 2.31
Building Area vs. Open Space
Comparison of the building footprint area and the open space in the Regional Hub.
(Updike, 2018)

Total Acreage	43.9 acres
Composite FAR	1.16
Residential Square Footage	1,116,624
Total Residents	2,792
Commercial Square Footage	619,536
Commercial Employees	826
Office Square Footage	495,954
Office Employees	992
Green Space Square Footage	291,799
Parking Spaces	2,534
Total FAR	1.16

Precedents

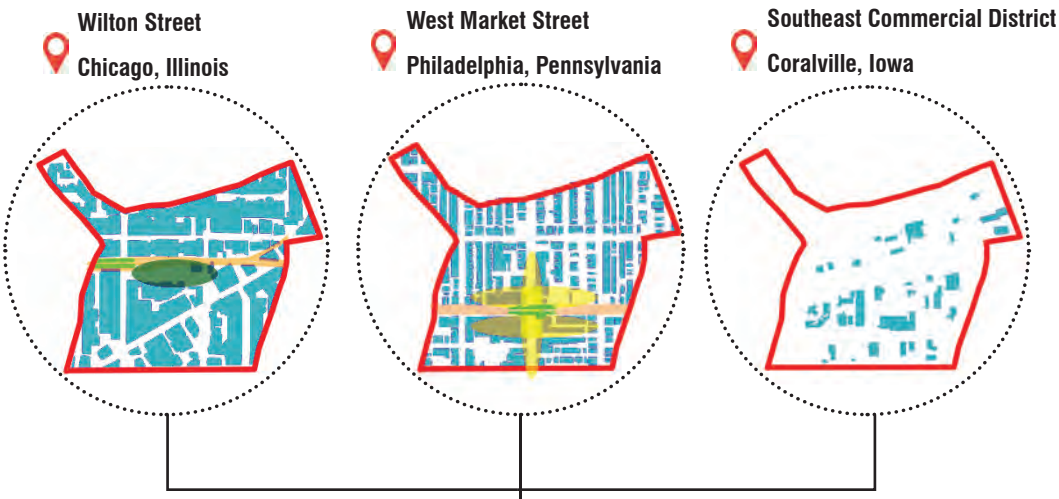


Figure 2.32
Chicago Density
Figure-ground representation of the Wilton Street neighborhood in Chicago.
(Larkin, 2018)

Figure 2.33
Philadelphia Density
Figure-ground representation of the West Market Street neighborhood in Philadelphia.
(Larkin, 2018)

Figure 2.34
Coralville Existing Density
Figure-ground representation of the Southeast Commercial District in Coralville, Iowa.
(Larkin, 2018)

Figure 2.35
Coralville Proposed Density
Figure-ground representation of proposed increase in density at the Southeast Commercial District.
(Updike, 2018)

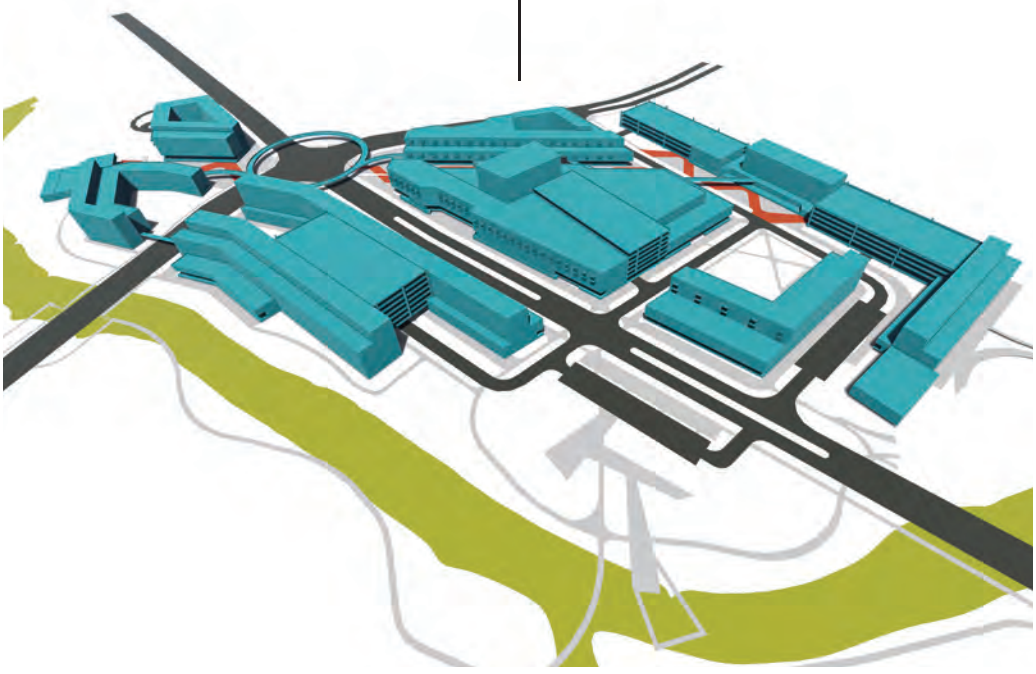


Figure 2.36
Massing Model Diagram
Shows the building forms with a contrast to the green space and creek.
(Stoffel, 2018)

Existing Conditions

The site is dominated by small, individual buildings and large parking lots. Pedestrian and green spaces are non-existent.

- Vehicular Circulation
- Pedestrian Circulation
- Buildings
- Existing

Figure 2.37
Existing Condition Plan
(Aleman, 2018)

Phase 1

The addition of transit stations and a dense urban fabric will attract new businesses, visitors, and residents to the site.

- Vehicular Circulation
- Pedestrian Circulation
- Buildings
- Existing

Figure 2.38
Phase 1 Plan
(Aleman, 2018)

Phase 2

Stretching the urban core to the rest of the site activates underused spaces and creates diverse living spaces.

- Vehicular Circulation
- Pedestrian Circulation
- Buildings
- Proposed Building Footprints

Figure 2.39
Phase 2 Plan
(Aleman, 2018)

Phase 3

Activating the waterfront and increasing the walkability of the site will generate more lively experiences for pedestrians.

- Vehicular Circulation
- Pedestrian Circulation
- Buildings
- Existing

Figure 2.40
Phase 3 Plan
(Aleman, 2018)

Regional Hub

Prosperity Through Short and Long Range Relationships

One small area can become a catalyst for an entire region of communities

The Regional Hub is an ambitious addition to the commercial "strip" of Coralville. It serves as an entry point to the city but also as a pedestal to set Coralville's identity on, showcasing a diverse culture and a precedent to a new way of thinking about our cities. While the transit systems are focal points within the site, they are a simple catalyst for bringing people into the city and creating a single space that people from all all walks of life can share experiences. The convenience of a live, work, play environment creates a sense of deliberate activity, balance, and comfort. A short walk from home to a park, from the workplace to a train station, or from a busy shopping space to a quiet courtyard, can make the difference between a hassle of a journey to a vibrant experience.

"Walkable, vibrant neighborhoods with accessible transit is the key."

-Brian Bowman, Mayor of Winnipeg

Figure 2.41
Night-Life in the Bosque
View of the Welcome Walkway at dusk.
(Stoffel, 2018)

Citations

Chapter Heading
Hahn, Howard. 2018. “Train Bridge”. Retrieved July 2, 2018.

Figure 2.1
Aleman, Marcos, 2018. “Concept Diagram.” Photomontage. Created using Adobe Photoshop

- “Sky Background” 2016. Photograph. Courtesy of iStock. Accessed 12 June 2018. Reproduced from ”Beautiful sky with white cloud . Background,” https://www.istockphoto.com/photo/beautiful-sky-with-white-cloud-background-gm517897328-89719389
- “Building Outline” 2016. Image. Courtesy of Scott Baumberger. Accessed 12 June 2018. Reproduced from “The Making of 412 Broadway”, http://www.sketchupartists.org/tutorials/sketchup-and-photoshop/the-making-of-412-broadway/
- “Trees” 2018. PNG file. Accessed 12 June 2018. Courtesy of Photoshop Motherload database. Accessed 12 June 2018. Reproduced from “4ACEGLA0.png”
- “LightRail” 2014. Photograph. Courtesy of Jackson Myers. Accessed 12 June 2018. Reproduced from “METRO_Light_Rail3.jpg” https://en.wikipedia.org/wiki/METRORail_Red_Line#/media/File:METRO_Light_Rail3.jpg
- “StreetBanners” 2018. Photograph. Courtesy of Grace Mader. Accessed 12 June 2018. Reproduced from “20180525_100048.jpg”
- “Car” 2017. PNG File. Courtesy of Photoshop Motherload database. Accessed 12 June 2018. Reproduced from “5ab8dc7892e6100583de0050568b5709.png”
- “Father and Daughter” 2017. TIF File. Courtesy of Photoshop Motherload database. Accessed 12 June 2018. Reproduced from “PEOPLE33.TIF”
- “Woman Walking1” 2017. TIF File. Courtesy of Photoshop Motherload database. Accessed 12 June 2018. Reproduced from “peopl414.tif”
- “woman Walking2” 2017. TIF File. Courtesy of Photoshop Motherload database. Accessed 12 June 2018. Reproduced from “PEOPLE19.TIF”
- “Woman Standing” 2017. TIF File. Courtesy of Photoshop Motherload database. Accessed 12 June 2018. Reproduced from PEOPLE19.TIF
- “Man Walking” 2017. TIF File. Courtesy of Photoshop Motherload database. Accessed 12 June 2018. Reproduced from PEOPLE31.TIF
- Woman Walking3” 2017. TIF File. Courtesy of Photoshop Motherload database. Accessed 12 June 2018. Reproduced from PEOPLE10.TIF
- “Woman Biking” 2017. TIF File. Courtesy of Photoshop Motherload database. Accessed 12 June 2018. Reproduced from PEOPLE19.TIF
- “Limestone” 2018. Photograph. Courtesy of Grace Mader. Accessed 12 June 2018. Reproduced from “20180525_102625.jpg”

Figure 2.2
Larkin, Kate. 2018. “Existing Rail-line Connection” Kansas State University LAR 646 2018. Created with Adobe Photoshop. Source Images:

- IowaDOT. (2018). Story Map Series. Retrieved June 2, 2018 from http://iowadot.maps.arcgis.com/apps/MapSeries/index html?appid=95a7af3a70f948d3b0dc40805e51805a

Figure 2.3
Larkin, Kate. 2018. “Existing Stop Integration” Kansas State University LAR 646 2018. Created with

Adobe Photoshop. Source Images:

- Google Earth (n.d.) [Google Earth View of the Southeast Commercial District, Coralville, IA] Retrieved June 2, 2018. Google Earth.
- HawkeyeSports.com. (n.d.). Maps. Retrieved June 2, 2018, from https://footballgameday.hawkeyesports.com/maps/

Figure 2.4
Updike, Miles. 2018. "Regional Connections". Source data: Iowa Department of Transportation. Source map: ArcGIS. Accessed June 15, 2018. Edited in Adobe Illustrator.

Figure 2.5
Updike, Miles. 2018. "Coralville Stop Proposals". Source map: Houseal Lavigne Associates. Accessed June 15, 2018. Edited in Adobe Illustrator.

Figure 2.6
Aleman, Marcos. 2018. "Power-line Plan". Source Data: ArcGIS, CAD work by Elsa Stoffel. Created Using Adobe Illustrator

Figure 2.7
Stoffel, Elsa. 2018. "Floodplain Dilemma". Created using Photoshop. Source Data: ArcGIS (Johnson County Info).

Figure 2.8
Larkin, Kate. 2018. "Brownfield Remediation Strategy" Kansas State University LAR 646 2018. Photoshop. Source Images:

- Arch GIS (n.d.) [View of Southeast Commercial District, Coralville, IA] Retrieved May 25, 2018. Arch GIS

Figure 2.9
Larkin, Kate. 2018. "Station Axis Strategy" Kansas State University LAR 646 2018. Created with Adobe Photoshop

Figure 2.10
Aleman Marcos. 2018. "Vehicle Circulation". Source Data: ArcGIS, CAD work by Elsa Stoffel. Created Using Adobe Photoshop, Illustrator

Figure 2.11
Aleman Marcos. 2018. "Pedestrian Circulation". Source Data: ArcGIS, CAD work by Elsa Stoffel. Created Using Adobe Photoshop, Illustrator

Figure 2.12
Larkin, Kate. 2018. "Opportunities and Dilemmas" Kansas State University LAR 646 2018. Created with Adobe Photoshop. Source Images:

- Arch GIS (n.d.) [View of Southeast Commercial District, Coralville, IA] Retrieved May 25, 2018. Arch GIS.

Figure 2.13
Larkin, Kate. 2018. “Site Plan”. Kansas State University LAR 646 2018. Created with Adobe Photoshop.

Figure 2.14
Stoffel, Elsa. 2018. “Section A-A: East Coralville Stop Axis”. Created using Photoshop and Lumion. 3D Model. Elsa Stoffel. Created using Rhino and Lumion. Base map made from AutoCAD by Elsa Stoffel.
•“Wynwood Walls”. Digital Photograph. Accessed 3 July 2018. http://www.miaminewtimes.com/location/wynwood-walls-6406382
- “Suspension Bridge” N.d. Photograph. Courtesy of Alamy Stock Photo. Accessed July, 9, 2018. Reproduced https://www.alamy.com/stock-photo/metro-train.html?cutout=1

Figure 2.15
Larkin, Kate. 2018. “View of Connection Between East Coralville Rail Stops” Kansas State University LAR 646 2018. Created with Adobe Photoshop. Source Images:
- Stoffel, Elsa. Rhino Model. 2018.
- “Tree” N.d. Photograph. Courtesy of Mr Cut Out. Accessed May 1. Reproduced from https://www.mrcutout.com/81-cutouts/vegetation-cutouts/984-tree-0034.
- “People” N.d. Photograph. Courtesy of Pinterest. Accessed May 1. Reproduced from https://www.pinterest.com/pin/427138964427038 30/?lp=true
- People Walking” N.d. Photograph. Courtesy of Charlie Bruzzese. Accessed May 1. Reproduced from http://www.charlie-bruzzese.com/walking-people/
- “Front View of Modern Speed Train” N.d. Photograph. Courtesy of Alamy Stock Photo. Accessed May 1. Reproduced https://www.alamy.com/stock-photo/metro-train.html?cutout=1
- “Cutout of Man in Jeans Walking” N.d. Photograph. Courtesy of VIShopper. Accessed May 1. Reproduced https://www.vishopper.com/cut-out-people/people2010/cut-out-group-of-people-walking
- “Suspension Bridge” N.d. Photograph. Courtesy of Alamy Stock Photo. Accessed July, 9, 2018. Reproduced https://www.alamy.com/stock-photo/metro-train.html?cutout=1

Figure 2.16
Stoffel, Elsa. 2018. “View down 2nd St. and the Agassiz Axis”. Created using Photoshop and Lumion. 3D Model. Elsa Stoffel. Created using Rhino. 2018.
- “Suspension Bridge” N.d. Photograph. Courtesy of Alamy Stock Photo. Accessed July, 9, 2018. Reproduced https://www.alamy.com/stock-photo/metro-train.html?cutout=1
- Google Earth (n.d.) [Google Earth View of Southeast Commercial District] Retrieved July 10, 2018. Google Earth.

Figure 2.17
Larkin, Kate. 2018. “Section B-B: Agassiz Axis and Land Use”. Kansas State University LAR 646 2018. Created with Adobe Photoshop. Source Images:
- Stoffel, Elsa. Rhino Model. 2018.
- “Tree” N.d. Photograph. Courtesy of Mr Cut Out. Accessed May 1. Reproduced from https://

www.mrcutout.com/81-cutouts/vegetation-cutouts/984-tree-0034.

- "Flowers" N.d. Photograph. Courtesy of Mr Cut Out. Accessed May 1. Reproduced from https://www.mrcutout.com/81-cutouts/vegetation-cutouts/984-tree-0034.
- "People" N.d. Photograph. Courtesy of Pinterest. Accessed May 1. Reproduced from https://www.pinterest.com/pin/427138964427038 30/?lp=true
- "People Walking" N.d. Photograph. Courtesy of Charlie Bruzzese. Accessed May 1. Reproduced from http://www.charlie-bruzzese.com/walking-people/
- "Kid Squatting" N.d. Photograph. Courtesy of Alamy Stock Photo. Accessed May 1. Reproduced from https://www.alamy.com/kid-squatting-image278658406.html
- "Mobile Farmers Market" N.d. Photograph. Courtesy of Amy Millet. Accessed May 1. Reproduced http://www.amymillett.com/
- "Cutout of Man in Jeans Walking" N.d. Photograph. Courtesy of VIShopper. Accessed May 1. Reproduced https://www.vishopper.com/cut-out-people/people2010/cut-out-group-of-people-walking
- "Person Sitting" N.d. Photograph. Courtesy of New Design File. Accessed May 1. Reproduced http://www.newdesignfile.com/post_people-sitting-photoshop_98422/

Figure 2.18
Stoffel, Elsa. 2018. "Agassiz Axis Corridor Activity". Created using Photoshop and Lumion. 3D Model. Elsa Stoffel. Created using Rhino. 2018.

Figure 2.19
Updike, Miles. 2018. "Economic Benefits". Source data: Hahn, Howard. Accessed July 2, 2018. Edited in Adobe Illustrator.

Figure 2.20
Aleman Marcos. "Elevation of Building Masses". Source Data: ArcGIS, CAD. Created Using Adobe Photoshop, Illustrator.

Figure 2.21
Updike, Miles. 2018. "Engineering Controls." Source data: Hahn, Howard. Source map: ArcGIS. Accessed July 1, 2018. Edited in Adobe Illustrator.

Figure 2.22
Larkin, Kate. 2018. "Section C-C: Clear Creek Lookout" Kansas State University LAR 646 2018. Created with Adobe Photoshop. Source Images:

- Stoffel, Elsa. Rhino Model. 2018.
- "Tree" N.d. Photograph. Courtesy of Mr Cut Out. Accessed May 1. Reproduced from https://www.mrcutout.com/81-cutouts/vegetation-cutouts/984-tree-0034.
- "People" N.d. Photograph. Courtesy of Pinterest. Accessed May 1. Reproduced from https://www.pinterest.com/pin/427138964427038 30/?lp=true
- "People Walking" N.d. Photograph. Courtesy of Charlie Bruzzese. Accessed May 1. Reproduced from http://www.charlie-bruzzese.com/walking-people/
- "Mobile Farmers Market" N.d. Photograph. Courtesy of Amy Millet. Accessed May 1.

Reproduced http://www.amymillett.com/
- "Blue Sky with Clouds" N.d. Photograph. Courtesy of Fotolia. Accessed May 1. Reproduced https://www.fotolia.com/tag/%22sky%20background%22
- "Cutout of People Walking" N.d. Photograph. Courtesy of VIShopper. Accessed May 1. Reproduced https://www.vishopper.com/cut-out-people/people2010/cut-out-group-of-people-walking
- "Table and Chairs" N.d. Photograph. Courtesy of Alamy Stock Photo. Accessed July 8, 2018. Reproduced https://www.alamy.com/stock-photo/metro-train.html?cutout=1

Figure 2.23
Stoffel, Elsa. 2018. "Clear Creek Lookout—No Flood". Created using Lumion, Photoshop. 3D Model. Elsa Stoffel. Created using Rhino. 2018.

Figure 2.24
Stoffel, Elsa. 2018. "Clear Creek Lookout—100 Year Flood". Created using Lumion, Photoshop. 3D Model. Elsa Stoffel. Created using Rhino. 2018.

Figure 2.25
Stoffel, Elsa. 2018. "North View of Southeast Community District". Created using Lumion. 3D Model. Elsa Stoffel. Created using Rhino. 2018.

Figure 2.26
Stoffel, Elsa. 2018. "East View of Southeast Community District". Created using Lumion. 3D Model. Elsa Stoffel. Created using Rhino. 2018.

Figure 2.27
Stoffel, Elsa. 2018. "South View of Southeast Community District". Created using Lumion. 3D Model. Elsa Stoffel. Created using Rhino. 2018.

Figure 2.28
Stoffel, Elsa. 2018. "West View of Southeast Community District". Created using Lumion. 3D Model. Elsa Stoffel. Created using Rhino. 2018.

Figure 2.29
Updike, Miles. 2018. "Land Use Metrics." Source data: Hahn, Howard. Accessed July 1, 2018. Edited in Adobe Illustrator.

Figure 2.30
Updike, Miles. 2018. "Land Surface." Source data: Hahn, Howard. Accessed July 9, 2018. Edited in Adobe Illustrator.

Figure 2.31
Updike, Miles. 2018. "Building Area vs. Open Space" Source data: Hahn, Howard. Accessed July 9, 2018. Edited in Adobe Illustrator.

Figure 2.32
Larkin, Kate. 2018. “Chicago Density” Kansas State University LAR 646 2018. Created with Adobe Photoshop. Sources:

- Google Earth (n.d.) [Google Earth View of Wilton Street, Chicago, Illinois] Retrieved June 9, 2018. Google Earth.
- DPD. (2018). Red-Purple Bypass Project Area. Retrieved June 2, 2018, from https://www.transitchicago.com/assets/1/6/2018-0515_RPB_Public_Mtg_Presentation.pdf

Figure 2.33
Larkin, Kate. 2018. “Philadelphia Density”. Kansas State University LAR 646 2018. Created with Adobe Photoshop. Sources:

- Google Earth (n.d.) [Google Earth View of West Market Street, Philadelphia, Pennsylvania] Retrieved June 8, 2018. Google Earth.
- PCPC. (2013, January 12). The Market Street Corridor in West Philadelphia. Retrieved June 2, 2018, from https://www.phila.gov/CityPlanning/plans/Area Plans/WestMarketFinal2013.pdf

Figure 2.34
Larkin, Kate. 2018. “Coralville Existing Density”. Kansas State University LAR 646 2018. Created with Adobe Photoshop. Sources:

- Google Earth (n.d.) [Google Earth View of Southeast Commercial District, Coralville, Iowa] Retrieved June 8, 2018. Google Earth.

Figure 2.35
Updike, Miles. 2018. “Coralville Proposed Density”. Source map: ArcGIS. Accessed July 2, 2018. Edited in Adobe Illustrator.

Figue 2.36
Stoffel, Elsa. 2018. “Massing Model Diagram”. Created using Lumion, and Photoshop. 3D Model. Elsa Stoffel. Created using Rhino. 2018.

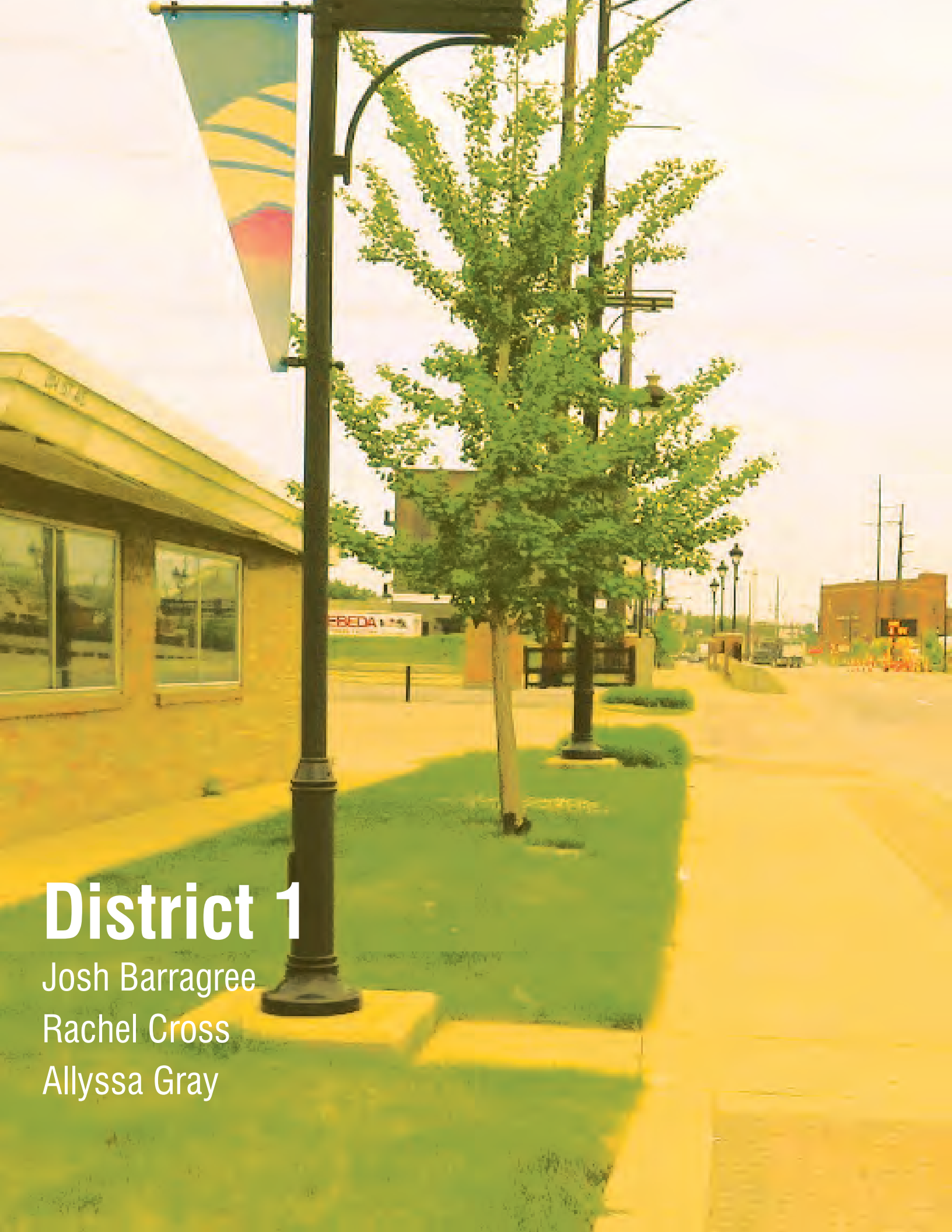
Figure 2.37
Aleman Marcos. 2018. “Existing Condition Plan.” Source Data: ArcGIS, CAD. Created Using Adobe Photoshop.

Figure 2.38
Aleman Marcos. 2018. “Phase One Plan.” Source Data: ArcGIS, CAD. Created Using Adobe Photoshop

Figure 2.39
Aleman Marcos. 2018. “Phase Two Plan.” Source Data: ArcGIS, CAD. Created Using Adobe Photoshop

Figure 2.40
Aleman Marcos. 2018. “Phase Three Plan.” Source Data: ArcGIS, CAD. Created Using Adobe Photoshop

Figure 2.41
Stoffel, Elsa. 2018. “Night Life in the Bosque”. Created using Photoshop and Lumion. 3D Model. Elsa Stoffel. Created using Rhino. 2018.



District 1

Josh Barragree

Rachel Cross

Allyssa Gray

District 1

Creating a Continuous Urban District Between Iowa River Landing and the Southeast Commercial District.

Utilizing the 1st Avenue corridor to establish one unified district.

Concept

The intent of District 1 is to establish a continuous urban district between the developing Iowa River Landing (IRL) and the proposed Southeast Commercial District (SCD). Currently, Coralville lacks a complete district which brings together residential, commercial, and office space in an efficient and beautiful way. District 1 unifies two major urban communities by promoting connectivity, identity, and activity within the SCD and along 1st Avenue. Improved pedestrian and bicycle circulation moves people in and around the SCD and north along 1st Avenue and the Iowa River. Traffic flow along 2nd Street and 1st Avenue is maintained by creating internal street systems bringing vehicles and proposed businesses into the site. A strong sense of identity is established within District 1 by creating a series of plazas and green spaces joined together by a continuous sculpture walk. Consistent materiality and plant types also contribute to the overall sense of place. District 1 activates not only Coralville, but Iowa City and the Iowa River. Commercial, office, and residential uses are mixed throughout District 1 urbanizing and stimulating growth. District 1 ties together multiple segmented areas within Coralville and Iowa City establishing a single unified district that serves community members and visitors alike as a gathering space, a shopping area, an eating destination, and a cultural landing.

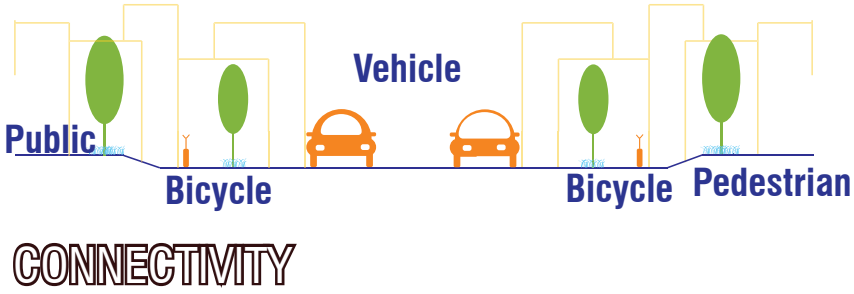
Figure 3.1
Concept Photo Montage
Photomontage of the Southeast Commercial District . (Cross, 2018)

Goals

Create **CONNECTIVITY** throughout the Coralville Community:

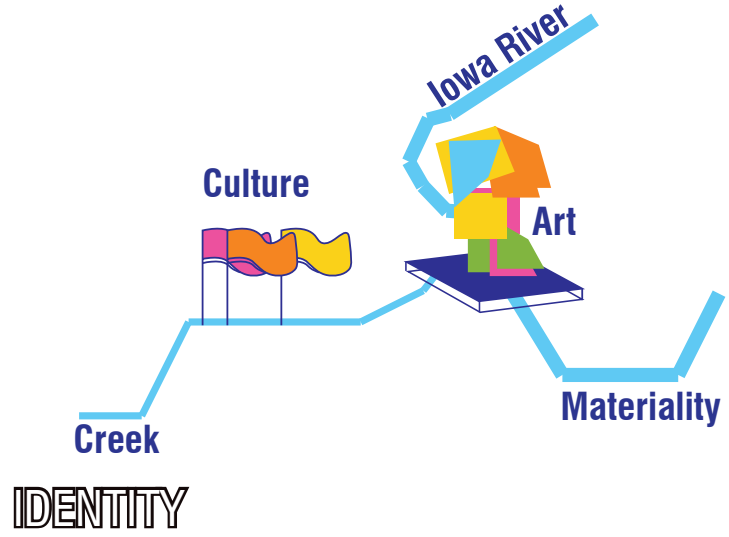
- Improve Vehicular Access
- Enhance Pedestrian Access
- Initiate Cyclist Transportation
- Reestablish Public Transportation

Figure 3.2
Concept Diagram
(Gray, 2018)



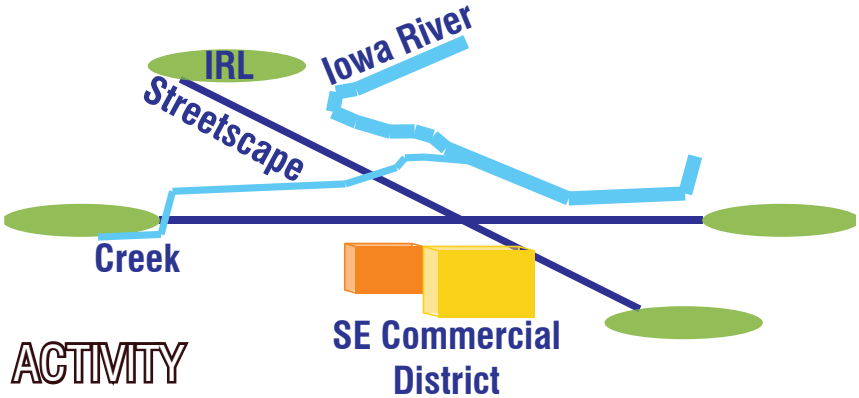
Enhance the **IDENTITY** of the Coralville Community:

- Establish a Sculpture Walk
- Enhance the Cultural Representation
- Approve Artistic Seating
- Cohesive Materiality



Bring **ACTIVITY** to the Coralville community:

- Link community to the Iowa River
- Enhance the streetscapes
- Increase the quality of the Southeast Commercial District



Key Issues and Dilemmas

Site Context

There is currently a disconnect between the Southeast Commercial District and Iowa River Landing due to under-used sidewalks, lack of businesses along 1st Avenue, and lack of indoor/outdoor connections between the existing businesses and the street. To help mitigate these issues, District 1 will create more business fronts adjacent to 1st Avenue and 2nd street, create a green corridor, and enhance the pedestrian experience.

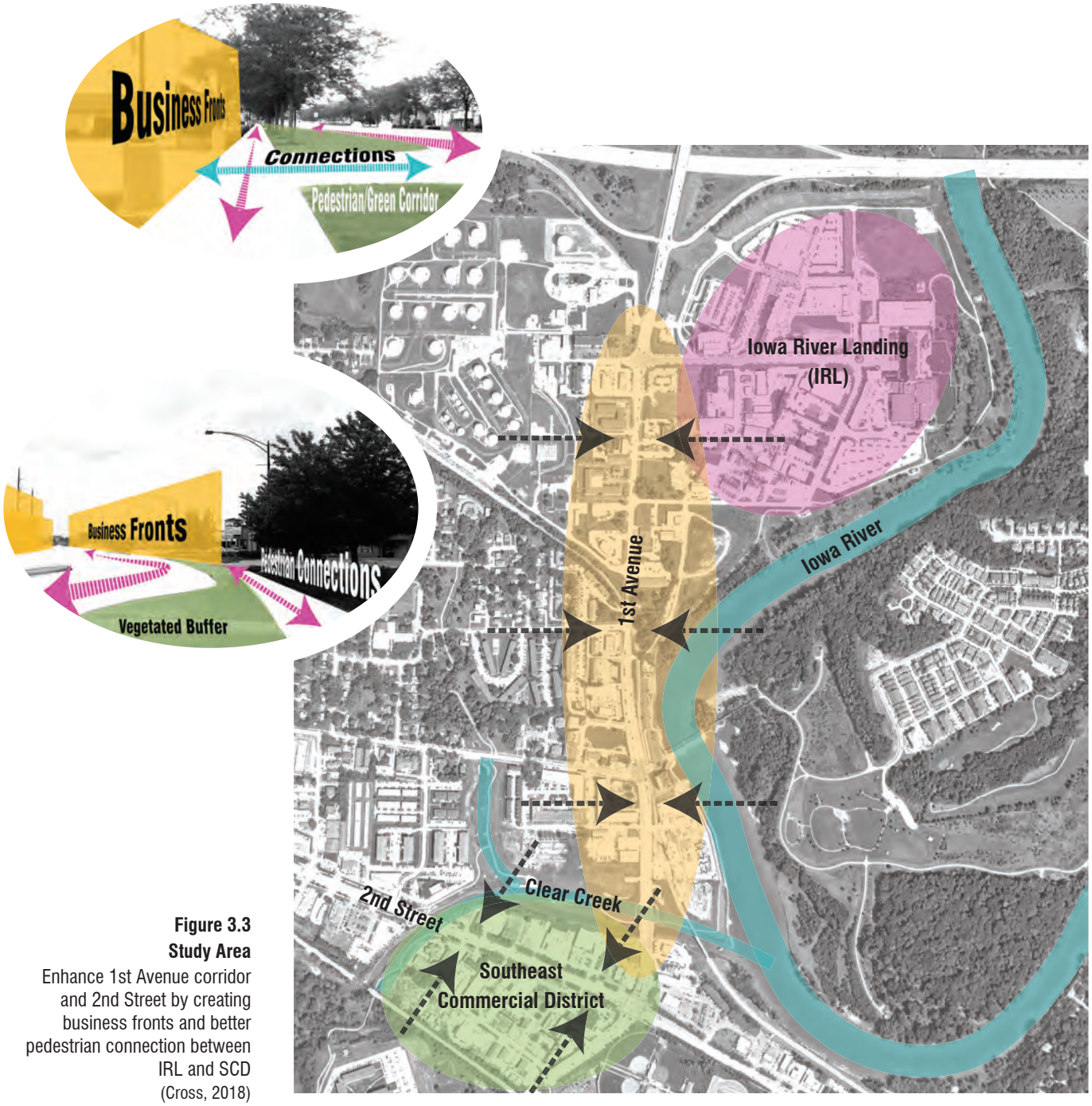
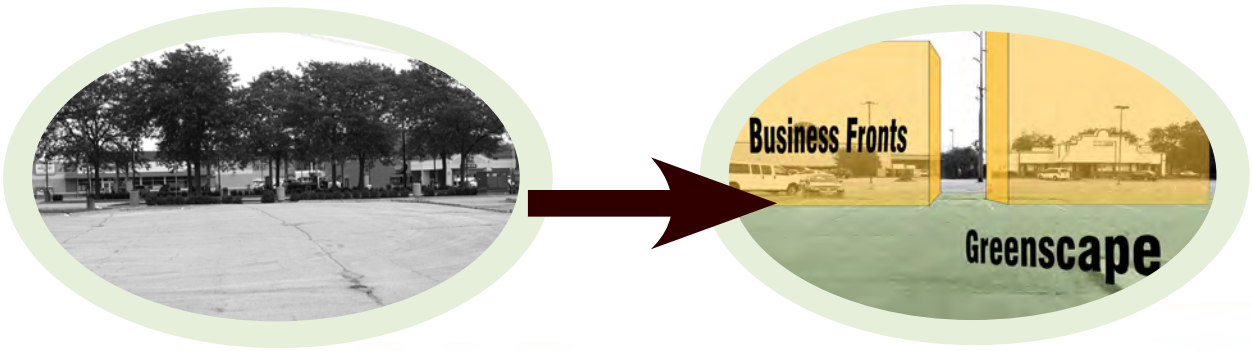


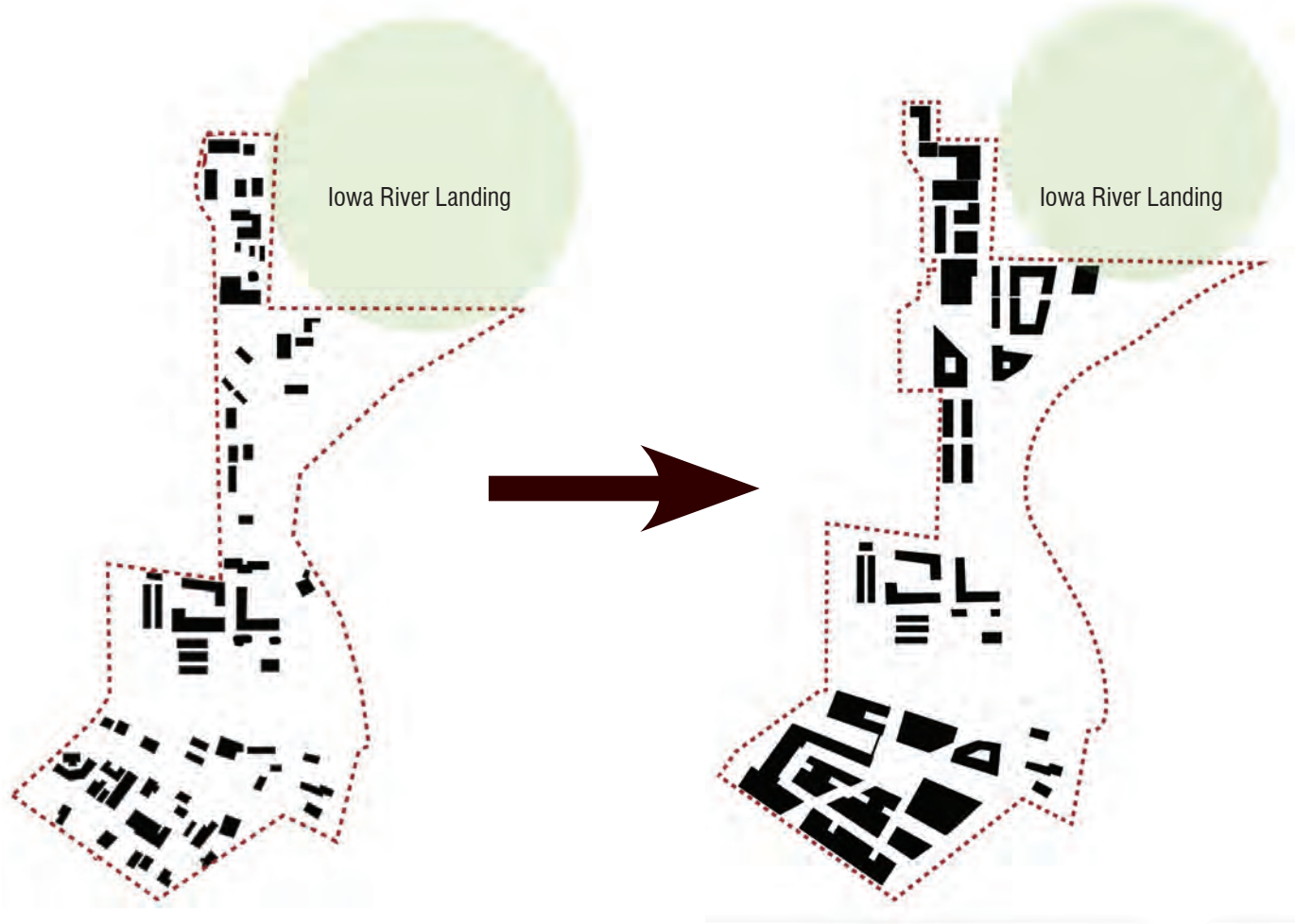
Figure 3.3
Study Area
Enhance 1st Avenue corridor and 2nd Street by creating business fronts and better pedestrian connection between IRL and SCD
(Cross, 2018)

Figure Ground

When first addressing the site, our group identified a large amount of unused space surrounding the buildings. Impervious surfaces such as concrete and asphalt dominate the site, as seen in Figure 3.4. Our group will increase the building size and diminish impervious surfaces by adding greenscape and permeable surfaces, as shown in figure 3.4

Figure 3.4
Figure Ground
Existing figure ground of District 1 compared to the proposed figure ground. What could be verse what is found now.
(Cross, Gray, 2018)

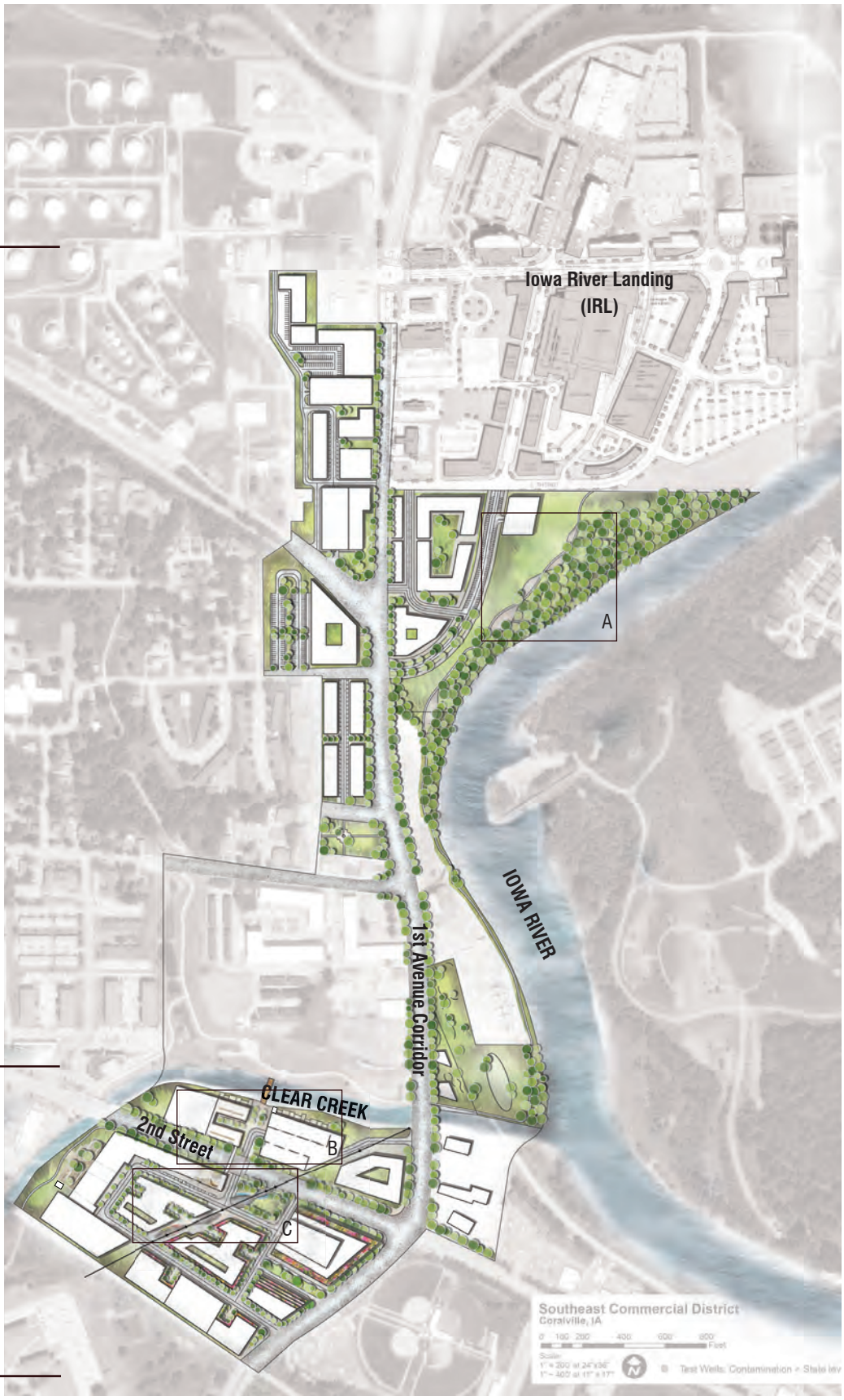




Existing Figure Ground

Proposed Figure Ground

Illustrative Site Plan



1st Avenue Corridor Redevelopment

Southeast Commercial District

Figure 3.5
District 1 Plan
(Cross, 2018)

Figure 3.6
IRL Sculpture walk
The IRL Sculpture Walk is south of the IRL and adjacent to the Iowa River.
(Gray, 2018)

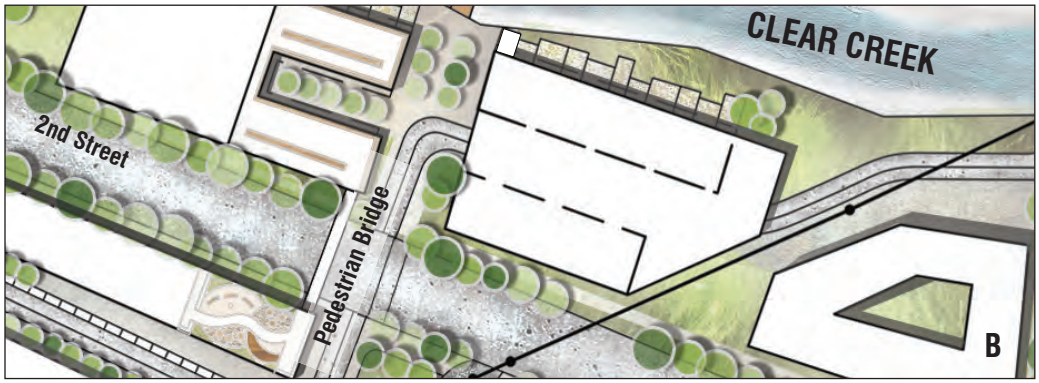


Figure 3.7
Pedestrian Bridge
Pedestrian bridge connects the north and south sides of the SCD over 2nd St.
(Cross, 2018)

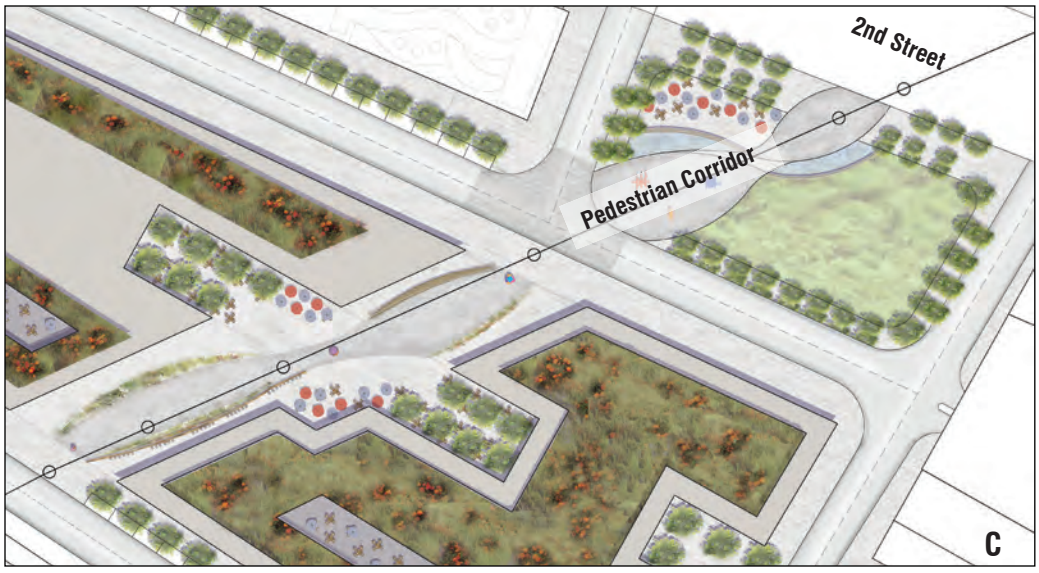


Figure 3.8
Pedestrian Corridor
Series of courtyards, greenspaces, and plazas to connect the SCD.
(Gray, 2018)

Key Factors

Geometries of site design.

The spatial arrangement of the Southeast Commercial District is derived from a variety of factors. First, the district contains high voltage powerlines running diagonally across the site. The corridor created by the lines has been preserved, to facilitate phasing, and serves the site as a primary pedestrian circulation route and activated space. Secondly, a system of streets was imposed within the system of streets was imposed within the sections defined by the powerlines. These streets define vehicular circulation and provide access to storefronts and parking structures. Finally, building footprints were defined and subspaces were created to serve as relaxation and move through spaces.

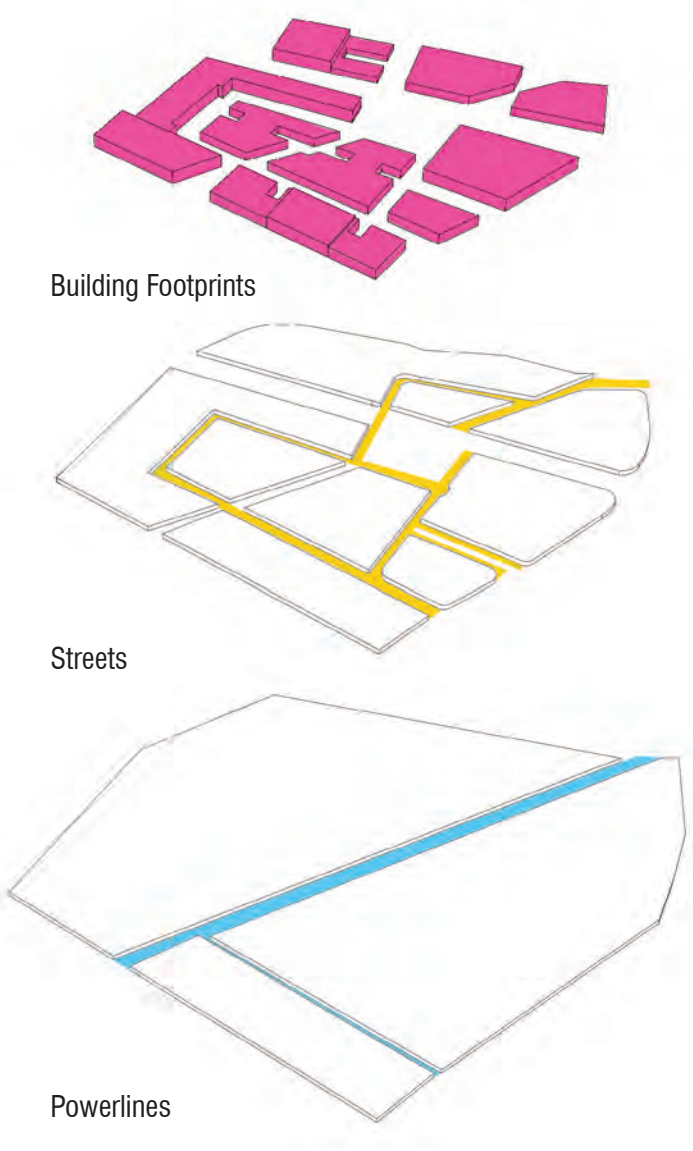
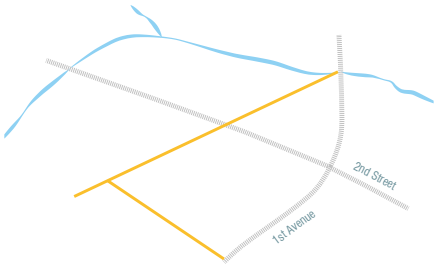
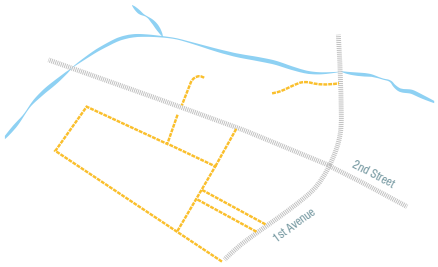


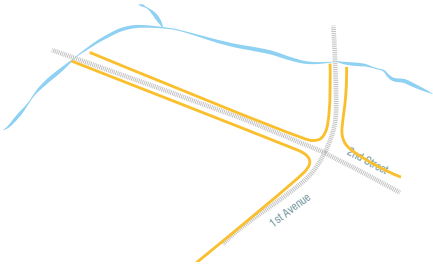
Figure 3.9
Key Factor Diagram
Highlighting the important places of the site that influenced our design.
(Gray, 2018)



District 1 decided to keep the existing transmission lines and orient our design around them.



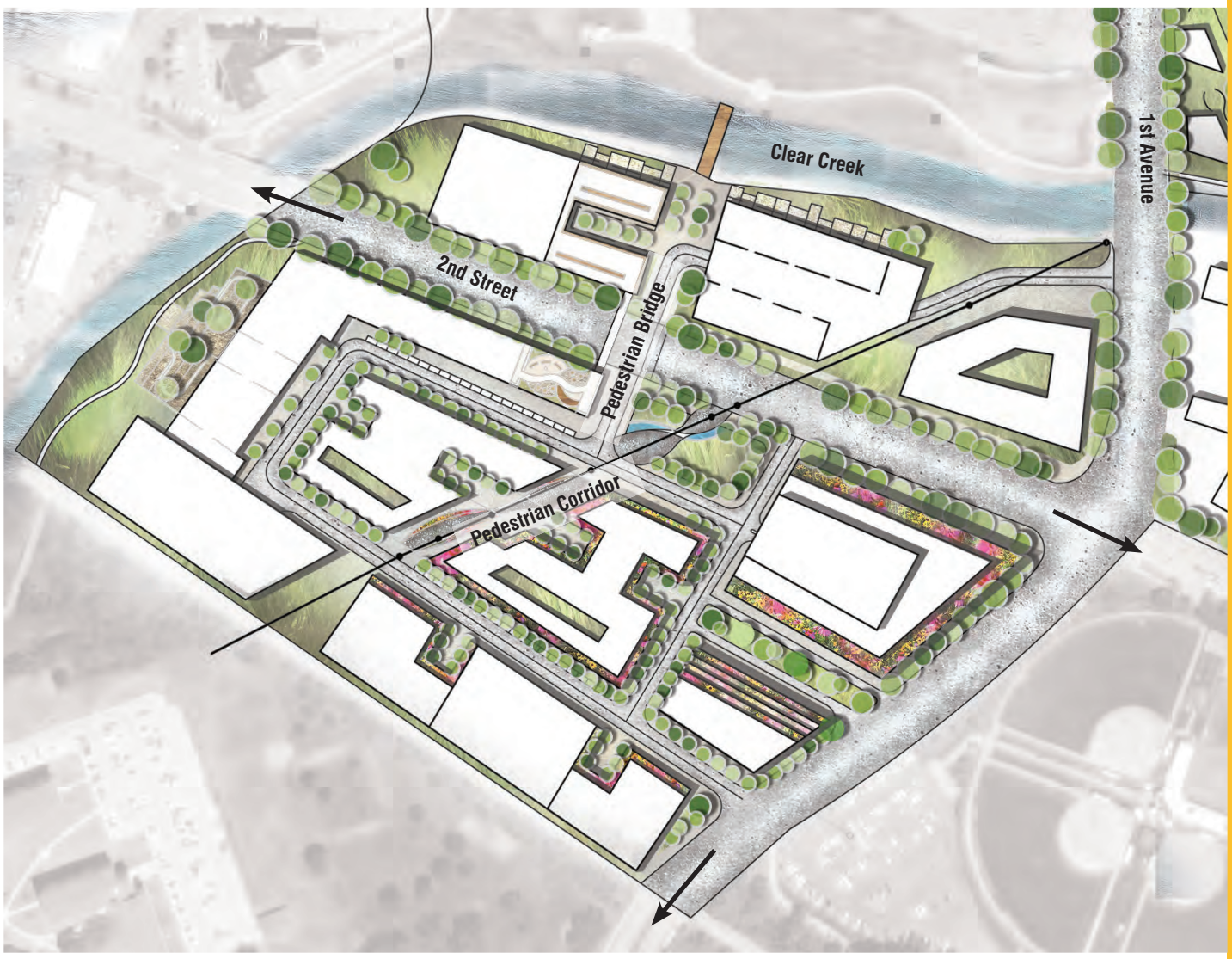
The streets found throughout the site helped to organize the site geometry.



FEMA's 100 year plus 1' policy influenced the frame of the site surrounding the streets.

Figure 3.10
Referent Diagrams
Transmission lines, streets, and FEMA regulations
(Cross, 2018)

Figure 3.11
Plan View of Southeast Commercial District
(Cross, 2018)

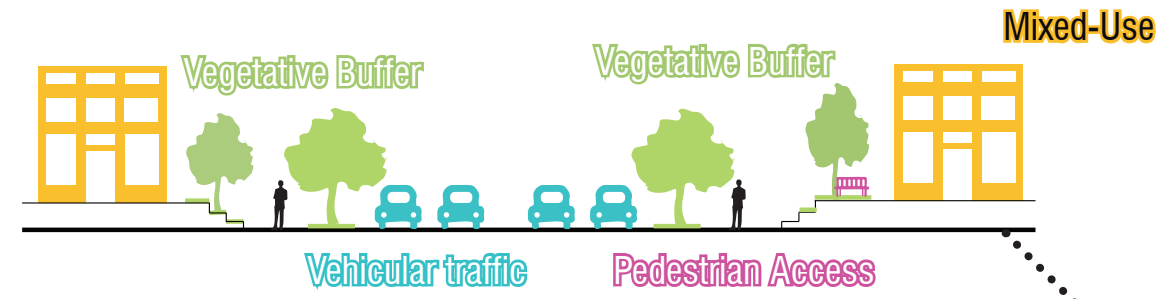


Connectivity

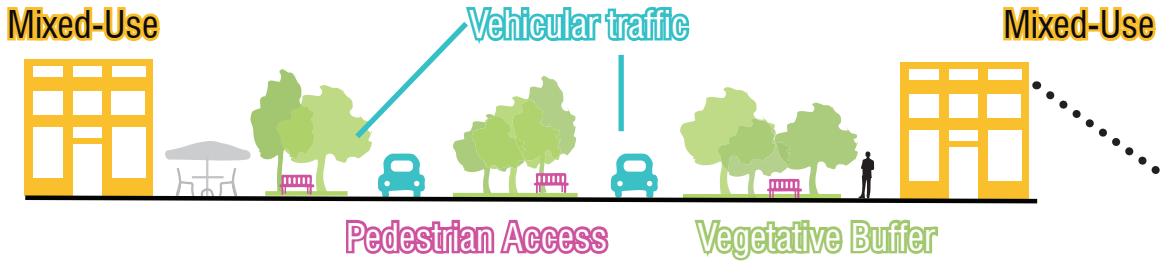
Creating a complete network through pedestrian access, cyclist, vehicular, and public transportation.

To connect to the Coralville community, this design focuses on pedestrian access first and vehicular access second. Green street typologies were created to help enhance this experience. The **economic street** focuses on enhancing the pedestrian connection along 1st Avenue and 2nd Street, while creating indoor/outdoor connections with the building fronts. The **pedestrian main street** puts the pedestrian first, by creating a more programmed experienced mixed with light, vehicular circulation. Lastly, the **communal street** is used as circulation to move traffic in and around the site.

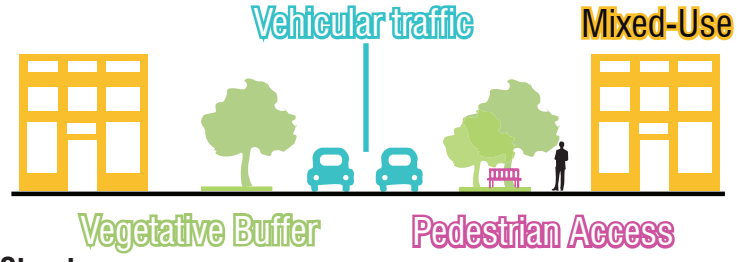
Figure 3.12
Street Typologies
Efficient Street, Pedestrian Main Street, and Secondary Street (Cross, 2018)



Economic Street



Pedestrian Main Street



Communal Street

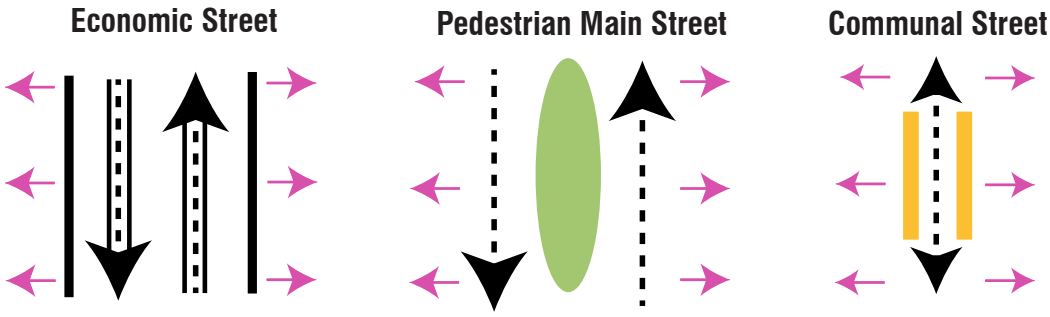


Figure 3.13
Street Typology Parti Diagrams
(Cross, 2018)

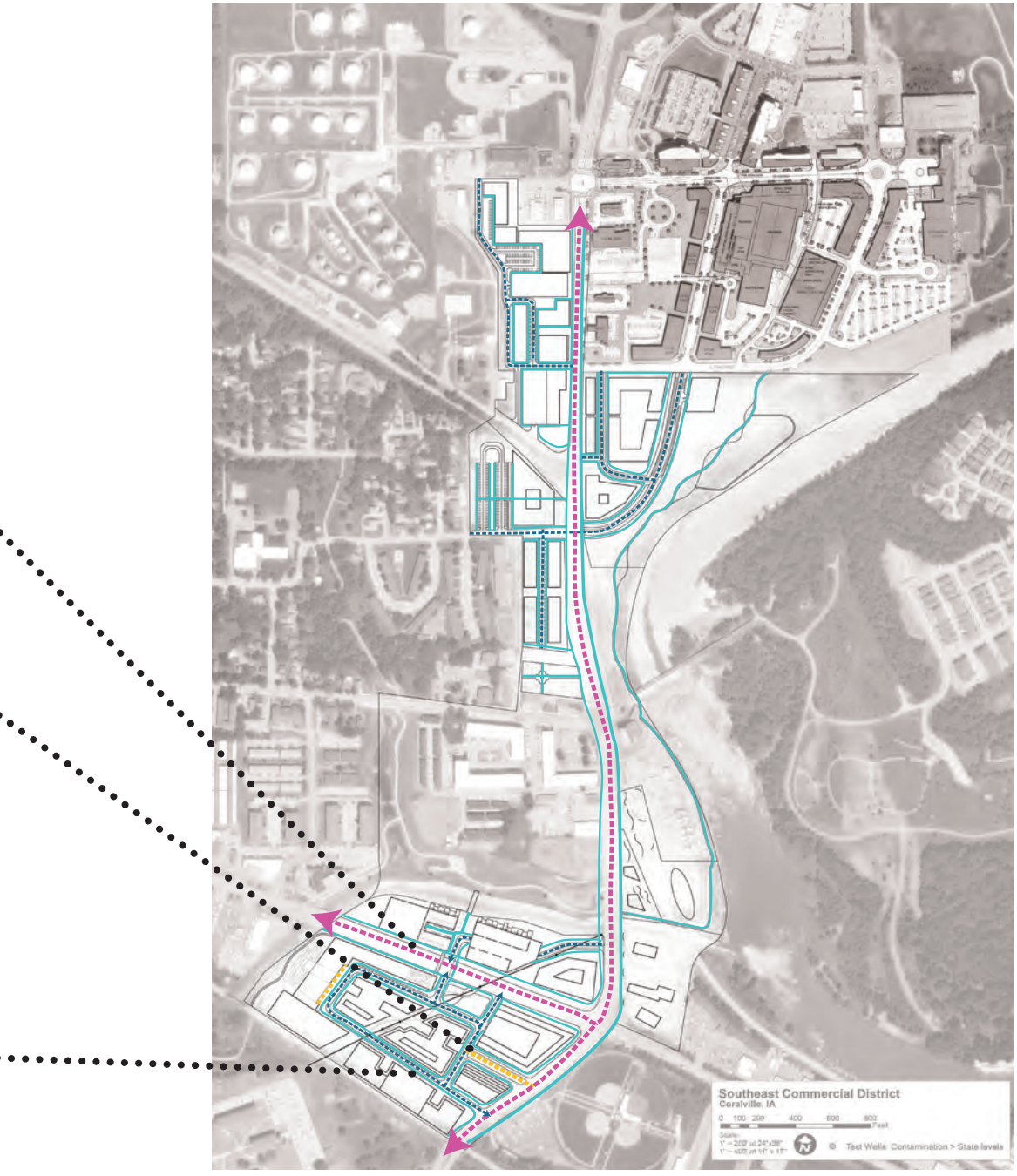


Figure 3.14
Circulation
(Cross, 2018)

EconomicStreet

Pedestrian Circulation

Communal Street

Pedestrian Main Street

Pedestrian Bridge

This design creates continuous pedestrian access by extending circulation above the 2nd Street corridor. A pedestrian bridge connects two rooftops, a garden and bar for the riverfront businesses. This axis will help make a safe passage for pedestrians from the heavily mixed use district to the culturally vibrant, riverfront district.

Figure 3.15
Section of 2nd Street
This section is showing the vertical change of +/- 3 to 5 feet per FEMA flood regulations.
(Cross, 2018)

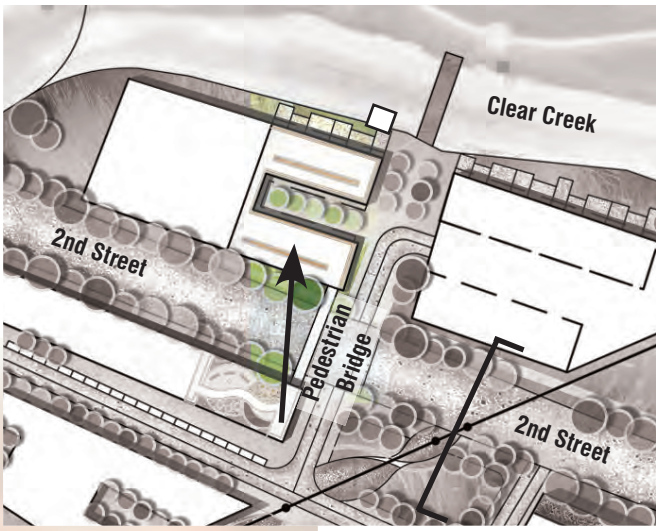


Figure 3.16
View of Pedestrian Bridge
(Cross, 2018)

Pedestrian Main Street

The pedestrian main street focuses on the needs of the user by enhancing indoor/ outdoor connections, creating programmed amenities, and allowing light vehicular circulation. This pedestrian friendly space helps to provide patio space for surrounding businesses, farmers markets, concerts, and other local events.

Figure 3.17
Pedestrian Main Street
(Cross and Gray, 2018)

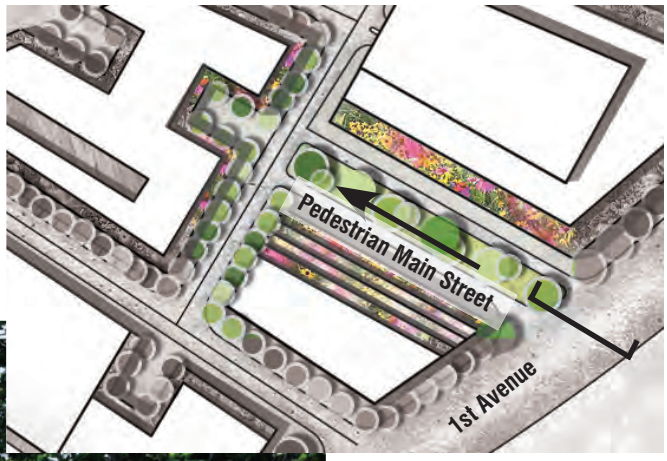


Figure 3.18
Section Through 1st Ave and Pedestrian Main Street
This section is showing the vertical change of +/- 3 to 5 feet per FEMA flood regulations.
(Cross, 2018)

Identity

Enhancing the Coralville community through a sculptural walk, cultural relationships, and materiality choices.

Throughout the design, a series of green hubs are connecting various spaces along the 1st Avenue corridor. The “green hubs” consist of spaces for sculpture walks and parks. This helps to unify the Iowa River Landing and the Southeast Commercial District, while creating outdoor spaces to enjoy. Just south of the Iowa River Landing, adjacent to the Iowa River, the sculpture walk begins by following the existing, pedestrian pathway.

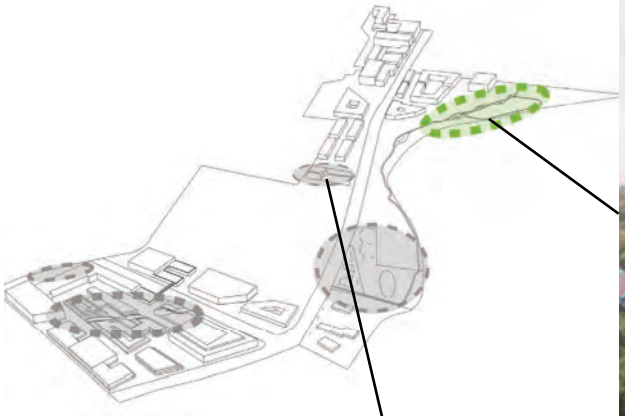


Figure 3.19
Sculpture Walk Reference
(Gray, 2018)

Figure 3.20
Sculpture Walk Montage
(Gray, 2018)

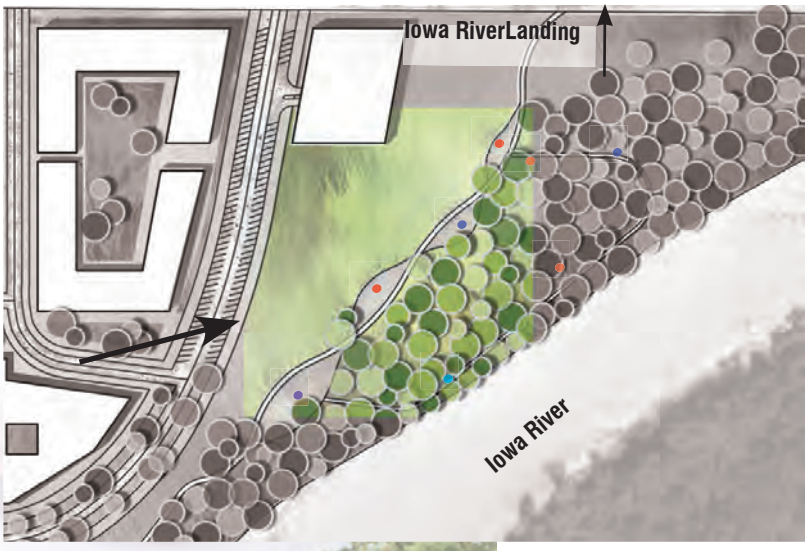


Figure 3.21
Iowa River Landing Sculpture Walk
Photomontage envisioning the IRL Sculpture Walk
(Gray, 2018)

Pedestrian Mall North of 2nd Street

The design creates a visual connection to the Iowa River Landing by using similar architectural and paving materials. Limestone and brick are used as the building veneers, and common vegetation is found throughout the site. The middle of the newly designed Southeast Commercial District creates an identity for the space by creating a corridor that encompasses art, programmatic activities, and connections to the surrounding businesses and amenities.

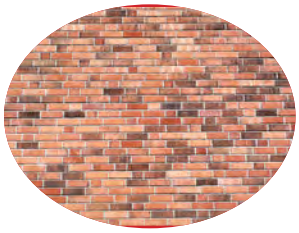


Figure 3.22
Brick Facade
Brick facade throughout site.
(Xauxa, Solna, Sweden. Brick Wall. Vilt Förband.)

Figure 3.23
Limestone Accent Facade
Limestone accent on base of buildings facade
("Free Images.")

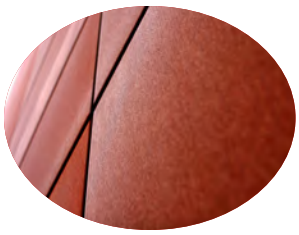
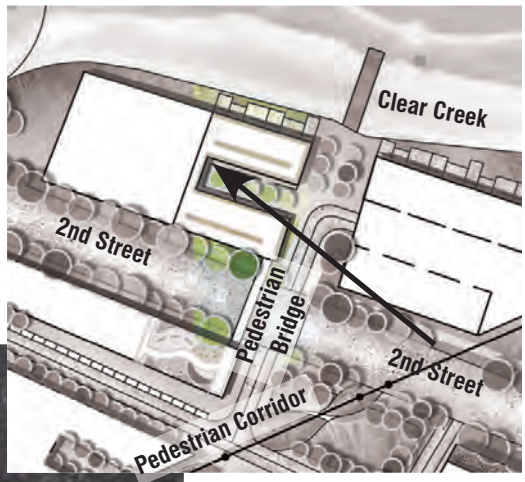


Figure 3.24
Corten Steel
Material used for raised planter beds, bar in pedestrian corridor, and benches in parklet at the end of the pedestrian corridor
("Corten Steel - Google Search.")



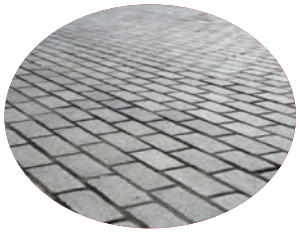


Figure 3.25
Concrete Pavers
Pavers for sidewalks
("Free Images.")

Figure 3.26
Concrete Accent
Found throughout the pedestrian corridor
("Concrete Cement Grey · Free Photo on Pixabay.")

Figure 3.27
View of Pedestrian Mall
Showcasing nightlife found in the north portion of the Southeast Commercial District.
(Cross, 2018)

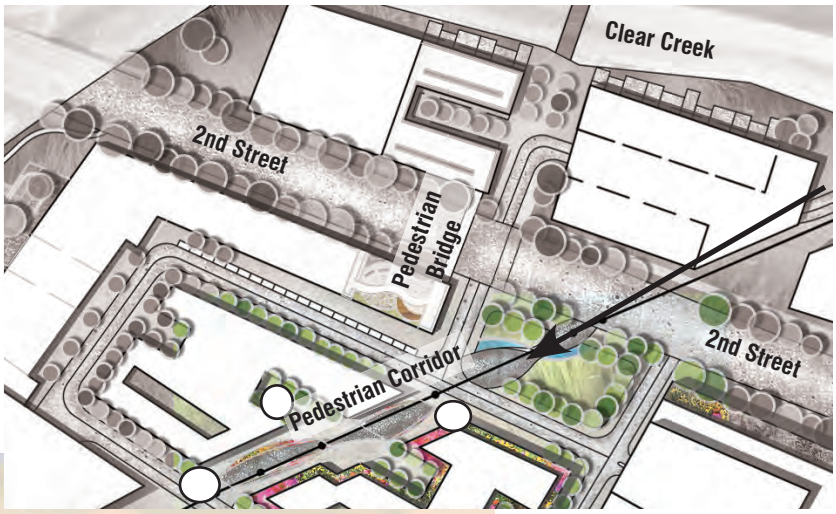
Activity

Creating Destinations within the district

The central pedestrian corridor was developed in order to provide a bustling public space serving both residents and visitors. The open space utilizes the existing powerline corridor by taking advantage of the clearance required around the lines. Buildings adjacent to the powerline form space which is activated by storefronts, restaurant patios, and plazas. The pedestrian corridor links users to the rest of the SCD via both indoor and outdoor connections. Public art within the corridor brings a sense of playfulness and identity to the area. The central pedestrian corridor creates a primary core to the SCD.

Figure 3.28
South End of Pedestrian Corridor
(Cross and Gray, 2018)

Figure 3.29
Pedestrian Corridor Courtyard
(Cross and Gray, 2018)



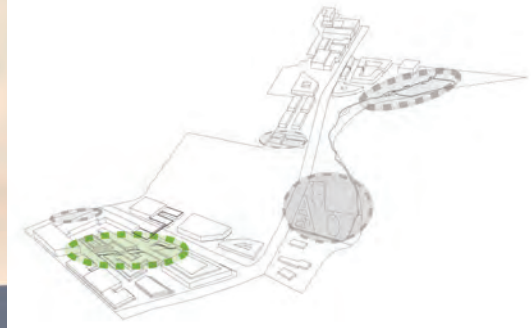


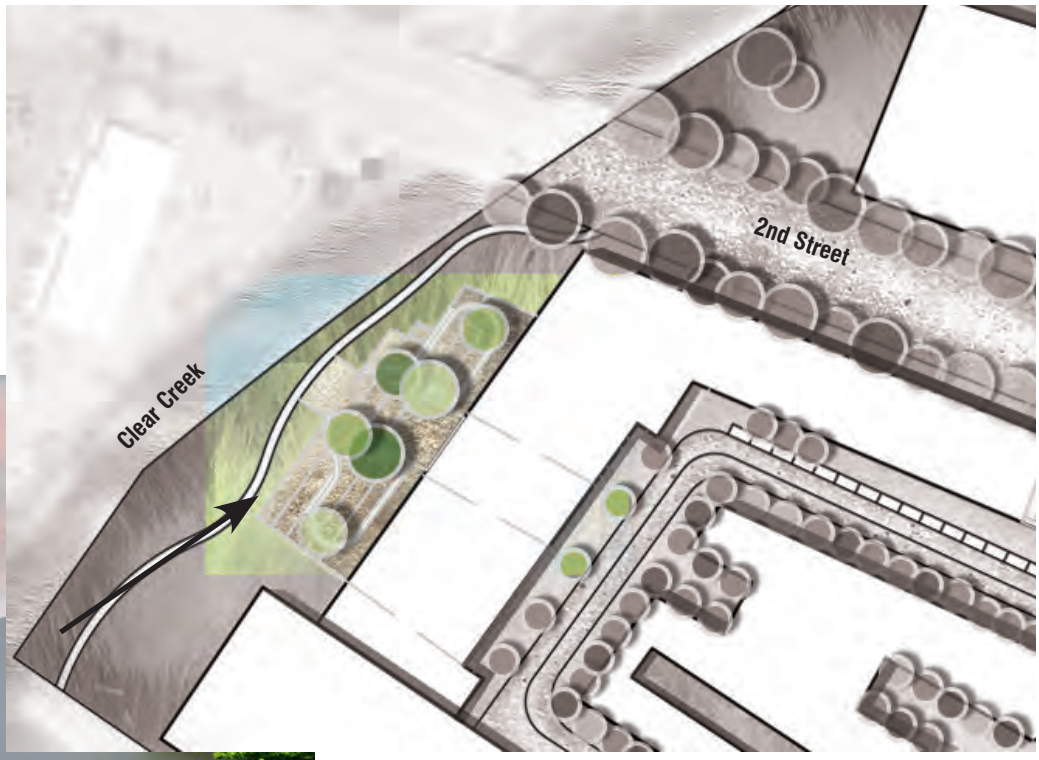
Figure 3.30
Green Hubs Diagram
(Gray, 2018)

Figure 3.31
Pedestrian Corridor Center
(Cross and Gray, 2018)

Figure 3.32
Axial View of Pedestrian Corridor
(Cross and Gray, 2018)

Joining the Southeast Commercial District and Clear Creek

District 1 is capped by a hotel on the far southwest corner of the area with a terraced plaza serving hotel guests as well as the public. The terraced plaza is programmed for patio space and provides areas for rest that overlook the creek. The FEMA floodplain elevation is achieved at the highest terrace allowing users to move closer to Clear Creek during normal water levels. The plaza is a place for interaction between users, their environment, and the SCD.



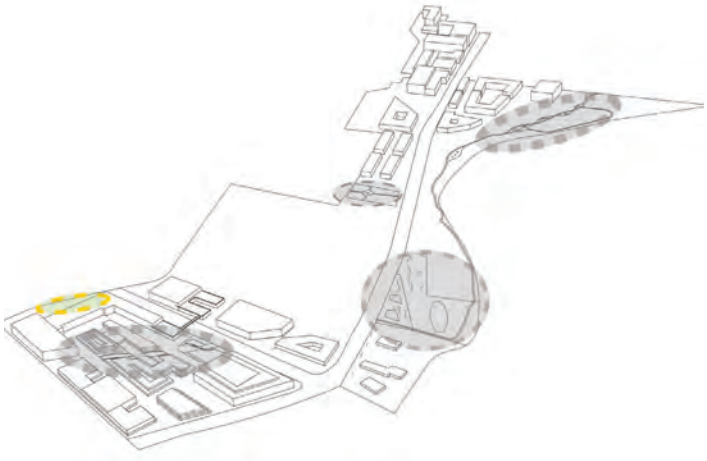


Figure 3.33
Terraced Public Space Green Hub Diagram

(Gray, 2018)

Figure 3.34
Terraced Public Space Adjacent to Hotel and Clear Creek
(Cross and Barragree, 2018)

Site Metrics

Brownfields

The SCD contains a variety of contaminants that affect the development of the site. To mitigate this condition, remediation techniques will be used throughout the site including encapsulation and air sparging. Additional testing must be performed prior to development to ensure the safety of users on site.

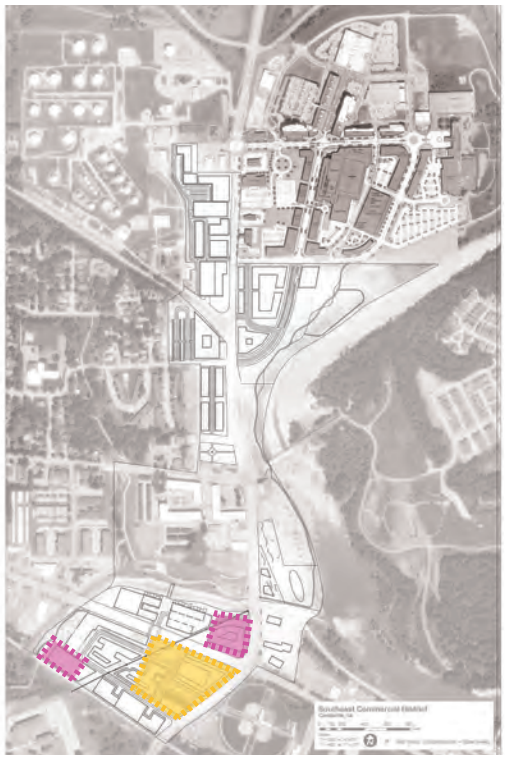


Figure 3.35
Brownfield Diagram
(Cross, 2018)

Land Use

District 1 is composed of mixed-use development within the SCD, the 1st Avenue corridor, and the IRL. Site metrics were configured only for the SCD as the development along 1st Avenue is preliminary and schematic. Buildings within the SCD contain commercial use on the street level and either residential, office, or a mix on upper floors. District parking is utilized within the area in the form of parking structures fronted with mixed-use buildings.

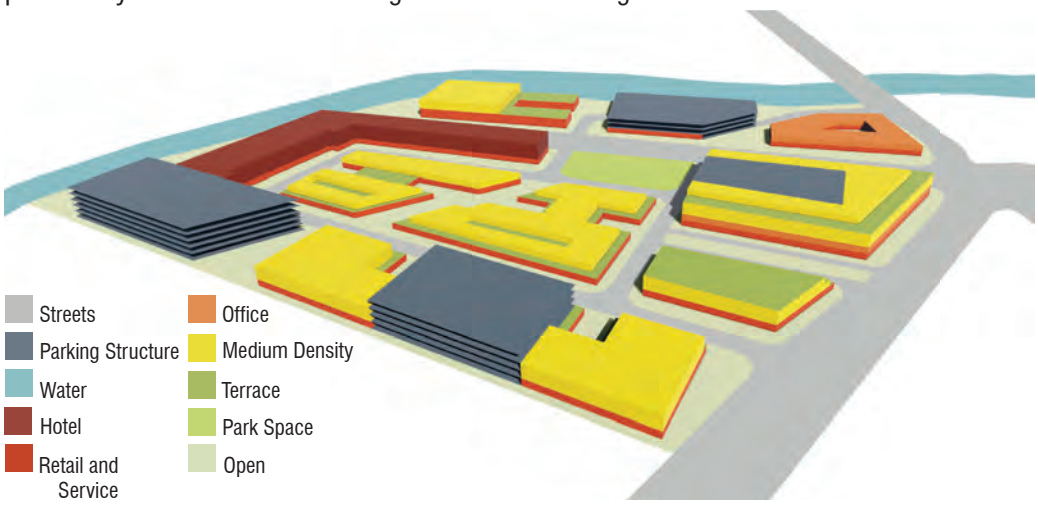


Figure 3.36
Land Use Diagram
(Barragree, 2018)

Metric Summary

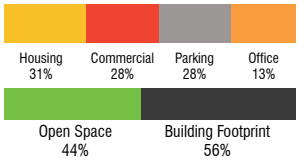
Residential Summary
Total Residential SF: 713617
Total Dwelling Units (DU):892
Avg DU/Acre: 52
Total Residents: 1784
Parking Stalls Needed: 952

Commercial Summary
Total Commercial SF: 557061
Employees: 743
Parking stalls Needed:1479

Office Summary
Total Office SF: 107,201
Employees: 214
Parking Stalls Needed: 284

Parking Summary
Total Stall Needed: 2715
Parking Stalls Provided: 2686
Surface Parking Stalls: 0
Street side Parking: 84
Structured Parking: 2602

FAR (excluding ROW)
0.53



Phasing

The phasing strategy for District 1 provides places for residents and business owners to move to during the construction process. Providing mixed use buildings early on will allow residents and business owners to relocate without major disruption. Early construction of buildings along major streets will begin to establish vibrancy and activity in early district phases.

Phase 1 (pink)

Phase 1 begins to activate streetfronts by constructing internal streets and buildings that front as these streets as well the major arterial streets. Parking garages are included, since most surface parking is being eliminated. Residential and commercial uses are present in this phase to allow those living or working on site to move into those buildings upon completion.

Figure 3.37
Phase 1 Diagram
(Cross, 2018)

Phase 2 (yellow)

Phase 2 focuses on completing specific sub-areas of District 1. Additional streets within the SCD allow for more buildings and an additional parking structure to be built.

Figure 3.38
Phase 2 Diagram
(Cross, 2018)

Phase 3 (green)

Phase 3 completes District 1 by adding six final buildings. This phase also includes all improvements and additions of green space and plazas.

Figure 3.39
Phase 3 Diagram
(Cross, 2018)

Figure 3.40
District 1 Photo Montage
District 1 brings together the community through connectivity, identity and activity.
(Cross and Gray, 2018)

Citations

Cover Figure
Hahn, Howard. 2018. “Untitled photograph of 1st Avenue.” Digital photograph accessed June 28, 2018.

Figure 3.1
Cross, Rachel. 2018. “Concept photomontage for Southeast Commercial District.” Kansas State University LAR 646 2018. Created using adobe photoshop.

- Everton, Sorrel. 2013. “Irish Garden Tour 2013.” Digital photograph. Accessed on June 14, 2018. Immediate Media Company Ltd 2018. http://www.gardensillustrated.com/article/none-homepage-only/irish-garden-tour.
- Holmes, Damian. 2018. “Maitland Levee | Maitland, Australia | McGregor Coxall |.” Digital photograph. Accessed June 14, 2018. 2007-2017 World Landscape Architecture. http://worldlandscapearchitect.com/maitland-levee-maitland-australia-mcgregor-coxall/#.WxSp3iFOnDt.
- Name of author unknown. 2018. “Sisters Coffee Company.” Accessed on June 14, 2018. 2018 Sisters Coffee Company. http://www.sisterscoffee.com/portland-pearl-marshall.
- Stoffel, Elsa. 2018. “Photograph taken in Southeast Commercial District.” Accessed on June 14, 2018.

Figure 3.2
Gray, Allyssa. 2018. “Concept Diagram.” Kansas State University LAR 646 2018. Created using adobe illustrator

Figure 3.3
Cross, Rachel. 2018. “Lack of indoor/outdoor connections with the streetscape along 2nd Street/Highway 6 and 1st Avenue.” Kansas State University LAR 646 2018. Created using adobe illustrator and Google Earth image.

- Mader, Grace. 2018. “Photograph of 2nd street corridor.” Accessed on June 23, 2018.

Figure 3.4
Gray, Allyssa. 2018. “Existing and Proposed Figure Ground.” Kansas State University LAR 646 2018. Created using auto cad and illustrator.
Dunay, Morgan. 2018. “Untitled photograph of vacant lot.” Digital photograph. Accessed June 29, 2018.

Figure 3.5
Cross, Rachel; Gray, Allyssa; Hahn, Howard. 2018. “District 1 Plan.” Kansas State University LAR 646 2018. Created using autocad and photoshop.

Figure 3.6

- Gray, Allyssa. 2018. “IRL Sculpture Walk.” Kansas State University LAR 646 2018.
- Ltd, Bobek. “Aerial View Of Tree Tops Free Stock Photo - Public Domain Pictures.” Accessed June 29, 2018. https://www.publicdomainpictures.net/en/view-image.php?image=135915&picture=aerial-view-of-tree-tops.
- PIXNIO. “Free Picture: Water, Texture.” PIXNIO - Public Domain Images. Accessed June 29,

2018. https://pixnio.com/textures-and-patterns/water-texture.
- McCoy, Matt. 2018. “c752f4d6dc666092f6896937bebcdfa.png” Accessed June 29, 2018
- McCoy, Matt. 2018. “c70758812d457c88f3d20dc2113eab18” Accessed June 29, 2018

Figure 3.7
Cross, Rachel; Gray, Allyssa. 2018. “Pedestrian Bridge.” Kansas State University LAR 646 2018. Created using autocad and photoshop.

Figure 3.8
Barragree, Josh; Cross, Rachel; Gray, Allyssa. 2018. “Pedestrian Corridor.” Kansas State University LAR 646 2018. Created using sketchup, lumion, and photoshop.
- Everton, Sorrel. 2013. “Irish Garden Tour 2013.” Digital photograph. Accessed on June 14, 2018. Immediate Media Company Ltd 2018. http://www.gardensillustrated.com/article/none-homepage-only/irish-garden-tour
- McCoy, Matt. “4ACESAC0.TIF.” Accessed June 29, 2018.
- McCoy, Matt. “6LANMON2.tif.” Accessed June 29, 2018.
- McCoy, Matt. “brick030.jpg.” Accessed June 29, 2018.
- McCoy, Matt. “c70758812d457c88f3d20dc2113eab18.” Accessed June 29, 2018.
- McCoy, Matt. “PatioFurn.jpg.” Accessed June 29, 2018.
- Starr, Julia. 2018. “Untitled photograph of sunset.” Digital photograph accessed June 23, 2018. CCO Public Domain. http://juliamstarr.tumblr.com/post/158938134815/sunset.

Figure 3.9
Barragree, Josh; Gray, Allyssa“Key Factors.” 2018. Kansas State University LAR 646 2018. Base of Diagram created from Rhino by Josh Barragree. Diagram created from Illustrator.

Figure 3.10
Baker, Logan; Cross, Rachel. 2018. “Refrent Diagrams” Kansas State University LAR 646 2018. Created using Illustrator.

Figure 3.11
Cross, Rachel; Gray, Allyssa; Hahn, Howard. 2018. “District 1 Plan.” Kansas State University LAR 646 2018. Created using autocad and photoshop.

Figure 3.12
Cross, Rachel. 2018. “Series of the parti diagrams showing the different types of streets.” Kansas State University LAR 646 2018. Created using Illustrator.

Figure 3.13
Cross, Rachel. 2018. “Sections showing how each type of street will be designed.” Kansas State University LAR 646 2018. Created using Illustrator.

Figure 3.14
Cross, Rachel; Hahn, Howard. 2018. “Map showing the different street placements in regards to our focused area of the site design.” Kansas State University LAR 646 2018. Created using illustrator.

Citations

Figure 3.15

Cross, Rachel. 2018. “Section of vertical change along 2nd Street corridor.” Kansas State University LAR 646 2018. Created using auto-cad and photoshop.

- Everton, Sorrel. 2013. “Irish Garden Tour 2013.” Digital photograph. Accessed on June 14, 2018. Immediate Media Company Ltd 2018. http://www.gardensillustrated.com/article/none-homepage-only/irish-garden-tour
- Nordlicht, Donny. 2018. “Untitled photo of cars.” Digital photograph accessed June 23, 2018. 2018 Automobile. https://www.automobilemag.com/news/hooray-toyota-produces-200-millionth-vehicle-ever-158803/
- Starr, Julia. 2018. “Untitled photograph of sunset.” Digital photograph accessed June 23, 2018. CCO Public Domain. http://juliamstarr.tumblr.com/post/158938134815/sunset.

Figure 3.16

Barragree, Josh. Cross, Rachel. Gray, Allyssa. 2018. “View from the rooftop garden looking towards the pedestrian model.” Kansas State University LAR 646 2018. Created using Sketchup, Lumion, and Adobe Photoshop.

- Everton, Sorrel. 2013. “Irish Garden Tour 2013.” Digital photograph. Accessed on June 14, 2018. Immediate Media Company Ltd 2018. http://www.gardensillustrated.com/article/none-homepage-only/irish-garden-tour
- McCoy, Matt. “4ACESAC0.TIF.” Accessed June 29, 2018.
- McCoy, Matt. “6LANMON2.tif.” Accessed June 29, 2018.
- Starr, Julia. 2018. “Untitled photograph of sunset.” Digital photograph accessed June 23, 2018. CCO Public Domain. http://juliamstarr.tumblr.com/post/158938134815/sunset.

Figure 3.17

Barragree, Josh. Cross, Rachel. Gray, Allyssa. 2018. “View of the Pedestrian Main Street.” Kansas State University LAR 646 2018. Created in Sketchup, Lumion, and Adobe Photoshop

- Everton, Sorrel. 2013. “Irish Garden Tour 2013.” Digital photograph. Accessed on June 14, 2018. Immediate Media Company Ltd 2018. http://www.gardensillustrated.com/article/none-homepage-only/irish-garden-tour
- McCoy, Matt. 2018. “4ACESAC0.TIF.” Accessed June 29, 2018.
- McCoy, Matt. 2018. “6LANMON2.tif.” Accessed June 29, 2018.
- McCoy, Matt. 2018. “Peopl442.tif.” Accessed June 29, 2018.
- McCoy, Matt. 2018. “Peopl212.tif.” Accessed July 3, 2018.
- McCoy, Matt. 2018. “Peopl240.tif.” Accessed July 3, 2018.
- Starr, Julia. 2018. “Untitled photograph of sunset.” Digital photograph accessed June 23, 2018. CCO Public Domain. http://juliamstarr.tumblr.com/post/158938134815/sunset.

Figure 3.18

Cross, Rachel. 2018. “Section of vertical change along 1st Avenue.” Kansas State University LAR 646 2018. Created in auto-cad and photoshop.

- Everton, Sorrel. 2013. “Irish Garden Tour 2013.” Digital photograph. Accessed on June 14, 2018. Immediate Media Company Ltd 2018. http://www.gardensillustrated.com/article/none-homepage-only/irish-garden-tour
- McCoy, Matt. 2018. “Peopl212.tif.” Accessed July 3, 2018.

- McCoy, Matt. 2018. “Peopl240.tif.” Accessed July 3, 2018.
- Starr, Julia. 2018. “Untitled photograph of sunset.” Digital photograph accessed June 23, 2018. CCO Public Domain. http://juliamstarr.tumblr.com/post/158938134815/sunset.

Figure 3.19

Barragree, Josh. Gray, Allyssa. 2018. “Green Hubs Diagram.” Kansas State University LAR 646 2018. Created by Rhino and Illustrator.

Figure 3.20

Gray, Allyssa. 2018. “Sculpture Walk.” 2018. Kansas State University LAR 646 2018. Created by Photoshop

- McCoy, Matt. 2018. “9LAND04.tif” Accessed July 3, 2018.
- McCoy, Matt. 2018. “brick030.jpg.” Accessed July 3, 2018.
- McCoy, Matt. 2018. “peopl442.tif.” Accessed July 3, 2018.
- McCoy, Matt. 2018. “PEOP1062.tif.” Accessed July 3, 2018.
- McCoy, Matt. 2018. “SKYCL107.tif.” Accessed July 3, 2018.
- McCoy, Matt. 2018. “Free Image on Pixabay - Art, Sculpture, Modern Art, Colors.” Accessed June 14, 2018. /en/art-sculpture-modern-art-colors-2676352/.
- McCoy, Matt. 2018. “Free Photo Design Art Metal Artwork Modern Sculpture - Max Pixel.” Accessed July 3, 2018. https://www.maxpixel.net/Design-Art-Metal-Artwork-Modern-Sculpture-1555711.

Figure 3.21

Gray, Allyssa. 2018. “Iowa River Landing Sculpture Walk.” Kansas State University LAR 646 2018. Created with photoshop.

- Charleston, North. National Outdoor Sculpture Competition and Exhibition. May 10, 2016. Photo. https://www.flickr.com/photos/northcharleston/26950619985/.
- mira66. Owl by Antanas Brazdys, Gibberd Garden, Harlow, Essex. January 1, 2010. Photo. https://www.flickr.com/photos/21804434@N02/5046969656/.
- “Geograph:: Sea Urchin Sculpture at Dun Laoghaire (C) Kay Atherton.” Accessed July 10, 2018. http://www.geograph.ie/photo/913262.
- McCoy, Matt. “9LAND02.TIF.” Accessed July 9, 2018.
- McCoy, Matt. “aa1.png.” Accessed July 9, 2018.
- McCoy, Matt. “A1_sleeping_1600.png.” Accessed July 9, 2018.
- McCoy, Matt. “Brick030.jpg.” Accessed July 9, 2018.
- McCoy, Matt. “KissingCouple-Picnic.png.” Accessed July 9, 2018.
- McCoy, Matt. “ManWalkingLab.png.” Accessed July 9, 2018.
- McCoy, Matt. “OLI_TREE_LINE_3.png.” Accessed July 9, 2018.
- McCoy, Matt. “Peopl260.tif.” Accessed July 9, 2018.
- McCoy, Matt. “SKYCL157.tif.” Accessed July 9, 2018.

Figure 3.22

“Brick Facade.” 2018.

- Xauxa, Håkan Svensson. Solna, Sweden. Brick Wall. Vilt Förband. May 11, 2007. Own work. https://commons.wikimedia.org/wiki/File:Solna_Brick_wall_vilt_forband.jpg.

Citations

Figure 3.23
"Limestone Accent Facade." 2018.
- "Free Images : Path, Sidewalk, Floor, Roof, Cobblestone, Asphalt, Walkway, Pattern, Brick, Lane, Material, Lines, Driveway, Flooring, Road Surface, Stone Pavement, Outdoor Structure 5760x3840 - - 1090899 - Free Stock Photos - PxHere." Accessed July 1, 2018. /en/photo/1090899.

Figure 3.24
"Corten Steel." 2018.
- "Corten Steel - Google Search." Accessed July 1, 2018. https://www.google.com/search?q=corten+steel&rlz=1C1CHBF_enUS759US759&tbs=sur:fc&tbm=isch&source=lnt&sa=X&ved=0ahUKEwiC48-W8vzbAhVK4qwKHcBxDz0QpwUIIA&biw=1536&bih=759&dpr=1.25#imgrc=t-2HS50ZuN0UYM:

Figure 3.25
"Concrete Pavers." 2018.
- "Free Images : Abstract, Structure, Wood, Texture, Floor, Line, Facade, Tile, Stone Wall, Brick, Material, Surface, Stones, Background, Marble, Brickwork, Masonry, Bricked, Hauswand, Flooring, Regulation 3526x2351 - - 906283 - Free Stock Photos - PxHere." Accessed July 1, 2018. /en/photo/906283.

Figure 3.26
- "Concrete Accent." 2018.

"Concrete Cement Grey · Free Photo on Pixabay." Accessed July 1, 2018. https://pixabay.com/en/concrete-cement-grey-texture-rough-834490/.

Figure 3.27
Barragree, Josh. Cross, Rachel. Gray, Allyssa. 2018. "View of Pedestrian Mall." Kansas State University LAR 646 2018. Created in sketchup, lumion, and photoshop.
- Everton, Sorrel. 2013. "Irish Garden Tour 2013." Digital photograph. Accessed on June 14, 2018. Immediate Media Company Ltd 2018. http://www.gardensillustrated.com/article/none-homepage-only/irish-garden-tour
- Mader, Grace. 2018. "Pictures of site." Digital photograph.
- McCoy, Matt. 2018. "Peopl240.tif." Accessed July 3, 2018.
- McCoy, Matt. 2018. "Peopl259.tif." Accessed July 3, 2018.
- McCoy, Matt. 2018. "Peopl1034.tif." Accessed July 3, 2018.
- McCoy, Matt. 2018. "Peopl417.tif." Accessed July 3, 2018.
- McCoy, Matt. 2018. "Peopl1027.tif." Accessed July 3, 2018.
- McCoy, Matt. 2018. "YA-3-Group" Accessed July 3, 2018.

Figure 3.28

Barragree, Josh. Cross, Rachel. Gray, Allyssa. 2018. “South End of Pedestrian Corridor.” Kansas State University LAR 646 2018. Created using Lumion, Sketchup, and photoshop.

- McCoy, Matt. 2018. “Peopl206.tif.” Accessed July 3, 2018.
- McCoy, Matt. 2018. “Peopl212.tif.” Accessed July 3, 2018.
- McCoy, Matt. 2018. “Peopl240.tif.” Accessed July 3, 2018.
- McCoy, Matt. 2018. “Peopl259.tif.” Accessed July 3, 2018.
- McCoy, Matt. 2018. “Peopl1034.tif.” Accessed July 3, 2018.
- McCoy, Matt. 2018. “Peopl417.tif.” Accessed July 3, 2018.
- McCoy, Matt. 2018. “Peopl1027.tif.” Accessed July 3, 2018.
- McCoy, Matt. 2018. “YA-3-Group” Accessed July 3, 2018.
- McCoy, Matt. 2018. “YA-4-Group” Accessed July 3, 2018.
- Starr, Julia. 2018. “Untitled photograph of sunset.” Digital photograph accessed June 23, 2018. CCO Public Domain. http://juliamstarr.tumblr.com/post/158938134815/sunset.

Figure 3.29

Barragree, Josh. Cross, Rachel. Gray, Allyssa. 2018. “Pedestrian Corridor Courtyard.” Kansas State University LAR 646 2018. Created using Lumion, sketchup, and photoshop.

- McCoy, Matt. 2018. “Peopl206.tif.” Accessed July 3, 2018.
- McCoy, Matt. 2018. “Peopl212.tif.” Matt McCoy. Accessed July 3, 2018.
- McCoy, Matt. 2018. “Peopl227.tif.” Accessed July 3, 2018.
- McCoy, Matt. 2018. “Peopl240.tif.” Accessed July 3, 2018.
- McCoy, Matt. 2018. “Peopl1034.tif.” Accessed July 3, 2018.
- McCoy, Matt. 2018. “Peopl417.tif.” Accessed July 3, 2018.
- McCoy, Matt. 2018. “Peopl1027.tif.” Accessed July 3, 2018.
- McCoy, Matt. 2018. “YA-3-Group” Accessed July 3, 2018.
- McCoy, Matt. 2018. “YA-4-Group” Accessed July 3, 2018.
- Starr, Julia. 2018. “Untitled photograph of sunset.” Digital photograph accessed June 23, 2018. CCO Public Domain. http://juliamstarr.tumblr.com/post/158938134815/sunset.

Figure 3.30

Gray, Allyssa. “Pedestrian Corridor Green Hub Diagram.” Kansas State University LAR 646 2018. Created using Illustrator.

Figure 3.31

Barragree, Josh. Cross, Rachel. Gray, Allyssa. “Pedestrian Corridor Center.” Kansas State University LAR 646 2018. Created with Lumion, sketchup, and photoshop.

- McCoy, Matt. 2018. “Peopl206.tif.” Accessed July 3, 2018.
- McCoy, Matt. 2018. “Peopl206.tif.” Accessed July 3, 2018.
- McCoy, Matt. 2018. “Peopl212.tif.” Accessed July 3, 2018.
- McCoy, Matt. 2018. “Peopl227.tif.” Accessed July 3, 2018.
- McCoy, Matt. 2018. “Peopl240.tif.” Accessed July 3, 2018.
- McCoy, Matt. 2018. “Peopl1034.tif.” Accessed July 3, 2018.
- McCoy, Matt. 2018. “Peopl417.tif.” Accessed July 3, 2018.
- McCoy, Matt. 2018. “Peopl1027.tif.” Accessed July 3, 2018.
- McCoy, Matt. 2018. “YA-3-Group” Accessed July 3, 2018.
- McCoy, Matt. 2018“YA-4-Group” Matt McCoy. Accessed July 3, 2018.

Citations

- Starr, Julia. 2018. “Untitled photograph of sunset.” Digital photograph accessed June 23, 2018. CCO Public Domain. http://juliamstarr.tumblr.com/post/158938134815/sunset.

Figure 3.32

Barragree, Josh. Cross, Rachel. Gray, Allyssa. 2018. “Pedestrian Corridor.” Kansas State University LAR 646 2018. Created using Lumion, Adobe Photoshop, and Sketchup.

- Everton, Sorrel. 2013. “Irish Garden Tour 2013.” Digital photograph. Accessed on June 14, 2018. Immediate Media Company Ltd 2018. http://www.gardensillustrated.com/article/none-homepage-only/irish-garden-tour
- McCoy, Matt. 2018. “Peopl206.tif.” Accessed July 3, 2018.
- McCoy, Matt. 2018. “Cut out People - Group 0017.” MrCutout.com. Accessed July 3, 2018. https://www.mrcutout.com/78-cutouts/people-cutouts/639-group-0017.
- McCoy, Matt. 2018. “Cut out People - Group Friends 0002.” MrCutout.com. Accessed July 3, 2018. https://www.mrcutout.com/78-cutouts/people-cutouts/4304-group-friends-0002.
- McCoy, Matt. 2018. “Cut out People - Group Friends 0008.” MrCutout.com. Accessed July 3, 2018. https://www.mrcutout.com/78-cutouts/people-cutouts/607-group-friends-0008.
- McCoy, Matt. 2018. “Peopl206.tif.” Accessed July 3, 2018.
- McCoy, Matt. 2018. “Peopl212.tif.” Accessed July 3, 2018.
- McCoy, Matt. 2018. “Peopl227.tif.” Accessed July 3, 2018.
- McCoy, Matt. 2018. “Peopl234.tif.” Accessed July 3, 2018.
- McCoy, Matt. 2018. “Peopl417.tif.” Accessed July 3, 2018.
- Starr, Julia. 2018. “Untitled photograph of sunset.” Digital photograph accessed June 23, 2018. CCO Public Domain. http://juliamstarr.tumblr.com/post/158938134815/sunset.

Figure 3.33

Barragree, Josh. Gray, Allyssa. 2018. “Terraced Plaza Green Hubs Diagram.” Kansas State University LAR 646 2018. Created by Rhino and Illustrator.

Figure 3.34

Barragree, Josh. Cross, Rachel. Gray, Allyssa. 2018. “Terraced Plaza Adjacent to Clear Creek.” Kansas State University LAR 646 2018. Created using Lumion, Adobe Photoshop, and Sketchup

- Everton, Sorrel. 2013. “Irish Garden Tour 2013.” Digital photograph. Accessed on June 14, 2018. Immediate Media Company Ltd 2018. http://www.gardensillustrated.com/article/none-homepage-only/irish-garden-tour
- McCoy, Matt. 2018. “Peopl206.tif.” Accessed July 3, 2018.
- McCoy, Matt. 2018. “Peopl234.tif.” Accessed July 3, 2018.
- McCoy, Matt. 2018. “Peopl417.tif.” Accessed July 3, 2018.
- McCoy, Matt. 2018. “Peopl260.tif.” Accessed July 3, 2018.
- McCoy, Matt. 2018. “Peopl240.tif.” Accessed July 3, 2018.
- Starr, Julia. 2018. “Untitled photograph of sunset.” Digital photograph accessed June 23, 2018. CCO Public Domain. http://juliamstarr.tumblr.com/post/158938134815/sunset.

Figure 3.35

Cross, Rachel. Hahn, Howard. 2018. “Brownfields Diagram.” Kansas State University LAR 646 2018. Created using Ilustrator and base map from ArcGIS.

Figure 3.36

Barragree, Josh. 2018. “Land Use Diagram.” Kansas State University LAR 646 2018. Created from rhino and photoshop.

Figure 3.37
Cross, Rachel. 2018. “Phase 1.” Kansas State University LAR 646 2018. Created using google maps, photoshop, and illustrator.

Figure 3.38
Cross, Rachel. 2018. “Phase 2.” Kansas State University LAR 646 2018. Created using google maps, photoshop, and illustrator.

Figure 3.39
Cross, Rachel. 2018. “Phase 3.” Kansas State University LAR 646 2018. Created using google maps, photoshop, and illustrator.

Figure 3.40
Cross, Rachel. Gray, Allyssa. 2018. “Concept Photo Montage.” Kansas State University LAR 646 2018. Created using photoshop.

- Everton, Sorrel. 2013. “Irish Garden Tour 2013.” Digital photograph. Accessed on June 14, 2018. Immediate Media Company Ltd 2018. http://www.gardensillustrated.com/article/none-homepage-only/irish-garden-tour.
- Holmes, Damian. 2018. “Maitland Levee | Maitland, Australia | McGregor Coxall |.” Digital photograph. Accessed June 14, 2018. 2007-2017 World Landscape Architecture. http://worldlandscapearchitect.com/maitland-levee-maitland-australia-mcgregor-coxall/#.WxSp3iFOnDt.
- Name of author unknown. 2018. “Sisters Coffee Company.” Accessed on June 14, 2018. 2018 Sisters Coffee Company. http://www.sisterscoffee.com/portland-pearl-marshall.
- Stoffel, Elsa. 2018. “Photograph taken in Southeast Commercial District.” Accessed on June 14, 2018.

Industrial Greenway

Logan Baker
Danielle Hodgson
Spencer Sanders
Mackenzie Yeager

TALLGRASS
BUSINESS RESOURCES
Interiors | Furniture | Supplies | Facilities

Industrial Greenway

Using Existing Frameworks to Create a Unified District

Existing transportation and power infrastructure is enhanced and utilized to shape the form of this design, creating a unique human experience.

Abstract

The existing Southeast Commercial District is undoubtedly filled with unique character and has easily visible hints of the area's industrial past. While Coralville continues to transform to a more connected and accessible extension of Iowa City, the current site infrastructure supports a high volume of vehicular traffic with wide intersections that leave the area divided and disconnected.

The intent of this design is to not only unify the site, but also utilize the existing rail corridors as economic and social drivers that will connect this district to the surrounding area. Public green space serves as a link to the transit lines and an amenity for residents as they follow along the existing and visually dominant powerlines. Three connected parks provide opportunities for recreation, socialization and relaxation, along the way, while acting as a unique and enticing design element.

Major Design Goals

Connect Area With Transit

Re-purposing the existing rail lines to function as local and regional rail lines and turning a portion of the site into a transit hub that connects itself to Iowa River Landing, Iowa City, and the University of Iowa will bring commercial traffic to this area and entice new residents.

Increase Access to Green Space

Creating a corridor of public green space will help connect the two transit areas visually and spatially, while providing recreational and active space for residents. More parklets throughout the site will ensure close proximity and equal access for all residents.

Maximize Pedestrian Experience and Emphasis On Site

Buildings, residences, and green spaces will be well-connected by pedestrian modes of transportation throughout the site. Trails, sidewalks, and pedestrian malls will create inviting and enjoyable experiences for site visitors and residents as they make their way through engaging planting designs and diverse streetscapes.

Emphasize and Maintain Elements of Existing Character and Identity

By focusing on the main power line corridor that divides the site and using material that embraces the industrial history of Coralville, these ordinarily dominating and obtrusive features will become artistic assets that guide users through the site and further connect it to the revitalized area.

Figure 4.2
Balcony View
(Baker, 2018)

Primary Opportunities

Existing Transit Corridors

The site is bordered by two under-used rail corridors and a trail system that connects the Southeast Commercial District to surrounding green space, the Iowa River, and Iowa River Landing (IRL). Its central location gives it the potential to unify Coralville for local residents, providing them access to jobs, shops, and entertainment.

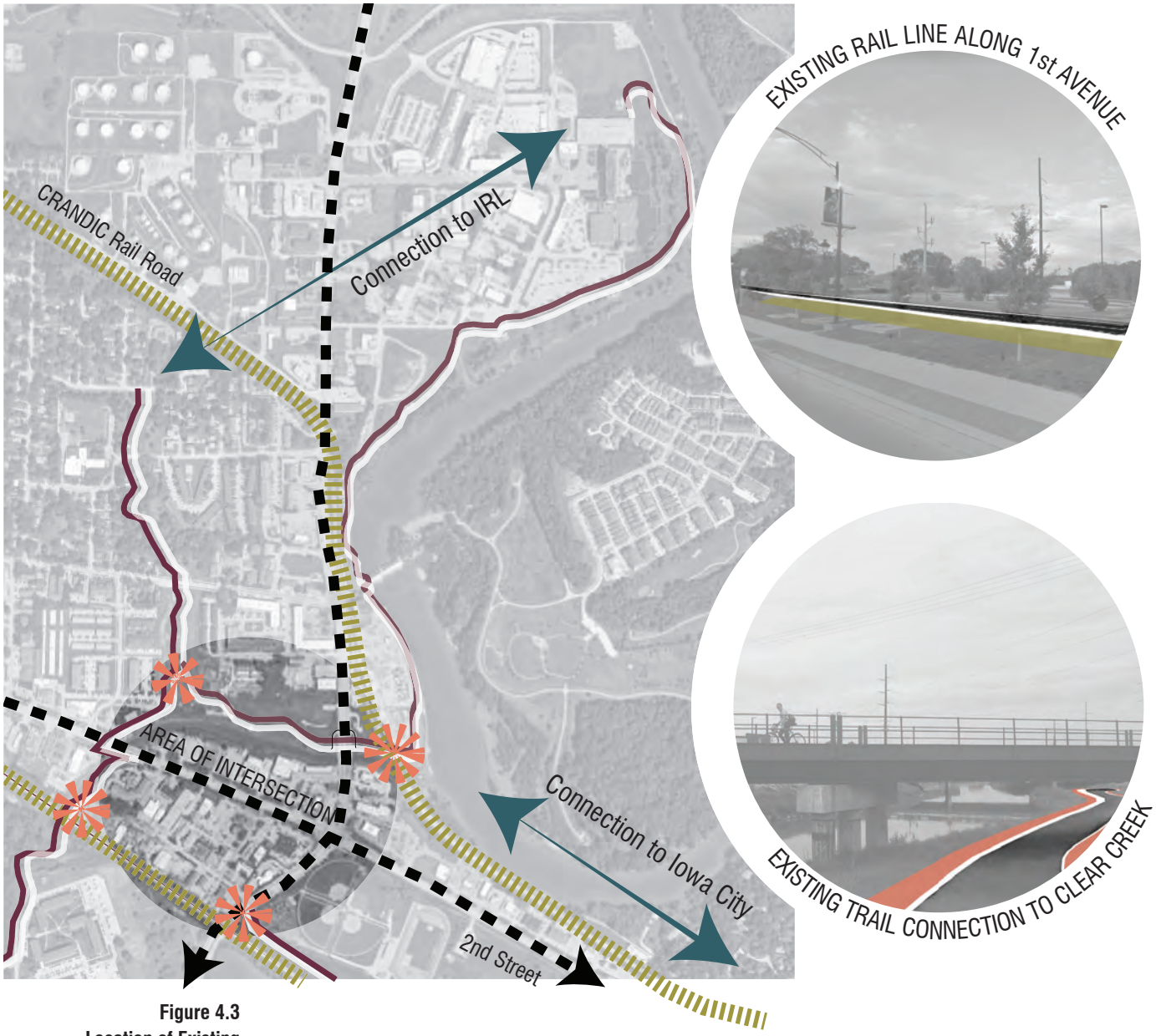


Figure 4.3
Location of Existing Rail Lines and Trails
Nearby rail lines and trails intersect near the study area, creating an opportunity for greater connection
(Hodgson, 2018)

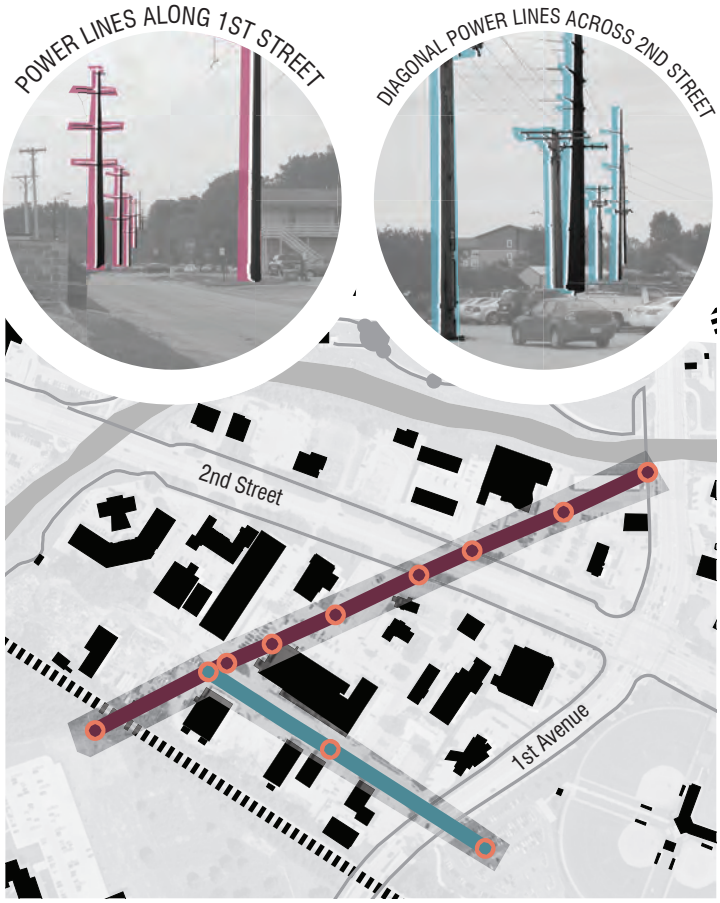
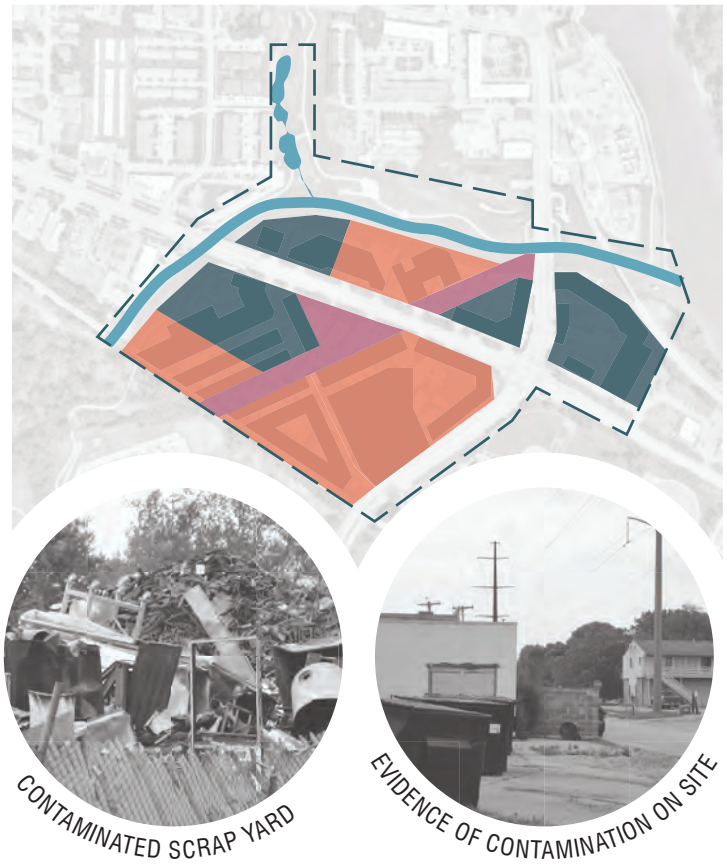


Figure 4.4
Location of Existing Power Lines
(Hodgson, 2018)

Existing Power lines

One of the most visually demanding features of the site is the power lines that make a line from the southwest to northeast corners of the site and along 1st Street. They effectively divide the site and limit building opportunities underneath them. Despite this, the corridor provides an opportunity to expand upon these underused areas by giving access and recreation to residents and visitors.



Brownfield Treatment Plan

Contaminated soils are present in the study area and need to be remediated before development can take place. Covering and sealing contaminated soils, aka “capping”, is an effective way to prevent the spread of contamination and raise building elevations out of the flood plain.

Figure 4.5
Brownfield Treatment Plan
(Sanders, 2018)

Design Framework

Site Organization

Instead of perceiving the existing power lines as a visual obstruction and dilemma, they are used as the main organizing element on the site. A linear park system is proposed following the power lines with a new road designed at a 90 degree angle to it. From these two key elements, an orthogonal grid was created to organize the following design ideas.

Figure 4.6
Existing Powerlines
(Hodgson, 2018)

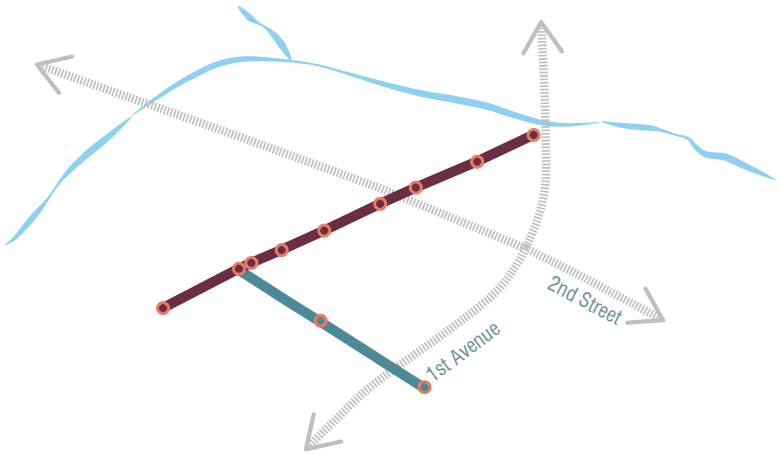


Figure 4.7
Site Grid & Park Connections
(Sanders, 2018)

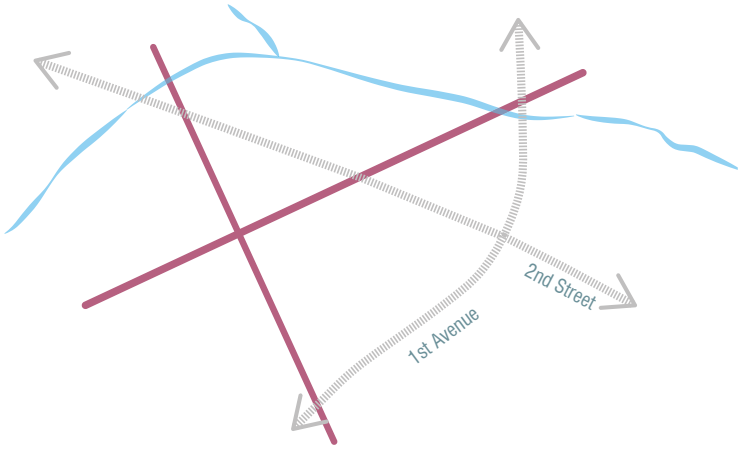
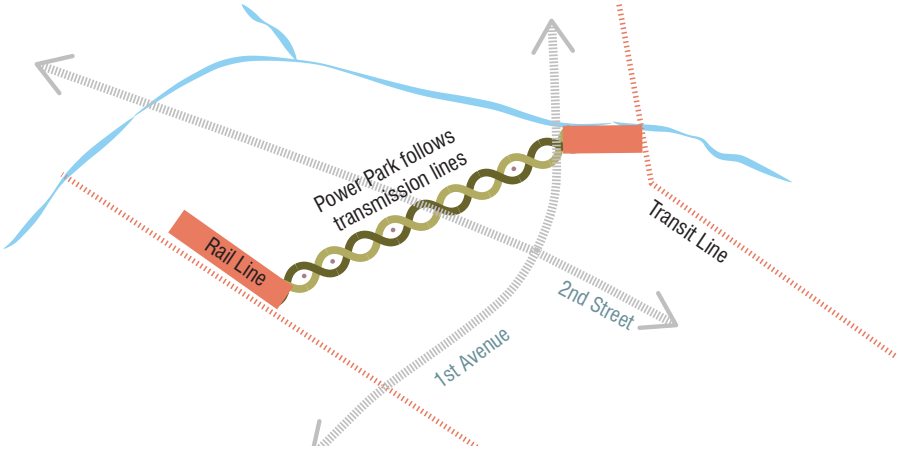


Figure 4.8
Parti/Concept
(Sanders, 2018)



Rail lines will have new stops at the site to promote businesses and connectivity

Vehicular circulation is clearly defined and promotes pedestrian movement by lessening traffic

Trails connect to the site through new pedestrian paths

Pedestrian circulation has been clearly defined and extends throughout the site

Plazas across the site create gathering spaces for visitors and residents

Green space connects the site across 2nd St. and to the creek while highlighting power lines

Building footprints help shape space and organize community areas

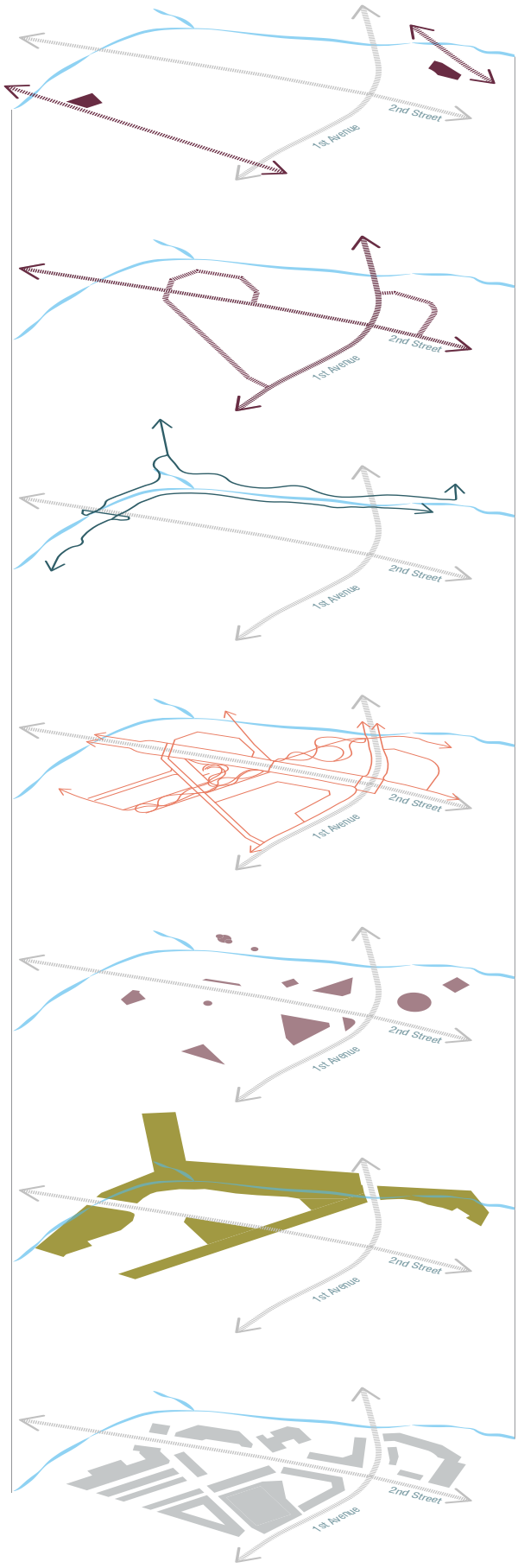


Figure 4.9
Layered Design Elements
Layers of site elements reveal how everything ties together to create a cohesive design
(Sanders, 2018)

Illustrative Site Plan

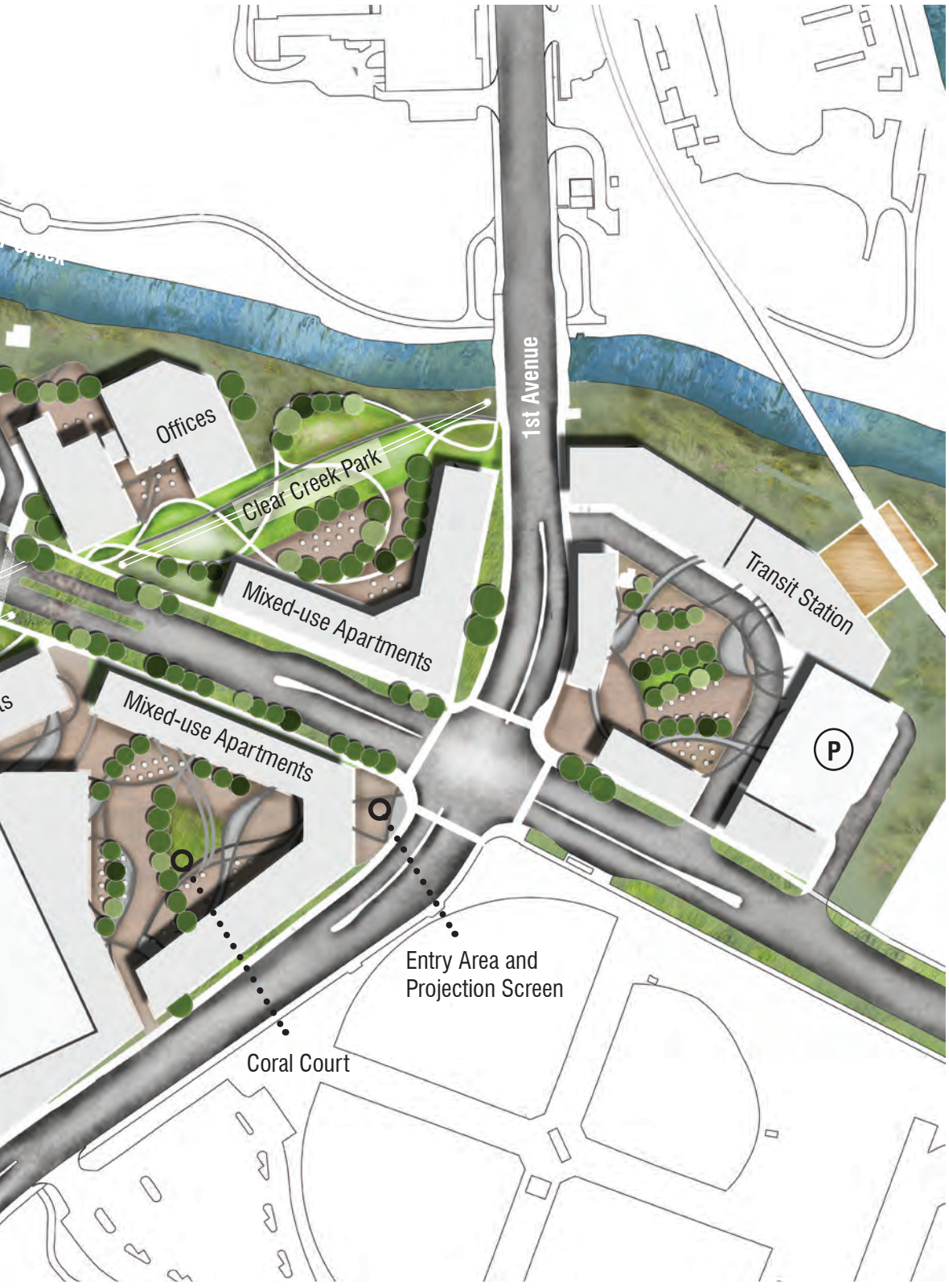
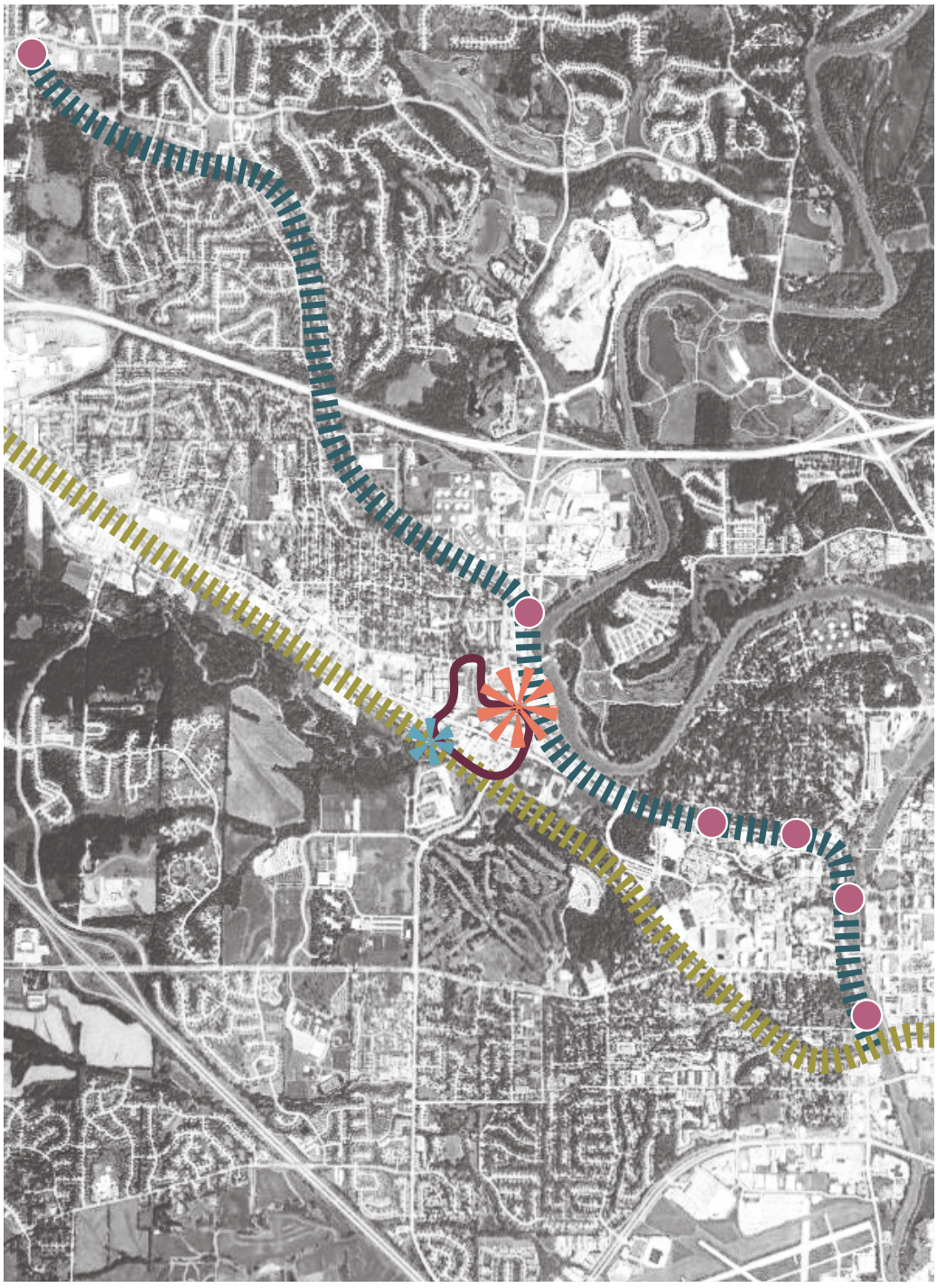


Figure 4.10
Site Plan
(Hodgson, Sanders and Yeager, 2018)

Opportunities Through Transit

Several existing railway lines can be found in the Coralville area, most of which are not used to their full potential. Due to their advantageous placement through the heart of Coralville, University of Iowa and Iowa City, these lines provide the perfect groundwork to build a new light rail system that will service commuters from all three locations. The plan builds on the 2015 Iowa City-Cedar Rapids Passenger Rail Conceptual Feasibility Study, understanding that enhancing the public transportation experience for residents and visitors will introduce numerous economic, environmental and social benefits to Coralville.

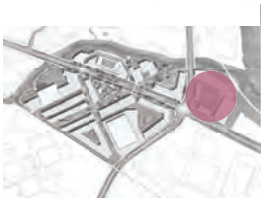
Figure 4.11
Proposed Regional and Local Rail Lines
The existing CRANDIC rail line will be converted to a light rail track. The new light rail will service Iowa City, the University of Iowa and Coralville. The existing regional rail line will continue to serve surrounding states.
(Yeager, 2018)



Transit Driven Place Making To Invigorate the SCD

To accommodate passengers using the new rail, a "Transit Hub," located within the Southeast Commercial District, will accommodate light rail and bus passengers. The Hub will revive the northeast corner of the site by encouraging commercial growth while celebrating Coralville's long-standing industrial identity. Furthermore, the Hub creates a gateway to the rest of the Southeast Commercial District and accommodates easy access to the regional transit station. located in the southwest corner of the site.

Figure 4.12
Conceptual Section of 1st Ave.
Creating an easily accessible light rail system will provide safe, convenient and efficient transportation.
(Hodgson, 2018)



Transit Station Catalyzes New Retail

Figure 4.13
Transit Hub
(Yeager, 2018)

Identity

Preserve Existing Power lines to Promote Unity and Interest

Traces of Coralville's history can be examined in many areas across the Southeast Commercial District. Industry, multiculturalism, and economics have all done their part in shaping the Coralville of today.

Preservation of these historic influences guided the design to be responsive and sensitive to the site, as well as the desires of the greater Coralville community. By preserving much of the existing power line infrastructure within the Southeast Commercial District, strong ties to the historic past of Coralville are established. Additionally, re-purposing existing infrastructure promotes the creation of new and memorable experiences for the Coralville community for many years while saving funds for other beneficial ventures, such as additional art or amenities that will further set the area apart.

The Greenway, a linear green space situated within the center of the Southeast Commercial District, utilizes existing power line infrastructure and re-purposes it into a a functional and aesthetic element. Clad in appealing cor-ten steel and nearly 70 feet tall, the power poles serve as an important landmark for the Southeast Commercial District.

By embracing the area's historic and cultural infrastructure, the identity of the Southeast Commercial District can be preserved and enhanced with new experiences and memories. The corridor along the power lines becomes a unique and enticing space that will draw attention, providing incentive for developers and business owners to move to this area. Futhermore, the corridor reminds residents of the area's historical significance.

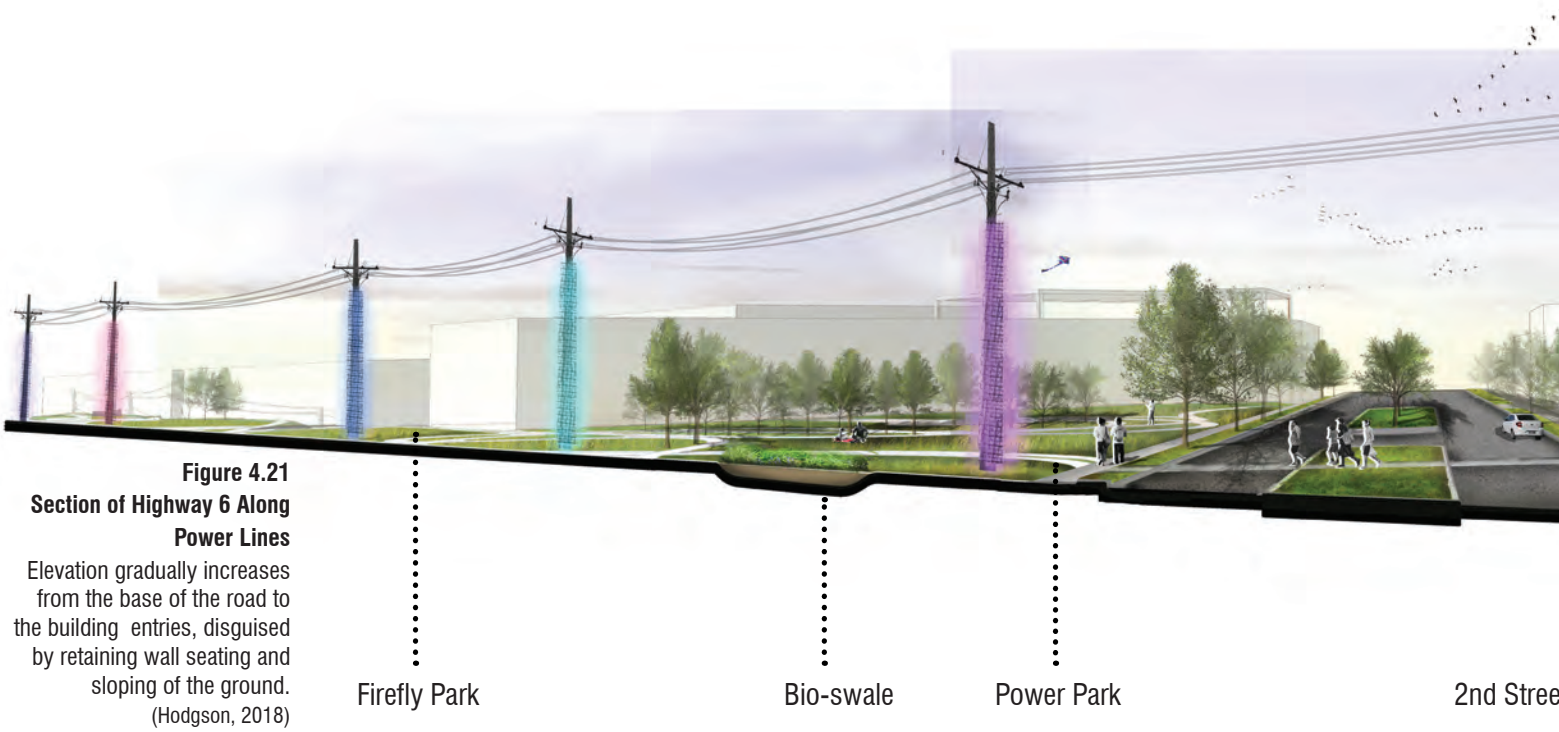
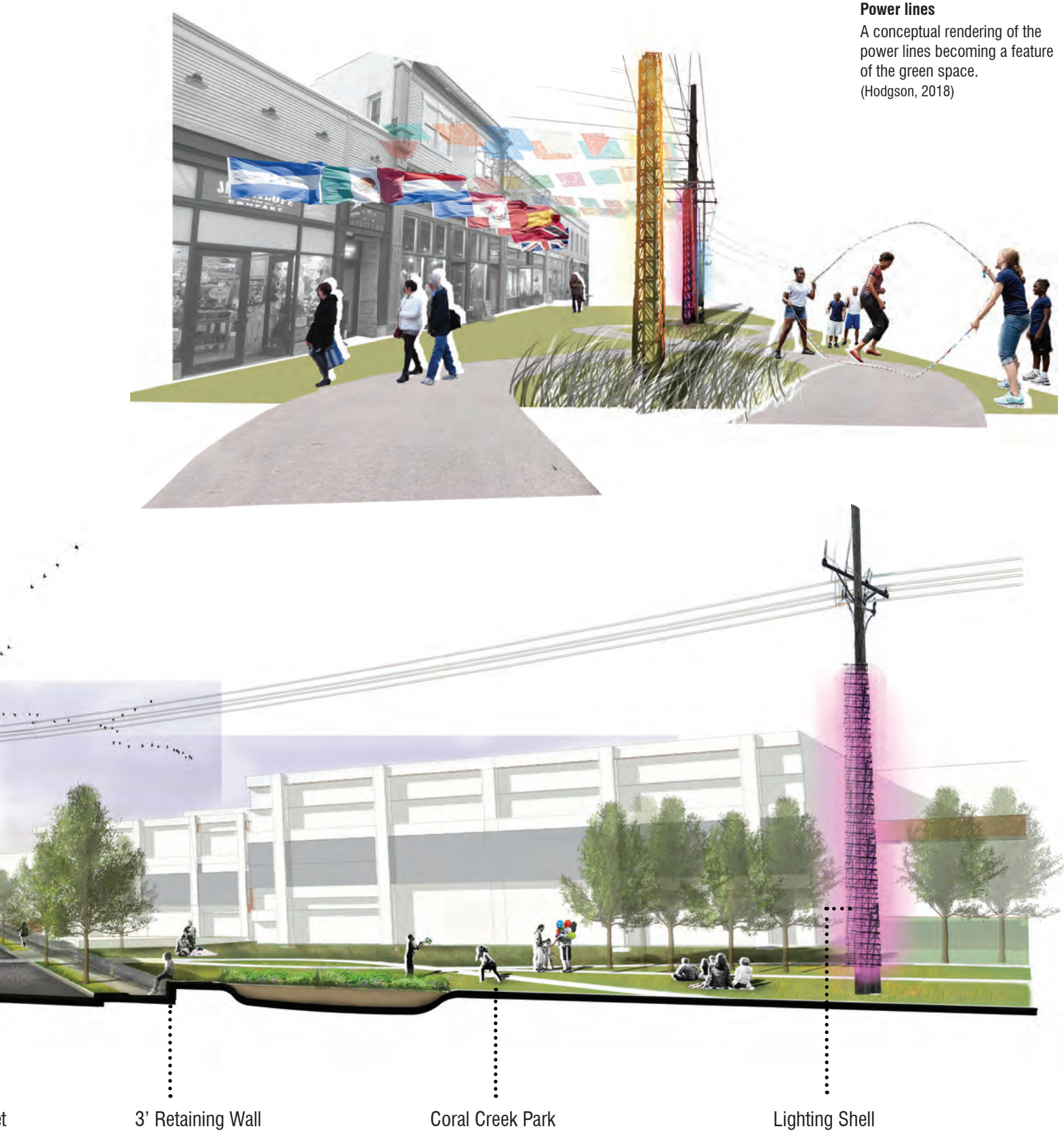


Figure 4.21
Section of Highway 6 Along Power Lines
Elevation gradually increases from the base of the road to the building entries, disguised by retaining wall seating and sloping of the ground.
(Hodgson, 2018)

Figure 4.22
Linear Green Space Along Power lines
A conceptual rendering of the power lines becoming a feature of the green space.
(Hodgson, 2018)



Connected Green Spaces

An interconnected series of green spaces is beneficial to the overall health and character of any urban environment. Placed on a central axis through the Southeast Commercial District, the linear swath of green space is divided into three sections: Clear Creek Park, Power Park, and Firefly Park. They provide opportunities for recreation and relaxation, while serving as a welcoming gateway to apartments, townhomes, and retail shops. Supporting this strong central axis, a series of smaller connected green spaces branch off from it, providing even more opportunities for recreation and relaxation. Together, the elements composing the green network create a cohesive series of experiences throughout the Southeast Commercial District.

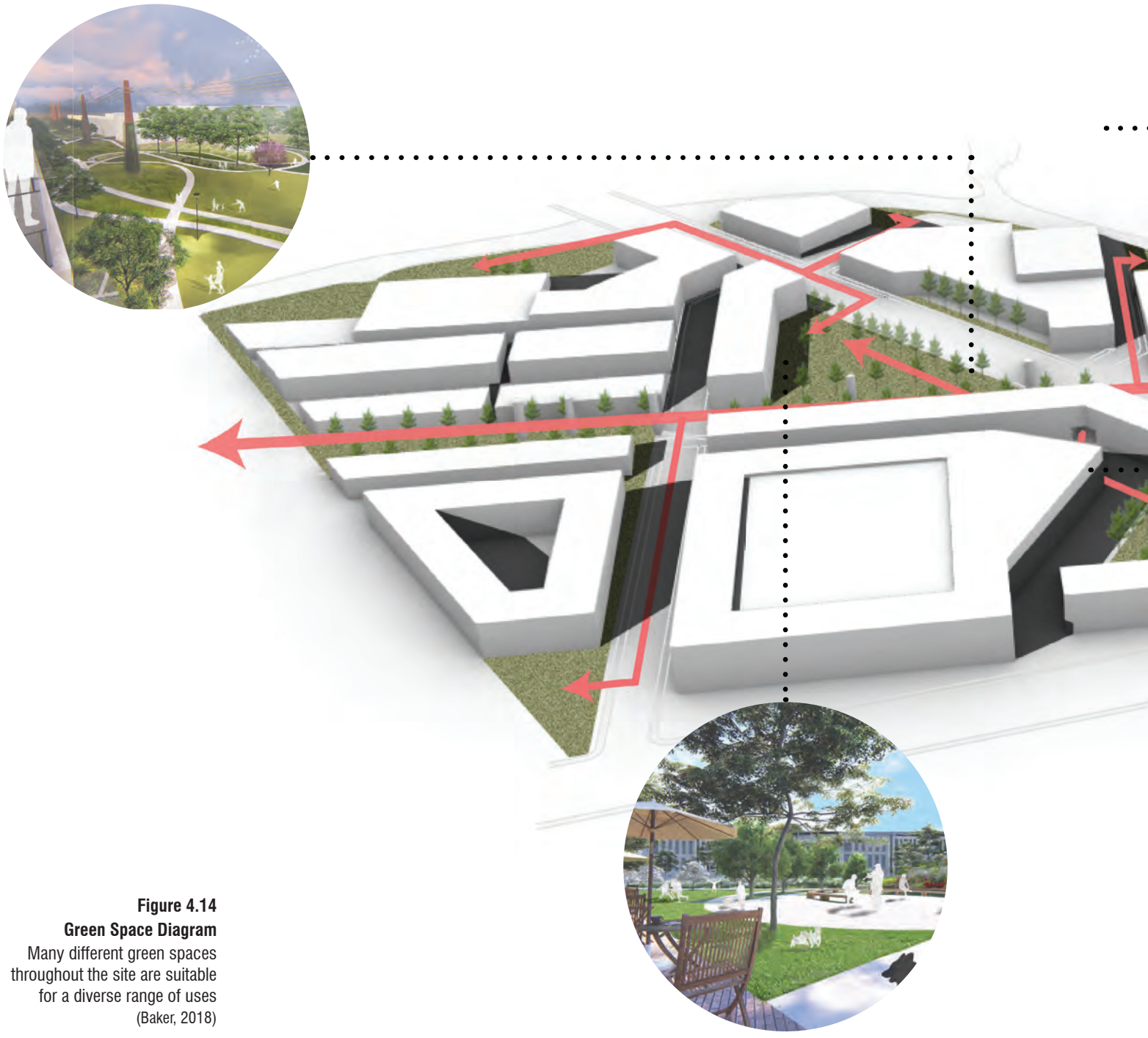
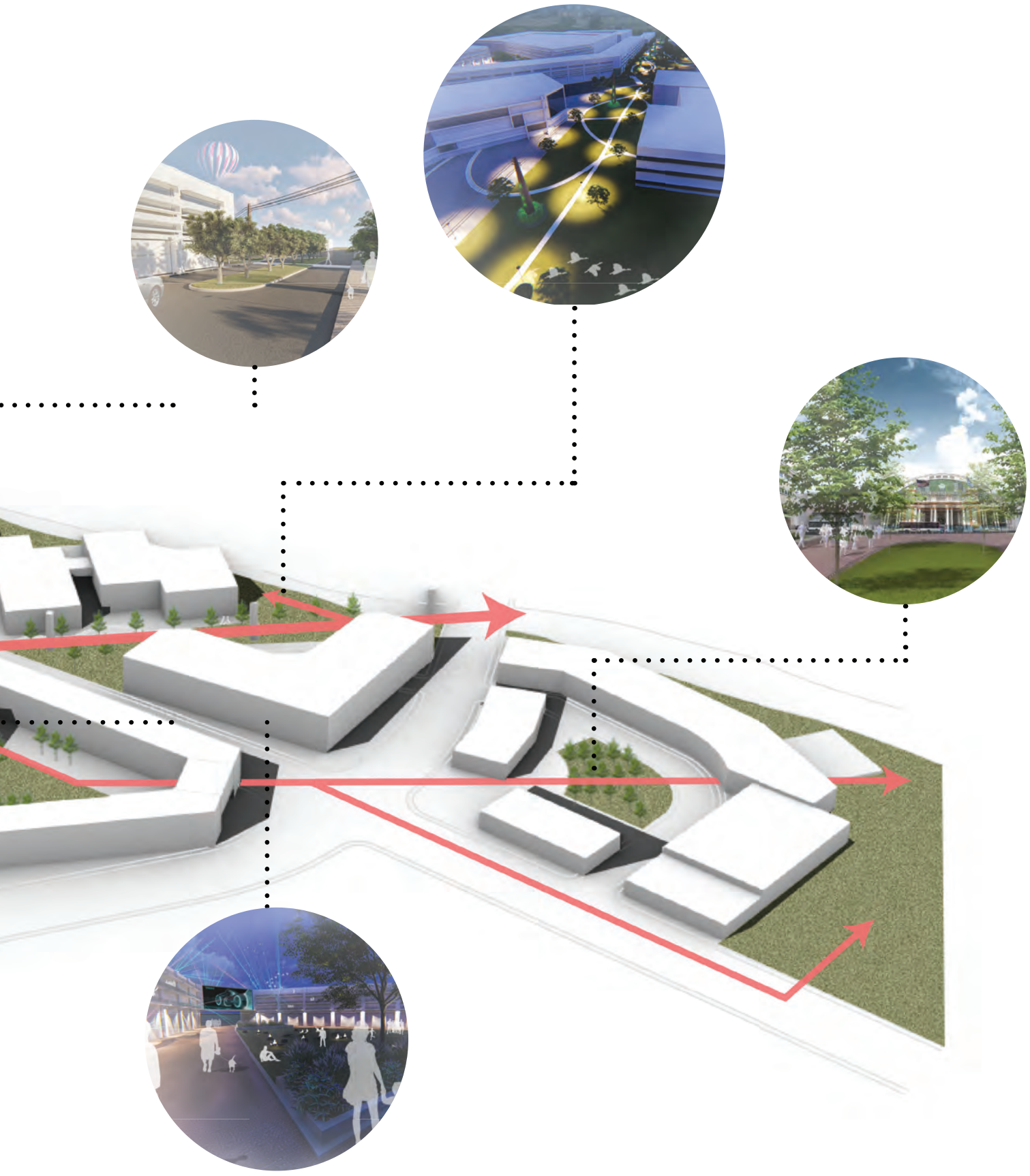


Figure 4.14
Green Space Diagram
Many different green spaces throughout the site are suitable for a diverse range of uses
(Baker, 2018)



Linear Park Network

A set of weaving paths and curated greenspaces that envelop the power lines and connect both sides of Highway 6 make up the signature design feature of the site. The braided paths accommodate a semi-separate bike trail that runs through the park without hindering pedestrians. As a visual piece, the organic nature of the paths are meant to stand out against the rigid, industrial theme of the surrounding area. This gives the park a lighter, more whimsical feeling. Physically, the area functions as a transit corridor, uniting businesses and residences together, through carefully chosen points of connection. A triangular space called Power Park in the center of the braid creates a wider space for flexible activities, all the while providing a place for residents and visitors to relax and enjoy the dynamic green space.

Figure 4.15
Braid Abstraction
The braided paths are guided by the power lines and connect pedestrians to residential areas, parks, shops and restaurants.
(Yeager, 2018)

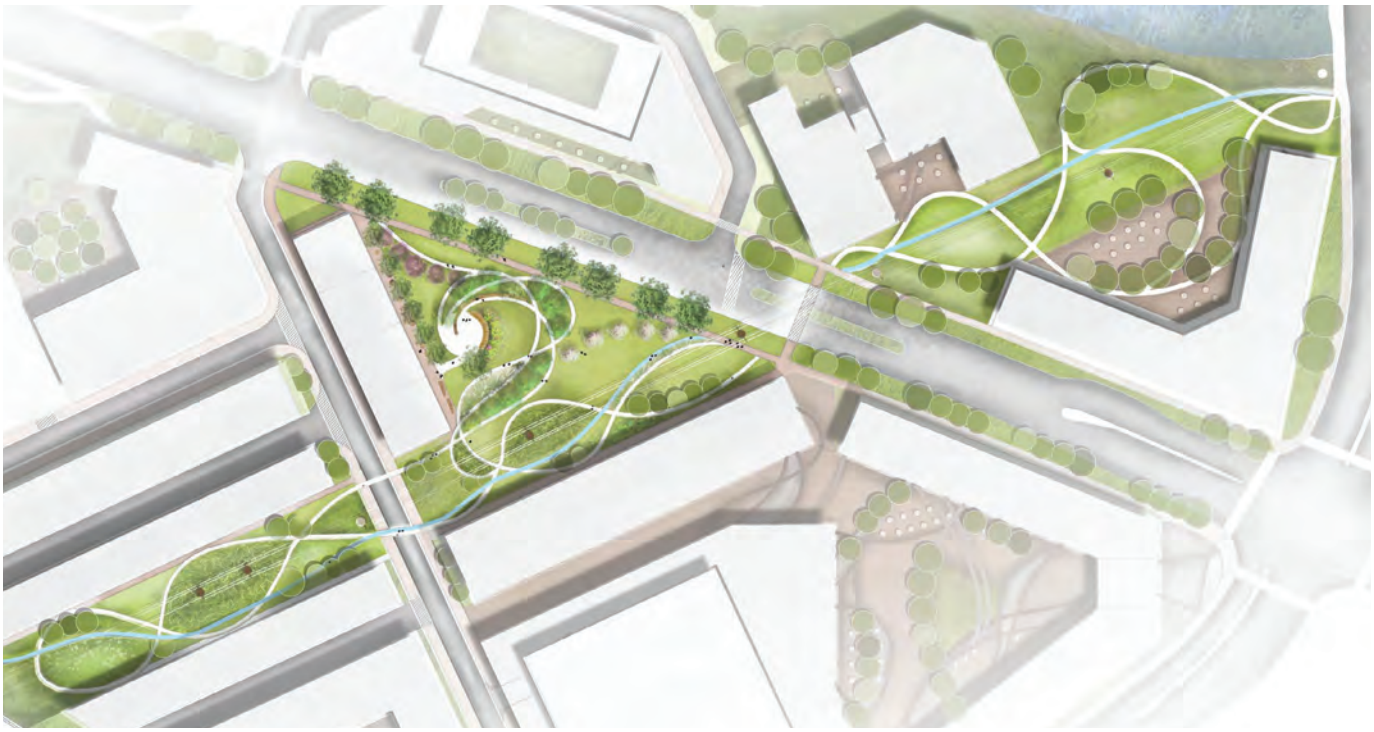


Figure 4.16
Detailed Plan
The braided paths weave around the power lines throughout the Greenway (Yeager, 2018)

Figure 4.17
Power Park Looking North
The park is a place for people to relax, perform, exercise, socialize, eat and enjoy shopping opportunities
(Yeager, 2018)

Pedestrian Experience

Creating A More Connected Coralville

Figure 4.18
Pedestrian Experience
A multitude of activities and spaces can be found in the new Southeast Commercial District
(Sanders, 2018)

New Development With People in Mind

A major design goal is to improve the pedestrian experience on the site. Many new paths are designed to better connect visitors and residents to shopping, dining, entertainment, and transportation. Existing trail systems on site are improved to allow access to the site from the trails and vice versa. In addition to connecting site elements the design creates new green spaces, parks, plazas and gathering spaces for a more enjoyable outdoor experience. Various spaces allow for many different activities to take place and create a sense of destination for the entire district. Before development, the area was designed for vehicular traffic. After development the district is much safer for pedestrians and clearly directs vehicular traffic.

Figure 4.19
Pedestrian Mall Section
(Sanders, 2018)

The goal is to create an experience for people. A journey and a destination.

Figure 4.20
Power Park at Night
(Baker, 2018)

Flood Resilience

Historically, flooding is a major problem in the Southeast Commercial District. New pump stations and flood walls were installed to prevent future disasters like the flood that occurred in 2008. The new design takes prevention a step further by elevating all new buildings above the 500 year flood plain by one foot. In case new flood prevention measures fail, no buildings will be damaged, and, once water recedes, business can resume as normal. These new flood control techniques, coupled with higher building footprints, will allow more businesses to "flood" into the area and jump start the local economy.

Figure 4.23
2008 Coralville Flood
Aerial photography shows the potential dangers from flooding in the Southeast Commercial District. The site boundary is outlined in orange.
(Sanders, 2018)

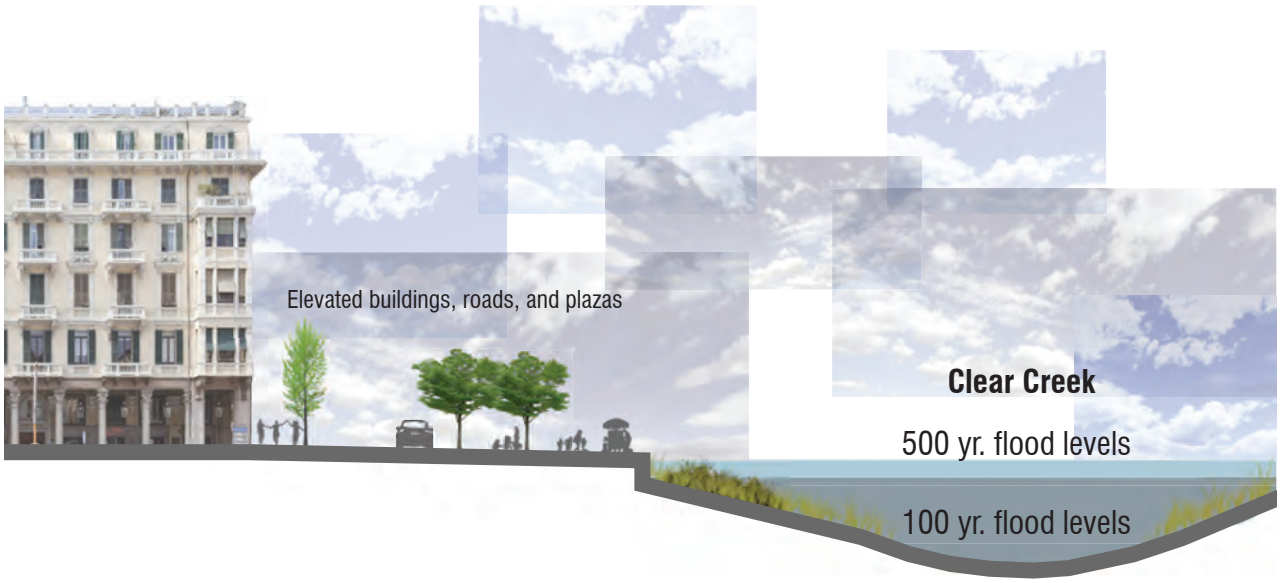


Figure 4.24
Flood Protection Section
(Sanders, 2018)

Figure 4.25
Flooding Comparisons
(Sanders, 2018)

Site Metrics

Land Use

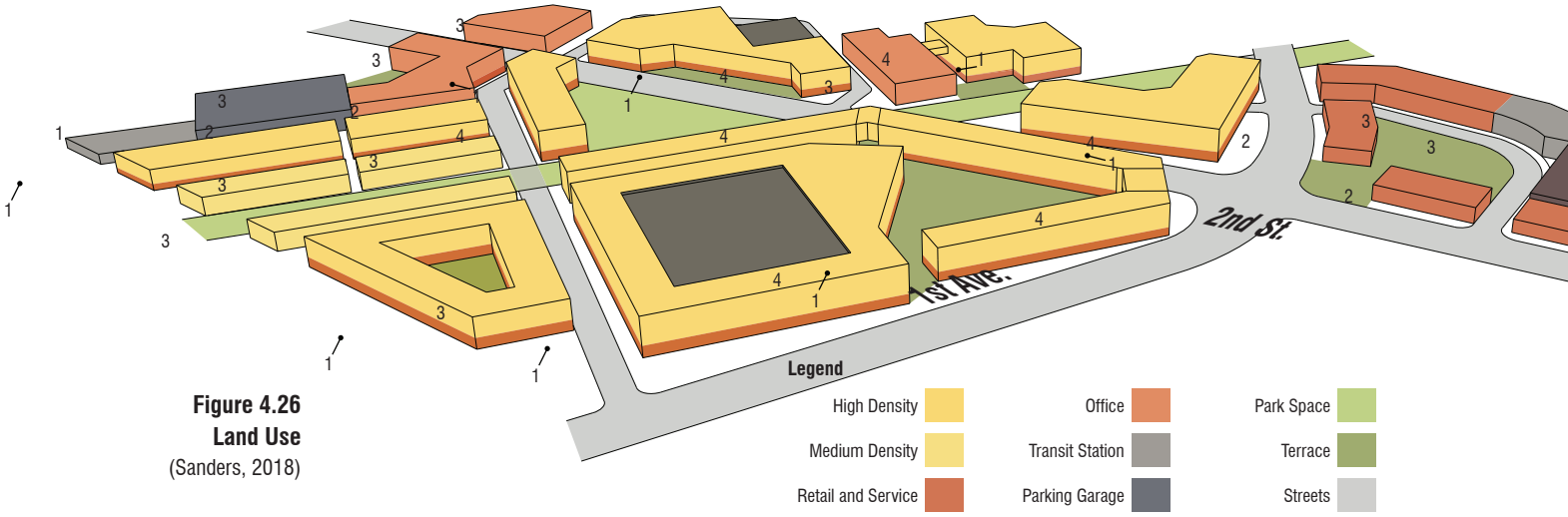
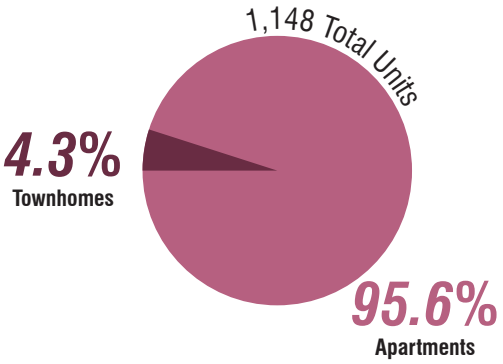


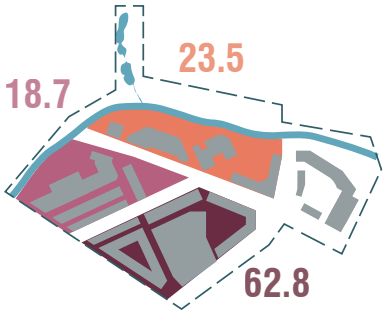
Figure 4.26
Land Use
(Sanders, 2018)

FAR (excluding ROW) = 1.17

Figure 4.27
Dwelling Units
(Sanders, 2018)



Dwelling Units Per Acre



Parking

Parking Structure	3326
Attached Parking	73
Total Parking Provided	**3399**

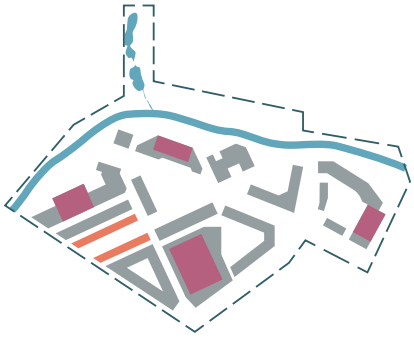
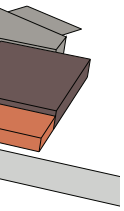


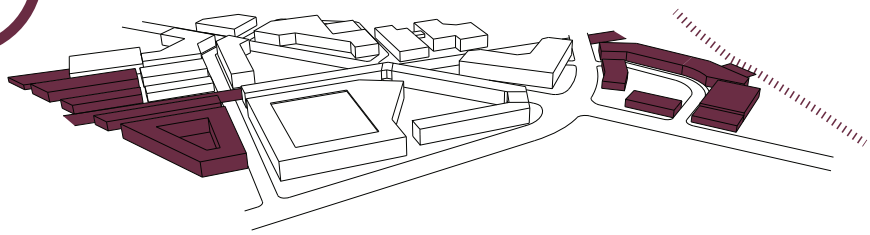
Figure 4.28
Parking
(Sanders, 2018)

Phasing



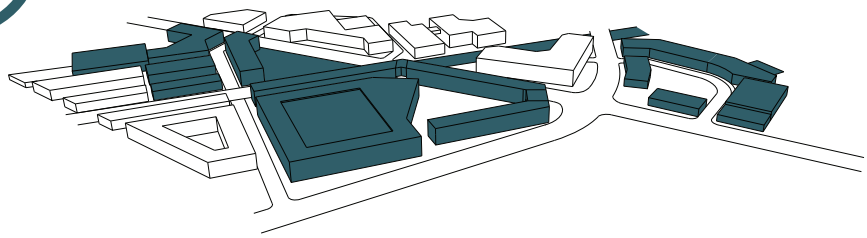
Phase 1

Repurpose CRANDIC rail line into light rail transit
Begin remediation of scrap yard and southern area of site
Initiate redevelopment of the northeast corner of 1st Ave. & 2nd St. intersection



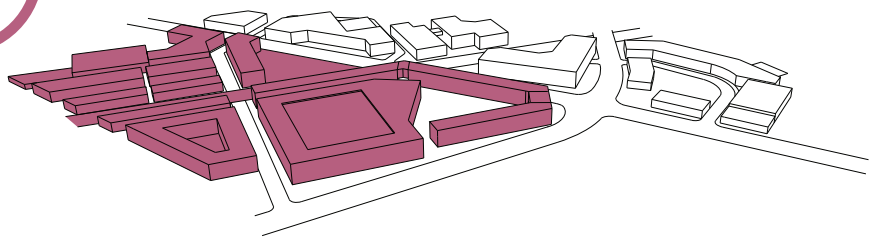
Phase 2

Relocate businesses to new transit hub area
Begin remediation of remaining areas south of 2nd St.
Begin redevelopment of trails/park and area north of 2nd St.



Phase 3

Extend linear park down through the site
Finish remediation of site south of 2nd St.
Cap remaining brownfield soils underneath new structures



Phase 4

Develop regional train station
Move in businesses to area south of 2nd St.
Reintroduce existing businesses to new development
Finish development of mixed use and residential areas

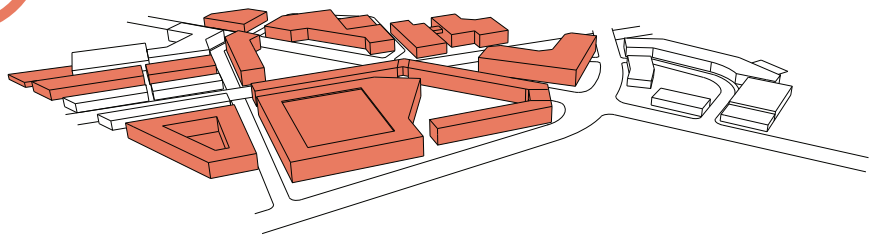
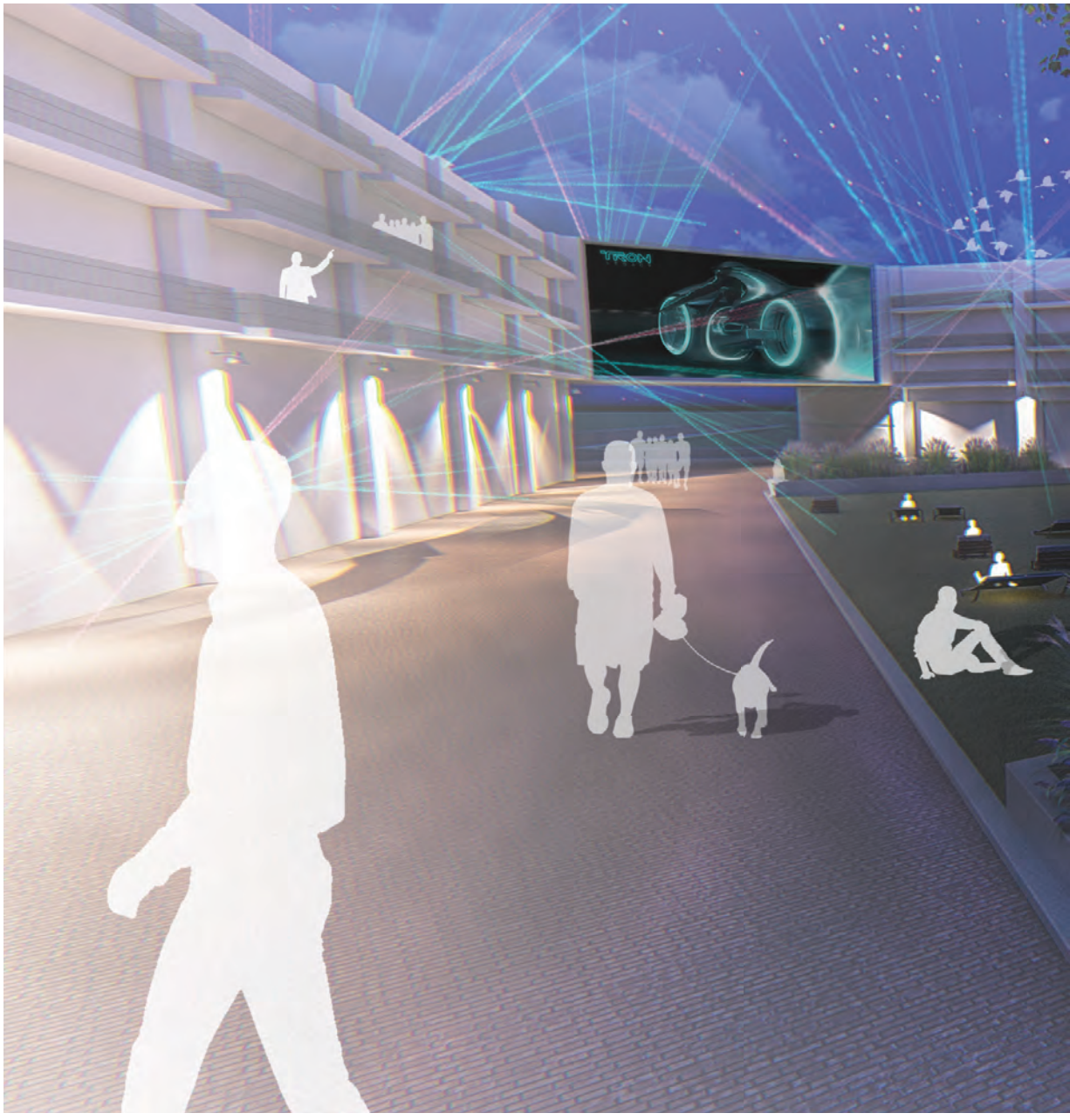


Figure 4.29
Phasing Timeline and Map
(Sanders, 2018)

Figure 4.30
Coral Courtyard at Night
(Baker, 2018)



Industrial Greenway

Using Existing Frameworks to Create a Unified District

Transit, pedestrian access, green space, and Coralville's unique identity are placed at the forefront of the Industrial Greenway design proposal. The *Greenway*, spread beneath the power lines, connects the two transit stations, shapes community gathering spaces and serves as a basis for the organization of buildings and road layout. Abundant recreational and social opportunities are created by plazas, pathways and green spaces that converge and meet one another. Bio-remediation and flood prevention techniques are diligently applied to ensure optimal safety and health for all ages. In essence, residence, business, transportation and recreation are symbiotically united throughout the site, immersing users in a rich, diverse experience.

Citations

Figure 4.1
Hahn, Howard. Untitled photograph of powerlines. Accessed on July 3, 2018.

Figure 4.2
Baker, Logan. "Balcony View". Kansas State University LAR646 2018. Created with Adobe Photoshop, Lumion 8.0, Rhino 6, and SketchUp. Source Images:

- "10 Group Photo Silhouette". N.d. Accessed June 30, 2018. http://www.onlygfx.com/10-group-photo-silhouette-png-transparent/
- "Boy Child Dad Daughter". 2017. Pixabay. Accessed June 29, 2018. https://pixabay.com/en/photos/family%20silhouette/
- "Flock of Ducks Flying Silhouette PNG". 2018. IconsPNG. Accessed June 29, 2018. https://www.iconspng.com/image/82525/flock-of-ducks-flying-silhouette
- "Guy Running Ball Kick". 2012. Pixabay. Accessed June 29,2018. https://pixabay.com/en/soccer-football-sports-man-guy-34248/
- "Hot Air Balloons". N.d . Free Stock Photos. Accessed June 28, 2018. http://www.freestockphotos.biz/stockphoto/10013
- "Runner Sport Jogging Black". 2014. Pixabay. Accessed June 29, 2018. https://pixabay.com/en/runner-sport-jogging-silhouette-310093/
- "Silhouette Walking Love Man Woman". 2018. Pixabay. Accessed June 29, 2018. https://pixabay.com/en/silhouette-walking-love-man-woman-3130823/

Figure 4.3
Hodgson, Danielle. 2018. "Location of Existing Rail Lines and Trails". Kansas State University LAR 646 2018. Created Using Adobe Illustrator and Adobe InDesign. Source Data:

- "Coralville, Iowa." Google Maps. 2018. 41°67'64.7"N and 91°56'58.921"W. Accessed on June 15, 2018.
- "Coralville, Iowa." Google Earth. 41°67'64.7"N and 91°56'58.921"W. August 16, 2016. Accessed on July 1, 2018.
- Mader, Grace. 2018. Untitled photograph of Clear Creek trail. Accessed on July 1, 2018.

Figure 4.4
Hodgson, Danielle. 2018. "Location of Existing Powerliness". Kansas State University LAR 646 2018. Created Using Adobe Illustrator and Adobe InDesign. Source Data:

- Belanger, Blake. 2018. Untitled photo of powerliness along 1st Street. Accessed on July 1, 2018.
- Belanger, Blake. 2018.Utilited photo of power lines going across the site. Accessed on July 1, 2018.
- "Coralville, Iowa." Google Earth. 41°67'64.7"N and 91°56'58.921"W. August 16, 2016. Accessed on July 1, 2018.

Figure 4.5
Sanders, Spencer. "Brownfield Treatment Plan". Kansas State University LAR 646 2018. Created with Adobe Illustrator. Source Data:

- ArcGIS, Howard Hahn, "Johnson County GIS"
- Belanger, Blake. n.d. "Photo in Coralville, IA Site Visit 5-25-18." Google Photos. Accessed July 7, 2018a. https://photos.google.com/share/AF1QipOGrpT2W-nLa_Mi--dG5aaRZD24u7rzmLgPmen

8MALoWM6Rz9A_AWGo7nSjlNMMvA/photo/AF1QipPN8uIX_qpyv-8sT9urA4TMvcfUxpxuylULyb2q?key=c3YwVnY5MUFlZGFqUF9RdGI5QlhHem9NOXhvenZn.
———. n.d. “Photo in Coralville, IA Site Visit 5-25-18.” Google Photos. Accessed July 7, 2018b. https://photos.google.com/share/AF1QipOGrpT2W-nLa_Mi--dG5aaRZD24u7rzmLgPmen8MALoWM6Rz9A_AWGo7nSjlNMMvA/photo/AF1QipOa7dYwnQQQXygtz19Q-PdyXAjyUY1NYZv7FTwK?key=c3YwVnY5MUFlZGFqUF9RdGI5QlhHem9NOXhvenZn.

Figure 4.6
Hodgson, Danielle. 2018. “Location of Existing Power Lines”. Kansas State University LAR 646 2018. Created Using Adobe Illustrator and Adobe InDesign. Source Data:
- “Coralville, Iowa.” Google Earth. 41°67’64.7”N and 91°56’58.921”W. August 16, 2016. Accessed on July 1, 2018.

Figure 4.7
Sanders, Spencer. “Organizing Grid and Park Connections”. Kansas State University LAR 646 2018. Created with Adobe Illustrator. Source Data:
- ArcGIS, Howard Hahn, “Johnson County GIS”

Figure 4.8
Sanders, Spencer. “Parti/Concept Diagram”. Kansas State University LAR 646 2018. Created with Adobe Illustrator.
- ArcGIS, Howard Hahn, “Johnson County GIS”

Figure 4.9
Sanders, Spencer. “Layered Design Elements”. Kansas State University LAR 646 2018. Created with Adobe Illustrator. Source Data:
- ArcGIS, Howard Hahn, “Johnson County GIS”

Figure 4.10
Hodgson, Danielle. 2018. “Site Plan”. Kansas State University LAR 646 2018. Created Using Adobe Photoshop, and AutoCAD Civil 3D. Source Data:
- “Brick Wall Background Brick”. Digital Photograph. Accessed on July 1, 2018. CC0 Creative Commons. https://pixabay.com/en/brick-wall-background-brick-2119712/
- “Buffalo grass texture.” Digital Photograph. Accessed on July 1, 2018. CC0 Public Domain. https://pixnio.com/textures-and-patterns/grass-texture/buffalo-grass-texture
- Hodgson, Danielle. 2016. “Kansas State University Meadow”. Digital Photograph
- “Ocean Water Ripples Texture”. Digital Photograph. Accessed on July 1, 2018. CC0 Public Domain. https://www.publicdomainpictures.net/en/view-image.php?image=177368&picture=ocean-water-ripples-texture
- Sanders, Spencer and Mackenzie Yeager. 2018. “Site Base”. Created Using AutoCAD Civil 3D.

Figure 4.11
Yeager, Mackenzie. “Proposed Regional and Local Rail Lines”. Kansas State University LAR646 2018. Diagram created with Adobe Illustrator and Adobe Photoshop. Source Image:
- Google Earth

Figure 4.12
Hodgson, Danielle. 2018. “Conceptual Section of 1st Avenue.” Kansas State University LAR 646

2018. Created Using Adobe Photoshop and AutoCAD Civil 3D. Source Data:

- Fryett, Lindsey. “Vanier Park Vancouver”. Digital Photograph. Taken on July 19, 2014. Accessed on June 15, 2018. Attribution-NonCommercial-ShareAlike 2.0 Generic (CC BY-NC-SA 2.0) .https://www.flickr.com/photos/147702286@N05/38468278516/in/photolist-21BiYZj-63MBqD-22U5awi-nLoPxr-3cfoxJ-dMFnvz-hZJqZF-DeUZzi-Egw6F3-222W1Qc-zXiSSi-23iMfJN-7Q3r1c-EUj4mV-dyze2j-89Y1TP-7mzCCa-p9v6QU-awjhUo-AecwHf-3kCdGq-3qFBrW-28uzfGd-DyqaqL-Z5s3ZL-dURFtp-ZoWeXu-27MgXCU-YGAZcw-dacqGh-dT2CfZ-cnhyF-Hq3BDP-24TCQfx-4k1YAV-Z5rwtA-pgGs7A-K9UrtN-mmkLb2-6fZFck-6bbT2D-GGqZBV-CvsVab-pwHabD-23Z4pvm-6ejPip-bFiAEZ-26PYu87-ZoWF2N-befLWM.
- Jameson, Andrew. “Motor Row Historic District, Chicago IL”. Digital Photograph. Taken on August 29, 2010. Accessed on June 15, 2018. Creative Commons Attribution-Share Alike 3.0. https://commons.wikimedia.org/wiki/File:Motor_Row_Historic_District_J_Chicago_IL.jpg
- Smetlak, John. 2005. Untitled photograph of street car. Accessed on June 15, 2018. CCO Public Domain. http://www.modernstreetcar.org/images/Portland_Streetcar_28_sm.jpg
- Tonisson, Silver. Taken on May 18, 2018. “Velokulg”. Digital Photograph. Accessed on June 1, 2018. Attribution-NonCommercial-ShareAlike 2.0 Generic (CC BY-NC-SA 2.0) https://www.flickr.com/photos/visitviljandi/41348786965/in/photolist-25ZRkN6-bqDvEk-wK1zvu-HuopTP-24FVe61-qhkXmS-ZR4Zkm-WDRGMa-233weqF-FQtKSK-q3SRWS-27rAFRf-UdKW1L-KwCsty-26f4nwN-GWUdpk-SRKYuu-ZAvyqW-21x3NXY-Kvdj5J-ebToKj-KvAiXf-22UVFp1-qEscvS-CR2FTS-CNaDg9-XRmpnm-SPxKnY-25aWUi3-bErpN3-YmLXYb-acyzJd-f36JaR-EKHUjo-CR2vRY-Z2w6pa-XTNEaK-pQYZ8e-ZihFNE-JPzwdv-8x69qi-eC1q4q-9otNTs-hfW5tp-Sd5LSQ-BzNcjx-drEMHo-ZuaiaS-CR2FCm-epSdv1
- “Coralville, Iowa.” Google Maps. 2018. 41°67’64.7”N and 91°56’58.921”W. Accessed on June 15, 2018. “https://www.google.com/maps/@41.6746647,-91.5658921,3a,75y,337h,96.23t/data=!3m6!1e1!3m4!1sw4hg8kgDQb1OPa3KLx5ctg!2e0!7i13312!8i6656
- “Dog Walking”. Digital image. Accessed on July 3, 2018. CC0 Public Domain. https://www.publicdomainpictures.net/en/view-image.php?image=111555&picture=dog-walking
- “Row River Trail along Dorena Reservoir”. Digital Photograph. 2013. Accessed on June 15, 2018. CCO Public Domain. .http://www.mysouthlane.com/2013/row-river-trail-trailheads/
- “White cumulus clouds appeared over Dhaka, Bangladesh, when significant flooding was underway in many parts of the country”. Digital Photograph. Taken by Mohammed Tawsif Salam on July 2, 2013. Accessed July 2, 2018. Attribution-ShareAlike 3.0 Unported (CC BY-SA 3.0). https://en.wikipedia.org/wiki/Sky

Figure 4.13

Yeager, Mackenzie. “Transit Hub”. Kansas State University LAR646 2018. Perspective created with Lumion and Adobe Photoshop.

Source Images:

- BrokenSphere. “A Parking Garage in the Mid Campus Area of the Genentech Headquarters Campus in South San Francisco, California.” September 1, 2008. Accessed July 3, 2018. https://commons.wikimedia.org/wiki/File:Genentech_HQ_mid_campus_parking_garage.JPG.
- Doudoulolita. “Français : Bus de La Ville de Paris (France)”. February 15, 2012. Accessed July 3, 2018. https://commons.wikimedia.org/wiki/File:Bus-paris.png.
- Rushton. Exterior shot of Hua Lamphong railway station, Bangkok, Thailand. March 4, 2015. https://www.alamy.com/stock-photo-exterior-shot-of-hua-lamphong-railway-station-bangkok-thailand-94147972.html
- “Girls Walking Together.” Date accessed July 3, 2018. From https://www.pinterest.com/pin/333618284880778167/?lp=true

- “OSC10R - 10” Round Concrete Bollard - H.E. Williams, Inc.” Accessed July 3, 2018. July 3, 2018. https://www.hew.com/products/OSC10R.
- “Panera Bread.” Wikipedia, June 22, 2018. Accessed July 3, 2018. https://en.wikipedia.org/w/index.php?title=Panera_Bread&oldid=846973432.
- “Three Older People.” Immediate Entourage (blog), August 31, 2017. Accessed July 3, 2018. https://immediateentourage.com/three-older-people/.

Figure 4.14

Baker, Logan. “Green Space Diagram”. Kansas State University LAR646 2018. Created with Adobe Photoshop, Rhino 6, and SketchUp. Source Images:

- “2nd St”. Logan Baker. 2018. Kansas State University LAR646.
- “Balcony View”. Logan Baker. 2018. Kansas State University LAR646.
- “Courtyard at Night”. Logan Baker. 2018. Kansas State University LAR646.
- “Greenway Aerial”. Logan Baker. 2018. Kansas State University LAR646.
- “Power Park”. Mackenzie Yeager. 2018. Kansas State University LAR646.
- “Transit Hub”. Mackenzie Yeager. 2018. Kansas State University LAR646.
- “Tree PNG Image”. N.d. PngImg. Accessed July 8, 2018. http://pngimg.com/download/3474

Figure 4.15

Yeager, Mackenzie. “Braid Connections”. Kansas State University LAR 646 2018. Diagram created with Adobe Photoshop.

Source Images:

- Aude. Italian Deli and Shops in Astoria, Queens, NYC. Photo by En:User:Aude, Taken on March 26, 2007. March 26, 2007. Self-published work by Aude. https://commons.wikimedia.org/wiki/File:Astoria_italian_deli_and_shops.jpg.Paul
- Hahn, Howard: Coralville Powerlines. May 25, 2018. Retrieved July 1, 2018 from: https://photos.google.com/u/0/share/AF1QipOGrpT2W-nLa_Mi--dG5aaRZD24u7rzmLgPmen8MALoWM6Rz9A_AWGo7nSjlNMMvA?key=c3YwVnY5MUFlZGFqUF9RdGI5QlhHem9NOXhvenZn
- Hassan, Mohamed. “Bicyclist, Rider, Biking, Biker.” Pixabay. Accessed July 3, 2018. /en/bicyclist-rider-biking-biker-36874/.
- Hassan, Mohamed. “Boys, Childhood, Playing, Soccer.” Pixabay. November 2017. Accessed July 3, 2018. /en/boys-childhood-playing-soccer-2771916/.
- Hassan, Mohamed. “Exercising, Practices, Sport, Gym.” Pixabay. December 2017. Accessed July 3, 2018. /en/exercising-practices-sport-gym-man-2831679/.
- Hassan, Mohamed. “Silhouette, People, Man, Alone.” Pixabay. May 2018. Accessed July 3, 2018. /en/silhouette-people-man-alone-hiking-3303815/.
- http://www.publicdomainfiles.com/show_file.php?id=13551055213088.
- Hullettable. “Mall Restaurant” 1881 Heritage. November 18, 2009. https://commons.wikimedia.org/wiki/File:HK_TST_1881_mall_restaurant_DG_Cafe_outdoor_sidewalk_umbrella.JPG.
- Moriador. “Couple, Romantic, Love, Together.” Pixabay. February 2016. Accessed July 3, 2018. /en/couple-romantic-love-together-1190908/.
- Rickbern. English: Brooklyn Heights Historic District. September 29, 2012. https://commons.wikimedia.org/wiki/File:Brooklyn_Heights_Townhouses.jpg.
- Yourdon, Ed. “Sand Dollar Beach, Day 3 - 04”. April 19, 2009. Accessed July 3, 2018. https://commons.wikimedia.org/wiki/File:Silhouette_of_Trio.png.
- “Free Image on Pixabay - Woman, Running, Silhouette, Sport.” Accessed July 3, 2018. /en/woman-running-silhouette%E2%80%8B-sport-2754374/.
- “Free Images : Tree, Nature, Grass, Structure, Plant, Field, Lawn, Meadow, Prairie, Sunlight,

Morning, Leaf, Fall, Green, Autumn, Park, Golf Course, Trees, Outside, Sports, Grassland, Woodland, Fallen Leaves, Nebraska, Rural Area, Omaha, Sport Venue 2100x1335 - - 1100658 - Free Stock Photos - PxHere." Accessed July 3, 2018. /en/photo/1100658.

- "Free Stock Photo of City, Katowice, Silesia." Accessed July 3, 2018. https://www.pexels.com/photo/city-katowice-silesia-street-8562/.
- "Public Domain Clip Art Image | Fifties Dancers | ID: 13551055213088 | PublicDomainFiles.Com." Accessed July 3, 2018.

Figure 4.16

Yeager, Mackenzie. "Detailed Plan". Kansas State University LAR646 2018. Plan created with Autocad and Adobe Photoshop.

Yeager, Mackenzie. "Transit Hub". Kansas State University LAR646 2018. Perspective created with Lumion and Adobe Photoshop.

Source Images:

- BrokenSphere. "A Parking Garage in the Mid Campus Area of the Genentech Headquarters Campus in South San Francisco, California." September 1, 2008. Accessed July 3, 2018. https://commons.wikimedia.org/wiki/File:Genentech_HQ_mid_campus_parking_garage.JPG.
- Doudoulolita. "Français : Bus de La Ville de Paris (France)". February 15, 2012. Accessed July 3, 2018. https://commons.wikimedia.org/wiki/File:Bus-paris.png.
- Rushton. Exterior shot of Hua Lamphong railway station, Bangkok, Thailand. March 4, 2015. https://www.alamy.com/stock-photo-exterior-shot-of-hua-lamphong-railway-station-bangkok-thailand-94147972.html
- "Girls Walking Together." Date accessed July 3, 2018. From https://www.pinterest.com/pin/336618284880778167/?lp=true
- "OSC10R - 10" Round Concrete Bollard - H.E. Williams, Inc." Accessed July 3, 2018. July 3, 2018. https://www.hew.com/products/OSC10R.
- "Panera Bread." Wikipedia, June 22, 2018. Accessed July 3, 2018. https://en.wikipedia.org/w/index.php?title=Panera_Bread&oldid=846973432.
- "Three Older People." Immediate Entourage (blog), August 31, 2017. Accessed July 3, 2018. https://immediateentourage.com/three-older-people/.

Figure 4.17

Yeager, Mackenzie. "Power Park Looking North". Kansas State University LAR 646 2018. Perspective created with Autocad, Sketchup, Lumion and Adobe Photoshop. Source Images:

- Castañeda, Azul. "Hombres Sentado." Escalalatina (blog), December 5, 2015. Accessed July 3, 2018. http://www.escalalatina.com/hombres/sentado-2/.
- Escalalatina Staff "Manbunperro." Escalalatina (blog), January 11, 2017. Accessed July 3, 2018, http://www.escalalatina.com/todos/manbunperro/.
- "Por. Flabio Pastén (Cl)." Escalalatina (blog), December 6, 2015. http://www.escalalatina.com/todos/por-flabio-pasten-cl/.
- Celis, Gabriela "Hombres Sentado." Escalalatina (blog), December 5, 2015. Accessed July 3, 2018. http://www.escalalatina.com/hombres/sentado/.
- Saavedra, Gloria. "Familia Bebe" Escalalatina (blog), December 6, 2015. Accessed July 3, 2018. http://www.escalalatina.com/todos/familiabebe/.
- Zampieron, Marco. "Musico Colorido." Escalalatina (blog), August 2, 2016. Accessed July 3, 2018. http://www.escalalatina.com/hombres/musico-colorido/.
- Aguilar, Roger "Perros Pelota" Escalalatina (blog), November 4, 2016. Accessed July 3, 2018.

http://www.escalalatina.com/animales/perros-pelota/.

Figure 4.18

Sanders, Spencer. “Pedestrian Experience”. Kansas State University LAR 646 2018. Created with Adobe Photoshop, Adobe Illustrator.

Source Data/Images:

- ArcGIS, Howard Hahn, “Johnson County GIS”
- Girls Hang Out On Balcony, One Waves To People, Their Friend Joins Them Stock Video Footage - Videoblocks. n.d. Accessed June 29, 2018. https://www.videoblocks.com/video/girls-hang-out-on-balcony-one-waves-to-people-their-friend-joins-them-stlnhcveebj4g0rh03.
- Williams, Macy Cate. 2018. “12 Things You Should Know Before Traveling Across the Country on Amtrak.” POPSUGAR Smart Living. June 12, 2018. http://www.popsugar.com/node/40685768.
- “5 Surprising Benefits of Walking - Harvard Health.” n.d. Accessed June 29, 2018. https://www.health.harvard.edu/staying-healthy/5-surprising-benefits-of-walking.
- “Amazon.Com: Click N Play 13 Piece Sand Castle Mold Set: Toys & Games.” n.d. Accessed June 29, 2018. https://www.amazon.com/Click-Play-Piece-Sand-Castle/dp/B01DOE8460.
- “Apartments in Madrid Ciudad - Plaza Santa Ana.” n.d. Accessed June 29, 2018. https://www.pyrselect.com/en/rentals/apartment-madrid-plaza-santa-ana-173151.html.
- “Birdwatching.” n.d. Accessed June 29, 2018. http://www.duelaghi.com/en/servizi-en/birdwatching-en.
- “Bird Watching in Manu.” n.d. Accessed June 29, 2018. http://www.andeantravelweb.com/peru/amazon/manubirdwatching.html.
- “Bus - Metro Transit.” n.d. Accessed June 29, 2018. https://www.metrotransit.org/bus.
- “Diagonal Crosswalks in L.A. to Make City More Pedestrian-Friendly.” n.d. TreeHugger. Accessed June 29, 2018. https://www.treehugger.com/cars/diagonal-crosswalks-in-la-to-make-city-more-pedestrian-friendly.html.
- “Get a Freshwater Fishing License | The State of New York.” n.d. Accessed June 29, 2018. https://www.ny.gov/services/get-freshwater-fishing-license.
- “Hatchback Rear View Silhouette - Transparent PNG & SVG Vector.” n.d. Accessed June 28, 2018. https://www.vexels.com/png-svg/preview/145707/hatchback-rear-view-silhouette.
- “Healthy Couple Jogging In Nature Stock Photo & More Pictures of Jogging | IStock.” n.d. Accessed June 29, 2018. https://www.istockphoto.com/photo/healthy-couple-jogging-in-nature-gm541602804-96864963.
- “Jackson Hole and Grand Teton Biking & Pathways.” n.d. Accessed June 29, 2018. http://www.jacksonholetraveler.com/article/jackson-hole-pathways/.
- “Kirwin Prairie Flowers | This Patch of Mixed Grass Prairie A… | Flickr.” n.d. Accessed June 29, 2018. https://www.flickr.com/photos/usfwsmtnprairie/7468776398.
- “Mallercise Ways to Be Fit Natureloc Online Store.” n.d. Healthyliving from Nature - Buy Online (blog). Accessed June 29, 2018. http://healthyliving.natureloc.com/mallercise-new-concept/mallercise-ways-to-be-fit-natureloc-online-store/.
- “METRO Blue Line.” n.d. Accessed June 29, 2018. https://www.metrotransit.org/metro-blue-line.
- “Orcas Island Kayaking.” 2011. San Juan Islands Washington Visitors Bureau | Orcas Island | Lopez Island | Friday Harbor | San Juan Island. October 11, 2011. https://www.visitsanjuans.com/what-to-do/orcas-island/kayaking.
- “Small Bridge Extending over Pond | ClipPix ETC: Educational Photos for Students and Teachers.” n.d. Accessed June 29, 2018. http://etc.usf.edu/clippix/picture/small-bridge-extending-over-pond.html.

- "Stroll the Past, Present and Future Along San Antonio's River Walk." 2018. Marriott Traveler. February 20, 2018. https://traveler.marriott.com/san-antonio/san-antonio-river-walk/.
- "The Key Factors That Keep Diners Coming Back to Your Restaurant." 2017. Restaurant Insider. October 24, 2017. https://upserve.com/restaurant-insider/what-keeps-people-coming-back-to-a-restaurant-hint-its-not-the-wine-list/.
- "The Sad Reasons Why People Don't Walk Their Dogs." 2017. Health Essentials from Cleveland Clinic. August 16, 2017. https://health.clevelandclinic.org/the-sad-reasons-why-people-dont-walk-their-dogs/.
- "Your Ultimate Guide to This Summer's Free (& Cheap) Outdoor Movies." 2018. Red Tricycle (blog). June 22, 2018. http://redtri.com/seattle/summertime-in-seattle-outdoor-movie-series/.

Figure 4.19

Sanders, Spencer. "Pedestrian Mall Section". Kansas State University LAR 646 2018. Created with Adobe Photoshop, Adobe Illustrator, AutoCAD. Source Images:

- Fagan, Elise. "Fagan_people_01". 2011. Accessed June 27, 2018.
- Grogan, Heather. "People_025". 2010. Accessed June 27, 2018.
- Martell. "Martell_people_01". 2011. Accessed June 27, 2018.
- Murner, Cory J. "Person_043". 2009. Accessed June 27, 2018.
- Ptomey, Patrick. "Ptomey_people_03". Accessed June 27, 2018.
- Ragoschke. "Ragoschke_people_03". Accessed June 27, 2018.
- Workmon, Mitch. "Person_074". 2010. Accessed June 27, 2018.

Figure 4.20

Baker, Logan. "Power Park at Night". Kansas State University LAR646 2018. Created with Adobe Photoshop, Lumion 8.0, Rhino 6, and SketchUp. Source Images:

- "Active Man Cyclist". N.d. MaxPixel. Access July 9, 2018.
- https://www.maxpixel.net/Active-Man-Cyclist-Seated-Bike-Silhouette-Wheel-3275181
- "Boy Child Dad Daughter". 2017. Pixabay. Accessed June 29, 2018. https://pixabay.com/en/photos/family%20silhouette/
- "Fireworks". 2008. Flickr. Accessed June 29, 2018. https://www.flickr.com/photos/bayasaa/2693171833
- "Flock of Ducks Flying Silhouette PNG". 2018. IconsPNG. Accessed June 29, 2018. https://www.iconspng.com/image/82525/flock-of-ducks-flying-silhouette
- "Grass PNG Image". N.d. PngImg. Accessed July 9, 2018. http://pngimg.com/download/10864
- "Man Dog Silhouette Walking". 2017. Pixabay. Accessed June 28, 2018. https://pixabay.com/en/man-dog-silhouette-walking-2756003/
- "People Silhouette Fashion Man Adult". 2017. Pixabay. Accessed June 29, 2018. https://pixabay.com/en/people-silhouette-fashion-man-3081847/
- "Runner Sport Jogging Black". 2014. Pixabay. Accessed June 29, 2018. https://pixabay.com/en/runner-sport-jogging-silhouette-310093/
- "Walking Man Silhouette". 2017. Pixabay. Accessed June 30, 2018. https://pixabay.com/en/walking-man-silhouette-isolated-2651140/

Figure 4.21

Hodgson, Danielle. 2018. "Section Through Highway 6 Along Power Lines". Kansas State University LAR 646 2018. Created Using Adobe Photoshop and SketchUp.

- Acabashi. 2018. "Visitors sitting on the croquet lawn during the 20 May 2018 open day of Easton Lodge Gardens, in Little Easton, Essex, England". Digital Photograph. Accessed on

July 6, 2018. Creative Commons Attribution-ShareAlike 4.0 International. https://commons.wikimedia.org/wiki/File:Easton_Lodge_Gardens_open_day,_Little_Easton,_Essex_-_people_sitting_on_croquet_lawn.jpg

- Baker, Logan. 2018. 3D Model of Area. Created using Sketchup and Rhino.
- Hahn, Howard. Untitled photograph of powerlines. Accessed on July 3, 2018.
- Nair, Anirudh. 2013. "Birds". Digital Photograph. Accessed on July 2, 2018. Attribution-NonCommercial-ShareAlike 2.0 Generic (CC BY-NC-SA 2.0).
- Salam, Mohammed Tawsif. 2013. "White cumulus clouds appeared over Dhaka, Bangladesh, when significant flooding was underway in many parts of the country". Digital Photograph. Accessed July 2, 2018. Attribution-ShareAlike 3.0 Unported (CC BY-SA 3.0). https://en.wikipedia.org/wiki/Sky
- Shipley, Naomi and U.S. Air Force. 2016. "A family listens to the U.S. Air Force Band of the Golden West Travis Brass at Pioneer Park in Puyallup, Wash.". Digital Photograph. Accessed on July 6, 2018. CCO Public Domain. http://www.mcchord.af.mil/News/Photos/igphoto/2001526204/
- Untitled photograph of architecture. February 25, 2017. Digital Photograph. Accessed on July 2, 2018. Creative Commons (CC0). https://pxhere.com/en/photo/841680
- Wonderlane. 2011. "He tosses. 1 on 1 volleyball without a net, Eritrean children at play, Eritrea independence anniversary, (land of Punt), Volunteer Park, Capitol Hill, Seattle, Washington, USA." Digital Photograph. Accessed on July 6, 2018. Attribution 2.0 Generic (CC BY 2.0) https://www.flickr.com/photos/wonderlane/5797262545
- "Body of Water During Sunset". Digital Photograph. Accessed on July 7, 2018. Creative Commons CC0. https://www.pexels.com/photo/body-of-water-during-sunset-141644/
- "Group Beach Friends Friendship". Digital Photograph. Accessed July 7, 2018. https://pixabay.com/en/group-beach-friends-friendship-628432/
- "Man Flying Kite". Digital Photograph. Accessed on July 7, 2018. Creative Commons Attribution 2.5. https://en.wikipedia.org/wiki/File:Man_flying_kite.jpg
- "New York City Urban Header City New York Banner". Digital Photograph. Accessed on July 7, 2018. Creative Commons Zero- CC0. https://www.maxpixel.net/New-York-City-Urban-Header-City-New-York-Banner-2371488
- "Novo Ford Ka+ (Sedan)". Digital Photograph .n.d. Accessed July 2, 2018. CC0 Public Domain. https://salaodocarro.com.br/testes/novos-ford-ka-ka-seda.html
- "People Walking Young Couple Love". Digital Photograph. CCO Public Domain. Accessed on July 2, 2018. https://pixabay.com/en/people-walking-young-couple-love-1556441/
- "Plaza Balls Man Selling Snowman" n.d.. Digital Photograph. Accessed on July 6, 2018. CC0 Public Domain. https://pixabay.com/en/plaza-balls-man-selling-snowman-1045166/
- "Top Sitting Male Natural". Digital Photograph. Accessed on July 7, 2018. https://pixabay.com/en/top-sitting-person-male-natural-1758467/
- "Tower Hill Botanic Garden, Boylston, Massachusetts, USA. Secret garden." Digital Photograph. Taken on May 16, 2009. Accessed on July 2, 2018. Public Domain. https://en.wikipedia.org/wiki/Tower_Hill_Botanic_Garden#/media/File:Tower_Hill_Botanic_Garden_-_secret_garden.jpg

Figure 4.22

Hodgson, Danielle. 2018. "Linear Green Space Along Power Lines". Kansas State University LAR 646 2018. Created Using Adobe Photoshop.

- Allen, Kenneth. 2011. "Curved path, McCauley Park". Digital Photograph. Accessed on June 20,2018. Attribution-ShareAlike 2.0 Generic (CC BY-SA 2.0). http://www.geograph.ie/photo/2293258

- at the Mercado". Digital Photograph. Accessed on June 20, 2018. Attribution-ShareAlike 2.0 Generic (CC BY-SA 2.0). https://www.flickr.com/photos/valkyrieh116/4221714257
- Hinojosa, Valerie. Taken on December 25, 2009. " Papel picado
- Kennedy, Chuck. 2011. "First Lady Michelle Obama and kids double-dutch jump rope during a taping for the Presidential Active Lifestyle Award (PALA) challenge and Nickelodeon's Worldwide Day of Play, on the South Lawn of the White House". Digital Photograph Accessed on June 20, 2018. CCO Public Domain. https://commons.wikimedia.org/wiki/File:Michelle_Obama_and_kids_double-dutch_jump_rope_-_P071511CK-0303_(6047842208).jpg
- Lund, Ken. Taken on December 12, 2014. "Pearl Street Mall, Boulder, Colorado.". Digital Photograph. Accessed on June 20, 2018. Attribution-ShareAlike 2.0 Generic (CC BY-SA 2.0). https://www.flickr.com/photos/kenlund/15829681480
- Pineiro,Dominique. 2016. "Flags from partner nations wave outside the Joint Interagency Task Force South building at Naval Air Station Key.West Fla." Digital Photograph. Accessed on June 20, 2018. CCO Public Domain .https://www.defense.gov/Photos/Collection-View/CollectionID/14968/
- "Pier Pylon Abutment Pillar Bridge Pier Steel". Digital Photograph. Accessed on July 5, 2018. Creative Commons CC0. https://www.maxpixel.net/Pier-Pylon-Abutment-Pillar-Bridge-Pier-Steel-371228

Figure 4.23
Sanders, Spencer. "2008 Coralville Flood". Kansas State University LAR 646 2018. Created with Adobe Illustrator. Source Images:

- Green, H. R. n.d. "Flood Control System." HR Green. Accessed July 2, 2018. https://www.hrgreen.com/projects/flood-control-system/.

Figure 4.24
Sanders, Spencer. "Flood Protection Section". Kansas State University LAR 646 2018. Created with Adobe Illustrator, Adobe Photoshop. Source Data/Images:

- ArcGIS, Howard Hahn, "Johnson County GIS"
- Fagan, Elise. "Fagan_people_01". 2011. Accessed June 27, 2018.
- Grogan, Heather. "People_025". 2010. Accessed June 27, 2018.
- Martell. "Martell_people_01". 2011. Accessed June 27, 2018.
- Murner, Cory J. "Person_043". 2009. Accessed June 27, 2018.
- Ptomey, Patrick. "Ptomey_people_03". Accessed June 27, 2018.
- Ragoschke. "Ragoschke_people_03". Accessed June 27, 2018.
- Workmon, Mitch. "Person_074". 2010. Accessed June 27, 2018.

Figure 4.25
Sanders, Spencer. "Flooding Comparisons". Kansas State University LAR 646 2018. Created with Adobe Illustrator.
Source Data:

- ArcGIS, Howard Hahn, "Johnson County GIS"

Figure 4.26
Sanders, Spencer. "Land Use". Kansas State University LAR 646 2018. Created with Adobe Illustrator, Rhino. Source Data:

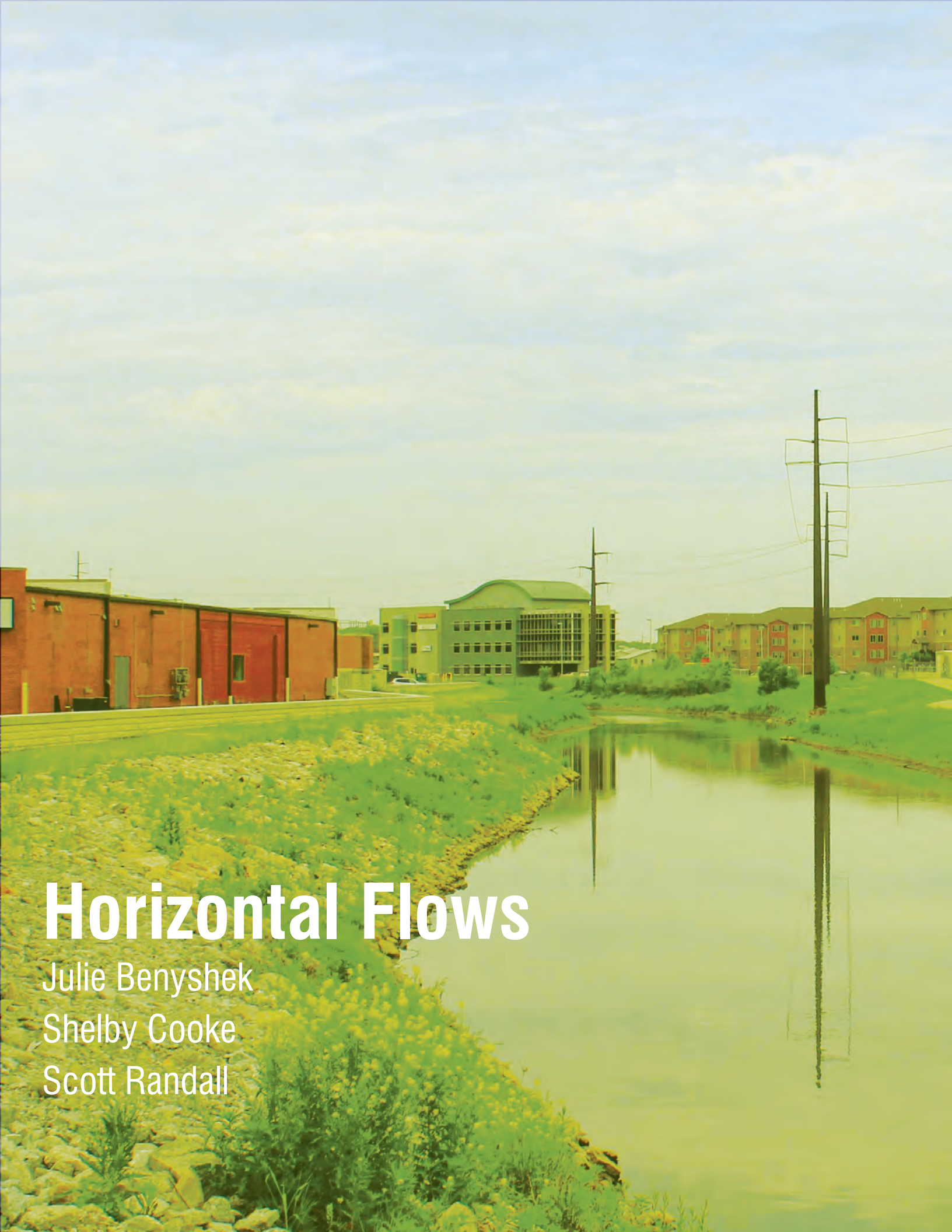
- ArcGIS, Howard Hahn, "Johnson County GIS"
- Baker, Logan. "Industrial Parkway". 2018. Accessed July 2, 2018.

Figure 4.27
Sanders, Spencer. “Dwelling Units”. Kansas State University LAR 646 2018. Created with Adobe Illustrator. Source Data:
- ArcGIS, Howard Hahn, “Johnson County GIS”

Figure 4.28
Sanders, Spencer. “Parking”. Kansas State University LAR 646 2018. Created with Adobe Illustrator. Source Data:
- ArcGIS, Howard Hahn, “Johnson County GIS”
- Niblett, Rikki. n.d. “Third Parking Garage To Be Built At Disney Springs.” Accessed June 30, 2018. https://blog.touringplans.com/2016/09/29/third-parking-garage-disney-springs/.
- “One Stop Retrofit | Why Us.” n.d. Accessed June 29, 2018. http://www.onestopretrofit.com/why_us.

Figure 4.29
Sanders, Spencer. “Phasing Timeline and Map”. Kansas State University LAR 646 2018. Created with Adobe Illustrator. Source Data:
- ArcGIS, Howard Hahn, “Johnson County GIS”
- Baker, Logan. “Industrial Parkway”. 2018. Accessed July 2, 2018.

Figure 4.30
Baker, Logan. “Courtyard at Night”. Kansas State University LAR646 2018. Created with Adobe Photoshop, Lumion 8.0, Rhino 6, and SketchUp. Source Images:
- “10 Group Photo Silhouette”. N.d. Accessed June 30, 2018.http://www.onlygfx.com/10-group-photo-silhouette-png-transparent/
- “Boy Child Dad Daughter”. 2017. Pixabay. Accessed June 29, 2018.https://pixabay.com/en/photos/family%20silhouette/
- “Fireworks”. 2008. Flickr. Accessed June 29, 2018.https://www.flickr.com/photos/bayasaa/2693171833
- “Flock of Ducks Flying Silhouette PNG”. 2018. IconsPNG. Accessed June 29, 2018.https://www.iconspng.com/image/82525/flock-of-ducks-flying-silhouette
- “People Silhouette Fashion Man Adult”. 2017. Pixabay. Accessed June 29, 2018.https://pixabay.com/en/people-silhouette-fashion-man-3081847/
- “PixarLogo.svg”. 2009. Wikimedia Commons. Accessed June 30, 2018.https://commons.wikimedia.org/wiki/File:Pixar_logo.svg
- “Silhouette Walking Love Man Woman”. 2018. Pixabay. Accessed June 29, 2018.https://pixabay.com/en/silhouette-walking-love-man-woman-3130823/
- “Tron Legacy Wallpaper”. N.d. Fotolife. Accessed July 7, 2018. http://f.hatena.ne.jp/tanemori/20090823091505
- “Wallpaper Abstrak Art”. 2017. Pixabay. Accessed July 7, 2018. https://pixabay.com/en/wallpaper-abstrak-art-background-2476600/
- “Woman Silhouette”. N.d. Free Stock Photos. Accessed June 30, 2018.http://www.freestockphotos.biz/stockphoto/15623



Horizontal Flows

Julie Benyshek
Shelby Cooke
Scott Randall

Horizontal Flows

2nd Street and Clear Creek

Horizontally driven, vertically integrated.

Abstract

Southeast Commercial District (SCD) is a unique area for its strong international presence and connections to Coralville's Clear Creek, Iowa River, historic school house and town hall, walking trails, nearby University of Iowa, and more. Aside from the district's unique character, it also presents challenges as a contaminated brownfield site and an area prone to past flooding. Since the 2008 Iowa River flood, the people of Coralville, Iowa are striving to make the city safer, more eco-friendly, and more beautiful. These reflect our motivations behind the vision of Horizontal Flows for the redevelopment of the SCD.

Our design process involved multiple steps. We first visited the SCD and developed themes from feedback at a community workshop. Next, we spent two weeks mapping critical existing conditions of the SCD to identify opportunities and eight influential elements for the site. Lastly, our group came together to explore creative solutions on trace paper for three of the eight influential elements and continually refined our ideas with critiques from professionals. As a result, Horizontal Flows is a combination of our three initial design concepts that responds to 2nd Street through circulation, Clear Creek for activation, and view corridors as important spatial organizers. The main goal of Horizontal Flows is to create a more activated, unified, safe, and walkable place for the Coralville community by utilizing those three influential elements.

Horizontal Flows transforms the SCD into a lively and dense mixed use area. Users can live a healthier and more active lifestyle with new connections to the creek front and added pedestrian paths. Key views also bring a sense of unity throughout the site and to the Coralville community.

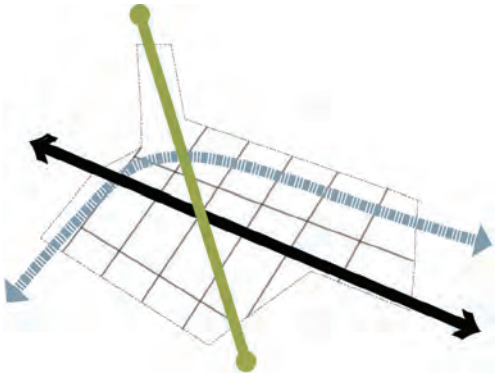


Figure 5.1
Concept Parti Diagram
The simplified concecpt for Horizontal Flows is represented by three influential elements and an underlying grid.
(Benyshek, 2018)

The image above shows the basic structure defining the Horizontal Flows design concept. It consists of 2nd Street (black arrow), Clear Creek (blue arrow), a view corridor (green line), and underlying grid.

Figure 5.2
Concept Plans
Horizontal Flows stems from these three initial design concepts that separately addressed 2nd Street, a view corridor, and Clear Creek.
(Randall, 2018)

Goals and Objectives

Our goal is to activate and connect the Southeast Commercial District utilizing 2nd Street, Clear Creek, and key views to create a unified space for the Coralville community. This encompasses:

- Providing a variety of programming to activate the outdoor environment
- Creating a more walkable district to improve access and connectivity
- Activating the waterfront to attract more businesses and users
- Utilizing building mass for spatial and cultural definition
- Establishing key views across the site to create a sense of identity and unify the Southeast Commercial District

Responding to the Community Themes

The following points highlight how we are addressing the themes expressed by Coralville community members at the workshop:

Unique and Innovative Businesses
Existing and local businesses will have priority to move into the new development with our phasing strategy.

Transformation
The existing SCD changes from a less organized site dominated by parking lots and dangerous traffic to a more unified site with greenspace and safe pedestrian crossings.

Local Economics
More housing, offices, and residents in SCD will boost the local economy.

Affordable Housing
Having residents in 85% of the proposed buildings has potential to provide ample affordable housing.

Accessible Transportation
The skywalk is designed so it can expand and connect with future rail transit development.

Green Usable Public Space
New plazas, greenroofs, and view corridors bring the natural beauty of the surrounding environment back into the site.

Placemaking
The east edge of SCD becomes a prominent gateway for Coralville by adding iconic artistic elements.

Figure 5.3
Community Workshop Themes
(The Noun Project, 2018)

Figure 5.4
Community Meeting
(Hahn, 2018)

Three Driving Strategies

Figure 5.5
View of 2nd Street
(Cooke, 2018)

1 2nd Street is Vehicular Oriented

Vehicular traffic currently dominates the SCD. There is only one crosswalk and the site is covered by a multitude of parking lots. An opportunity exists to create a more walkable environment oriented to the pedestrian.

Figure 5.6
View of Clear Creek
(Cooke, 2018)

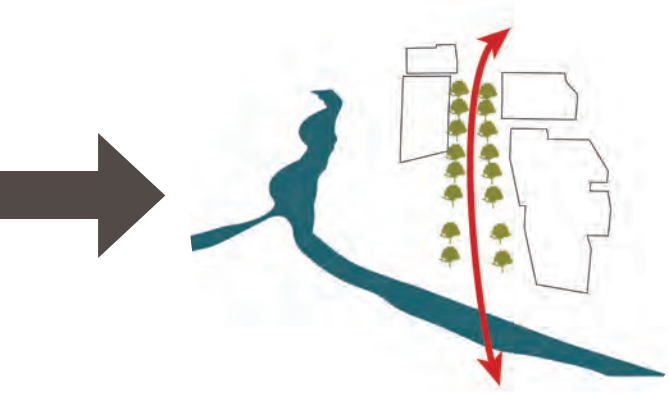
2 Clear Creek is Isolated

A flood wall currently divides the SCD and separates the Coralville community from Clear Creek's waterfront. There is an opportunity to revive the SCD by activating Clear Creek and reconnecting local businesses, residents, and other site users to the water.

Figure 5.7
View of Historic Connection
(Cooke, 2018)

3 View Corridor is Disconnected

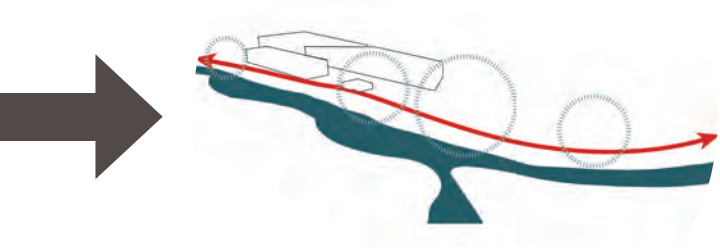
SCD is located near Coralville's historic schoolhouse and town hall buildings, but there are no clear views between the historic buildings and the site. SCD could strengthen its ties to Coralville's history through visual connections.



Make 2nd Street Walkable

Adding a new pedestrian corridor with a wider buffer along 2nd Street will help activate the site and attract business. Buildings will be brought closer to the edge of the street and new pedestrian terraces and building frontages will allow ground floor businesses more space to attract customers.

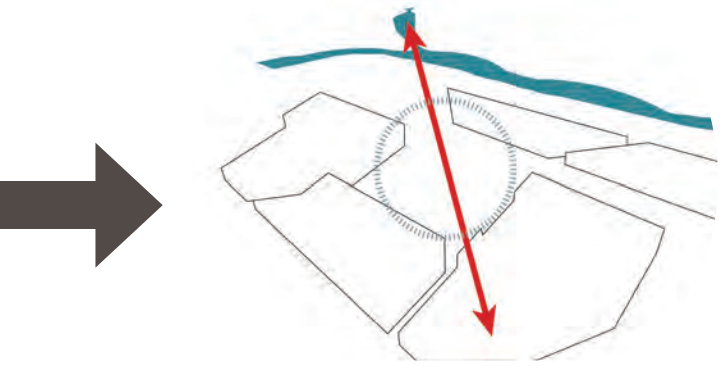
Figure 5.8
Street Strategy Diagram
(Cooke, 2018)



Engage the Creek

In order to connect the site back to the creek, key points are activated along a new proposed trail that runs along the south side of Clear Creek. These points will revitalize the district and reconnect users to the valuable resources of the creek by providing recreational services, gathering space, and increased property value.

Figure 5.9
Creek Strategy Diagram
(Cooke, 2018)



Orient the Site to Historic Views

The site will be oriented towards the nearby historic connection and Clear Creek to unify the site and create a relationship to key existing features of Coralville. This will strengthen the connection Coralville has to its history and its dedication to utilizing community assets.

Figure 5.10
View Strategy Diagram
(Cooke, 2018)

Primary Dilemmas and Responses

Figure 5.11
Streets
One intersection is added along 2nd Street to help alleviate the stress of crossing. The proposed skywalk also provides a safe way for pedestrians to get across 2nd Street.
(Benyshek, 2018)

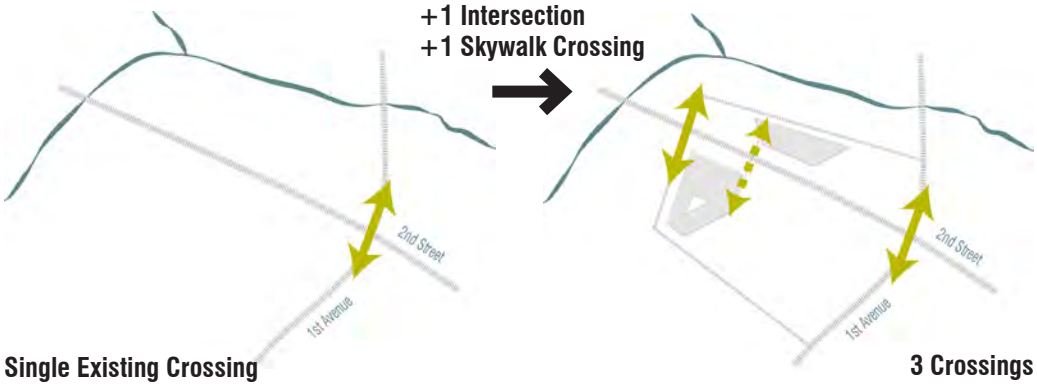


Figure 5.12
Waterfront
The Clear Creek waterfront is activated with a new riverwalk, terracing down to the water's edge, plazas, piers, and a pedestrian bridge.
(Benyshek, 2018)

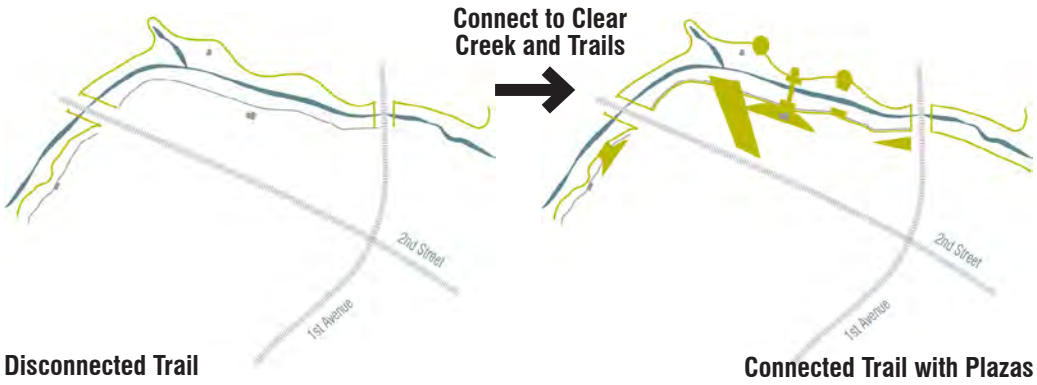


Figure 5.13
Figure Ground
New mixed use development helps bring order to the site and supports unique outdoor spaces.
(Benyshek, 2018)

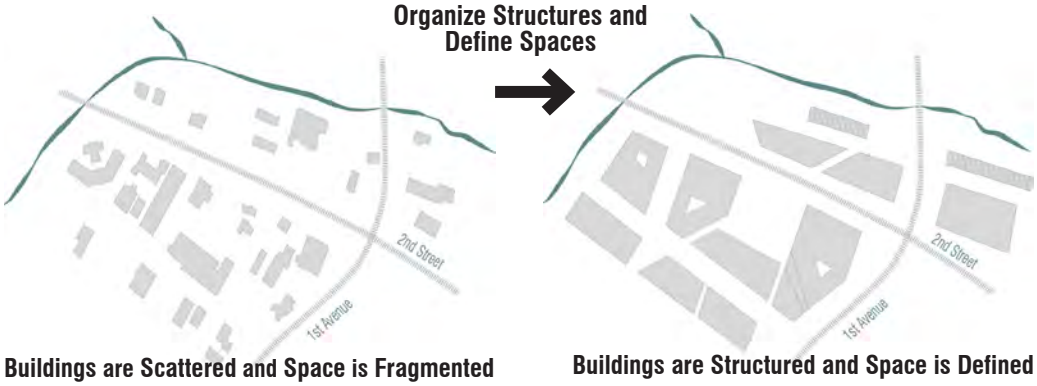
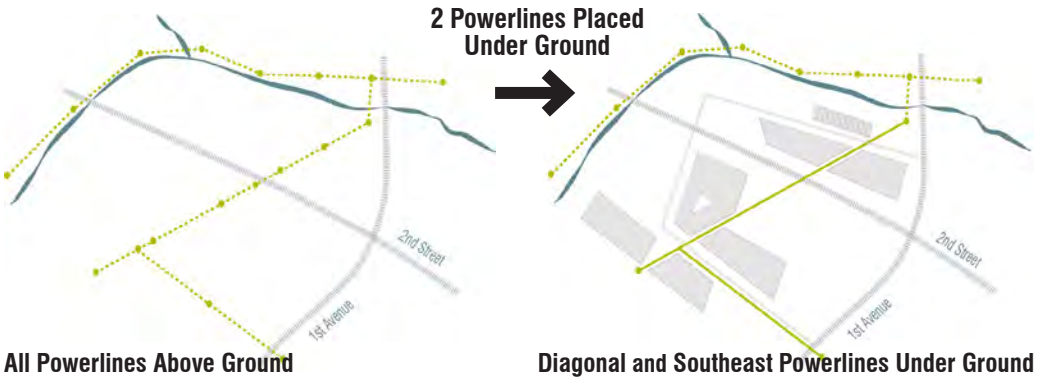


Figure 5.14
Powerlines
The main diagonal powerlines on the site will be placed underground in the same spot to cut down on cost and allow more space for the new development.
(Benyshek, 2018)



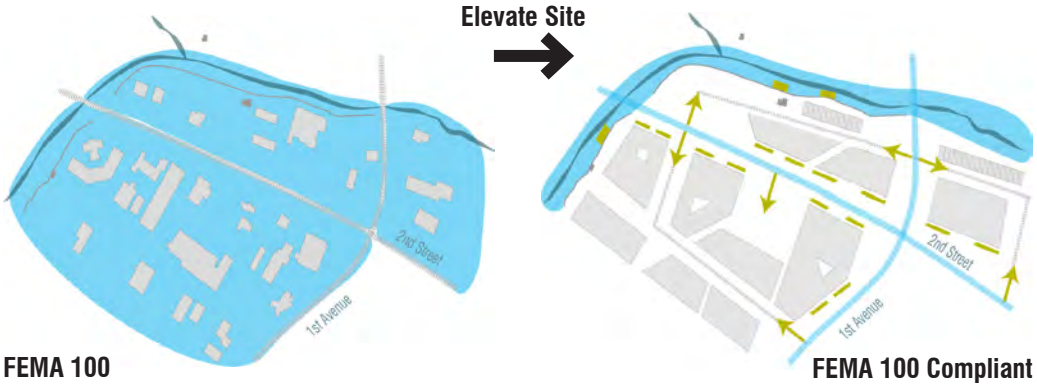


Figure 5.15
FEMA Compliance
Terracing and ramping around the edges of the site and along the waterfront will help to reach the 3-5' change in elevation required to build safely out of the 100 year +1 foot floodplain elevation.
(Benyshek, 2018)

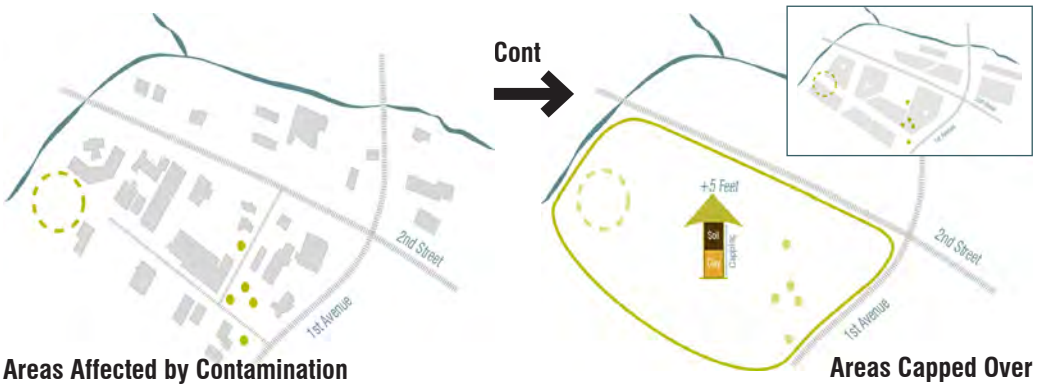


Figure 5.16
Brownfield
There are five known points of contamination and one suspected on site which will undergo remediation.
(Benyshek, 2018)

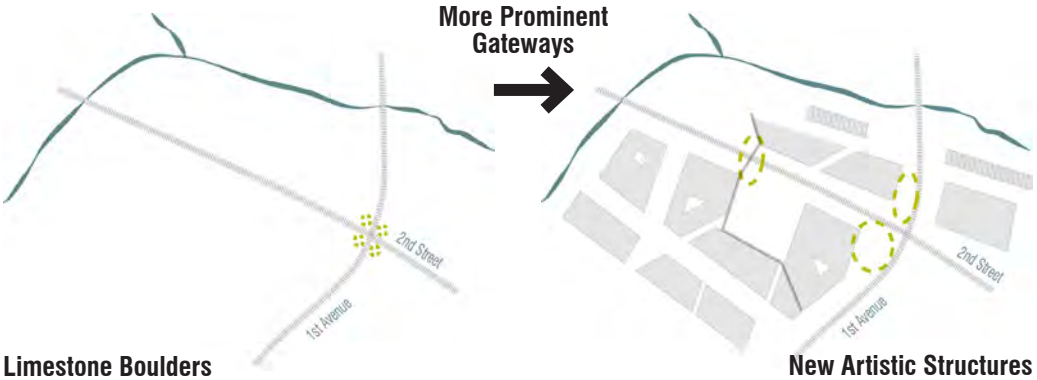


Figure 5.17
Placemaking
Adding larger artistic gateway features on the east edge of the site and a new skywalk will give the district a unique identity.
(Benyshek, 2018)

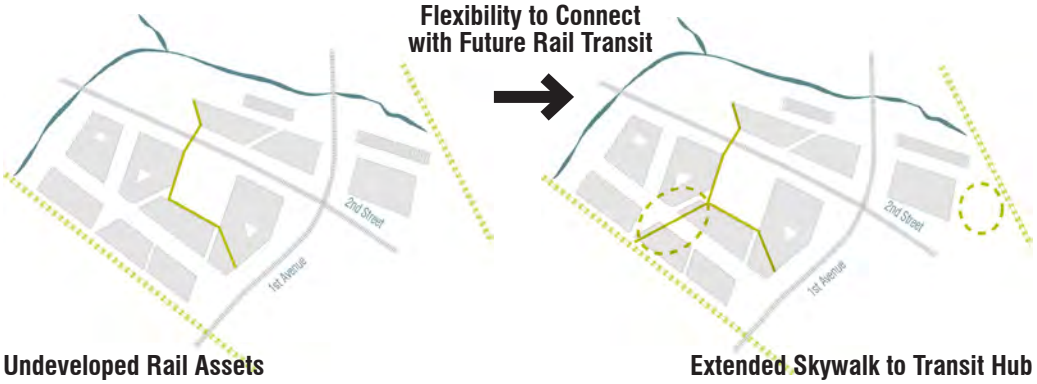


Figure 5.18
Rail
The proposed skywalk has the possibility of building on a wing that connects with future developed rail transit systems. There is also room to add a train depot by the railway in the northeast corner of the district.
(Benyshek, 2018)

Illustrative Site Plan

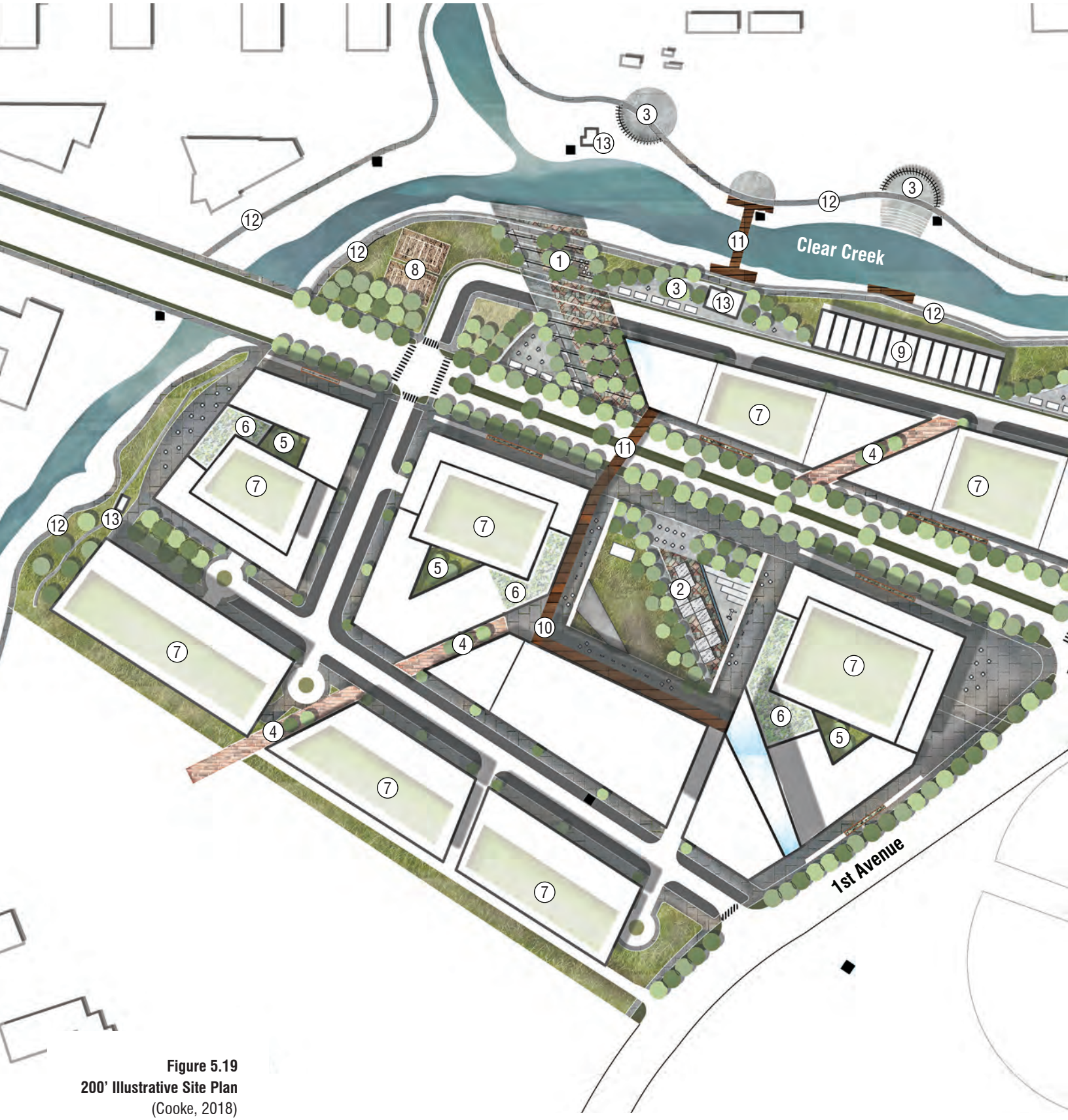


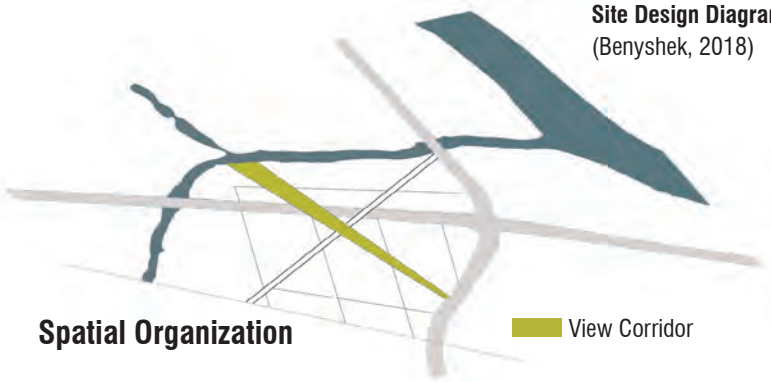
Figure 5.19
200' Illustrative Site Plan
(Cooke, 2018)

Figure 5.20
Site Design Diagrams
(Benyshek, 2018)

Legend

1 Clear Creek Plaza
2 Central Plaza
3 Vendor Plaza
4 The Crossway
5 Courtyard
6 Green Roof Garden
7 Parking Garage Green Roof
8 Volleyball Courts
9 Rowhouses
10 Skywalk
11 Pedestrian Bridge
12 Clear Creek Trail
13 Pump Stations

0' 50' 100' 200'



Spatial Organization

View Corridor

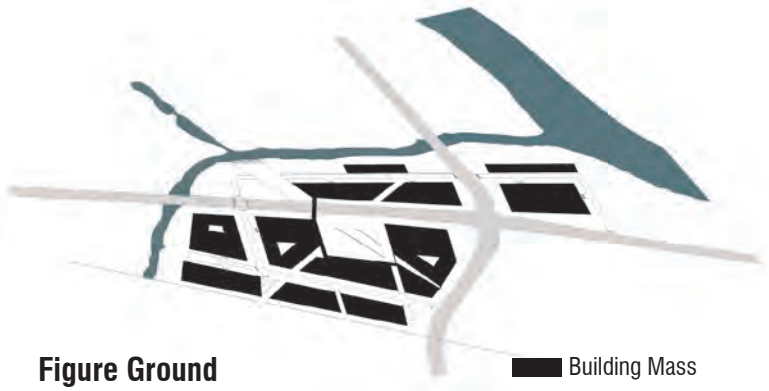
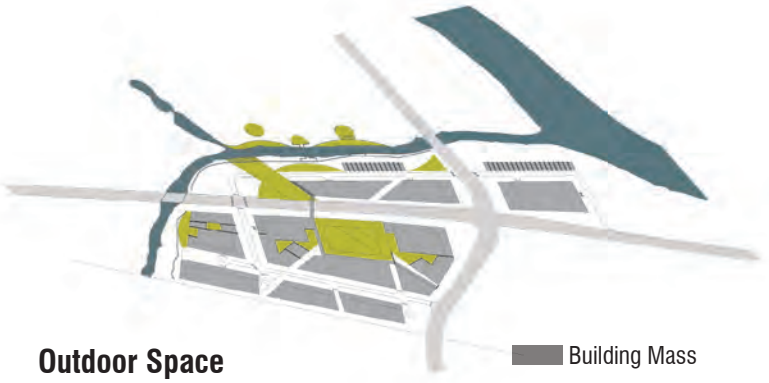


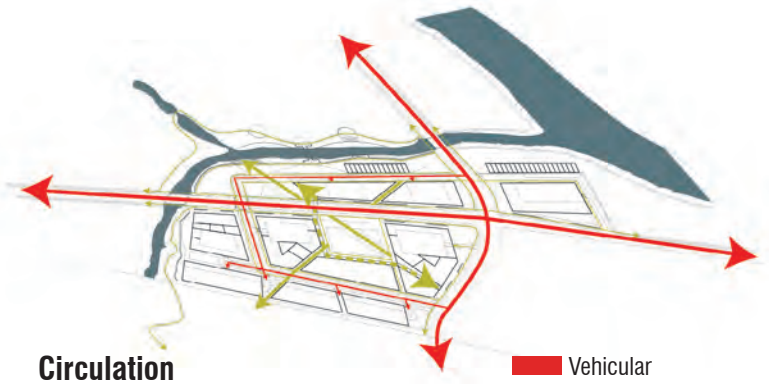
Figure Ground

Building Mass



Outdoor Space

Building Mass
Plaza



Circulation

Vehicular
Pedestrian

1 Making 2nd Street Walkable

A Revitalized 2nd Street Supports a More Walkable District

2nd Street features several new additions that make it feel much more walkable with added pedestrian amenities and better overall circulation. An implemented skywalk allows pedestrians to cross the street in a more central location above the road, whereas a western proposed intersection allows crossing along the ground. The pedestrian bridge along the skywalk also gives a new identity to the Southeast Commercial District. Proposed terracing will allow the buildings to be elevated above the floodplain and will give store fronts improved visibility for activating space. This new terraced space will activate the street front and will attract more business. This terraced frontage could include space for dining, seating, signage, or vegetation. Along the terraced zone will be a newly constructed wider sidewalk with a larger buffer from the highway, while preserving the existing site trees to provide maximum comfort and safety for both vehicular and pedestrian traffic.

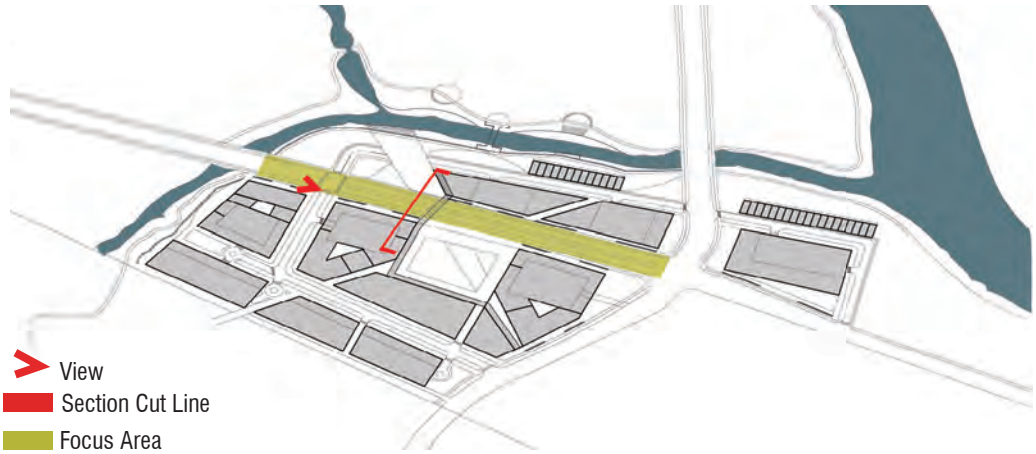


Figure 5.21
Reference Map: 2nd Street
(Benyshek, 2018)

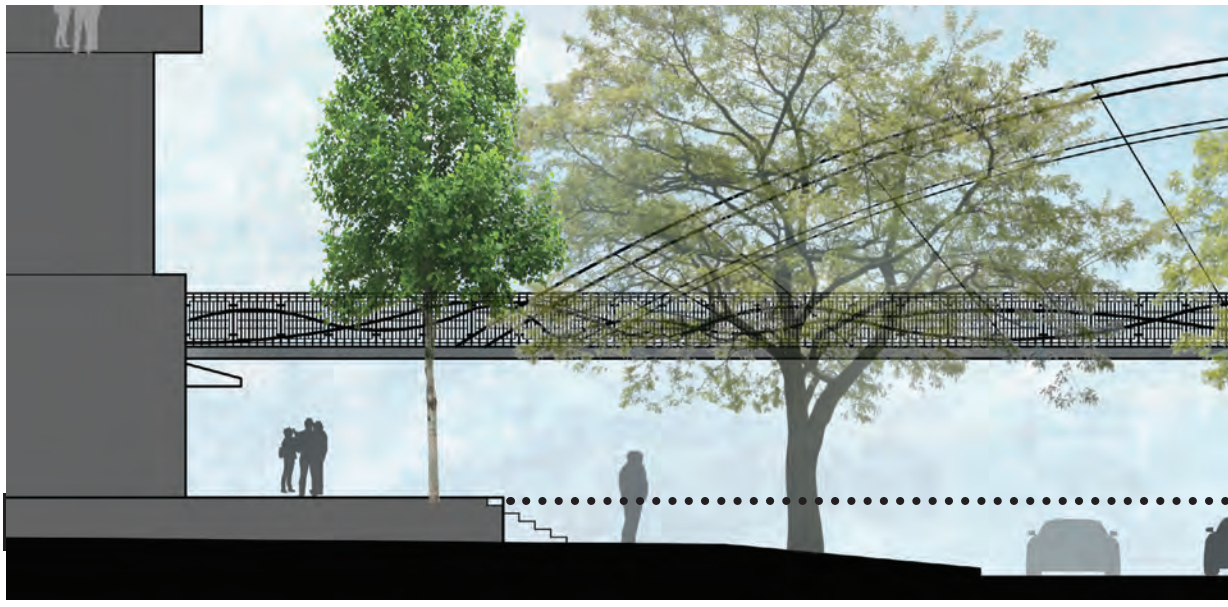


Figure 5.22
2nd Street Cross-Section
The newly redesigned 2nd Street will feature a median, high-density mixed-use, terracing to elevate buildings above flooding and space for outdoor shopping, eating and resting.
(Randall, 2018)

Figure 5.23
View of 2nd Street
The SCD is revitalized with a new intersection and an activated street front.
(Cooke and Randall, 2018)

2 Engaging Clear Creek

An Activated Clear Creek Creates a New Identity

Clear Creek will feature several new key spaces to facilitate recreational activity, both in the heart of the district and along the creek. The primary outdoor space is a large plaza featuring space for performance, dining, street vendors, and seating. Other features include a new pedestrian bridge to connect Clear Creek Trail along both sides of the waterfront, two new water front plazas accessed over the flood wall, and three new elevated platforms that serve as overlooks and gathering spaces.

Overall, these spaces will allow for businesses to better connect to the creek to offer more services to the district as well as the community as a whole. The new South-side creek trail will better connect the district to the rest of the trail system thus improving overall pedestrian circulation.

Figure 5.24
Creekside Streetscape
- A variety of programming along the north side of 2nd Street will activate Clear Creek
(Randall, 2018)

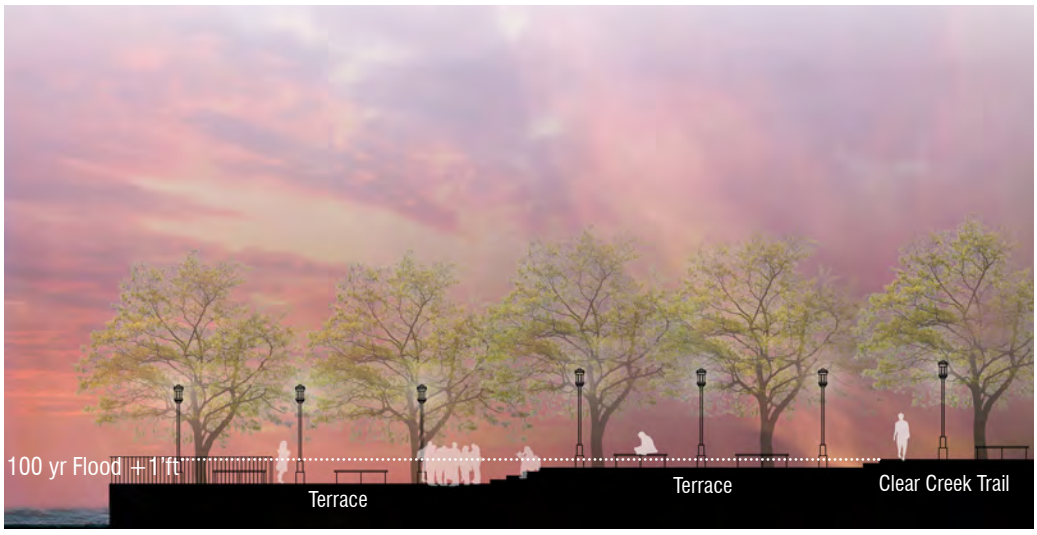


Figure 5.25
Clear Creek Plaza
The addition of a plaza near Clear Creek would provide a dedicated space for events, food trucks, rest and socializing.
(Randall, 2018)

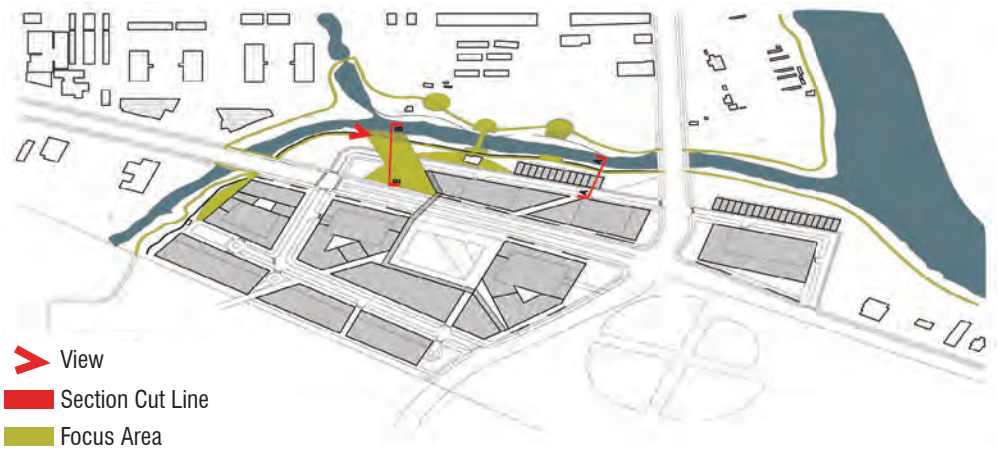


Figure 5.26
Reference Map: Clear Creek
(Benyshek, 2018)

Figure 5.27
View of Clear Creek Trail
Clear Creek is better connected to the SCD with a new trail system along the existing flood wall and the Clear Creek Plaza.
(Cooke and Randall, 2018)

3 Orienting towards Historic Views

An Established View Corridor Connects to Coralville

The new orientation of the site points back to historic connections of Coralville and Clear Creek. Not only does this help to establish a physical connection to the past, but also symbolizes looking towards the future. The view is at the heart of the design and helps to break up the established grid while still providing unity. The corridor is connected by a series of public spaces as well as being formed by structural components. The spaces that make up the core of the view are the Central Plaza and Clear Creek Plaza. These spaces are connected by the skywalk which accents the view and is shaped by the surrounding buildings that form in a diagonal wherever it crosses the main axis. Overall the view helps connect the street and the creek, while also tying back into the community. The following spreads will address how the view is reinforced, accented, and established.

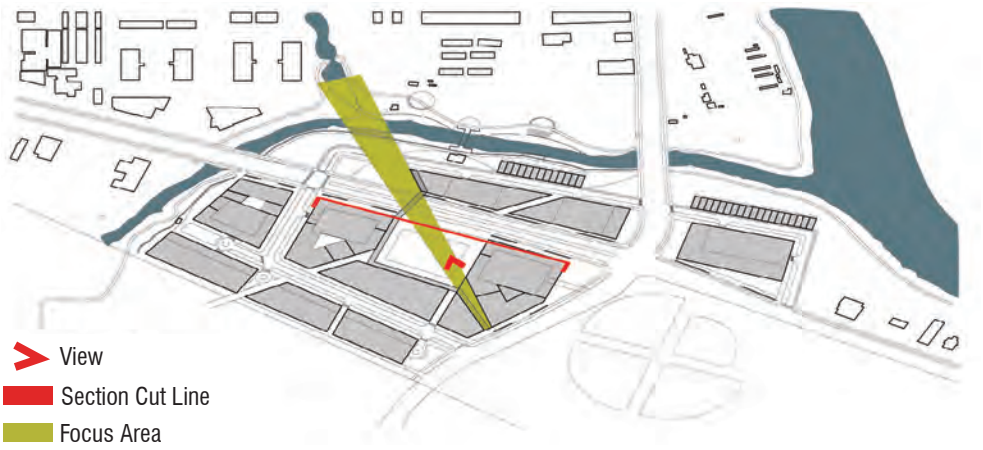


Figure 5.28
Reference Map: View Corridor
(Benyshek, 2018)

Figure 5.29
Block Section
Mixed-use and a commercial/ office building will frame a large public plaza. Parking structures wrapped by the mixed-use buildings will provide parking while maintaining curb appeal.
(Randall, 2018)

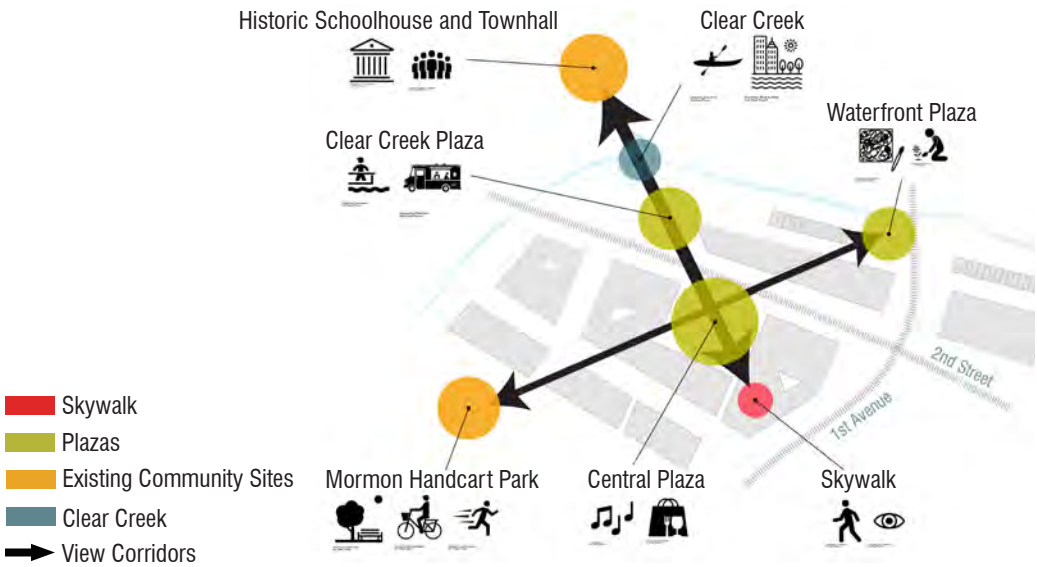


Figure 5.30
Programming
The view corridor defined by building facades connects with multiple types of actively programmed spaces.
(Benyshek, 2018)

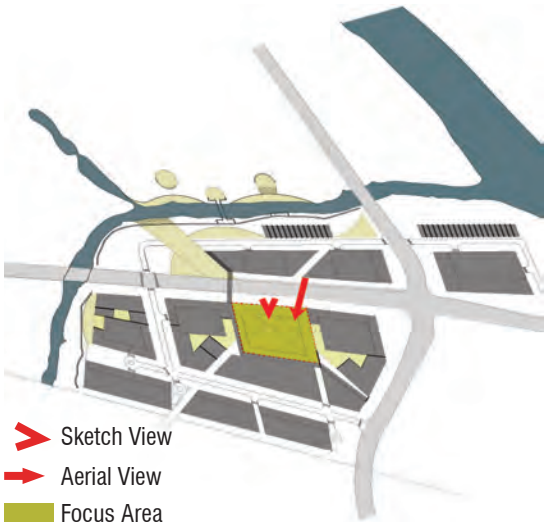
Figure 5.31
View of Primary View Corridor
The view is accented by public spaces and built elements that frame and enclose.
(Cooke and Randall, 2018)

Establishing the View: Central Plaza

Figure 5.32
Central Plaza Plan
(Cooke, 2018)

1 Stage
2 Lawn
3 Terrace
4 Activity Tent
5 Vegetated Pergola
6 Bosque
7 Play Zone

Figure 5.33
Reference Map: Central Plaza
Central Plaza helps shape a portion of the view corridor.
(Benyshek, 2018)



The View Corridor is an important feature that runs through the Central Plaza. A paved pathway in Central Plaza orients pedestrians to look and walk in the same diagonal as the view corridor. Also, the pavement outlines the shape of the View Corridor at the ground plane to help extend it across the site.

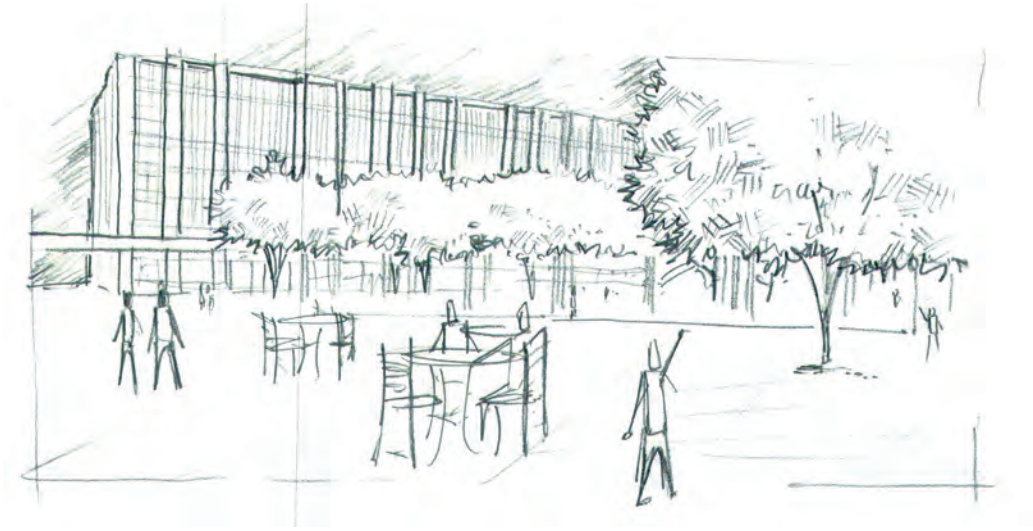
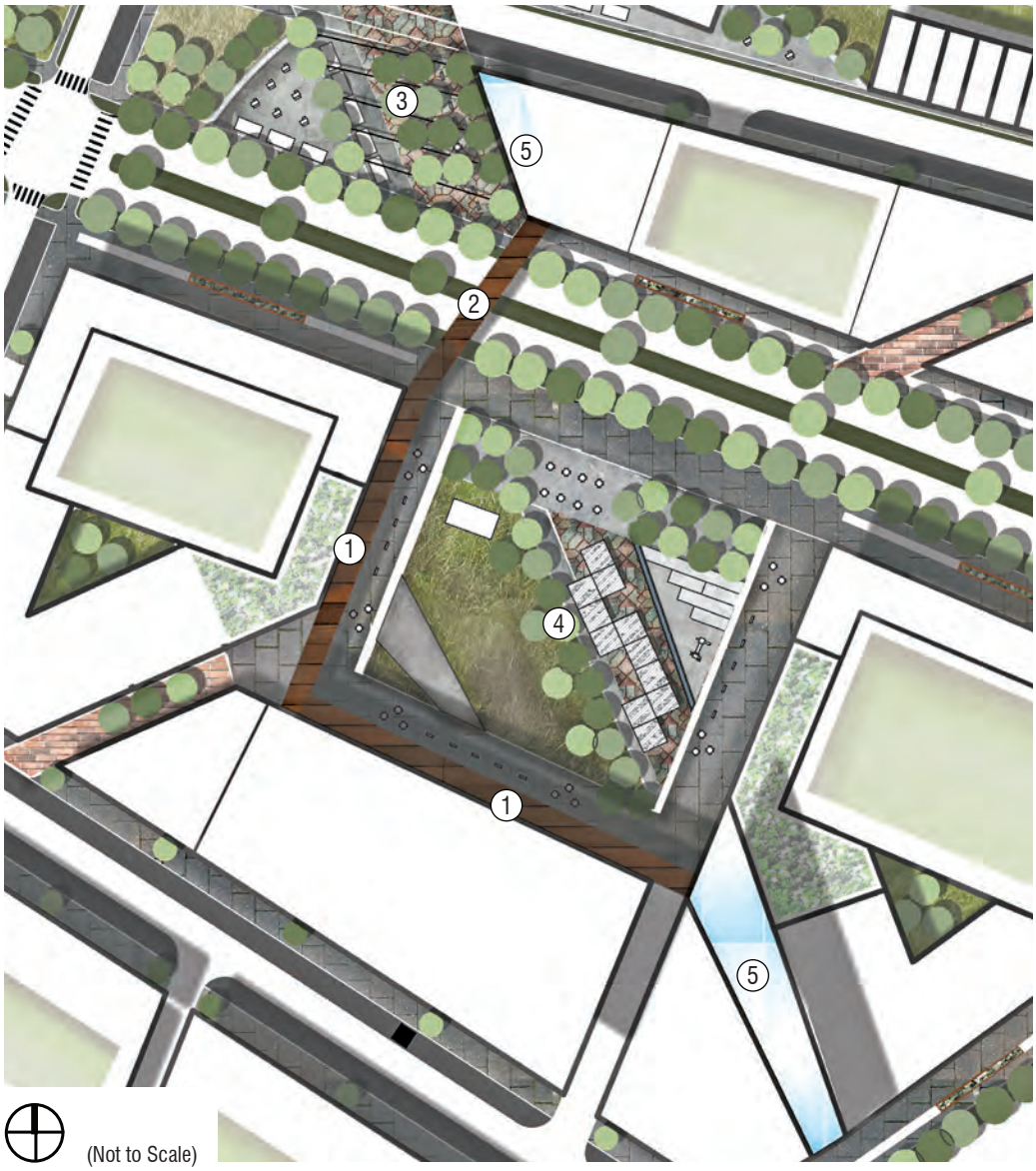


Figure 5.34
Sketch of Central Plaza
Sketch to show a person's perspective of the plaza
(Randall, 2018)

Figure 5.35
Aerial of Central Plaza
(Cooke, 2018)

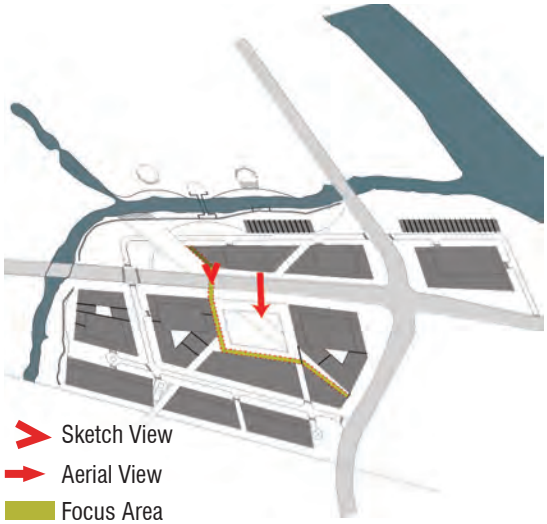
Accenting the View: Skywalk

Figure 5.36
Skywalk Plan
(Cooke, 2018)



1 Skywalk
2 Pedestrian Bridge
3 Clear Creek Plaza
4 Central Plaza
5 Interior Skywalk

Figure 5.37
Reference Map: Skywalk
(Benyshek, 2018)



A proposed skywalk enhances the view experience at the SCD by allowing pedestrians to see more of the site with less obstruction. It also provides another way for pedestrians to cross 2nd Street without interrupting traffic. The skywalk is accessible from inside the surrounding buildings, including access to an elevator at key corners.

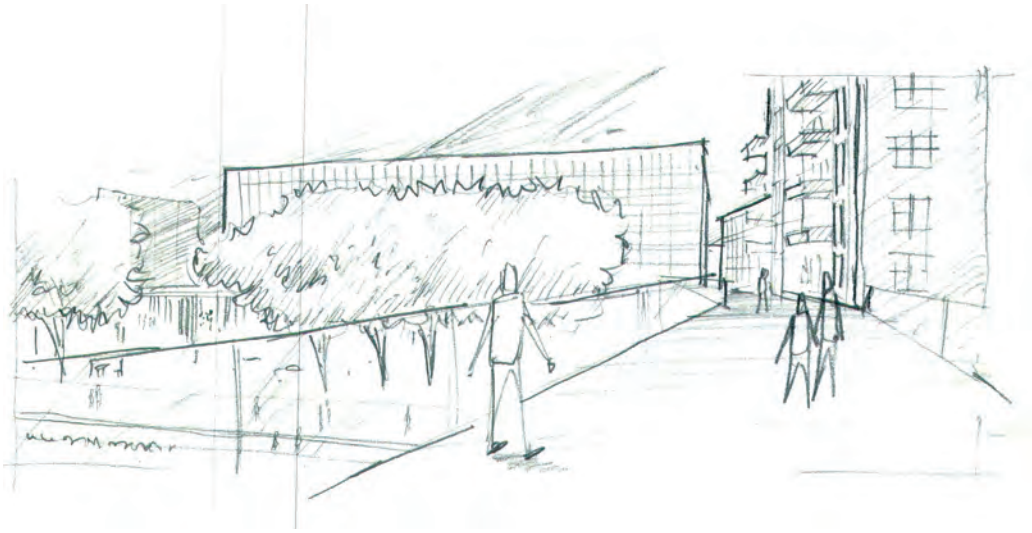
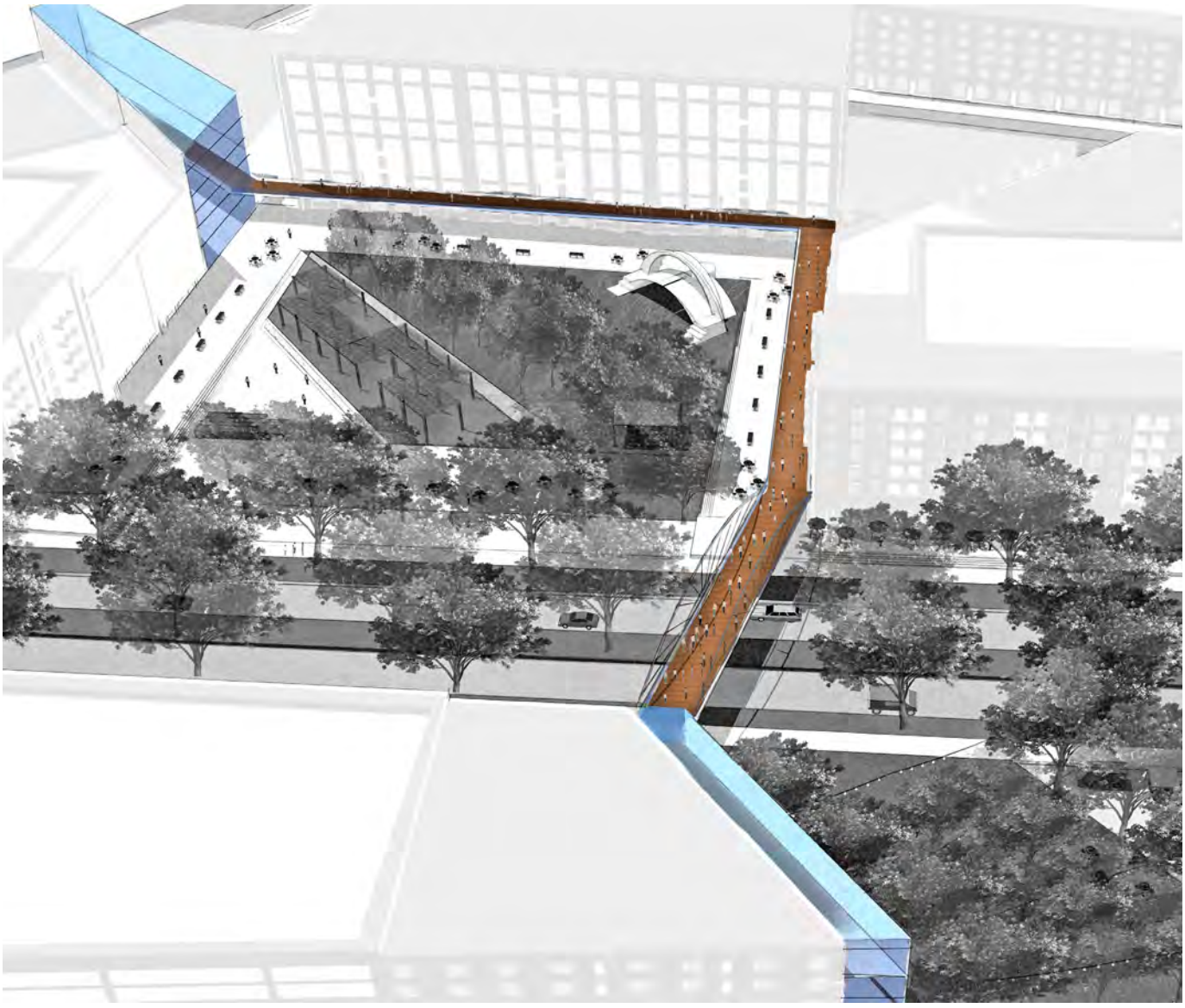


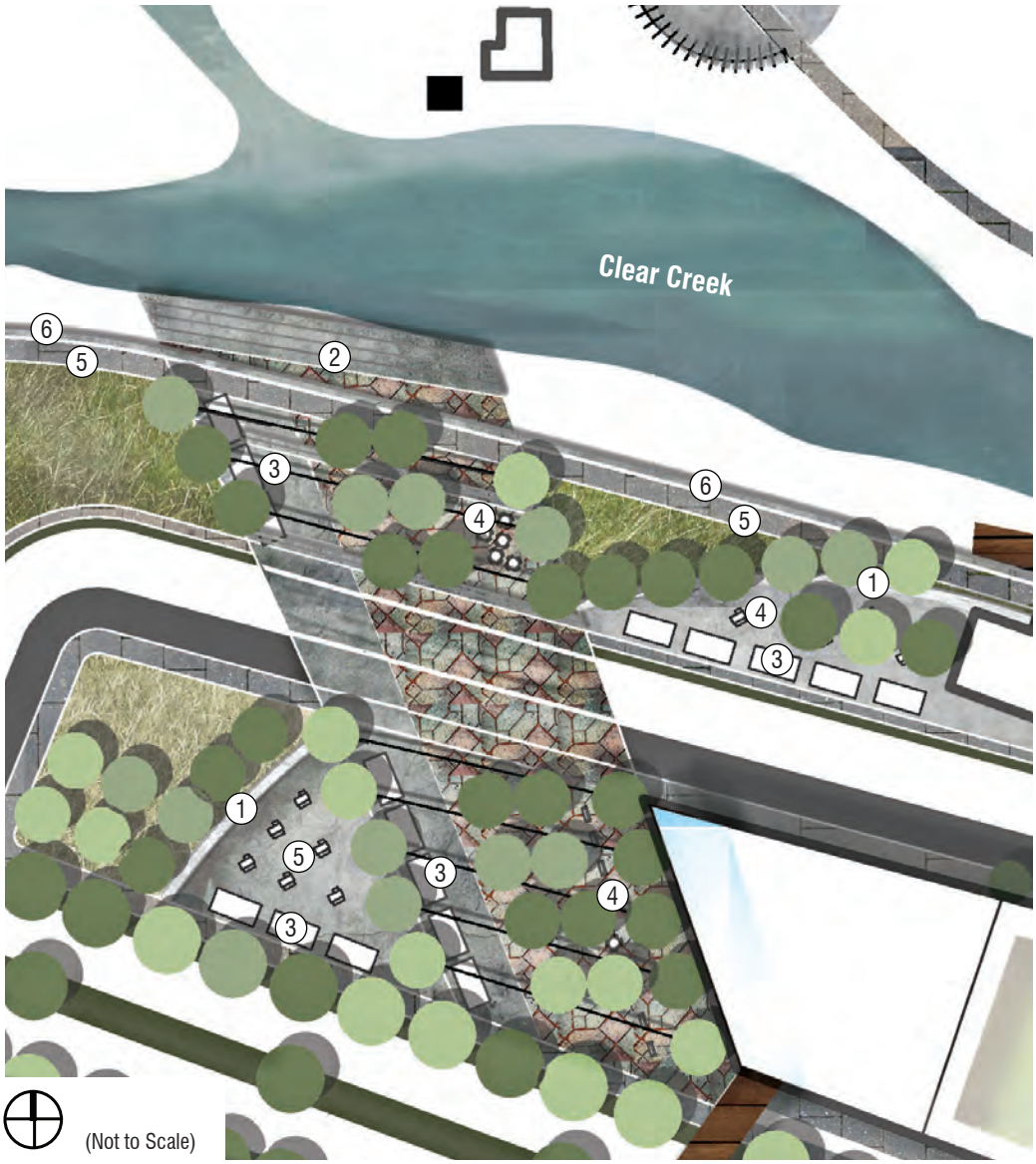
Figure 5.38
Skywalk Sketch
A sketch of the elevated Skywalk that crosses 2nd Street to provide increased pedestrian connectivity.
(Randall, 2018)

Figure 5.39
Aerial of Skywalk
(Cooke, 2018)



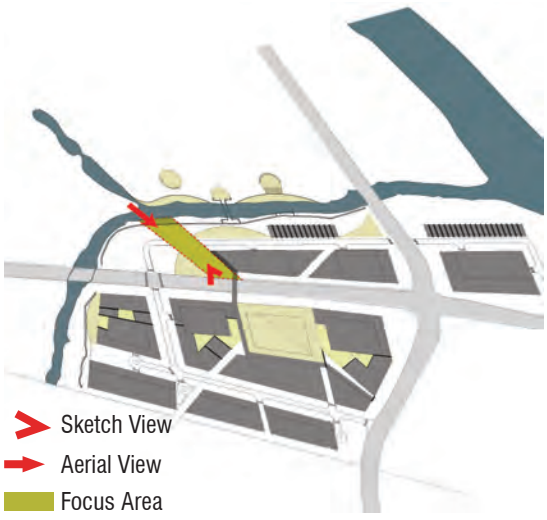
Reinforcing the View: Clear Creek Plaza

Figure 5.40
Clear Creek Plaza Plan
(Cooke, 2018)



1 Seating Wall
2 Waterfront Terrace
3 Activity Tent/Vendor
4 Dining Plaza
5 Clear Creek Trail
6 Flood Wall

Figure 5.41
Reference Map: Clear Creek Plaza
(Benyshek, 2018)



Clear Creek Plaza establishes the largest portion of the view corridor by connecting down to the water's edge and framing the shape with vegetation. The open ends of the Clear Creek Plaza also allow the view to extend on to Coralville's historic schoolhouse and townhall and the Central Plaza for connectivity across the site.

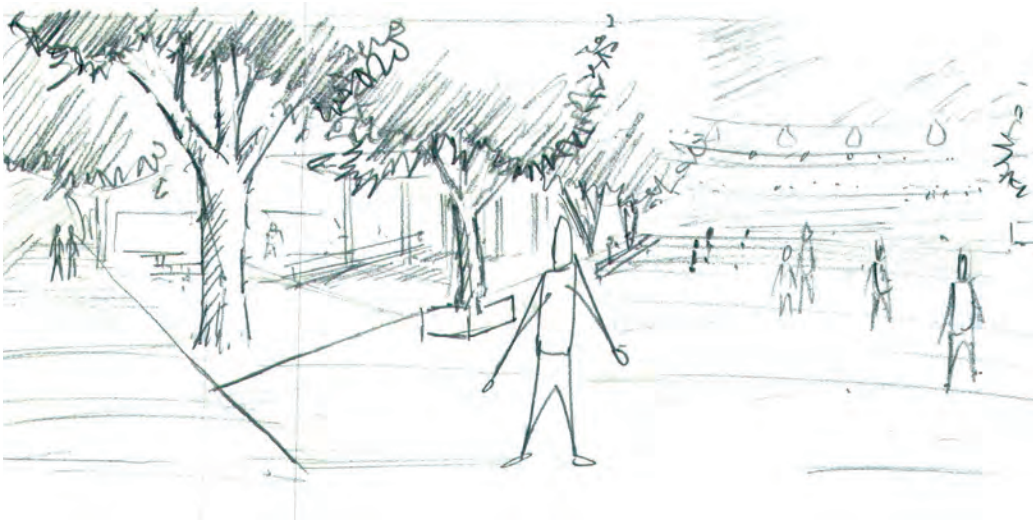


Figure 5.42
Clear Creek Plaza Sketch
A plaza near Clear Creek will provide a place for events, socializing, rest and recreation.
(Randall, 2018)

Figure 5.43
Aerial of Clear Creek Plaza
(Cooke, 2018)

Land Use Plan

The Horizontal Flows concept includes high-density housing, office space, and retail space with dedicated green spaces for recreation, rest, and socializing. This high-density, mixed use planning will help to activate the street and storefronts and attract visitors to Coralville and the SE Commercial district.

Figure 5.44
Land Use Diagram
(Cooke and Randall, 2018)

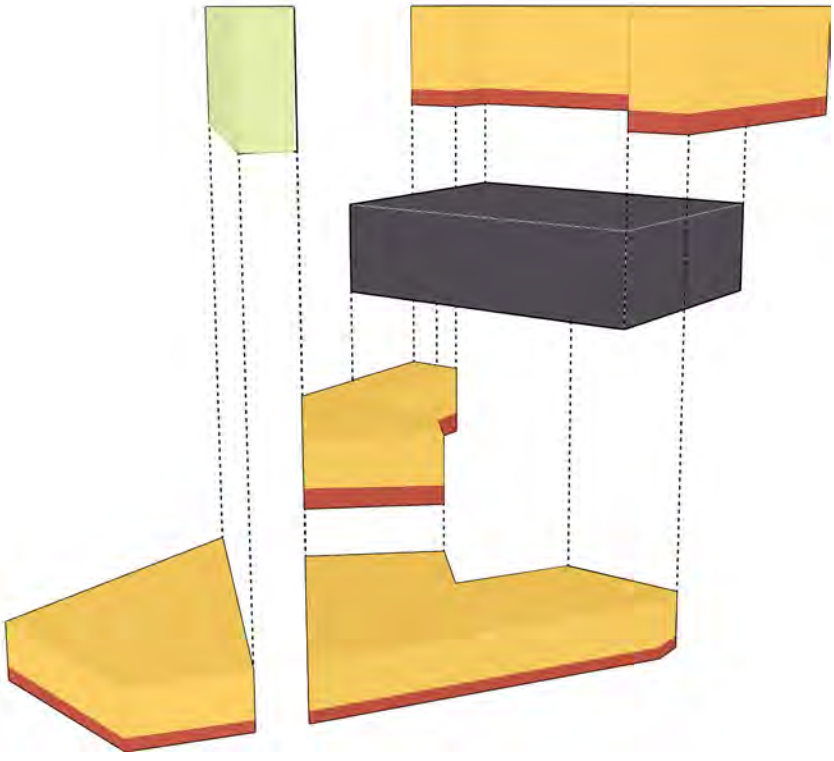
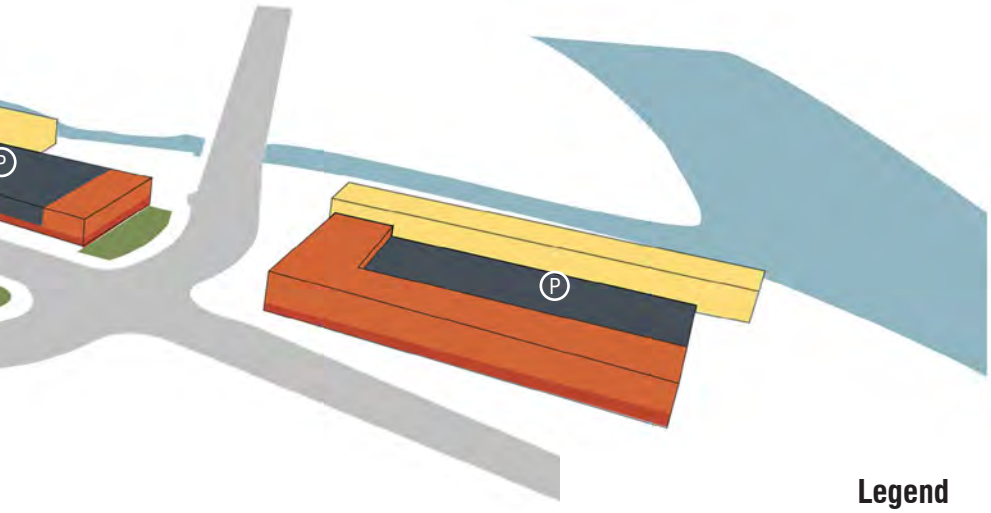


Figure 5.45
The Texas Donut
This diagram shows how parking structures can be wrapped in mixed-use buildings to provide parking.
(Cooke and Randall, 2018)

Figure 5.46
Metrics Summary
This table is a summary of the residential, commercial, office, and parking found on site.
(Benyshek, 2018)



Legend

- High-density Housing
- Medium-density Housing
- Retail & Service
- Office
- Open Space
- Terrace Space
- Parking
- Road

Residential Summary

Total Residential SF	609,062
Total DU	762
Avg DU Area	197
Total Residents	1,523
Parking Stalls Needed	1,067

Commercial Summary

Total Commercial SF	380,449
Employees	508
Parking Stalls Needed	1,066

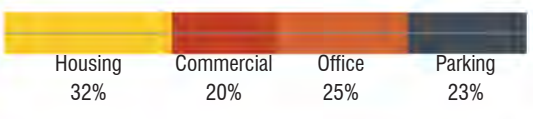
Office Summary

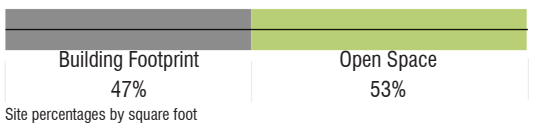
Total Office SF	481,452
Employees	963
Parking Stalls Needed	1,248

Parking Summary

Total Stalls Needed	3,379
Parking Stalls Provided	3,353
Surface Parking Stalls	0
Streetside Parking	313
Structure Parking	3,040

FAR (excluding ROW) 1.88





Site percentages by square foot

Metrics

The Horizontal Flows design concept plans for 85% mixed use development. The following data provides an overview of block sizes, land use distribution, usage capacity, and the parking needs. The Horizontal flows concept creates seven main parcels within the site with varying usage proportions. Overall, the majority of Horizontal Flows' square footage will be used for residential, followed by office, parking, and commercial respectively.

Figure 5.47
Metrics Breakdown
These tables and graph look at the land uses, square footage, number of employees, and parking for all seven of the design's blocks.
(Benyshek, 2018)

Block 1	
Residential Summary	
Total Residential Square Footage	28,692
Total Dwelling Units (DU)	36
Avg DU/Acre	18.7
Total Residents	72
Parking Stalls Needed	50
Commercial Summary	
Total Commercial Square Footage	14,346
Employees	19
Parking Stalls Needed	40
Office Summary	
Total Office Square Footage	0
Employees	0
Parking Stalls Needed	0
Parking Summary	
Total Stalls Needed	90
Parking Stalls Provided	456
Surface Parking Stalls	0
Streetside Parking	0
Structured Parking	456

Block 2	
Residential Summary	
Total Residential Square Footage	107,744
Total Dwelling Units (DU)	135
Avg DU/Acre	28.5
Total Residents	269
Parking Stalls Needed	189
Commercial Summary	
Total Commercial Square Footage	90,132
Employees	120
Parking Stalls Needed	252
Office Summary	
Total Office Square Footage	286,392
Employees	573
Parking Stalls Needed	702
Parking Summary	
Total Stalls Needed	1,143
Parking Stalls Provided	789
Surface Parking Stalls	0
Streetside Parking	83
Structured Parking	706

Block 3	
Residential Summary	
Total Residential Square Footage	217,485
Total Dwelling Units (DU)	272
Avg DU/Acre	46.6
Total Residents	544
Parking Stalls Needed	381
Commercial Summary	
Total Commercial Square Footage	73,412
Employees	98
Parking Stalls Needed	206
Office Summary	
Total Office Square Footage	0
Employees	0
Parking Stalls Needed	0
Parking Summary	
Total Stalls Needed	586
Parking Stalls Provided	533
Surface Parking Stalls	0
Streetside Parking	10
Structured Parking	523

Block 6	
Residential Summary	
Total Residential Square Footage	0
Total Dwelling Units (DU)	0
Avg DU/Acre	0.0
Total Residents	0
Parking Stalls Needed	0
Commercial Summary	
Total Commercial Square Footage	67,908
Employees	91
Parking Stalls Needed	190
Office Summary	
Total Office Square Footage	87,896
Employees	176
Parking Stalls Needed	246
Parking Summary	
Total Stalls Needed	436
Parking Stalls Provided	445
Surface Parking Stalls	0
Streetside Parking	82
Structured Parking	363

Assumptions

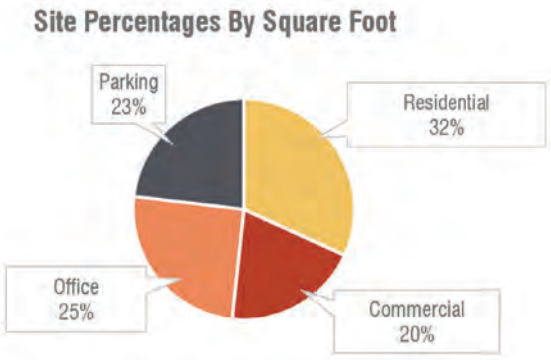
DU:	800 SF
Residents/DU:	2
SF per Comm. Employee:	750
SF per Office Employee:	500
Standard Parking Spaces per DU:	2
Standard Parking Spaces per 1K SF of Comm.:	4
Standard Parking Spaces per 1K SF of Office:	4
Structured Parking Stall:	350 SF
Surface Parking Stall:	220 SF
Parking Utilization:	70%

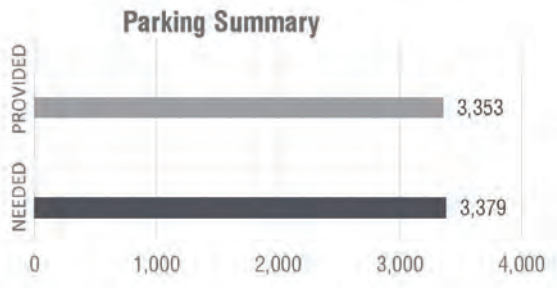
Figure 5.48
Block Breakdown
The map illustrates how we divided up all seven parcels to calculate their metrics.
(Benyshek, 2018)

Block 3	
Residential Summary	
Total Residential Square Footage	107,195
Total Dwelling Units (DU)	134
Avg DU/Acre	55.5
Total Residents	268
Parking Stalls Needed	188
Commercial Summary	
Total Commercial Square Footage	35,920
Employees	48
Parking Stalls Needed	101
Office Summary	
Total Office Square Footage	35,920
Employees	72
Parking Stalls Needed	101
Parking Summary	
Total Stalls Needed	389
Parking Stalls Provided	336
Surface Parking Stalls	0
Streetside Parking	32
Structured Parking	304

Block 4	
Residential Summary	
Total Residential Square Footage	147,946
Total Dwelling Units (DU)	185
Avg DU/Acre	47.2
Total Residents	370
Parking Stalls Needed	259
Commercial Summary	
Total Commercial Square Footage	43,495
Employees	58
Parking Stalls Needed	122
Office Summary	
Total Office Square Footage	0
Employees	0
Parking Stalls Needed	0
Parking Summary	
Total Stalls Needed	381
Parking Stalls Provided	433
Surface Parking Stalls	0
Streetside Parking	42
Structured Parking	391

Block 7	
Residential Summary	
Total Residential Square Footage	0
Total Dwelling Units (DU)	0
Avg DU/Acre	0.0
Total Residents	0
Parking Stalls Needed	0
Commercial Summary	
Total Commercial Square Footage	55,236
Employees	74
Parking Stalls Needed	155
Office Summary	
Total Office Square Footage	71,244
Employees	142
Parking Stalls Needed	199
Parking Summary	
Total Stalls Needed	354
Parking Stalls Provided	361
Surface Parking Stalls	0
Streetside Parking	64
Structured Parking	297





Phasing

Carefully planned phasing will give existing businesses first priority at new locations

The Horizontal Flows concept for phasing focuses on gradual implementation to provide long-term growth while working with established businesses to help them remain on-site. This phasing plan will provide displaced businesses and residents an opportunity to relocate within the district before their current buildings are redeveloped.

Long-term plans will provide more locations for retail and offices. As phases progress, businesses will gradually develop larger customer bases as new residential units are built.

Figure 5.49
Proposed Building Overview
(Cooke and Randall, 2018)

Existing Development

The current site is used inefficiently and lacks clear organization.

Proposed Development

The proposed development would be high-density, utilize space more efficiently and create a more orderly layout.

Phase One

The first phase will leave most of the site untouched and provide new retail and service locations. Existing businesses will be given first priority in the new spaces.

Phase Two

The 2nd phase will provide the bulk of mixed-use construction and the addition of a large public green space and a large building dedicated to offices and retail.

Phase Three

The final phase will add additional mixed use buildings which include additional parking, retail, and residential space.

Figure 5.50
Phasing Strategy
(Cooke and Randall, 2018)

Horizontal Flows Connects the Site to Clear Creek and 2nd Street through an Established View Corridor

In summary, our design activates and connects the Southeast Commercial District to create a unified space for the community of Coralville. A variety of programming, walkable spaces, an activated waterfront, and key views throughout the design help to bring the design together and provide a unique environment for local businesses to thrive alongside a growing community and connect back to the heart of Coralville: the waters of Clear Creek and the Iowa River.

Figure 5.51
Aerial of New SCD
(Cooke, 2018)

Citations

Chapter Heading
Hahn, Howard. 2018. Photograph taken in Coralville, IA.

Figure 5.1
Benyshek, Julie. 2018. “Concept Parti Diagram.” Kansas State University LAR 646 2018. Diagram created with Adobe Illustrator.

Figure 5.2
Randall, Scott. 2018. “Concept Plans.” Kansas State University LAR 646 2018. Diagram created with hand rendering by author.

Figure 5.3
Bages, Gilbert from The Noun Project, 2018. “Mortgage.” https://thenounproject.com/
Creative Mania from The Noun Project, 2018. “Transportation.” https://thenounproject.com/
Dairy Free Design from The Noun Project, 2018. “Economics.” https://thenounproject.com/
LA Great Streets from The Noun Project, 2018. “Placemaking.” https://thenounproject.com/
Nolte, Andrew from The Noun Project, 2018. “Park.” https://thnounproject.com/
ProSymbols from The Noun Project, 2018. “Business Idea.” https://thenounproject.com/
Rudez Studio from The Noun Project, 2018. “Clean.” https://thenounproject.com/

Figure 5.4
Hahn, Howard. 2018. “Community Meeting.” Photograph taken in Coralville, IA.

Figure 5.5
Cooke, Shelby. 2018. “View of 2nd Street.” Photograph taken in Coralville, IA.

Figure 5.6
Cooke, Shelby. 2018. “View of Clear Creek.” Photograph taken in Coralville, IA.

Figure 5.7
Cooke, Shelby. 2018. “View of Historic Connection.” Photograph taken in Coralville, IA.

Figure 5.8 - 5.10
Cooke, Shelby. 2018. “Creek Strategy Diagram”, “Street Strategy Diagram”, “View Strategy Diagram”. Kansas State University LAR 646 2018. Diagrams created with Adobe Illustrator.

Figure 5.11-5.18
Benyshek, Julie. 2018. “Streets”, “Waterfront”, “Mixed”, “Powerlines”, “FEMA”, “Brownfield”, “Placemaking”, “Rail”. Kansas State University LAR 646 2018. Diagrams created with Adobe Illustrator.
- Baker, Logan. 2018. Kansas State University LAR 646 2018. Base created with Adobe Illustrator.

Figure 5.19
Cooke, Shelby. 2018. “200’ Illustrative Site Plan.” Kansas State University LAR 646 2018. Digital rendering created with AutoCad Civil 3D 2018 and Adobe Photoshop.
- Hahn, Howard. 2018. “LAR646_BaseMap_24x36_SECD_aerial.” PDF Map from ArcGIS.

- Hahn, Howard. 2018. “LAR646_BaseMap_24x36_SECD_WorldSts_red.” PDF Map from ArcGIS.
- MaxPixel. “Turqoise Sea Water Texture Surface Ripple.” Digital Photograph. 2016. Accessed July 2, 2018. Creative Commons Zero (CC0). https://bit.ly/2zhzCfT.
- PXHERE. “Camino, rock...” Digital Photograph. February 13, 2017. Accessed July 2, 2018. CC0 Public Domain. https://bit.ly/2zlcygm.
- Sirius-sdz. Digital Rendering. 2013. Accessed July 2, 2018. Creative Commons Attribution 2.0 License. https://bit.ly/2udzylu.

Figure 5.20

Benyshek, Julie. 2018. “Site Design Diagrams.” Kansas State University LAR 646 2018. Diagram created with Adobe Illustrator.

- Cooke, Shelby. 2018. Kansas State University LAR 646 2018. Base created with AutoCad.

Figure 5.21

Benyshek, Julie. 2018. “Reference Map: 2nd Street” Kansas State University LAR 646 2018. Diagram created with Adobe Illustrator.

Figure 5.22

Randall, Scott. 2018 “2nd Street Cross-Section” Kansas State University LAR 646 2018. Digitial Rendering Created with AutoCAD Civil 3D 2018 and Adobe Photoshop.

- Banks, Joey “Black Sports Car Front Photo by Joey Banks (@joeyabanks) on Unsplash.” Accessed July 3, 2018. https://bit.ly/2zloMpo.
- Kloppenburg, Adriel. “Golden Countryside Hills Photo by Adriel Kloppenburg (@adriel) on Unsplash.” Accessed July 3, 2018. https://bit.ly/2KU6rRs.
- Lost + Taken “Free Colorful Grunge Texture Texture.” n.d. L+T. Accessed July 3, 2018. https://bit.ly/2KR7hlf.

Figure 5.23

Cooke, Shelby and Scott Randall. 2018. “View of 2nd Street.” Kansas State University LAR 646 2018. Photomontage created with SketchUp 2018 and Adobe Photoshop by Cooke with pencil on trace by Randall.

- Cooke, Shelby. 2017. Untitled photograph of Badlands.
- MaxPixel. “Outdoor chaise pool umbrella summer resort.” Digital Photograph. Accessed July 2, 2018. Creative Commons Zero (CC0). https://bit.ly/2KG5b8F.
- MaxPixel.“Relaxing in park sitting male person.” Digital Photograph. Accessed July 2, 2018. Creative Commons Zero (CC0). https://bit.ly/2zf4Sw2
- Mohamed_hasan. Untitled digital image of café tables and chairs. 2017. Accessed July 2, 2018 Creative Commons Zero (CC0). https://bit.ly/2KY0HJX.
- Pixabay. Untitled photograph of woman walking. 2018. Accessed July 2, 2018. Creative Commons Zero (CC0). https://bit.ly/2KVlfkX.
- PNGIMG. “Sitting man PNG.” Digital Image. Accessed July 2, 2018. Creative Commons 4.0. https://bit.ly/2Nz5OPa.

Figure 5.24

Randall, Scott. 2018 “Creekside Streetscape” Kansas State University LAR 646 2018. Digitial Rendering Created with AutoCAD Civil 3D 2018 and Adobe Photoshop.

- Banks, Joey “Black Sports Car Front Photo by Joey Banks (@joeyabanks) on Unsplash.” Accessed July 3, 2018. https://bit.ly/2zloMpo.
- Davies Designs “Heavenly Cloud Scene Photo by Davies Designs (@davies_designs) on Unsplash.” Accessed July 3, 2018. https://bit.ly/2KUNO39.

- Kasdaglis, Left "N E G A T I V E Photo by Lefty Kasdaglis (@lefty_kasdaglis) on Unsplash." Accessed July 3, 2018. https://bit.ly/2KSR2UD.
- Lost + Taken "Free High Contrast Black And White Grunge Texture Texture." n.d. L+T. Accessed July 3, 2018. https://bit.ly/2KPjuH1.
- Machado, Alex. Untitled photo – white clouds in a blue sky "Alex Machado (@alexmachado) | Unsplash Photo Community." Accessed July 3, 2018. https://bit.ly/2KIxXoX.

Figure 5.25
Randall, Scott. 2018 "Clear Creek Plaza" Kansas State University LAR 646 2018. Digitial Rendering Created with AutoCAD Civil 3D 2018 and Adobe Photoshop.

- Abenza, Clemente Ruiz. "Colores! Photo by Clemente Ruiz Abenza (@netwalker) on Unsplash." Accessed July 3, 2018. https://bit.ly/2L0Xgyz.
- Kasdaglis, Lefty "N E G A T I V E Photo by Lefty Kasdaglis (@lefty_kasdaglis) on Unsplash." Accessed July 3, 2018. https://bit.ly/2KSR2UD.
- Kloppenburg, Adriel "Golden Countryside Hills Photo by Adriel Kloppenburg (@adriel) on Unsplash." Accessed July 3, 2018. https://bit.ly/2KU6rRs.
- Walker, Zara. "Bird, Sky, Silhouette and Cloud HD Photo by Zara Walker (@mojoblogs) on Unsplash." Accessed July 3, 2018. https://bit.ly/2MYJmOh.

Figure 5.26
Benyshek, Julie. 2018. "Reference Map: Clear Creek" Kansas State University LAR 646 2018. Diagram created with Adobe Illustrator.

- Cooke, Shelby. 2018. Kansas State University LAR 646 2018. Base created with AutoCad.

Figure 5.27
Cooke, Shelby and Scott Randall. 2018. "View of Clear Creek Trail." Kansas State University LAR 646 2018. Photomontage created with SketchUp 2018 and Adobe Photoshop by Cooke with pencil on trace by Randall.

- Cooke, Shelby. Kansas State University LAR 646 2018. Base created with AutoCad.
- Cooke, Shelby. Untitled photograph of Coachella. April 2018. PEXELS. "Person Sitting on the Seashore while Reading a Book." Digital Photograph. Accessed July 3, 2018. Creative Commons Zero (CC0). https://bit.ly/2u0iu9q.
- MaxPixel. "Girl Holding Hands Walking Female Black Person." Digital Photograph. Accessed July 3, 2018. Creative Commons Zero – CC0. https://bit.ly/2KQUa3w.
- Pixabay. Untitled photograph of flying geese. Digital Image. Accessed July 3, 2018. Creative Commons – CC0. https://bit.ly/2zhAQI1.
- PIXNIO. Untitled photograph of kayakers. October 5, 2017. Accessed July 3, 2018. Creative Commons Zero (CC0). https://bit.ly/2ufhCgz.
- PNGIMG."Sitting people – PNG." Digital Image. Accessed July 3, 2018. Creative Commons 4.0. https://bit.ly/2Nz5OPa.
- Wikimedia Commons. "People-street-north-korea-walk.jpg." Digital Photograph. September 15, 2014. Accessed July 3, 2018. Creative Commons Attribution 2.0 Generic license. https://bit.ly/2KVds4p.
- Williams, Gareth. "Whitstable Seafront – June 2015 – Go on Give Us a Lick." Digital Photograph. June 11, 2015. Attribution 2.0 Generic. https://bit.ly/2zhAdOF.

Figure 5.28
Benyshek, Julie. 2018. "Reference Map: View Corridor" Kansas State University LAR 646 2018. Diagram created with Adobe Illustrator.

Figure 5.29

Randall, Scott. 2018 “Block Section” Kansas State University LAR 646 2018. Digital Rendering Created with AutoCAD Civil 3D 2018 and Adobe Photoshop.

- Banks, Joey “Black Sports Car Front Photo by Joey Banks (@joeyabanks) on Unsplash.” Accessed July 3, 2018. https://bit.ly/2zloMpo.
- Cooke, Shelby. 2018. Kansas State University LAR 646 2018. Base created with AutoCad.
- Heuvel, Rowan “Sky, Cloud, Blue and White HD Photo by Rowan Heuvel (@insolitus) on Unsplash.” Accessed July 3, 2018. https://bit.ly/2KHCjwL.
- Lost + Taken “Free Colorful Grunge Texture Texture.” n.d. L+T. Accessed July 3, 2018. https://bit.ly/2MVe3DS.
- Lost + Taken“Free High Contrast Black And White Grunge Texture Texture.” n.d. L+T. Accessed July 3, 2018. https://bit.ly/2KPjuH1.
- Rakozy, Greg. “Window, Building, Apartment and Housing HD Photo by Greg Rakozy (@grakozy) on Unsplash.” Accessed July 3, 2018. https://bit.ly/2zk9Ojp.

Figure 5.30

Benyshek, Julie. 2018. “Programming” Kansas State University LAR 646 2018. Diagram created with Adobe Illustrator.

- Ari Wibowo, Setyo from The Noun Project, 2018. “View.” http://thenounproject.com
- Baker, Logan. 2018. Kansas State University LAR 646 2018. Base created with Adobe Illustrator.
- Carrison, Jaime from The Noun Project, 2018. “Kayak.” http://thenounproject.com
- Guin, Oliver from The Noun Project, 2018. “Food Truck.” http://thenounproject.com
- Hoffman, Irene from The Noun Project, 2018. “Walking.” https://thenounproject.com
- Hum from The Noun Project, 2018. “Music.” http://thenounproject.com
- Irawan, Ayub from The Noun Project, 2018. “Pier.” http://thenounproject.com
- Khoon Lay, Gan from The Noun Project, 2018. “Gardener.” http://thenounproject.com
- Latysheva, Oksana from The Noun Project, 2018. “People Group.” http://thenounproject.com
- Loeliger, Darrin from The Noun Project, 2018. “Running.” http://thenounproject.com
- Made from The Noun Poject, 2018. “City.” http://thenounproject.com
- Nolte, Andrew from The Noun Project, 2018. “Shopping Bag.” http://thenounproject.com
- Ruankam, Sakchai from The Noun Project, 2018. “Bike.” http://thenounproject.com
- Sergy, Shmidt from The Noun Project, 2018. “Museum.” http://thenounproject.com
- Veremeya from The Noun Project, 2018. “Art.” http://thenounproject.com

Figure 5.31

Cooke, Shelby and Scott Randall. 2018. “View of Primary View Corridor” Kansas State University LAR 646 2018. Photomontage created with SketchUp 2018 and Adobe Photoshop by Cooke with pencil on trace by Randall.

- Mader, Grace. 2018. Untitled photograph of Coralville, IA.
- MaxPixel. “Soap Bubbles Children Boy Kids Playing Childhood.” Digital Photograph. 2016. Accessed July 2, 2018. Creative Commons Zero (CC0). https://bit.ly/2KVgjxu.
- PEXELS. Unittled photograph of boys near water. April 16, 2016. Accessed July 2, 2018. Creative Commons Zero (CC0). https://bit.ly/2vPJcmR.
- Pilat, Martin. “Taking a Selfie on the Bund.” Digital Photograph. July 26, 2013. Accessed July 2, 2018. Attribution-NonCommercial-NoDerivs 2.0Generic. https://bit.ly/2m2DqZ7
- PXHERE. Untitled photograph of mom and daughter. February 14, 2017. Accessed July 2, 2018. Creative Commons Zero (CC0). https://bit.ly/2KRHNnY
- PXHERE. Untitled photograph of shoppers. February 23, 2017. Accessed July 2, 2018. CC0 1.0 Universal Public Domain Dedication. https://bit.ly/2KEis1w

- Salem, Mohammed. “White cumulus clouds appeared over Dhaka, Bangladesh, when significant flooding was underway in many parts of the country.” Digital Photograph. July 2, 2012. Accessed July 2, 2018. Attribution-Share Alike 3.0 Unported. https://bit.ly/2zfZoRC

Figure 5.32
Cooke, Shelby. 2018. “Central Plaza Plan.” Kansas State University LAR 646 2018. Digital rendering created with AutoCad Civil 3D 2018 and Adobe Photoshop.

- Cooke, Shelby. 2018. “200’ Illustrative Site Plan.” Kansas State University LAR 646 2018. Digital rendering created with AutoCad Civil 3D 2018 and Adobe Photoshop.

Figure 5.33
Benyshek, Julie. 2018. “Reference Map: Central Plaza” Kansas State University LAR 646 2018. Diagram created with Adobe Illustrator.

- Cooke, Shelby. 2018. Kansas State University LAR 646 2018. Base created with AutoCad.

Figure 5.34
Randall, Scott. 2018. “Sketch of Central Plaza.” Kansas State University LAR 646 2018. Sketch created by author with pencil on trace.

Figure 5.35
Cooke, Shelby. 2018. “Aerial of Central Plaza.” Kansas State University LAR 646 2018. Photomontage created with SketchUp 2018 and Adobe Photoshop.

Figure 5.36
Cooke, Shelby. 2018. “Skywalk Plan.” Kansas State University LAR 646 2018. Digital rendering created with AutoCad Civil 3D 2018 and Adobe Photoshop.

- Cooke, Shelby. 2018. “200’ Illustrative Site Plan.” Kansas State University LAR 646 2018. Digital rendering created with AutoCad Civil 3D 2018 and Adobe Photoshop.

Figure 5.37
Benyshek, Julie. 2018. “Reference Map: Skywalk.” Kansas State University LAR 646 2018. Diagram created with Adobe Illustrator.

- Cooke, Shelby. 2018. Kansas State University LAR 646 2018. Base created with AutoCad.

Figure 5.38
Randall, Scott. 2018. “Skywalk Sketch.” Kansas State University LAR 646 2018. Sketch created by author with pencil on trace.

Figure 5.39
Cooke, Shelby. 2018. “Aerial of Skywalk.” Kansas State University LAR 646 2018. Photomontage created with SketchUp 2018 and Adobe Photoshop.

Figure 5.40
Cooke, Shelby. 2018. “Clear Creek Plaza Plan.” Kansas State University LAR 646 2018. Digital rendering created with AutoCad Civil 3D 2018 and Adobe Photoshop.

- Cooke, Shelby. 2018. “200’ Illustrative Site Plan.” Kansas State University LAR 646 2018. Digital rendering created with AutoCad Civil 3D 2018 and Adobe Photoshop.

Figure 5.41
Benyshek, Julie. 2018. “Reference Map: Clear Creek Plaza” Kansas State University LAR 646 2018. Diagram created with Adobe Illustrator.
- Cooke, Shelby. 2018. Kansas State University LAR 646 2018. Base created with AutoCad.

Figure 5.42
Randall, Scott. 2018. “Clear Creek Plaza Sketch.” Kansas State University LAR 646 2018. Sketch created by author with pencil on trace.

Figure 5.43
Cooke, Shelby. 2018. “Aerial of Clear Creek Plaza.” Kansas State University LAR 646 2018. Photomontage created with SketchUp 2018 and Adobe Photoshop.

Figure 5.44
Randall, Scott and Shelby Cooke. 2018 “Land Use” Kansas State University LAR 646 2018. Diagram created by Scott Randall using Adobe Illustrator with base by Shelby Cooke created in AutoCAD Civil 3D 2018.

Figure 5.45
Randall, Scott and Shelby Cooke. 2018 “The Texas Donut” Kansas State University LAR 646 2018. Diagram created by Scott Randall using Adobe Illustrator with base by Shelby Cooke created in SketchUp 2018.

Figure 5.46
Benyshek, Julie. 2018. “Metrics Summary.” Kansas State University LAR 646 2018. Diagram created with Microsoft Excel and Photoshop.

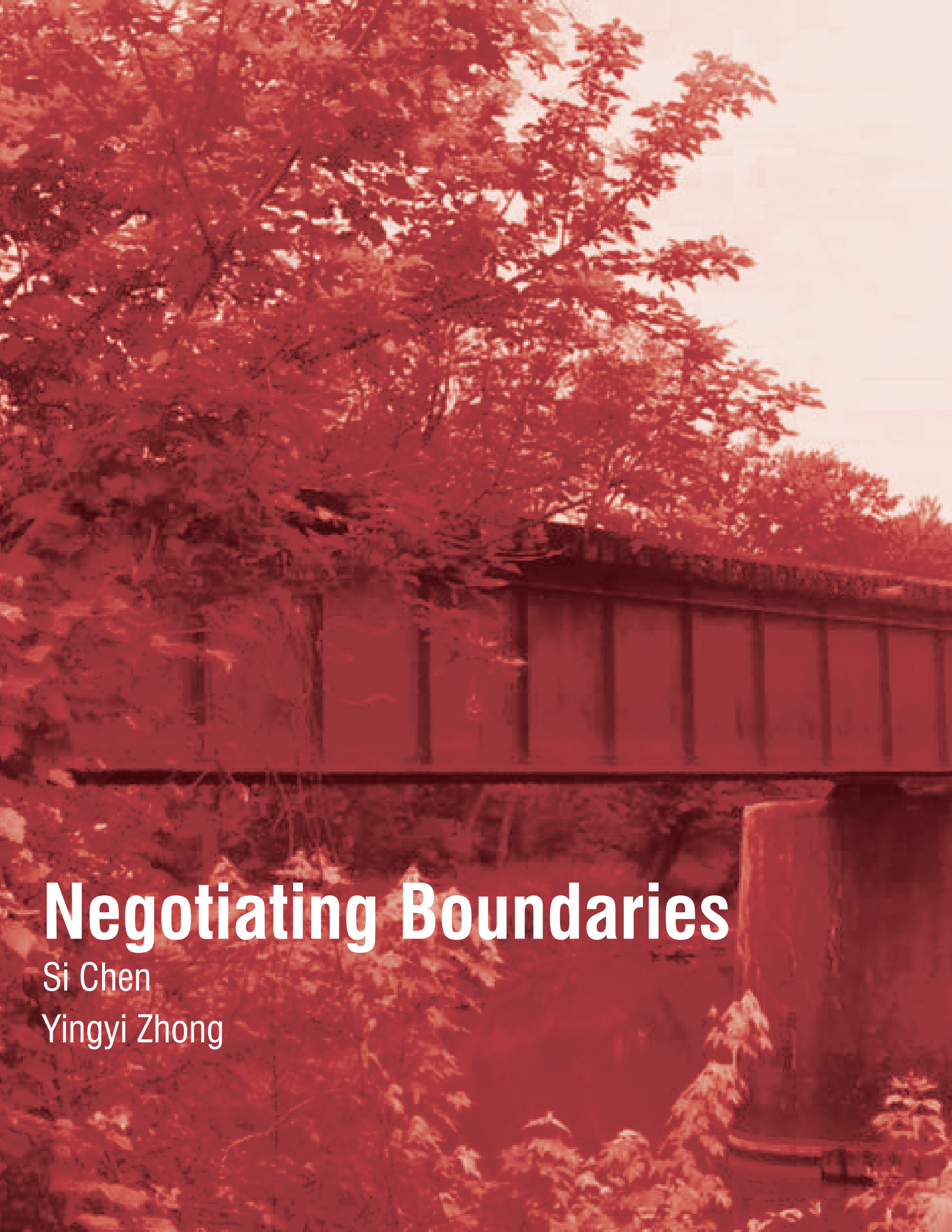
Figure 5.47
Benyshek, Julie. 2018. “Metrics Breakdown.” Kansas State University LAR 646 2018. Diagram created with Microsoft Excel and Photoshop.

Figure 5.48
Benyshek, Julie. 2018. “Block Breakdown.” Kansas State University LAR 646 2018. Diagram created with Adobe Illustrator.
- Cooke, Shelby. 2018. Kansas State University LAR 646 2018. Base created with AutoCad.

Figure 5.49
Randall, Scott and Shelby Cooke. 2018 “Propoosed Building Overview” Kansas State University LAR 646 2018. Diagram created with Adobe Illustrator.
- Cooke, Shelby. 2018. Kansas State University LAR 646 2018. Base created with SketchUp 2018.

Figure 5.50
Randall, Scott and Shelby Cooke. 2018. “Phasing Strategy.” Kansas State University LAR 646 2018. Diagrams created with Adobe Illustrator.
- Cooke, Shelby. 2018. Kansas State University LAR 646 2018. Base created in AutoCAD Civil 3D 2018.

Figure 5.51
Cooke, Shelby. 2018. “Aerial of New SCD.” Kansas State University LAR 646 2018. Photomontage created with SketchUp 2018 and Adobe Photoshop.
- Google Earth. “Southeast Commercial District - Coralville, IA.” October 30, 2018. 41° 40’11.14” N and 91°34’07.04” W. Accessed July 3,2018.



Negotiating Boundaries

Si Chen
Yingyi Zhong

Negotiating Boundaries

The “SOFT” and “HARD” Treatment for the city

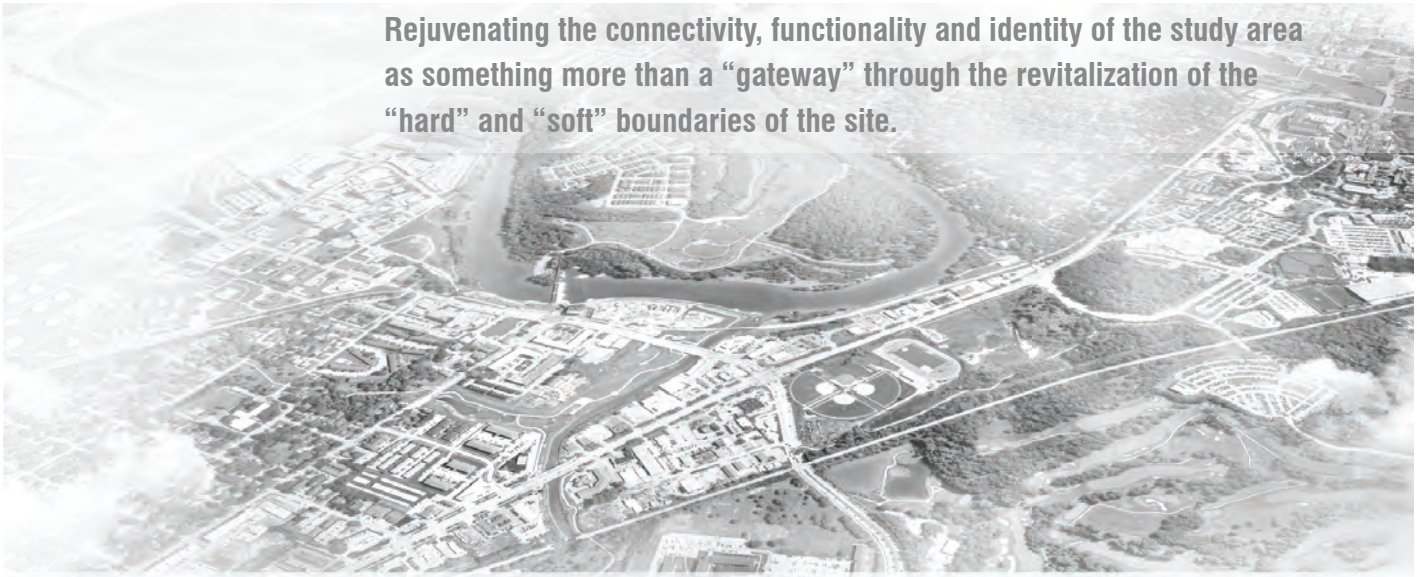


Figure 6.1
Coralville Aerial
(Chen, 2018)

Introduction to the “Boundaries”

If we interpret the study area as a single geographic entity warped and wefted by natural elements and the artificial (history, culture, mobility), we understand that the opportunity presented here goes beyond the area defined for the project. The combination of elements that comprise a cityscape often signal a sense of boundary—of the edges between where we belong, and sometimes, where we don’t. These boundaries may be hard (strong and tangible), soft (subtle and intangible) or anywhere in between.

The hard boundary often delineates public from private space, by a noticeable spatial component—such as a wall or a fence. On the other hand, the soft boundary is found between a city’s neighborhoods or districts and is perceived in variety such as a landmark or a shift of materiality. Thus, the quality of these boundaries directly affects the neighborhoods’ identities.

- **Hard Boundaries**: a noticeable spatial component—such as a major driveway, wall or a fence, that delineates a district from another, or the public zone from the private zone.

- **Soft Boundaries**: are perceived in variety such as a landmark or a shift of materiality, that distinguish the specific genius loci that found in or between a city’s neighborhoods and districts.

Concept and Dilemma

Interpreting Coralville's Urban Context

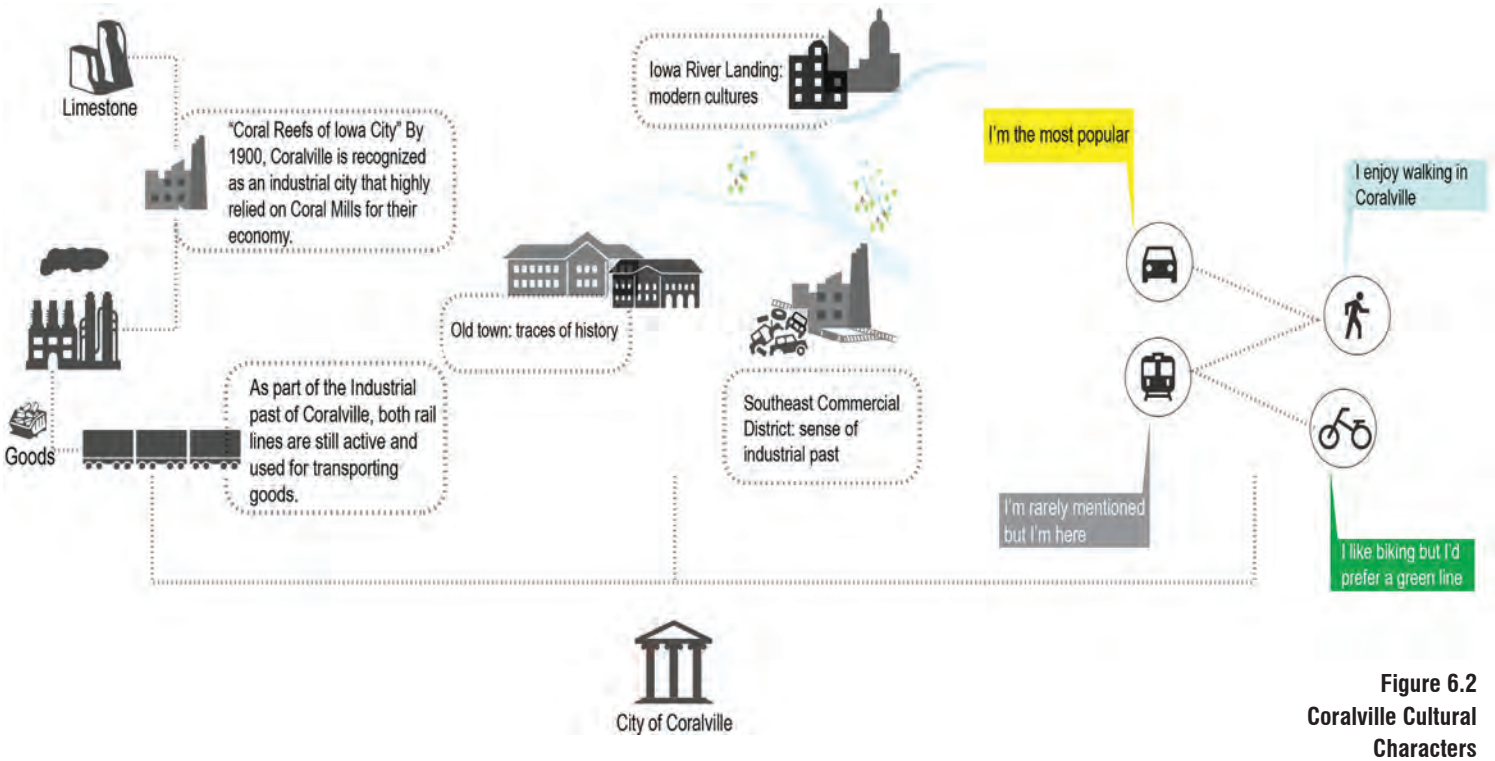


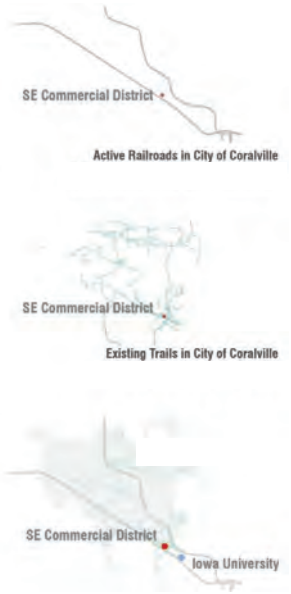
Figure 6.2
Coralville Cultural Characters
(Zhong, 2018)

The study area is located in old town area, along the southeast **"boundary"** of Coralville, IA, connecting to Iowa City on the east. With the ambitious redevelopment on the north of the site to the Iowa River Landing, the city plans to develop a modernized commercial center with a mall on the northeast corner (around the intersection between 1st Ave. and 2nd St.) to revitalize the site.

As a result, the city of Coralville envisions the site to be the **"gateway"** of the city while still maintaining its basic function as a major transportation node. **"Gateway",** by definition, implies direction and movement. How can a gateway function without definition (as a boundary) and connectivity (as a linkage)? In the case of Coralville, the study area has lost both, which leads to a characteristic of fragmentation and a blurry edge between Coralville and Iowa City.

All those concerns come from the environmental destruction while developing and redeveloping the site (for examples, leaving the brownfields unhealed by simply replacing industrial business, paving excessive parking lots where it could serve as livable public green space, and ignoring the opportunity of accessing the "green boundary" on the north, south and west of the site). When the environmental concerns are pushed to the forefront, social benefits quickly follow, and almost inevitably partnered with economic profits.

Analyzing the Existing "HARD" boundaries



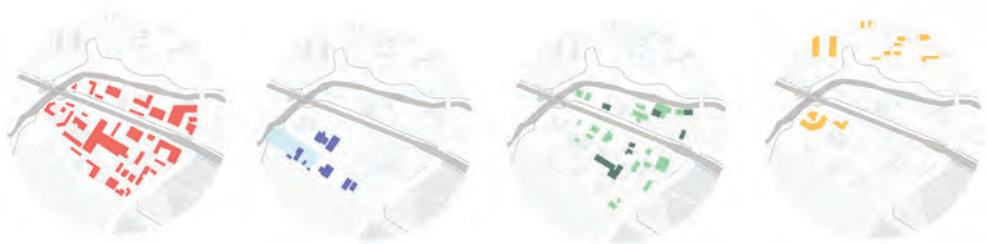
Existing Active Railroads and Trails in City of Coralville

Figure 6.3
Existing Railroads and Trails in SE Commercial District
(Zhong, 2018)

The study area presents its hard boundary by 1st Avenue. On the east and Iowa Interstate Railroad on the south, both adjacent to Iowa University's facility. On the east and west, it is presented by the Clear Creek Trail and connects to the Mormon Trail. The 2nd St. also serves as an inner boundary that divides the site into two distinct parts: an upper part with a riverfront view that connects to Iowa River Landing; and a lower part with more industrial business and brownfields, connecting to Iowa University.

With underdeveloped, the rail and trails are disconnected and inaccessible. With the heavy traffic, flooding and pollution from the road and street, the quality of the hard boundaries are diminished.

Analyzing the Existing "SOFT" Boundaries



Surface Parking | **Light Industry** | **Retail and Restaurants** | **Residential**

Figure 6.4
Existing Programs and Adjacency
(Chen, 2018)

The soft boundary is absent from the site due to the fragmentation of the program's layout, which results in inefficient land use and wasting opportunity and accessibility for the trails and rails.

Goals and Strategy

Negotiating the Boundaries

Existing boundaries are often barriers that separate the site into internal and external parts; they reduce physical connectivity between parts and they disconnect functions. Working with 'found objects', the proposal grounds the design in its place, strengthening identity and connectivity. Re-imaging the areas next to these boundaries with very specific programmatic typologies resolve ecological and social concerns. With time, it will attract programs that are not disadvantaged by the disturbed conditions created by existing highway, industrial areas and warehouses (noise, pollution, disconnection, etc.). The design gives back the land that is trapped by parking lots, unreachable spaces and car interchanges to the pedestrians.

The goal of this project is to rejuvenate the connectivity, functionality, and identity of the site as something more than a "gateway" through the revitalization of the hard and soft boundaries of the site. Facing pressing environmental concerns as a central dilemma, we envision a feedback loop of green spaces that serve as ecological and social infrastructure and corridors, boosting the stewardship and care for the site's landscape and reconnecting the city's population to the nature, strengthening the ecology of place, and thereby its identity.

The guiding strategy of the proposal is to integrate a new fluidity into the urban loop by stretching and negotiating both the hard and soft "boundaries" of the city's public realm and natural landscape; easing the transition between spaces that are previously segregated and even inaccessible.

Strategy #1 **Define**
Soft Boundaries: define the existing natural and artificial urban fabric.
Hard Boundaries: redefine the existing road, trails and rails with individual characteristics.

Strategy #2 **Distort**
Soft Boundaries: distort a mobility loop to increase connectivity with diversity and enrich travel experiences.
Hard Boundaries: distort waterline to allow an accessible waterfront and protective berm.

Strategy #3 **Overlap**
Soft Boundaries: overlap landscape and architectural programs.
Hard Boundaries: overlap landscape nodes and urban loops.

Strategy #4 **Reverse**
Soft Boundaries: reverse the existing adjacent natural and artificial habitats.
Hard Boundaries: reverse the existing hierarchy of accessibility to the site.

Strategy #1 DEFINE

Soft Boundaries:
Defining the existing natural and artificial urban fabric. With the understanding of the urban fabric's individual character, we are able to propose actions accordingly.

According to these maps, some of the strategies are used to manually preserve the materials and objects that will benefit the site and reduce the undesirable materials and objects that will be harmful to the future development.

ACTION: Reduce

Figure 6.5
Excessive impermeable paving materials
(Google Earth, 2018)

Figure 6.6
Excessive parking area
(Google Earth, 2018)

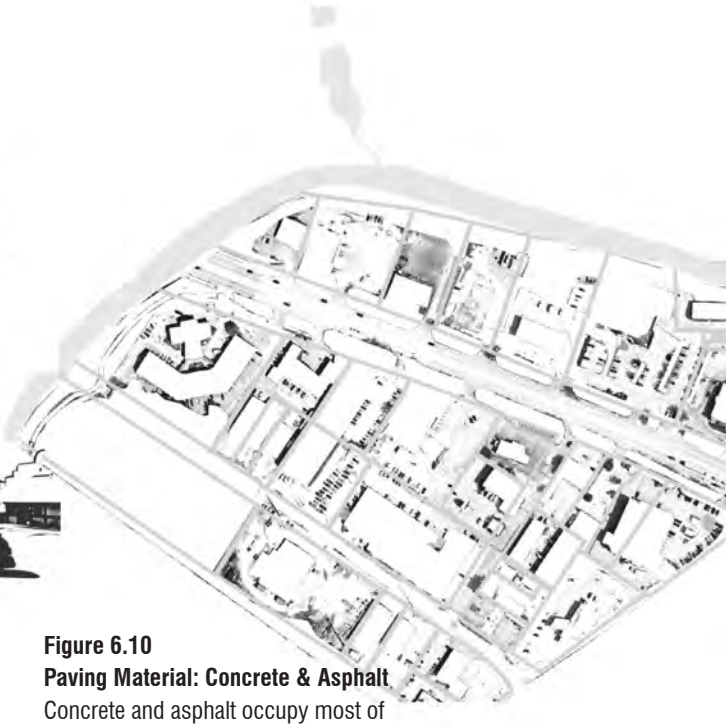


Figure 6.10
Paving Material: Concrete & Asphalt
Concrete and asphalt occupy most of the SE Commercial District.
(Zhong, 2018)

ACTION: Renovate

Figure 6.7
Transmission pole made with corten-steel
(Zhong, 2018)

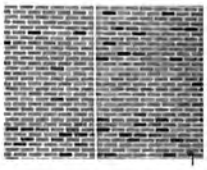


Figure 6.8 Brick as prevalent architectural and paving materials
(Zhong, 2018)

Figure 6.9
Existing southern rail line made with corten-steel
(Zhong, 2018)

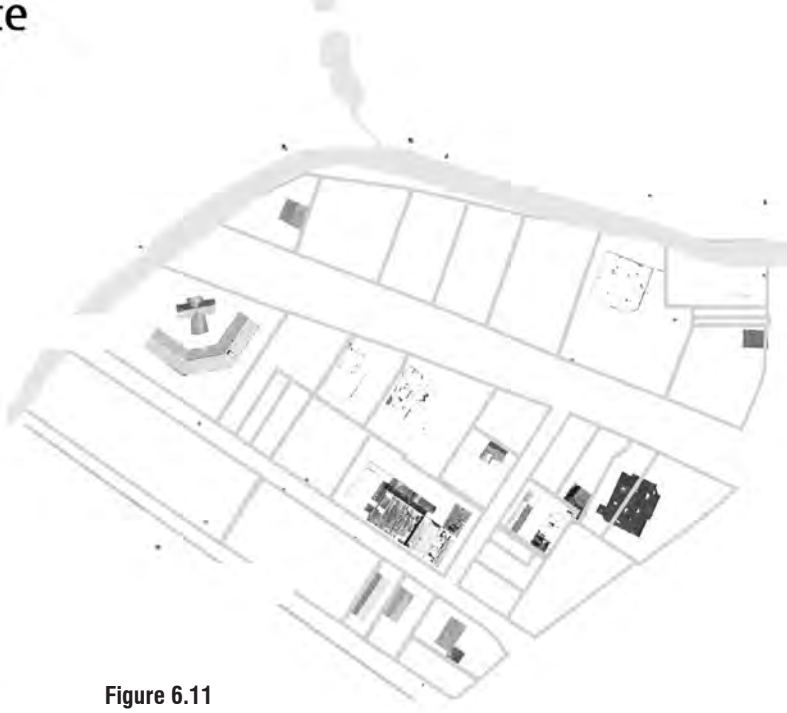


Figure 6.11
Industrial Relic: Corten-Steel & Brick
Croten-steel is found in the rail line and some of the transmission poles, and bricks are commonly found as an architectural material; both of them represent the industrial past of the SE Commercial District.
(Zhong, 2018)

ACTION: Remain

Figure 6.12
Limestone is a local material that can represent Coralville
(Zhong, 2018)

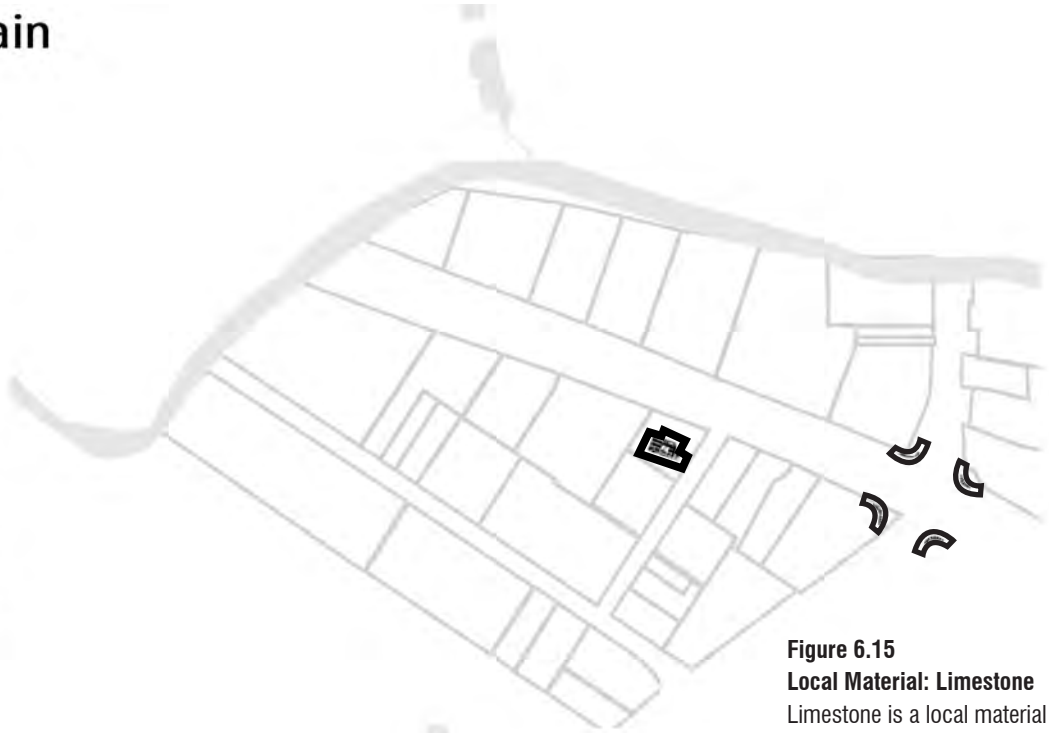


Figure 6.15
Local Material: Limestone
Limestone is a local material not existing used in the SE Commercial District.
(Zhong, 2018)

ACTION: Reserve

Figure 6.13
Existing landscape along Clear Creek is attractive and valuable
(Zhong, 2018)

Figure 6.14
Existing Streetscape is well maintained
(Zhong, 2018)

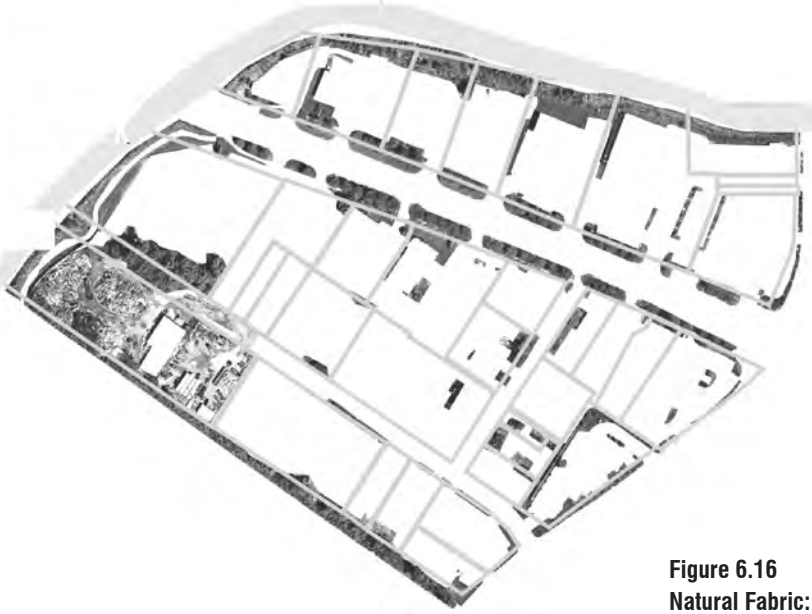


Figure 6.16
Natural Fabric: Vegetation and Soil Limestone is a local material not existing used in the SE Commercial District.
Natural Fabric (vegetation and soils) is ranked after concrete and asphalt; vegetation an dsoils are valuable but not widely used.
(Zhong, 2018)

Strategy#1 DEFINE

CoralRidge Mall, Old Town, Iowa River Landing and the SE Commercial District are being investigated as morphology types, object conditions and materiality. According to the analysis, concrete and bricks are very prevalent in Coralville. Specifically to SE Commercial District, (architectural, paving, infrastructure) materials include concrete, steel, brick, Croten steel, limestone, and natural fabric(vegetation and soils).

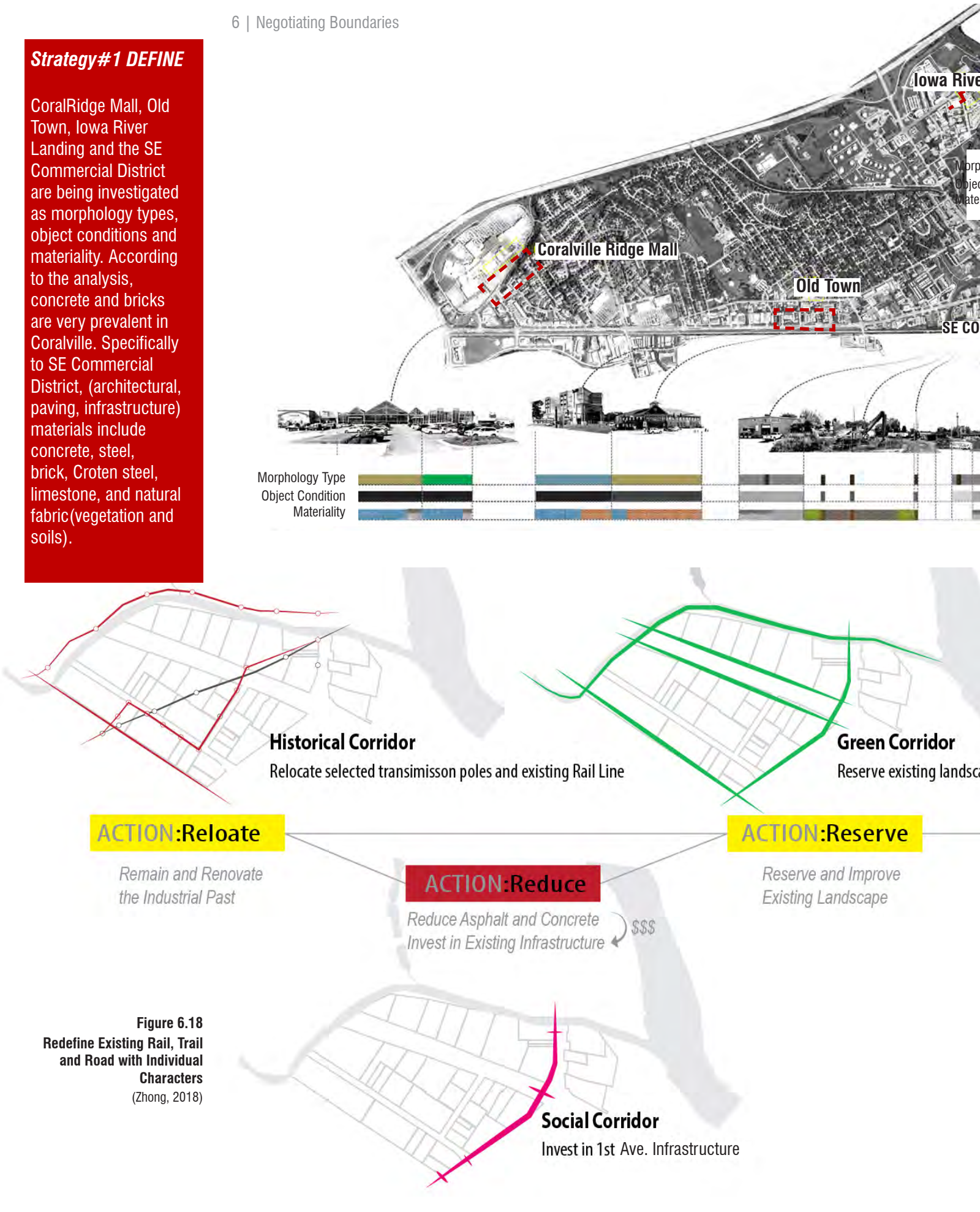
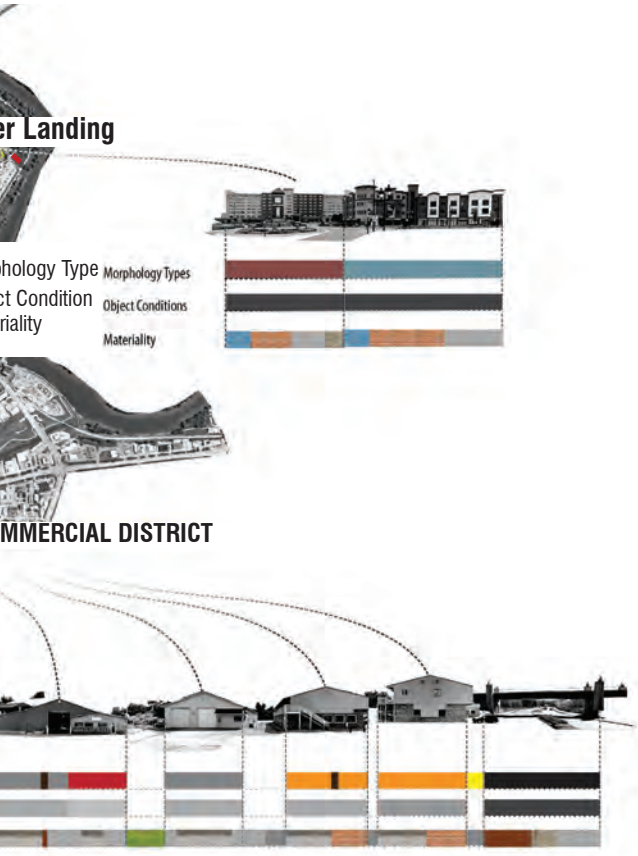
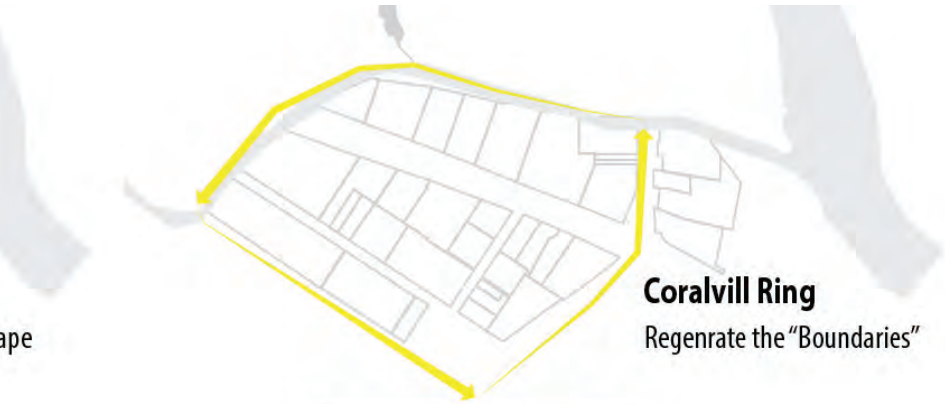


Figure 6.18
Redefine Existing Rail, Trail and Road with Individual Characters
(Zhong, 2018)





Regenerate

A New Coralville Ring:
The Highly Defined, Renovated
Boundaries Increases City Identity

Morphology

- Low-rise Buildings - Industrial Warehouse
- Low-rise Buildings - Office/Bussiness
- Low-rise Buildings - Residential
- Low-rise Buildings - Commercial / Retails
- Medium-rise Buildings - Public Service
- Medium-rise Buildings - Commercial / Retail
- Medium-rise Buildings - Hotel
- Medium-rise Buildings - Mixed-use
- Transimission Pole
- Rail Line

Materiality

- Steel
- Corten Steel
- Limestone
- Brick
- Glass
- Vegetation
- Soil

Object Condition

Low

High

Figure 6.17
Regional Scale Urban Fabrics
(Zhong, 2018)

Soft Boundaries: reuse, as much as possible, the existing landscape elements and forms and translate them in a more contemporary, people friendly language. Reinterpreting the city's collective memory will provide a richer public space and be more efficient in terms of investment spending.

Hard Boundaries: Redefine the existing road, trail and rail with individual characteristics.

The strategy of "Renovate, Reserve and Reduce" will preserve the characteristic of SE Commercial District and improve the current conditions.

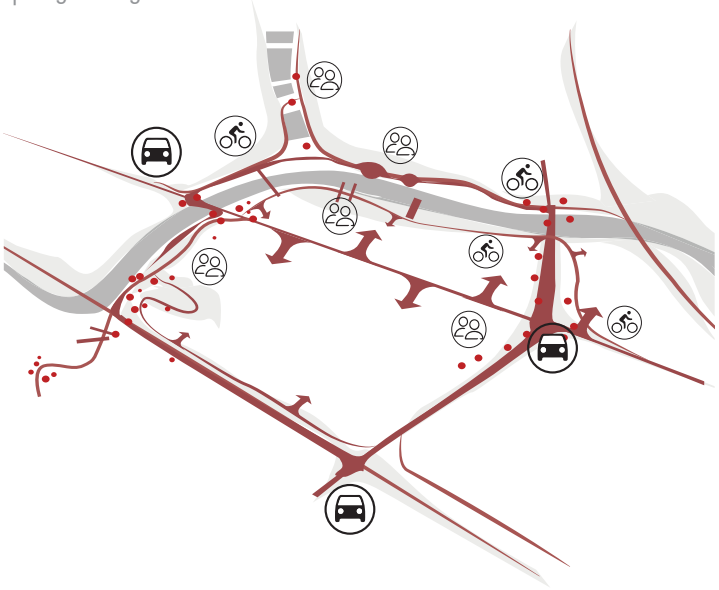


Figure 6.19
Distorted Mobility Loop will Diversify and Enrich Travel Experiences
(Chen, 2018)

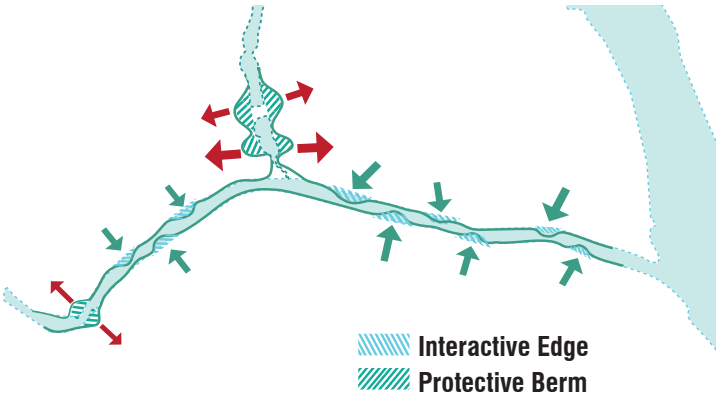


Figure 6.20
Distorted Waterline to Provide Accessible Waterfront and Protective Berm
(Chen,Zhong, 2018)

Strategy #2 DISTORT

Soft Boundaries:
The distorted mobility loop will increase connectivity with diversity and enrich the travel experience.

Easing the transition between spaces that are currently segregated, or inaccessible.

Hard Boundaries:
Distort the existing waterline to generate an accessible waterfront and protective berm.

Utilizing the meeting between the river and its tributaries is an opportunity for water management in terms of water quality and flooding.

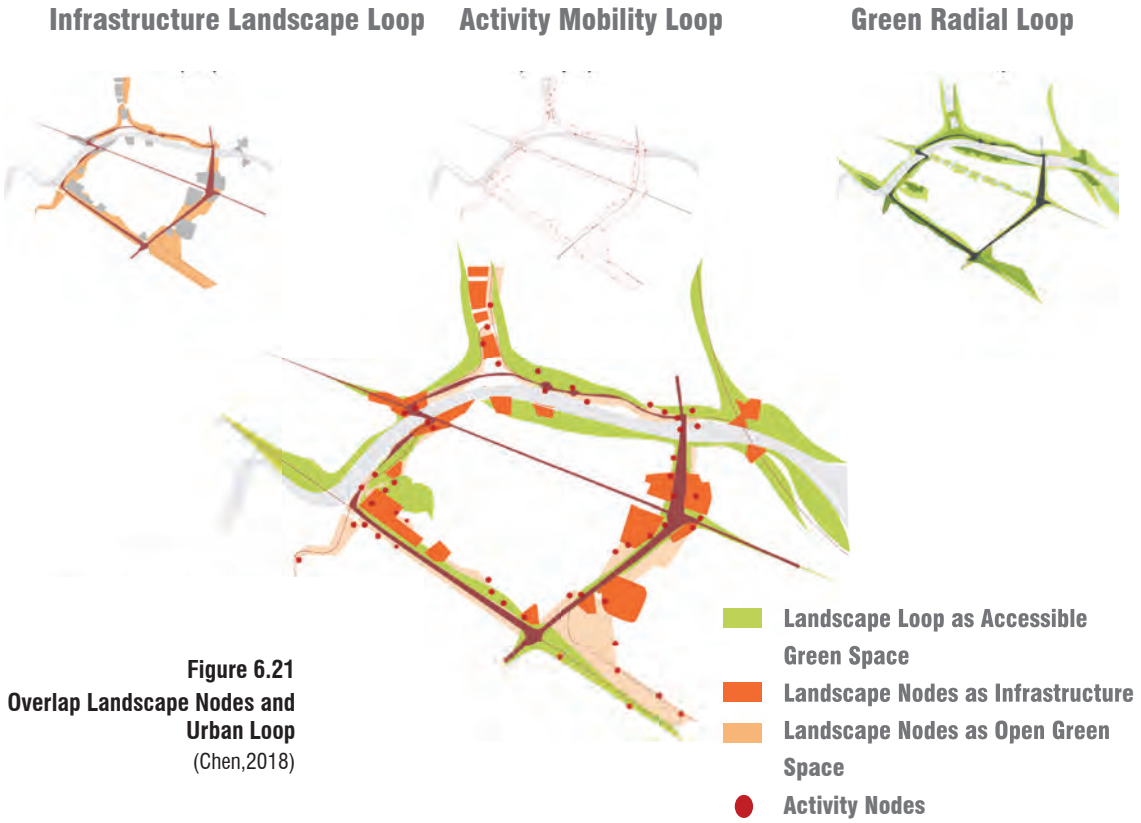


Figure 6.21
Overlap Landscape Nodes and Urban Loop
(Chen,2018)

Strategy #3 OVERLAP

Hard Boundaries:
Overlap landscape nodes and urban loops.

Stitching together the underutilized and neglected edges of the hard boundaries to resolve disconnectivity. Transforming the hard boundary into a green loop with accessibility to various public spaces sprawling to the inner site.

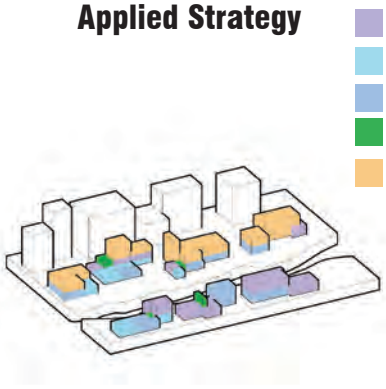
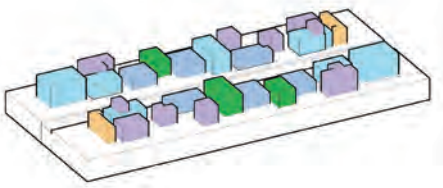
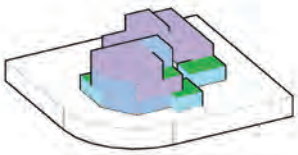
Typology	Strategy	Applied Strategy
		
Platform Areas along the waterfront with both visual and physical accessibility.	**Pressing** Reduce building height for waterfront retails and restaurants to allow resident's visual access.	
		
Permeable Edge Street front along the 2nd street.	**Densifying** Increase diversity and intensity along the street front with smaller mixed-use "blocks".	
		
Crossover Intersection between 1st Avenue and 2nd Street with highest circulation. The city's target area for commercial development.	**Topping** Increase building heights and add various active program layers.	

Figure 6.22
Overlap Landscape and Architecture Programs
(Zhong, 2018)

Soft Boundaries:
Overlap landscape and architectural programs. The distorted mobility loop will increase the connectivity with diversity and enrich the travel experience.
Utilizing soft boundary to tighten or define appropriate hybrid landuse and the non-objective, vernacular landscape that allow possibility and flexibility for future phasing.

Strategy #3

REVERSE

Soft Boundaries:
Reverse the existing adjacent natural and human habitats.

Transforming the soft boundary on the south into a large green infrastructure that detains and remediates polluted runoff from the brownfields. Moreover, it creates a social corridor with both physical and ecological connection to Iowa University and Mormon Trek Trail.

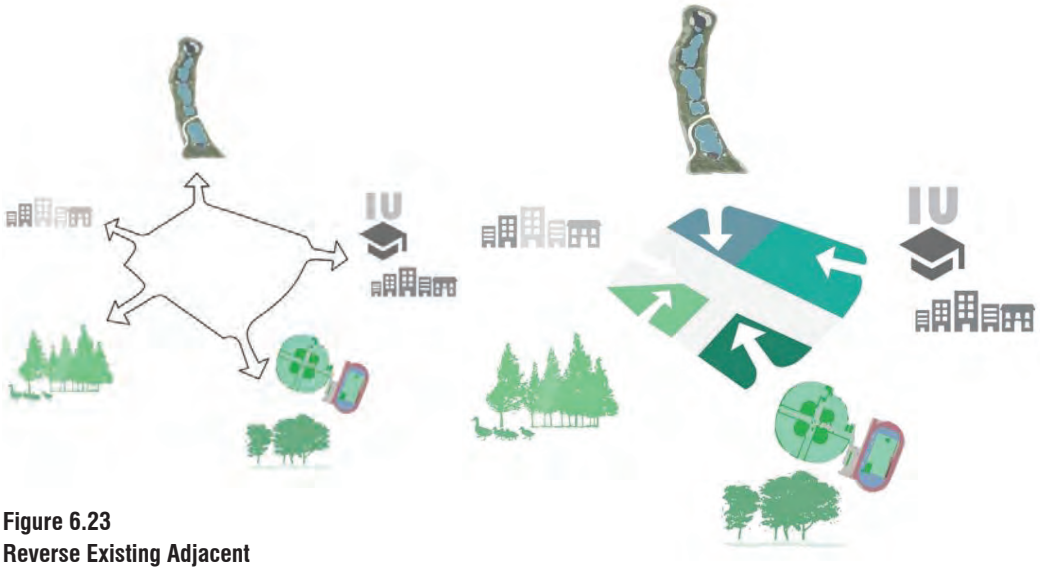


Figure 6.23
Reverse Existing Adjacent Natural and Artificial Habitats
(Chen,2018)

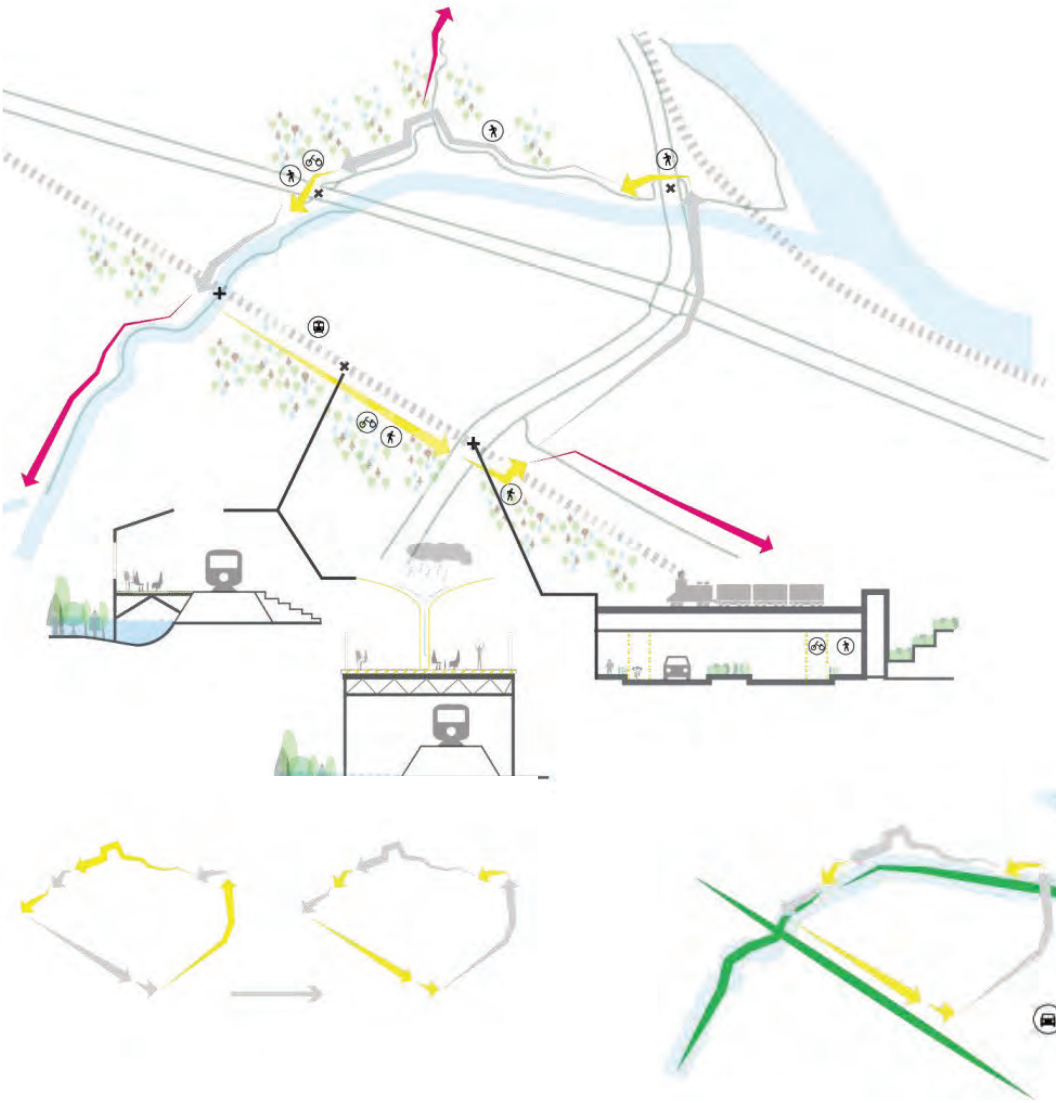


Figure 6.24
Reverse the Existing Hierarchy of Accessibility
(Zhong,2018)

Hard Boundaries:
Reverse the Existing Hierarchy of Accessibility.

Strengthen the connection to Mormon Trek Trail and its parallel relationship with the existing rail as a linkage between history, culture and industrial development. Redefine and renovate the existing rail and trail with individual characters.

Design Framework

Application of the Strategies

	Types of Boundaries	Issues	Proposal	Applied Strategy
SOFT	• Mixed Building Morphology	• fragmentation, excessive surface parking	Create hybrid urban typology (*Fig 2.1*); reduce parking (*Fig 2.5*).	Overlap, Reverse
SOFT	• Habitat Morphology	• The contamination and flooding	Establish edge ecology along waterfront; reverse existing brownfield with green infrastructure (*Fig 2.9*).	Define, Reverse Distort
SOFT	• Mobility Loop	• Fragmentation, accessibility/ walkability, programs connectivity	Incorporate sustainable mobility options; improve streetscape with program connectivity and diversity (*Fig 2.8*).	Define Overlap Reverse
HARD	• Riverfront	• flooding, accessibility(social, physical and visual)	Edge ecology with protective berm and interactive edge (*Fig 2.9*).	Distort
HARD	• Powerlines	• location of utility lines & poles	Relocate utility lines & poles as landscape nodes and feature (*Fig 3.5*).	Define, Reverse
HARD	• Trails	• lack of accessibility, linkage, and programs	Guide, form and connect programs; link inner streets and public spaces (*Fig 3.4*).	Distort, Overlap
HARD	• 2nd St. & 1st Ave.	• missing mobility options, degrees of permeability and programs	Guide, form and connect programs; link inner streets and public spaces (*Fig 3.7*).	Distort, Overlap
HARD	• South Outerscape (Industrial landscape, rail)	• The contamination, flooding, pollutants and accessibility	Capping and remediating the contaminated site with proposed industrial theme park as large green infrastructure (*Fig 4.2*).	Define, Reverse

Landuse Plan and Phasing Approach

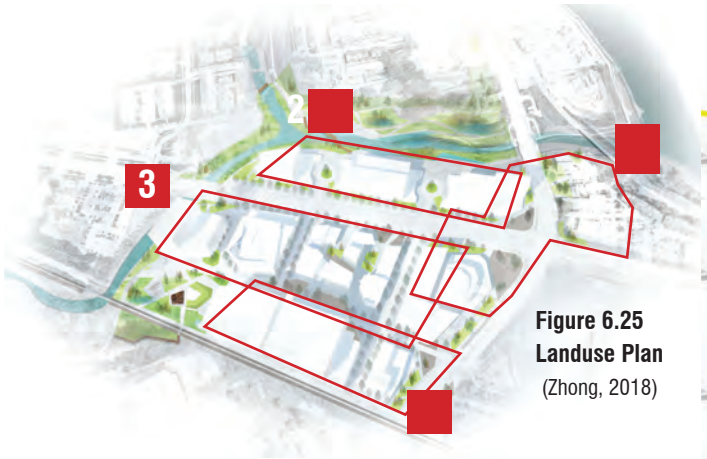


Figure 6.25
Landuse Plan
(Zhong, 2018)

1. Mix-use prioritizing commercials

2. Mix-use prioritizing residential and retail

3. Mix-use prioritizing services and local retail

4. Mix-use prioritizing innovative industries and business

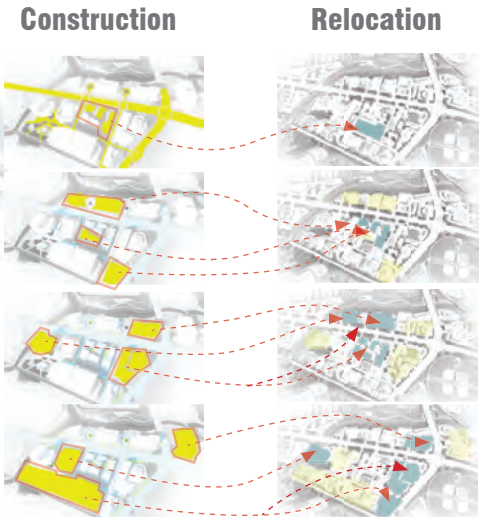


Figure 6.26
Phasing Strategy
(Chen, 2018)

Metrics

Residential Summary:

Total Residential SF	863,116
Total Dwelling Units (DU)	1,127
Avg DU/Acre	33.2
Total Residents	2,258
Parking Stalls Needed	1,579

Commercial Summary:

Total Commercial SF	632,697
Employees	1,685
Parking Stalls Needed	2,360

Parking Summary:

Total Stall Needed	6,199
Parking Stalls Provided	5,843
Surface Parking Stalls	635
Streetside Parking	55
Structured Parking	5,153

Office Summary:

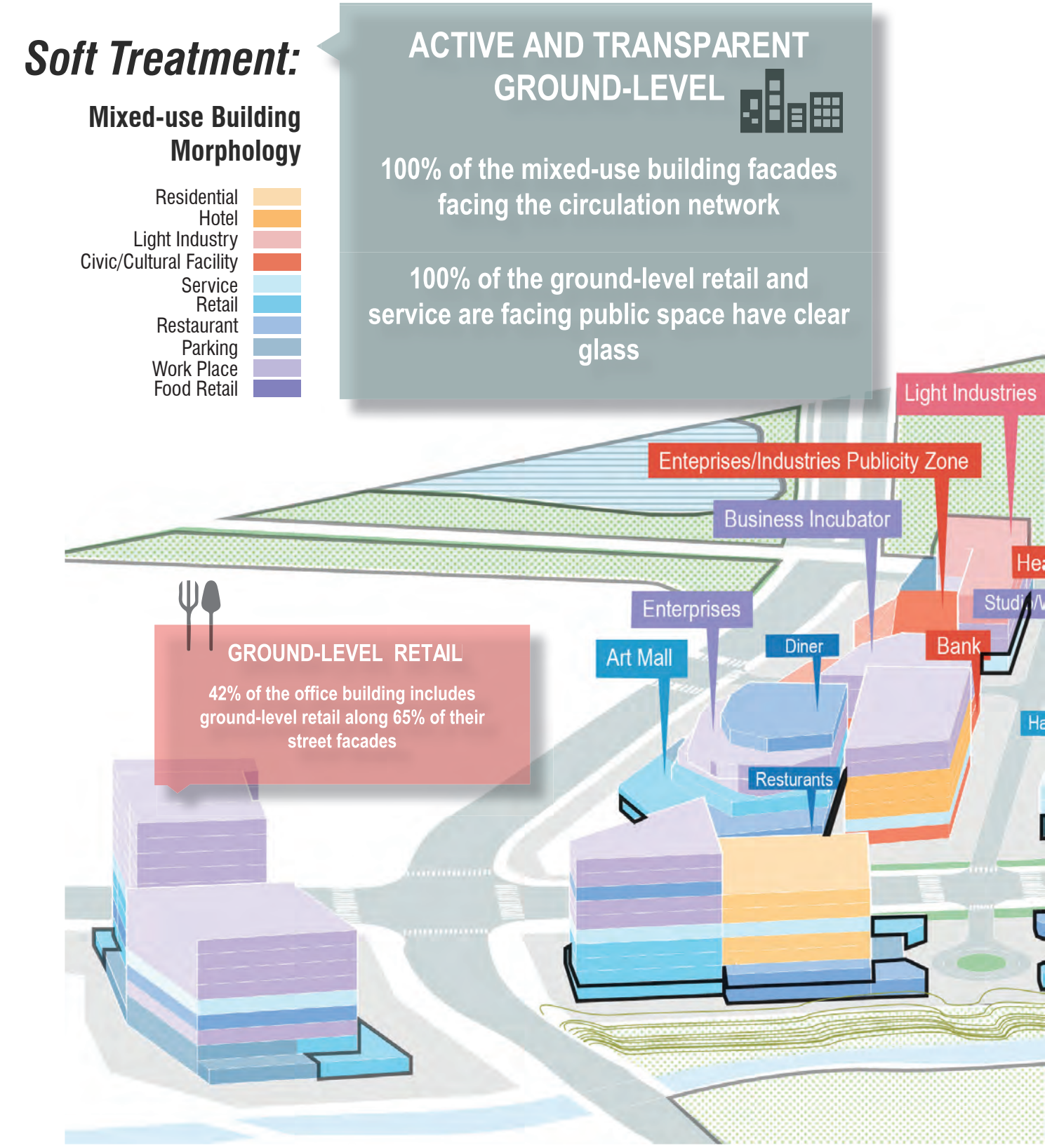
Total Office SF	843,210
Employees	1,685
Parking Stalls Needed	2,260

Total FAR (Excluding ROW): 1.85

Figure 6.27
Illustrative Plan
(Zhong,2018)

Illustrative Plan

Figure 6.28
Active and Transparent Ground Level
(Chen,Zhong, 2018)



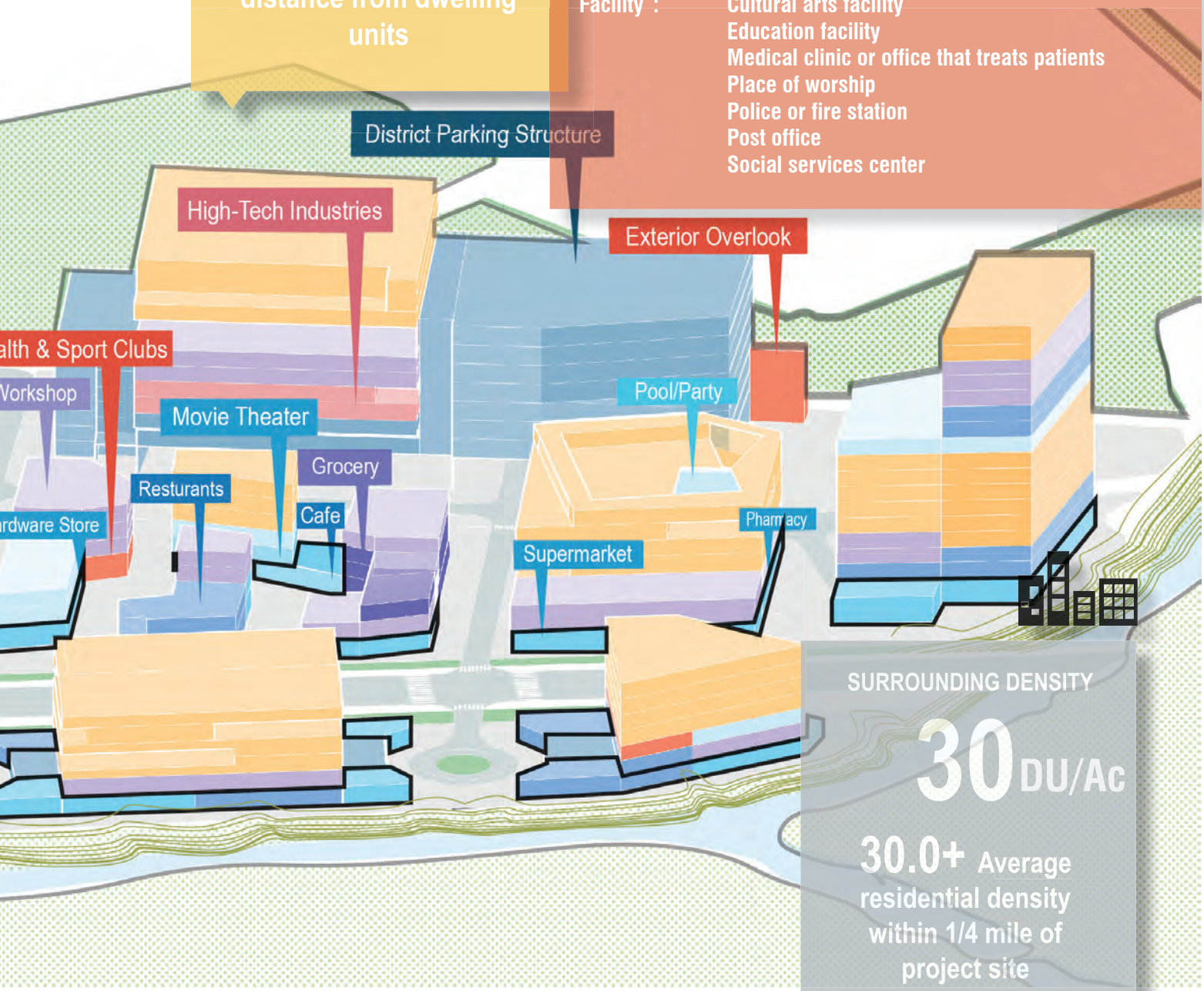
(Information Retrieved from LEED, USGBS, 2018)

Food retail :	**Supermarket**
	Grocery with produce section
Retail :	**Convenience store**
	Farmers market
	Hardware store
	Pharmacy
	Other retail
Services:	**Bank**
	Family entertainment venue (e.g., theater, sports)
	Gym, health club, exercise studio
	Hair care
	Laundry, dry cleaner
Civic/Culture Facility :	**Cultural arts facility**
	Education facility
	Medical clinic or office that treats patients
	Place of worship
	Police or fire station
	Post office
	Social services center

24/7 **MIXED-USE DISTRICT**

8+

8+ Diverse uses with 350 feet walking distance from dwelling units



SURROUNDING DENSITY

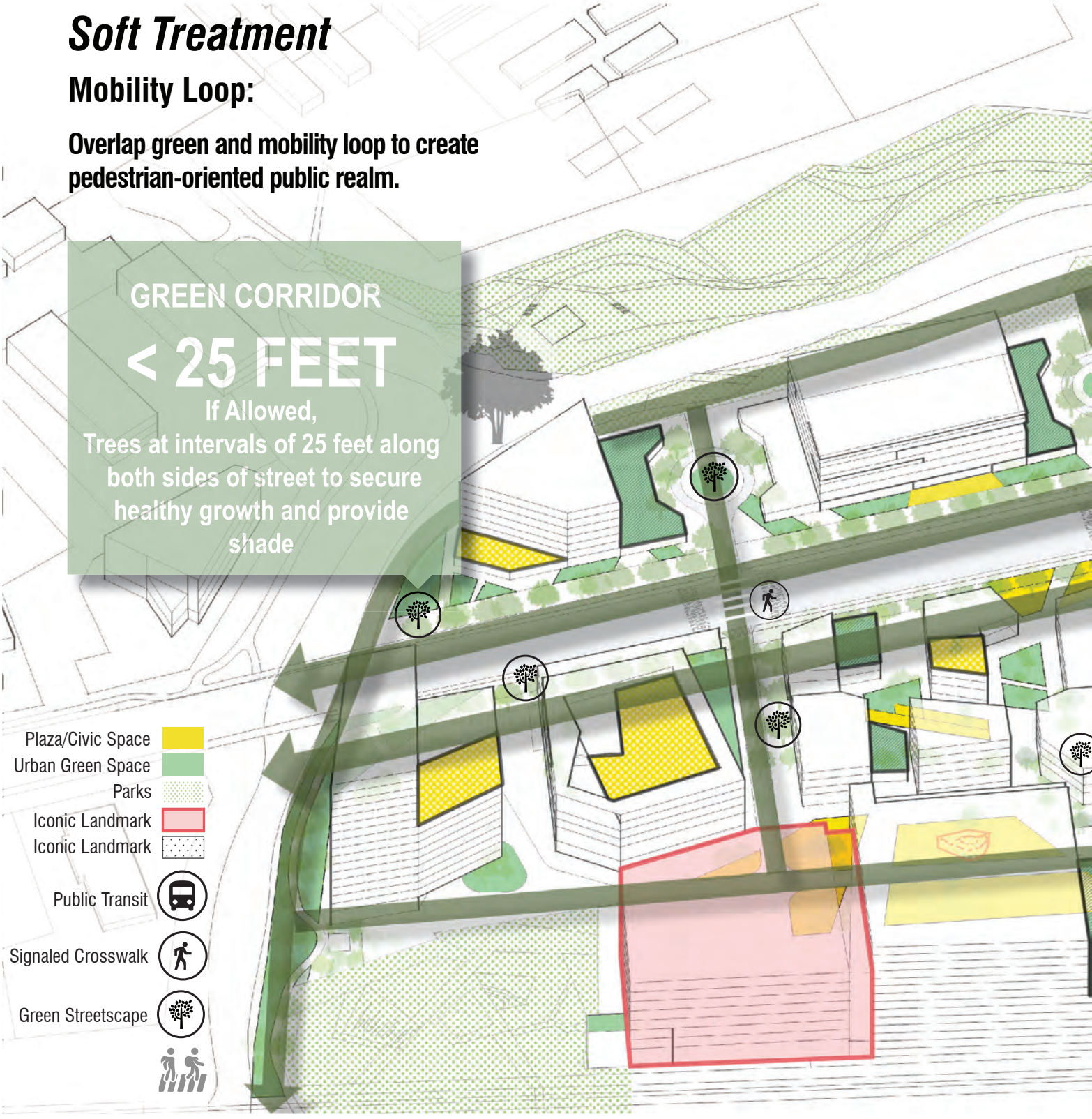
30 DU/Ac

30.0+ Average residential density within 1/4 mile of project site

Soft Treatment

Mobility Loop:

Overlap green and mobility loop to create pedestrian-oriented public realm.



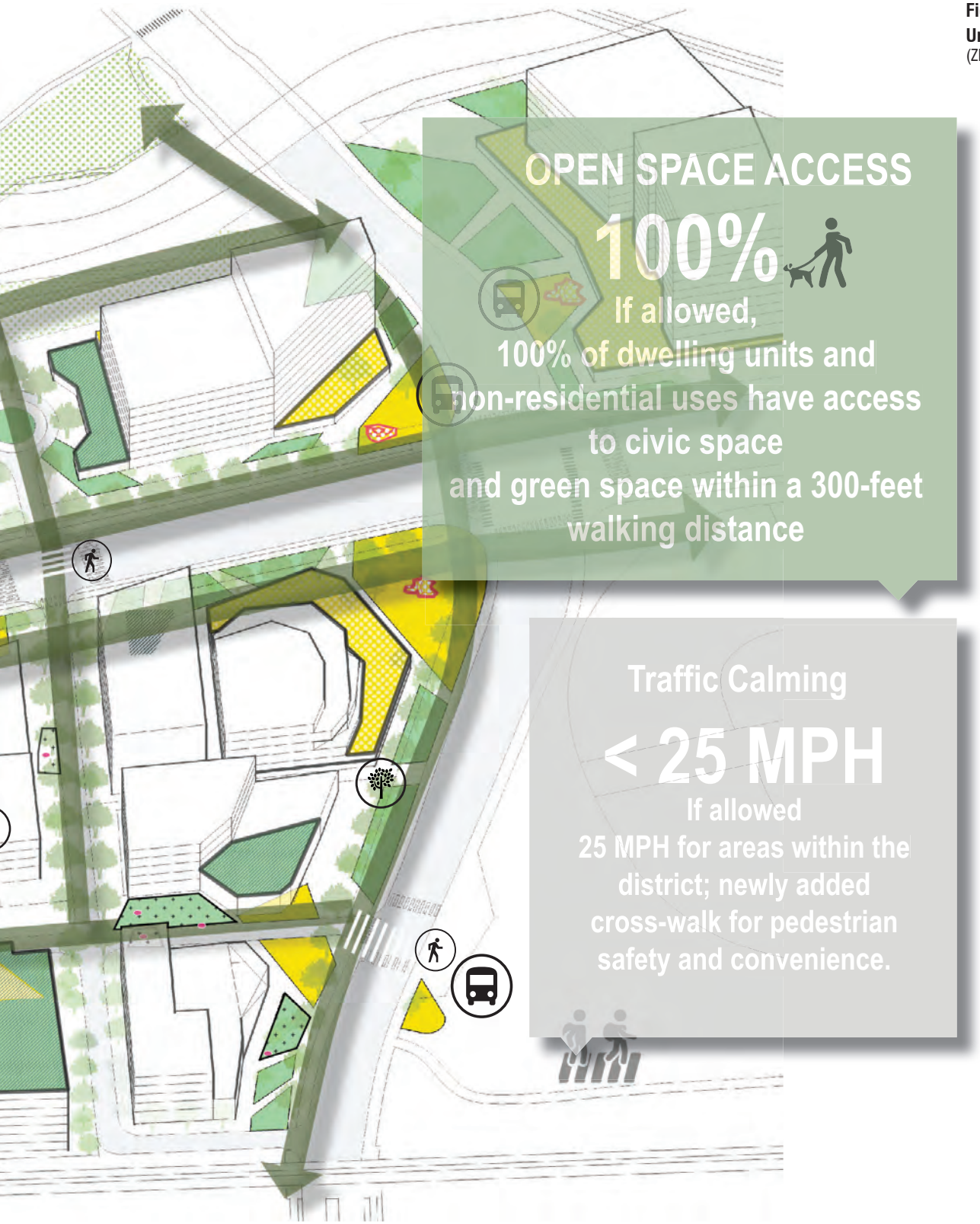


Figure 6.29
Urban Green Mobility
(Zhong,Chen, 2018)

Figure 6.30
Habitat Morphology
(Zhong, 2018)

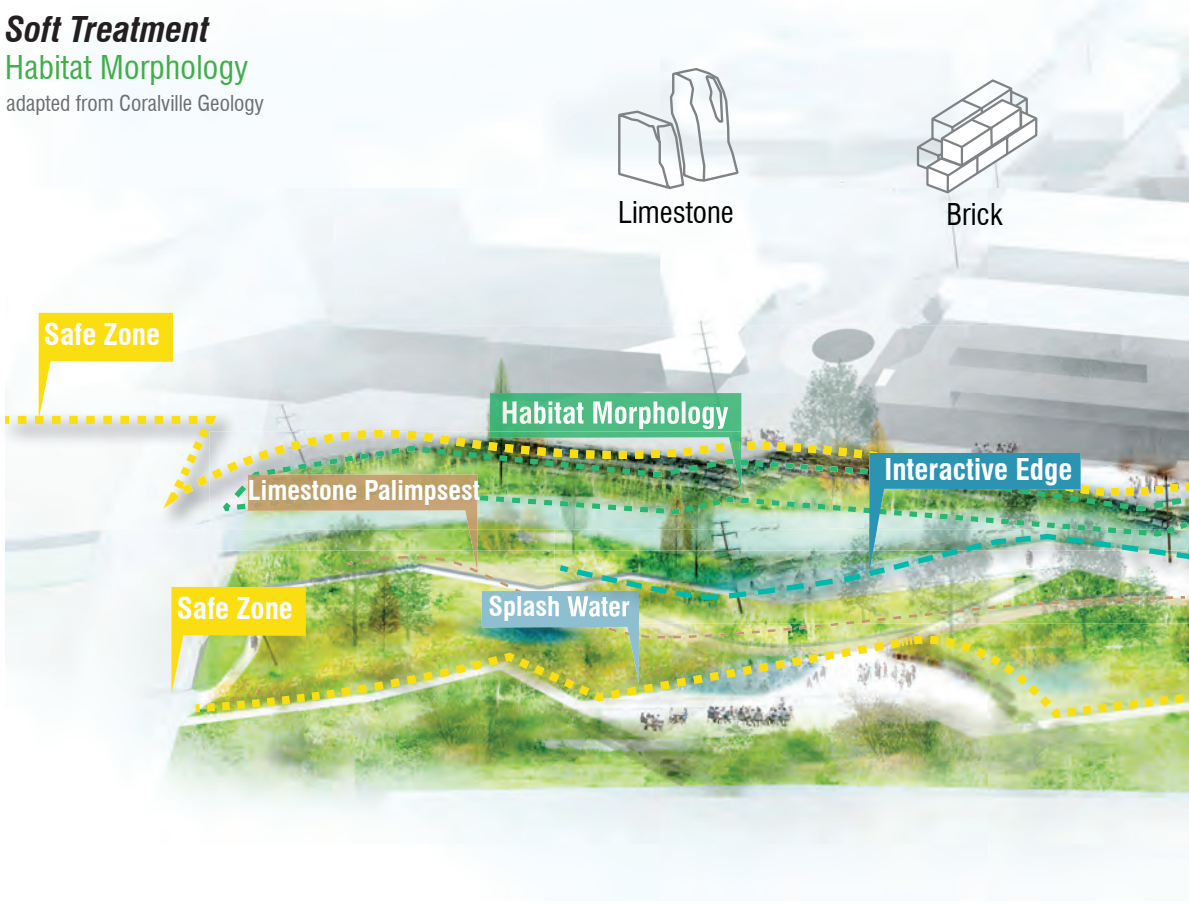


Figure 6.31
Waterfront Perspective
(Zhong, 2018)

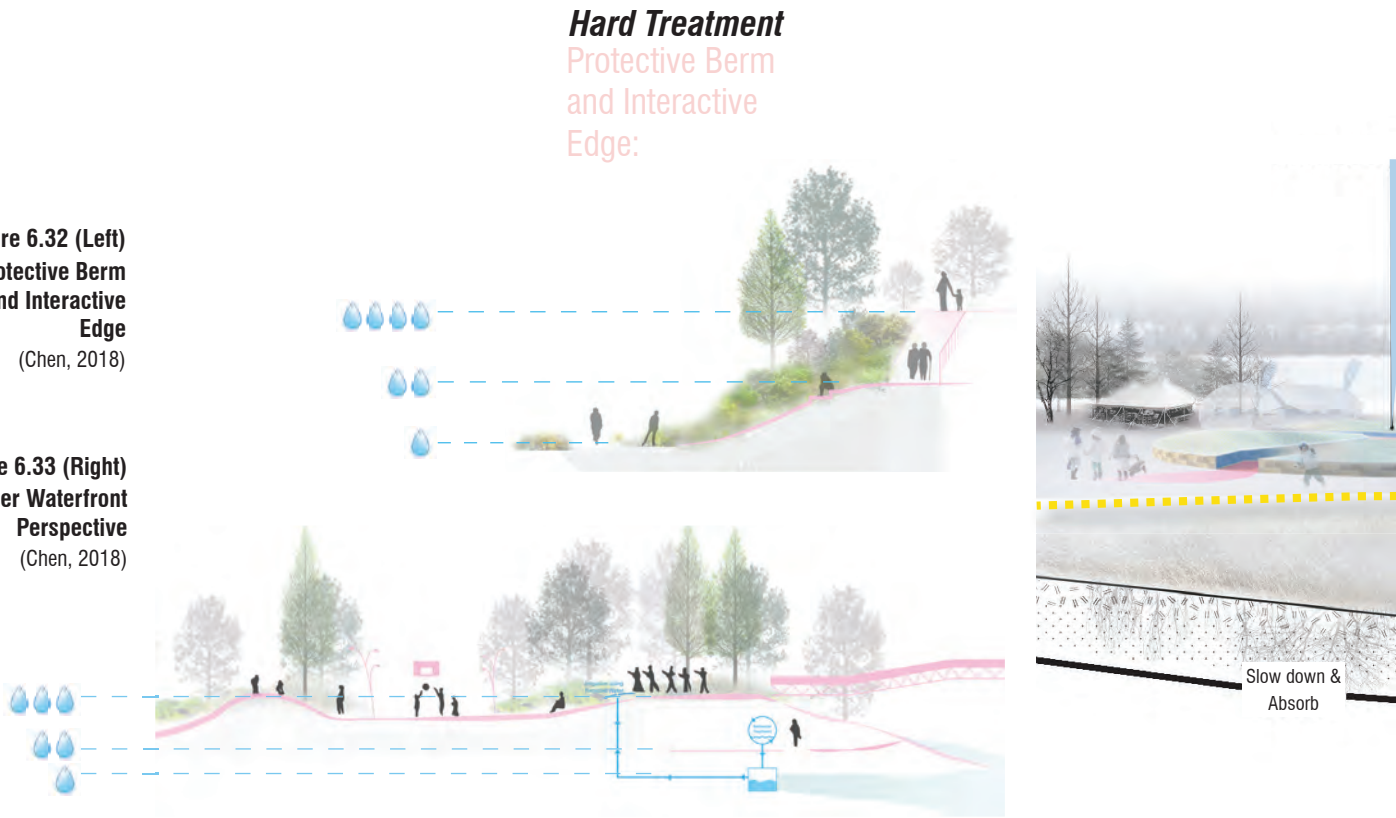
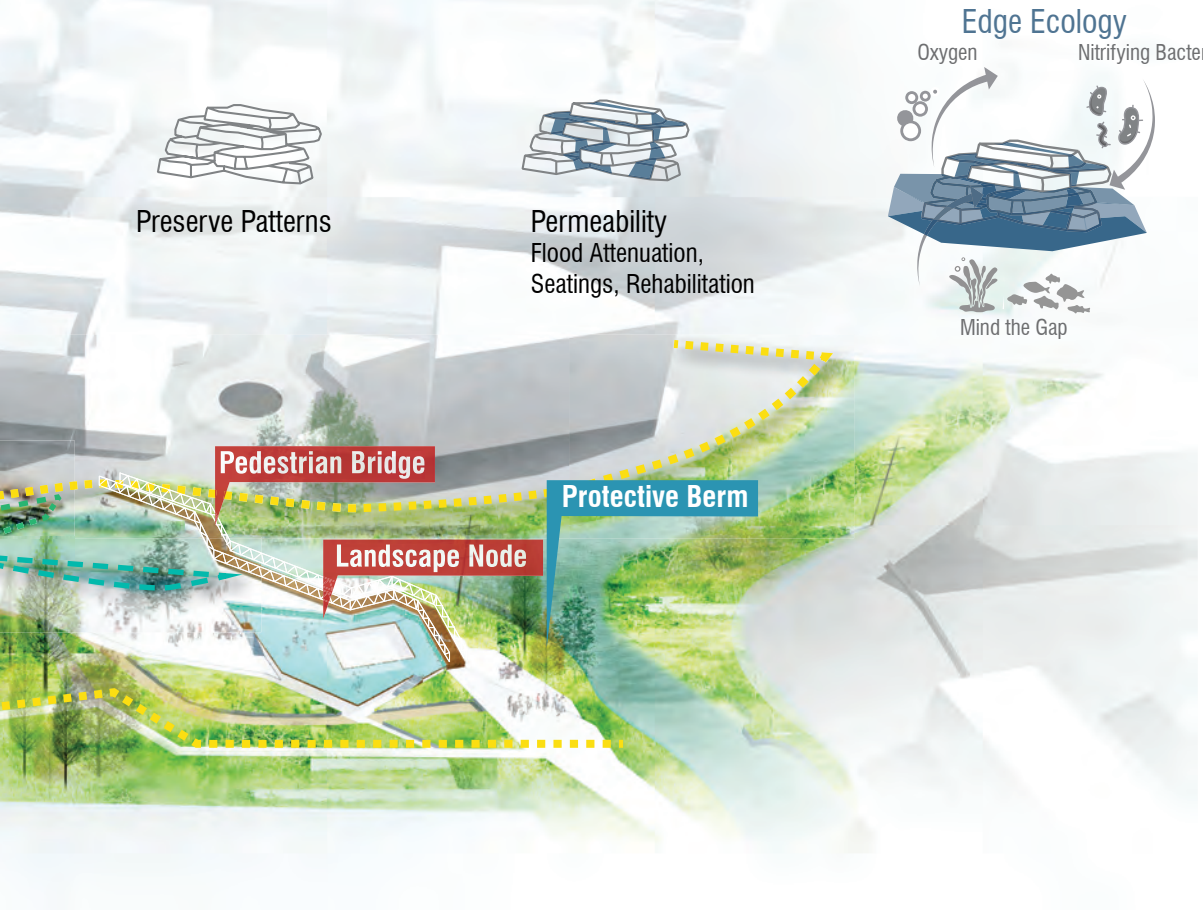
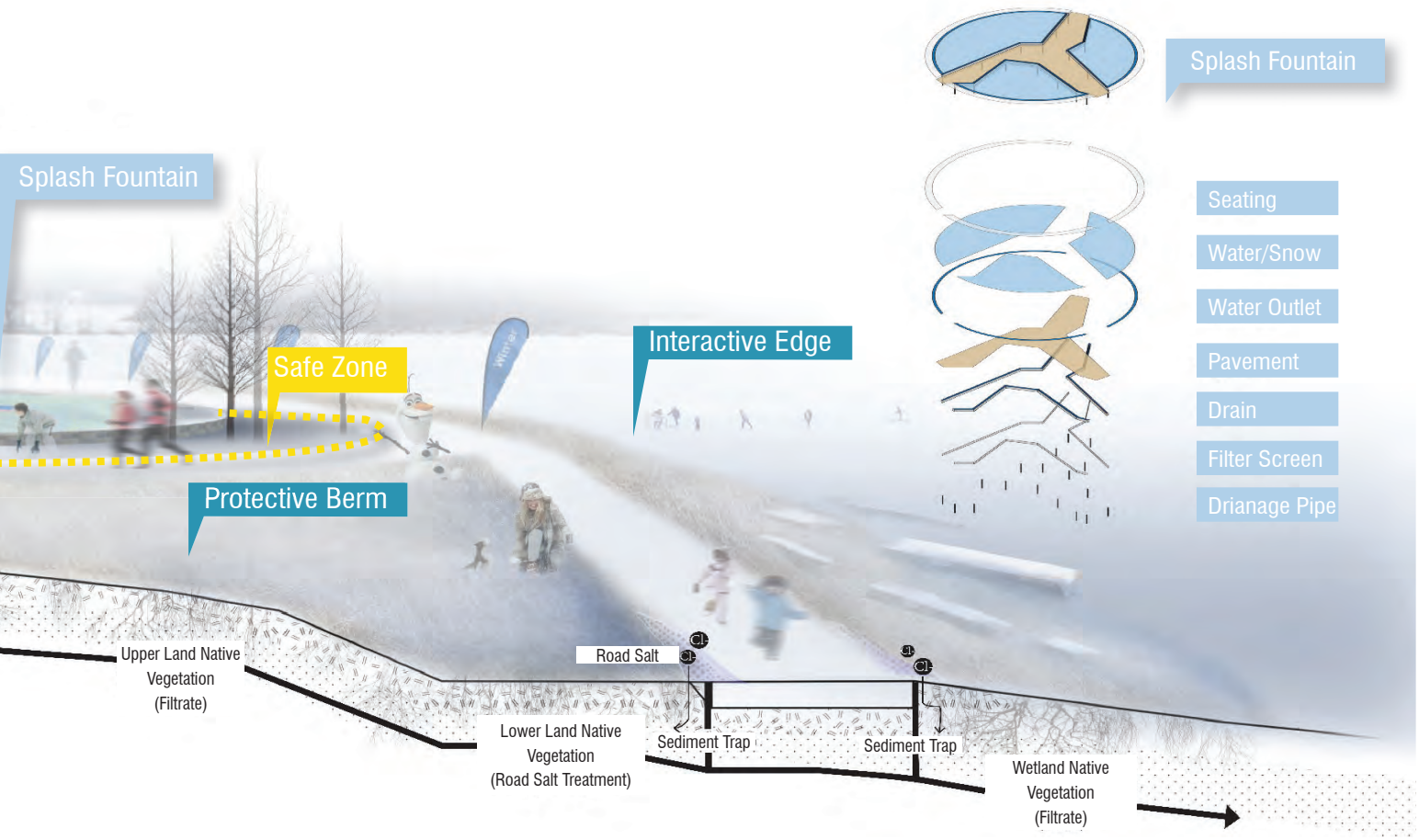


Figure 6.32 (Left)
Protective Berm and Interactive Edge
(Chen, 2018)

Figure 6.33 (Right)
Winter Waterfront Perspective
(Chen, 2018)


Edge Ecology
Oxygen
Nitrifying Bacteria
Mind the Gap
Preserve Patterns
Permeability
Flood Attenuation,
Seatings, Rehabilitation
Pedestrian Bridge
Protective Berm
Landscape Node


Splash Fountain
Splash Fountain
Seating
Water/Snow
Water Outlet
Pavement
Drain
Filter Screen
Drianage Pipe
Safe Zone
Interactive Edge
Protective Berm
Upper Land Native
Vegetation
(Filtrate)
Road Salt
Cl-
Lower Land Native
Vegetation
(Road Salt Treatment)
Sediment Trap
Sediment Trap
Wetland Native
Vegetation
(Filtrate)

Hard Treatment Summary

Trail and Street:

Street Wires:

Relocating or incorporate existing poles as feature of the "making" process.

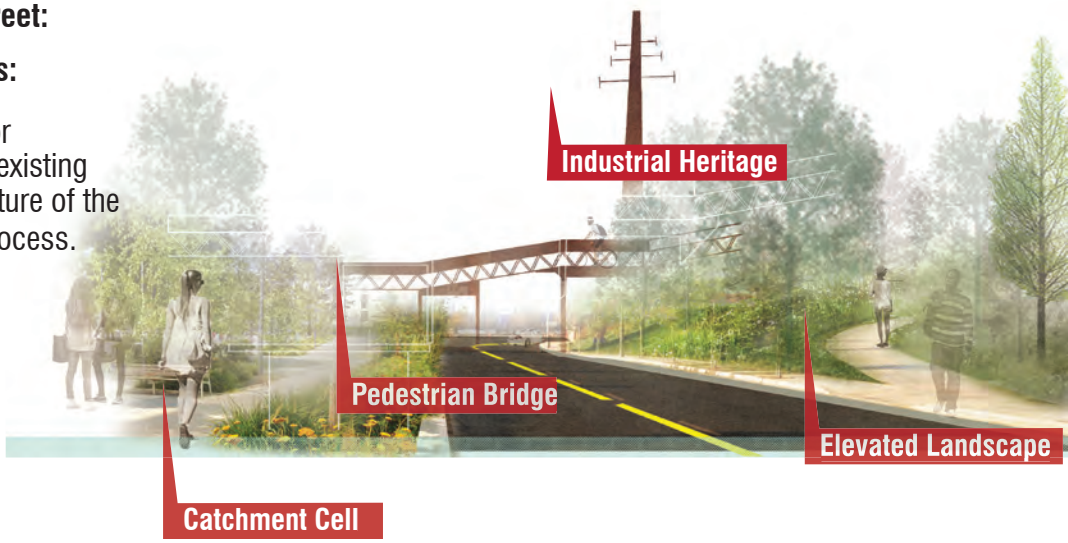
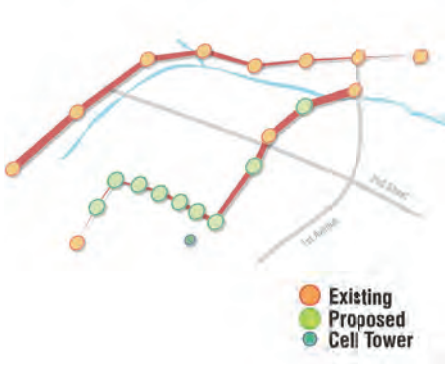
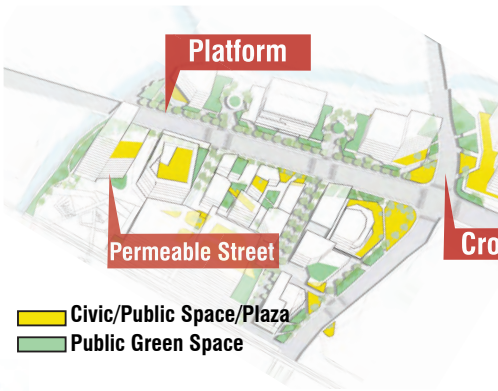


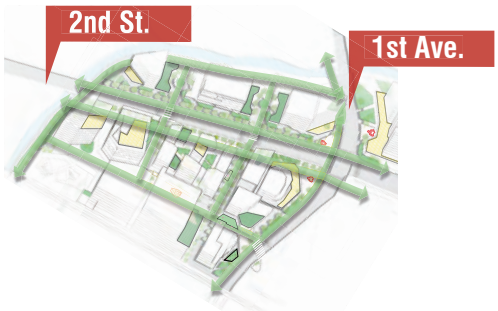
Figure 6.34 Street Scenario
(Zhong, 2018)

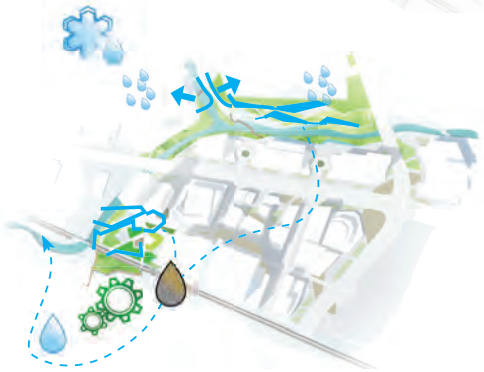




Left: Figure 6.35 Power lines
(Chen, 2018)

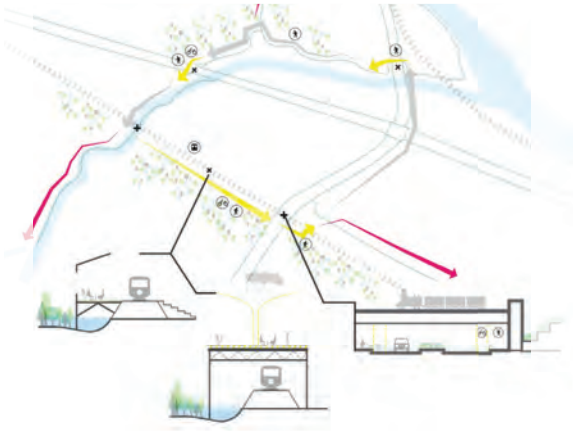
Right: Figure 6.36 Place Making
(Chen, 2018)





Left: Figure 6.37 Green Streets Loop
(Zhong, 2018)

Right: Figure 6.38 Large Green Infrastructure
(Chen, 2018)



Left: Figure 6.39 Rail Scenarios
(Zhong, 2018)

Right: Figure 6.40 Mixed Urban Ecology
(Chen, 2018)

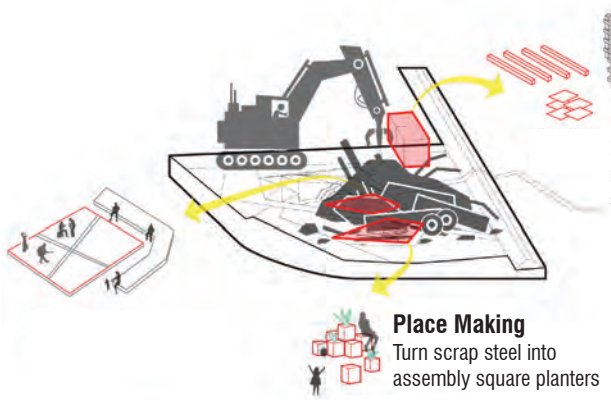


Figure 6.41
Industrial Theme Park Rationale
(Zhong, 2018)

Industrial Themed Park

Addressing the South Outer landscape (rails, industrial, and scrap yard):

Reverse the existing adjacent natural and human habitats.

Transforming the soft boundary on the south into a large green infrastructure (opportunity to catch and remediate the polluted runoff from the brownfields) and a social corridor with both physical and ecological connection to Iowa University and Mormon Trek Trial.

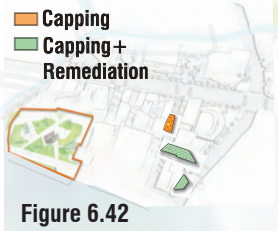


Figure 6.42
Powerlines
(Chen, 2018)

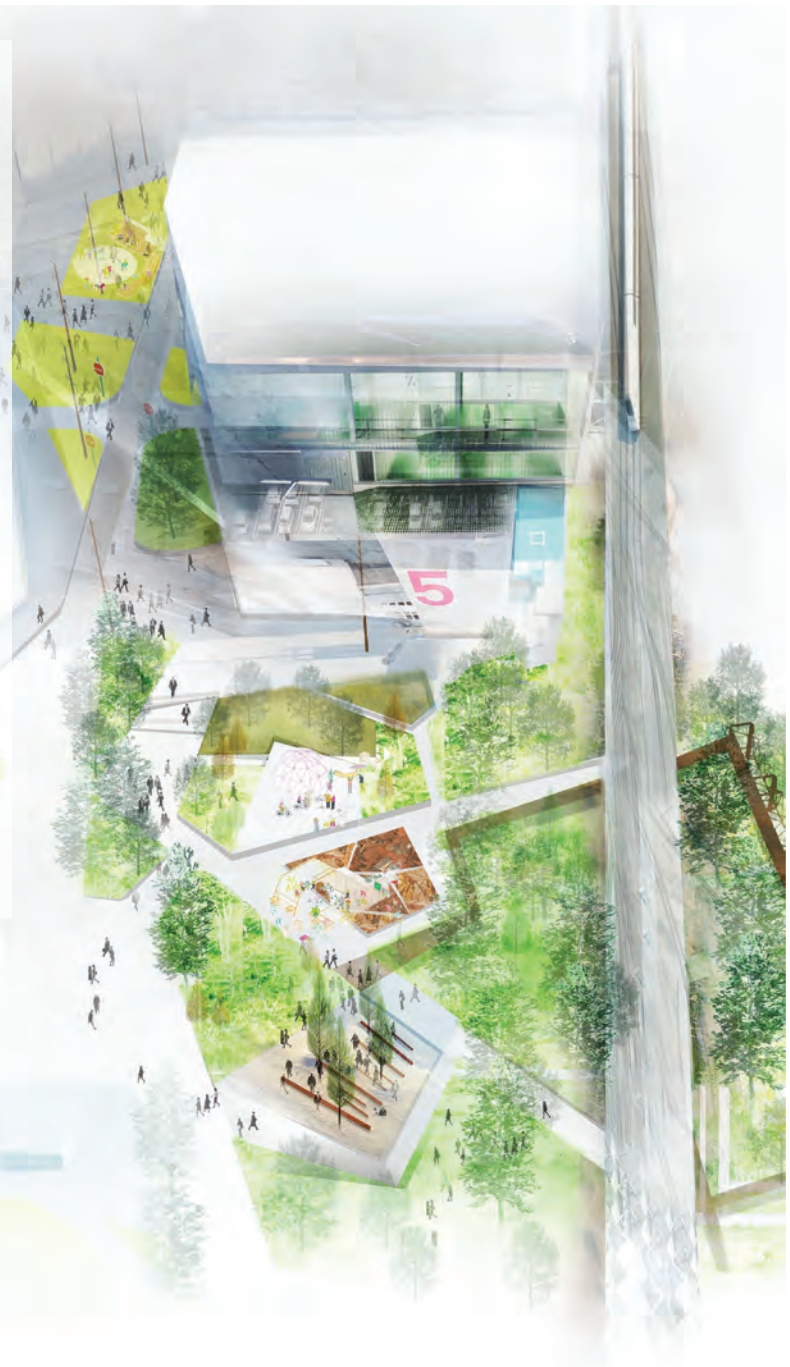


Figure 6.43
Industrial Themed Park
(Chen, 2018)

Citations

Chapter Heading
Chen, Si. 2018. “Coralville Site Image.” Photograph. Coralville, IA.

Figure 6.1
Chen, Si. 2018. “Coralville Aerial.” Kansas State University, LAR646 2018. Adobe Photoshop Rendering. Source Images:

- Google Earth. City of Coralville. Source map: Google Earth. Coralville, IA. 41d31’14.49’’N 41d21’38.56’’W. Accessed 1 June 2018.

Figure 6.2
Zhong, Yingyi. 2018. “Coralville Cultural Characters.” Kansas State University, LAR646 2018. Adobe Illustrate. Source Image:

- Iconfont. “Train Icon.” PNG Image. 2016. Accessed July 2, 2018. http://www.iconfont.cn/search/index?q=train
- Iconfont. “Bike Icon.” NG Image. 2016. Accessed July 2, 2018. http://www.iconfont.cn/search/index?q=bike
- Iconfont. “Car Icon.” PNG Image. 2016. Accessed July 2, 2018. http://www.iconfont.cn/search/index?q=car
- Iconfont. “Waking People Icon.” PNG Image. 2016. Accessed July 2, 2018. http://www.iconfont.cn/search/index?q=people

Figure 6.3
Zhong, Yingyi. 2018. “Existing Railroads and Trails in SE Commercial District.” Kansas State University, LAR646 2018. ArcGIS, Adobe Photoshop and Illustrate.
Source Images:

- Google Earth. Coralville, IA. 41d40’12.89’’N 91d31’38.56’’W. Accessed 8 June 2018.

Figure 6.4
Chen, Si. “Existing Programs and Adjacency.” Kansas State University LAR646 2018. Adobe Illustrate.

Figure 6.5
Google Street-view. “Excessive impermeable paving materials.” Accessed 1 June, 2018.

Figure 6.6
Google Street-view. “Excessive parking area.” Accessed 1 June, 2018.

Figure 6.7
Zhong, Yingyi. “Transmission Pole made with corten steel.” Coralville, IA. Photograph.

Figure 6.8
Zhong, Yingyi. “Brick as architectural and paving material is prevalent.” Coralville, IA. Photograph.

Figure 6.9
Zhong, Yingyi. “Existing Southern rail line made with corten steel .” Coralville, IA. Photograph.

Figure 6.10
Zhong, Yingyi. “Paving Material: Concrete & Asphalt.” Kansas State University LAR646 2018. Adobe Illustrate and Photoshop rendering. Source Image:

- Google Earth. Coralville, IA. 41d40’12.89’’N 91d31’38.56’’W. Accessed 8 June 2018.

Figure 6.11
Zhong, Yingyi. “Industrial Relic: Croten Steel & Brick.” Kansas State University LAR646 2018. Adobe Illustrate and Photoshop rendering. Source Image:

- Google Earth. Coralville, IA. 41d40’12.89’’N 91d31’38.56’’W. Accessed 8 June 2018.

Figure 6.12
Zhong, Yingyi. “Limestone is a local material that can represent Coralville.” Coralville, IA. Photograph.

Figure 6.13
Zhong, Yingyi. “Existing landscape along Clear Creek is attractive and valuable.” Coralville, IA. Photograph.

Figure 6.14
Zhong, Yingyi. “Existing streets-cape is well maintained.” Coralville, IA. Photograph.

Figure 6.15
Zhong, Yingyi. “Local material: Limestone.” Kansas State University LAR646 2018. Adobe Illustrate and Photoshop rendering. Source Image:

- Google Earth. Coralville, IA. 41d40’12.89’’N 91d31’38.56’’W. Accessed 8 June 2018.

Figure 6.16
Zhong, Yingyi. “Natural Fabric: Vegetation & Soils.” Kansas State University LAR646 2018. Adobe Illustrate and Photoshop rendering. Source Image:

- Google Earth. Coralville, IA. 41d40’12.89’’N 91d31’38.56’’W. Accessed 8 June 2018.

Figure 6.17
Zhong, Yingyi. 2018. “Regional Scale Urban Fabrics.” Kansas State University, LAR646 2018. Adobe Photoshop and Illustrate. Source Images:

- Google Earth. Coralville, IA. 41d40’12.89’’N 91d31’38.56’’W. Accessed 8 June 2018.
- Google Street-view. “Series of building in Coralville, IA.” Accessed 1 June, 2018
- Textures. “Steel material” https://www.textures.com/download/metalbare0212/123227?q=steel. Accessed 1 June, 2018
- Textures. “Croten steel material.” https://www.textures.com/downloadrust0217/128484?q=+steel. Accessed 1 June, 2018
- Textures. “Limestone” https://www.textures.com/download/brickmedievalblocks0200/83055?q=limestone Accessed 1 June, 2018
- Textures. “Glass” https://www.textures.com/download/highriseglass0055/66262?q=glass. Accessed 1 June, 2018
- Textures. “Soil.” https://www.textures.com/download/sandpebbles0080/53799?q=soil. Accessed 1 June, 2018

Figure 6.18
Zhong, Yingyi. 2018. “Redefine Existing Rail, Trail and Road with Individual Characters

” LAR646 Kansas State University. 2018. Adobe Illustrate.

Figure 6.19
Chen, Si. 2018. “Distorted Mobility Loop Diversify and Enrich Travel Experience.” LAR646 Kansas State University 2018. Adobe Illustrate.

Figure 6.20
Chen, Si., Zhong, Yingyi. 2018. “Distorted Waterline Generate Accessible Waterfront and Protective Berms.” LAR646 Kansas State University. 2018. Adobe Illustrate.

Figure 6.21
Chen, Si. 2018. “Overlap Landscape Nodes and Urban Loop.” LAR646 2018. Adobe Illustrate.

Figure 6.22
Zhong, Yingyi. 2018. “Overlap Landscape and Architectural Programs.” LAR646 2018. Adobe Illustrate and Adobe Photoshop.

Figure 6.23
Chen, Si. 2018. “Reverse Existing Adjacent Natural and Artificial Habitats.” LAR646 2018. Adobe Illustrate and Adobe Photoshop. Source Image:

- Chaonan, Gan. “Isolated tree on white background.” Digital Photography. 2016. Accessed July 2, 2018. https://www.shutterstock.com/image-photo/isolated-tree-on-white-background-collection-749779258
- Google Earth. City of Coralville. Source map: Google Earth. Coralville, IA. 41d31’14.49’’N 41d21’38.56’’W. Accessed 1 June 2018.
- Iconfont. “Librarary Icon.” PNG Image. Accessed 1 July 2018. http://www.iconfont.cn/

Figure 6.24
Zhong, Yingyi. 2018. “Reverse the existing hierarchy of accessibility.” LAR646 2018. Adobe Illustrate.

Figure 6.25
Zhong,Yingyi. “Illustrative Plan.“ Kansas State University. LAR646 2018. Autocad Civil3D Linework, Adobe Illustrator and Photoshop Rendering. Source Images:

- Alljos. “Photo of sea during golden hour.” Digital Photography. 2017. Accessed July 2, 2018 https://www.pexels.com/photo/photo-of-sea-during-golden-hour-1188083/
- Chaonan, Gan. “Isolated tree on white background.” Digital Photography. 2016. Accessed July 2, 2018. https://www.shutterstock.com/image-photo/isolated-tree-on-white-background-collection-749779258
- Fazekas, Peter. “Green Grass Field During Sun Rise.“ Digital Photography. 2018. Accessed July 2, 2018. https://www.pexels.com/photo/green-grass-field-during-sun-rise-997121/
- Google Earth. City of Coralville. Source map: Google Earth. Coralville, IA. 41d31’14.49’’N 41d21’38.56’’W. Accessed 1 June 2018.
- Hahn, Howard. 2018. “LAR646_BaseMap_24x36_SECD_aerial.” PDF Map from ArcGIS.
- Pixbay. “Body of Water during Dawn.” Digital Photograph. 2018. Accessed July 2, 2018. https://www.pexels.com/photo/sea-nature-sky-sunset-37403/
- Pexel. “Skitterphoto.” Digital Photography. 2018. Accessed July 2, 2018. https://www.pexels.com/photo/five-white-sheep-on-farm-1122163/

Figure 6.26
Chen, Si. 2018. “Phasing Strategies.” LAR646 2018. Adobe Illustrate and Adobe Photoshop. Source Images:

- Google Earth. City of Coralville. Source map: Google Earth. Coralville, IA. 41d31’14.49’’N 41d21’38.56’’W. Accessed 1 June 2018.

Figure 6.27
Zhong, Yingyi. 2018. “Illustrative Plan.” Kansas State University LAR646 2018. Google Sketchup, Adobe Illustrator and Photoshop Rendering.

Figure 6.28
Chen, Si., Zhong, Yingyi. 2018. “Active and Transparent Ground Level.” Kansas State University LAR646 2018. Google Sketchup, Adobe Illustrator and Photoshop Rendering.

Figure 6.29
Chen, Si., Zhong, Yingyi. 2018. “Urban Green Mobility.” Kansas State University LAR646 2018. Google Sketchup, Adobe Illustrator and Photoshop Rendering. Source Images:

- Iconfont. “Crosswalk Icon.” PNG Image. 2016. Accessed July 2, 2018. http://www.iconfont.cn/search/index?q=crosswalk

Figure 6.30
Zhong, Yingyi. 2018. “Habitat Morphology.” Kansas State University LAR646 2018. Adobe Illustrator. Source Image:

- Park, Jisun. “Seaweed Icon.” Digital PNG. 2018. Accessed July 2, 2018. https://www.iconfinder.com/icons/1157886/aquaculture_laver_ocean_sea_seaweed_weed_icon
- Iconfont. “Bacteria Icon.” PNG Image. 2016. Accessed July 2, 2018. http://www.iconfont.cn/search/index?q=bacteria
- Iconfont. “Fish Icon.” PNG Image. 2014. Accessed July 2, 2018. http://www.iconfont.cn/search/index?q=fish

Figure 6.31
Zhong, Yingyi. 2018. “Waterfront Perspective.” Kansas State University LAR646 2018. Google Sketchup, Adobe Illustrator and Photoshop Rendering. Source Images:

- Alljos. “Photo of sea during golden hour.” Digital Photography. 2017. Accessed July 2, 2018 https://www.pexels.com/photo/photo-of-sea-during-golden-hour-1188083/
- Chaonan, Gan. “Isolated tree on white background.” Digital Photography. 2016. Accessed July 2, 2018. https://www.shutterstock.com/image-photo/isolated-tree-on-white-background-collection-749779258
- Fazekas, Peter. “Green Grass Field During Sun Rise.“ Digital Photography. 2018. Accessed July 2, 2018. https://www.pexels.com/photo/green-grass-field-during-sun-rise-997121/
- Skalgubbar. “Group People.”Digital Photography. Accessed July 2, 2018. http://skalgubbar.se/
- Joyfull. “Aerial view of Commerical square. Lisbon, Portugal.”Digital Photography. 2016. Accessed July 2, 2018. https://www.shutterstock.com/image-photo/aerial-view-commercial-square-lisbon-portugal-614754083?src=H4IpjDUks7hq8dhXfAJeVg-1-59
- Pixbay. “Body of Water during Dawn.” Digital Photograph. 2018. Accessed July 2, 2018. https://www.pexels.com/photo/sea-nature-sky-sunset-37403/
- Pexel. “Skitterphoto.” Digital Photography. 2018. Accessed July 2, 2018. https://www.pexels.com/photo/five-white-sheep-on-farm-1122163/

Figure 6.32

Chen, Si. 2018. “Protective Berm and Interactive Edge.” Kansas State University LAR646 2018. , Adobe Illustrator and Photoshop Rendering. Source Images:

- Chaonan, Gan. “Isolated tree on white background.” Digital Photography. 2016. Accessed July 2, 2018. https://www.shutterstock.com/image-photo/isolated-tree-on-white-background-collection-749779258
- Fazekas, Peter. “Green Grass Field During Sun Rise.“ Digital Photography. 2018. Accessed July 2, 2018. https://www.pexels.com/photo/green-grass-field-during-sun-rise-997121/

Figure 6.33

Chen, Si. 2018. “Winter Waterfront Perspective.” Kansas State University LAR646 2018. Google Sketchup, Adobe Illustrator and Photoshop Rendering. Source Images:

- Pixbay. “Plaza skating, Rockefeller Plaza.” Digital Photograohy. 2014. Accessed July 2, 2018. https://pixabay.com/en/rockefeller-plaza-skating-rink-392401/
- Pixbay. “Dry grass in dunes.” Digital Photography. 2017. Accessed July 2, 2018. https://www.pexels.com/photo/clouds-dry-dune-dunes-417230/
- Skalgubbar. “Running People.” Digital Photography. 2018. Accessed July 2, 2018. http://skalgubbar.se/
- Skalgubbar. “Children.” Digital Photography. 2018. Accessed July 2, 2018. http://skalgubbar.se/
- Zerbor. “Isolated deciduous tree in the winter.“ Digital Photography. 2018. Accessed July 2, 2018. https://www.shutterstock.com/image-photo/isolated-deciduous-tree-winter-169314509?src=Nl3lGFg0enbLKqTuAIuIow-2-5

Figure 6.34

Zhong, Yingyi. 2018. “Street Scenario” Kansas State University LAR646 2018. Adobe Illustrator and Photoshop Rendering. Source Images:

- Bascar. “Switzerland; Geneva: Streets-cape with people in the Rue de Marche.” Digital Photography. 2018. Accessed July 2, 2018. https://www.shutterstock.com/image-photo/switzerland-geneva-march-9-2018-streetscape-1087099145?src=X4EzNPwpQmZ01Hw1E8CUsw-1-76
- Chaonan, Gan. “Isolated tree on white background.” Digital Photography. 2016. Accessed July 2, 2018. https://www.shutterstock.com/image-photo/isolated-tree-on-white-background-collection-749779258
- Fazekas, Peter. “Green Grass Field During Sun Rise.“ Digital Photography. 2018. Accessed July 2, 2018. https://www.pexels.com/photo/green-grass-field-during-sun-rise-997121/
- Skalgubbar. “Walking People.” Digital Photography. 2018. Accessed July 2, 2018. http://skalgubbar.se/
- Skalgubbar. “Bike People.” Digital Photography. 2018. Accessed July 2, 2018. http://skalgubbar.se/
- Stemmer, Aleksey. “Forest road in a green foggy forest with sun rays in background. Osnabruck, Germany.” Digital Photography. 2018. Accessed July 2, 2018. https://www.shutterstock.com/image-photo/forest-road-green-foggy-sun-rays-569035624?src=_XLZlRbG23xCEkDp09TBLg-1-39
- Yomyom. “Yellow Wildflowers.” Digital Photography. 2018. Accessed July 2, 2018. https://www.shutterstock.com/image-photo/flower-730423807

Figure 6.35

Chen, Si. 2018. “Powerlines.“ Kansas State University. LAR646 2018. Adobe Illustrator.

Figure 6.36
Chen, Si. 2018. “Placemaking.“ Kansas State University. LAR646 2018. Adobe Illustrator.

Figure 6.37
Chen, Si. 2018. “Green Streets Loop.“ Kansas State University. LAR646 2018. Google Sketchup and Adobe Illustrator.

Figure 6.38
Chen, Si. 2018. “Large Green Infrastructure.“ Kansas State University. LAR646 2018. Google Sketchup, Adobe Illustrator and Photoshop.

Figure 6.39
Chen, Si. 2018. “Rail Scenarios.“ Kansas State University. LAR646 2018. Adobe Illustrator.

Figure 6.40
Chen, Si. 2018. “Mixed Urban Ecology.“ Kansas State University LAR646 2018. Google Sketchup, Adobe Illustrator and Photoshop.

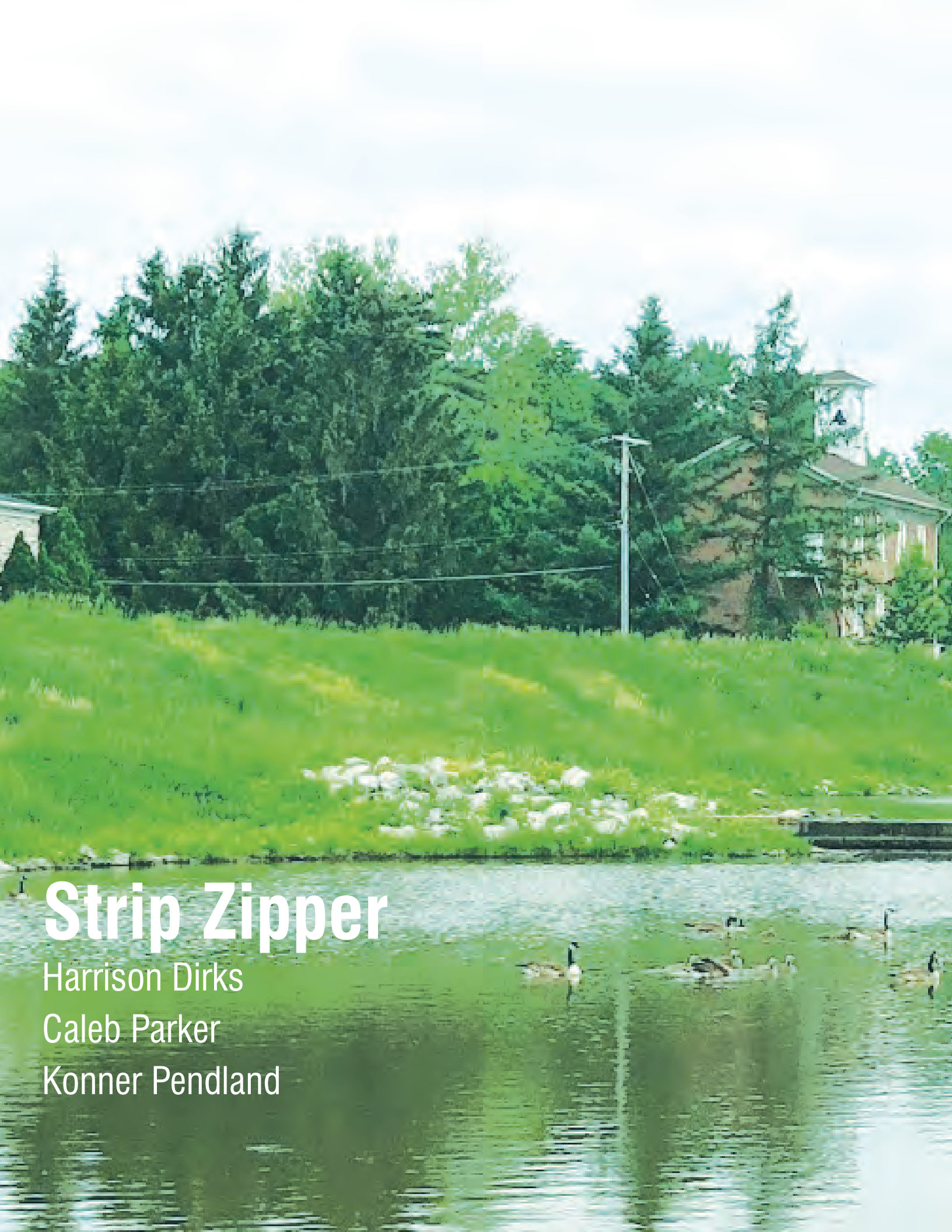
Figure 6.41
Zhong, Yingyi. 2018. “Industrial Theme Park Rationale.“ Kansas State University LAR646 2018. Google Sketchup and Adobe Illustrator.Source Images:

- Leremy. “ Junkyard Scrap Metal Steel Car Junk Yard Pictogram.” PNG Image. Accessed July 2, 2018. https://www.shutterstock.com/image-vector/junkyard-scrap-metal-steel-car-junk-312342482?src=Lb6zrss_az3j7KBG1T0HSg-1-0
- Dramaj. “People silhouette black vector girl and man walking illustration.” PNG Image. 2017. Accessed July 2, 2018. https://www.shutterstock.com/image-vector/people-silhouette-black-vector-girl-man-106273379?src=M_KzbDzeDQXYwo48zoACrA-1-6

Figure 6.42
Chen, Si. 2018. “Brownfield Treatment.“ Kansas State University LAR646 2018. Google Sketchup and Adobe Illustrator.

Figure 6.43
Chen, Si. 2018. “Industrial Themed Park.“ Kansas State University LAR646 2018. Google Sketchup and Adobe Illustrator. Source Images:

- Chaonan, Gan. “Isolated tree on white background.” Digital Photography. 2016. Accessed July 2, 2018. https://www.shutterstock.com/image-photo/isolated-tree-on-white-background-collection-749779258
- Dramaj. “People silhouette black vector girl and man walking illustration.” PNG Image. 2017. Accessed July 2, 2018. https://www.shutterstock.com/image-vector/people-silhouette-black-vector-girl-man-106273379?src=M_KzbDzeDQXYwo48zoACrA-1-6
- Fazekas, Peter. “Green Grass Field During Sun Rise.“ Digital Photography. 2018. Accessed July 2, 2018. https://www.pexels.com/photo/green-grass-field-during-sun-rise-997121/
- Transparent PNG. “Group People.” PNG Image. 2018. Accessed July 2, 2018. http://www.transparentpng.com/details/people-group-high-quality-png_9031.html
- Morado, Candela. “Perspectiva antropologica para la deconstruccion de los protectos ciudadanos emergents.” Digital Drawing. 2014 . Accessed July 2, 2018. http://activistark.blogspot.com/2014/01/genealogia-de-micro-dispositivos.html



Strip Zipper

Harrison Dirks
Caleb Parker
Konner Pendland

Strip Zipper

Creating Connections Across The Strip

Abstract:

As Coralville's Strip, it is necessary to create a strong connection along the north and south sides of 2nd street through elements of design as well as accommodate shared pedestrian and vehicular circulation. The Zipway, a large green space designed for play and relaxation, is the main space that connects the two sides of 2nd Street. The street is also fronted by commercial and retail in order to activate the streetscape. Designed to be a major hub of Coralville, the site evokes a strong sense of community through mixed-use development and provides a variety of activities such as entertainment space, a transit hub, a boardwalk, green roofs, and a waterfront that provides access to Clear Creek, as well as hold and filter water through the Zipway during storm events. All of these elements help create a cohesive site design across The Strip.

Figure 7.1
Site Aerial
An aerial view of the full site design looking south.
(Dirks, 2018)

Design Goals

Five overarching design concepts which governed the design

After visiting the site and talking to the community, we developed 5 design goals which act as a framework for the design. The first goal, Waterfront Activation, is focused on providing more pedestrian access to Clear Creek, particularly on the south side of the creek in order to influence development and front the creek. This leads into our second goal, Mixed-Use Development. Creating more mixed use areas will bring people into the site to live, work and play. Our third goal is focused on activating the streetscape of 2nd Street in order to draw people into the site. The fourth goal, Green Infrastructure, focuses on flood control tactics, water filtration, as well as brownfield remediation. This is closely related to our fifth and final goal, Creek Restoration. Restoring Clear Creek is important to make the waterfront accessible and enjoyable, and to influence on the health of the Iowa River downstream.

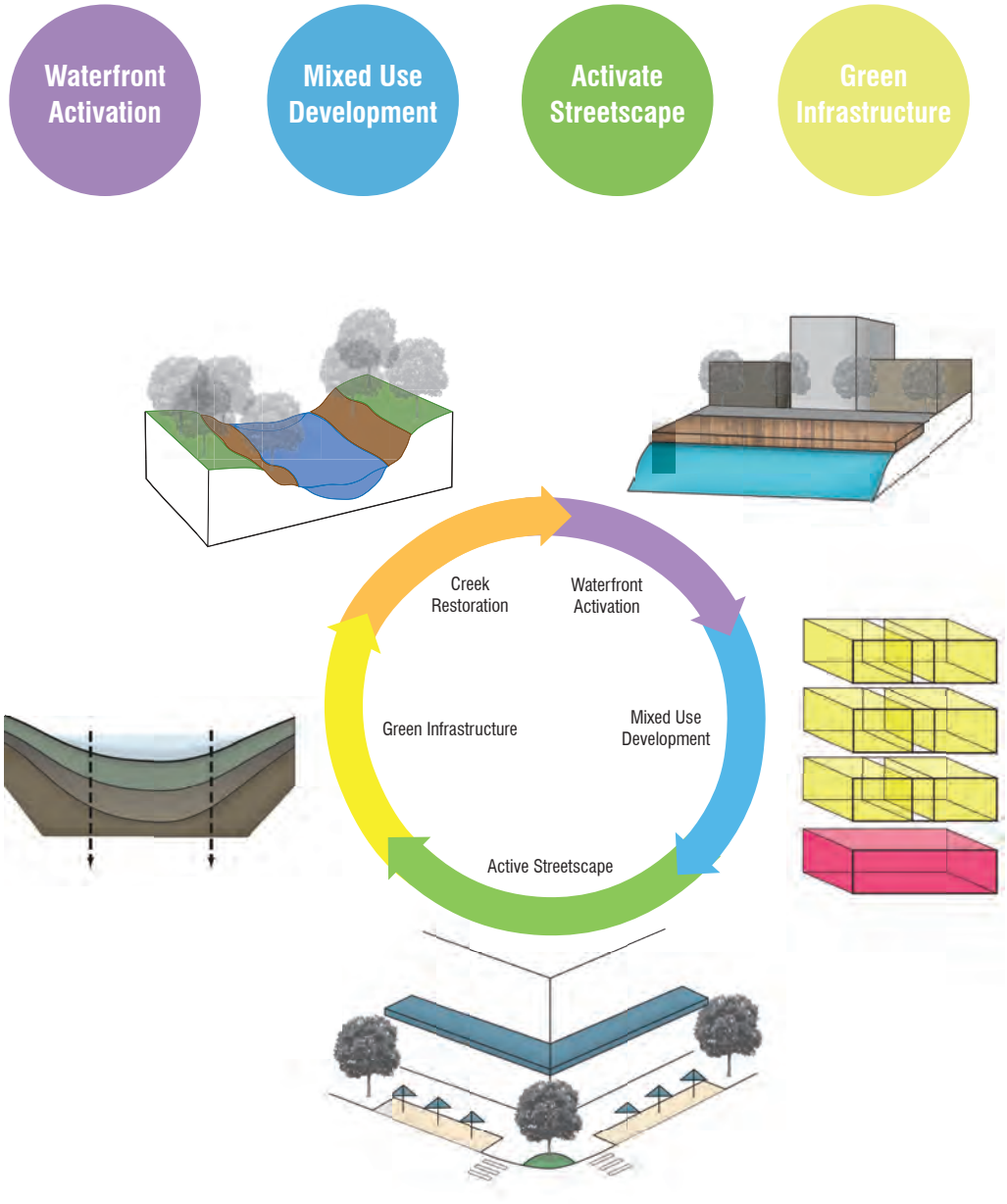


Figure 7.2
Design Goals
Diagram showing how the design goals relate to one another.
(Pendland, 2018)

Brownfields & Site Remediation

Techniques for restoring brownfields and native site ecosystems.

Brownfield Remediation

Parts of the Southeast Commercial District are currently registered as brownfield sites. Due to the contaminants and PCB's present, it is not effective to use methods such as phytoremediation or aeration. Since metals & PCB's are better treated in the ground, we are proposing to cap the polluted areas at a depth of five feet below new grade. Capping the brownfields will prevent stormwater runoff from infiltrating into the pollutants, and flowing into the river. This solution will not only provide remediation for the site, but will stop potential health hazards for both humans & the biotic life in the Iowa River watershed. A development solution was to put hard-scape over the capped pollutants, and direct all storm water through a designed filtration channel which leads into Clear Creek.

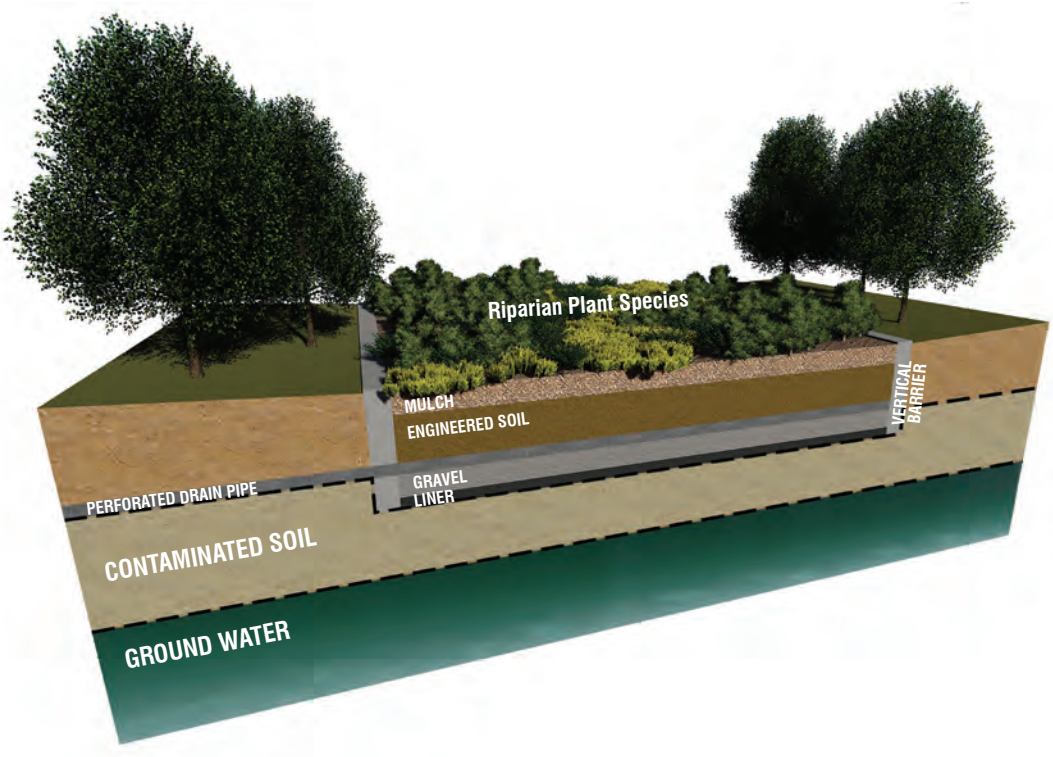
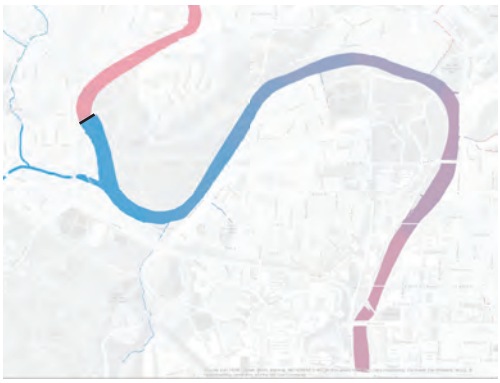


Figure 7.3
Brownfield Remediation
The existing brownfield will be capped and new soil and plants will be added to filter water in a sustainable way within the site.
(Parker, 2018)

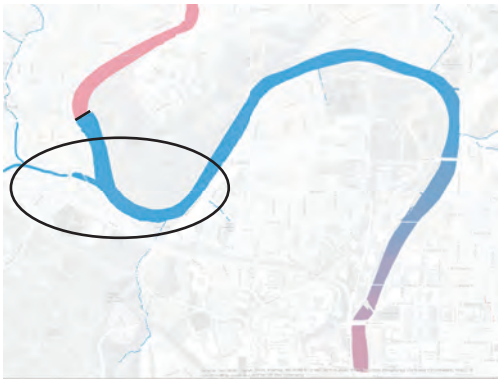
How restoring Clear Creek will change the polluted Iowa River

The Iowa River is not in a healthy state in the Iowa City & Coralville area, but this study presents an opportunity for change. The Lowa River Trail Dam stops the flow of polluted sediment coming from upstream before it can continue into Coralville. While this makes for a very toxic environment upstream of the dam, it allows for a "fresh start" on the lower end. Since Clear Creek is the first and largest tributary upstream from Iowa City, it has a substantial influence over the health of the river downstream.

This places great importance on the restoration efforts taking place along Clear Creek. The two diagrams below illustrate how clear creek can influence the Iowa River's health in the future. While cleaning Clear Creek along will not completely restore the river, it will have an impact. Cleaning up the pollutants is not only better for the ecosystem, but it also makes the water safe for recreational uses such as swimming, kayaking or fishing.



Iowa River Restoration in 1 Year's Time



Iowa River Restoration in 3 Year's Time

Polluted Ecosystem

Restored Ecosystem

Figure 7.4
Iowa River Restoration in 1 Year's Time
This illustration shows the healing process that will follow the remediation of Clear Creek in 1 year.
(Dirks, 2018)

Figure 7.5
Iowa River Restoration in 3 Year's Time
This illustration shows the healing process that will follow the remediation of Clear Creek in 3 years.
(Dirks, 2018)

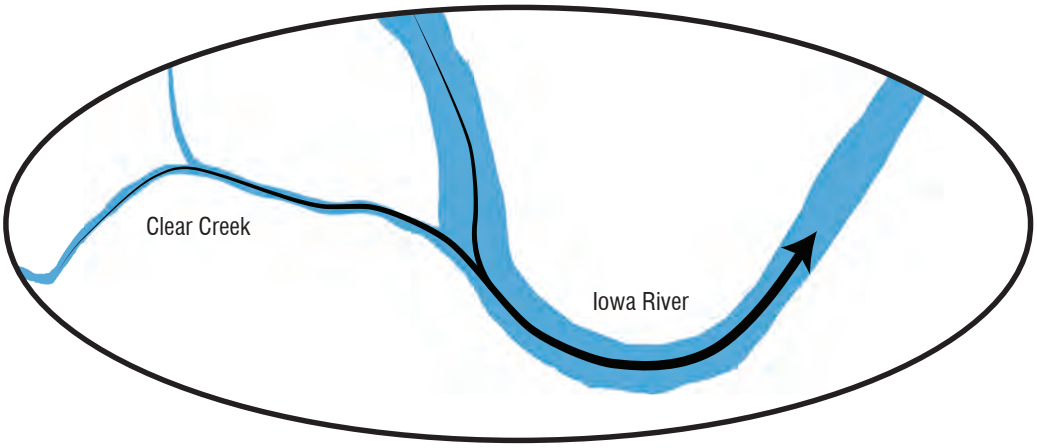


Figure 7.6
Flow from Creek to River
Clear Creek runs through the Southeast Commercial District from west to east until it hits the Iowa River.
(Dirks, 2018)

Site Dilemmas

A study of the current spatial conditions and circulation patterns on site

The three diagrams below represent the current figure ground, circulation, and green space conditions within the Southeast Commercial District. These three elements are crucial components used to develop an urban community and define the overall design framework.

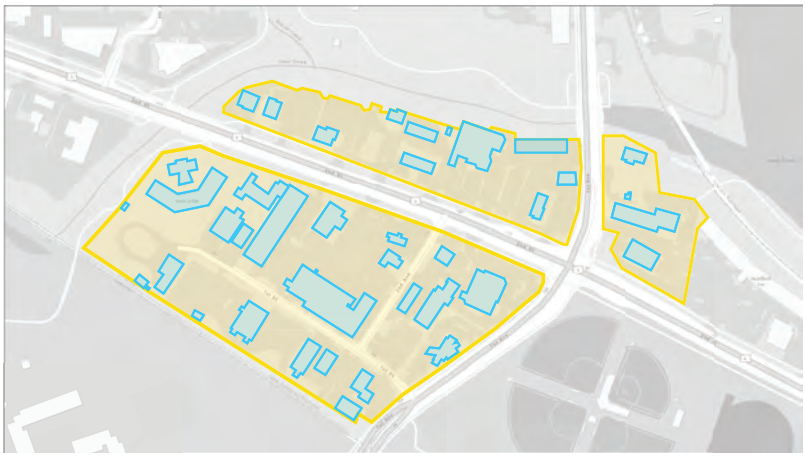


Figure 7.7
Existing Figure Ground
Currently, the southeast commercial district has poor building organization, and too much surface parking.
(Pendland, 2018)

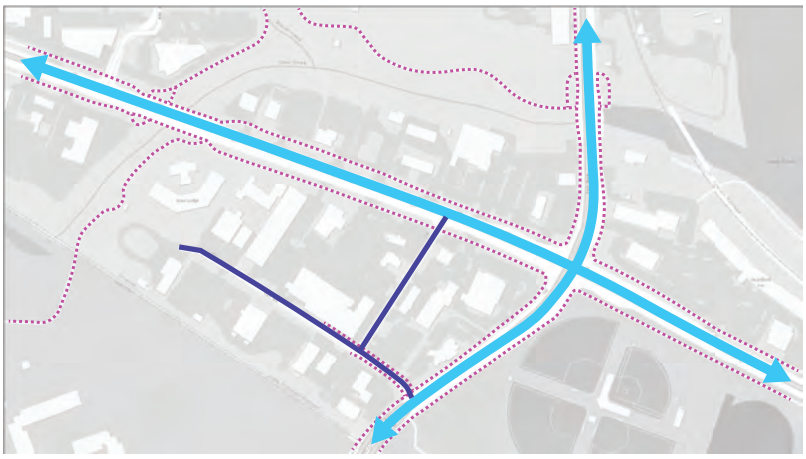


Figure 7.8
Existing Circulation
The vehicular circulation routes that go into the site from 1st Avenue & 2nd Street lack organization, and there is very little pedestrian circulation outside of 2nd Street.
(Pendland, 2018)

Figure 7.9
Existing Green Space
The only public green space that exists on the site is the strip along 2nd Street, and the banks of Clear Creek which is only accessible from the north side.
(Pendland, 2018)

Design Solutions

Proposals which address issues with the current site's spatial layering & circulation patterns

After studying the current building masses, circulation patterns, and green spaces, solutions to the existing issues were remediated in order to create a more dynamic district.

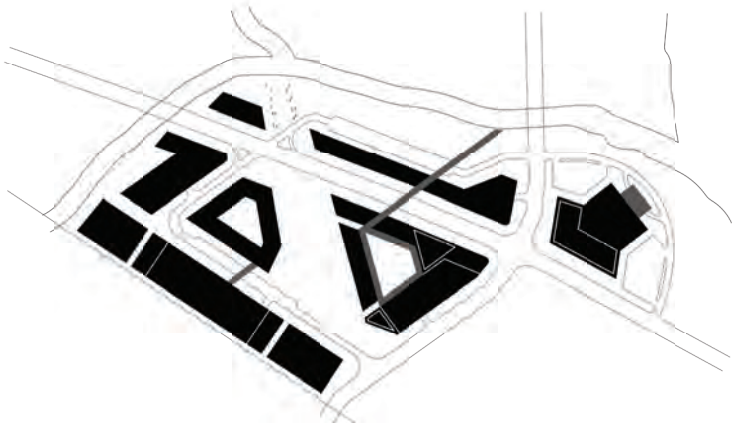


Figure 7.10
Proposed Figure Ground
New building mass shapes spaces and allows for building fronting along more than just one side.
(Pendland, 2018)

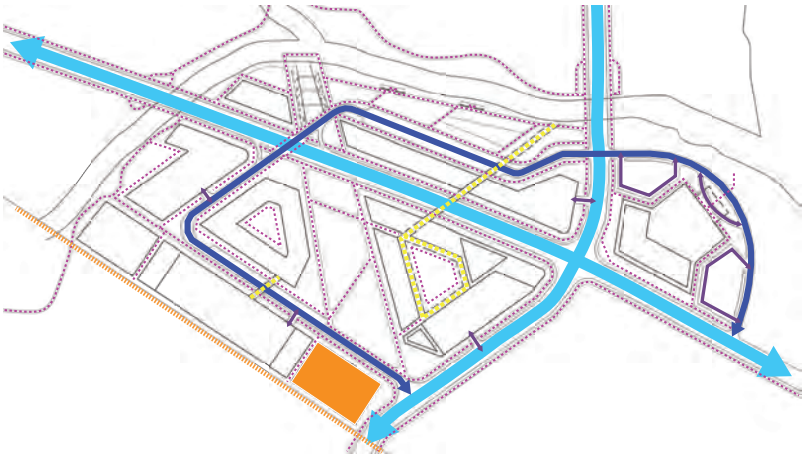


Figure 7.11
Proposed Circulation
New circulation routes connect the north and south sides of the district for vehicles. Pedestrians are now able to move throughout the spaces on a system of sidewalks.
(Pendland, 2018)

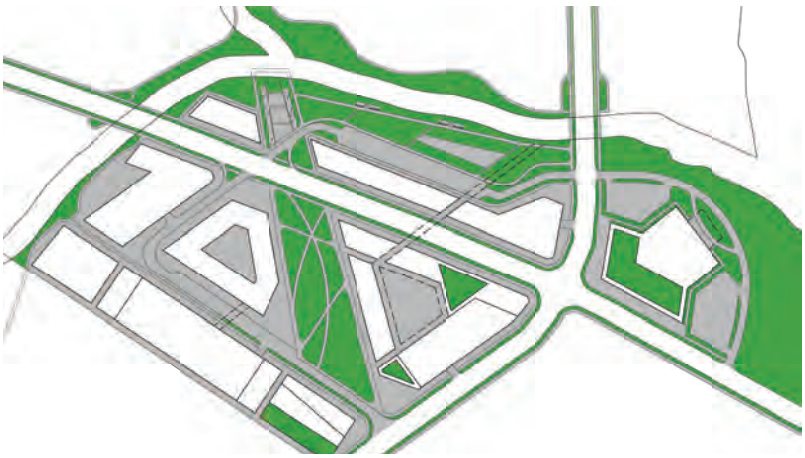


Figure 7.12
Proposed Green Space
This design calls for functional green space both near Clear Creek, 2nd Street, and along a central courtyard. This green space is all accessible to the public.
(Pendland, 2018)

Illustrative Site Plan

Figure 7.13
Southeast Commercial District Revitalization Plan
Mixed use development provides opportunities for social, cultural, and economic benefits withing Coralville.
(Pendland, 2018)

Design Goals Achieved:

- Waterfront Activation
- Mixed Use Development
- Activate Streetscape
- Green Infrastructure
- Creek Restoration

Figure 7.14
Activator Diagram
Spaces that activate the Southeast Commercial District include the Zipway, the Entertainment Plaza, the Hotel, the Waterfront, the Transit Hub, and the Waterfront Plaza.
(Pendland, 2018)

Land Use

Totals

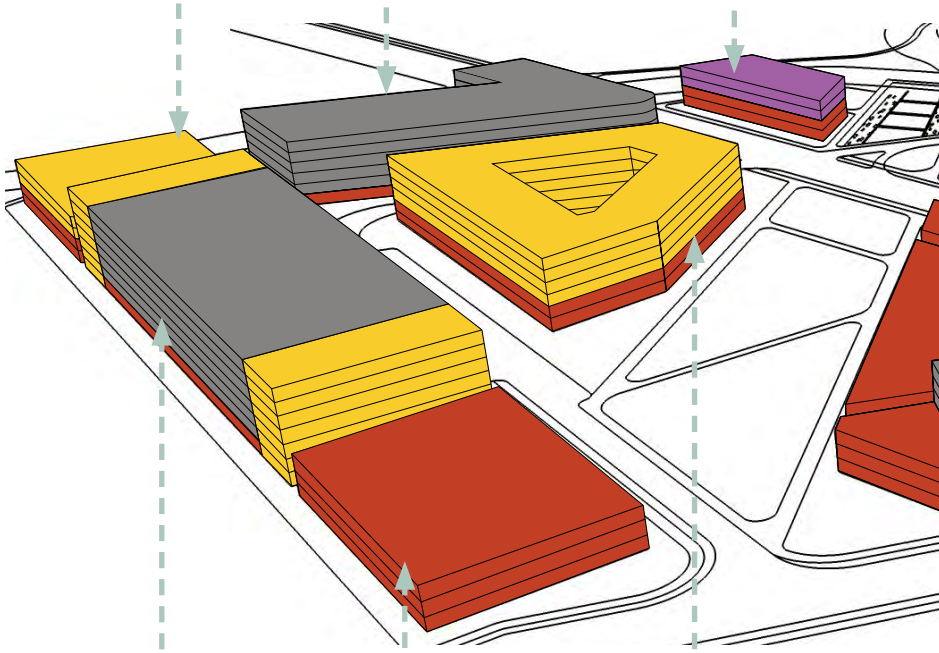
Residential
Total Residential Sf: 609,940
Total Dwelling Units: 762
Average Dwelling Unit Per Acre: 23.5
Total Residents: 1,525
Parking Stalls Needed: 1,067

Commercial
Total Commercial SF: 954,385
Employees: 1,273
Parking Stalls Needed: 2,672

Office
Total Office SF: 95,548
Employees: 192
Parking Stalls Needed: 268

Parking
Total Stalls Needed: 4007
Total Dwelling Units: 4024
Surface Parking Stalls: 224
Street side Parking: 125
Structured Parking: 3,674

FAR (excluding ROW) 1.7



Building 5A
Commercial:
Square Feet: 58,759 | Employees: 78
Parking Garage:
Square Feet: 293,759 | Spaces: 690

Building 5B
Commercial:
Square Feet: 70,462 | Employees: 94
Residential:
Square Feet: 70,462 | Residents: 176

Building 1A
Commercial:
Square Feet: 32,498 | Employees: 43
Office Space:
Square Feet: 32,498 | Employees: 65

Building 5C
Parking Garage:
Square Feet: 485,210 | Spots: 1,470
Residential:
Square Feet: 133,918 | Residents: 335
Commercial:
Square Feet: 48,521| Residents: 65

Building 4A
Commercial:
Square Feet: 156,932 | Employees: 209
Residential:
Square Feet: 234,504 | Residents: 586

Building 5D
Commercial:
Square Feet: 124,188 | Employees: 166

Figure 7.15
Land Use Diagram
Break down of the uses within each building, and the total parking required and provided. (Parker2018).

Building 2B

Commercial:

Square Feet: 46,632 | Employees: 62

Parking Garage:

Square Feet: 218,752 | Spots: 663

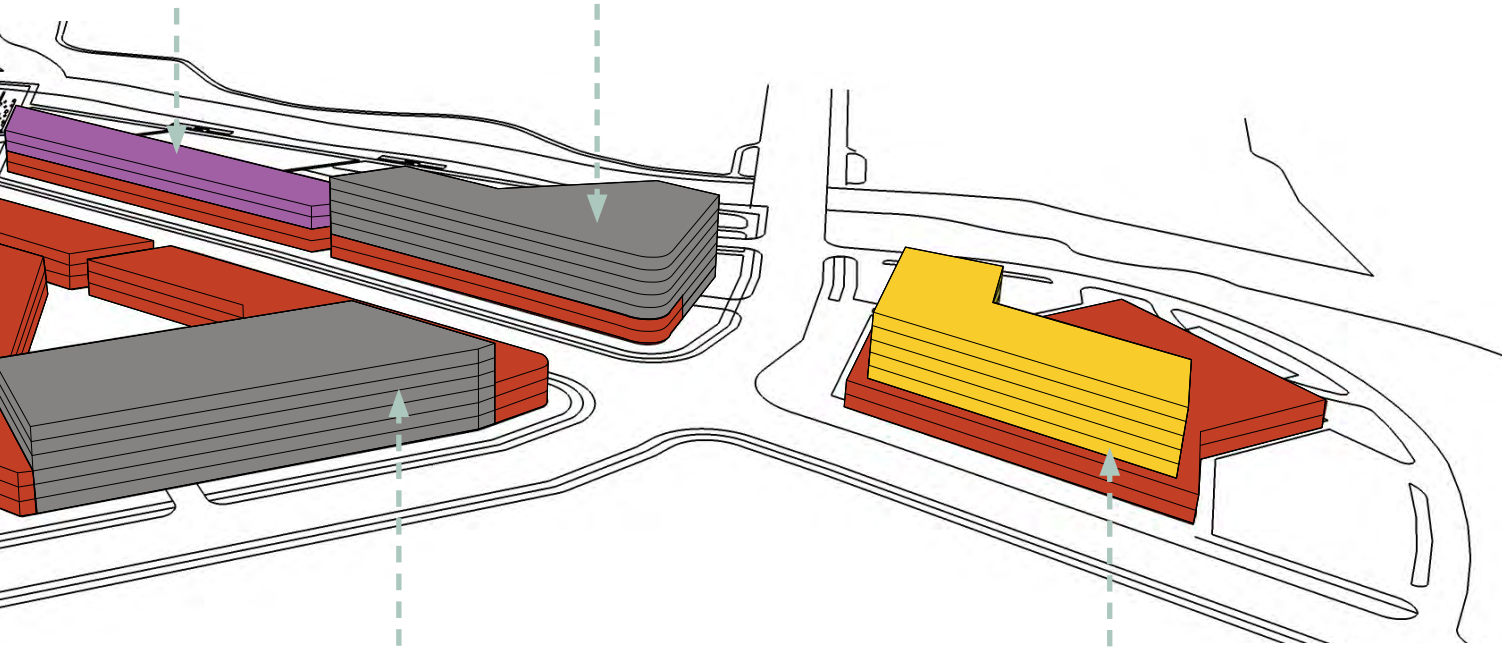
Building 2A

Commercial:

Square Feet: 63,050 | Employees: 84

Office Space:

Square Feet: 63,050 | Employees: 126



Building 4B

Commercial:

Square Feet: 236,091| Employees: 315

Parking Garage:

Square Feet: 293,795 | Spaces: 890

Building 3A

Commercial:

Square Feet: 156,932 | Employees: 209

Residential:

Square Feet: 171,056 | Residents: 428

COMMERCIAL RESIDENTIAL OFFICE PARKING

Transit Center & Rail Line

Transit Hub

The Transit Center is the rail line hub within the Southeast Commercial District. It is located within the building at the southeastern most point of the Zipway and has strong architectural elements defining the space. A rooftop lounge overlooks the Zipway. This point is one of the most desirable locations on the site. Along the south facade of the Transit Center is the platform where citizens can catch a passenger train. There are small shops and cafes along the Rail Line platform where people can go to chat and grab a bite to eat while they wait for their train. The inside of the Transit Center also provides all shops and restaurants creating more unique mixed use spaces compared to the rest of the site since they overlook the rail line. Creating a Transit Hub that is functional and provides areas of interest is an important design move that encourages citizens of Coralville and Iowa City to take the train as a primary mode of transportation.

Figure 7.16
Rail Line Diagram
The rail line is located along the southernmost boundary of the site. It features a Transit Hub that provides comfortable places for people to wait for their train.
(Parker, 2018)

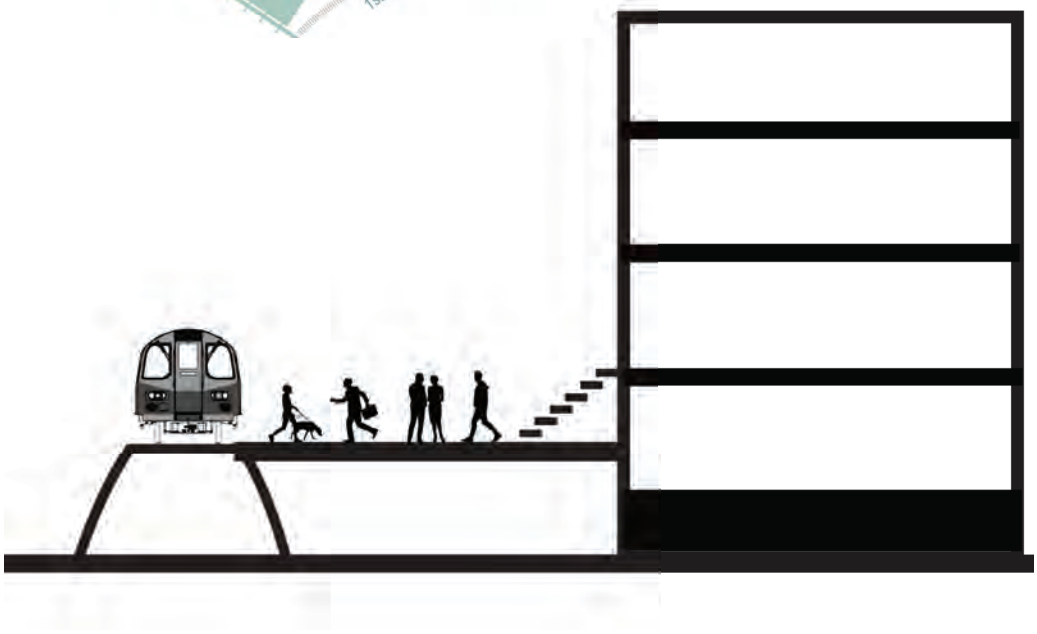


Figure 7.17
Transit Platform Section
The Transit Platform steps down from the second story of the Transit Center building. The platform extends enough to meet the existing grade of the rail line and allows easy access to the train for passengers.
(Pendland, 2018)

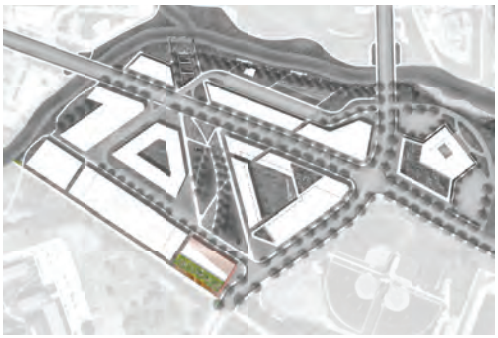


Figure 7.18
Transit Activation
The Transit Center is located on the southeast corner of the site, just north of the rail line.
(Pendland, 2018)

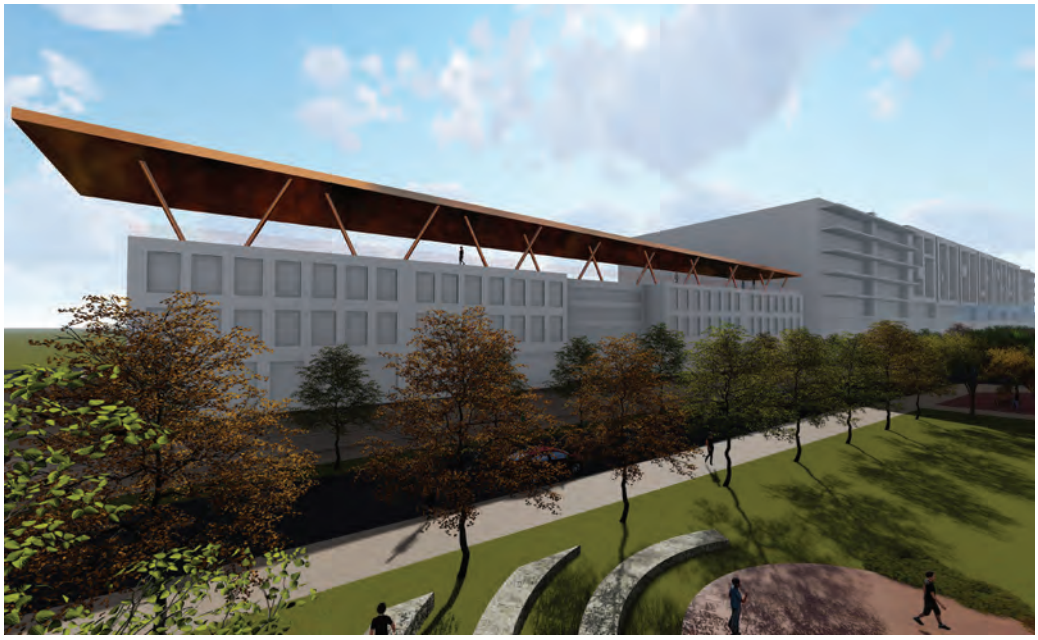
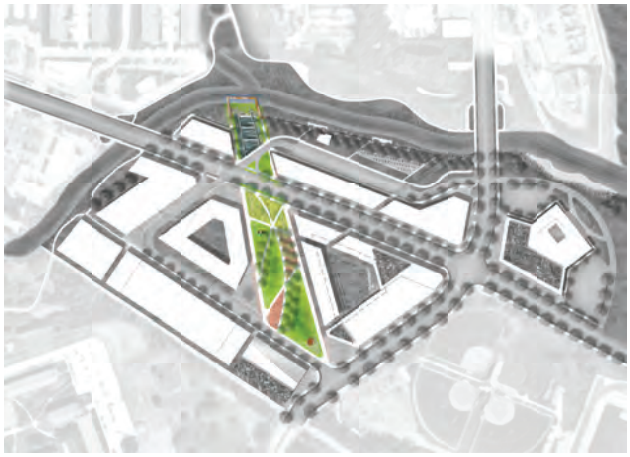


Figure 7.19
Transit Center
This transit center will be a new transit hub for the rail system connecting Coralville and Iowa City. The building also closes off the Zipway axis.
(Dirks, 2018)

Figure 7.20
Transit Platform
The Transit Platform features an overhead plane to keep people comfortable while they wait for the train. It is also designed to allow room for people to enter and exit the train as it stops.
(Parker, 2018)

Zipway

The Zipway creates a variety of outdoor experiences for visitors.



Design Goals Achieved:

- Waterfront Activation
- Mixed Use Development
- Activate Streetscape
- Green Infrastructure
- Creek Restoration

Figure 7.21
Zipway Activation
Plan view reference which shows the location of the perspective view for figure 7.21, (Left)
(Pendland, 2018)

Figure 7.22
Seating within Zipway
This brick-clad plaza contains seating areas for intimate conversations underneath the comfort of shade trees and features views of the Zipway.
(Dirks, 2018)

The Zipway

Design programming breakdown

The Zipway

The Zipway is a green wedge beginning at the Transit Hub in the southeast corner of the site and running all the way to the northwest corner of Biscuit Creek. The Zipway provides a connection between the north and south sides of 2nd Street and acts as a contrasting, yet complementary, element to the building masses on the site. It features an amphitheater for performances, outdoor dining areas, a play fountain, intimate seating areas, a green open space, a playground, a bioswale for stormwater filtration, and a water feature that flows into Clear Creek. The Zipway is also designed to hold water in the case of severe storm events. At the end of the Zipway, there is a dock that extends out over Clear Creek to allow access to the water. The Zipway provides areas for activity and relaxation as well as functioning as a community amenity for both Coralville and Iowa City.

Figure 7.23
Zipway
The Zipway begins at the Southeast corner of the site and ends at the Northeast Corner towards Biscuit Creek.
(Parker, 2018)

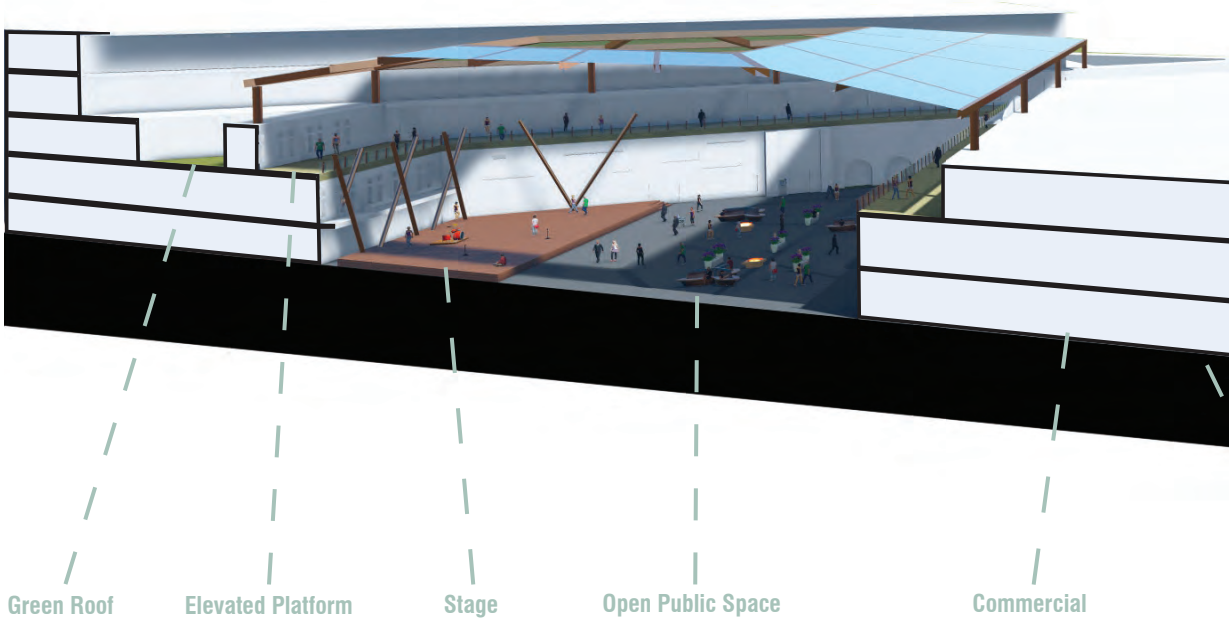


Figure 7.24
Zipway Section
The Zipway acts as an active space for visitors to the site. Its adjacency to the Entertainment Plaza makes it a popular destination for children and families at all times of the day.
(Pendland, 2018)

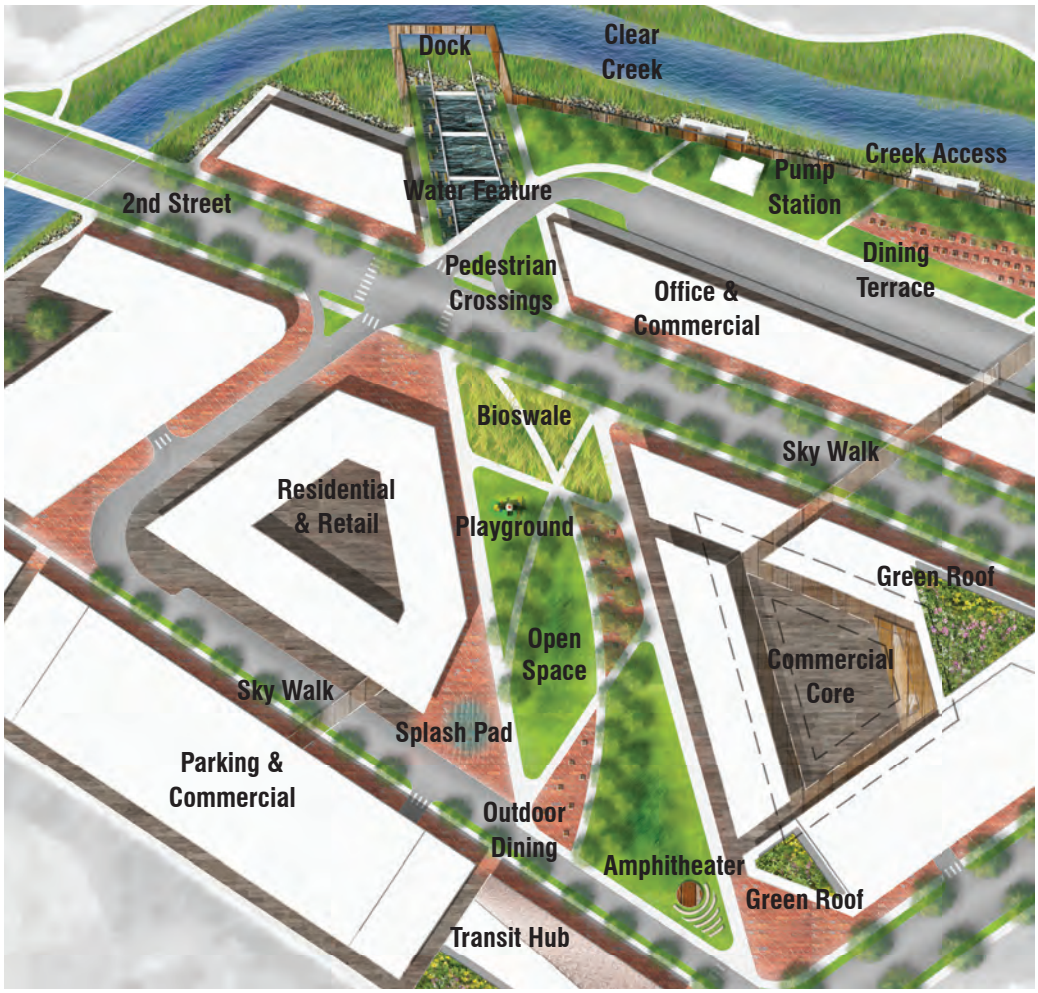
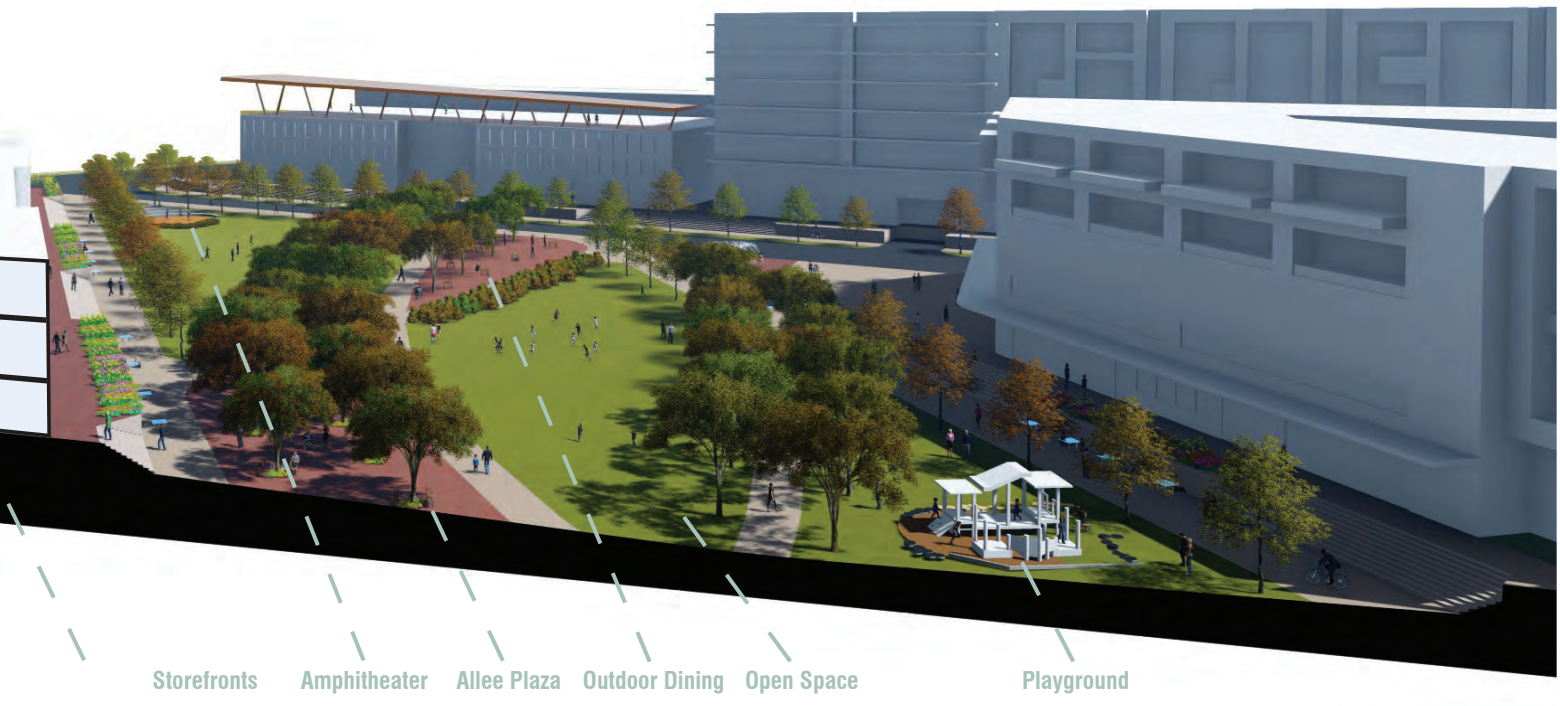
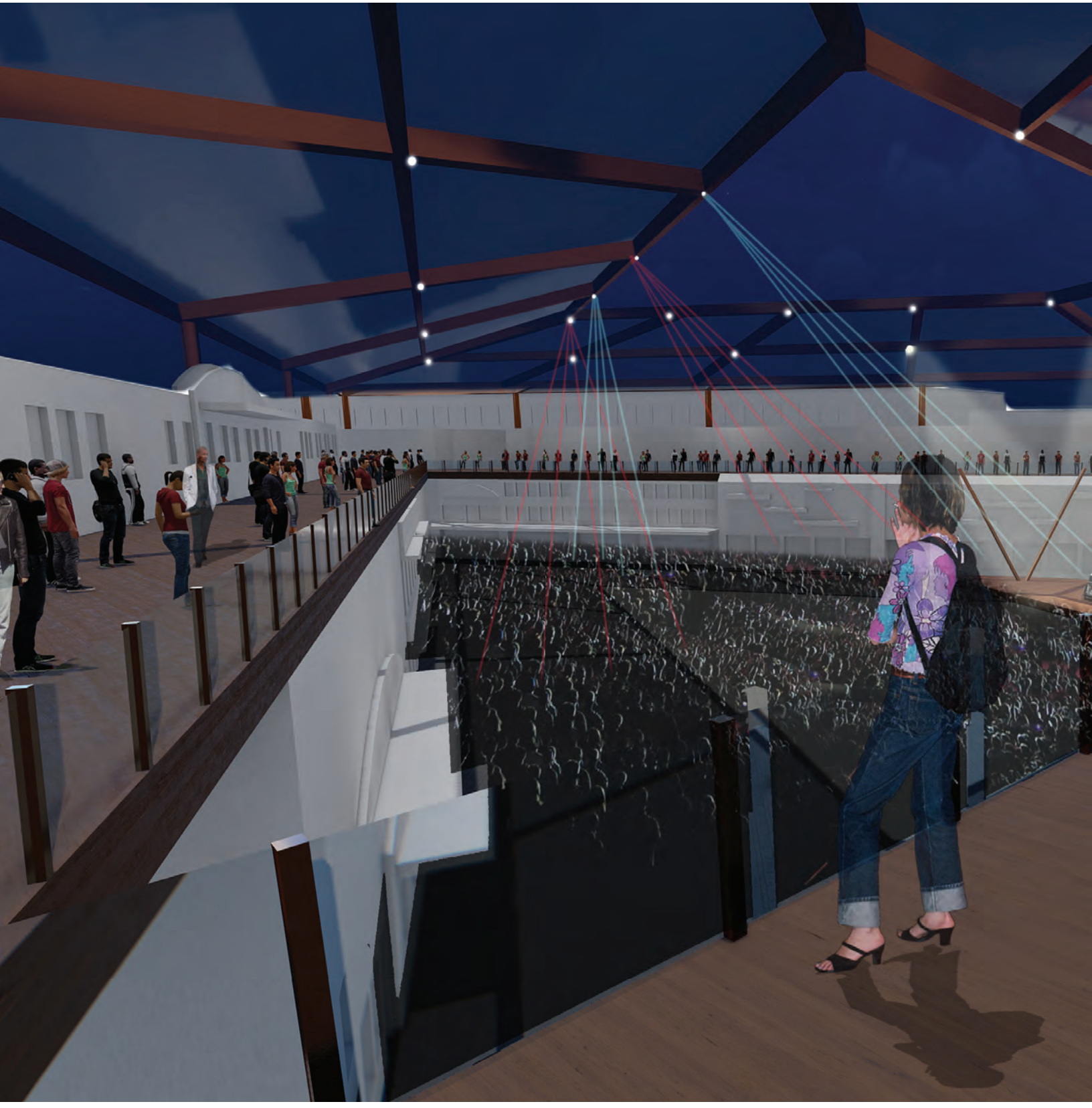


Figure 7.25
Enlarged Plan of Zipway
This plan shows the detailed design of the Zipway and how it connects the north & south sides of second street.
(Pendland, 2018)



The Core



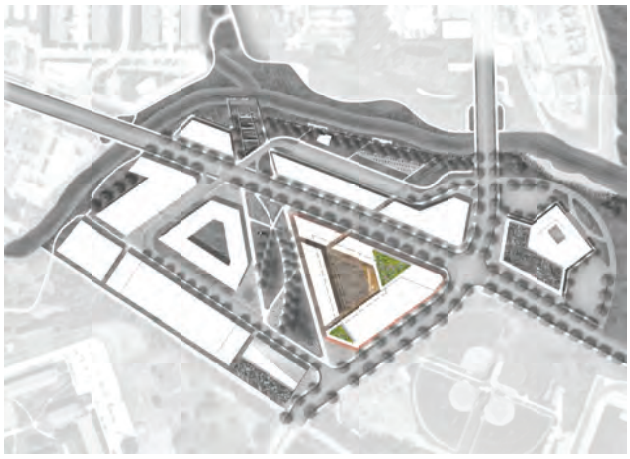


Figure 7.26
The Core Activation
Plan view reference which shows the location of the perspective view for figure 7.25, (Left)
(Pendland, 2018)

Design Goals Achieved:

- Waterfront Activation
- Mixed Use Development
- Activate Streetscape
- Green Infrastructure
- Creek Restoration

Figure 7.27
Concert inside the Core
Perspective View shows what the entertainment plaza could look like during a concert.
(Dirks, 2018)

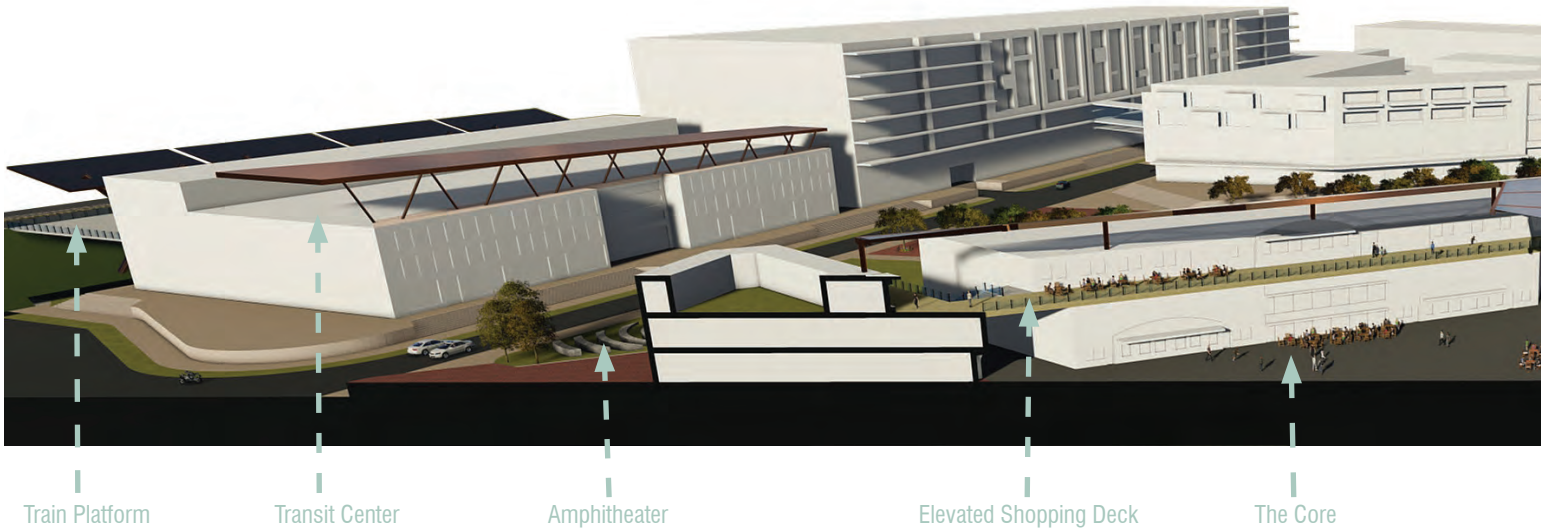
The Core

Key Features & Connections

Plaza Design

The Core is a flexible outdoor space that lends itself to multiple uses. The space creates a dynamic relationship between the retail shops and restaurants within the buildings that surround the plaza. This layout presents businesses with an opportunity to create an engaging indoor-outdoor experience. A stage on the back wall of the plaza is a great performance space for concerts, ceremonies, and a wide variety of other productions. The plaza also features a large central open space that can be used for festivals or as a community gathering space.

The elevated shopping deck inside the Core connects to the elevated pedestrian bridge, that allows people to safely cross 2nd Ave. This bridge creates a connection between the two sides of the street without impeding traffic on the busy street. The entertainment plaza will be the featured commercial space. Not only will this space be a point of interest for visitors, but it will also be an economic catalyst for the community. The outdoor program will bring more people to the district, and the businesses will reap the benefits.



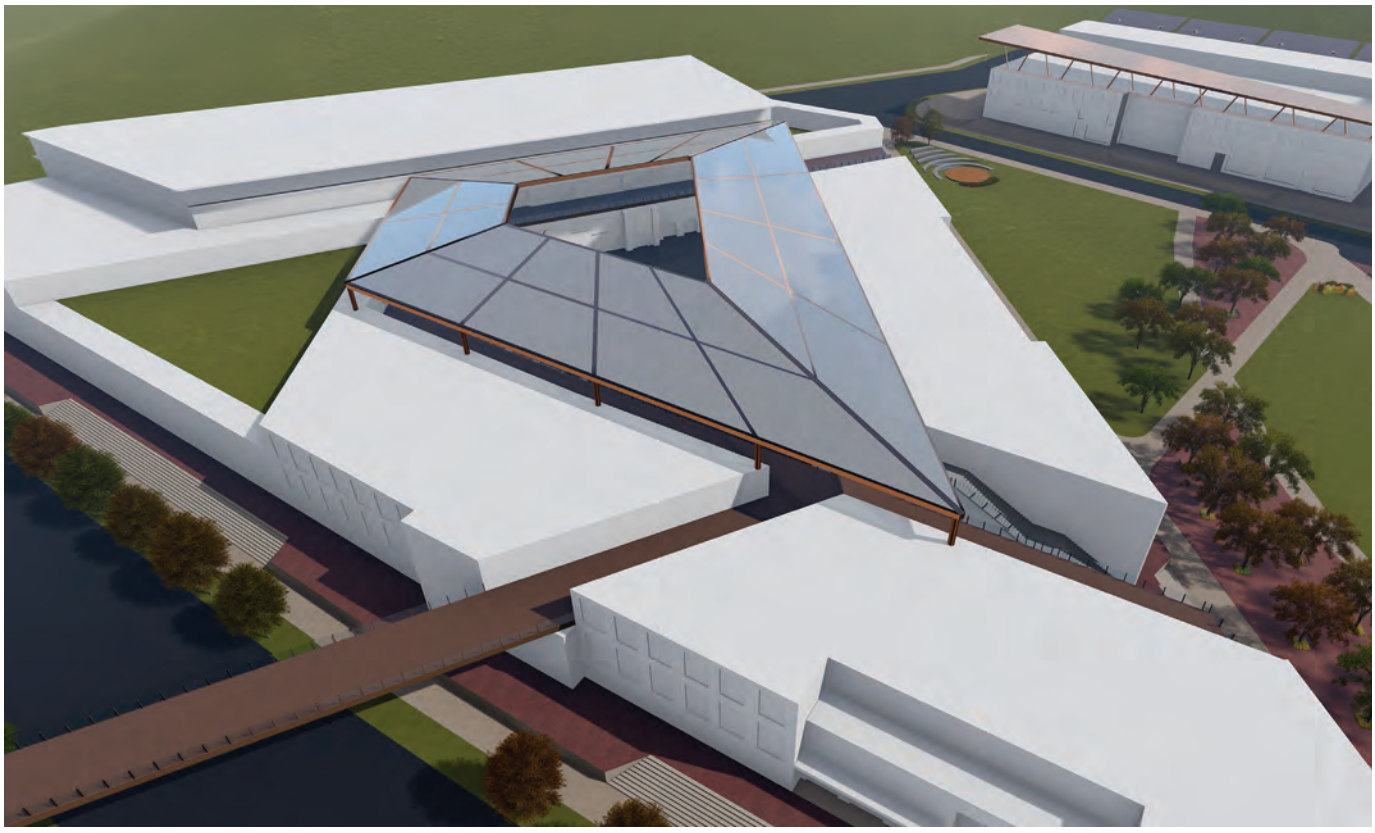


Figure 7.28
Entertainment Plaza Aerial
The overhead shade structure provides a sense of enclosure and protects visitors from the sun and the rain.
(Parker, 2018)

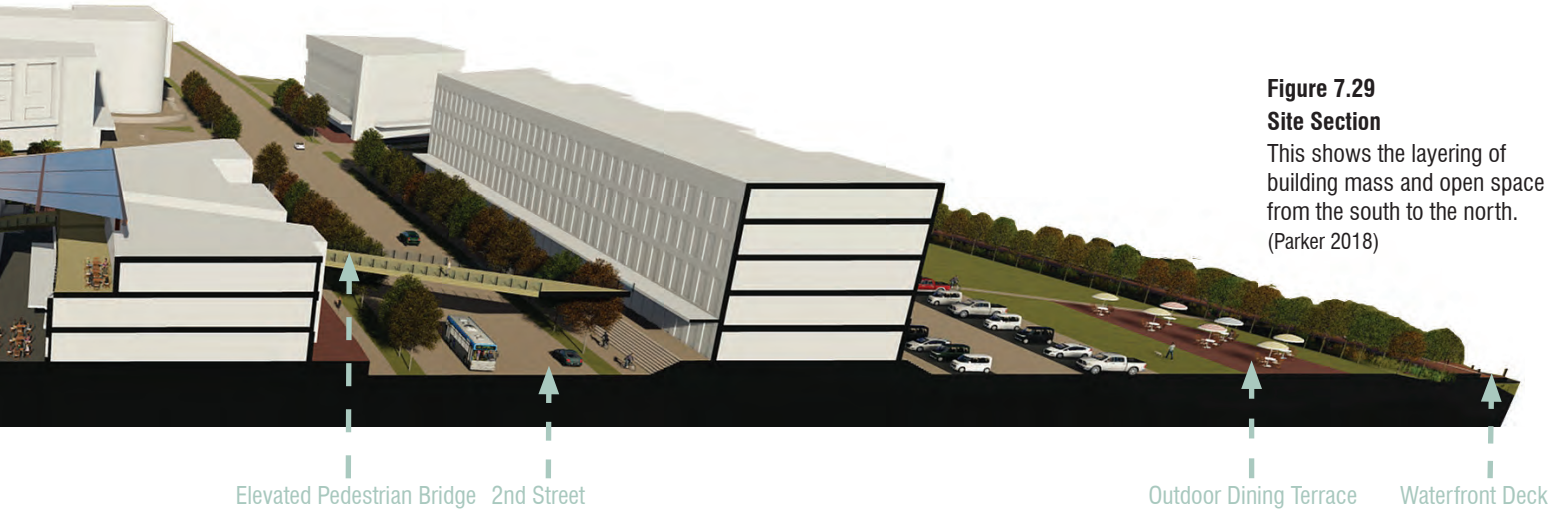
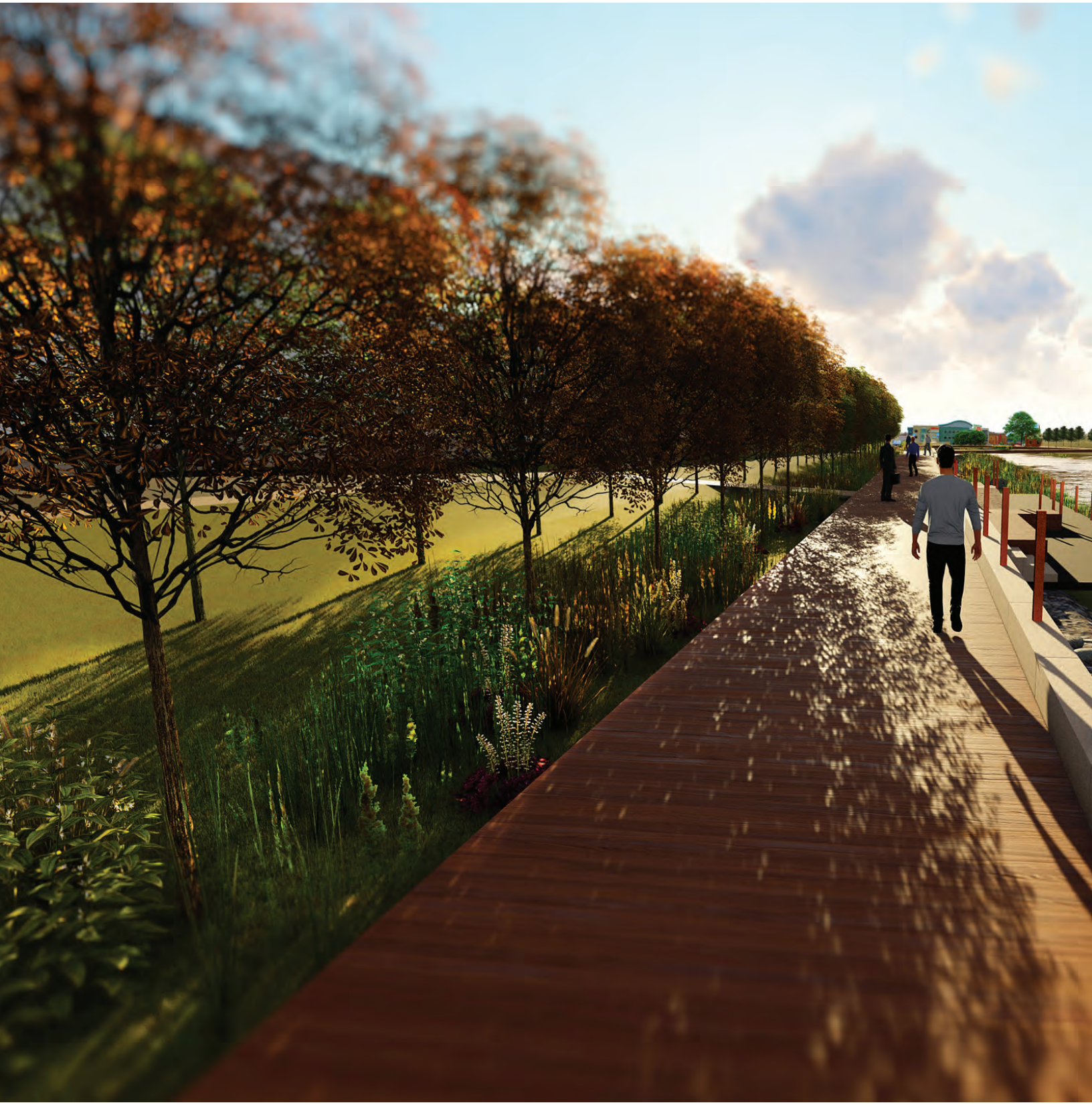
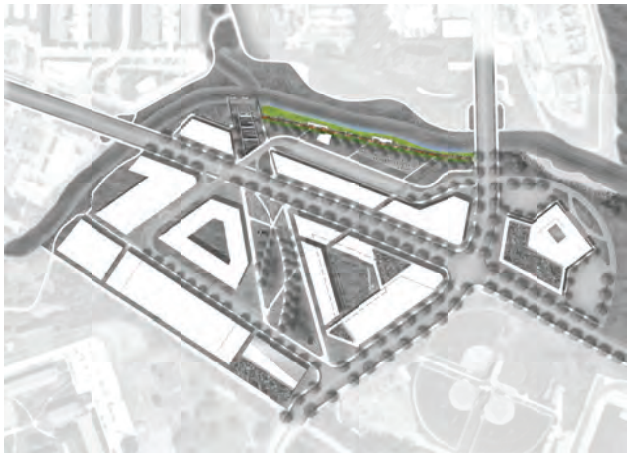


Figure 7.29
Site Section
This shows the layering of building mass and open space from the south to the north.
(Parker 2018)

Waterfront





Design Goals Achieved:

- Waterfront Activation
- Mixed Use Development
- Activate Streetscape
- Green Infrastructure
- Creek Restoration

Figure 7.30
Waterfront Activation
Plan view reference which shows the location of the perspective view for figure 7.30, (Left)
(Dirks, 2018)

Figure 7.31
Boardwalk Along Waterfront
Perspective shows the boardwalk that sits just behind the flood wall on the south side of Clear Creek.
(Dirks, 2018)

Clear Creek Waterfront

Key Features & Flood Protection

Re-imagining Clear Creek

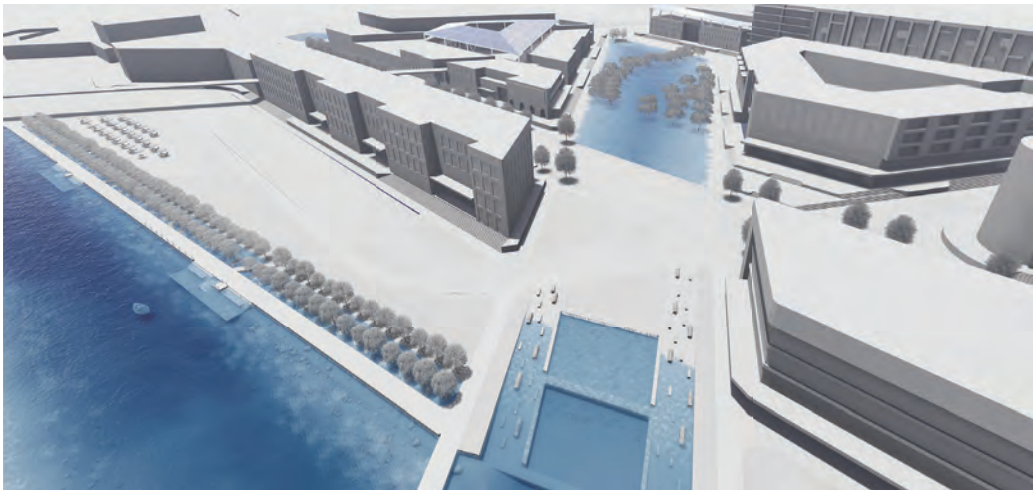
Although the shoreline was designed to protect the site from flooding, Clear Creek is very underutilized as a social space. The flood walls prevent any pedestrian access on the south side, and separates the water from the site. This design proposal calls for a boardwalk that runs along the flood wall and occasionally drops down lower to get closer to the water. The flood wall is pulled back in some places to make the waterfront more dynamic and to allow for water features and filtration. In order to create a more attractive and visually pleasing space, a diverse pallette of native wetland plantings was added along the water's edge, which slowly fades away to rip-rap just under the flood wall. Previously, no plants were able to grow near the wall on the creek side because they received no water. Placing rip rap along the wall and letting the plants grow next to the creek keeps the integrity of the shoreline while allowing plants to grow and flourish near the water's edge.

Figure 7.32
Waterfront Perspective
Perspective view of the waterfront area at the end of the Zipway, featuring a multi-level water feature. (Dirks, 2018)

Flood Protection

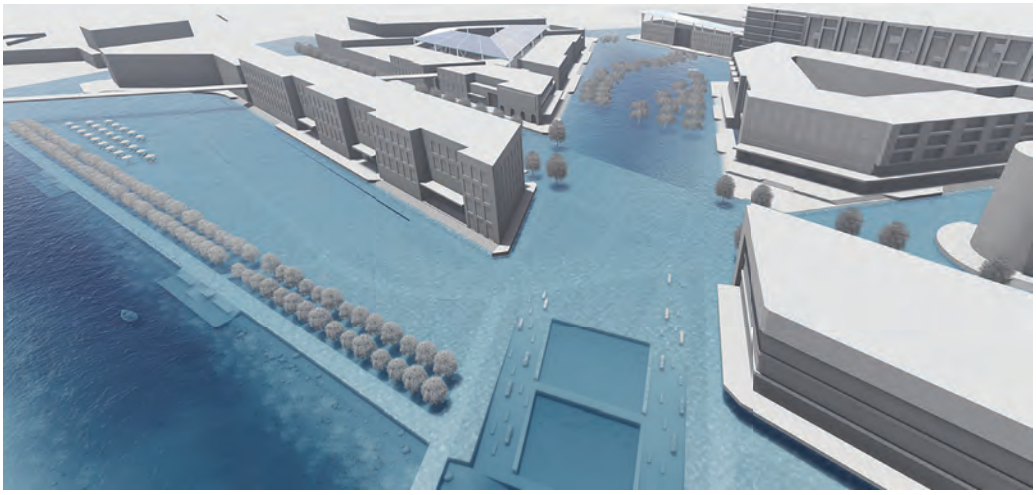
The city has invested in multiple engineering strategies to prevent water from reaching the current structures. For this project, we designed developments which would be protected from a flood event greater than a 500-year flood in order to protect against more severe events, as well as to act as a safety net in case some of the pump stations were not functioning properly. Each building structure is raised up to a level at least 2 feet above a 500-year flood event to ensure the protection of the developments.

The Zipway, which cuts through the middle of the site, is designed to draw water away from the buildings and back into the creek. While doing this, it also filters all the water through a system of catch basins and bioswales to ensure that the water entering the creek is clean. The two diagrams below represent what the site will look like during a 100-year flood event, and a 500-year flood event, even if the pump stations were not working.



100 Year Flood Event: Protected by the 100 year flood wall.

Figure 7.33
100-Year Flood Event
Diagram shows a site aerial view of how the proposed design would handle a 100 year flood event.
(Dirks, 2018)



500 Year Flood +2': Event: Protected by elevated building & green stormwater management tactics.

Figure 7.34
500-Year Flood Event
Diagram shows a site aerial view of how the proposed design would handle a 500 year flood event.
(Dirks, 2018)

Phasing Strategies

Planning the development for the Southeast Commercial District

Figure 7.35
Existing Conditions
1st Avenue and 2nd Street are the main arterial roads within the site boundary. Secondary streets along with any buildings and businesses are also located within the site.
(Parker, 2018)

Figure 7.36
Phase 1
Remove existing scrap yard and remediate the brownfield. Construct new street as well as new parking garage and mixed use development.
(Parker, 2018)

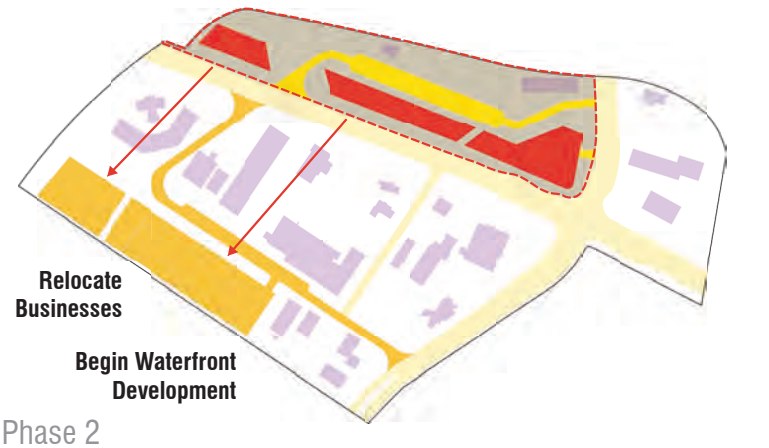


Figure 7.37
Phase 2
Relocate existing businesses north of 2nd Street to new mixed use development to the south. Add new street to the north side of the site, and construct new mixed use buildings along 2nd Street.
(Parker, 2018)

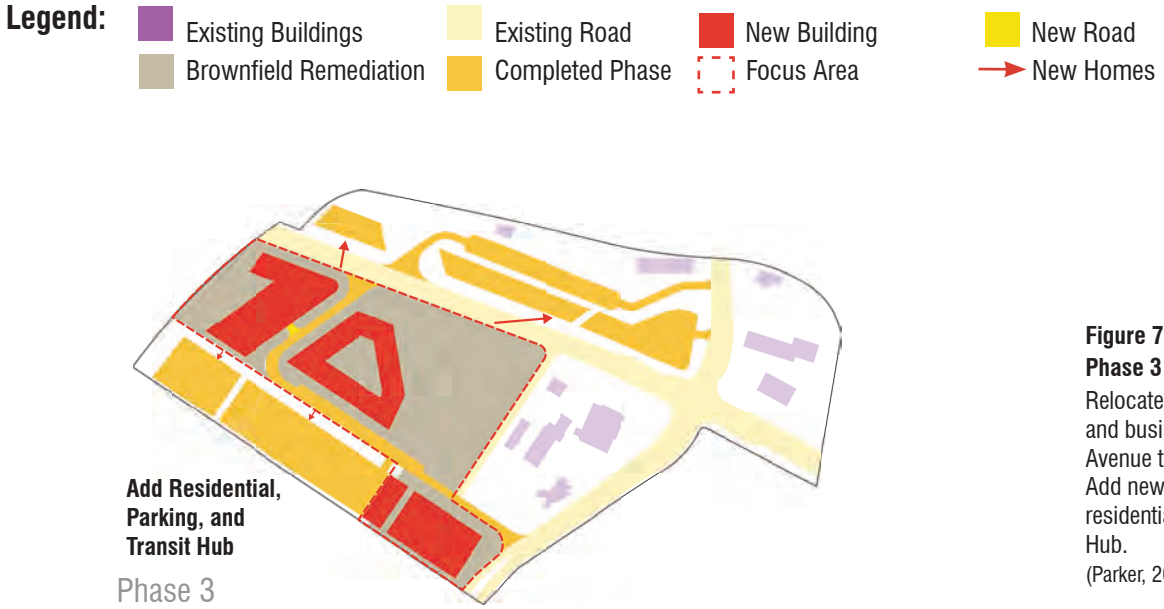


Figure 7.38
Phase 3
Relocated existing residents and businesses west of 2nd Avenue to new developments. Add new parking garage, residential buildings, and Transit Hub.
(Parker, 2018)

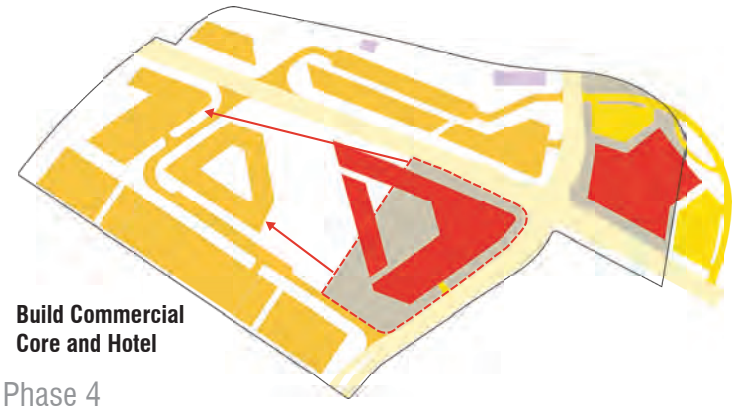


Figure 7.39
Phase 4
Relocate existing residents and businesses east of 2nd Avenue to new developments. Construct the main commercial core and amenities. Build hotel and parking lots.
(Parker, 2018)

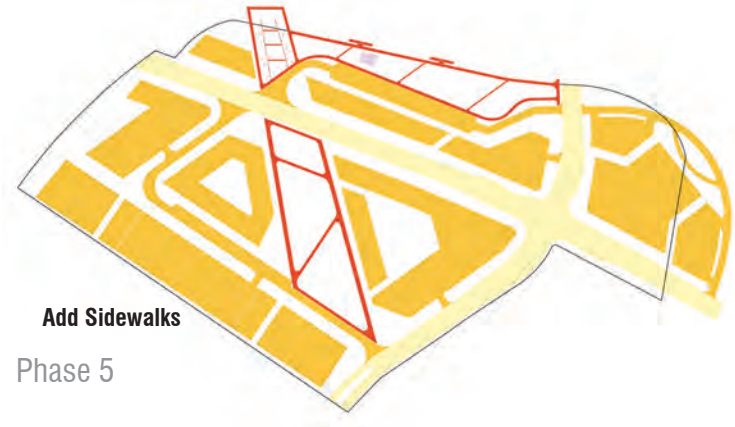


Figure 7.40
Phase 5
Add in sidewalks along the Zipway and waterfront.
(Parker, 2018)

Citations

Chapter Figure
Cooke, Shelby, May 24th, 2018. “Clear Creek” Accessed July 3rd, 2018. Kansas State University LAR 646 2018 Public Domain

Figure 7.1
Dirks, Harrison. 2018 “Site Aerial.” Kansas State University LAR 646 2018. Digital Image created with Lumion and Adobe Photoshop

Figure 7.2
Pendland, Konner. 2018 “Design Goals.” Kansas State University LAR 646 2018. Diagram made with Adobe Illustrator and Adobe Photoshop.

Figure 7.3
Parker, Caleb 2018. “Brownfield Remediation.” Kansas State University LAR 646 2018. Diagram made with Lumion.

Figure 7.4
Dirks, Harrison. 2018 “Iowa River Restoration Map in 1 Year’s Time” Kansas State University LAR 646 2018. Digital Image created with Adobe Photoshop and GIS Street Maps, Coralville, IA 2018.

Figure 7.5
Dirks, Harrison. 2018 “Iowa River Restoration Map in 3 Year’s Time” Kansas State University LAR 646 2018. Digital Image created with Adobe Photoshop and GIS Street Maps, Coralville, IA 2018.

Figure 7.6
Dirks, Harrison. 2018. “Flow from Creek to River.” Kansas State University LAR 646 2018. Diagram made with Adobe Illustrator.

Figure 7.7
Pendland, Konner. 2018 “Existing Figure Ground.” Kansas State University LAR 646 2018. Diagram made with Adobe Illustrator
Source Data:
- Hahn, Howard. 2018. Base File made with GIS Maps 2018

Figure 7.8
Pendland, Konner. 2018 “Existing Circulation.” Kansas State University LAR 646 2018. Diagram made with Adobe Illustrator
Source Data:
- Hahn, Howard. 2018. Base File made with GIS Maps 2018

Figure 7.9
Pendland, Konner. 2018 “Existing Green Space.” Kansas State University LAR 646 2018. Diagram made with Adobe Photoshop
Source Data:
- Hahn, Howard. 2018. Base File made with GIS Maps 2018

Figure 7.10
Pendland, Konner. 2018 “Proposed Figure Ground.” Kansas State University LAR 646 2018. Diagram made with Adobe Illustrator
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- Hahn, Howard. 2018. Base File made with GIS Maps 2018

Figure 7.11
Pendland, Konner. 2018 “Proposed Circulation.” Kansas State University LAR 646 2018. Diagram made with Adobe Illustrator
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- Hahn, Howard. 2018. Base File made with GIS Maps 2018

Figure 7.12
Pendland, Konner. 2018 “Proposed Green Space.” Kansas State University LAR 646 2018. Diagram made with Adobe Photoshop
Source Data:
- Hahn, Howard. 2018. Base File made with GIS Maps 2018

Figure 7.13
Pendland, Konner. 2018. “Southeast Commercial District Revitalization Plan.” Kansas State university LAR 646 2018. Plan Rendering made with AutoCAD Civil 3D and Adobe Photoshop. Source Data:
- Dirks, Harrison, Caleb Parker, and Konner Pendland. 2018. Base File made with AutoCAD Civil 3D.

Figure 7.14
Pendland, Konner. 2018. “Activator Diagram.” Kansas State university LAR 646 2018. Plan Rendering made with AutoCAD Civil 3D and Adobe Photoshop. Source Data:
- Dirks, Harrison, Caleb Parker, and Konner Pendland. 2018. Base File made with AutoCAD Civil 3D.

Figure 7.15
Parker, Caleb. 2018. “Land Use Diagram.” Kansas State university LAR 646 2018. Diagram made with Adobe Illustrator. Source Data:
- Dirks, Harrison, Caleb Parker, and Konner Pendland. 2018. Base File made with AutoCAD Civil 3D.
- Parker, Caleb. 2018 Base File made with Sketchup2018.

Figure 7.16
Parker, Caleb. 2018. “Rail Line Diagram.” Kansas State University LAR 646 2018. Diagram made with Adobe Illustrator and Adobe Photoshop. Source Data:
- Baker, Logan. 2018. Base File made with Adobe Illustrator.

Figure 7.17
Pendland, Konner. 2018. “Transit Platform Section.” Kansas State University LAR 646 2018. Diagram made with Adobe Illustrator and Adobe Photoshop. Source Images:
- Arnold, Karen. “Black silhouette of a mail youth in profile clipart isolated on a white background.” Accessed July 2, 2018. Public Domain.
- Arnold, Karen. “Dog Walking.” Accessed July 2, 2018. Public Domain.
- Bluegoblin7/Sandbox3. 2006. “Jubilee Line Train Front.” Accessed July 2, 2018. Free Documentation License.
- Hassan, Mohamed. 2017. “People.” Accessed July 2, 2018. Creative Commons.
- Max Pixel. “Side Businessman Running Silhouette Hurry Up.” Accessed July 2, 2018. Public Domain.

Figure 7.18
Pendland, Konner. 2018. “Transit Activator” Kansas State university LAR 646 2018. Plan Rendering made with AutoCAD Civil 3D and Adobe Photoshop. Source Data:
- Dirks, Harrison, Caleb Parker, and Konner Pendland. 2018. Base File made with AutoCAD Civil 3D.

Citations

Figure 7.19
Dirks, Harrison. 2018. “Transit Center.” Kansas State University LAR 646 2018. Digital Image created with Lumion. Source Data:
- Dirks, Harrison, Caleb Parker. 2018. Base map Created with Sketchup 2018
- Dirks, Harrison, Caleb Parker, Konner Pendland. 2018. Base map Created with Autocad Civil 3D 2018

Figure 7.20
Parker, Caleb. 2018. “Transit Platform.” Kansas State University LAR 646 2018. Digital Image created with Lumion. Source Data:
- Dirks, Harrison, Caleb Parker. 2018. Base map Created with Sketchup 2018
- Dirks, Harrison, Caleb Parker, Konner Pendland. 2018. Base map Created with Autocad Civil 3D 2018

Figure 7.21
Pendland, Konner. 2018. “Zipway Activation.” Kansas State university LAR 646 2018. Plan Rendering made with AutoCAD Civil 3D and Adobe Photoshop. Source Data:
- Dirks, Harrison, Caleb Parker, and Konner Pendland. 2018. Base File made with AutoCAD Civil 3D.

Figure 7.22
Dirks, Harrison. 2018. “Seating within Zipway.” Kansas State University LAR 646 2018. Digital Image created with Lumion and Adobe Photoshop. Source Data:
- Dirks, Harrison, Caleb Parker. 2018. Base map Created with Sketchup 2018
- Dirks, Harrison, Caleb Parker, Konner Pendland. 2018. Base map Created with Autocad Civil 3D 2018

Figure 7.23
Parker, Caleb. 2018. “Zipway.” Kansas State University LAR 646 2018. Diagram created in Adobe Illustrator and Adobe Photoshop.
- Baker, Logan. 2018. Base File made with Adobe Illustrator.

Figure 7.24
Pendland, Konner. 2018. “Zipway Section.” Kansas State university LAR 646 2018. Section Rendering from Lumion. Source Data:
- Dirks, Harrison. 2018. Base File made in Google Sketchup and Lumion.

Figure 7.25
Pendland, Konner. 2018. “Southeast Commercial District Revitalization Plan.” Kansas State university LAR 646 2018. Plan Rendering made with AutoCAD Civil 3D and Adobe Photoshop. Source Data:
- Dirks, Harrison, Caleb Parker, and Konner Pendland. 2018. Base File made with AutoCAD Civil 3D.

Figure 7.26
Pendland, Konner. 2018. “The Core Activation.” Kansas State university LAR 646 2018. Plan Rendering made with AutoCAD Civil 3D and Adobe Photoshop. Source Data:
- Dirks, Harrison, Caleb Parker, and Konner Pendland. 2018. Base File made with AutoCAD Civil 3D.

Figure 7.27

Dirks, Harrison. 2018 “Entertainment Plaza Concert.” Kansas State University LAR 646 2018. Digital Image created with Lumion and Adobe Photoshop. Source Data:

- Dirks, Harrison, Caleb Parker. 2018. Base map Created with Sketchup 2018
- Dirks, Harrison, Caleb Parker, Konner Pendland. 2018. Base map Created with Autocad Civil 3D 2018
- PhilyG, 2006, “Large Outdoor Concert.” Accessed July 2nd, 2018, https://en.m.wikipedia.org/wiki/File:Large_Outdoor_Concert.jpg, Public Domain.
- Parker, Caleb, “Untitled Photograph of Woman Standing.” Accessesed July 2nd, 2018. Photoshop Motherload. Public Domain.
- Parker, Caleb, “Untitled Photograph of Couple Wearing Leather” Accessesed July 2nd, 2018. Photoshop Motherload. Public Domain.
- Parker, Caleb, “Untitled Photograph of Man Wearing Orange.” Accessesed July 2nd, 2018. Photoshop Motherload. Public Domain.
- Parker, Caleb, “Untitled Photograph of Woman Drinking Coffee.” Accessesed July 2nd, 2018. Photoshop Motherload. Public Domain.
- Parker, Caleb, “Untitled Photograph of Another Woman Standing.” Accessesed July 2nd, 2018. Photoshop Motherload.
- Public Domain.
- Dirks, Harrison, Caleb Parker. 2018. Base map Created with Sketchup 2018
- Dirks, Harrison, Caleb Parker, Konner Pendland. 2018. Base map Created with Autocad Civil 3D 2018

Figure 7.28

Parker, Caleb. 2018 “The Entertainment Plaza Aerial.” Kansas State University LAR 646 2018. Digital Image created with Lumion and Adobe Photoshop. Source Data:

- Dirks, Harrison, Caleb Parker. 2018. Base map Created with Sketchup 2018
- Dirks, Harrison, Caleb Parker, Konner Pendland. 2018. Base map Created with Autocad Civil 3D 2018

Figure 7.29

Parker, Caleb. 2018. “North South Section Perspective.” Kansas State University LAR 646 2018. Diagram made with Lumion. Source Data:

- Dirks, Harrison, Caleb Parker. 2018. Base map Created with Sketchup 2018
- Dirks, Harrison, Caleb Parker, Konner Pendland. 2018. Base map Created with Autocad Civil 3D 2018

Figure 7.30

Pendland, Konner. 2018. “Waterfront Activation” Kansas State university LAR 646 2018. Plan Rendering made with AutoCAD Civil 3D and Adobe Photoshop. Source Data:

- Dirks, Harrison, Caleb Parker, and Konner Pendland. 2018. Base File made with AutoCAD Civil 3D.

Figure 7.31

Dirks, Harrison. 2018 “Boardwalk Along Waterfront.” Kansas State University LAR 646 2018. Digital Image created with Lumion and Adobe Photoshop. Source Data:

- Hahn, Howard, May 24th, 2018. “Clear Creek” Accessed July 3rd, 2018. Public Domain
- Dirks, Harrison, Caleb Parker. 2018. Base map Created with Sketchup 2018
- Dirks, Harrison, Caleb Parker, Konner Pendland. 2018. Base map Created with Autocad Civil 3D 2018

Figure 7.32

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Citations

Figure 7.33
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- Dirks, Harrison, Caleb Parker, Konner Pendland. 2018. Base map Created with Autocad Civil 3D 2018

Figure 7.34
Dirks, Harrison. 2018 “500 Year Flood Event” Kansas State University LAR 646 2018. Digital Image created with Lumion and Adobe Photoshop. Source Data:
- Dirks, Harrison, Caleb Parker. 2018. Base map Created with Sketchup 2018
- Dirks, Harrison, Caleb Parker, Konner Pendland. 2018. Base map Created with Autocad Civil 3D 2018

Figure 7.35
Parker, Caleb. 2018. “Existing Conditions.” Kansas State university LAR 646 2018. Diagram made with Adobe Photoshop. Source Data:
- Dirks, Harrison, Caleb Parker, and Konner Pendland. 2018. Base File made with AutoCAD Civil 3D.
- Hahn, Howard. 2018. Base File made with GIS.

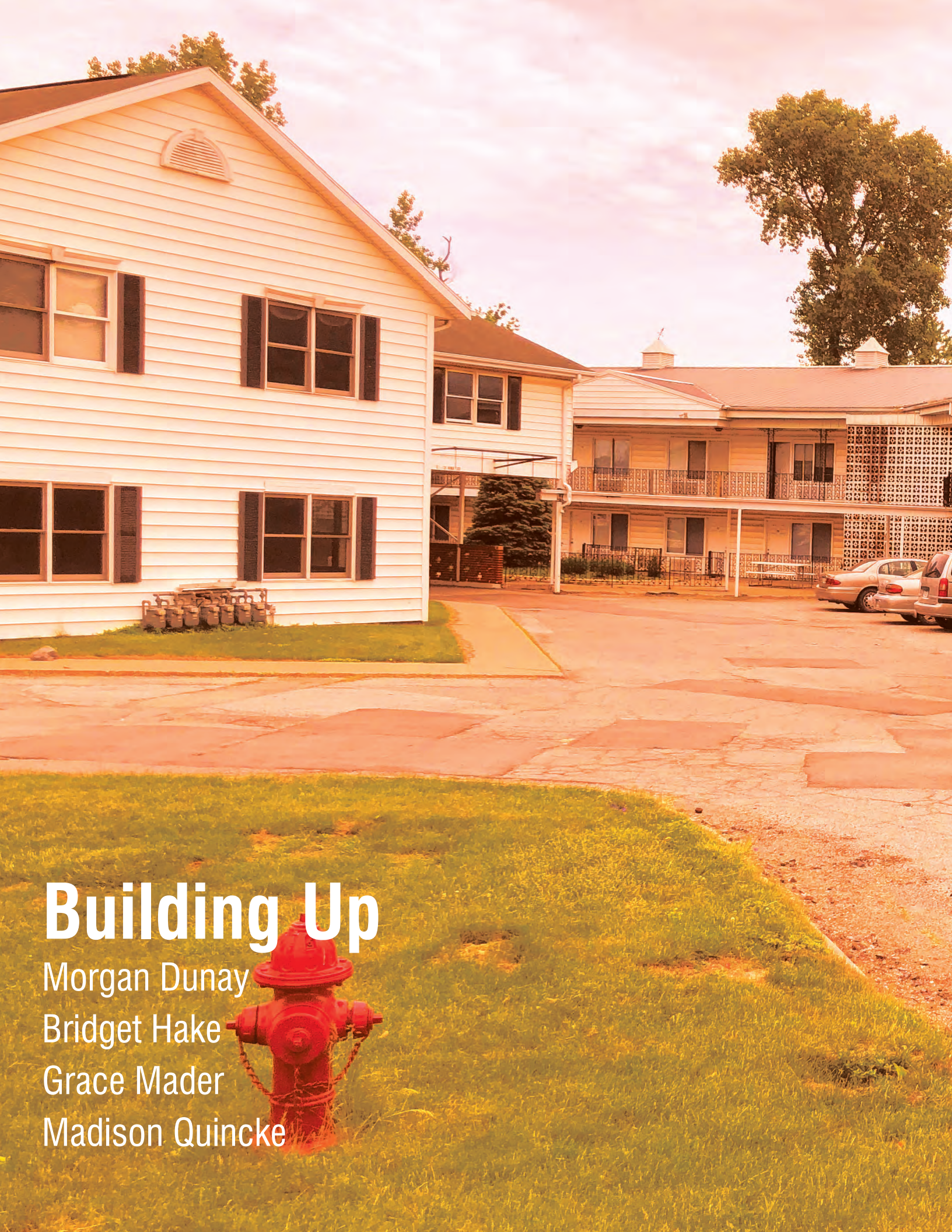
Figure 7.36
Parker, Caleb. 2018. “Phase 1.” Kansas State university LAR 646 2018. Diagram made with Adobe Photoshop. Source Data:
- Dirks, Harrison, Caleb Parker, and Konner Pendland. 2018. Base File made with AutoCAD Civil 3D.
- Hahn, Howard. 2018. Base File made with GIS.

Figure 7.37
Parker, Caleb. 2018. “Phase 2.” Kansas State university LAR 646 2018. Diagram made with Adobe Photoshop. Source Data:
- Dirks, Harrison, Caleb Parker, and Konner Pendland. 2018. Base File made with AutoCAD Civil 3D.
- Hahn, Howard. 2018. Base File made with GIS.

Figure 7.38
Parker, Caleb. 2018. “Phase 3.” Kansas State university LAR 646 2018. Diagram made with Adobe Photoshop. Source Data:
- Dirks, Harrison, Caleb Parker, and Konner Pendland. 2018. Base File made with AutoCAD Civil 3D.
- Hahn, Howard. 2018. Base File made with GIS.

Figure 7.39
Parker, Caleb. 2018. “Phase 4.” Kansas State university LAR 646 2018. Diagram made with Adobe Photoshop. Source Data:
- Dirks, Harrison, Caleb Parker, and Konner Pendland. 2018. Base File made with AutoCAD Civil 3D.
- Hahn, Howard. 2018. Base File made with GIS.

Figure 7.40
Parker, Caleb. 2018. “Phase 5.” Kansas State university LAR 646 2018. Diagram made with Adobe Photoshop. Source Data:
- Dirks, Harrison, Caleb Parker, and Konner Pendland. 2018. Base File made with AutoCAD Civil 3D.
- Hahn, Howard. 2018. Base File made with GIS.



Building Up

Morgan Dunay
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Building Up

Community | Economy | Terrain

Framing spaces through the integration of public space with private development within a new and unique neighborhood

Abstract

Our team hopes to create a framework for public space within the SE Commercial District in Coralville. Located along the strip, the redevelopment provides pedestrian and vehicular access to, and around, the site while simultaneously creating a unique and identifiable place within the community. The district will continue to provide affordable housing and commercial opportunities, allowing existing and future residents and business owners to prosper.

The existing district lacks clear organization in open space and building mass. With this in mind, the site becomes difficult to navigate and access for vehicles and pedestrians. Though the site offers amenities that draw in the community, few people spend consistent amounts of time in the district if they don't work or live there. Our design reshapes how public space and private space work together to create a small neighborhood feeling within a larger urban context while simultaneously providing residential, commercial, and transportation opportunities.

The design uses a variety of open spaces alongside mixed-use building developments to create a highly organized neighborhood. The district limits the number of entries off of 2nd Street and utilizes a new network of streets to connect buildings to pedestrians and vehicles. Four small blocks are set within the core of the district providing visitors with a range of activities and experiences throughout the year. The blocks include a performance lawn, a botanical garden, and a market district for community events. These spaces come together in these four blocks to enhance the vibrancy of the larger neighborhood.

The new development works to build up the community, build up the economy, and build up the terrain. The community is built up through the integration of mix-income housing with public transportation options, neighborhood events, and a connection to the greater Coralville area through a city-wide trail system. Economy is built up as businesses of all ages, shapes, and sizes bring together the mixed-use district. Incubator companies have space along-side successful businesses while restaurants and cafés sit near small town boutiques and chain pharmacies. Businesses and tenants on the existing site will have the option to be grandfathered in to the new development, ensuring they have a great location without worrying about a sudden hike in rental cost. Lastly, in order to ensure maximum protection against future flooding, the terrain across the district will be built up, raising all proposed buildings 1' above the 100 year flood plain and limiting the fear of flood damage in the future.

Figure 8.1
Pedestrian Bridge Over 2nd Street
The new pedestrian bridge crosses 2nd Street to allow for easier access from one half of the district to the other. With the new trees planted along the road and the additional public plaza spaces, the area becomes a vibrant space, perfect for businesses along the strip.
(Mader, 2018)

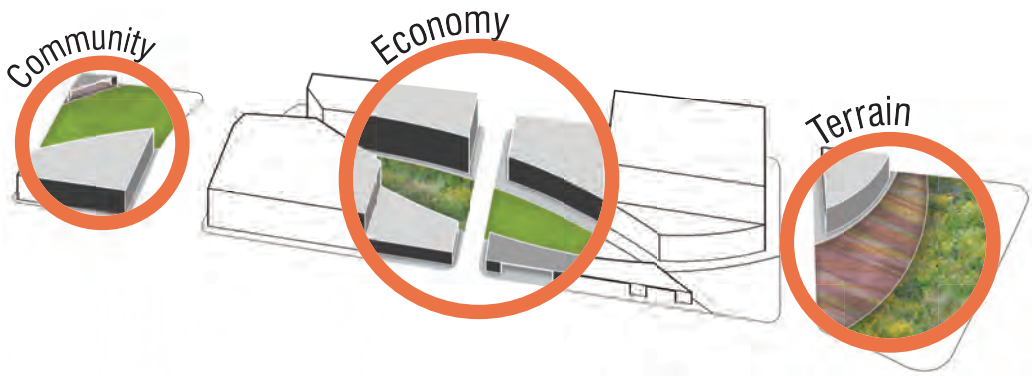


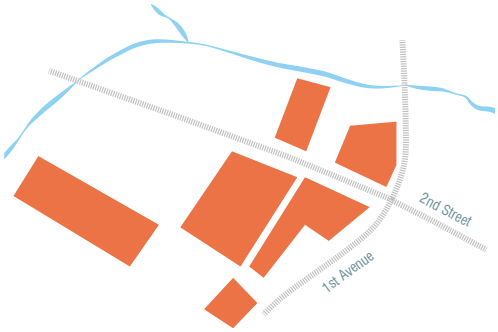
Figure 8.2
Conceptual Diagram
The district is designed to build up community, economy, and terrain across the site but these ideas are manifested in the four main blocks.
(Mader, 2018)

Goals and Objectives

- Build up the community through the use of local art, businesses, and neighborhood events
- Build up the economy of the district by creating easier access to buildings and allowing for a wider variety of businesses
- Build up the terrain to ensure all new buildings are at least 1' above the 100 year flood plain, helping to prevent future disasters
- Reorganize the site to provide structured open space within the public and private realms focused on a variety of activities
- Provide vibrant gateways into the district at proposed intersections and pedestrian entrances
- Implement phasing strategies to encourage existing tenants and business owners to remain in the neighborhood after the completion of the project and create a clear circulation system throughout the district
- Organize outdoor space into eight types of public space - four focused on circulation and four focused on inhabitable space

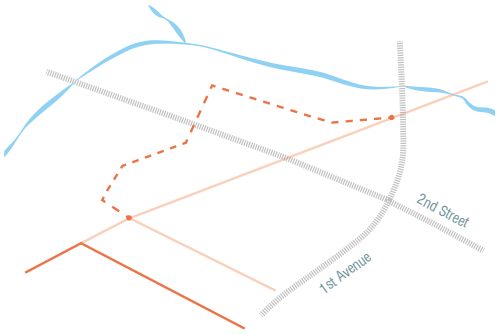
Site Dilemma

8 Solutions to 8 Problems



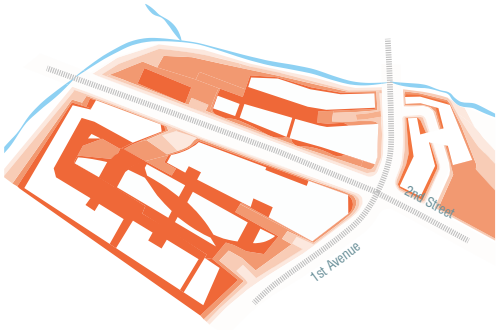
Brownfields

Currently there are nine confirmed contaminated sites within the site boundary. To address this dilemma, we are proposing capping the contaminated sites. In addition to addressing the current identified location, we are proposing a second round of testing to identify other possible contaminated sites.



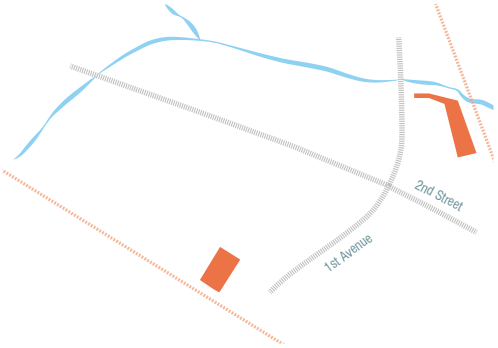
Power Lines

Currently large power lines run through the site. To address this dilemma, we are proposing burying half of the electrical lines that interact with the new design. The other half of the power lines will be moved, but kept above ground.



FEMA

This site is within a historic flood plain with flood mitigation structures being recently constructed. We are proposing to raise the site 1ft above the 100 year flood plain to comply with FEMA and insurance requirements.



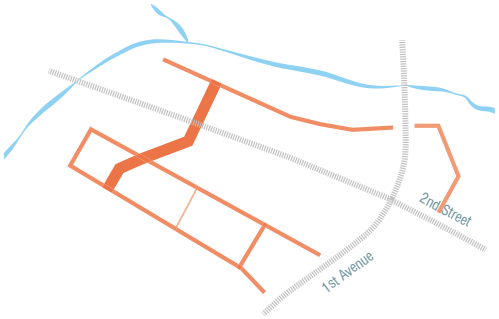
Rail

There are two railroad lines that surround the boundary of the site. One of the lines is primarily for industrial use, while the other is being proposed for a light-rail line. To address this dilemma, we are proposing one multi-modal transit station and one bus station that can be used for rail transit in the future.

Figure 8.3
Infrastructural Dilemmas
(Dunay and Quincke, 2018)

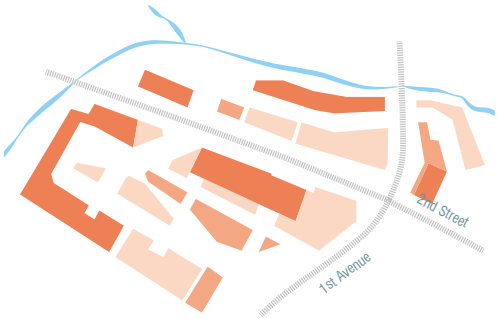
Circulation

This site has an unclear circulation system with many entrances. We are proposing a organized circulation system with one main entrance point from 2nd Street and three secondary entrances from 1st Avenue. This circulation system has various levels of roadways ranging from a boulevard to pedestrian mall.



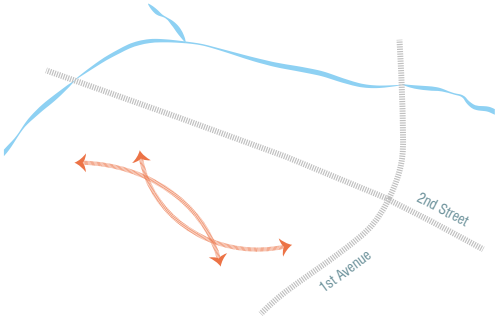
Mixed-Use

Currently the site is zoned commercial. Moving forward, we are proposing a mixed-use development. This development would include retail and service, office, and residential uses.



Placemaking

To better establish a clear sense of place within the site we are proposing a central activity space. This space will provide a market space, plaza, green space, and event space.



Waterfront

Clear Creek runs along the north side of the site. Currently there is a flood wall that separates the site from access to the creek. We are proposing that we elongate the trail system along the north side of the site creating a creekside park.

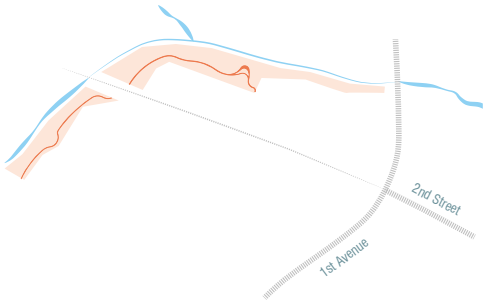


Figure 8.4
Identity Dilemmas
(Dunay, 2018)

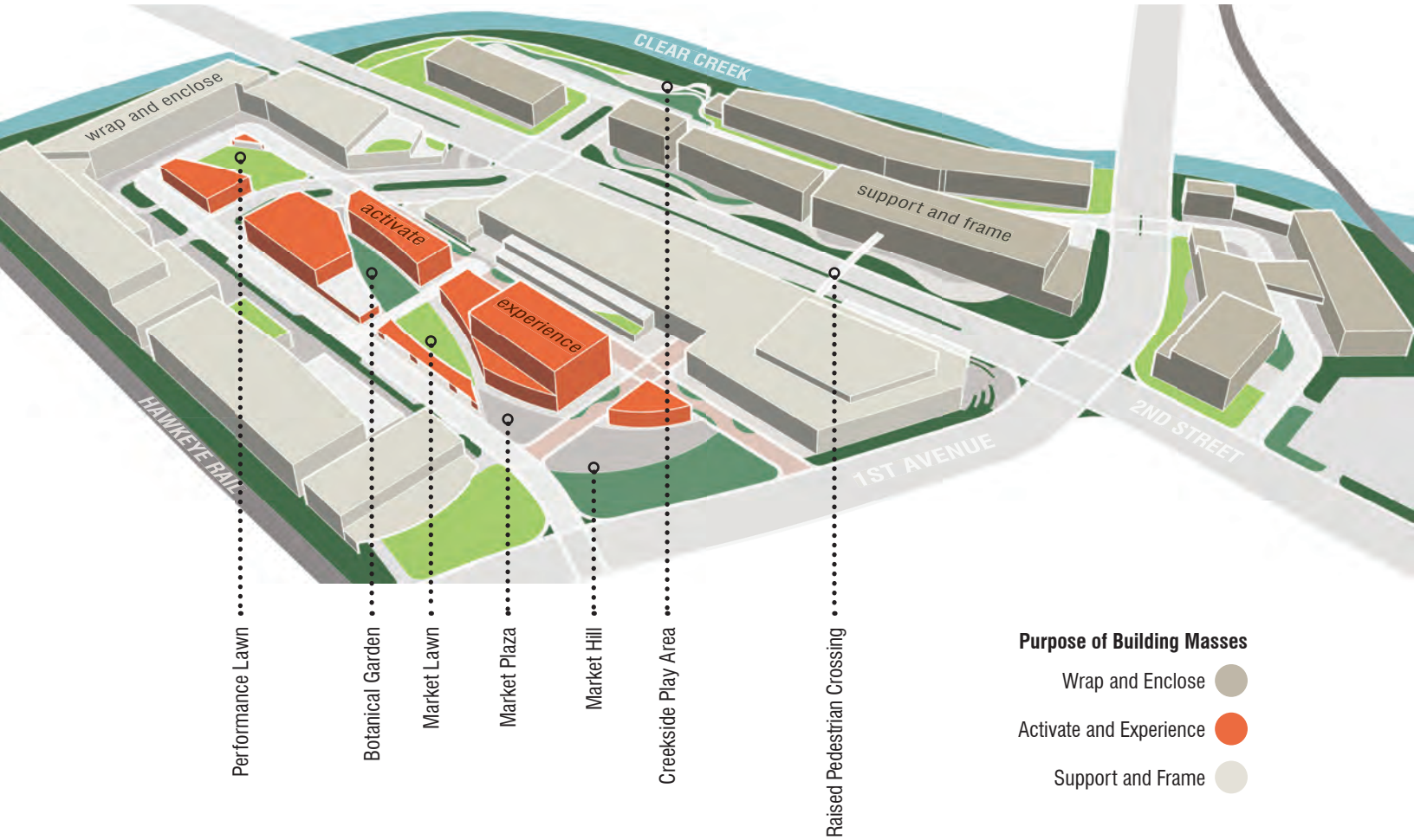
Creating a Framework for Public Space

Organizing the New District to Encourage Community Interaction

As the design developed, it was crucial to allow space for any proposal to be altered by the community as they come together. The new district has to provide opportunities for activities, and events while also providing opportunities for growth and change. Plazas and lawns are filled with tables, chairs, planters, and artwork as well as permanent seating and fountains. Instead of telling the community what to become, the district encourages the community to mold it into what is needed most. The neighborhood is organized to bring residents and community members of all backgrounds together. Buildings are made up of office, retail, dining, housing and parking space - encouraging communication and interaction amongst visitors and residents.

The new development includes buildings with three sets of goals. Some aim to wrap and enclose the inner four blocks, creating a safer, and more neighborhood space. Buildings within those blocks activate the district, and encourage a wide array of experiences on site. The surrounding buildings support the inner district and frame the neighborhood for the rest of the community.

Figure 8.5
Diagrammatic Aerial
Building masses are used together with open space to create usable public spaces throughout the district.
(Mader, 2018)



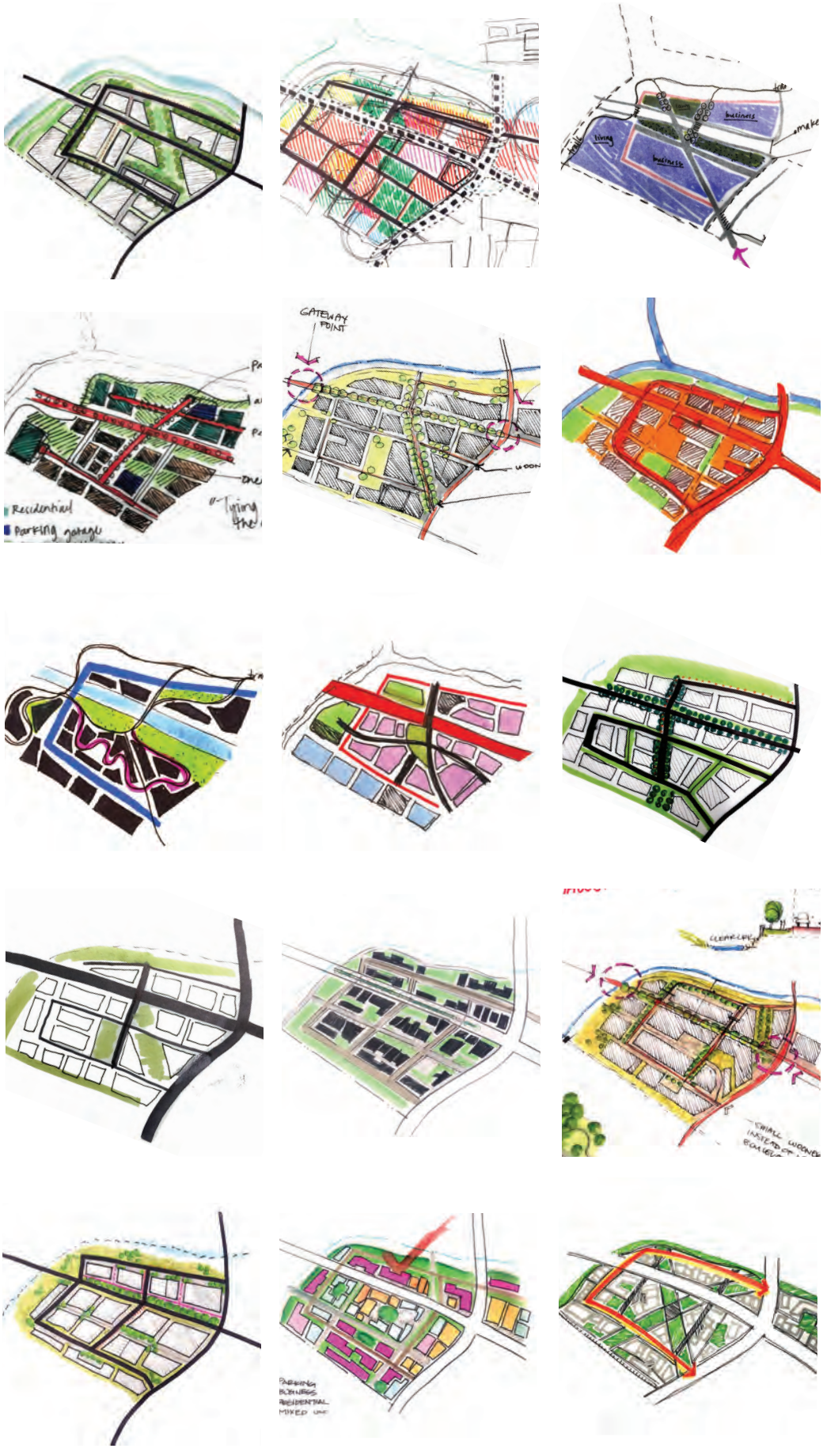


Figure 8.6
Site Plan Process Sketches
The final design came from an iterative process of researching the area, identifying problems, and working as a team to come up with solutions.
(Dunay, Hake, Mader, Quincke, 2018)

Illustrative Site Plan

A. Creekside Play Area

B. Signalized Intersection

C. Community Trail System

D. Performance Lawn

E. Market Boulevard

F. Pedestrian Bridge

G. Pedestrian Gateway

H. Market Hill

I. Market District Plaza

J. Market District Sculpture Roof

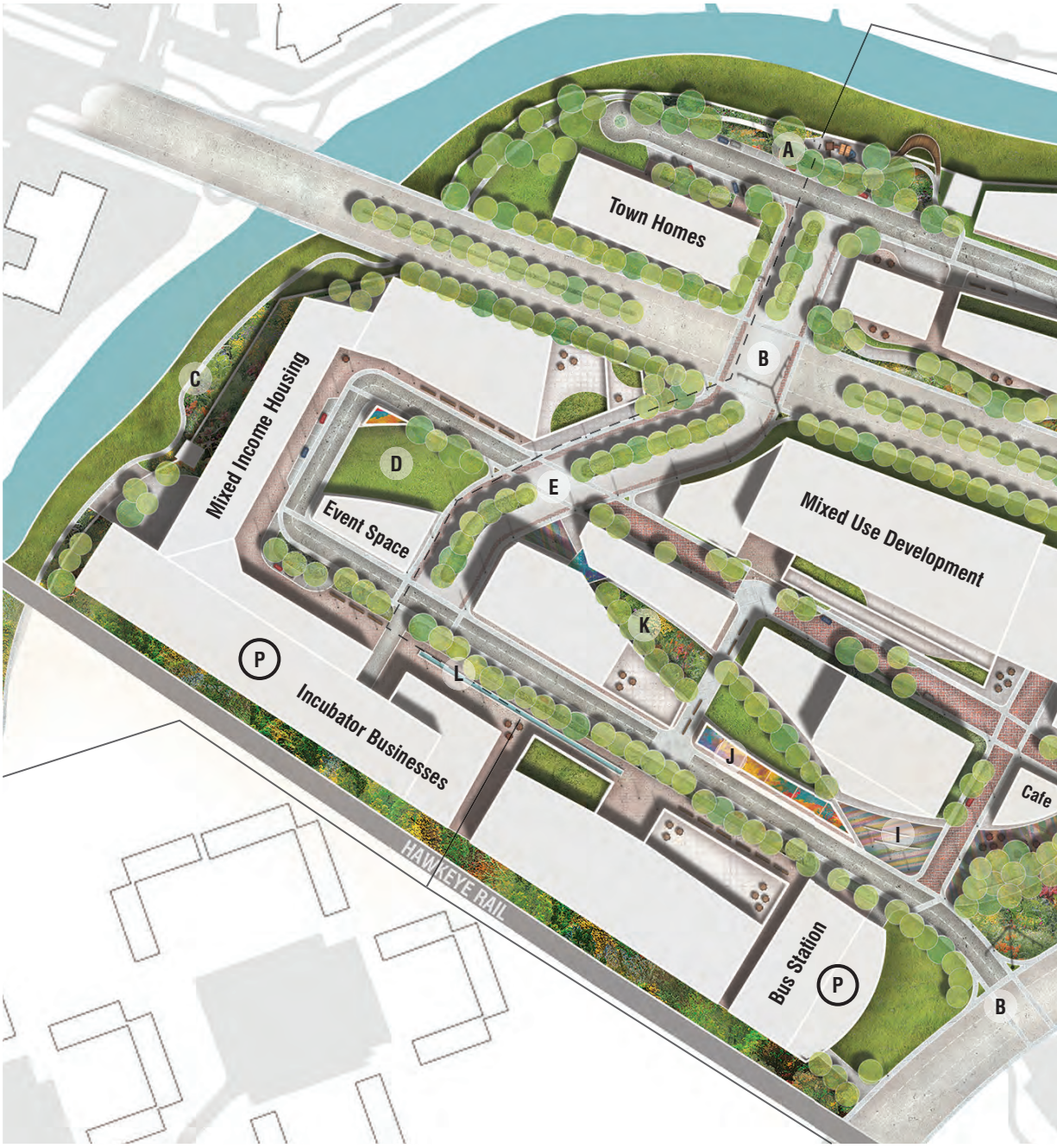
K. Botanical Garden

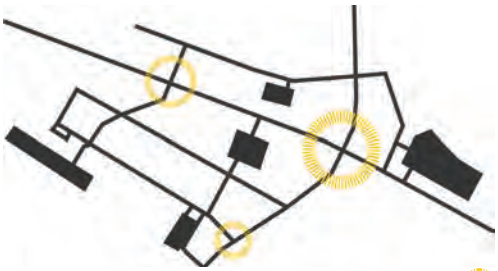
L. Linear Water Feature

Overhead Power

Underground Power

(P) Structured Parking





Major Intersection

Vehicular Path

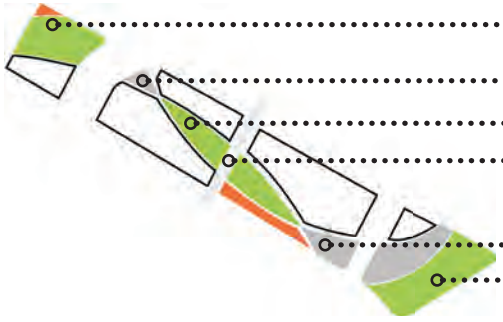
Pedestrian Plaza

Pedestrian Path

Figure 8.8
Circulation and Programming
(Mader, 2018)

Figure 8.7
Illustrative Site Plan
(Mader, 2018)

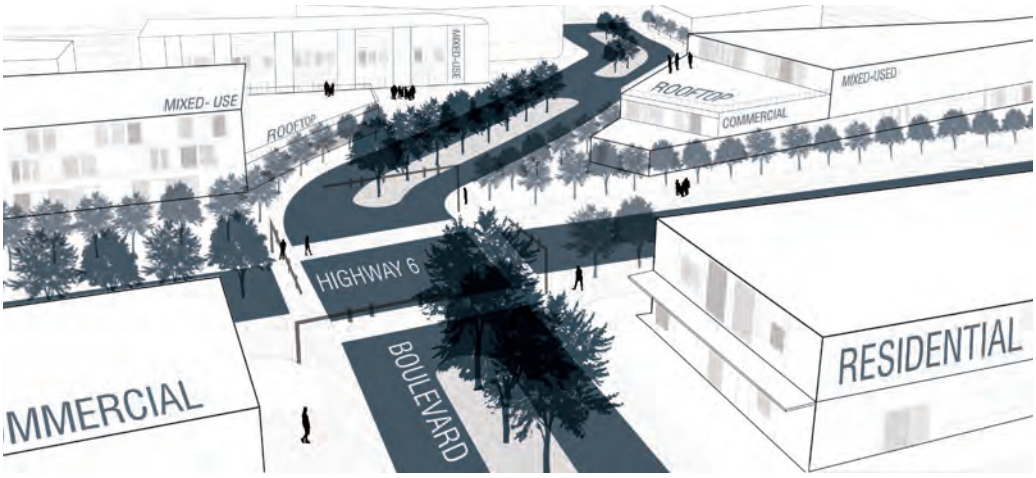
Wrap & Enclose
Activate & Experience
Support & Frame



Frameworks for Open Space: Circulation

Boulevard

Figure 8.9
Boulevard
(Quincke, 2018)



The boulevard is the primary road shaping the site and creating an intersection point connecting the two halves of the district. This road has a large median between two lanes which is lined with trees to create a grand entrance into the site.

Woonerf

Figure 8.10
Woonerf
(Quincke, 2018)

Woonerfs are used to slow traffic using small, non-delineated lanes that weave between medians and buildings. The roads are designed to allow for easy pedestrian access while also providing parking along the edges.

Complete Street

Figure 8.11
Complete Street
(Quincke, 2018)

The complete street system form the secondary roads within the district. These streets are two lane roads with bicycle and pedestrian ways alongside vehicular traffic. The streets provide parking along side the roadway and are framed with trees.

Pedestrian Mall

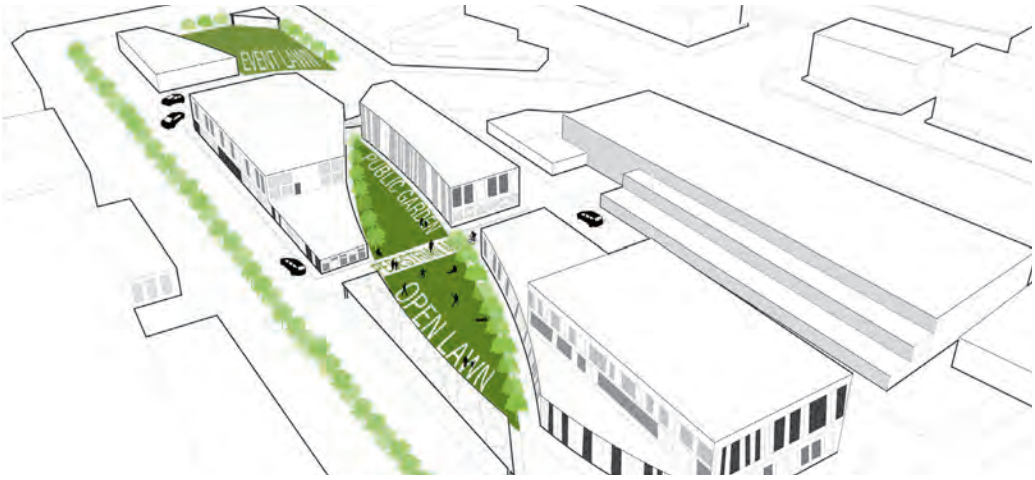
Figure 8.12
Pedestrian Mall
(Quincke, 2018)

The pedestrian mall is the only roadway dedicated exclusively to pedestrian access. The street connects the central four blocks, allowing for access through the mixed-use district.

Frameworks for Open Space: Inhabitable

Green Space

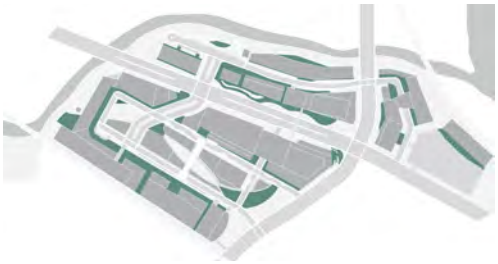
Figure 8.13
Green Space
(Hake, 2018)



The district offers a wide variety of green spaces from open lawns, to dense gardens, to its forested edges. These spaces are designed to encourage outdoor activities and boost the overall mood of the neighborhood.

Plaza

Figure 8.14
Plaza
(Hake, 2018)



Plazas are used throughout the district to provide opportunities to spend time outdoors with friends, family, or being alone. The spaces are typically located near commercial and residential buildings and facilitate social interaction.

Elevated Open Space

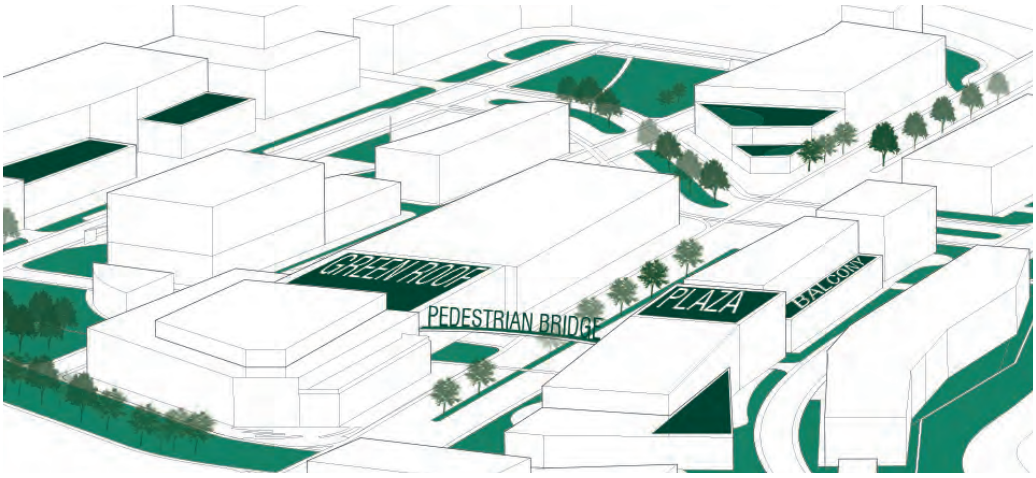


Figure 8.15
Elevated Open Space
(Hake, 2018)

Public space is provided at various levels above ground. Rooftops and balconies are activated with plazas, greenroofs, and a pedestrian bridge over 2nd Street. These spaces offer unique views of the district and the surrounding area.

Waterfront

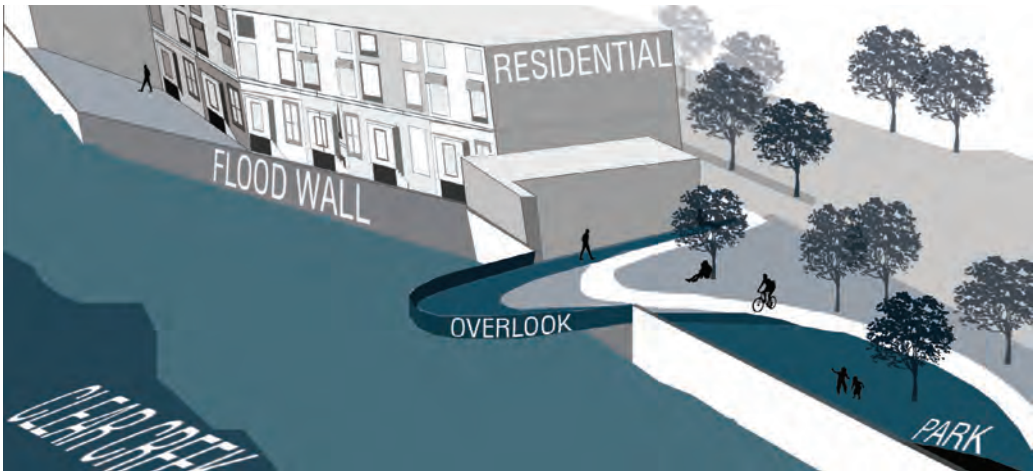


Figure 8.16
Waterfront
(Hake, 2018)

The renovated waterfront provides new and existing residents and businesses with a brand new view of their backyard. The waterfront connects to the community trail system and incorporates a small park, a playground, and an overlook.

Community | Economy | Terrain

Figure 8.17
Core Activity Space
Set within the central four blocks, the Market District includes a unique overhead sculpture, an open lawn, and a variety of plaza spaces for the community to enjoy.
(Hake, 2018)

Building Up Community

Creating a place for locals and visitors to live and play

This design proposal places a focus on the people who interact with and within the site. It is designed to draw people in and keep them within the site through a series of activity spaces. Activities include a market space, plazas, green space, event space, and gardens.

In addition to the draw of the activities, the design caters to on-site residents. By proposing different types of residential units such as apartments and townhomes, we are encouraging a range of affordability. Within these residential spaces there are private and public places for residents to use and interact. These spaces include terraces, parks, patios, and playgrounds.

We are proposing a site that has a live-work-play mentality. To accomplish this we have designed a series of different spaces that target this objective. In order to move people through the site, there is a series of different roadway and pedestrian experiences. The site utilizes woonerfs, pedestrian malls, plaza space, and open space to encourage movement.

Figure 8.18
Performance Lawn: From Daylight to Night
The performance lawn has a variety of uses annually as well as daily. Visitors and residents can come to enjoy the weather or throw a frisbee in the afternoon, the evening provides opportunity to hold medium sized events.
(Dunay and Mader, 2018)

Figure 8.19
Residential Units and Community Spaces
This map breaks down the different types of residential units and community spaces within the site.
(Dunay, 2018)

- High Density Housing
- Medium Density Housing
- Shared Community Space
- Elevated Community Space
- Active Community Space
- Private Residential Space

Apartments
Units: **904**
Average Size: **800 sq.ft.**
Location: **Entire Site (mixed-use)**

Townhomes
Units: **125**
Average Size: **1,500 sq.ft.**
Location: **Waterfront (stand alone)**

Figure 8.20
Residential Statistics
(Dunay, 2018)

Building Up Economy

Create fun and friendly environments for businesses and residents

The site has been designed to put the pedestrian first. By activating the ground floors of parking structures, offices, and residential buildings, the design becomes as accommodating to visitors as it is to those who live on site. The core of the district is designed for all types of activity during the day and night, with several options for boutiques, bars, and restaurants. Conversely, the outer portions of the site have been programmed for larger shops, grocery stores, pharmacies, and other necessary functions for daily life.

Densifying the site provides economic substantiation for making large moves such as pedestrian overpasses and moving powerlines. The streets have been designed to create a safe and walkable environment that makes the pedestrian its first priority. Many of the buildings have been shaped to emphasize the first floors, while the second and third floor are set back creating balconies and terraces. This design effort creates a smaller, neighborhood effect at the pedestrian level within the district.

Figure 8.21
Revitalized Business Corridor
The woonerf streets are being structured as business corridors for primarily pedestrian safety and use.
(Hake, 2018)

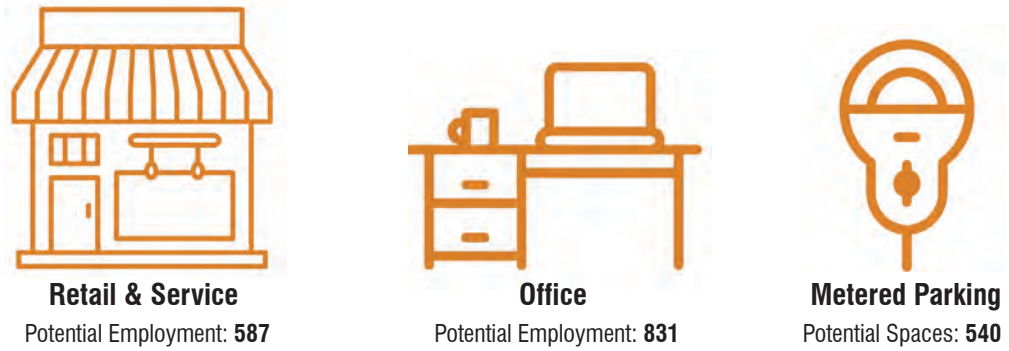


Figure 8.22
Economic Statistics
(Hake, 2018)

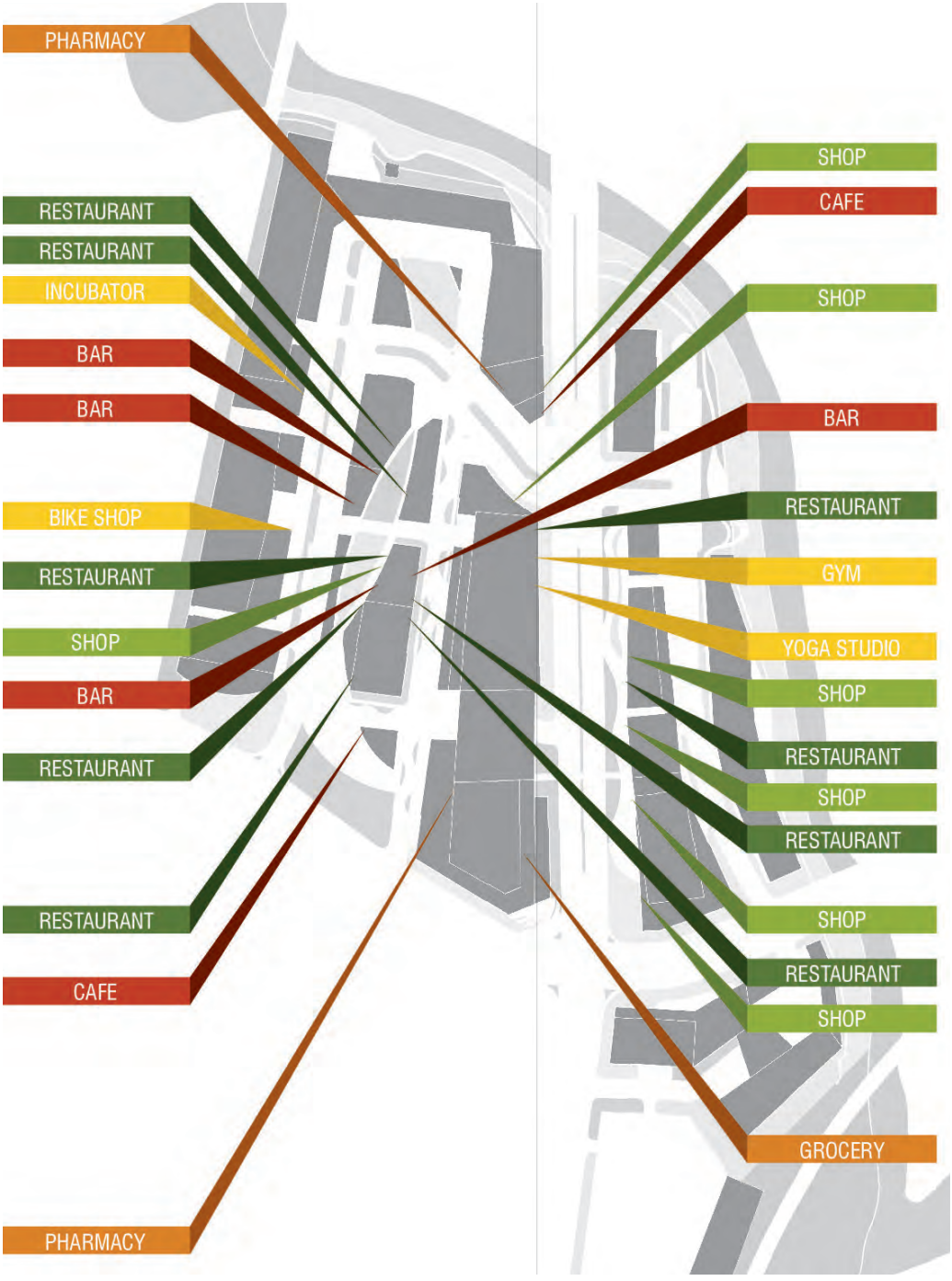


Figure 8.23
Ground-Level Activation
Storefronts, restaurants and businesses activate the ground floor of several buildings to ensure pedestrians are well-accommodated for.
(Hake, 2018)

Building Up Terrain

Elevation change assures extra protection from future flooding

To meet FEMA and insurance requirements, additional flood protection measures include elevating habitable structures 1 ft above the 100-year floodplain level. Although this elevation change presents accessibility dilemmas, the design successfully accommodates pedestrian and vehicular circulation through the implementation of terraced plazas, ramps, and a pedestrian bridge. Using the elevation change to frame these types of spaces enhance the view of the site from 2nd Street and 1st Avenue while delineating a district feel.

The existing flood wall is raised and transformed into an boardwalk overlook, playground and trail walk giving the site an aesthetic experience while also decreasing flood risks.

Lastly, low impact development planters and strategically planted slopes provide softscape which help infiltrate and improve water quality of stormwater runoff from the site.

Figure 8.24
Creekside Walk
Views of the creek, a small garden, an overhang boardwalk, and a playground gives an intimate neighborhood feel to the creek side experience.
(Quincke, 2018)

Figure 8.25
Market Hill
Some areas will be planted lawn for aesthetic and water runoff catchment
(Quincke, 2018)

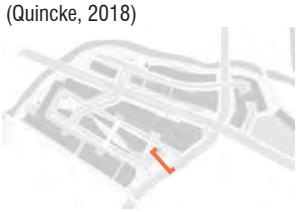


Figure 8.26 Pedestrian Entryway
Edges of the site are tailored to pedestrian access from the street to the district as a mix of paved and planted plaza
(Quincke, 2018)

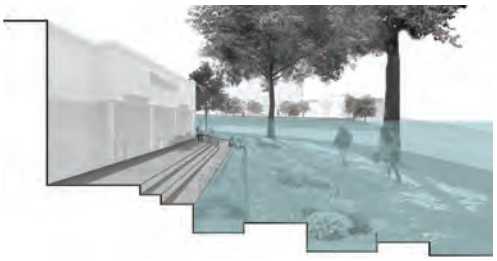
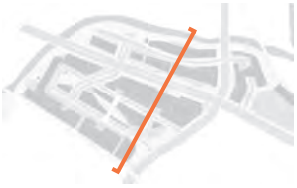


Figure 8.27
Flooding
Built infrastructure is out of the FEMA flood plain for development security
(Quincke, 2018)

Figure 8.28
Full Site Section
(Quincke, 2018)



Land Use Plan

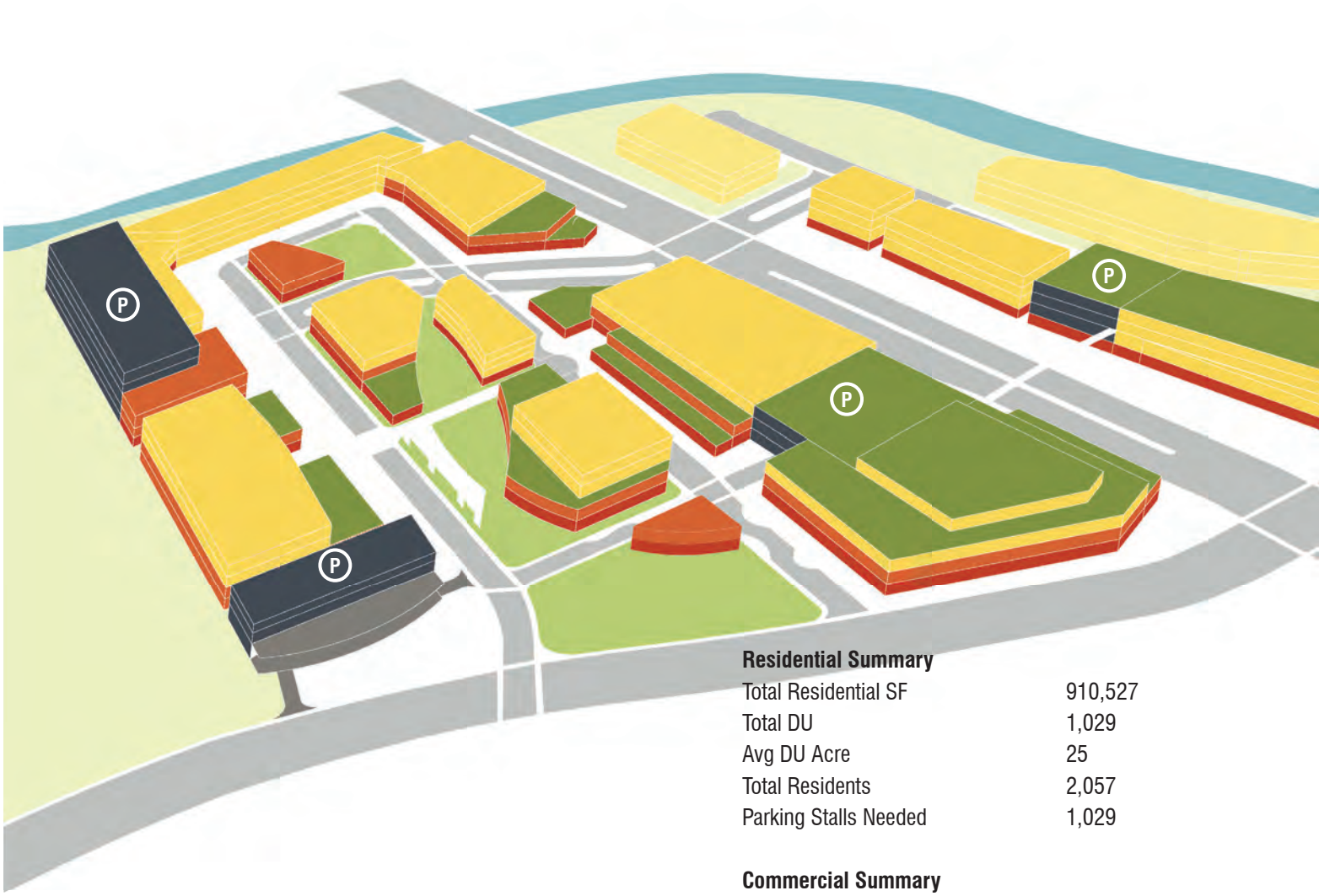


Figure 8.29
Land Use Map
(Dunay, 2018)

Site Metrics

Making the Design Viable

Our design is focused on the Community, the Economy, and the Terrain of the site and how each is built up and improved upon. This proposal is a mixed-use plan that includes residential, retail and service, office, parking, open and green space.

The breakdown of these uses can be seen to the right.

Residential Summary	
Total Residential SF	910,527
Total DU	1,029
Avg DU Acre	25
Total Residents	2,057
Parking Stalls Needed	1,029
Commercial Summary	
Total Commercial SF	440,247
Employees	587
Parking Stalls Needed	616
Office Summary	
Total Office SF	415,485
Employees	831
Parking Stalls Needed	582
Parking Summary	
Total Stalls Needed	2,227
Parking Stalls Provided	2,237
Surface Parking Stalls	250
Streetside Parking	295
Structure Parking	1,941
FAR (excluding ROW)	**1.88**

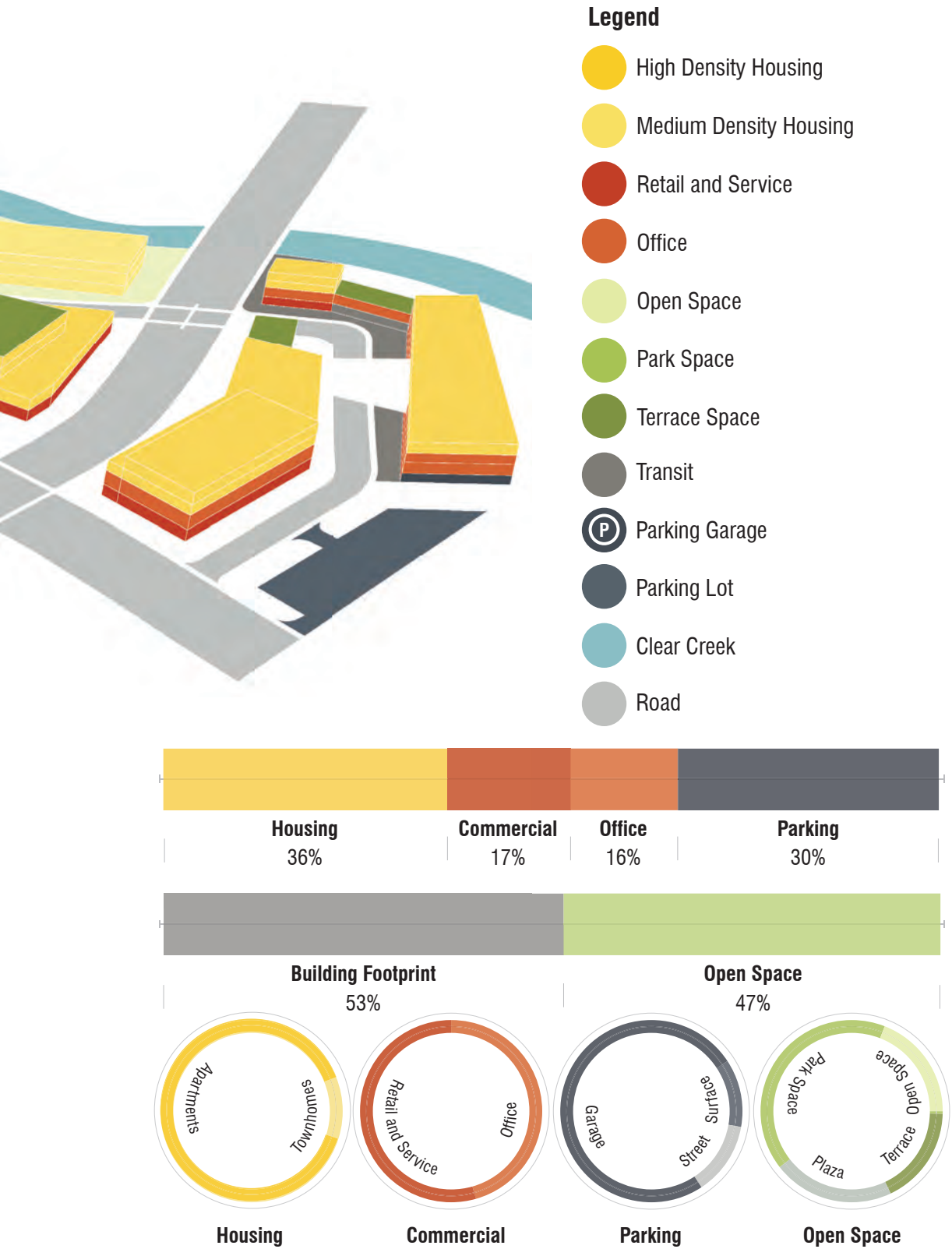


Figure 8.30
Land Use Facts
(Dunay, 2018)

Phasing

Remediating soils and building up for future development security

The proposed phasing plan aims to allow the existing tenants and business owners to remain on site as long as possible and transition back into the new development upon phased completion.

Contaminated soils from previous and current land use will require remediation before new development. Remediation methods consist of encapsulation and new soil in areas with metals, air sparging in areas with oils, and lastly complete removal of soils in areas with PCB's.

The intent of remediating the soil is to prevent contamination plumes.

After remediation, elevation of the site will be built up to meet the FEMA flood zone requirements. Pedestrian and vehicular circulation will be the first to be developed followed by the Market District core, residential complex, outdoor spaces and finally the edges of the site. Meanwhile, tenants and business owners move back as built infrastructure is completed.

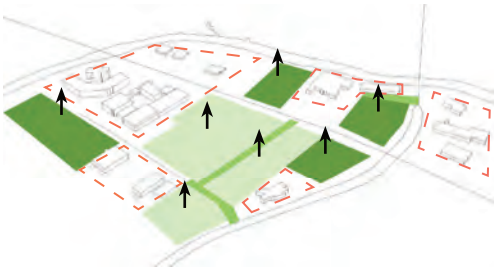
Figure 8.31
Existing Conditions
(Quincke 2018)

Figure 8.32
Proposed Conditions
(Quincke 2018)

1 A phase 2 contamination survey of the site will be conducted. Then infrastructure within the known and found contaminated areas are relocated within the district during soil remediation.

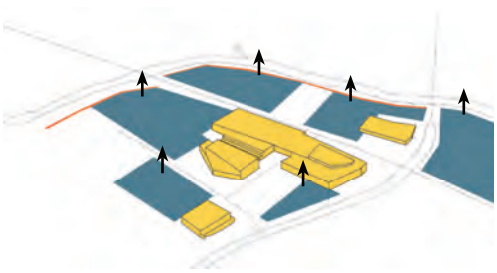
- Contaminated Soils
- Infrastructure to be relocated

Figure 8.33
Phasing Diagram
(Quincke 2018)



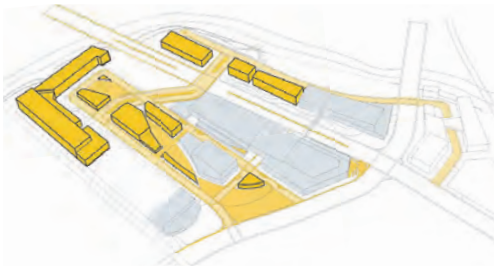
2 Contaminated areas are built up to meet the FEMA floodplain requirements. Meanwhile, existing businesses will need to be relocated for new development.

- Known contamination
- Unknown contamination
- Infrastructure to be relocated
- Beginning of street development



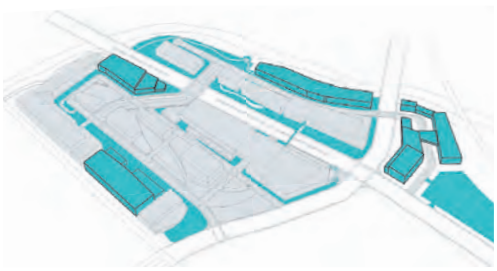
3 Phase 1 existing businesses will be returned to the district and the remaining soils on site, plus the flood wall, will be raised to meet FEMA floodplain requirements.

- Soil fill
- Development begins
- Flood wall



4 The remaining streets and pedestrian walkways will be developed alongside the Market District core, residential complex, and parking garage. Phase 2 business owners will return to the new district.

- Development begins
- Completed Development



5 Phase 4 business owners will return into the the new district while the final development of outdoor spaces are completed.

- Development begins
- Completed Development

Building a Better Future

Community | Economy | Terrain

"It is not more bigness that should be our goal. We must attempt, rather, to bring people back to... the warmth of the community, to the worth of individual effort and responsibility... and of individuals working together as a community, to better their lives and their children's future."

Robert F. Kennedy

As the design for the new Coralville District developed it was critical that our proposal maintain the same feeling that the community already had. Instead of creating a downtown metropolis, an extensive public park, or a grand shopping district, our team wanted to design a neighborhood that feels like it's always been there. Together, we designed a district that intends to fight against gentrification and instead pushes for a more subtle shift towards a denser community. Coralville was built by hardworking families from all backgrounds and, despite hardships, it has grown into a diverse and beautiful town.

The district doesn't attempt to become a grand gesture through the heart of Coralville. Instead, it builds up the community that was already there. It builds up the economy of existing and future businesses along the strip. It builds up the terrain to help prevent future disasters. The design has the potential to change the shape of Coralville, but that change will happen with the community's input, feedback, and love - not without it. The district is designed, not to change, but to be changed by the people who will live and work within it. That's what makes it special.

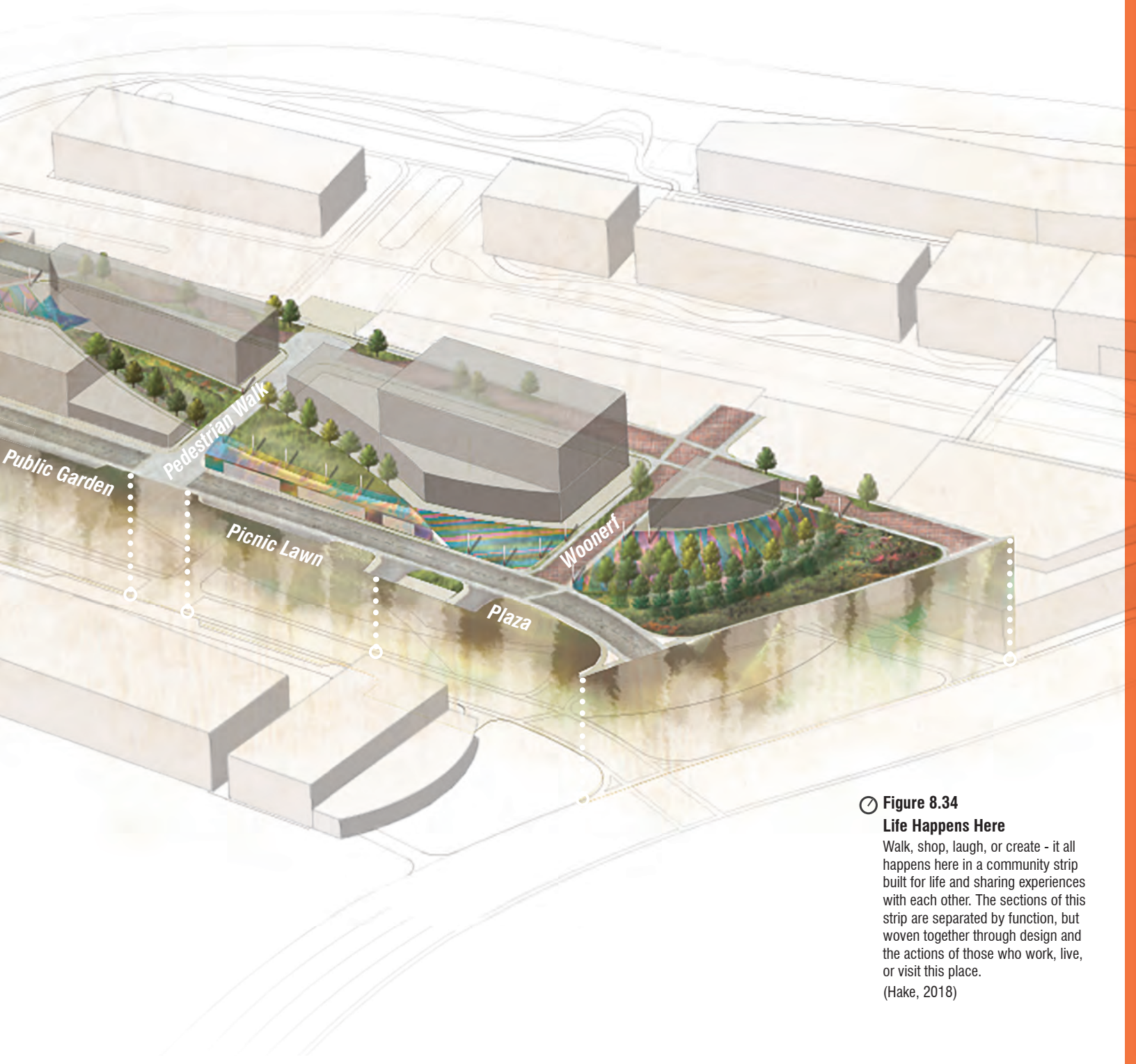


Figure 8.34
Life Happens Here
Walk, shop, laugh, or create - it all happens here in a community strip built for life and sharing experiences with each other. The sections of this strip are separated by function, but woven together through design and the actions of those who work, live, or visit this place.
(Hake, 2018)

Citations

Chapter Heading
Cooke, Shelby. 2018. “Image of Existing Site.” Photograph. Coralville, IA.

Figure 8.1
Mader, Grace. 2018. “Pedestrian Bridge over 2nd Street.” Kansas State University, LAR646 2018. Photoshop Rendering. Source Images:

- Dunay, Morgan. 2018. “Site Photo.” Coralville, IA. Photograph.
- Hake, Bridget. 2018. “Photograph of Owners with their Dogs.” Seattle, WA.
- Mader, Grace. 2018. “Photo of People.” Coralville, IA. Photograph.
- Mader, Grace. 2018. “Photograph in Olympic Sculpture Park.” Seattle, WA. Photograph.
- Mader, Grace. 2016. “Pollinator Garden.” Baldwin City, KS. Photograph.
- Public Domain Pictures. “Group of Young People.” http://bit.ly/2u413om. Accessed June, 27. CC0 License.
- Webb, Scott. “City People Street Walking.”http://bit.ly/2J2fa28. Accessed June 28. CC0 License.

Figure 8.2
Mader, Grace. 2018. “Concept Diagram.” Kansas State University, LAR646 2018. Photoshop and Illustrator Diagram.

Figure 8.3
Dunay, Morgan; Quincke, Madison. Infrastructure Dilemma. Kansas State University, LAR646 2018. Illustrator.

Figure 8.4
Dunay, Morgan. Identity Dilemma. Kansas State University, LAR646 2018.

Figure 8.5
Mader, Grace. 2018. “Diagrammatic Aerial.” Kansas State University, LAR646 2018. Rhino 3D and Illustrator Diagram.

Figure 8.6
Dunay, Morgan; Hake, Bridget; Mader, Grace; and Quincke, Madison. 2018. “Site Plan Process Sketches.” Kansas State University, LAR646 2018. Hand Drawn Marker on Trace Paper.

Figure 8.7
Mader, Grace. 2018. “Illustrative Site Plan.” Kansas State University, LAR646 2018. Plan Photoshop Rendering. Source Images:

- Mader, Grace. 2018. “Photograph in Olympic Sculpture Park.” Seattle, WA. Photograph.
- Johnson County, Iowa GIS. “Coraville_3DPlan_2014,” “IowaCity_3DPlan_2014.” Accessed 29 May 2018.

Figure 8.8
Mader, Grace. 2018. “Circulation and Programming Diagrams.” Kansas State University, LAR646 2018. Illustrator Diagrams.

Figure 8.9
Quincke, Madison. 2018. “Boulevard.” Kansas State University, LAR646 2018. Illustrator and

Photoshop Diagram. Source Images:

- Mader, Grace. 2018. “Location Map.” Kansas State University, LAR646 2018 Illustrator Diagram.

Figure 8.10

Quincke, Madison. 2018. “Woonerf.” Kansas State University, LAR646 2018. Illustrator and Photoshop Diagram. Source Images:

- Mader, Grace. 2018. “Location Map.” Kansas State University, LAR646 2018 Illustrator Diagram.

Figure 8.11

Quincke, Madison. 2018. “Complete Street.” Kansas State University, LAR646 2018. Illustrator and Photoshop Diagram. Source Images:

- Mader, Grace. 2018. “Location Map.” Kansas State University, LAR646 2018 Illustrator Diagram.

Figure 8.12

Quincke, Madison. 2018. “Pedestrian Mall.” Kansas State University, LAR646 2018. Illustrator and Photoshop Diagram. Source Images:

- Mader, Grace. 2018. “Location Map.” Kansas State University, LAR646 2018 Illustrator Diagram.

Figure 8.13

Hake, Bridget. 2018. “Green Space.” Kansas State University, LAR646 2018. Illustrator and Photoshop Diagram. Source Images:

- Mader, Grace. 2018. “Location Map.” Kansas State University, LAR646 2018 Illustrator Diagram.

Figure 8.14

Hake, Bridget. 2018. “Plaza.” Kansas State University, LAR646 2018. Illustrator and Photoshop Diagram. Source Images:

- Mader, Grace. 2018. “Location Map.” Kansas State University, LAR646 2018 Illustrator Diagram.

Figure 8.15

Hake, Bridget. 2018. “Elevated Open Space.” Kansas State University, LAR646 2018. Illustrator and Photoshop Diagram. Source Images:

- Mader, Grace. 2018. “Location Map.” Kansas State University, LAR646 2018 Illustrator Diagram.

Figure 8.16

Hake, Bridget. 2018. “Waterfront.” Kansas State University, LAR646 2018. Illustrator and Photoshop Diagram. Source Images:

- Mader, Grace. 2018. “Location Map.” Kansas State University, LAR646 2018 Illustrator Diagram.

Figure 8.17

Hake, Bridget. 2018. “Core Activity Space.” Kansas State University, LAR646 2018. Photoshop Rendering over Lumion and Rhino 3D. Source images:

- Archive Defense. “Marine Corps Marathon.” http://bit.ly/2J3b6ih. Accessed June, 28. CC0 License.
- Cooke, Shelby. 2018. “Photograph of Monica’s Restaurant.” Coralville, IA.
- Hake, Bridget. 2018. “Photograph of Colorful Wall.” Seattle, WA.
- Hake, Bridget. 2018. “Photograph of Girl Posing.” Manhattan, KS.
- Hake, Bridget. 2018. “Photograph of Girls Walking.” Fort Collins, CO.
- Hake, Bridget. 2018. “Photograph of Man with his Dog.” Manhattan, KS.
- Hake, Bridget. 2018. “Photograph of Owners with their Dogs.” Seattle, WA.

Citations (cont.)

- Ibirapuera. “Balloons.” http://bit.ly/2u114cD. Accessed June, 29. Wikimedia Commons License.
- Libreshot. “Girl at a Festival.” http://bit.ly/2NxGk4z. Accessed June, 27. CC0 License.
- Libreshot. “Young People on Festival.” http://bit.ly/2tZtR1y. Accessed June, 27. CC0 License.
- Max Pixel. “Float Colorful Fly Hot Air Balloon.” http://bit.ly/2MY7sZB. Accessed June 29. CC0 License.
- National Park Service. “A Family Picnic.” http://bit.ly/2NslYtz. Accessed June 27. CC0 License.
- Pixabay. “Store Shop Storefront Business.” http://bit.ly/2MXzwMC. Accessed June, 27. CC0 License.
- Pixnio. “Hot Air Ballooning.” http://bit.ly/2zioBv3. Accessed June 29. CC0 License.
- Taro. “Now Open Sign, Tempe Town Lake.” http://bit.ly/2KHTuy3. Accessed June 29. CC0 License.
- Porter, Luke. “Picnicking Alone.” http://bit.ly/2m1FZuz. Accessed June, 27. Wikimedia Commons License.
- Public Domain Pictures. “Group of Young People.” http://bit.ly/2u413om. Accessed June, 27. CC0 License.

Figure 8.18.1

Dunay, Morgan. 2018. “Performance Lawn: Day.” Kansas State University, LAR646 2018. Photoshop Rendering. Source Images:

- “Cappadocia Luxor Flight Hurghada Hot Air Balloon - Air Balloon PNG - Unlimited Download. Kisspng.Com.” Kisspng.com. Accessed July 2, 2018. http://bit.ly/2J6ET9I.
- Creation, Ritesh. “[New] Editing Hot Air Balloon Png Download || Balloon Png Download.” Ritesh Creation (blog), January 27, 2018. http://bit.ly/2u4Qq4I.
- Hake, Bridget. 2018. “Photograph of Girl Posing.” Manhattan, KS.
- Hake, Bridget. 2018. “Photograph of Man with his Dog.” Manhattan, KS.
- “Hot Dog Cart Street Food Food Cart - Food Poster - Unlimited Download. Kisspng.Com.” Kisspng.com. Accessed July 2, 2018. http://bit.ly/2lZ05p1.
- “Land of Oz Hot Air Balloon Airplane Aviation - Air Balloon PNG - Unlimited Download. Kisspng.Com.” Kisspng.com. Accessed July 2, 2018. http://bit.ly/2uf8YhW.
- National Park Service. “A Family Picnic.” http://bit.ly/2NslYtz. Accessed June 27. CC0 License.
- “Patio Awnings & Sun Canopies.” Accessed July 2, 2018. http://bit.ly/2zp9yQi.
- Pixino. “Street People Crowd Tourist.” http://bit.ly/2KUlE8u. Accessed June, 27. CC0 License.
- Porter, Luke. “Picnicking Alone.” http://bit.ly/2m1FZuz. Accessed June, 27. Wikimedia Commons License.
- Public Domain Pictures. “Group of Young People.” http://bit.ly/2u413om. Accessed June, 27. CC0 License.
- “Soccer Classes | Pinnacle Sports.” Accessed July 2, 2018. http://bit.ly/2KD5cKl.
- Webb, Scott. “City People Street Walking.” http://bit.ly/2J2fa28. Accessed June 28. CC0 License.

Figure 8.18.2

Dunay, Morgan and Mader, Grace. 2018. “Performance Lawn: Night.” Kansas State University, LAR646 2018. Photoshop Rendering. Source Images:

- Hake, Bridget. 2018. “Photograph of Man with his Dog.” Manhattan, KS.
- Hake, Bridget. 2018. “Photograph of Girls Walking.” Fort Collins, CO.
- Kirchoff, Chad. n.d. “Silhouette Photo of People in Front of Stage.” http://bit.ly/2KCWrjw. Accessed July, 2018. CC0 License.
- Libreshot. “Young People on Festival.” http://bit.ly/2tZtR1y. Accessed June, 27. CC0 License.
- Public Domain Pictures. “Group of Young People.” http://bit.ly/2u413om. Accessed June, 27. CC0 License.
- Pixabay. n.d. “Abstract Art Astronomy Background.”http://bit.ly/2KWz9RM. Accessed July, 2018. CC0 License.

- Snapwire. n.d. “Person Sky Silhouette Night.” http://bit.ly/2KHvo6s. Accessed July, 2018. CC0 License.
- Trillet, Thibault. n.d. “Audience Band Concert Crowd.” http://bit.ly/2NBzXxg. Accessed July, 2018. CC0 License.
- Webb, Scott. “City People Street Walking.” http://bit.ly/2J2fa28. Accessed June 28. CC0 License.

Figure 8.19
Dunay, Morgan and Grace Mader. Community Activity Location Map. 2018. Illustrator Rendering over Photoshop Plan.

Figure 8.20
Dunay, Morgan. Residential Statistics. Kansas State University, LAR646 2018. Illustrator Rendering. Source Images:
- Latysheva, Oksana. building. The Noun Project. 2018. Creative Commons. Accessed July 2, 2018. https://thenounproject.com/search/?q=building&i=861333
- Lastpark, RU. House. The Noun Project. 2018. Creative Commons. Accessed July 2, 2018. http://bit.ly/2KO7hCu.

Figure 8.21
Hake, Bridget. 2018. “Revitalized Business Corridor.” Kansas State University, LAR646 2018. Photoshop Rendering over Lumion and Rhino 3D. Source images:
- Evanson, Tim. “Olympia Building.” http://bit.ly/2MVjWAV. Accessed June, 27. Wikimedia License.
- Hake, Bridget. 2018. “Photograph of Girl Posing.” Manhattan, KS.
- Hake, Bridget. 2018. “Photograph of Girls Walking.” Fort Collins, CO.
- Hake, Bridget. 2018. “Photograph of Man with his Dog.” Manhattan, KS.
- Libreshot. “Young People on Festival.” http://bit.ly/2tZtR1y. Accessed June, 27. CC0 License.
- Mader, Grace. 2018. “Photograph of El Dorado Restaurant.” Coralville, IA.
- Max Pixel. “Bike Teens Biking Park.” http://bit.ly/2L0hBnF. Accessed June, 28. CC0 License.
- Pixino. “Street People Crowd Tourist.” http://bit.ly/2KUlE8u. Accessed June, 27. CC0 License.
- Public Domain Pictures. “Red Honda Stock Car.” http://bit.ly/2m1n3fr. Accessed June, 27. CC0 License.
- Public Domain Pictures. “Wooden Wall.” http://bit.ly/2J1EcPb. Accessed June 29. CC0 License.
- Webb, Scott. “City People Street Walking.” http://bit.ly/2J2fa28. Accessed June 28. CC0 License.

Figure 8.22
Hake, Bridget. Economic Statistics. Kansas State University, LAR646 2018. Illustrator Rendering. Source Images:
- Mali, Jemis. “Shop from the Noun Project.” http://bit.ly/2MVJL3N. Accessed July 1. CC0 License.
- Santos, Douglas. “Workplace from the Noun Project.” http://bit.ly/2u2li4L. Accessed July 1. CC0 License.
- Schmitzer, Ralf. “Parking from the Noun Project.” http://bit.ly/2uc6CQT. Accessed July 1. CC0 License.

Figure 8.23
Hake, Bridget and Grace Mader. Ground-level Activation. Kansas State University, LAR646 2018. Illustrator Rendering over Photoshop Plan.

Figure 8.24
Quincke, Madison. 2018. “Creekside Walk.” Kansas State University, LAR646 2018. Photoshop Rendering. Source Images:
- Balloons. 2018. Photograph by ZUN courtesy of PEXELS. Accessed June 28, 2018. http://bit.ly/2KBAyku.

Citations (cont.)

- Bird. 2017. Photograph by kooyoos. Courtesy of Deviant Art. Accessed June 28, 2018. http://bit.ly/2KYvYZY.
- Cars. 2005. Photography by Flickr courtesy of Marika Lueders. Accessed June 28, 2018. http://bit.ly/2J2Vdlu.
- Stepping stones over the Scavaig River. Photography by Oliver Dixon. Courtesy of Creative Commons License. Accessed June 28, 2018. http://bit.ly/2KXnulN.
- Cooke, Shelby. 2018. Grass by River. Photograph.
- Cooke, Shelby. 2018. Hill. Photograph.
- Gray, Allyssa. 2018. Short grass by river. Photograph.
- Hahn, Howard. 2018. Living across the river. Photograph.
- Hake, Bridget. 2018. Girls in Denver. Photography.
- Kids running. 2014. Photography courtesy of Libreshot. Accessed June 28, 2018. http://bit.ly/2lXej9Y.
- Mader, Grace. 2018. University Apartments. Photograph.
- Max Pixel. "Bike Teens Biking Park." http://bit.ly/2L0hBnF. Accessed June, 28. CC0 License.
- Pixino. "Street People Crowd Tourist." http://bit.ly/2KUlE8u. Accessed June, 27. CC0 License.
- Quincke, Madison. 2018. Light Pole. Photograph.

Figure 8.25

Quincke, Madison. 2018. "Market Hill" Kansas State University, LAR646 2018. Photoshop Rendering. Source Images:

- Hake, Bridget. 2018. "Photograph of Man with his Dog." Manhattan, KS.
- Hake, Bridget. 2018. "Photograph of Girls Walking." Fort Collins, CO.
- Public Domain Pictures. "Group of Young People." http://bit.ly/2u413om. Accessed June, 27. CC0 License.
- Hake, Bridget. 2018. "Photograph of Girl Posing." Manhattan, KS.
- People sitting on bench. 2015. Photograph by Mariam S courtesy of Pixabay. Accessed June 30, 2018. http://bit.ly/2J2gQIY.
- Quincke, Madison. 2018. Light Pole. Photograph.
- Pixabay. "Store Shop Storefront Business." http://bit.ly/2MXzwMC. Accessed June, 27. CC0 License.
- Tables and chairs. 2017. Photograph by Flickr courtesy of Matthew Paul Argall. Accessed June 30, 2018. http://bit.ly/2L0zIK8.
- Webb, Scott. "City People Street Walking." http://bit.ly/2J2fa28. Accessed June 28. CC0 License.

Figure 8.26

Quincke, Madison. 2018. "Pedestrian Entryway." Kansas State University, LAR646 2018. Photoshop Rendering. Source Images:

- Man in hood walking. 2017. Photograph by Lukas Rychvalsky courtesy of Pxhere. Accessed July 1, 2018. http://bit.ly/2udCCnM.
- People walking. 2012. Photograph by Flickr courtesy of devenynin. Accessed July 1, 2018. http://bit.ly/2MZr2Vk.
- Pixino. "Street People Crowd Tourist." http://bit.ly/2KUlE8u. Accessed June, 27. CC0 License.
- Public Domain Pictures. "Group of Young People." http://bit.ly/2u413om. Accessed June, 27. CC0 License.
- StockSnap. 2017. "Photograph of Skateboarder." http://bit.ly/2KHwore. Accessed July 1, 2018.
- Stoffel, Elsa. 2018. Walgreens. Photograph.
- Webb, Scott. "City People Street Walking." http://bit.ly/2J2fa28. Accessed June 28. CC0 License.
- Woman in black sittin on stairs. 2016. Photograph by musicFactory courtesy of Pexels. Accessed July 1, 2018. http://bit.ly/2L18u6w.

Figure 8.27
Quincke, Madison. 2018. “Flooding.” Kansas State University, LAR646 2018. Photoshop Rendering with Illustrator Overlay. Source Images:

- Quincke, Madison. 2018. “Pedestrian Entryway.” Kansas State University, LAR646 2018. Photoshop Rendering.
- Quincke, Madison. 2018. “Market Hill” Kansas State University, LAR646 2018. Photoshop Rendering.

Figure 8.28
Quincke, Madison. 2018. “Full Site Section.” Kansas State University, LAR646 2018. Photoshop Rendering. Source Images:

- Building façade 2. 2010. Photograph by Dick van Gameren courtesy of Subtilitas. Accessed June 29, 2018. http://bit.ly/2tZVrLM.
- Fixinox. 2018. “building façade”. Accessed June 29, 2018. http://bit.ly/2zhZBnp. CC0 License.
- Group of Balloons. 2018. Photograph bz Riddhi Jadhav courtesy of Latestly. Accessed June 29, 2018. http://bit.ly/2zgWR9T.
- Honey locust tree. 2018. Photography courtesy of LURVEY. Accessed June 29, 2018. http://bit.ly/2KEDvRw.
- Oldbury63. 2012. “The Wall.” Accessed June 29, 2018. http://bit.ly/2u8Bq4Y. CC0 License.
- Parking garage. N/A. Photograph courtesy of Public Domain Pictures. Accessed June 29, 2018. http://bit.ly/2zkJ966.
- Stoffel, Elsa. 2018. Back of cars. Photograph.
- Transit center bottom. 2016. Photograph by Sophia Layla courtesy of Pixabay. Accessed June 29, 2018. http://bit.ly/2uevBmR.
- Transit Center Top. 2018. Photograph by Vistas3D courtesy of 3D Views and Training. Accessed June 29, 2018. http://bit.ly/2Nssr7P.
- White car. 2017. Photograph courtesy of pxhere. Accessed June 29, 2018. http://bit.ly/2KYzofg.

Figure 8.29
Dunay, Morgan. Land Use Map. Kansas State University, LAR646 2018. Photoshop Rendering over Rhino 3D.

Figure 8.30
Dunay, Morgan. Land Use Facts. 2018. Illustrator Rendering.

Figure 8.31
Quincke, Madison. 2018. “Existing Conditions.” Kansas State University, LAR646 2018. Illustrator Diagram over Rhino 3D.

Figure 8.32
Quincke, Madison. 2018. “Proposed Conditions.” Kansas State University, LAR646 2018. Illustrator Diagram over Rhino 3D.

Figure 8.33
Quincke, Madison. 2018. “Phasing Diagram.” Kansas State University, LAR646 2018. Illustrator Diagrams over Rhino 3D.

Figure 8.34
Hake, Bridget. 2018. “Life Happens Here.” Kansas State University, LAR646 2018. Photoshop Rendering over Rhino 3D Model.

Critical Mapping

Appendix A

308 ..... **Streets** **A.1**
Connecting pedestrian and vehicular across 2nd Street

340 ..... **Waterfront** **A.2**
Opportunities fronting Clear Creek

354 ..... **Brownfield** **A.3**
Redevelopment proposals require remediation

380 ..... **Rail** **A.4**
Considering Tranist-Oriented Development

412 ..... **Powerlines** **A.5**
Addressing powerlines within district

420 ..... **FEMA** **A.6**
Designing above the 100 year flood plain plus 1 foot

434 ..... **Placemaking** **A.7**
Creating a vibrant hub for Coralville

538 ..... **Mixed Use** **A.8**
Allowing for a variety of uses on site

Streets

Appendix A.1

Lack of Intersections on 2nd St and 1st Ave Divide the Study Area

Busy streets and few crossing points pose hazardous and inconvenient conditions for pedestrians.

W2_Cooke01_Intersections.PDF

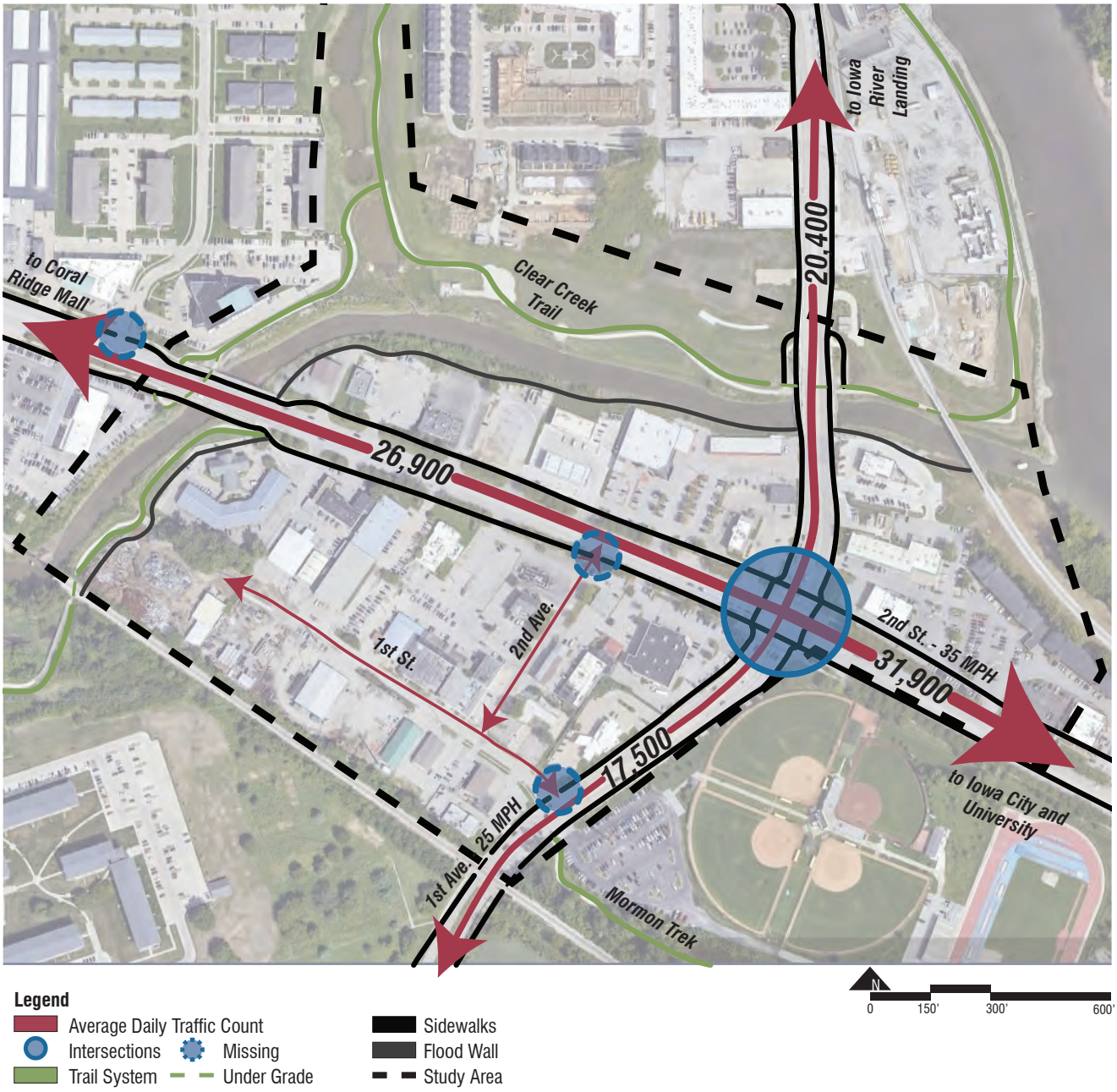


Figure 01. Traffic, Intersections, and Trails in Immediate Site Context
Source: (Google Earth, 2016) (Iowa DOT, 2014)

Inquiry: How pedestrian friendly are the areas within and around the Southeast Commercial District of Coralville, IA?
Key Extractions: Sidewalk and trail locations, key intersections, traffic counts, and pedestrian experience
Methodology: Walkability was determined by assessing the connections of the trail systems and sidewalks to the site. Intersections were found on Google Earth and traffic data was taken from the Iowa DOT annual average daily traffic map. Pedestrian Experience was defined based on the adjacent chart.
Conclusions: The site caters to vehicular traffic over pedestrian. The trail system going around the site is well connected but not well marked from the main road. The trail system does not directly connect the site, only around it. The sidewalks provide some connection to the study area but only along the main roads, again there is no connection into the site. Only one major pedestrian crossing is located in the immediate area, increasing the walk time it takes to get across the street. Pedestrian conditions across 2nd Street could be improved.

Pedestrian Experience Methodology

High Quality
Good traffic buffer, well lit, several amenities, safe

Average Quality
Slight traffic buffer, somewhat lit, some amenities, somewhat safe

Low Quality
No traffic buffer, not well lit, little to no amenities, unsafe

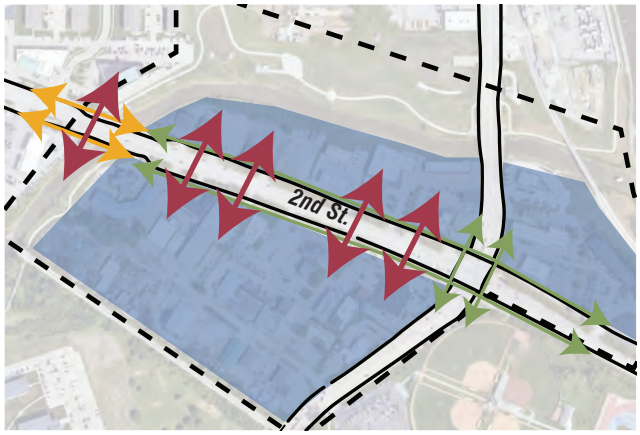


Figure 02: Quality of Pedestrian Experience
Source: (Google Earth, 2016)

Figure 05: 2nd Street traffic makes it difficult to cross the road
Source: (Google Earth, 2016)

Figure 03: 2nd Street sidewalks create a nice pedestrian experience
Source: (Cooke, 2018)

Figure 06: Clear Creek Bridge has amenities but is close to traffic
Source: (Mader, 2018)

Figure 04: 2nd Street crosswalk allows for safe pedestrian crossing
Source: (Cooke, 2018)

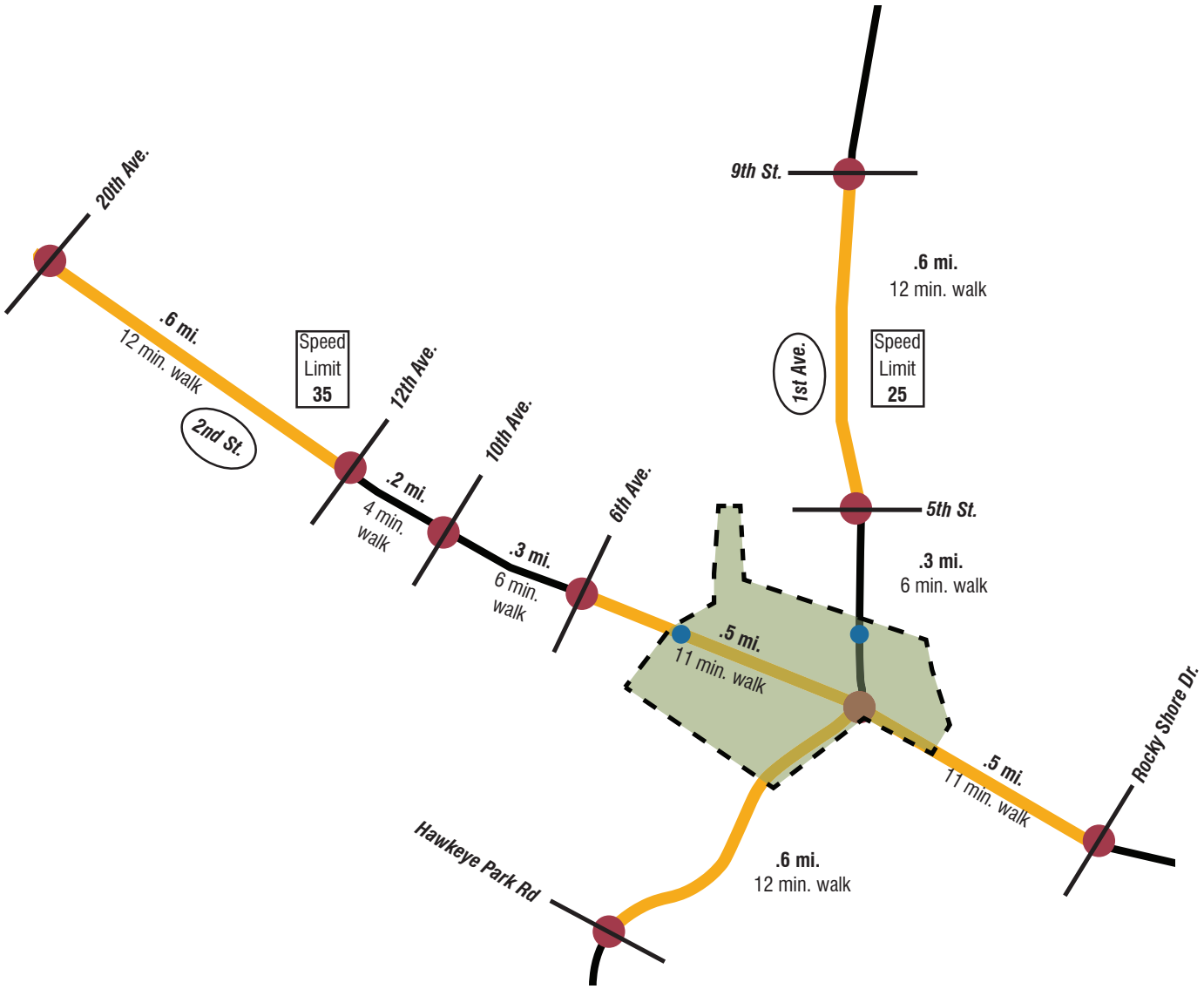
Figure 07: Trail is not clearly directed and creates unease under bridge
Source: (Cooke, 2018)

Lack of Pedestrian Crossings Provide an Opportunity to Connect the Study Area

Dilemma

More intersections will reduce pedestrian travel time and will create connection across 2nd St and 1st Ave

W2_Cooke02_Intersections.PDF



Legend

- Study Area
- 4-Way Crossing with Crosswalk
- Under Grade Crossing
- Routes in Need of More Intersections

Not to Scale

Figure 01. Intersection Travel Distance and Time Along 2nd Street and 1st Avenue
Source: (Google Earth, 2016) (Google Maps, 2018)

Inquiry: What is the current distance and time between intersections and what are the opportunities for improvement?
Key Extractions: Intersection travel distance and time, potential for better connection
Methodology: The intersection time and travel was determined by plotting courses on Google Maps. Key intersections were determined from Google Earth view. Potential crossings were determined from places where paths or roads end or where roads already meet, as well as walk times.
Conclusions: The area in the immediate site boundary has poor intersection crossings. The travel time required for pedestrians to cross between intersections dramatically increases the time it would take people to cross the road in the site boundary. Placing more intersections along 2nd Street and 1st Avenue better connects the site and creates safer pedestrian conditions, as well as reducing travel time.

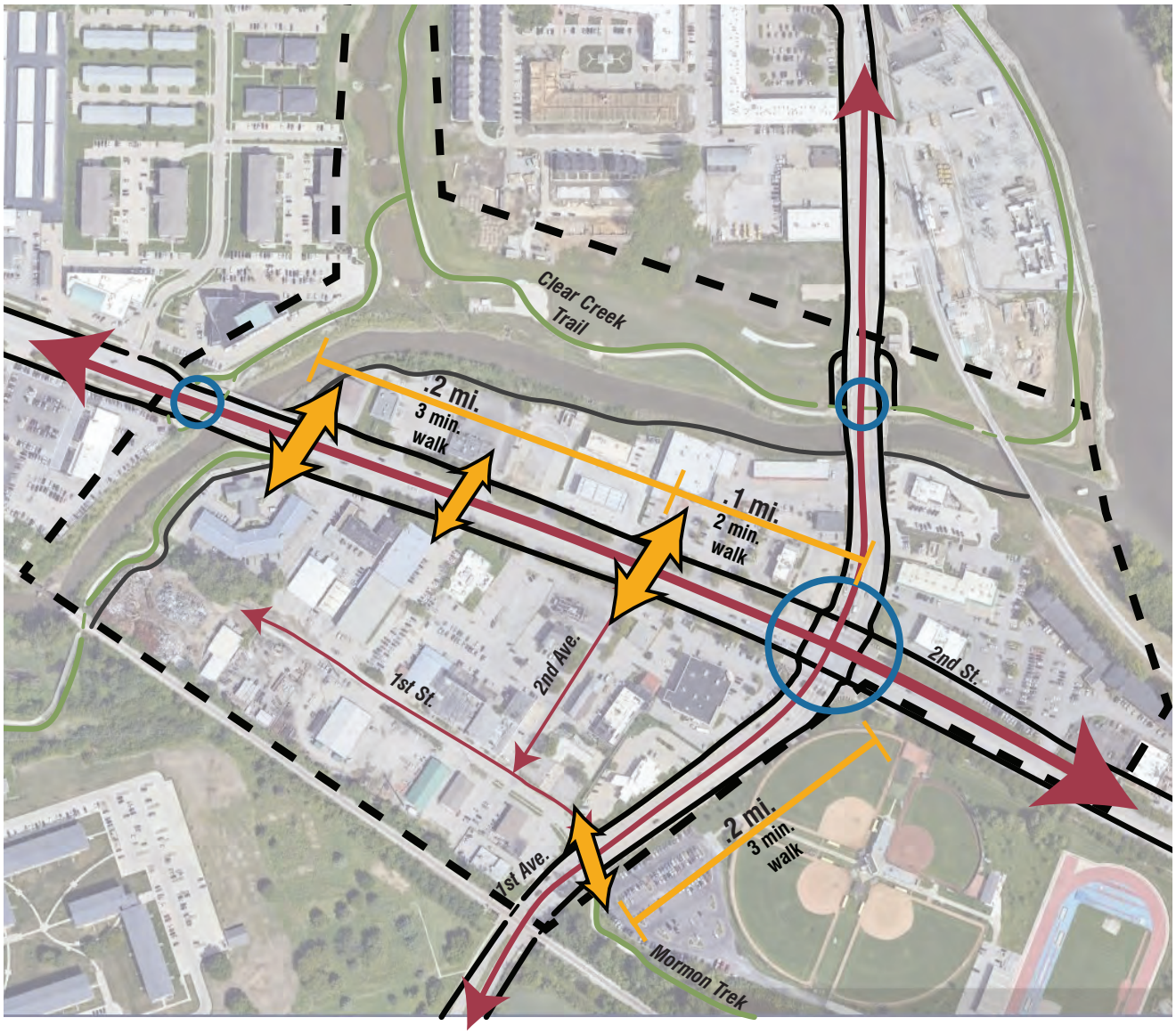


Figure 02. Potential crossings to connect site across 2nd St and 1st Ave
Source: (Google Earth, 2016) (Google Maps, 2018)

If it takes a person **more than 3 minutes** to walk to a crosswalk, they may cross at an unsafe or unprotected location.

(National Association of City Transportation Officials, 2018)

Implementing a Pedestrian Grid Could Better Connect the Study Area

Key sidewalk implementations and crosswalks will allow access along 1st Ave and 2nd St for a better pedestrian experience

W2_Cooke01_Intersections.PDF

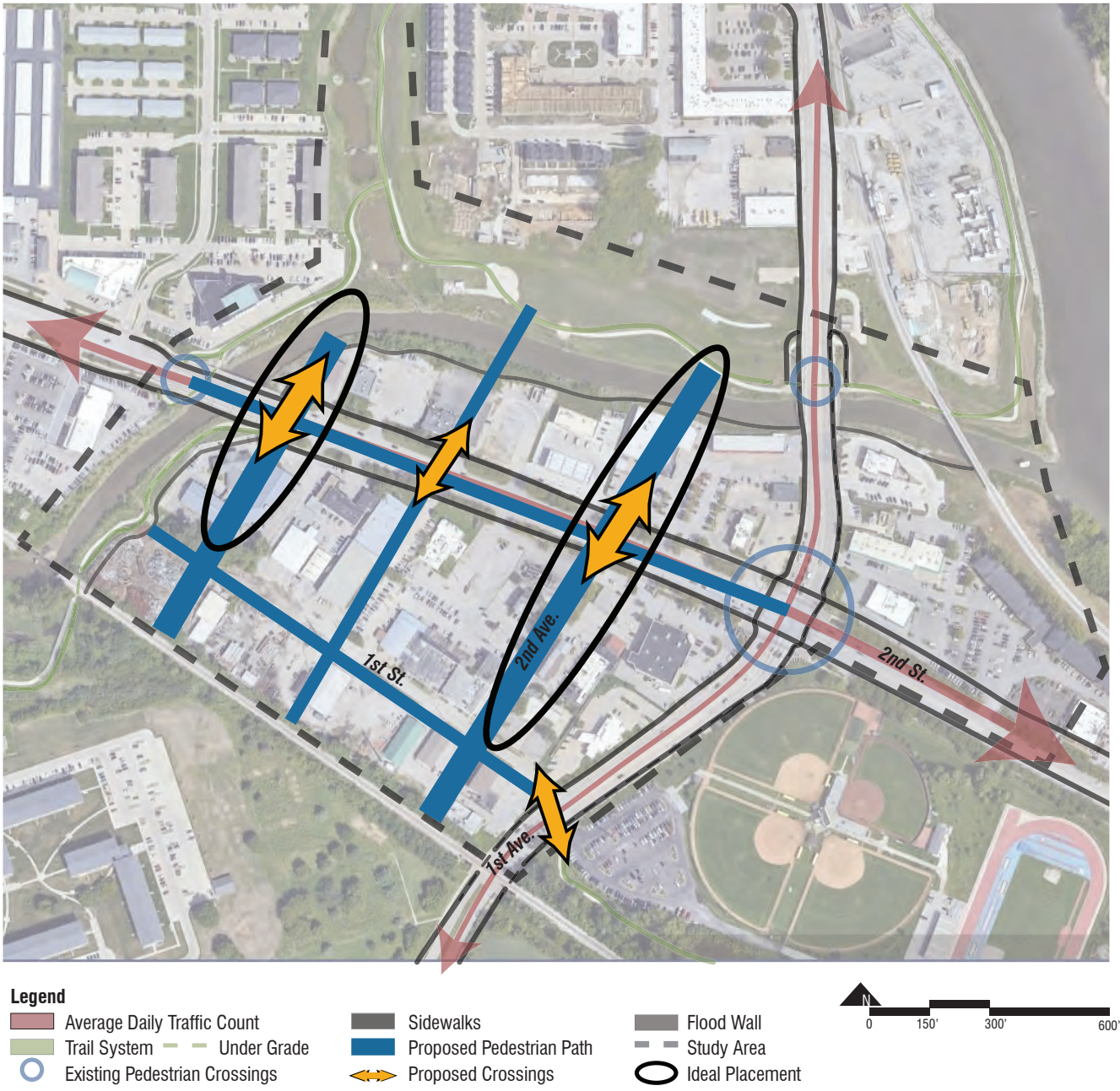
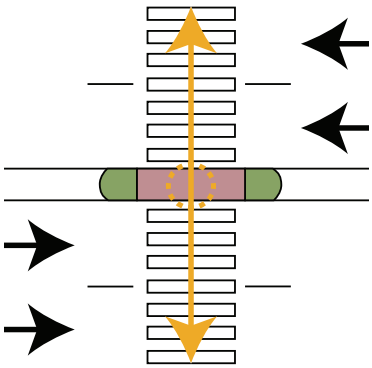


Figure 01. Proposed Pedestrian Grid with Potential Key Crossing Points (1 or more)
Source: (Google Earth, 2016)

Inquiry: How can the pedestrian experience be improved in the Southeast Commercial District of Coralvile, IA?
Key Extractions: Proposed pedestrian grid with improved pedestrian experience
Methodology: Overall strategies were conceived using the dilemma and opportunities maps. The crossing strategies were adapted from the National Association of City Transportation Officials. Landscape architecture standards were used to help define the implemented pedestrian grid strategy.
Conclusions: A new pedestrian grid on the site will allow for a better pedestrian experience along existing roads, across 2nd Street, and to Clear Creek Trail. There are different strategies that can be implemented depending on the desired outcome and function of the design proposal.

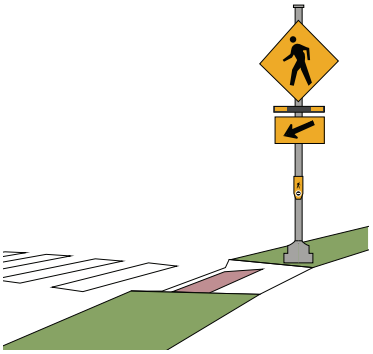
Potential Crossing Strategy Options



Features: 6-10' wide curbed median with vegetated buffer on edges

Benefits: Limits pedestrian exposure time in the intersection without directly impeding vehicular traffic

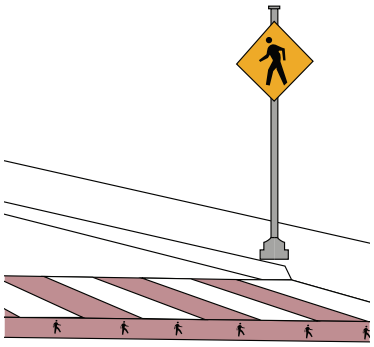
Figure 02. Pedestrian Safety Island
Source: (Cooke, 2018)



Features: Pedestrian crossing sign with rapid flashing beacon

Benefits: Allows safe pedestrian passage where motorist compliance is increased and delay of crossing is reduced

Figure 03. Rapid Flashing Beacons
Source: (Cooke, 2018)

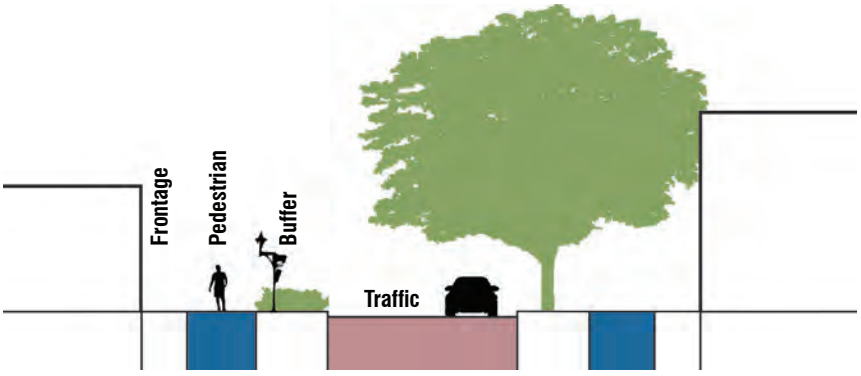


Features: Raised crosswalk with material change and pedestrian crossing sign

Benefits: Allows safe pedestrian passage where vehicular speed is reduced without the use of a speed bump

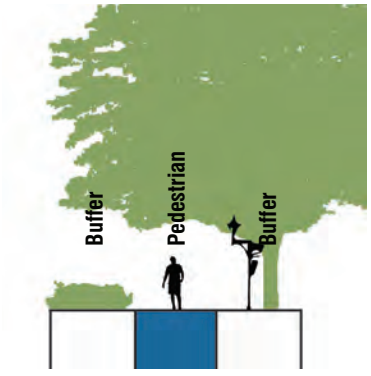
Figure 04. Raised Crossing
Source: (Cooke, 2018)

Implemented Pedestrian Grid Strategy



Frontage Zone: 2-8'
Pedestrian Zone: 5-6'
Buffer Zone: 5-6'
Amenities/Barriers: Trees, shrubs, lighting, signage
Benefits: Allows for safer and better traffic flow between vehicles and pedestrians, while adding character and desirable amenities to the streets

Figure 05. Pedestrian Friendly Street Strategy
Source: (Cooke, 2018)



Pedestrian Zone: 5-6'
Buffer Zone: 5-6'
Amenities/Barriers: Trees, shrubs, lighting, signage
Benefits: Allows for an attractive and desirable pedestrian experience

Figure 06. Sidewalk Strategy
Source: (Cooke, 2018)

Few Existing Businesses Have 2nd Street Frontage

Coralville business success comes from location and vehicle access

W3_MA01_BusinessAccessFromStreet_Comparison.PDF

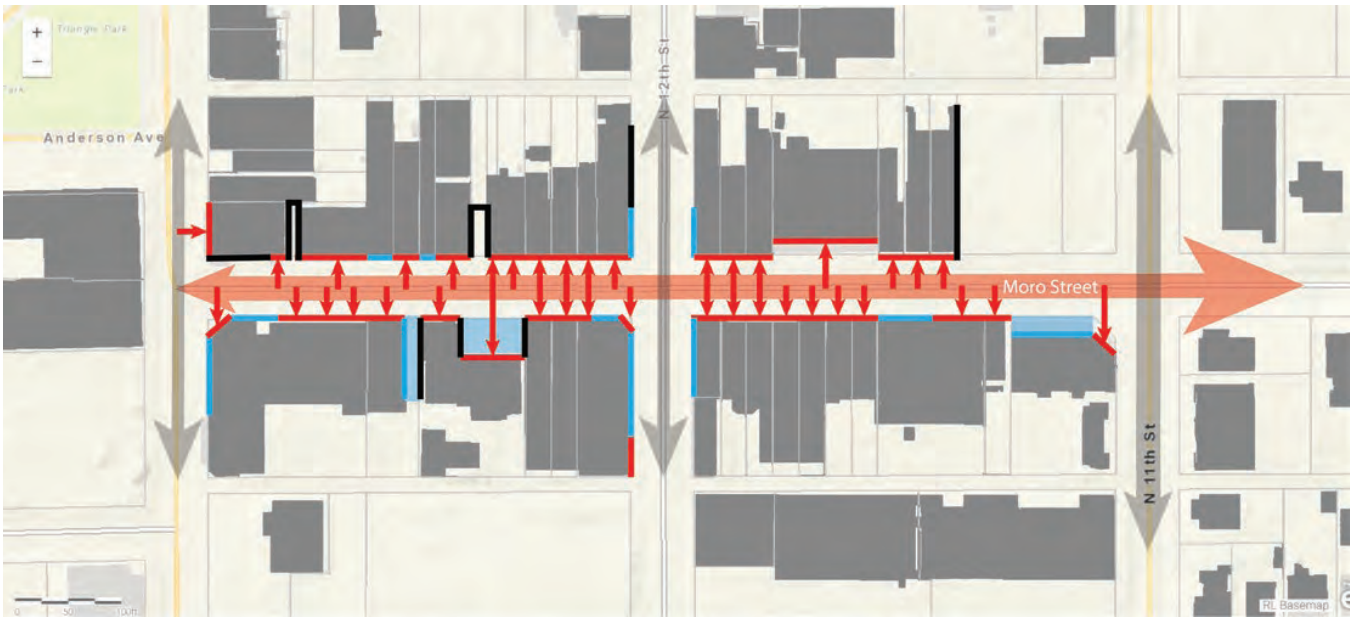


Figure 1.1. Aggieville Business Access (Manhattan, KS)

Aggieville

Average Lot Value (Business Value + Land Value): $1,079,256

Average Land Value: $667,825 (62% of Total Value)

Number of Businesses: 20

Doors/Ft of Pedestrian Access: 1 Entrance Every 25 feet (Avg.)

SE District

Average Lot Value (Business Value + Land Value): $449,122

Average Land Value: $248,383 (55% of Total Value)

Number of Businesses: 39

Doors/Ft of Pedestrian Access: 1 Entrance Every 90 feet (Avg.)

Figure 01. Business Access From Central Corridor

Inquiry: Does the adjacency and distance of building access affect the prosprerity of businesses?
Key Extractions: Local Economics
Methodology: Parcel values were taken from city websites. Location of business entrances and building facades were observed from a site visit.
Conclusions: Comparing the study area to Aggieville in Manhattan, Kansas shows that the area has considerable value overall, but a larger percent of the value comes from the location itself and not the business. The site also has far less individual businesses with a larger area but only half the number of businesses. The direct access to each store is more difficult on site than it is in aggieville. The businesses in Aggieville are directl connected to the pedestrian walkway, while those on site have better access to parking lots, making it more dfficult for pedestrians to see and access them.

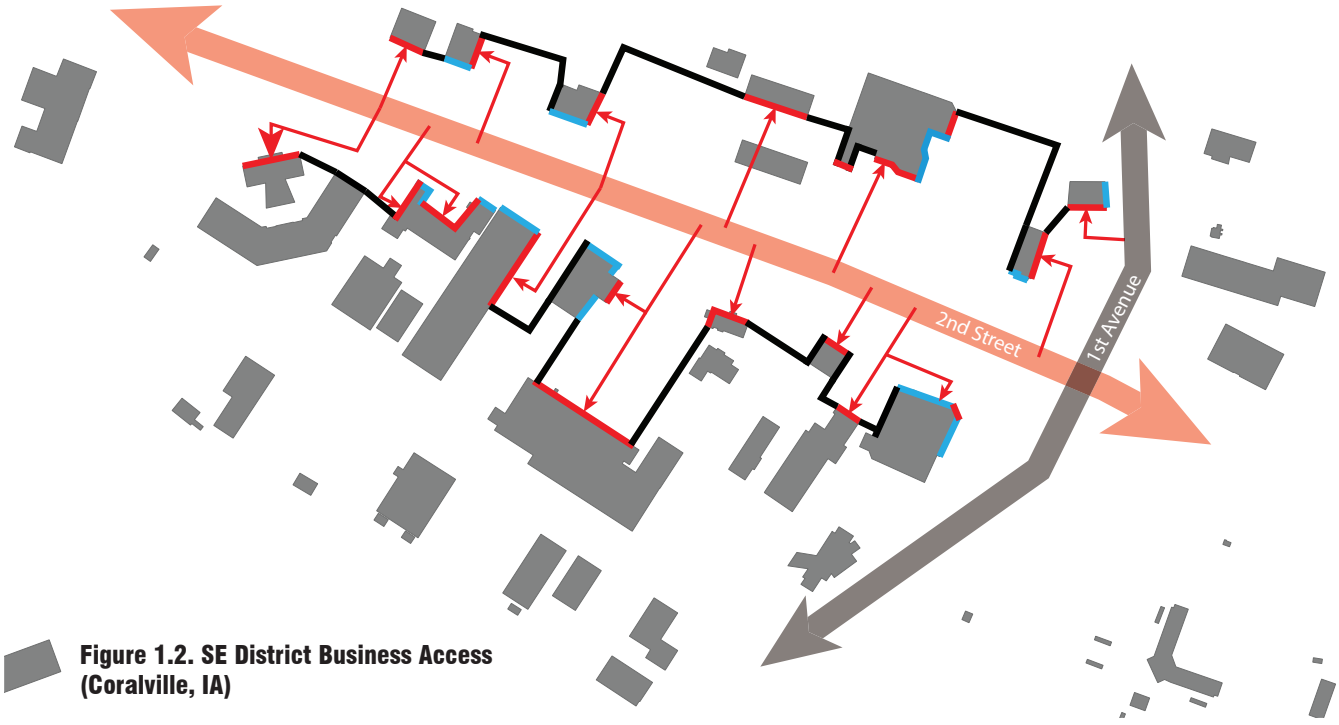


Figure 1.2. SE District Business Access (Coralville, IA)

Legend

- Main Corridor
- Secondary Corridor
- Access from Corridor
- Entry Facade
- Window Facade
- Blank Facade / Building Gap
- Building
- Seating Area

N

0 150 300 600

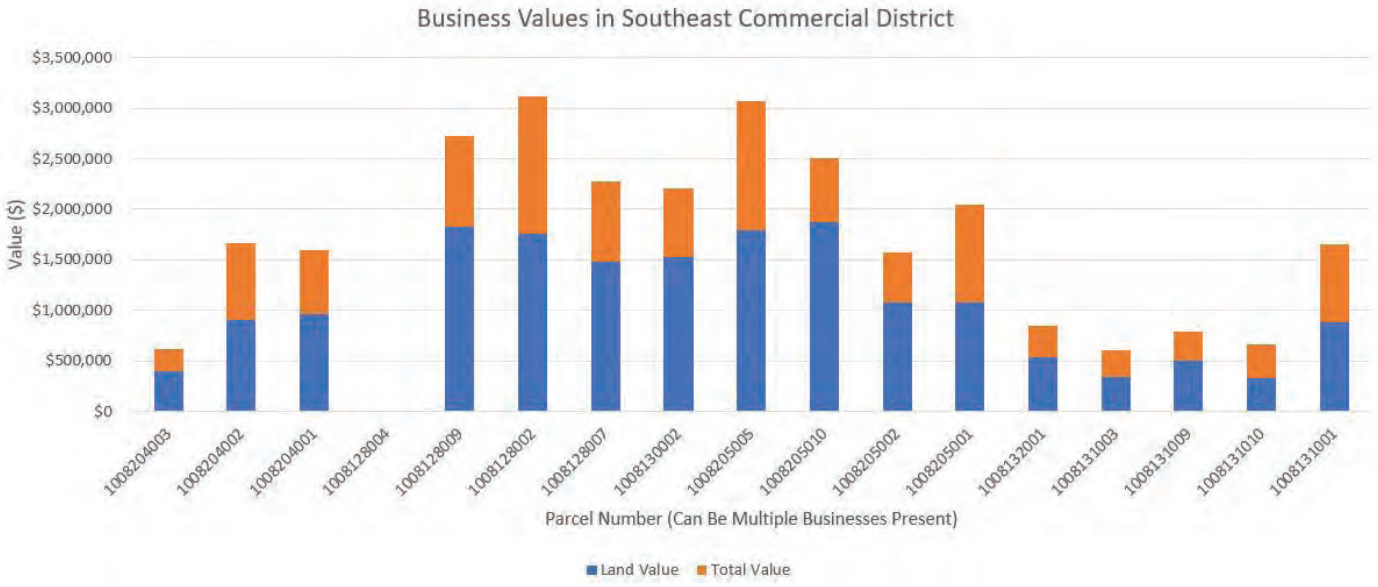


Figure 1.3. SE Business Value (Source: gis.johnson-county.com/piv/)

Abundance of Vehicle Access is Hindering Pedestrian Use of Southeast District

Overall layout of storefronts, parking, and pedestrian routes is not efficiently accessible

W3_MA02_BusinessAccessFromStreet_Dilemma.PDF

Figure 2.1. Most of the buildings along the 2nd Street corridor have no direct access to the rest of the pedestrian circulation. The sidewalks are adjacent to a continuous row of low shrubs which can prevent physical access to the buildings behind it. The only breaks within these barriers are vehicle access points.
(Source: Marcos Aleman, 2018)

Legend

- Building
- Parking Area
- Physical Barrier
- Storefront/Entrance

Figure 2.2. Pedestrian access to apartment buildings and businesses in the district are undesireable for extened lengths of time. Many entrances to buildings are only accessible to vehicles and parking lots.
(Source: Marcos Aleman, 2018)

Figure 2.3. The use of vegetation is scarce beyond the main corridor. Building facades have little to no trees or plants to buffer from the hardscape of parking lots.
(Source: Marcos Aleman, 2018)

Figure 02. Building Relationship to Vehicle and Pedestrian Access
Source: ArcGIS, Google Earth

Inquiry: How does the placement of entrances and landscape affect the use of the site?
Key Extractions: Business/Economy, Circulation, Physical landscape elements
Methodology: Observations were taken durng the site visit on the walkability of the site and the pedestrian access to store entrances.
Conclusions: There are two main conclusions from these maps. The first is that pedestrian walkways are poorly connected to the businesses within the district. There are limited designated sidewalks that connect the main corridor of 2nd Street to the buildings and businesses. The second is that most of the storefronts are aligned with adjacent parking lots. While pedestrians can still walk through parking lots, the approach and entrance to the businesses can be improved with the addition of outdoor elements and designated walking space.

Figure 2.4. SE District Entries and Parking

Figure 2.5. Aggieville Entries and Parking (Source: gis.rileycountyks.gov)

Rethinking Storefronts and Pedestrian Access

Pedestrian friendly storefronts attract more business options and visitors to the site

W3_MA03_BusinessAccessFromStreet_Strategy.PDF

Figure 3.1. Section - Existing

Figure 3.2. Plan - Existing

Figure 3.3. Section - Proposed

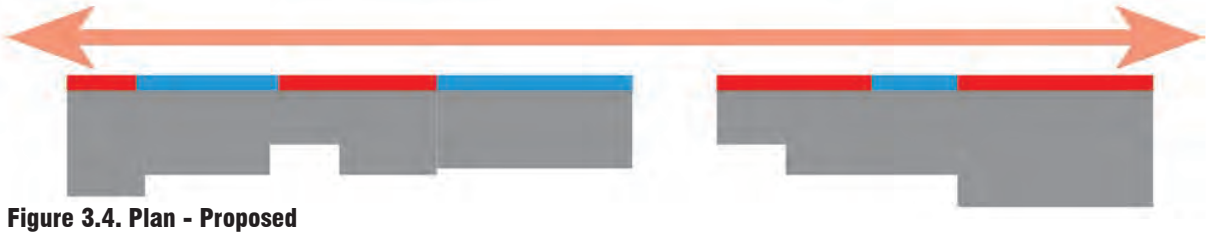


Figure 3.4. Plan - Proposed

Figure 03. Proposed Revitalization of 2nd Street Business Corridor
Source:

Inquiry: Will the activation of storefronts improve local business and pedestrian experience?
Key Extractions: Site Planning, Urban Density, Circulation
Methodology: Observations of precedent studies and their success is hypothetically applied to the study area. Elements such as hidden and designated parking areas and direct access from sidewalk to storefront were considered.
Conclusions: Shifting the building fronts closer to the 2nd Street corridor and increasing density will shorten distance for pedestrians to the buildings while maintaining vehicle access. Policies for increasing the density of the site can increase the amount of businesses that can be established in the study area.

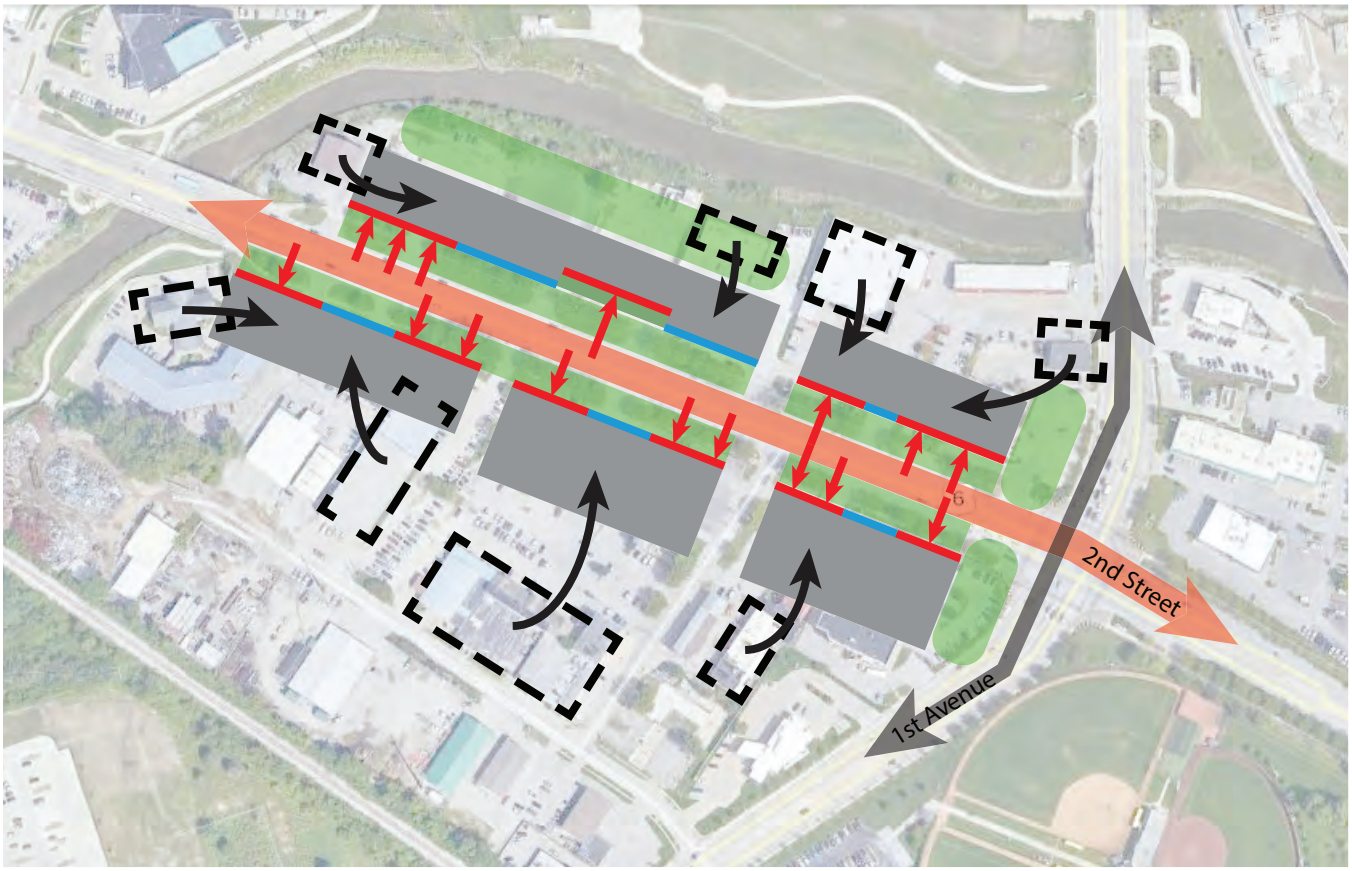


Figure 3.5. Proposed Density Plan (Source: Google Earth)

Legend

- Main Corridor
- Secondary Corridor
- Access from Corridor
- Entry Facade
- Window Facade
- Original Building Footprint
- Building
- Parking Lot
- Pedestrian/Green Corridor

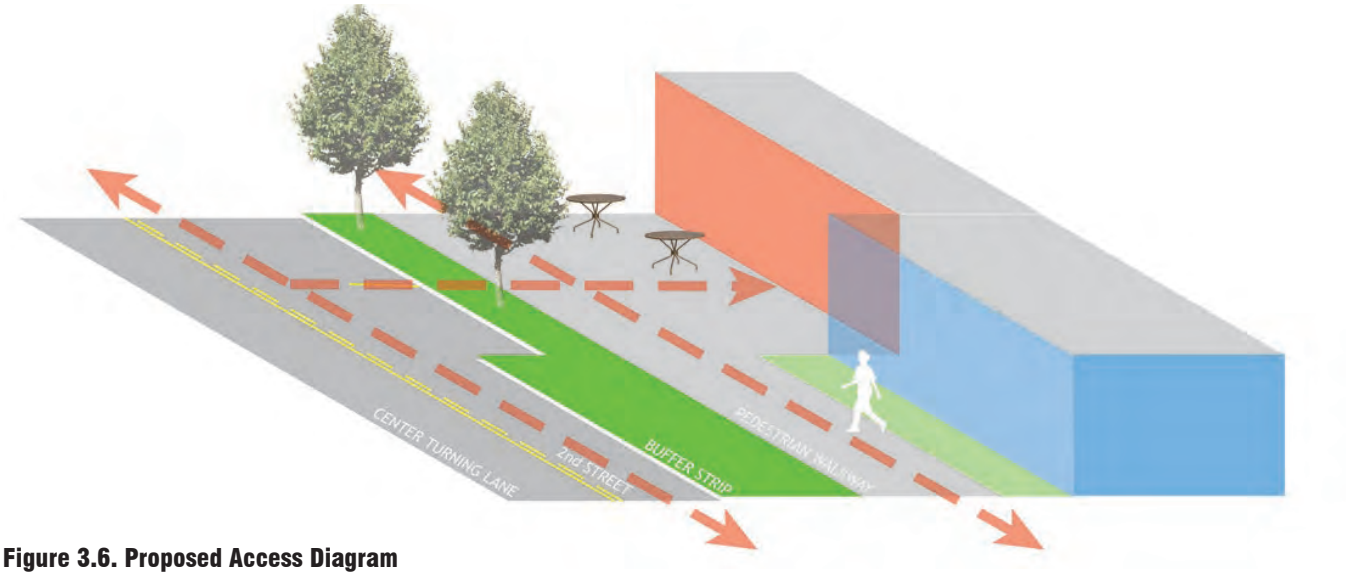
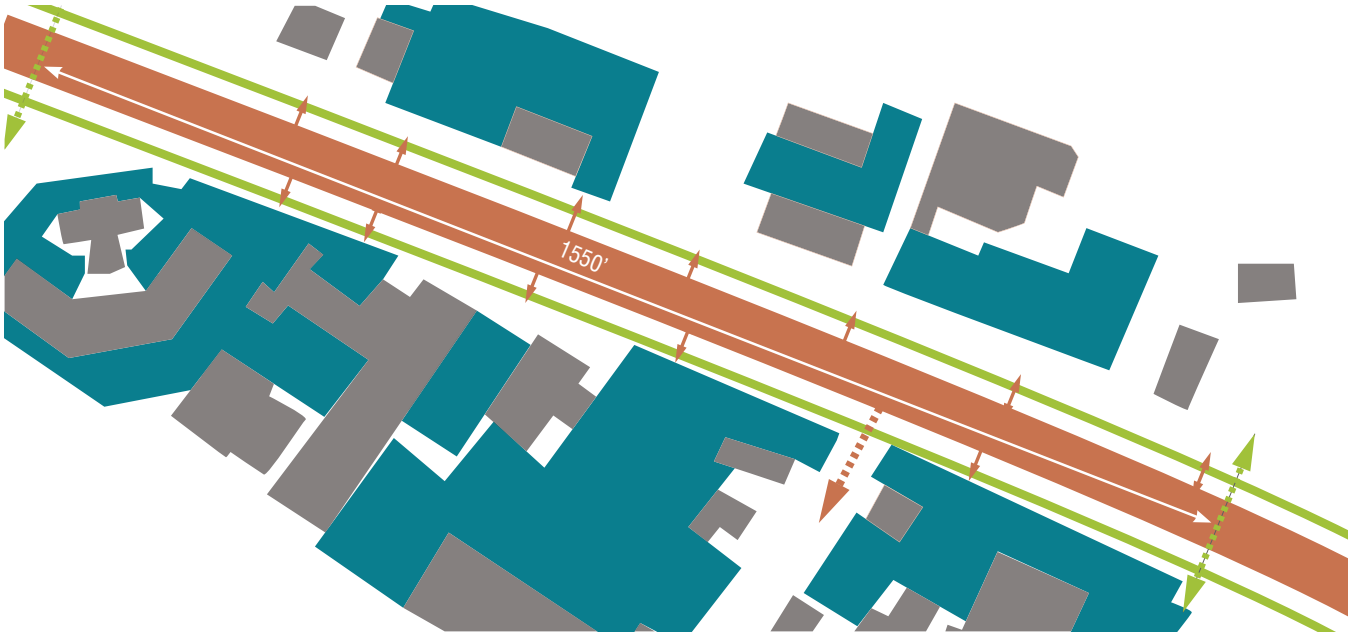


Figure 3.6. Proposed Access Diagram

2nd Street Divides SE Commercial District

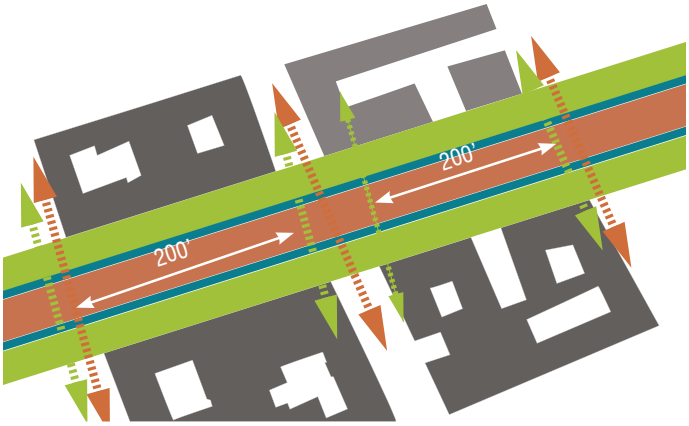
66' wide highway creates barrier to pedestrian circulation which prevents site unity

W3_Randall01_Streetscape.PDF;



2nd Street, Coralville, Iowa, United States

Kurfürstendamm, Berlin, Germany



Via Cola di Rienzo, Rome, Italy

Legend

- Pedestrian
- Vehicular
- Parking
- Building
- Intersection
- Pedestrian Crossing

Inquiry: How can 2nd Street be transformed to unify the SE Commercial District?
Key Extractions: Intersection and street elevation comparisons between 2nd Street and multi-way boulevards in Berlin and Rome
Methodology: Mapping trees/shade structures, parking, roads and paved trails, benches/outdoor seating
Conclusions: The high-speed vehicular traffic of 2nd street, combined with the wide street cross-section and lack of pedestrian crossing creates a distinct barrier in the SE Commercial district. This is in contrast to slow traffic and plentiful pedestrian crossings found in Via Cola, Rome and Kurfürstendamm, Berlin. These European streets are successful components of their respective commercial districts becuase of thier emphasis on providing equal street utility for vehicles and pedestrians. Furthermore, the proximity of the buildings to the street creates a stronger sense of identity and definition in contrast to relatively mundane appearance of 2nd Street as a standard US highway.

Via Cola di Rienzo, Rome, Italy

- Slow traffic speeds
- Street Parking
- Approximately 2:1 pedestrian/vehicle space ratio
-Plentiful pedestrian crossings (200' spacing)
-Buildings define corridor spatially and culturally

Kurfürstendamm, Berlin, Germany

- Slow traffic speeds
- Street Parking in the center of the street
- Approximately 1:1 pedestrian/vehicle space ratio
- Centered street parking and slow speeds make entire street crossable
- Buildings define corridor spatially and culturally
- Long distance between crosswalks, but whole street is can be crossed

Figure 02. Sensory Comfort (Noise)
Source: Google Earth Pro (2018)

2nd Street, Coralville, Iowa, United States

- Fast traffic speeds
- Long turn lane in center of street
- Approximately 1:4 pedestrian/vehicle space ratio
- Centered street parking and slow speeds make entire street crossable
- minimal pedestrian crossing (1600' spacing)
- Minimal volumetric and cultural definition

Structure-Free Corridor Creates Opportunity for Streetscaping and Pedestrian Connections

Lack of structures close to 2nd street create a relatively empty corridor that can be better utlized by visitors and businesses

W3_Randall02_Streetscape.PDF

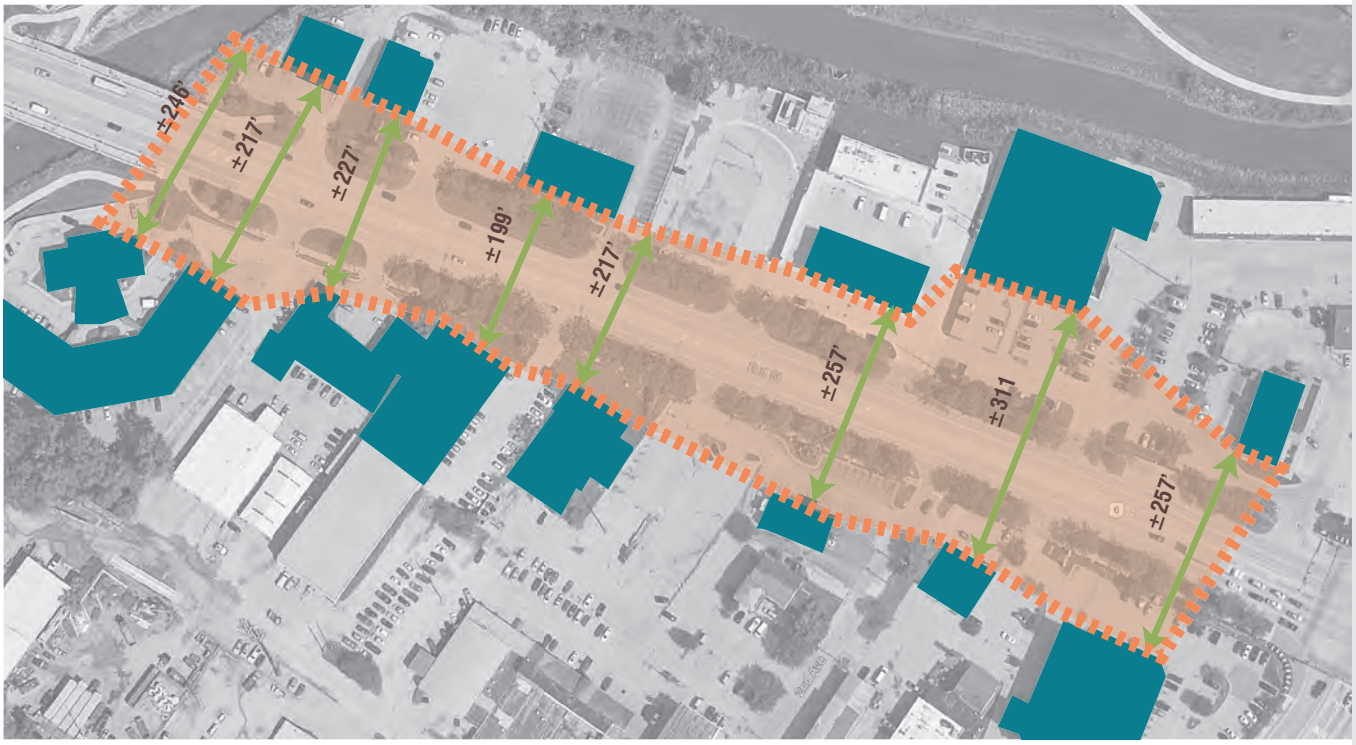


Figure 01. Available Space for Streetscape Improvements
Source: Google Earth Pro, 06.08.2018

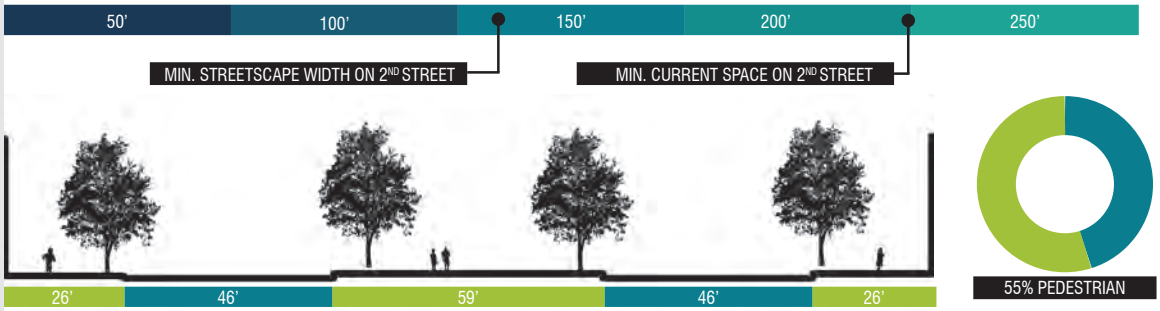
Legend

- Building Spacing
- Structure-Free Area
- Building

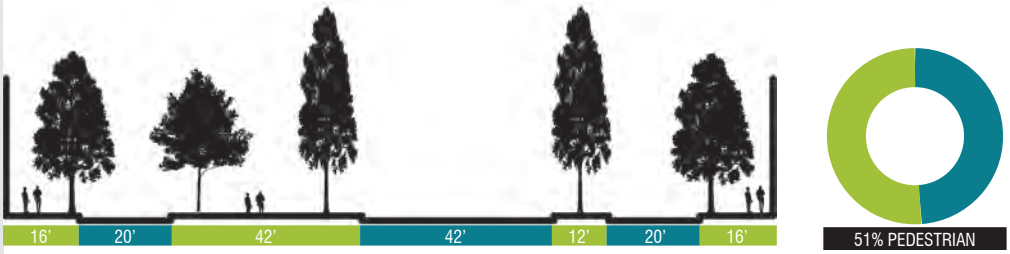
Second Street - Coralville, Iowa Corridor Width: 199' - 311'

Inquiry: Is there adequate space for significant streetscape rennovations to the SE Commercial District?
Key Extractions: Distances between buildings across 2nd Street
Methodology: Measuring building spacing across 2nd Street with Google Earth
Conclusions: Assuming no buildings to be moved during the redevelopment of the SE Commercial District, there is more than enough space for significant improvements to the streetscape. While improvements have been made previously, the addition of seating to provide places to rest and storefronts to activate the street would further improve the street. Sculptures could be used to improve cultural identity and adding a median with trees would improve the view across the street. The smallest spacing across 2nd Street is nearly 200', a generous amount of space when compared to several streetscapes in Western Europe. While not all streetscape options shown are entirely applicable to Coralville, primarily because of the difference in context (rural highway vs. urban street), the European examples illustrate that a great deal of exciting possibilities exist for the current site, and that even more options would be available with adjustments to building locations during redevelopment.

Comparitive European Streets

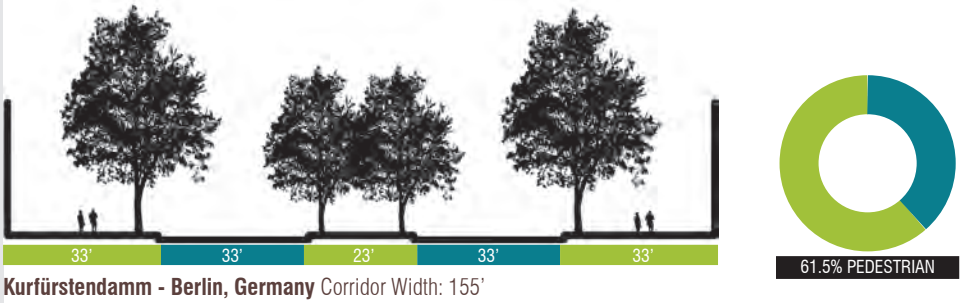


Unter den Linden - Berlin, Germany Corridor Width: 206'

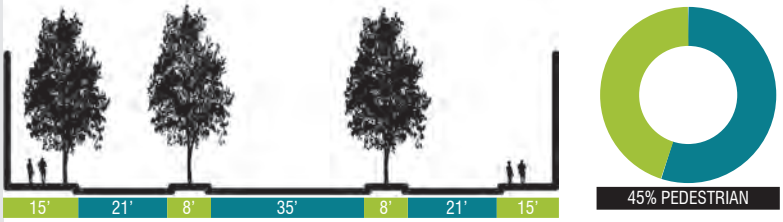


Avinguda de Roma - Barcelona, Spain Corridor Width: 188'

Via Cola di Rienzo - Rome, Italy Corridor Width: 163'



Kurfürstendamm - Berlin, Germany Corridor Width: 155'



Boulevard de Strasbourg - Toulouse, France Corridor Width: 123'

Diagrams adapted from *Great Streets* and *The Boulevard Book* by Allan B. Jacobs

Map 1.3c

Intersections and Spatial Layers Will Create a Safer and more Comfortable Streetscape

Spatial layering, additional vegetation, increased pedestrian amenities and buildings close to the street will activate 2nd Street

W3_Randall03_Streetscape.PDF

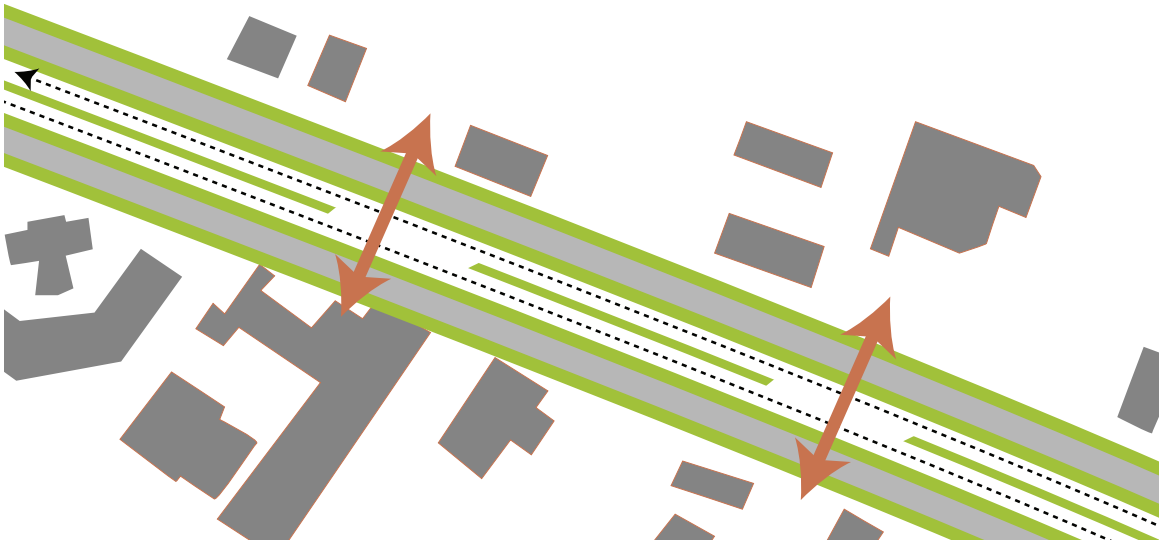


Figure 01. Early Phase Concept

- Convert Shared turn lane to median
- Add 1 or 2 intersections,
- Close other turn-ins

-Expand walkways
-Add Seating

Figure 02. Early Concept Phase Section

Legend

- Median
- Proposed Intersection
- Parking
- Existing Building
- Proposed Building
- Pedestrian Circulation/Space

Inquiry: What adjustments to the streetscape will improve pedestrian comfort and activity while unifying the SE Commercial District?
Key Extractions: Proposed changes to spatial layering of the 2nd Street streetscape
Methodology: Layering spaces to create a safer, more comfortable enivironment that connects the site across 2nd Street
Conclusions: Both short- and long-term solutions can improve the 2nd Street environment while connecting the site. While 2nd Street currently divides the SE Commercial District and adds to pedestrian discomfort when crossing the street, the addtion of intersections, medians, trees and additional pedestrian amenties will connect the site and create a more comfortable environment, encouraging pedestrians to be out in the district. Increased activity will help bring business which will in turn attract more visitors. Short-term solutions include expanding existing sidewalks, adding benches and creating a planted median. Long-term solutions involve extensive redistribution of streetscape layers to create a comfortable, dynamic space.

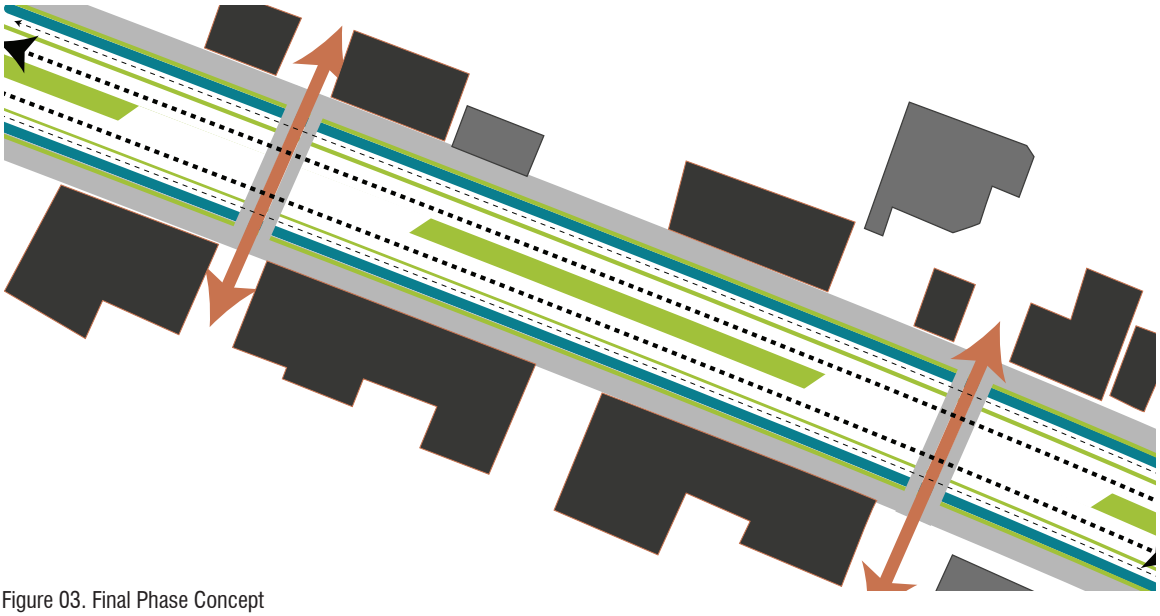


Figure 03. Final Phase Concept

- Expand median, add addtional trees
- Building development in close prox. to pedestrian walkway
-Expand walkways
- Add secondary medians to define new street parking space

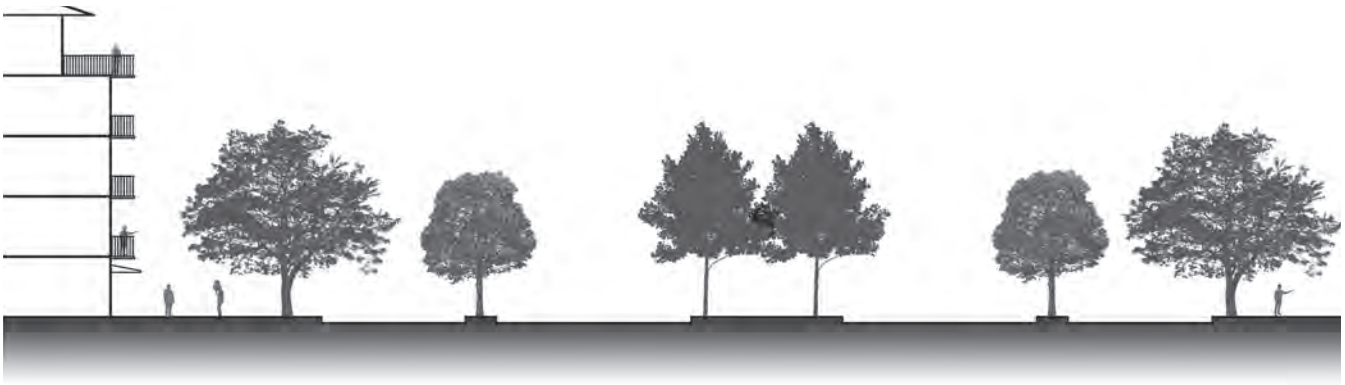


Figure 04. Final Phase Concept Section

Map 1.4a

While 2nd Street Boasts Mixed-Use Development, 1st Avenue Falls Short

Offering a multitude of residential land uses, 2nd Street provides more opportunities for housing than 1st Avenue

W3_Baker01_DevelopmentAnalysis .PDF

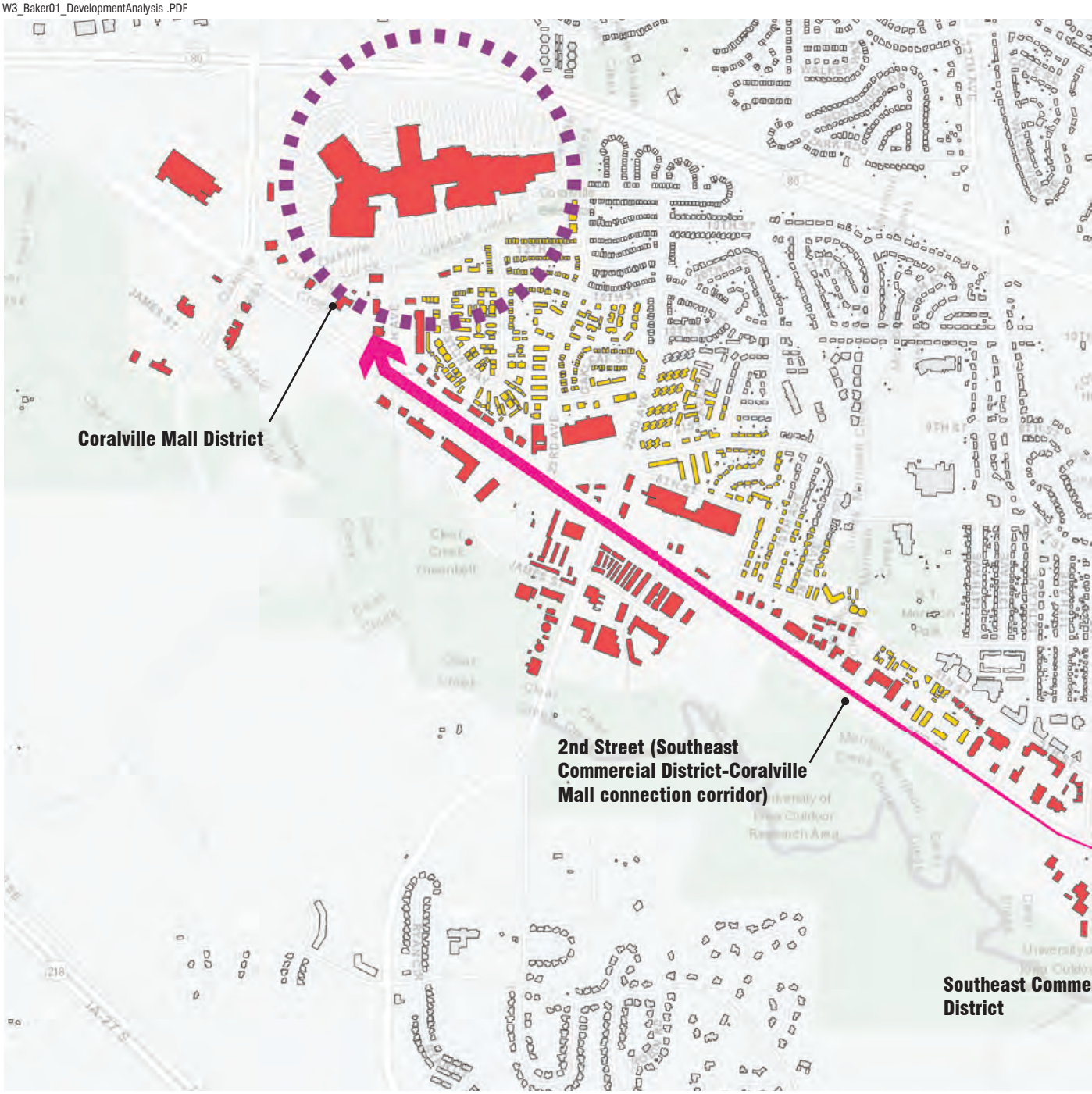
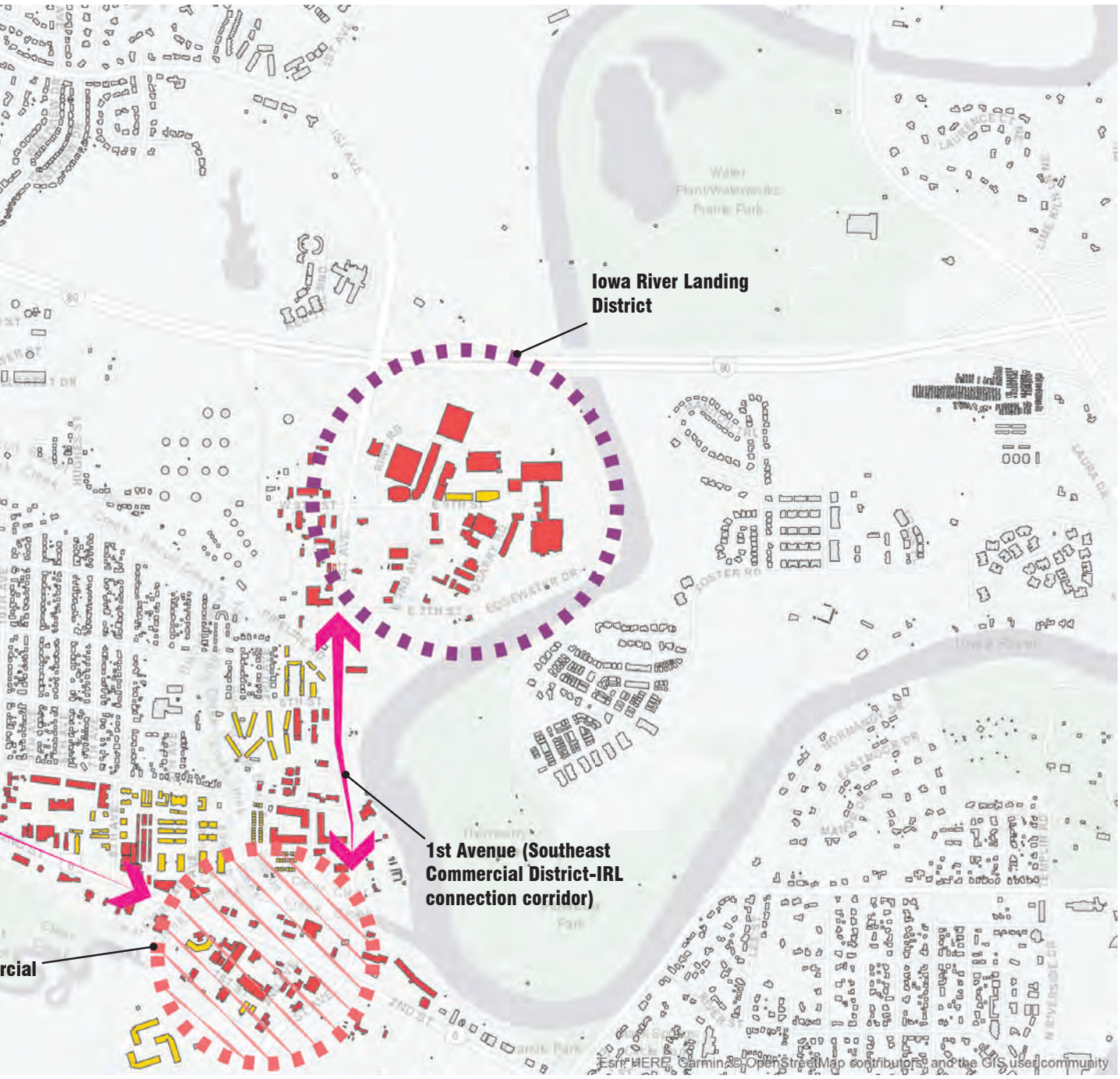
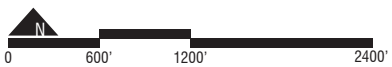


Figure 1.0. 1st Avenue and 2nd Street Land Use Composition
Source: Baker, Johnson County GIS

Inquiry: How does the land use composition of 2nd Street compare to the land use composition of 1st Avenue? Which corridor offers the most potential for the addition of affordable housing?
Key Extractions: Commercial & Retail Land Use, Residential Land Use
Methodology: ArcGIS Building Footprint analysis; Site Analysis via Google Earth
Conclusions: Nearly all land use within the 1st Avenue connection corridor is classified as commercial use. Three residential developments exist to the west of the connection corridor, however these developments may not meet the affordable housing standards desired by residents of Coralville. In contrast, the 2nd Street connection corridor offers many more housing opportunities. Centrally located between the Iowa River Landing and Coralville Mall districts, the Southeast Commercial District has the potential to become an important node of economic activity.





Legend

- Commerical Land Use
- Residential Land Use
- Connection Corridor
- Southeast Commercial District
- Iowa River Landing/Coralville Mall District

The 1st Avenue Connection Corridor can Serve as Transitional Linkage

Situated between two major districts, the 1st Avenue corridor can bridge the gap between mixed-use and commercial use

W3_Baker02_TransitionalLinkages.PDF

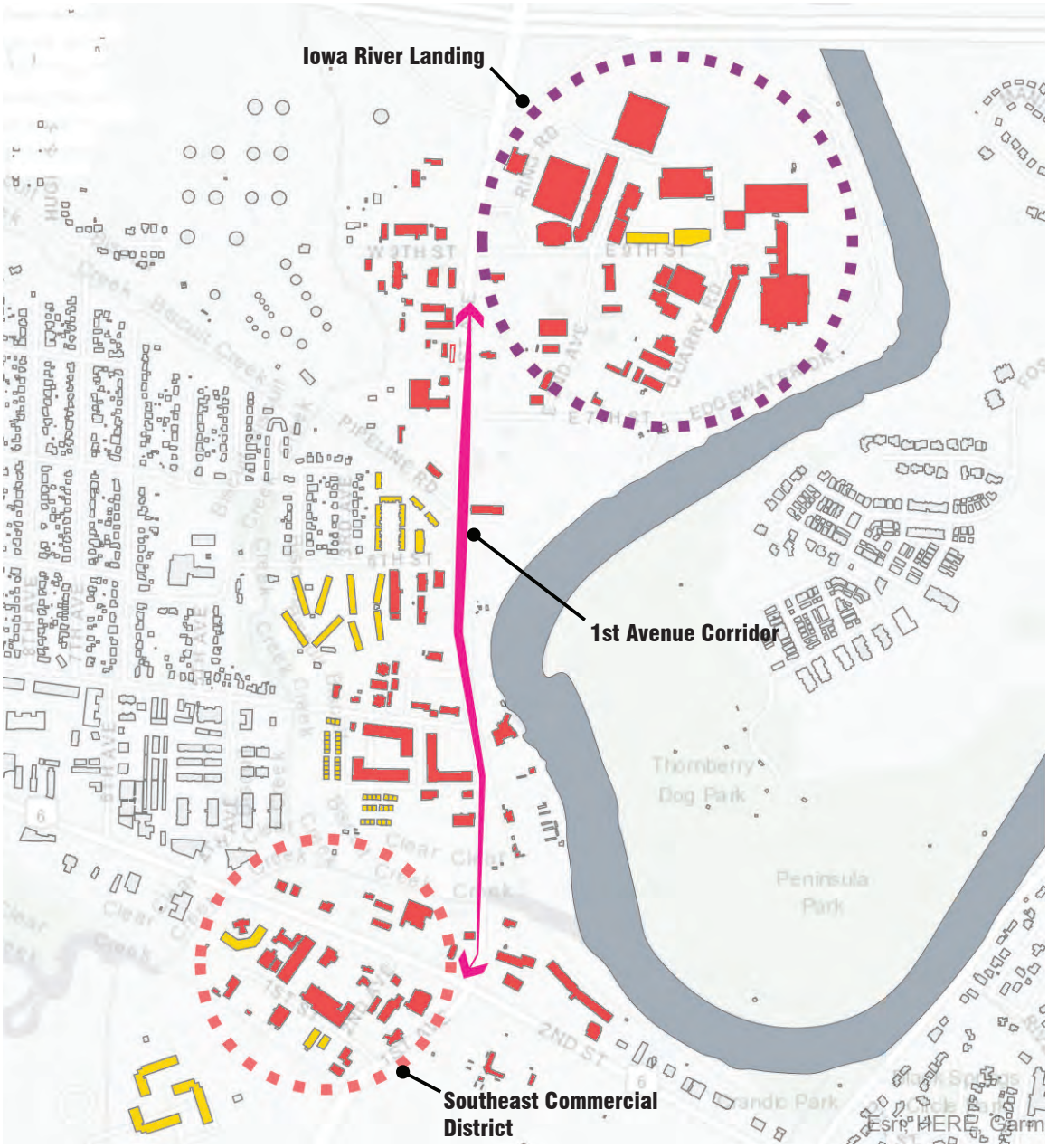
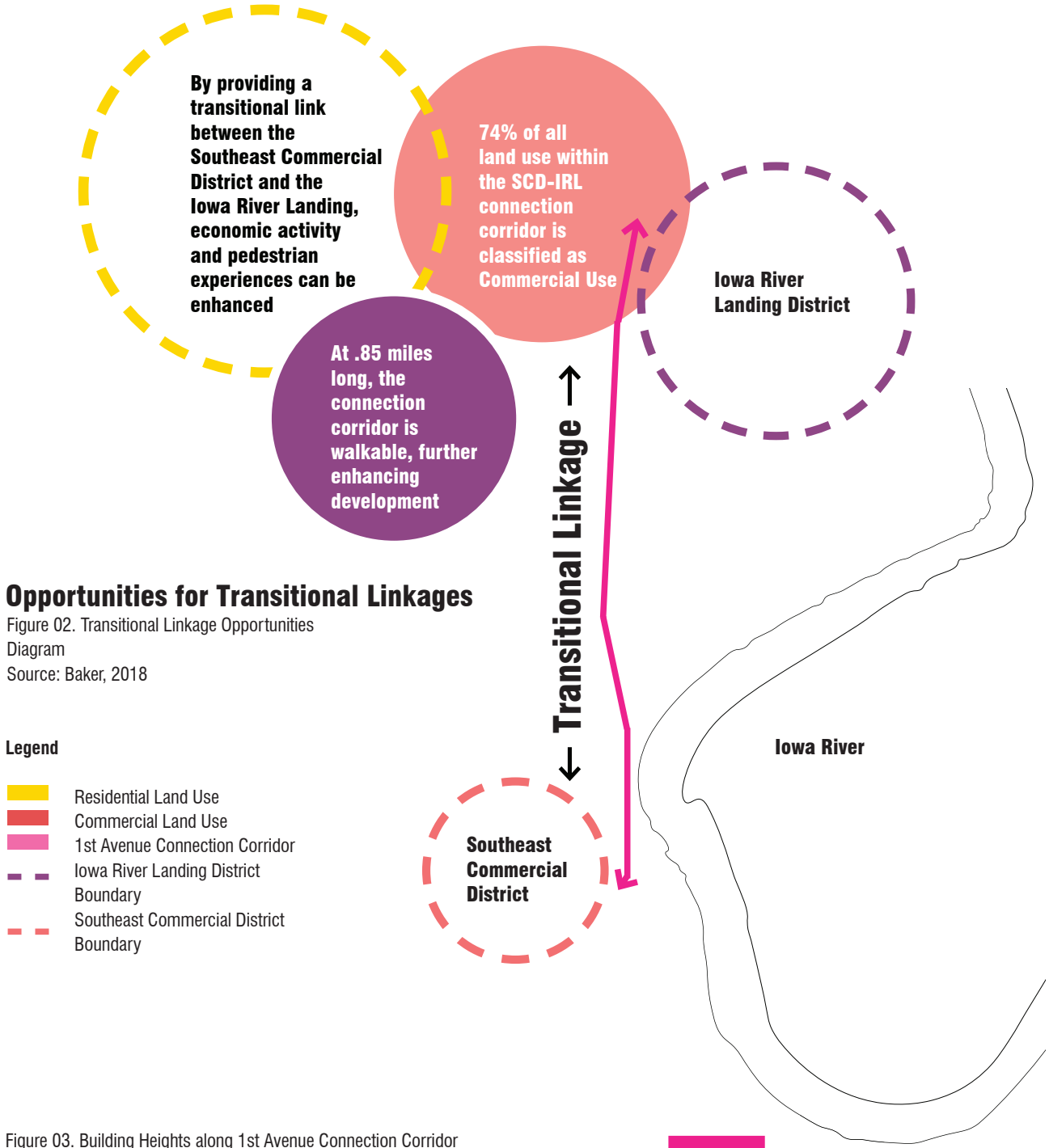


Figure 1.0. Linkage Potential of the 1st Avenue Connection Corridor
Source: Baker, Johnson County GIS, City of Coralville, Iowa Community Plan, 2018

Inquiry: How can the 1st Avenue corridor better serve as a primary linkage between the Southeast Commercial District and Iowa River Landing?
Key Extractions: Commercial & Retail Land Use, Residential Land Use, 1st. Avenue Corridor
Methodology: ArcGIS Building Footprint Analysis, ArcGIS Land Use Analysis, and Site Analysis via Google Earth and Google Maps.
Conclusions: Land use within the 1st Avenue connection corridor is designated primarily as commercial use. Situated between the Iowa River Landing and the Southeast Commercial District, the 1st Avenue connection corridor is positioned well to serve as a transition between mixed use and commercial/retail land use between the two districts. Possibilities for increased economic activity and enhanced pedestrian experiences exist throughout the corridor. Lastly, the addition of green space along the east side of the 1st Avenue corridor, as well as adjacent to the Iowa River has the potential to increase the overall comfort and character of the corridor, while reducing urban heat island effects.



Opportunities for Transitional Linkages

Figure 02. Transitional Linkage Opportunities Diagram
Source: Baker, 2018

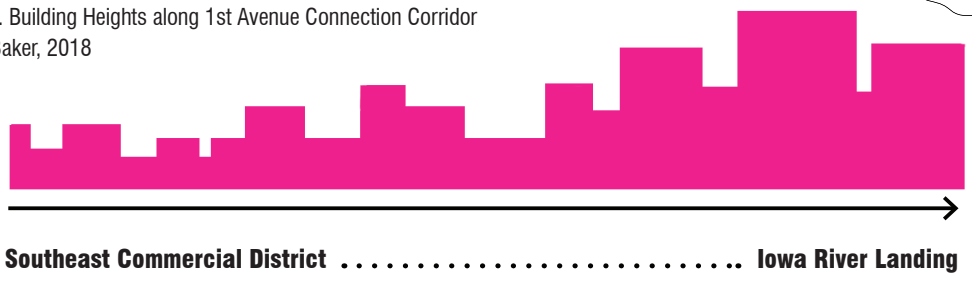


Figure 03. Building Heights along 1st Avenue Connection Corridor
Source: Baker, 2018

Green Space along the Iowa River and 1st Avenue Corridor can Strengthen Linkage

The incorporation of urban green space improves overall comfort and character of the 1st Avenue connection corridor

W3_Baker03_TransitionalLinkages.PDF

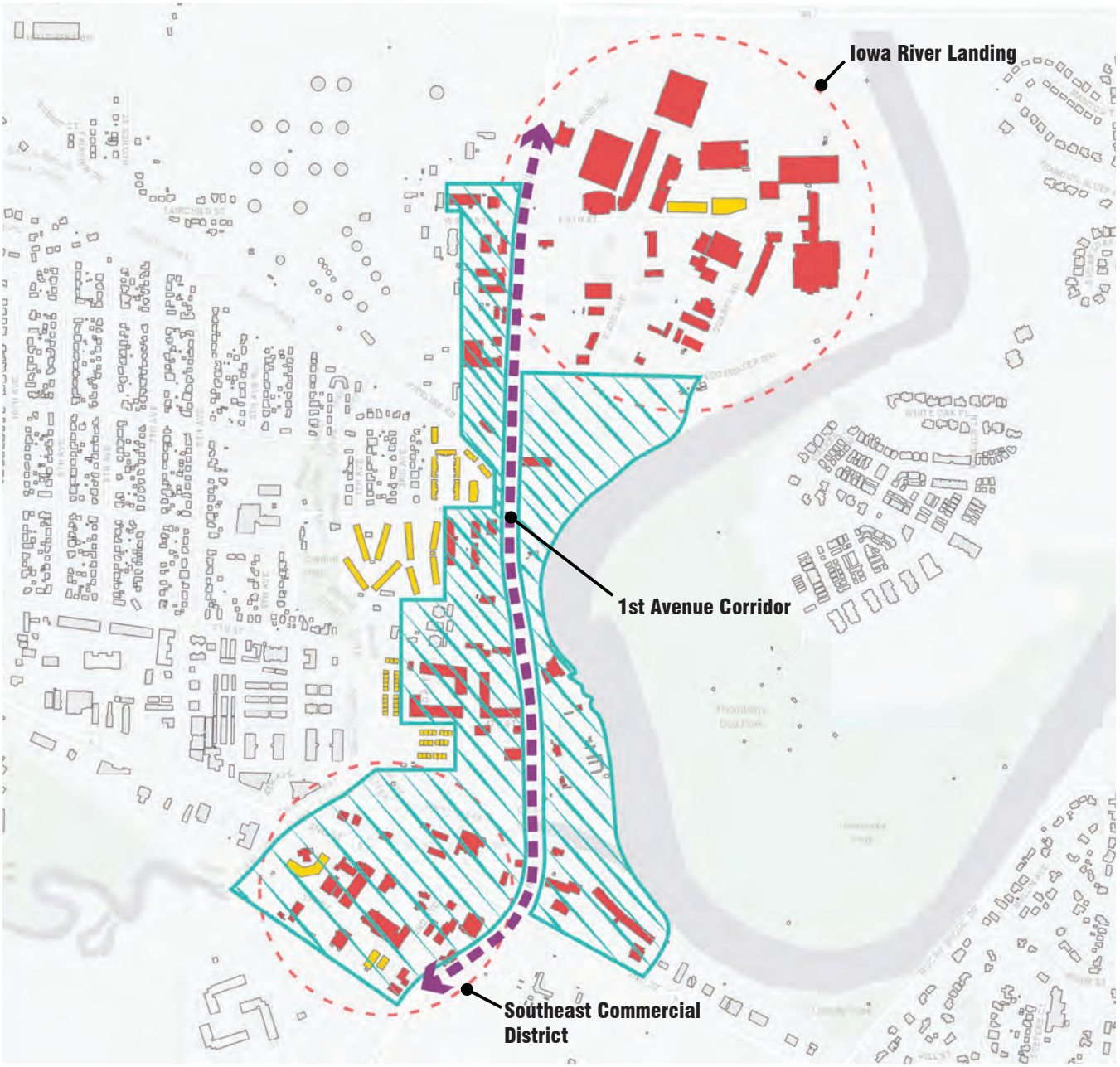


Figure 1.0. Potential Locations for the Incorporation of Green Spaces
Source: Baker, Johnson County GIS, 2018

Inquiry: Can public green spaces be successfully integrated into the primarily commercial land use fabric of the 1st Avenue connection corridor?
Key Extractions: Key Locations for Public Green Space, Locations for Streetscape Improvements along the 1st. Avenue Corridor
Methodology: ArcGIS Building Footprint Analysis, ArcGIS Land Use Analysis, and Site Analysis via Google Earth and Google Maps.
Conclusions: The incorporation of green space along the 1st Avenue connection corridor serves to strengthen the transitional linkages between the Southeast Commercial District and the Iowa River Landing. By creating a comfortable corridor for pedestrian circulation, the streetscape of 1st Avenue has the potential to become a strong gathering hub for social and recreational activities. Due to its proximity to trailheads adjacent to Clear Creek and the Iowa River, the addition of public green space can also serve to increase trail connectivity to many other areas of the Coralville community.

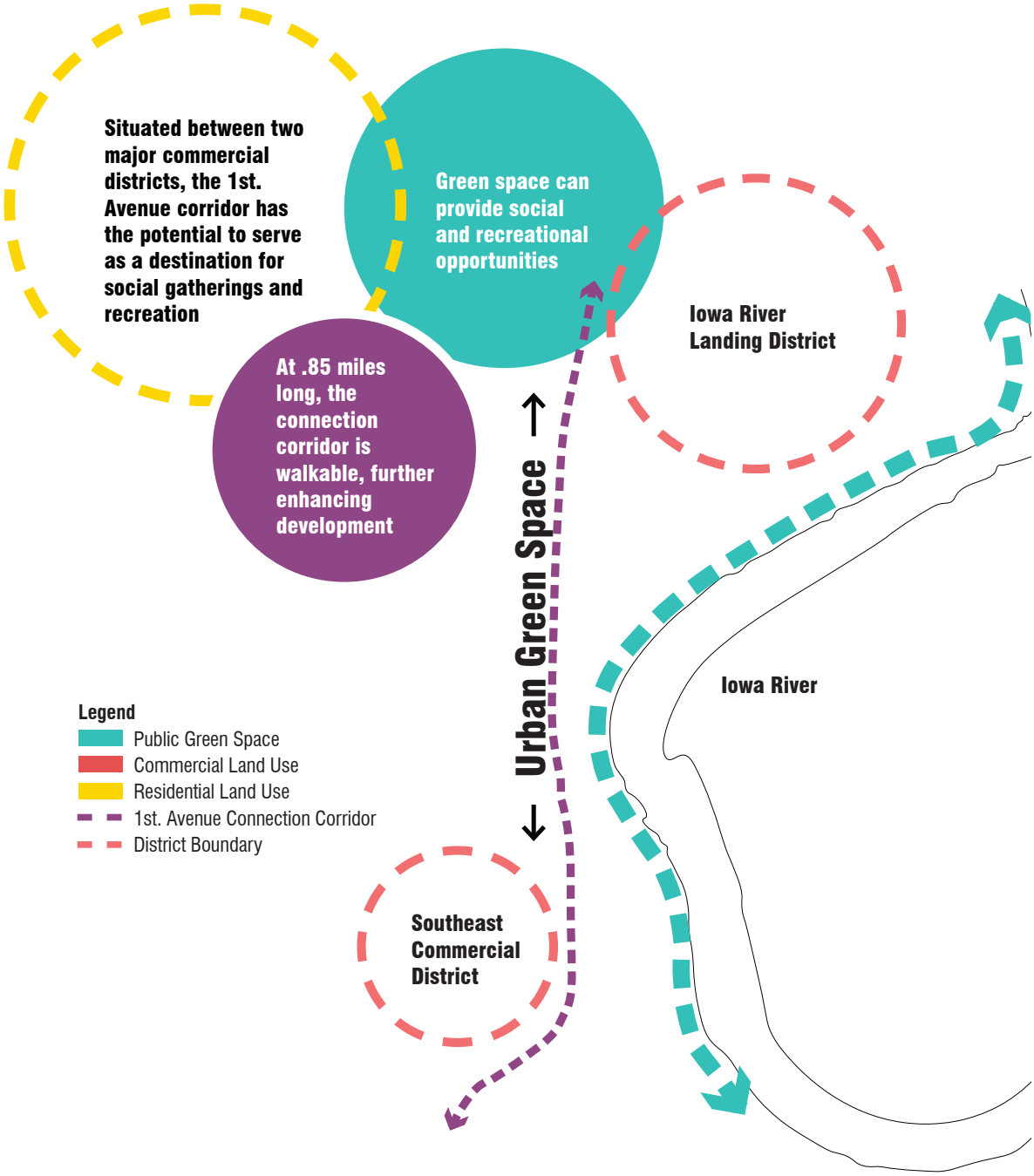


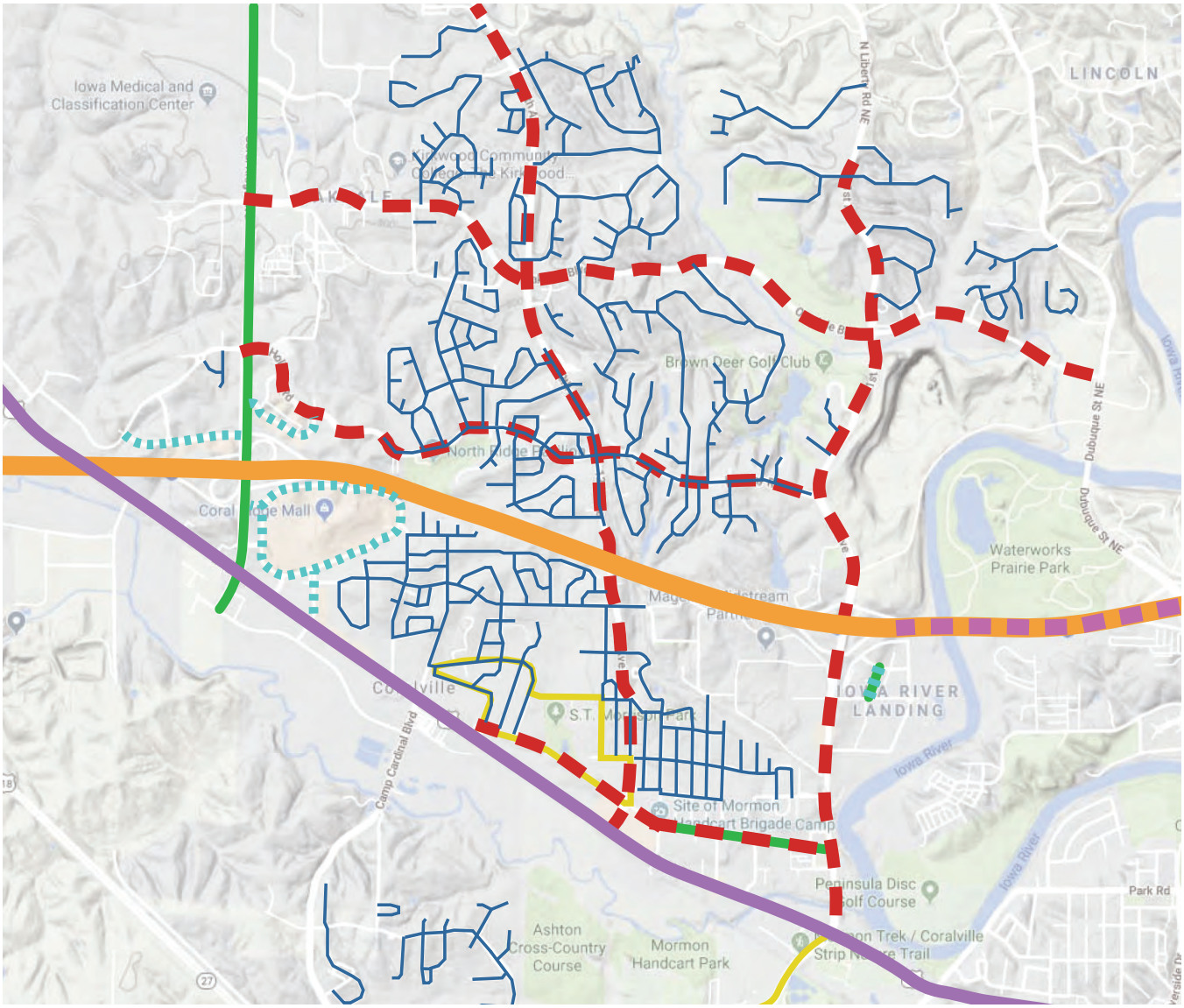
Figure 2. Transitional Linkage Opportunities Diagram
Source: Baker, 2018

Inclusion of Green Space into the 1st Avenue Connection Corridor

Vikas Mehta's Typology of Streets within Coralville

Eight street types in Coralville reveal the underlying layout and development of the city

W3_KP01_1.6K_StreetTypologies.PDF



(Source: Mehta, 2013)

Figure 01. Street Typologies
Source: Google Earth

Inquiry: What kind of streets are located within the city of Coralville?
Key Extractions: Types of streets
Methodology: Using the street typology outline from *The Street: A Quintessential Social Public Space* by Vikas Mehta (2013), streets of Coralville were categorized based on their functions. These functions were based upon observations from the site visit as well as views from Google Earth.
Conclusions: From delineating the typology of streets, it is apparent that many of the street types are consolidated into select areas. The most diverse areas are concentrated in the southern part of Coralville. The emergence of green streets within the city are beginning to pop up in various places, and consumption streets have an opportunity to expand into more places throughout Coralville instead of just on the western edge. It is also a concern that the main street of Coralville is the boundary between two separate cities. Main street should be more accessible to those who are living in the neighborhoods to the north, although I-80, the efficient street, creates a barrier between the northern and southern part of the city. Using the different street types as indicators,one can see that Coralville first developed along Highway 6 and development moved northward from there.

Figure 02. Iowa River Landing is an example of a Green Street.
Source: Google Earth Street View

Figure 03. I-80 is an Efficient Street.
Source: Google Earth Street View

Figure 04. Consumption Streets surround shopping areas.
Source: Google Earth Street View

Figure 05. Communal Streets are located within the neighborhoods.
Source: Google Earth Street View

Figure 06. The Main Street of Coralville is Highway 6.
Source: Mader, 2018

Figure 07. 1st Avenue is a Promenade Street.
Source: Mader, 2018

Figure 08. Hayden Fry Way depicts a Celebration Street.
Source: Asolsma, 2009

Figure 09. I-80 is used as a Protest Street.
Source: Roeder, 2017

Streetscape Opportunities for Southeast Commercial District

Streets of Southeast Commercial District create opportunity for street-specific development

W3_KP02_.4K_StreetOpportunity.PDF

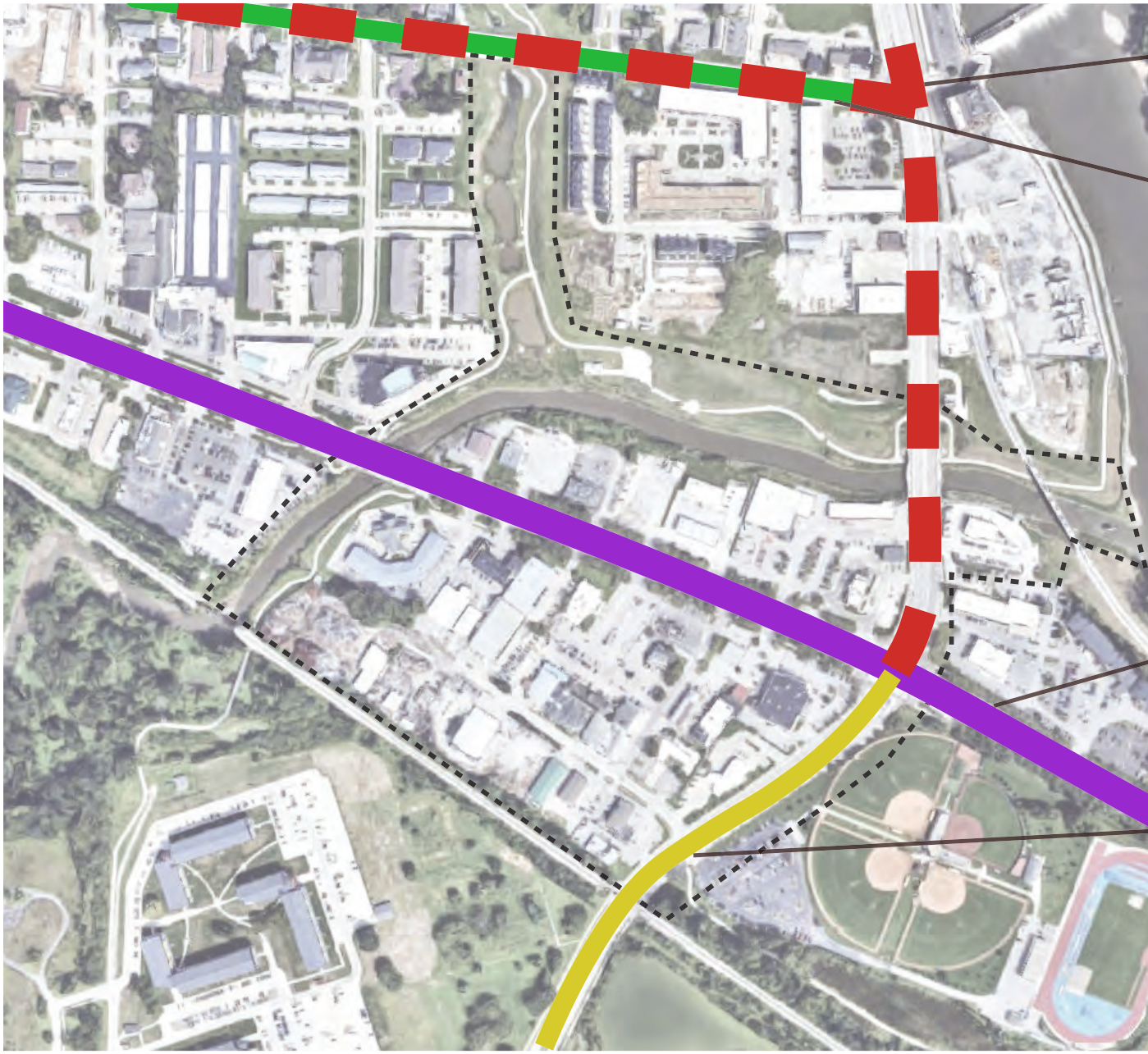


Figure 01. Street Typologies within Southeast Commercial District
Source: Google Earth

Inquiry: How can the street be activated within the Southeast Commercial District in regards to the existing street typologies?
Key Extractions: Street typologies are delineated as well as opporutunities along the streets for development.
Methodology: Using the street typology outline from *The Street: A Quintessential Social Public Space* by Vikas Mehta (2013), streets near the Southeast Commercial Distrcit were categorized based on their functions. These functions were based upon observations from the site visit.
Conclusions: Surrounding the Southeast Commercial Distrcit are four different street types: the Celebration Street, the Promenade Street, the Green Street, and the Main Street. These four street types create many different opportunities for redevelopment of the site. Creating strong features along the streets will give the Southeast Commercial Distrcit a new identity and will make it more inviting for visitors and residents within the area. Located at one of the busiest intersections in the state of Iowa, it is important to make the site desirable and act as a gateway into the Coralville community. By activating these four street types in the area, it will make the Southeast Commercial District more pedestrian friendly, create opportunity for new buisness, and establish connectivity between the rest of the city.

Promenade Street

A Promenade Street connects important destinations within a city. It helps facilitate movement and aids in social, political, and economic processes of a city (Mehta, 2013).

Green Street

A Green Street represents a softened view of the city seen as an open space with pervious surfaces and native vegetation that lines the street absorbing stormwater and providing a buffer from traffic (Mehta, 2013).

Main Street

A Main Street is primarily lined with retail stores and conveys traditional views of the city. It is recognized as the core of the surrounding neighborhood, village, or town (Mehta, 2013).

Celebration Street

A Celebration Street is a space that is used for celebrations and parades. It is a place of performance, play, and open expression. History is made on these streets (Mehta, 2013).

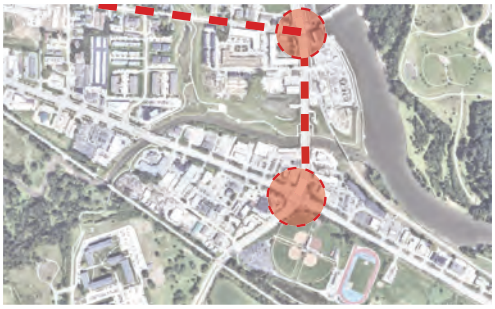


Figure 02. Add definitive end points along Promenade Streets.
Source: Google Earth

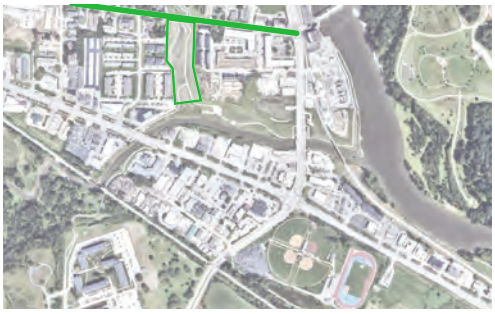


Figure 03. Incorporate Green Street elements into and around Biscuit Creek to emphasize the street's sustainability.
Source: Google Earth

Figure 04. Emphasize the importance of a Main Street within the Southeast Commercial District through distinct architecture and streetscape.
Source: Google Earth

Figure 05. Add buffer zones along Celebration Streets to accommodate pedestrians and events.
Source: Google Earth

Legend

- Main Street
- Celebration Street
- Promenade Street
- Green Street

Street Revitalization Could Give Coralville New Life

Precedent images reveal new beginnings for the Southeast Commercial District

W3_KP03_.4K_StreetRedevelopmentStrategies.PDF

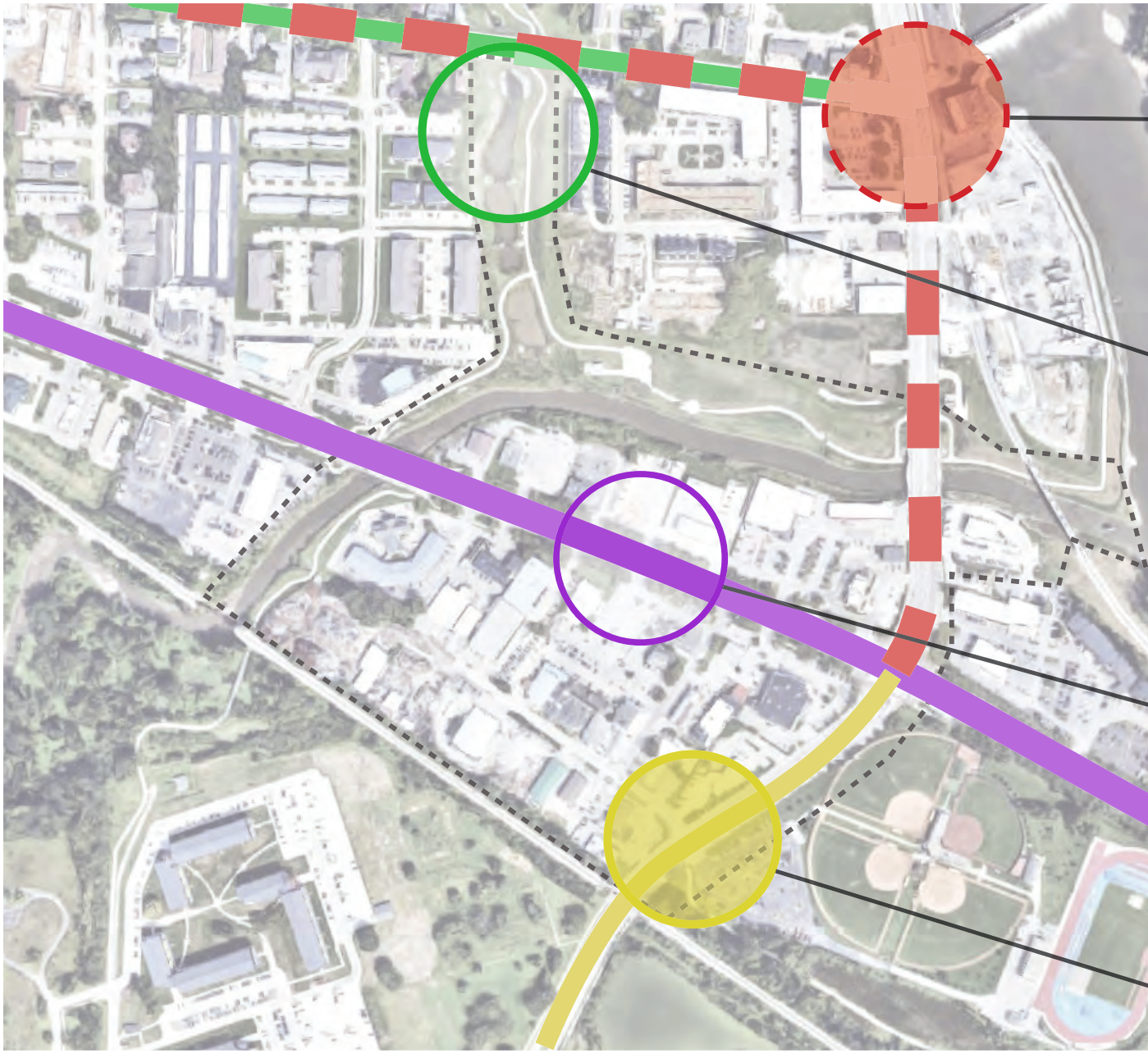


Figure 01. Street Redevelopment Strategies
Source: Google Earth

Inquiry: What kind of elements can be implemented along the streets to emphasize their typology?
Key Extractions: Typologies of streets, What streets could look like after revitalization
Methodology: Using the street typology outline from *The Street: A Quintessential Social Public Space* by Vikas Mehta (2013), streets of Coralville were categorized based on their functions. These functions were based upon observations from the site visit. Precedent images were extracted from the internet to show possibilities for street revitalization.
Conclusions: The different street types located within and around the Southeast Commercial District allow for a variety of revitalization strategies to take place. Creating focal points at the end of Promenade Streets will evoke a sense of presence and pride in the city. Incorporating green infrastructure into streets and carrying them through into outlets creates a more aesthetic place for residents and visitors of Coralville while also providing a functional purpose. Defining a Main Street within Coralville can give the city its own identity and boost economic, cultural, and social aspects of the area. Finally, moving buildings away from the street along Hayden Fry way allows for businesses to take advantage of the open space and can provide gathering spaces for people and events on days like Fry Fest.

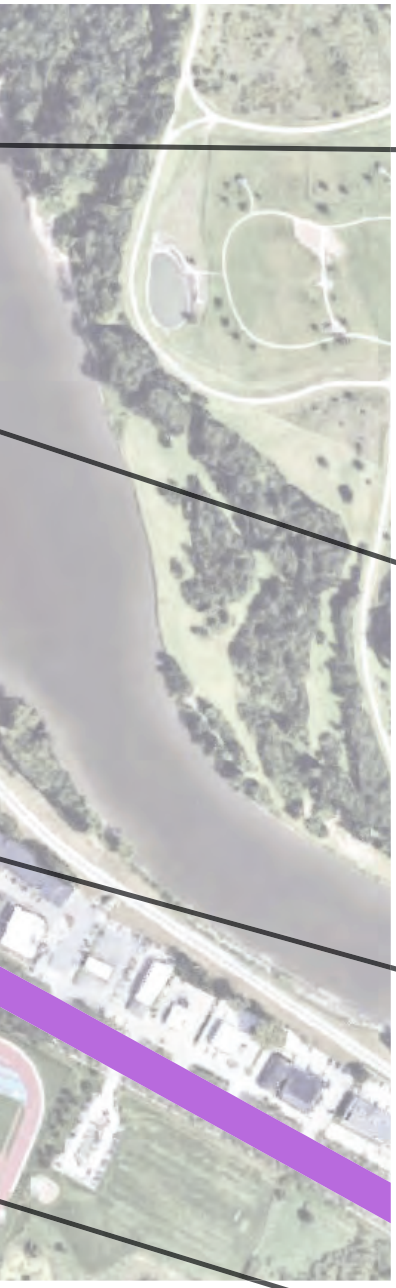


Figure 02. Distinct architectural character defines the Promenade Street in Philadephia, Pennsylvania. The street and its buildings frame the view to the city hall which serves as the destination point for the street. Implementing a grand destination at the end of the Promenade Streets in Coralville would give the streets another dimension as well as define important characteristics of the city. Source: Betanoff, 2012

Figure 03. Hinge Park in Vancouver sets a good example on how to design stormwater retention around a river to collect runoff in a public place. The use of permeable paving and rain gardens allow water to infiltrate in the ground and make its way into the highly engineered river. In Coralville, it would be ideal to emphasize the creek that is located in the site and incorporate more green infrastructure within the streets. Source: Chung, 2010

Figure 04. This photograph of Broad Street in Birmingham shows how it functions as a Main Street through the use of vehicular access and wide sidewalks for pedestrian use. The street also features a strong commercial front along the street. In order for Highway 6 to function as a Main Street of Coralville, it would be beneficial to include many of the features found along Broad Street. Source: Wilson, 2012

Figure 05. This outdoor dining area is located in Mountain View, California. It allows enough space for pedestrian circulation, but also steps down into a more privatized dining space just outside of the restaurant. This idea could be incorporated into the streetscape along Hayden Fry Way to allow for an influx of people and cars using the road during gameday weekends at the University of Iowa. Source: Runner, 2014

Waterfront

Appendix A.2

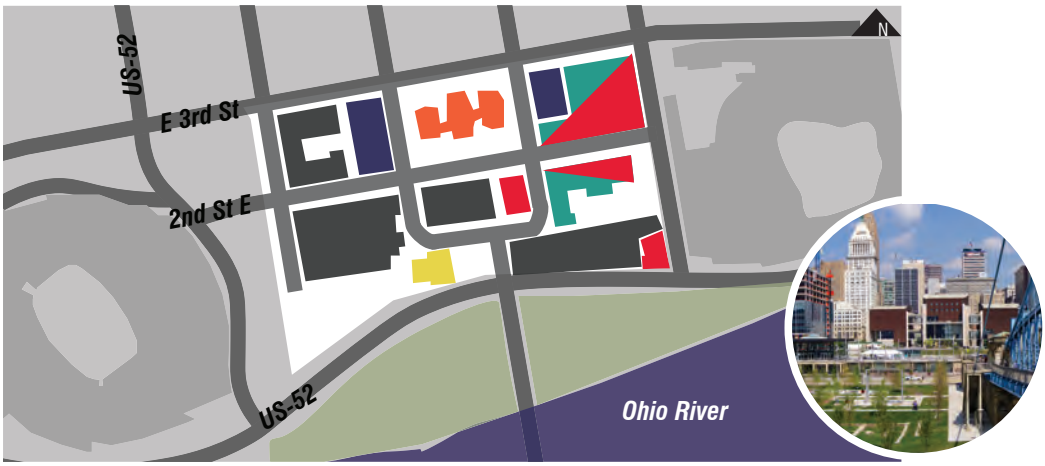
Comparative Riverfront Businesses Utilize Water Connection to Provide Public Amenities

Amenities range from riverwalks with a trail system and gathering spaces to riverfront parks with playgrounds and plazas

W3_Cooke01_Waterfront.PDF

Figure 01. Key Businesses Located around the Waterfront in the Southeast Commercial District
Map Source: (GIS, 2018) (Google Maps, 2018) Image Source: (Cooke, 2018)

Inquiry: How does the Southeast Commercial District in Coralville, Iowa compare to cities that connect their businesses to their waterfronts?
Key Extractions: Business location, industry type, waterfront connection, and identity of area
Methodology: Cities were chosen based on their local identity and activation of their river edges. Businesses were identified on Google Maps and GIS to determine location, proximity to river, and industry type. Industry type was determined by the main function of a structure in the case of multi-story.
Conclusions: The businesses along Biscuit and Clear Creek turn their back on the water (see image in Figure 01). Other cities around the US utilize their waterfronts as an asset to activate public space. Type of business didn't seem to be a factor as much as the idea that the surrounding industry types are mixed use. The businesses around Clear and Biscuit Creek of the Southeast Commercial District could utilize similar strategies to better utilize their waterfront access and activate the space for public use.



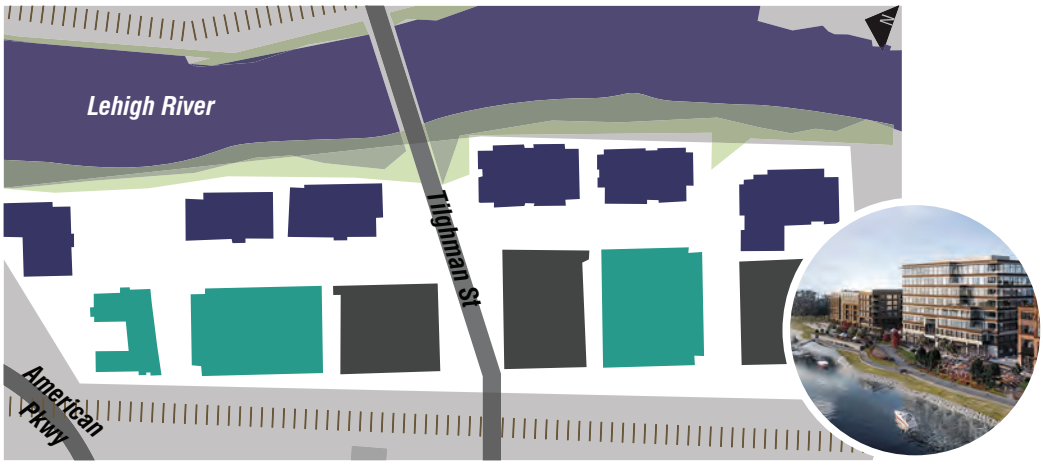
The Banks | Cincinatti, OH

Types of Business
Mixed Use

Connection to Water
Smale Riverfront Park: playground, trail, monuments, labyrinth, tree grove, and viewing platforms

Identity
Serves as gathering point for the region and entrance to the business district

Figure 02. Implementation of Mixed-use Development Next to a River Side Park
Map Source: (Google Maps, 2016) Image Source: (Estell, 2015)



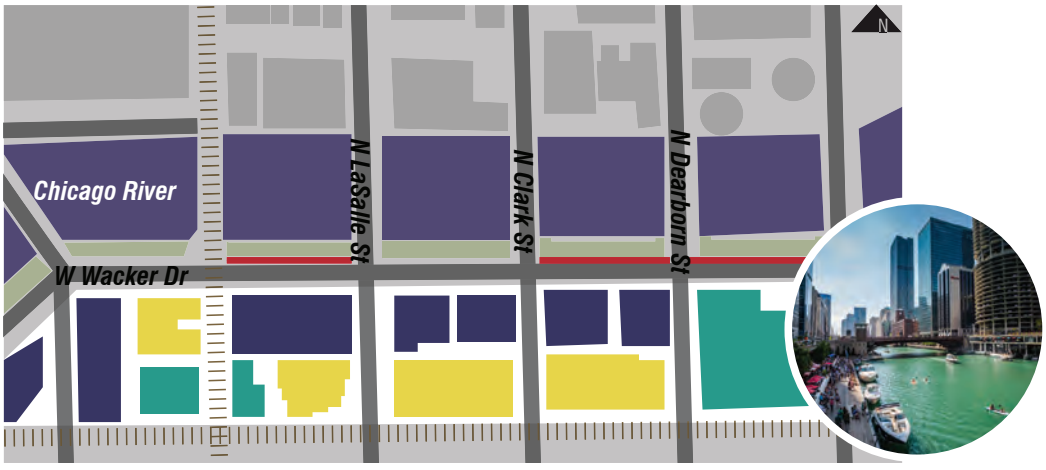
The Waterfront | Allentown, PA

Types of Business
Mixed Use

Connection to Water
Riverwalk: floating docks, rain gardens, ampitheaters, and plazas

Identity
Activates the Lehigh River using a riverside campus with opportunities for housing, work space, and retail use

Figure 03. Live-work Environment Connected to a Riverwalk
Map Source: (Google Maps, 2016) (The Waterfront, 2018) Image Source: (abSketches, 2018)



Chicago Riverwalk | Chicago, IL

Types of Business
Dense Mixed Use

Connection to Water
Riverwalk: Jetty, Water Plaza, River Theater, Cove, and Marina

Identity
Transforms Chicago River bank into a park and transportation corridor with different gathering spaces and activites

Figure 04. Dense Mixed-use Downtown Connected to a Riverwalk
Map Source: (Google Maps, 2016) Image Source: (Schneider, 2017)

The Study Area Provides Opportunity to Link Businesses to the Waterfront

Biscuit Creek, Clear Creek, and the Iowa River are key areas for potential connection

W3_Cooke02_Waterfront.PDF

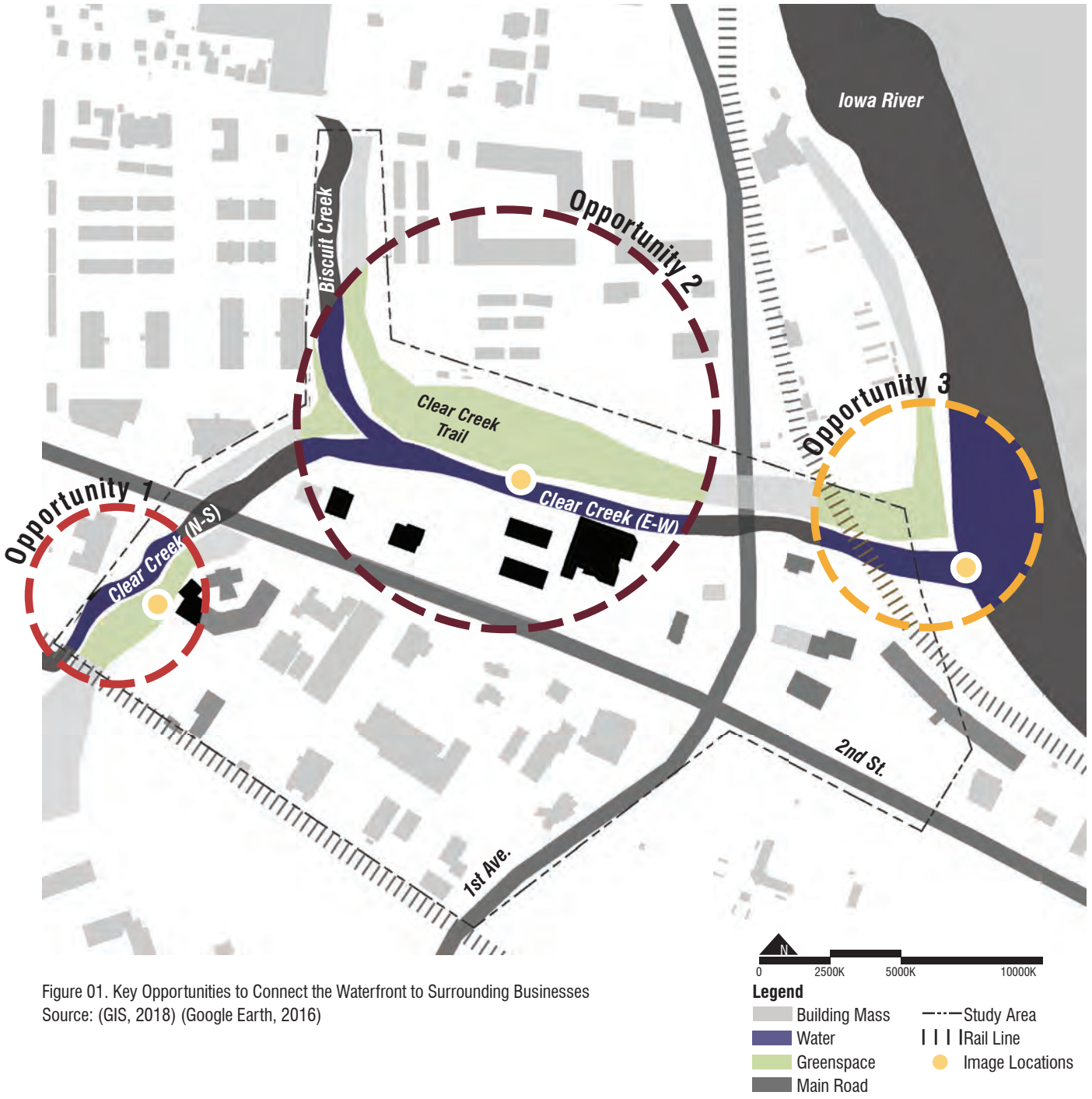


Figure 01. Key Opportunities to Connect the Waterfront to Surrounding Businesses
Source: (GIS, 2018) (Google Earth, 2016)

Inquiry: Where are there opportunities to better connect nearby businesses to the waterfront?
Key Extractions: Locations where the businesses connect to the creek or river
Methodology: Key opportunities were determined by available space and proximity of businesses to the creek and river. These spaces were observed both physically on the site visit and digitally through Google Earth.
Conclusions: Biscuit Creek, Clear Creek, and the Iowa River all have the opportunity to be better connected to the businesses in the Southeast Commercial District of Coralville, Iowa. Currently, Clear Creek Trail runs along the creek edge but does not interface well with the surrounding buildings. Clear Creek (N-S) could better service both the nearby housing and the trail by providing more social spaces. Clear Creek could be used as a promenade for pedestrian amentieis that would serve a private and public function. The area where Iowa River and Clear Creek connect could be emphasized and used as a gateway to the study area. Overall there are several opportunities where the waterfront could be better utilized.

What are the benefits of building along a **waterfront**?

(EPA, 2015)

Attract Local Businesses

Increase Property Value

Access Trails + Green Space

Establish a Unique Identity

Opportunity 1 | Clear Creek (N-S) Connection

Clear Creek (N-S) is separated from the nearby housing complex by a flood wall. There is an opportunity here for the nearby business to create outdoor greenspace for the residents and those using the Clear Creek Trail by providing access over the flood wall or by creating a more gradual transition to the water's edge. This opens up opportunity for a social gathering space and connection to the creek.

Image Source: (Cooke, 2018)

Opportunity 2 | Clear Creek (E-W) Connection

Clear Creek (E-W) has room for more development along its banks to bring people closer to the water. A potential opportunity is moving the trail closer to the creek so there is more room for further development along the corridor. This connection could create a promenade where amenities are appropriately terraced to allow for protection from flooding while allowing room for social space.

Image Source: (Cooke, 2018)

Opportunity 3 | Iowa River Connection

The joining of Clear Creek to the Iowa River provides an opportunity to identify the entrance to the site and celebrate the connection between the two bodies of water. With plans in place to activate the Iowa River, there is opportunity to continue this development along Clear Creek. This area could be used as a gateway or landmark, as well as for recreational and educational purposes.

Image Source: (Cooke, 2018)

Development along the Creek could Activate the Waterfront and Attract More Business

The open space along the waterfront leaves room for different types of design interventions

W3_Cooke03_waterfront.PDF

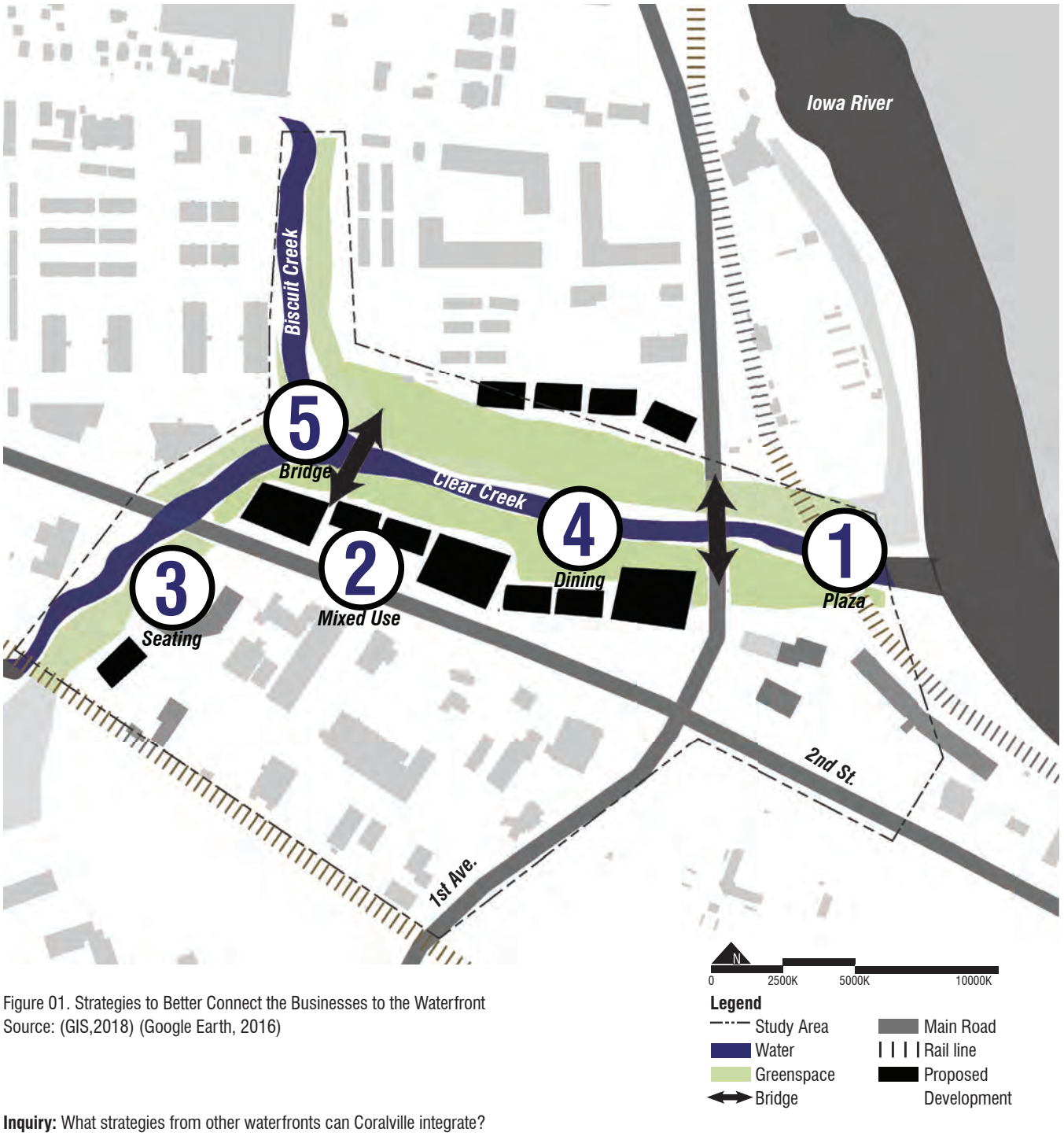
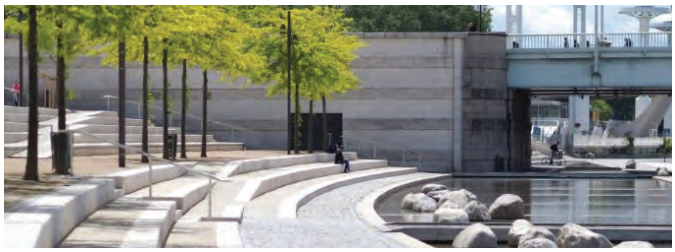


Figure 01. Strategies to Better Connect the Businesses to the Waterfront
Source: (GIS,2018) (Google Earth, 2016)

Inquiry: What strategies from other waterfronts can Coralville integrate?
Key Extractions: River plazas, mixed use, riverwalk seating, pedestrian bridge, and riverwalk trail
Methodology: Utilizing both the comparative and opportunity maps, a new strategy for connection between the businesses and the water fronts developed. Key strategies were drawn from successful riverfronts around the US.
Conclusions: There are many different strategies that could be employed to better connect the businesses and the water front of the Southeast Commercial District in Coralville, Iowa. A new pattern of organization following the creek and utilizing both sides of the water front for greenspace and trails helps to create a pedestrian promenade to drive business and connect to the Iowa River. Specific design strategies such as widening the creek and pushing back development to be more dense should be implemented to increase civic use of space, as well as the encouragement of social interaction between visitors and residents of the area.

1



Source: (PXHERE, 2017)

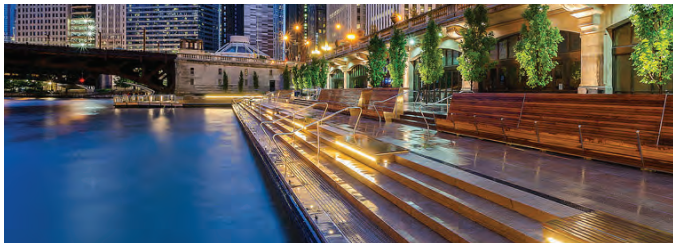
River Plaza
Allowing space for people to gather at the connection between the river and the creek will mark the entry to the site and allow an opportunity for social interaction or events.

2

Source: (PXHERE, 2017)

Mixed Use Development
Establishing a more dense, mixed use development open to both the water front and the street scape creates economic opportunity and better access to green space.

3



Source: (Muraz, 2015)

Seating
Incorporating terraced seating along the edge of the water front allows room for the river to fluctuate as well as opportunity for people to pause and enjoy the creek.

4

Source: (Cooke, 2018)

Dining
Creating dining spaces along the creek bank allows the businesses to extend into the green space and draw people in. It also gives patrons opportunity to enjoy the water front.

5

Source: (PXHERE, 2017)

Pedestrian Bridge
Building a pedestrian bridge across the water links the green space around the creek and opens up the opportunity to connect a business corridor along the water front.

Clear Creek Meets Flood Control Requirements, But is Under-utilized as a Social Gathering Space

Although flood prevention tactics have been installed along clear creek, there is minimal space for people to gather and socialize.

W3_Dirks01_Creek05.PDF

Figure 01. Map of Social Gathering Spaces Near Clear Creek
Sources: Johnson County, Coralville, IA GIS "Base map," & Google Earth Images

Inquiry: Is the city of Coralville using the Clear Creek area to its full potential?
Key Extractions: The city currently has a trail system on one side of Clear Creek, with minimal social space, and no seating or shade structures.
Methodology: Using aerial imagery from Arc GIS and Google Earth, as well as multiple on-site observations, trail systems and gathering spaces were traced using Photoshop to highlight key areas.
Conclusions: Clear Creek offers great potential to the city of Coralville as a small, urban waterfront area. Unlike IRL, the Southeast Commercial District was not designed with regards to the water access, resulting in a huge disconnect between nature and city. While the trail system implemented begins to connect the two sites, it only has two points of connection with the site, and has no interaction with the creek itself, or the buildings on site. Not only is the trail not easy to access from the site, but the only social gathering spaces are on the north side, away from the developments, neither of which have any seating or shade structures to date. The city of Coralville needs to invest more in Clear Creek, because doing so will activate the Southeast Commercial District as a new, urban center of the town.

N
Not to scale

Legend

Existing Gathering Spaces Near Clear Creek:

Existing Trail Entrances on Site:

Current Trails Near Clear Creek:

On-site Connections to Creek Trails:

Multiple Opportunities for Water Activities are Present at Clear Creek

Clear Creek has the potential to be developed into an active & attractive waterfront in Coralville.

W3_Dirks_Creek05.PDF

Figure 01. Activity Programming Along Clear Creek
Source: Johnson County, Coralville, IA GIS "Base map"

N
Not to scale

Legend

Potential space for indirect interactions with water:

Potential space for direct interactions with water:

60' beyond shoreline, the max recommended distance for water oriented design elements:

Inquiry: Where are the best locations for direct and indirect water interactions?
Key Extractions: There are multiple areas downstream of the final bend of Clear Creek which present excellent opportunies for direct and indirect interactions with Clear Creek.
Methodology: Using a Google Earth sattelite image and a GIS building and contour basemap, spaces were depicted by taking into account distance from buildings, steepness of slope, and overall affect on the stream flow.
Conclusions: Clear Creek presents an excellent opportunity to provide waterside amenities and activities such as fishing docks, kayak launches, boardwalks and more. Currently none of these amenities exist, but the site could be modified to accommodate them. There are four areas that have excellent potential to become areas of direct connection because of the shallow slopes, and their relation to the existing paths and buildings. The areas surrounding these four spaces can be further developed as indirect interactions with the creek in the form of boardwalks or lookouts.

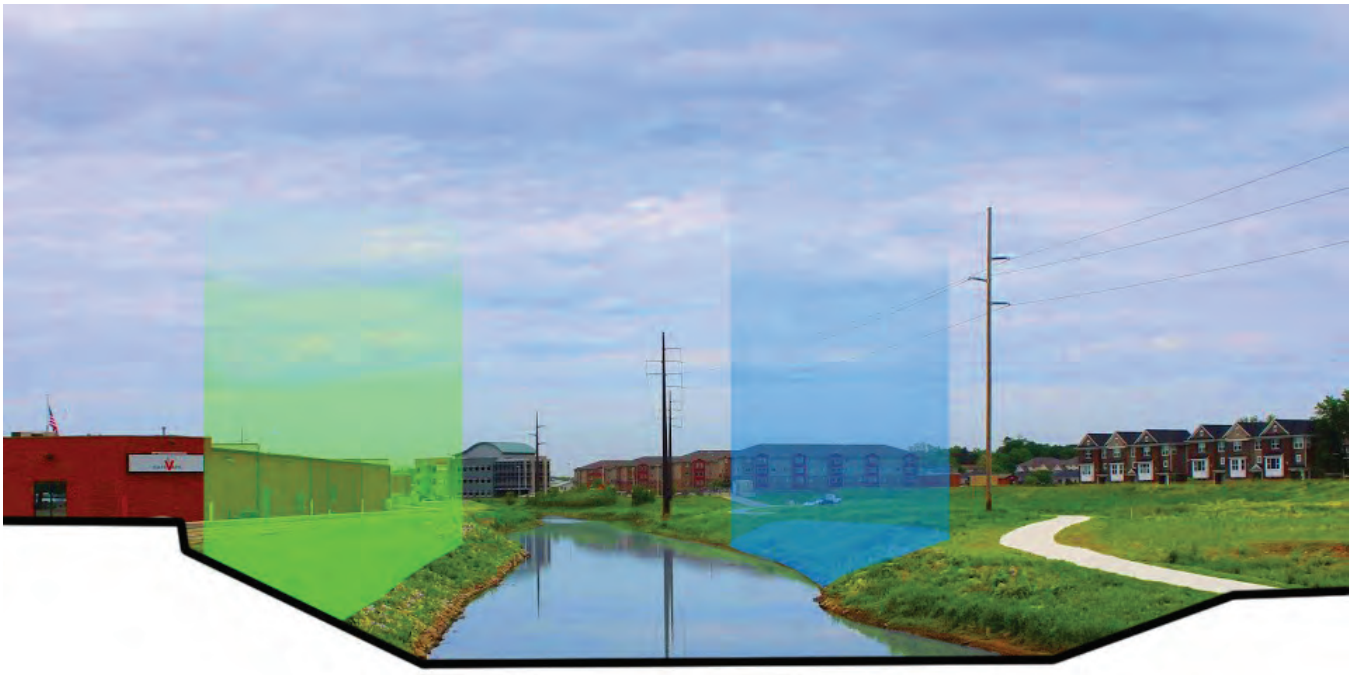


Figure 02: Perspective View of Potential Spaces for Activity Programming (Dirks, 2018)

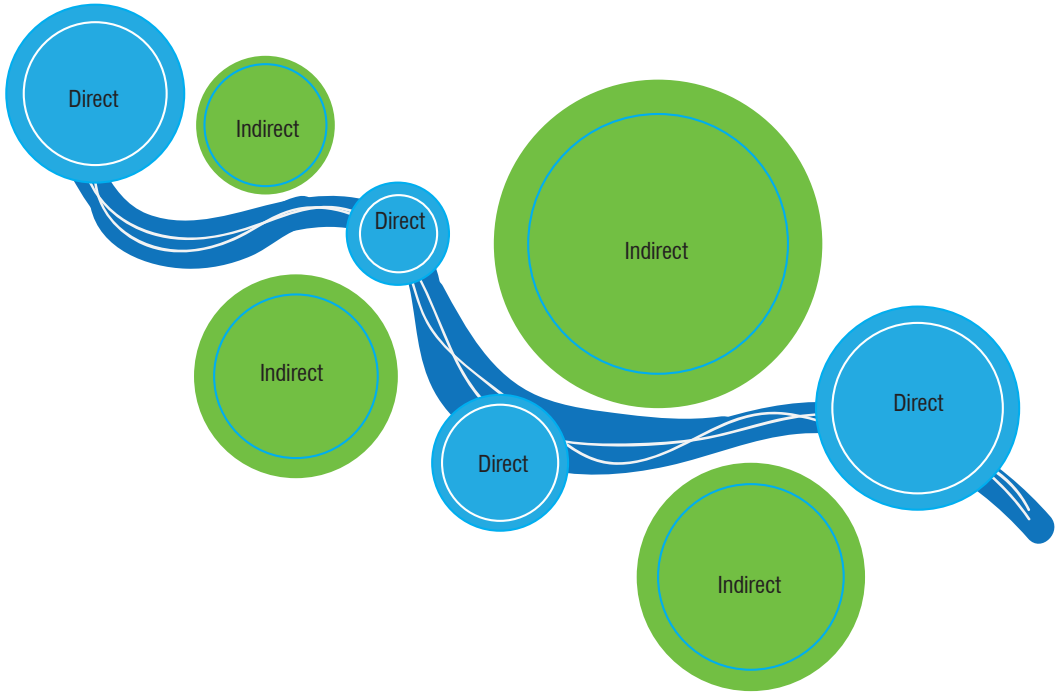


Figure 03. Direct Interaction vs Indirect Interaction with Clear Creek (Dirks, 2018)

Waterfront Amenities Proven to Activate Lakes & Rivers

Providing waterfront amenities near Clear Creek will attract people to the site, and bring in future development

W3_Dirks_Creek05.PDF

Figure 01: Location of Waterfront Amenities Along Clear Creek
Source: Johnson County, Coralville, IA Google Earth Images

Legend

Direct Interaction with Clear Creek:
Indirect Interaction with Clear Creek:
Existing Trail System:
Proposed Trail Addition:

Inquiry: What kind of amenities can be used to activate Clear Creek?
Key Extractions: Public docks, kayak friendly areas, and social gathering spaces could be extremely effective tactics to bring people into the area.
Methodology: Using online resources to find which types of water amenities would best suit the area, I used a google map image as a basemap and applied Photoshop and Indesign illustrations to highlight spaces.
Conclusions: Creating waterfront amenities is a very rewarding technique to activate an area. Currently, Clear Creek is not taking full advantage of the waterfront space, as all their efforts have gone toward flood protection. While flood protection for the southeast commercial district is important, it should not be the only programming for Clear Creek. The stretch between the 2nd Street bridge and the 1st Avenue bridge has enormous potential to be developed. Amenities that provide direct interaction with the creek such as kayak launch docks and fishing piers will bring people to the area, and indirect interaction spaces such as dining and gathering spaces as well as boardwalks will keep them in the area. These spaces will also support future development.

Figure 2: Public Dock & Gathering Space (pxhere,2017)
Large public docks provide pedestrians with a desirable stopping point to sit near the water, as well as a space for social interaction.

Figure 3: Fishing Dock (Olle 2017)
Fishing docks are one of the most popular waterfront amenities, as they present a great opportunity for outdoor recreation between family, friends, and community members.

Figure 4: Kayak Launch Dock (TheDockDoctors 2016)
Kayak Launch Docks make it quick and easy to get into the water.

Figure 5: Beach Area (BoundToPaddle.com 2013)
Shallow sand areas along creeks and lakes offer a great place for families to gather and play in the water. Not only this, but it also offers a casual space for kayakers to pull up to and hang out.

Figure 6: Boardwalk (Secretname101 2016)
Boardwalks along waterways offer a unique and desirable experience for pedestrians who like being next to the water.

Figure 7: Dining & Gathering Spaces (Seeger 2011)
Activating a riverfront area requires comfortable gathering spaces for people to use. The image above shows a comfortable dining/ gathering space along the San Antonia Riverfront at night.

Brownfield

Appendix A.3

The High Concentration of Impervious Surfaces in the SE Commercial District Leads to Nonpoint Source Contamination In the Iowa River

74.17% of this district is composed of impervious surfaces, which means that the majority of surface contaminants picked up by stormwater runoff will flow straight into the river.

W2_Parker01_Surface_Impermeable.PDF

What Is Nonpoint Source Pollution?

As the runoff moves, it picks up and carries away natural and human-made pollutants, finally depositing them into lakes, rivers, wetlands, coastal waters and ground waters (EPA Poluted Runoff).

What Are The Major Pollutants?

Lead and Zinc: Tire wear, lubricating oil and grease, bearing wear

Copper and Chromium: Metal plating, wear of engine parts, break lining wear

Manganese: Moving engine parts, auto exhaust

Hydrocarbons: Spills and leaks of motor lubricants

Figure 1. Large parking lot with very little permeable surfaces, and storm grates to handle drainage.
Source: Elsa Stoffel, 2018

Figure 2. Large flat parking lot with no permeable surfaces, or drainage solutions.
Source: Grace Mader, 2018

Figure 3. Very wide streets with now pedestrian infrastructure or permeable surfaces.
Source: Elsa Stoffel, 2018

Inquiry: The developed portion of the site has far too much impermeable area leading to nonpoint source contamination
Key Extractions: Parking, Roads, Buildings, and Sidewalks
Methodology: Measuring the area of the different surfaces within the site
Conclusions: Surface parking covers 40.9% of the site. This large area is completely impermeable and, in some cases, has no inlets to allow water to drain. The second highest portion of the site are permeable surfaces, but these only occur in slivers and small parts throughout the site. There are no large green spaces within the developed portion of the site. Roads make up 15.4% of the site, many of which are very wide, and none of them feature good storm water infrastructure. 14.4% of the site is covered by buildings, with no attempt to implement techniques such as green roofs to aid in storm water management. The remaining 3.5% is composed of sidewalks that are completely impermeable. In total 72.4% of the site is covered by impervious surfaces which is a major problem because this means there is little to no deterrent for onsite contaminants that are carried by storm water.

Figure 4. Impermeable Surfaces Map
Source: Esri Arconline world Street Map Modified by Caleb Parker

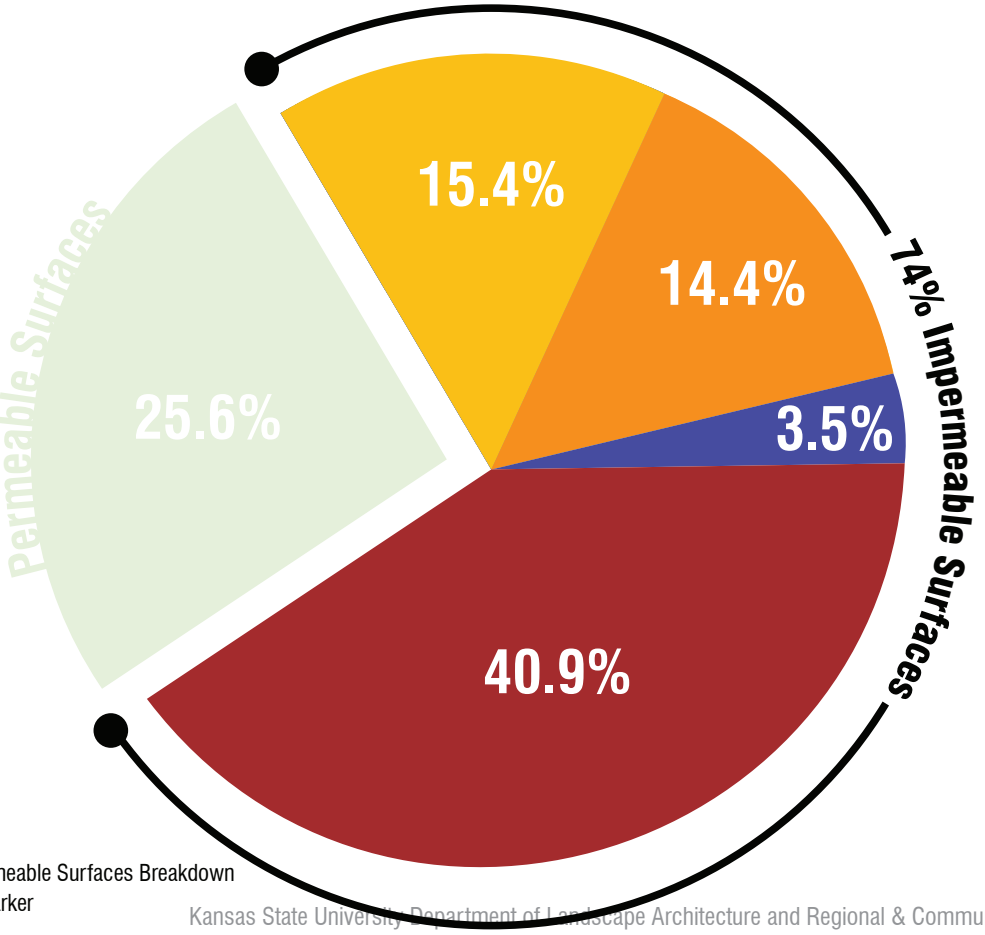


Figure 5 . Impermeable Surfaces Breakdown
Source: Caleb Parker

There Is Nothing To Prevent Pollutants From Flowing Directly Into Clear Creek

The scrap yard, nursery, and gas station, along with the roads, produce contaminants that are washed into Clear Creek.

W2_Parker02_Impermeable.PDF

Figure 1. Contaminants Path Into The Watershed
Source: Esri Arconline world Street Map Modified by Caleb Parker

Not To Scale

Legend
- Contaminated Area
- Roads
- Flat Spot
- Iowa River
- Clear Creek

The larger the arrow the faster the flow of water

Inquiry: Any pollutants within the site will drain directly into Clear Creek or the Iowa River with very little resistance.
Key Extractions: Pollutant sources, Drainage Patterns
Methodology: Tracing drainage patterns from pollutant sources
Conclusions: This map reveals that there are four areas on the site that are major contributors to the nonpoint source pollution, which is accelerated by the lack of permeable surfaces. The Scrap Yard, Nursery, Gas Station, and the street system, all contain pollutants, and drain directly into Clear Creek or the Iowa River. This is a major problem because the runoff contaminates, not only the water in the Iowa River but also the Mississippi River and eventually the Golf of Mexico. Due to the large number of pollutants that all compound in the Gulf of Mexico, red allege blooms have become a problem. This is a perfect example of how a few small actions can lead to much large consequences, when combined with everyone else small mistakes.

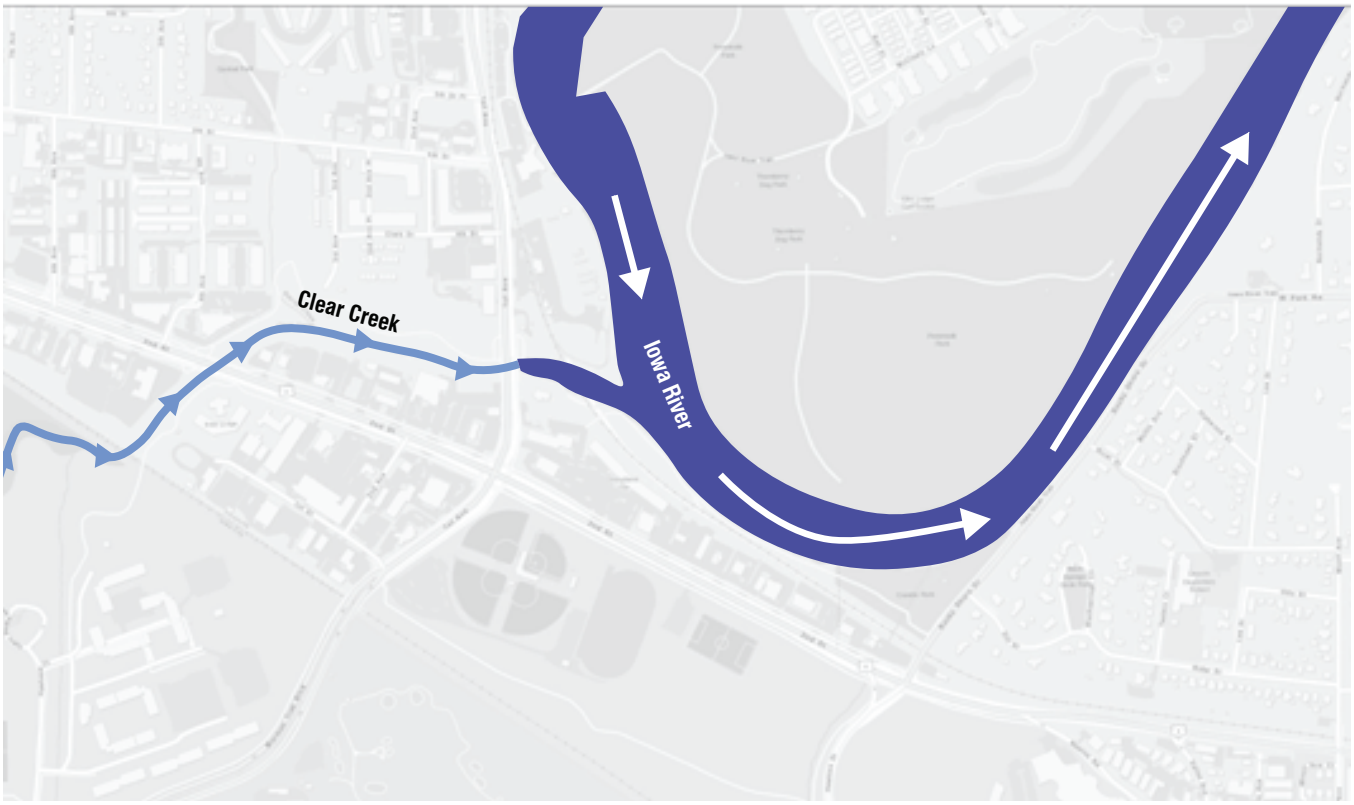


Figure 2. Iowa River Path
Source: Esri Arconline world Street Map Modified by Caleb Parker

Not To Scale

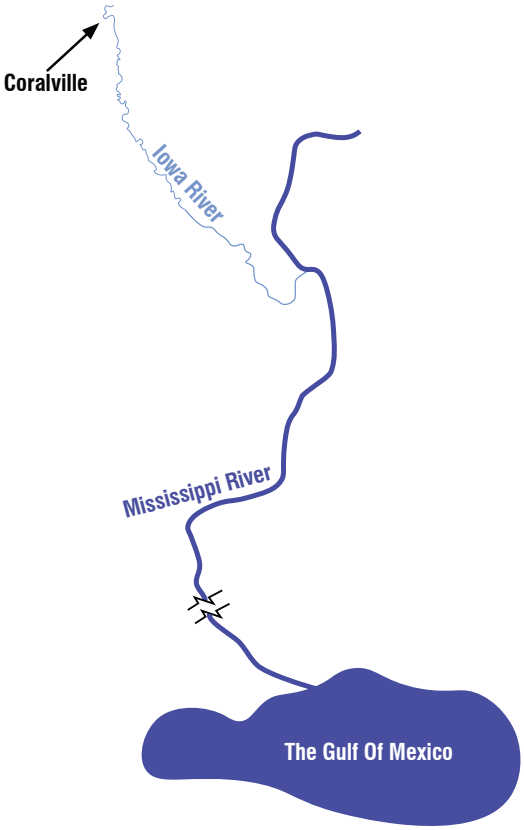


Figure 3. The water that enters Clear Creek eventually enters the Gulf of Mexico.
Source: Google Maps Modified by Caleb Parker, 2018

Figure 4. Red algae bloom in the Gulf of Mexico as a result of contaminated water
Source: Ocean Portal, 2018

Stormwater Management Systems And Public Open Space Can Help Revitalize The SE Commercial District

The implementation of green space and stormwater management systems can help infiltrate some of the contaminants before they reach the river

W2_Parker03_Impermeable.PDF

Legend

- Stormwater Management Solution
- Roads
- Public Green/Open space
- Buildings
- Permeable paving

Figure 1. After identifying the spaces that produce contaminants and tracing their paths into Clear Creek, it became clear that the site needs a buffer zone to allow for some filtration. It was also evident that there is an excessive amount of parking, and other paved surfaces within the site. To combat these issues, bios wales have been used to define the edges that come in contact with the river as well as the train tracks. Public open space, which may come in the form of green space, an urban plaza, or some mixture of the two, has been implemented in the flatter parts of the site. Buildings have been used to define the spaces that were suitable for open space. A new system of permeable paving has been implemented in some of the smaller roads and parking lots, and bio retention cells have been implemented along 1st Ave. and 2nd Street
Source: Parker, 2018

Inquiry: Green space and storm water management practices need to be implemented within the site to help prevent nonpoint source pollution
Key Extractions: Roads, Flat Areas, The Iowa River and its Tributaries.
Methodology: Start by locating storm water management and green space in key locations, then use buildings to define the outdoor spaces.
Conclusions: Creating this map depicts the potential that the site has to be a much more sustainable space. In order to reach its potential any new design must incorporate more green space, and a more effective stormwater management system. Creating a buffer zone between the river and the rest of the site will help slow the spread of any contaminants that may be on the site. Designers should think about the placement of stormwater management systems and the open space systems first, and then determine where buildings can be used to define outdoor space. This approach will ensure that the design is well balanced and more ecologically responsible.

Figure 2. This storm water management diagram gives an idea of how a new green street in Coralville may look. There are inlets along the curbs to catch runoff form the crown of the road, as well as along the sidewalk. The retention cells are planted with woody plants that will absorb water and help slow it down as it travels through the system. There will also be rocks placed strategically throughout the system to catch sediment.
Source: Caleb Parker, 2018

Figure 3. The use of a fountain in this design makes for a great center piece that helps to tie the site together. The main path that runs through the fountain is a good way to encourage people to interact with the landscape. This space also provides people an opportunity sit and relax on the lawn. This plaza is a great example of how buildings can be used to define outdoor space.
Source: Hurst&Wills, 2017

Figure 4. This urban plaza located in Cincinnati is a good example of how green space can be incorporated into dense development. The raised planter can also function as seating as well as a place for children to climb and play. The site also features plenty of wide sidewalks that make circulation easy.
Source: John Martinez Pavliga.Flicker. 2017

Brownfield Sites Can Artistically Recall Industrial History

Comparing the Southeast Commercial District With Zeche Zollverein in Germany Highlights Possible New Uses

W2_MY01_830_BrownfieldAdaptiveReuse.PDF

Figure 01. Southeast Commercial District, Coralville Iowa. Map showing relative scale and orientation of buildings
Source: Arc Gis Online

Figure 02. Scrap Yard
Source: Belanger 2018

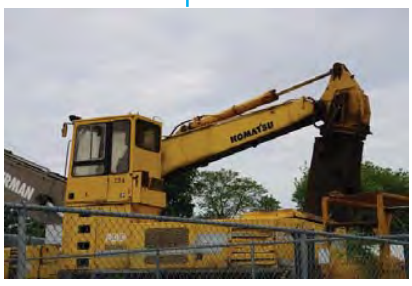


Figure 03. Scrap Yard Machinery
Source: Belanger 2018

Figure 04. Most of the Southeast Commercial District is home to resturants and businesses
Source: Stoffel 2018

Inquiry: How can the similarities and differences between a brownfield site in Iowa and Germany inspire new design ideas?
Key Extractions: Building footprints, Restaurants, Recreation Areas, Greenspace, Parking
Methodology: Located primary places of interest in relation to surrounding structures.
Conclusions: While the two sites are inherently different in nature, they share industrial characterists that can be (or have been) transformed to enrich the surrounding community. Using existing machinery as art benefits the area by creating amenity and connecting a place to its history.

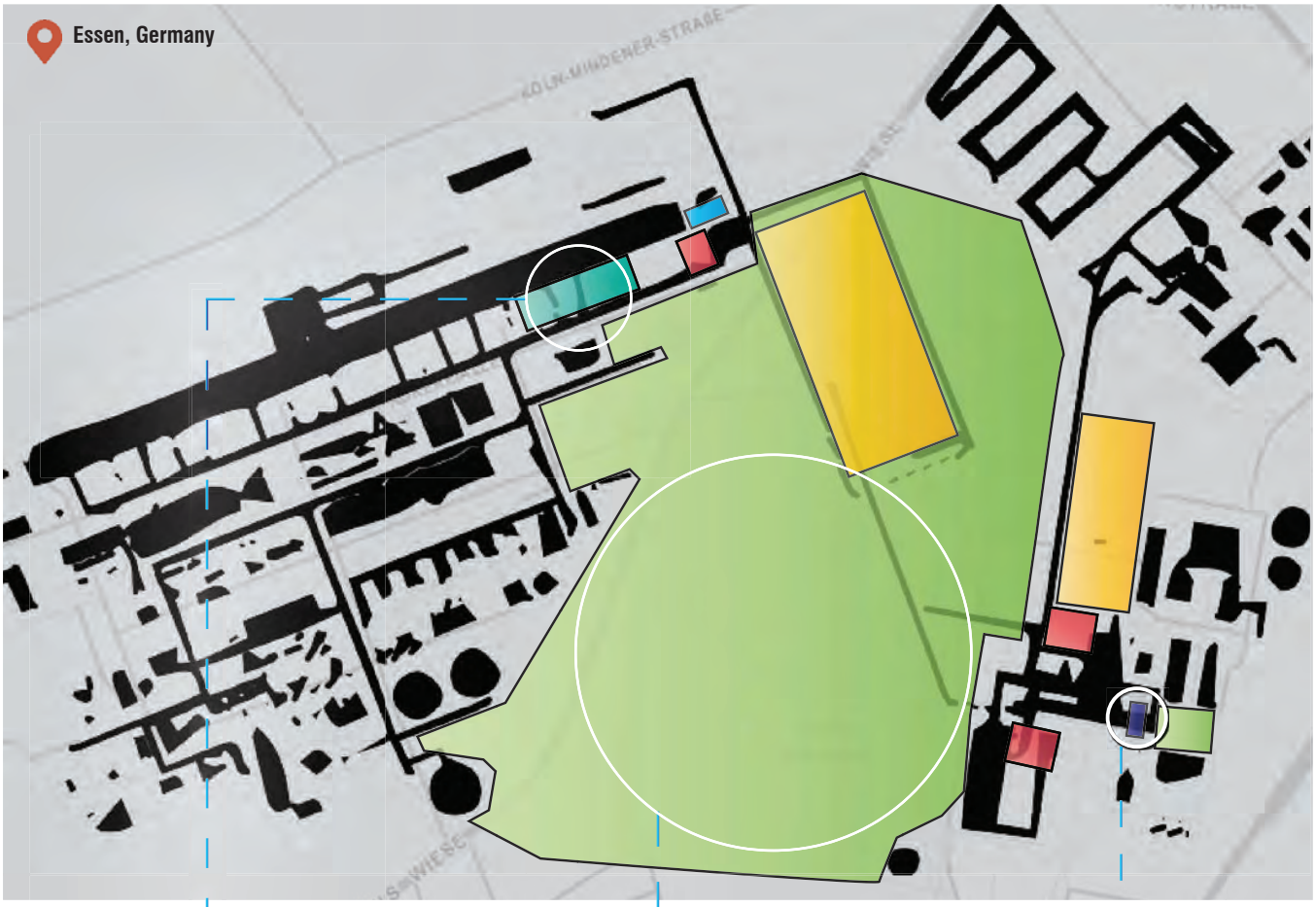


Figure 05. Zeche Zollverein, Essen Germany. Map showing re-use of former coal mining site
Source: Arc Gis Online

Figure 06. A section of the site is flooded during the winter for ice skating.
Source: Mai 2006

Figure 07. Gravel paths through tree groves sit on top of former railway ties
Source: Yeager 2018

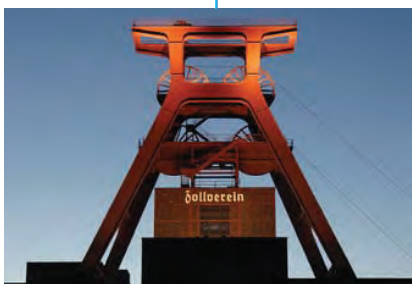


Figure 08. This large vertical structure has become a cultural landmark emphasizing the site's identity transformaiton
Source: Robbin 2004

Legend

- Green Space
- Restaurant
- Pool (Summer)
- Ice Rink (Winter)
- Parking Lot
- Cultural Landmark
- Buildings and Industrial Structures

Leftover Industrial Machinery Can Become Iconic Sculptural Element

Successful Case Studies Guide Decision Making For the Southeast Commercial District

W2_MY02_830_BrownfieldAdaptiveReuse.PDF

Figure 01. Gasworks Park
Source: Lewis 2016

Figure 02. Source: Katherisen 2008

Figure 03. Source: Mabel 2007

Gasworks Park, a former coal gassification plant and contaminated site, has become a popular destination for Seattle residents and visitors. The preserved gassification towers provide an artistic backdrop for performers and photographers.

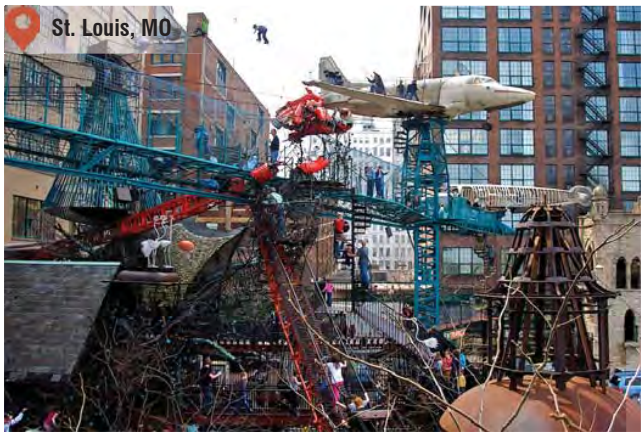


Figure 04. The City Museum
Source: sawdust_media 2011

Figure 05. Source: Granneman 2009

Figure 06. Indoor skatepark.
Source: Chang 2012

A St. Louis staple, The City Museum uses recycled industrial materials, such as an Anheuser-Busch refrigerator coil (figure 05), to transform a vacant shoe factory into a unique playground. The attractions cover 10 indoor stories, the entrance courtyard and the roof.

Inquiry: What are some diverse ways industrial machinery can be repurposed to enhance a community?
Key Extractions: Around-the-world examples of industrial materials successfully re-purposed into art.
Methodology: Gathered photographs online and from perosonal stock, researched individual meanings behind specific industrial sculptures.
Conclusions: When the negative stigma is removed from former industrial sites and materials, the sky's the limit for their potential re-use. Vacant sites can become playgrounds, parks, plazas, performance arenas, residential zones and much more. Preserving existing machinery in an artistic way visually connects a place with its heritage. Furthermore, the chance to view formerly off-limits materials up close imbues each of these case studies with a mysterious quality, inspiring moments of fascination amid the ordinary.

Figure 07. Source: Santacreu 2007

Figure 08. Source: Kielen 2008

Schouwburgplein, designed by West 8, features monumental cranes that act as light fixtures and can be operated from the ground. The cranes recall machinery used to unload shipping containers, celebrating Rotterdam's identity as a port city.

Figure 09. Schouwburgplein
Source: Romero 2015

Figure 10. Phoenix-See
Source: Voight 2018

Figure 11. Source: Yeager 2018

Figure 12. Source: Yeager 2018

Phoenix-See is an upscale residential area home to professional soccer players. The beautiful lake is entirely man-made and sits atop a former coal mining site. Elements of the site's original function remain as sculptures, connecting viewers to history.

Figure 13. Source: Yeager 2018

Figure 14. Source: Yeager 2018

When a former steel production factory fell into disuse, it was repurposed into a multipurpose event space and park. The preserved water tower is illuminated at night and has become a cultural landmark.

Figure 15. Westpark. Source: Yeager 2018

Old Materials Can be Given New Creative Uses

Materials From the Scrapyard can be Considered for Art Projects

W2_MY03_830_BrownfieldAdaptiveReuse.PDF

What Can Be Done With the Scrapyard?

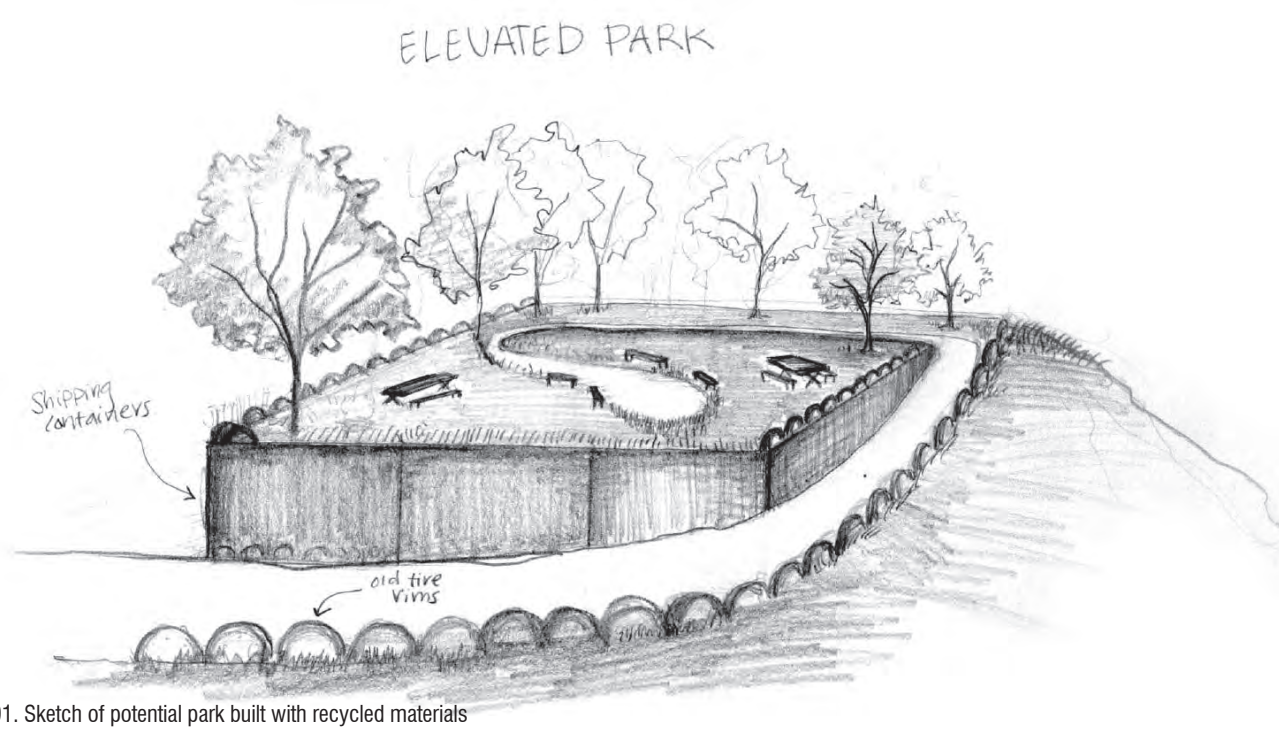


Figure 01. Sketch of potential park built with recycled materials
Source: Yeager 2018

Figure 02. Sketch of a half-pipe as a potential use for the site
Source: Yeager 2018

Figure 03. Sketch of potential seasonal use of site
Source: Yeager 2018

Inquiry: How can materials from the scapyard be repurposed for human use while connecting the site with its orignial function of servicing automobiles?
Key Extractions: Potential strategies for future site design.
Methodology: Made sketches and found precedents on the internet.
Conclusions: Using recycled materials in new ways gives a site identity- especially when those materials directly connect to the place's past. These materials can become art or utility depending on the site's needs.

What Can Be Done With Old Tire Rims?

Fencing

Figure 04.
Source: Yeager 2018

Art

Figure 05.
Source: Emerson 2013

Planters

Figure 06.
Source: Yeager 2018

Furniture

Figure 07.
Source: Yeager 2018

Figure 08.
Source: Cadillac 2017

Map 3.3a

Site Suitability For Green Infrastructure

Green infrastructure should not be placed in contaminated areas because it may spread the contamination further.

W3_Parker01_Contaminants.PDF

Figure 1 Suitability Map. Placing stormwater infrastructure in contaminated sites can be problematic, and takes very careful planning, to ensure that the interventions are not making the problem worse. This map uses the six guidelines from the EPA's "Implementing Stormwater Infiltration Practices at Vacant Parcels and Brownfield Sites,"(2013) publication, and the results of soil and ground water testing done by Terracon to classify the sites suitability for green infrastructure. Land use history suggests probable contamination levels in the areas not surveyed (see Results from Terracon Soil Testing).
Source: Esri Arconline World Street Map modified by Caleb Parker, 2018

Legend

- Suitable For All Types of Green Infrastructure
- Suitable For Green Infrastructure after remediation, or management practices that do involve infiltration.
- Not Suitable For Green Infrastructure

Inquiry: How do contaminants present in the soil and ground water affect the placement of stormwater infrastructure?
Key Extractions: River and creek, Zone 6 brownfield assessment, historical site uses.
Methodology: Applying the guidelines from the EPA's "Implementing Stormwater Infiltration Practices at Vacant Parcels and Brownfield Sites," to the study area.
Conclusions: Incorporating stormwater management is important, but brownfield sites can limit the way that stormwater infrastructure can be implemented. Places where the soil and ground water are contaminated may not be suitable for stormwater infrastructure because the infiltration of water into the ground may cause the contaminants to spread. Stormwater infrastructure should be used sparingly around creeks and rivers, if there is a chance that contaminants are present, to ensure that no contaminants are discharged into the water source. It is also important to consider the remediation techniques that are being used, because the amount of water infiltrating into the ground often plays a large role in these processes. Adding more water through infiltration could cause system failures, but it may also help accelerate the remediation process. Using these principals to classify the different parts of the site has revealed that the majority of the site will need some treatment before stormwater infrastructure can be used. This process also reveled that the streets are potentially a good place for stormwater management. The only part of the site that is not suitable for stormwater infrastructure is the scrap yard, because the chemicals are highly toxic and close to Clear Creek.

Things to Consider When Placing Green Infrastructure Within a Brownfield Site (EPA 2013)

1. The presence of LNAPLs, DNAPLs, Biodegradable Waste, or Leachable Contaminants.

- "Because LNAPLs and DNAPLs are independently mobile and can produce multiple hazards, the use of infiltration or stormwater management practices in close proximity to LNAPLs or DNAPL contaminated areas should generally not be considered."
- "Biodegradable waste materials (e.g., garbage) often produce gases and leachates that impact soil and groundwater," and this process is often accelerated by the presence of water. "Therefore, stormwater management practices that promote infiltration are generally not advisable at sites where there are biodegradable materials in the ground" (EPA).
- Leachable Contaminants usually pose a grater risk because they "can be mobilized relatively easily through the soil from infiltrating stormwater and impact groundwater."

2. Is the Groundwater Beneath the Property Impacted or Could it become Impacted

- "Generally speaking, if the groundwater beneath a site is known to be contaminated, it is not a good idea to implement infiltration practices at the site. The movement of contaminants in groundwater can be accelerated by an infiltration practice potentially resulting in environmental impacts to neighboring properties."
- **3. Areas of The Site Which Are Not Impacted**
- "Often the entire brownfield property is not impacted or problematic material can be relocated to create an area that is not impacted by contamination."
- **4. Refer to State Standards On Infiltration**
- Chapter 5 of the Iowa Department of Natural Resources "Storm Water Manual" specifies that prior the implication of storm water management features the site should go through our steps. . Initial screening, field verification of information collected in Step 1, Evaluation of specific infiltration areas, and soil and site evaluation reporting(Testing Requirements for Infiltration Practices).

5. Planed Remedial Actions For The Site

- The infiltration of extra water into the ground may cause unexpected stress on remediation systems. Extra water may cause too much pressure on vertical barriers, it may also cause the water to rise causing treatment systems to malfunction.
- In other cases allowing more water into the ground can be a good thing because it can cause contaminants to dissipate more rapidly.

6. How Will the Site Interact With Other Sites or Land Uses Nearby

- "Where a site is near an area that is relatively more sensitive in terms of potential health risks or ecological risk, the need to protect these areas should be considered in making determinations about implementation of infiltration practices." These types of areas may include wellhead protection zones, rivers, lakes, fens, or wetlands.

Figure 2. Clear creek is a sensitive area that should be preserved at all costs. This means that there should be a buffer zone between the river and any green infrastructure interventions, to ensure that no contaminants are washed into the creek.
Source: Morgan Dunay, 2018

Figure 3. The roads that currently pas throughout the study area are very wide and present a good opportunity to incorporate a storm water management system.
Source: Grace Mader, 2018

Contaminated Areas Will Affect Stormwater Management Design

Some parcels are contaminated (Terracon 2016) and other parcels are assumed to be contaminated based on land use.

W3_Parker_contaminants.PDF

Contaminants Present in the Site (Principles of Brwonfield Regeneration 2010)

Volatile Organic Compounds (VOCs)

Volatile Organic Compounds (VOCs) are synthetic organic chemicals that have a high vapor pressure and easily form vapors at normal temperature and pressure. The term is generally applied to organic solvents, certain paint additives, aerosol spray-can propellants, fuels (such as gasoline and kerosene), Petroleum distillates, dry-cleaning products, and other industrial and consumer products ranging from office supplies to building materials. VOCs are also naturally emitted by a number of plants and trees. Most VOCs evaporate easily but are not appreciably soluble in water. This class of chemicals covers a wide range of compounds, including toluene, styrene, and many chlorinated solvents found on brownfield sites once occupied by businesses such as printers and engravers, metal finishers, furniture refmishers and auto body shops. VOCs can have direct adverse effects on human health, and many have been classified as toxic and carcinogenic.

Semi Volatile Organic Compounds (SVOCs)

Semi-organic volatile compounds (SVOCs) are synthetic organic compounds that are solvent-extractable. They include:

- Phenols
- Phthalates
- Polycyclic Aromatic Hydrocarbons (PAHs) produced during combustion

Total Extractable Hydrocarbons (TEH)

Also known as Total Petroleum Hydrocarbons (TPH). Total petroleum hydrocarbons found on brownfield sites include:

- Heating oil (from spills or ruptured underground tanks)
- Gasoline (from spills and discharges)
- Kerosene
- Asphalt

Metals

Metals or heavy metals are any metallic chemical elements that have a relatively high density, are highly toxic, and poisonous to humans at low concentrations. Common environmental metal hazards that can cause serious health effects, if there is sufficient exposure, include the following:

- Arsenic
- Beryllium
- Cadmium
- Chromium
- Nickel
- Lead
- Zinc
- Mercury
- Copper

Of all these metals, lead, a naturally occurring substance, is most commonly found on urban brownfield sites. It was used in household and industrial paints, brake pads, and gasoline until it was found to cause learning and behavioral problems in humans, but it is still often found in discarded or buried lead batteries. Lead is neurotoxic, so children whose bodies are still developing are most at risk. While some aspects of lead poisoning are reversible in adults, in children it can interfere with normal development, cause irreparable brain damage, or even result in death. It is therefore extremely important to address the presence of lead in soils on brownfield sites.

Inquiry: What part of the site have been tested and how can those results be used to project the contaminants in other locations.
Key Extractions: Terracon Results
Methodology: Using Terracons test results to project the contaminants present in some of the untested areas that have similar use histories.
Conclusions: Examining the results of the Terracon testing, and the different contaminants that were found in the soil and groundwater, has lead to a much better understanding of which areas can be used for stormwater management. This information paired with the history of the site also made it easier to get an idea of what contaminants may be present in other parts of the site.

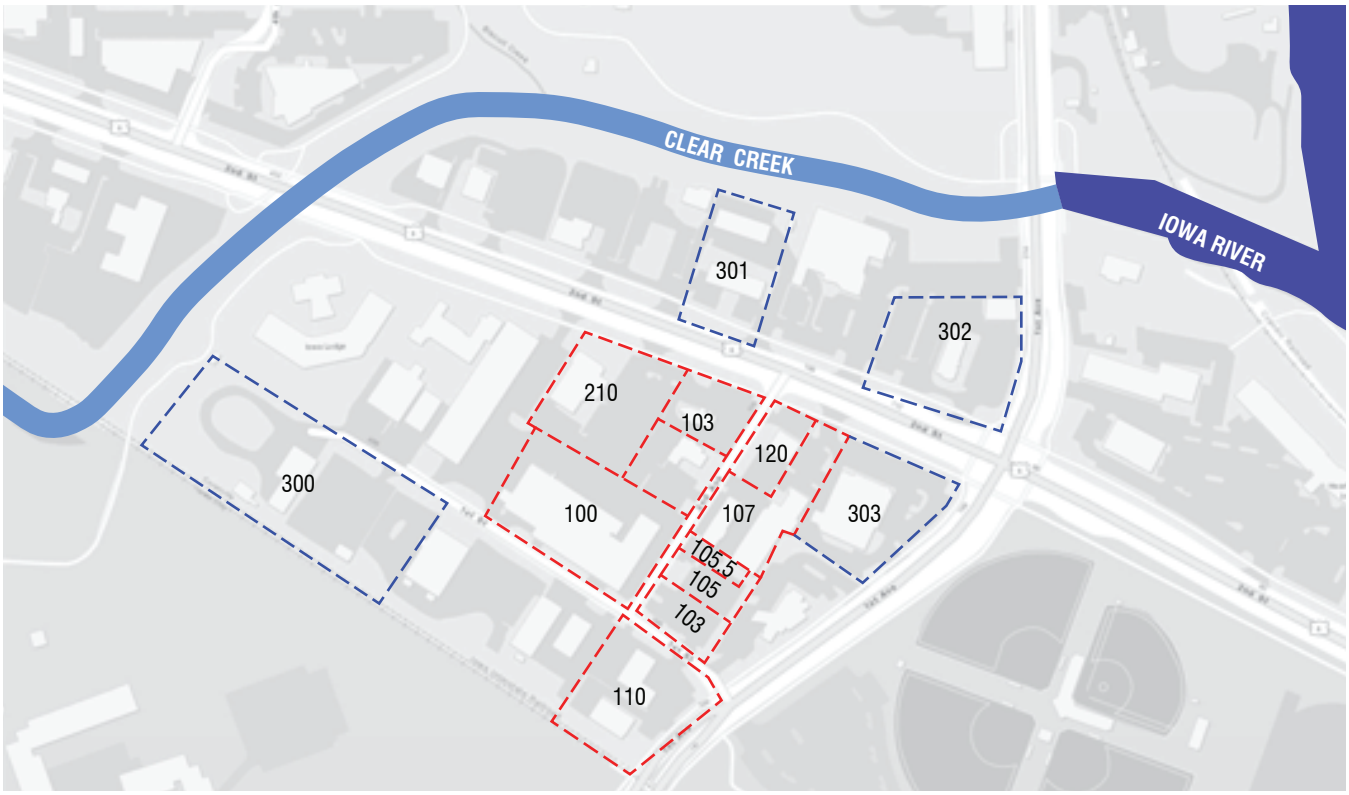


Figure 1 Survay Areas Map. Refer to the table below to see what contaminants are present in each of the outlined areas
Source: Esri Arconline world Street Map Modified by Caleb Parker

Legend
Terracon Test Results
Assumed contamination

SECTION	CONTAMINANT							
	SOIL VOCs	SOIL SVOCs	SOIL TEH	SOIL METALs	GW VOCs	GW SVOCs	GW TEH	GW METALs
100		X	X	X	X			X
103	X	X	X	X	X	X	X	X
105	X	X	X	X	X	X	X	X
105.5		X		X		X		X
107	X	X	X	X		X		X
108		X	X	X	X	X		X
110		X	X	X		X		X
120		X		X		X		X
210		X	X	X	X	X		X

Table 1. Results from Terracon Soil Testing (2016)

X Laboratory Reporting Limit Exceedances X Iowa DNR SWS Excedances

Assumptions Based on Previous and Current Uses

300 This area is and has been the site of the scrap yard, which means that there is a high probibility of contaminants in this site.

301 Is the site of the Kum and Go gas station which means that it is fair to assume that it has similar contaminants to section 210 which used to be a gas station.

302 & 303 are also the former site of a gas station which means that it is fair to assume that it has similar contaminants to section 210 which also used to be a gas station.

Stormwater Management Can be Implemented Without Spreading Contaminants

Isolation techniques include the use of infiltration cells and vertical/horizontal barriers.

W3_Parker03_Contaminants.PDF

Figure 1 Solution: Infiltration Cells are placed in areas that are not contaminated, so that stormwater can be absorbed into the ground without leaching contaminants into the soil, or ground water. The filtration cells take on water and filter it, and the bottom will be lined to prevent water form spreading contaminants in the vertical direction. Vertical barriers will be used to prevent the spread of contaminants in the horizontal direction. Water from the filtration cells will be channeled into infiltration cells, and any excess water will be captured in a perforated drain pipe. In order to absorb the stormwater more effectively some of the contaminated areas will be capped prior to the implementation of stormwater management practices.
Source: Esri Arconline World Street Map modified by Caleb Parker, 2018

Legend
- Infiltration Area
- Filtration Swale
- Infiltration Area After Remediation

Inquiry: How can stormwater management be implemented in a way that avoids spreading contaminants into the soil and ground water?
Key Extractions: Green Infrastructure Suitability
Methodology: Develop a stormwater management plan based on the results of the suitability study; research stormwater implementation in brownfield sites.
Conclusions: There are many ways to go about implementing stormwater management in this site, depending on how much time and resources are spent on remediating the site. Even if there is not a lot of effort put towards remediation there is still an opportunity to implement a functional stormwater management system. Using filtration swales in contaminated areas will be important to ensure that the design is not accelerating the contamination process. Not only will these stormwater management elements help to prevent flooding, they will also help to elevate the aesthetic qualities of the district.

Levels of Remediaiton (Principles of Brownfield Regeneration 2010)

The degree to which the soil or ground water needs to be remediated depends on the intended future use of the site,how contaminated the area is, and how dangerous the contaminants are.

- Full Cleanup - Full or total cleanup includes complete soil excavation over the entire site and removal by truck to a licensed landfill. In addition a complete dewatering and removal of on-site water bodies (ponds, pools, and lagoons) will be carried out, including cleaning up and removal of any remaining sediment layers. Finally the extraction and removal or remediation of polluted groundwater plumes will be carried out over the whole site area.
- Partial Cleanup (Off-site) - The removal of contaminated soils to another site where the soils will be remediated.
- Partial Cleanup (in Place) - requires remediation technologies and supporting equipment to be brought on-site and the ground surface.
- Concealment - Full concealment includes the placement of a cap and engineered cover system to seal the contamination in place in the ground.
- Nonintrusive Cleanup - uses natural or benign remediation technologies that leave the site in near its original condition and uses where possible but ensures that soil and groundwater contamination is remediated.

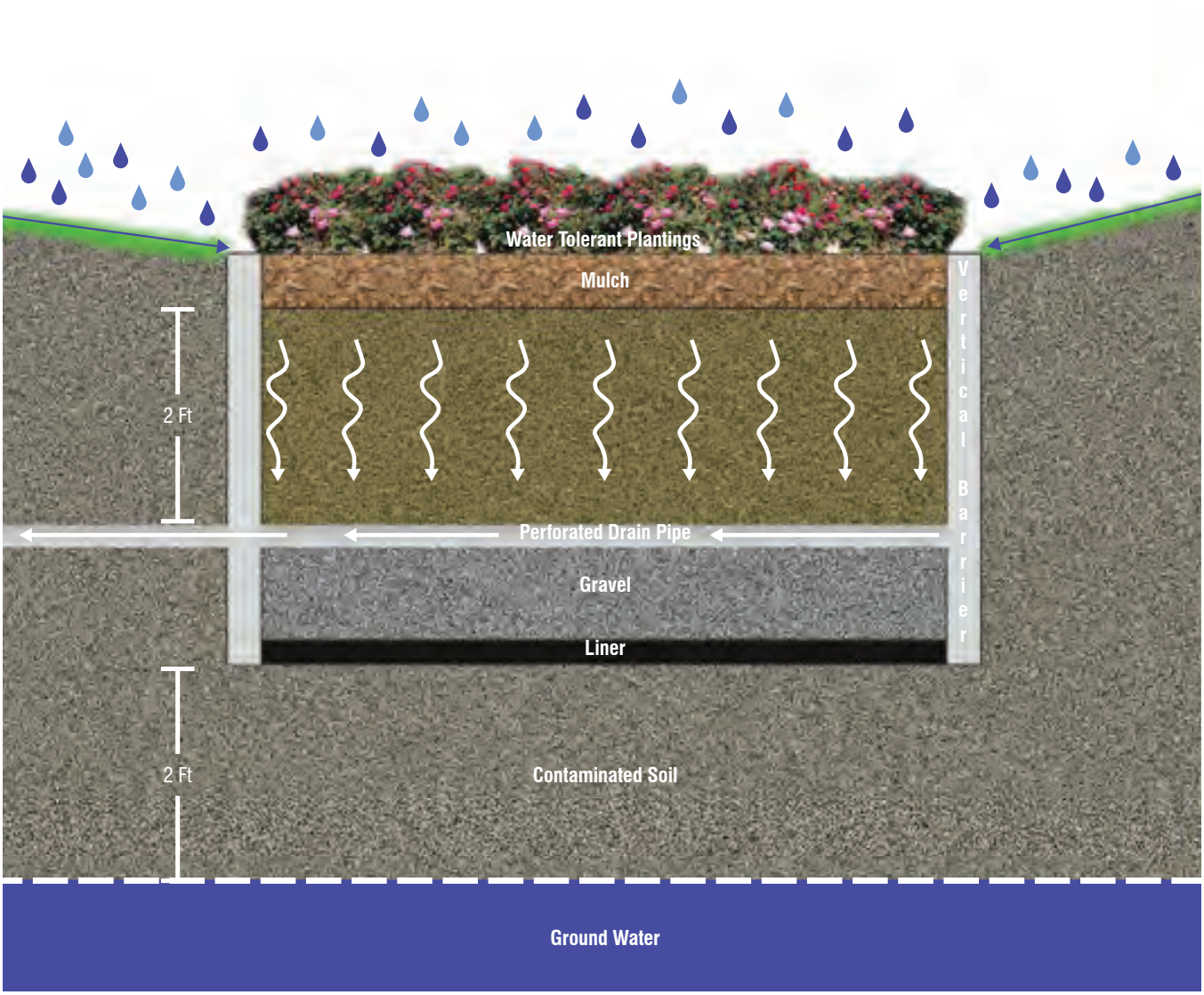


Figure 2 Filtration Cell. filtration Cells can be used in contaminated areas to capture and filter water, without spreading the contaminants.
Source: Produced by Caleb Parker

Comparing Design Strategies of Brownfield Remediation Projects

The Southeast Commercial Corridor can utilize some of the elevated protection design strategies used by other case studies

W3_Stoffel01_BrownfieldRemed.PDF

Southeast Commercial Corridor

Brownfield contamination sites to be elevated

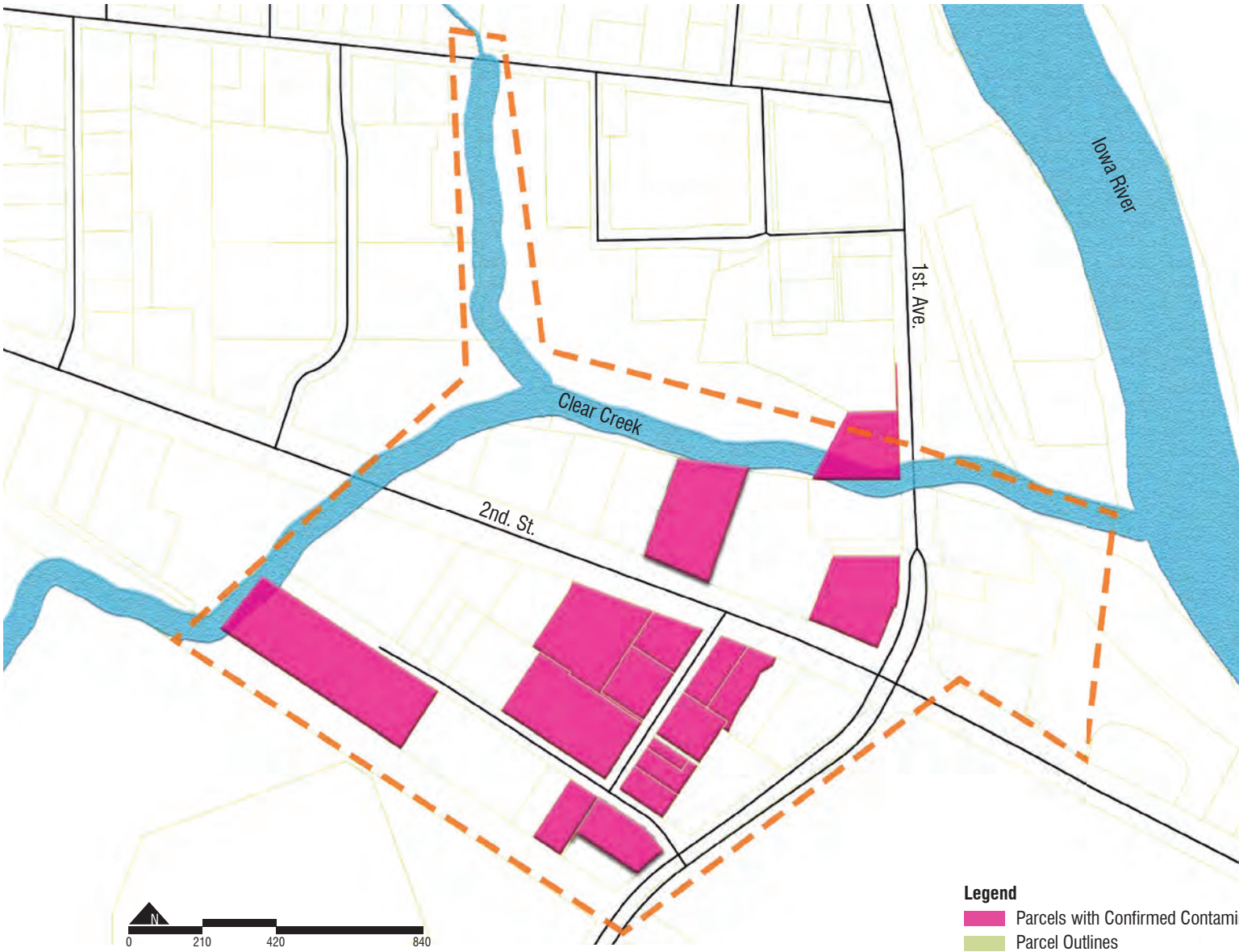


Figure 01. Project brownfield site with Contaminated Parcels
Source: ArcGIS Mapping--Modified by Elsa Stoffel

Inquiry: What kinds of protection strategies have other designers implemented to elevate people away from harmful contaminants and pollutants that have been capped within brownfield sites?
Key Extractions: Brownfield Remediation that has been capped is more safe when elevation is added away from the contamination.
Methodology: Find Case Studies of other Brownfield Remediation Projects that offer solutions of higher elevations of protection.
Conclusions: Elevating certain parts of the Southeast Commercial Corridor will allow a more pedestrian friendly district while allowing safety to be a top priority. Remediating contamination to EPA standards will enable land uses and redevelopment. By elevating paths to become bridges or boardwalks across capped contaminated 'carpets' or excavating out polluted soils to be filled with clean fill will ultimately remediate the Southeast Commercial Corridor. These strategies paired with other remediation strategies, such as air spurging, will create a clean environment for people to live, work, and play.

Raised Elevation Protection Strategies--Two Case Studies

Eco-Park

Levisky Arquitetos

Figure 02. Delineation of the raised boardwalk and concrete terrace to protect humans from capped contamination
Source: ArchDaily--Modified by Elsa Stoffel

Figure 03. Delineation of the raised boardwalk/terrace strategy
Source: ArchDaily--Nelson Kon--Modified by Elsa Stoffel

Legend
Protection Strategy

The Steel Yard

Klopfer Martin Design Group

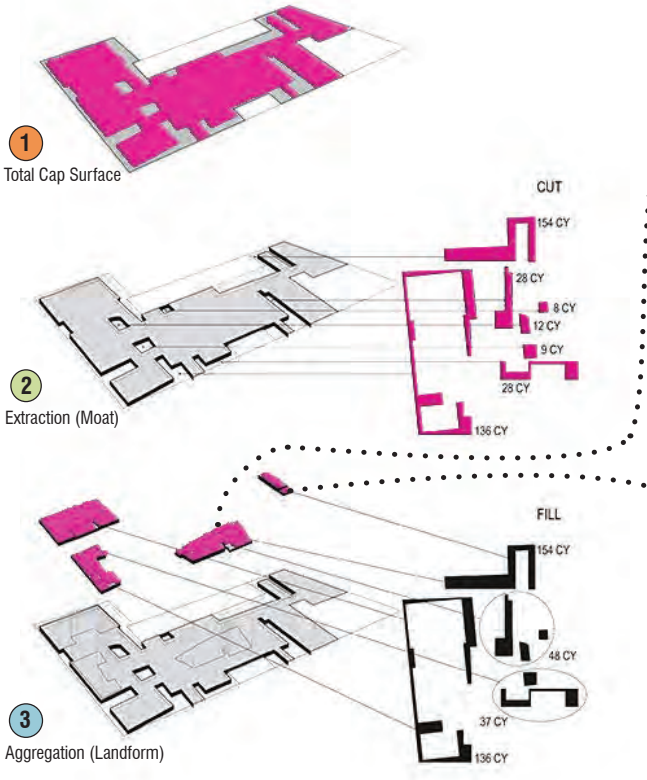


Figure 04. Cut and Fill Remediation Strategies of The Steel Yard
Source: Landezine-KMDG--Modified Colors by Stoffel

Figure 05. Delineation of the remediation strategy of elevating people out of harm's way of the capped contamination--Part 1
Source: Landezine-Christian Phillips--Modified by Elsa Stoffel

Figure 06. Delineation of the remediation strategy of elevating people out of harm's way of the capped contamination--Part 2
Source: Landezine-Christian Phillips--Modified by Elsa Stoffel

Contaminant Levels and Flood Levels Pose Risks to the Site and to Users' Health

Site Sections show contamination areas and flood levels.

W3_Stoffel02_BrownfieldRemed.pdf

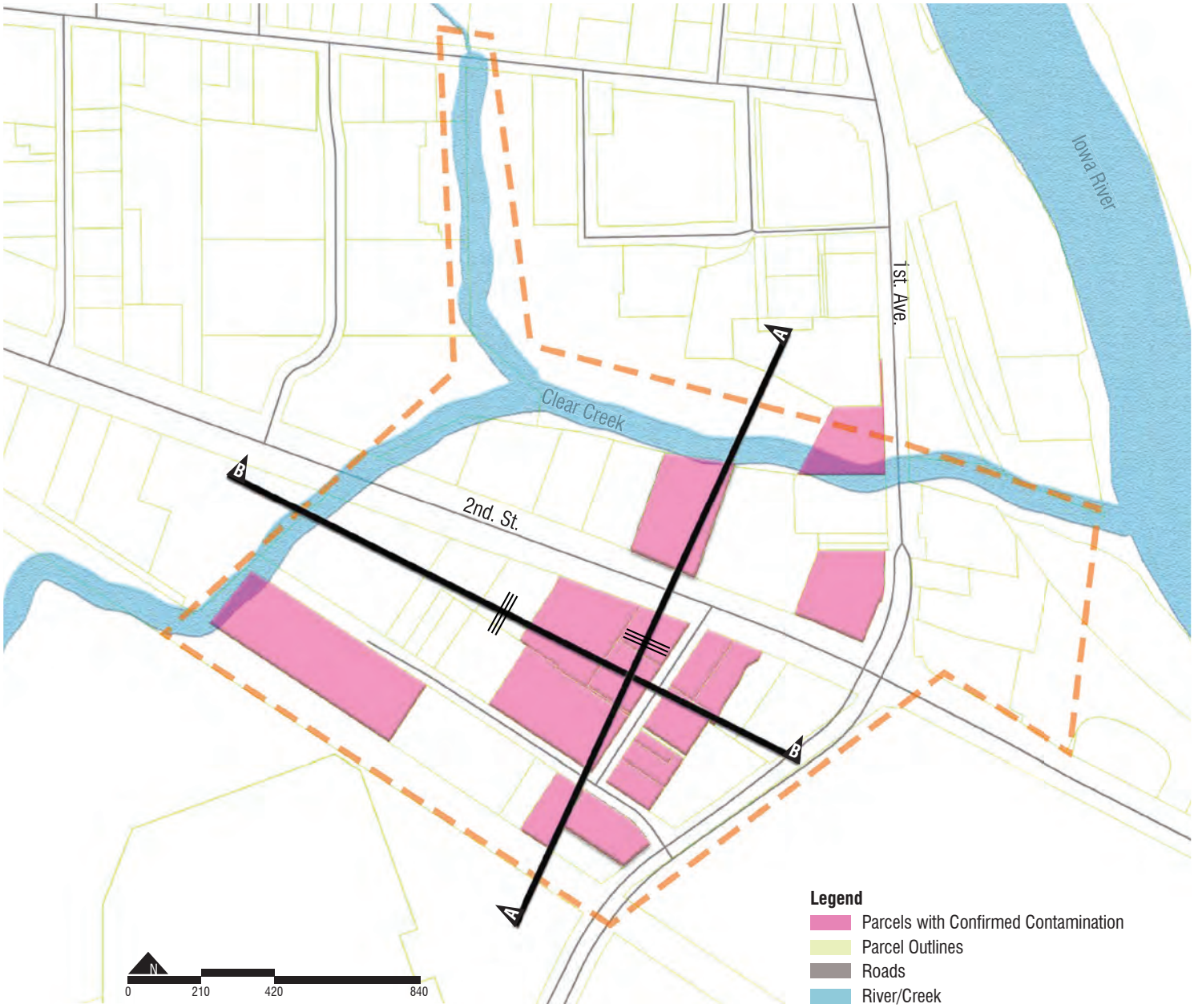


Figure 01. Section locations of most dense contamination.
Source: ArcGIS, Terracon, Stoffel

Inquiry: Where are the necessary elevation changes after analyzing the flood level elevations and contaminant locations of the site?
Key Extractions: The sections show where elevations must be raised to protect infrastructure from flooding and people from harmful contaminants.
Methodology: Two sections, perpendicular of each other show where certain elevations need to be raised for protection from contaminants and flood levels.
Conclusions: As seen in the sections, it is necessary to change some elevations through capping the site where contaminants are found and raising the parcels where habitable structures will be located to protect against future risk of flooding above the 100-yr + 1ft. level.

Section A-A

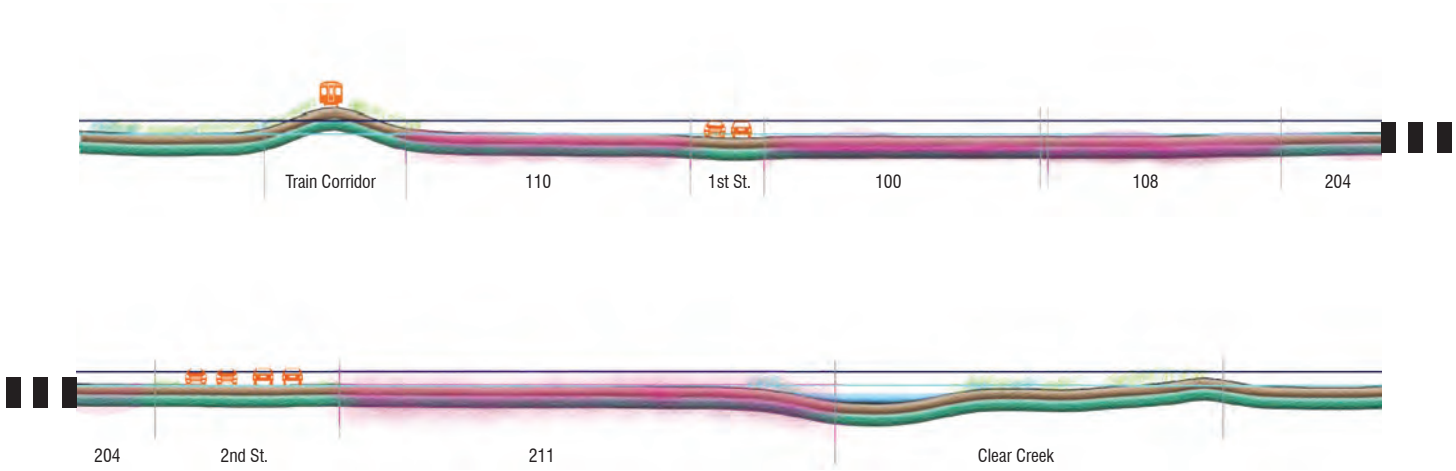


Figure 02. North-South Section
Source: ArcGIS, Terracon, Stoffel

Important Elevations
100 year Flood Level = 654.7 to 655.5
500 year Flood Level = 658.0

Legend
- Contamination
- Groundwater
- Ground above Groundwater
- 100 Year Flood Level
- 500 Year Flood Level

Section B-B

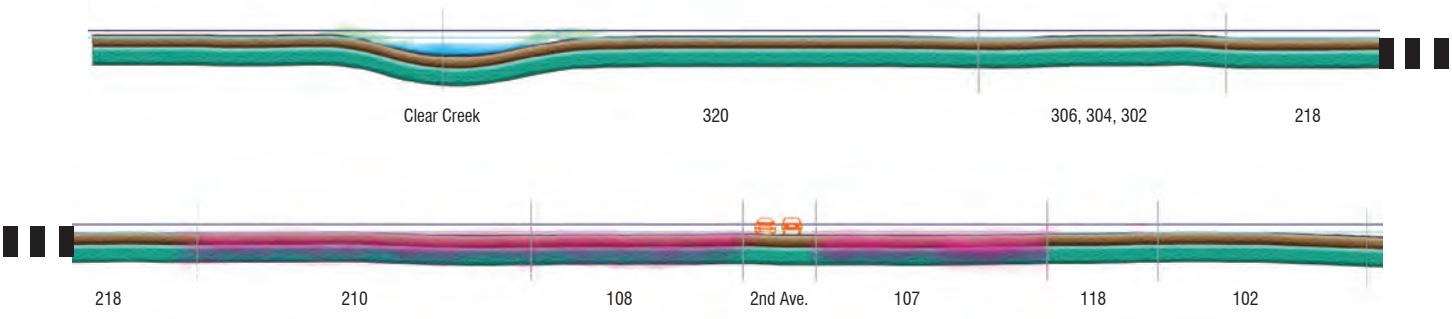


Figure 03. East-West Section
Source: ArcGIS, Terracon, Stoffel

Parcels are Strategically Elevated in order to be Protected from Contamination and Flooding

The sections show the existing conditions along with the proposed elevation levels of certain parcels.

W3_Stoffel03_BrownfieldRemed.pdf

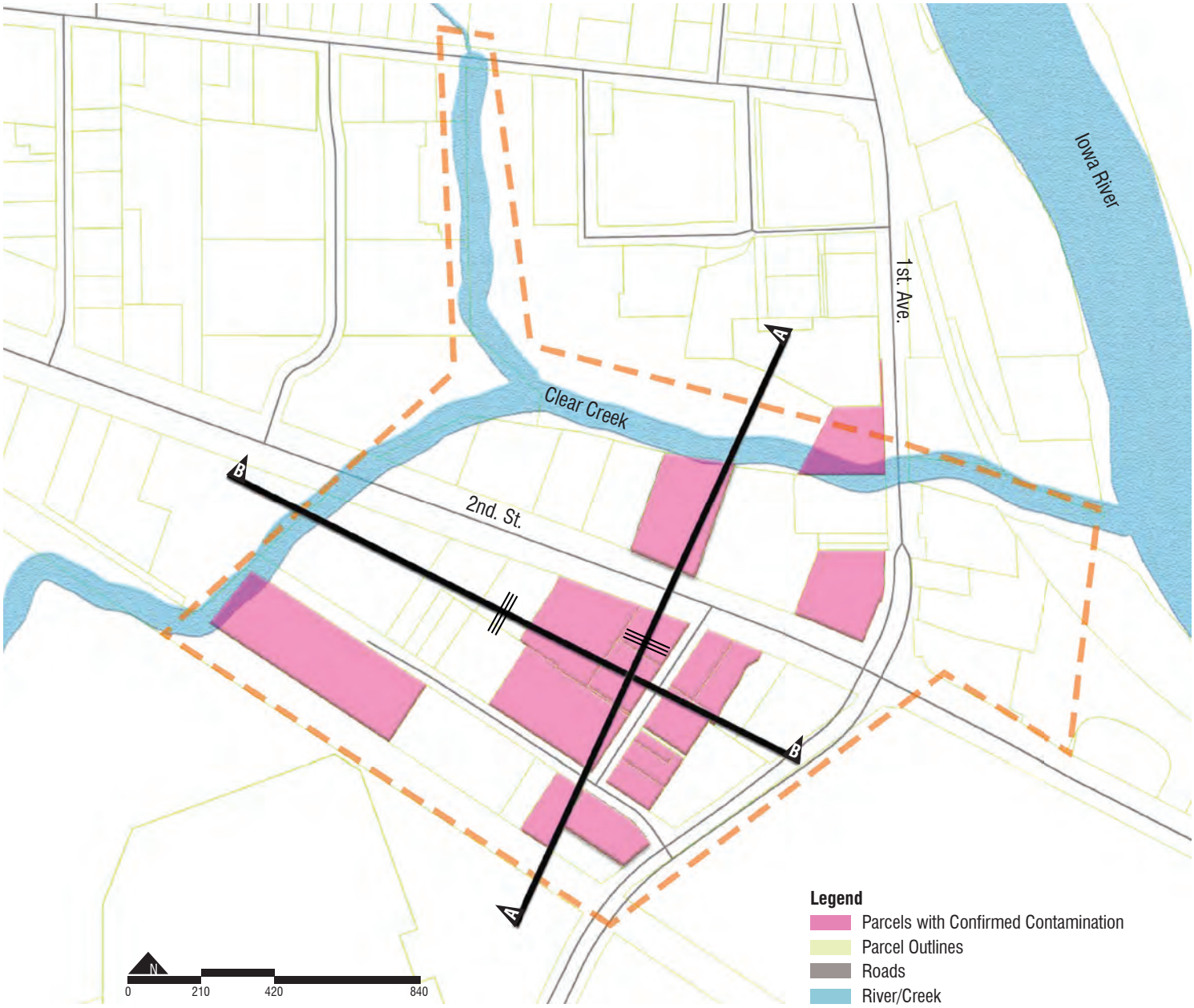


Figure 01. Section locations of most dense contamination.
Source: ArcGIS, Terracon, Stoffel

Inquiry: What elevation levels ensure the safety of the site from flood levels and contamination and health risks?
Key Extractions: The green and light green lines show the necessary elevation changes to the site for protection reasons.
Methodology: Two sections, perpendicular of each other show where certain elevations need to be raised for protection from contaminants and flood levels. Elevation levels are chosen by making sure the proposed changes are above the risk levels.
Conclusions: As seen in the sections, it is necessary to change some elevations through capping the site where contaminants are found and raising habitable structures according to Flood protection thresholds. Not only will raising elevations protect users from harm of contamination and protect critical infrastructure, but it will improve accessibility for the future passenger rail located south of the site.

Section A-A

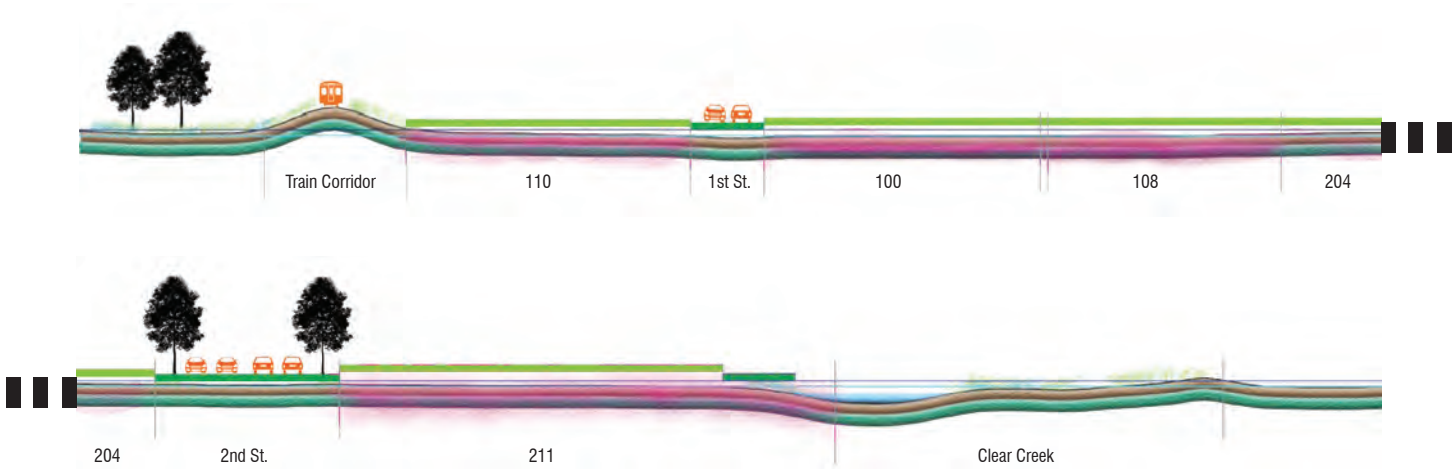


Figure 02. North-South Section
Source: ArcGIS, Terracon, Stoffel

Important Elevations
100 year Flood Level = 654.7 to 655.5
500 year Flood Level = 658.0
Flood Protection Criteria = June 2008 actual +1 Foot (659.0)
Flood Protection Elevation = 658.7 - 658.9
(Scott Larson, 2018).

Legend
- Contamination
- Groundwater
- Ground above Groundwater
- 100 Year Flood Level
- 500 Year Flood Level
- Flood Protection Elevation
- Contamination Protection Elevation

Section B-B

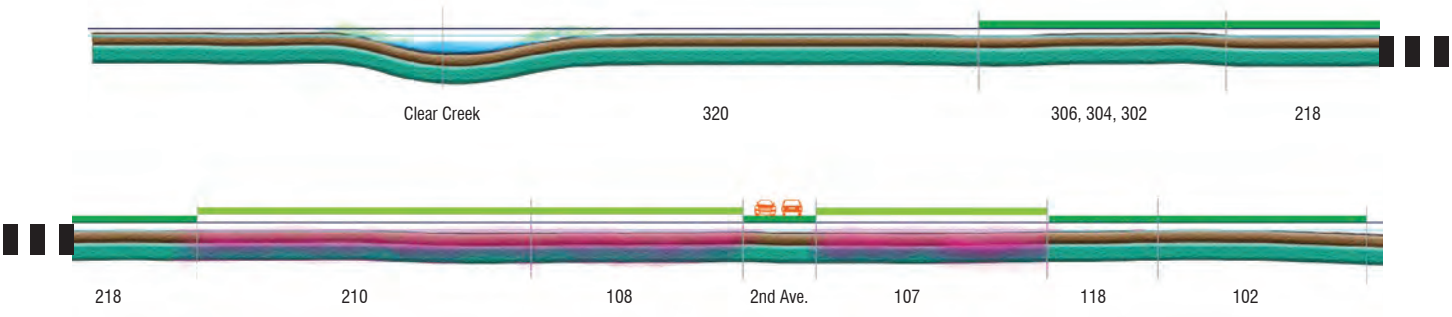


Figure 03. East-West Section
Source: ArcGIS, Terracon, Stoffel

Rail

Appendix A.4

Transit Primarily Oriented Around Residential Areas

Throughout Coralville over 50% of the transit lines are located within convenient walking distance to residential areas.

W2_Dunay01_Transit.PDF

Land Uses Near Transit Lines (precentages %)

Yellow- Residential Red- Commercial Purple-Industrial Green-Parks

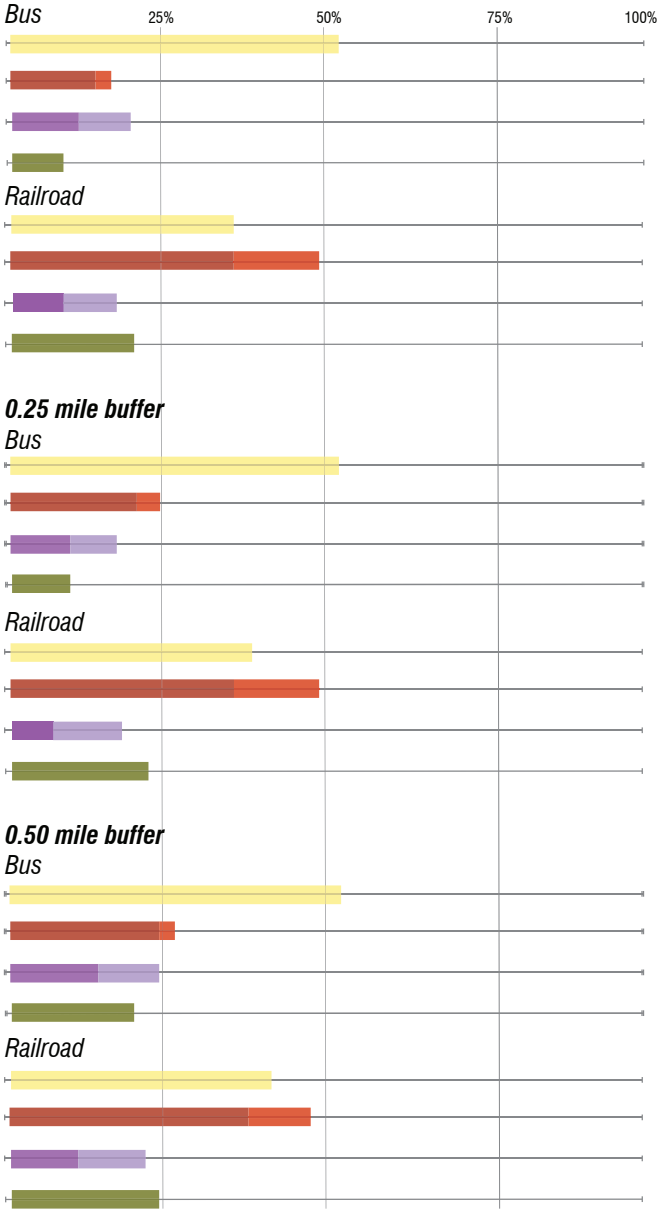


Figure 01. Percentage of Land Use in relation to Transit Lines
Source: City of Coralville, Johnson County, Iowa GIS Open Data

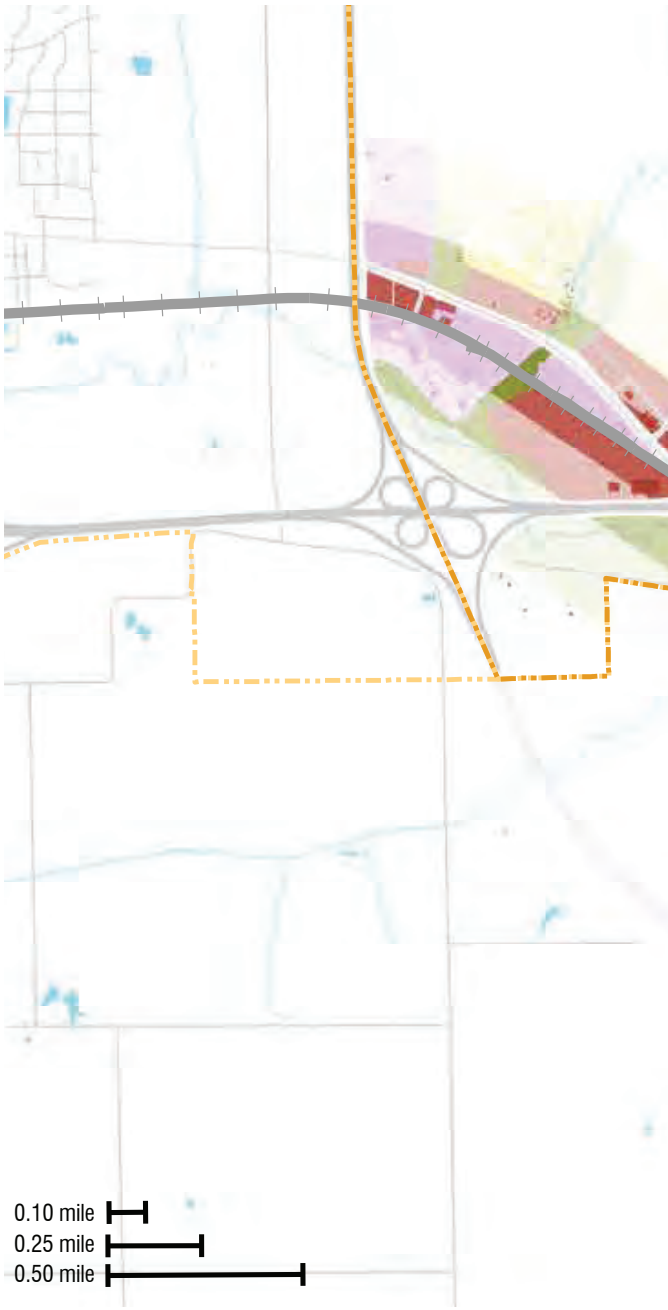
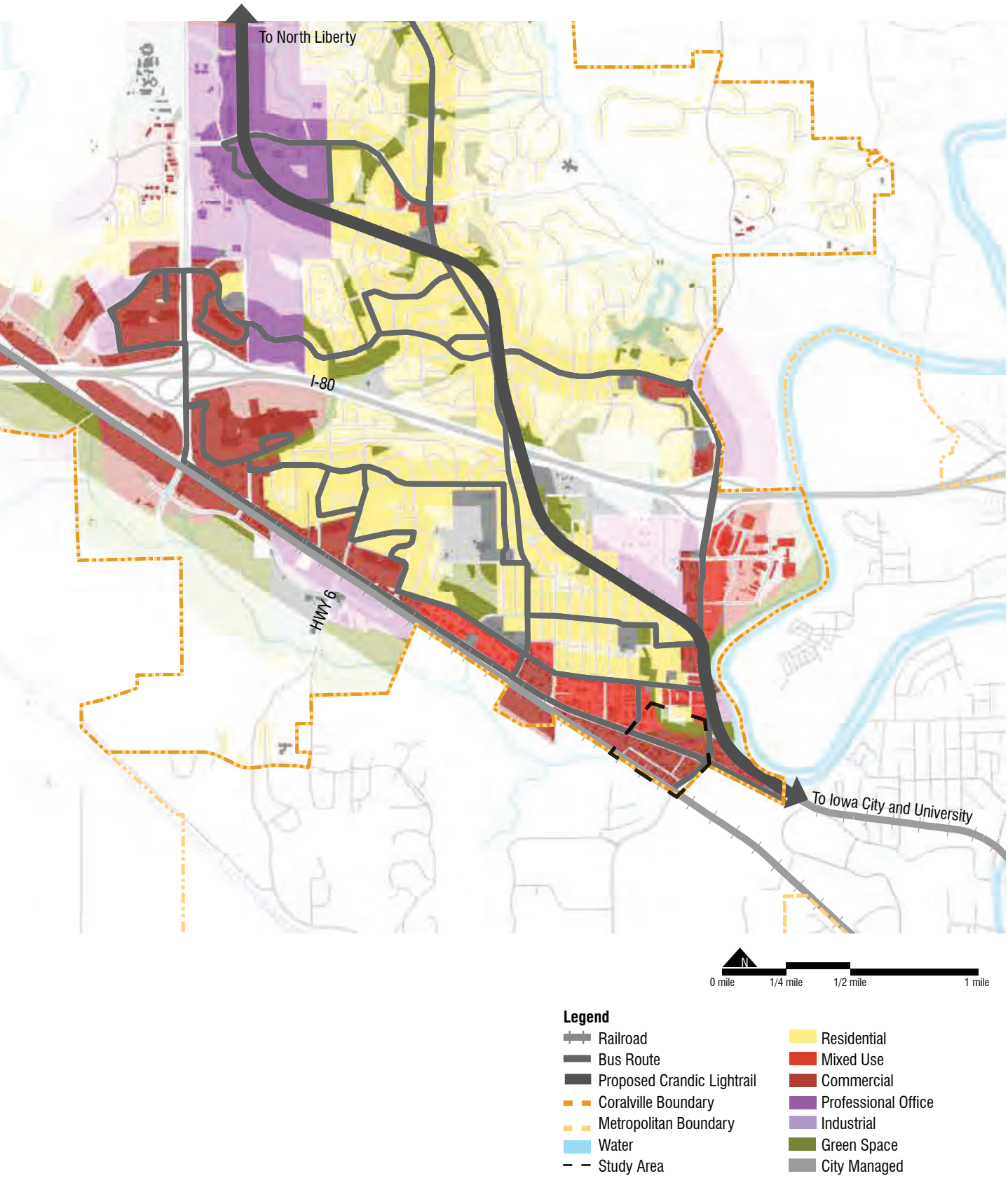


Figure 02. Map showing transit lines and their relationship to Land Uses
Source: City of Coralville, Johnson County, Iowa GIS Open Data

Inquiry: What are the primary land uses surrounding the railroad and bus system's?
Key Extractions: Land Use Map, Railroad, Bus Route, Bus Stops, Building Footprints
Methodology: Map created by compiling data from Coralville and GIS. Data collected included hydrology features, road features, transit active and non-active, land use data, and building footprint. After data was collected, it was entered into GIS to be analyzed and compared through a series of buffering tools. 0.10, 0.25, and a 0.50 mile buffers were created off of the transit lines to determine which kind of land use occurred most frequently around the transit systems.
Conclusions: From this map, we can see that the transit lines are most frequently occurring around residential areas and commercial areas. While overall this is most frequent, we can also infer that different kinds of transit are occurring most frequent at different types of uses. We see that the railroad most frequently occurs around commercial areas, while bus transit occurs most frequently around residential areas. From this map we can begin to determine where future transit stops may be most beneficial or where there is a high or low need for new transit.


To North Liberty
I-80
HWY 6
To Iowa City and University
N
0 mile
1/4 mile
1/2 mile
1 mile
Legend
Railroad
Bus Route
Proposed Crandic Lightrail
Coralville Boundary
Metropolitan Boundary
Water
Study Area
Residential
Mixed Use
Commercial
Professional Office
Industrial
Green Space
City Managed

Coralville Examines Different Types of Multi-Modal Transit Stations

Examination of Multi-Modal Transit Station imagery will help idealize new transit stations and guide strategy

W2_Dunay02_Transit.PDF

1

Major Transportation Station
Industrial Area
High Density Travel
Medical Center
Variety of Vistors and Employees
Stand Alone Station

2

Mall Area
Medium Density Travel
Gate Way
Variety of Visitors and Employees
Connection to Mall

3

Commuter Hub
Residential Area
Medium Density Travel
Parking Garage
Stand Alone Station

4

Transit Stop
Mixed Use Area
High Density Travel
Integrate the Landing
Variety of Visitors and Employees
Stand Alone Station

5

Major Transportation Station
Mixed Use Area
High Density Travel
Variety of Visitors and Employees
Integrated Station
Gateway

Figure 01. Image collection of inspiration for Multi-Modal Transit Stations
Source: Google Images

Inquiry: What do different kinds of Multi-Modal Transit Stations look like? Where would these examples best fit?
Key Extractions: Images, Opportunity Map
Methodology: After determining the opportunity areas, we determined key factors that would best fit the different stations audience, users, and visitors. We then collected images to reflect these ideas as beginning points for future consideration.
Conclusions: The different stations should have different considerations. For station one, it is centered in the medical and research center and should reflect the density and users. Station two is located near the mall and should have a clear connection to the mall. Station three is surrounded by residential and would be best to consider itself as a commuter hub for the system. Station four is located around The Landing and due to the mix of uses would serve best as a multi-modal transit stop rather than a full station. Station five is located on our site and could serve as a gateway between Coralville and Iowa City and could be integrated into a mixed use building.

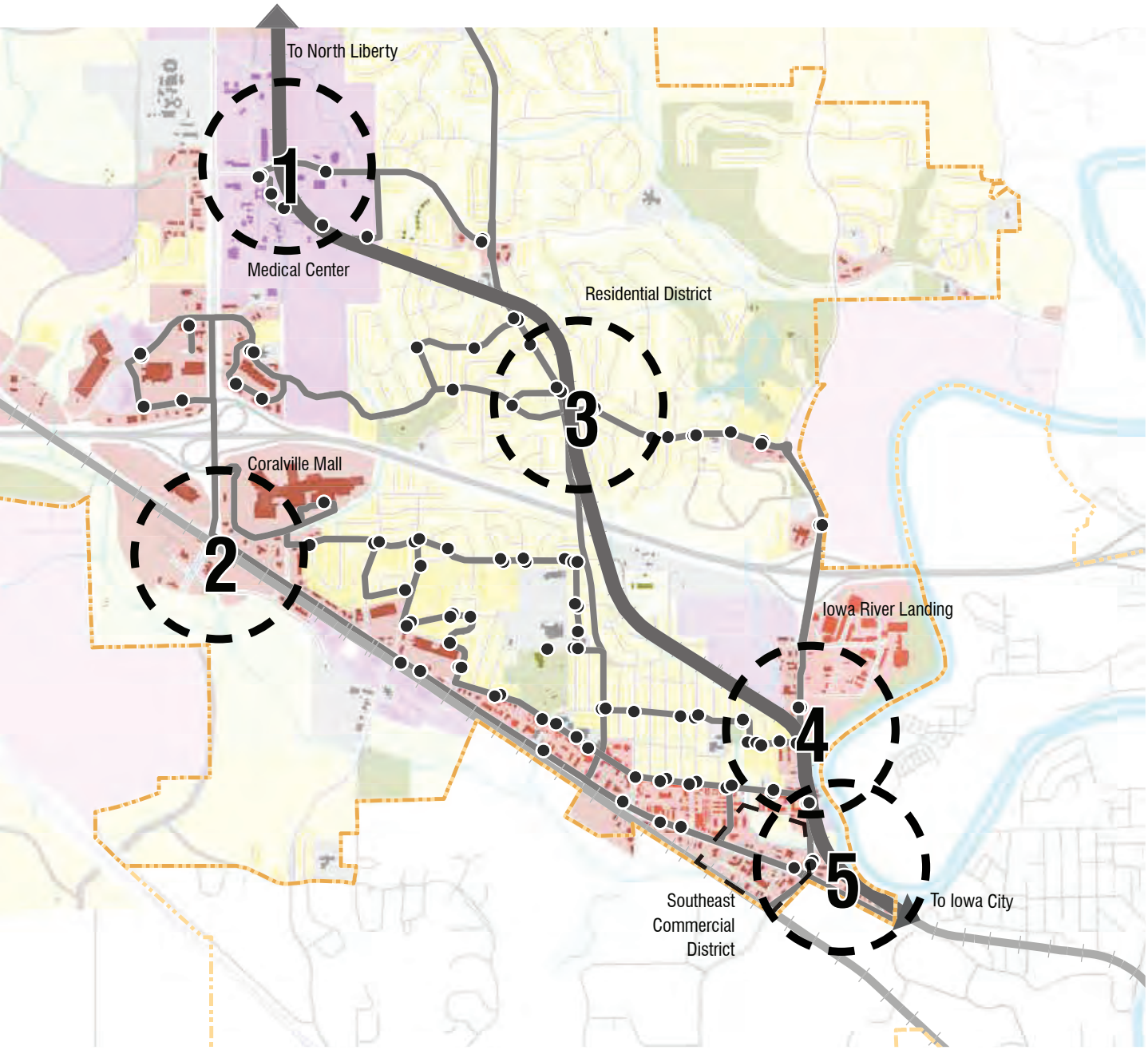


Figure 02. Opportunity Map
Source: City of Coralville, GIS

Five Multi-Modal Transit Stations are Proposed for Coralville

Based on existing bus transit and the potential for a light-rail system there are five interesction areas that can be utilized for multi-modal transit stations.

W2_Dunay03_Transit.PDF

Current Transit Stops

Bus: 100 (on visible map)

Railroad: 0

Identified Multi-Modal Transit Stations Key Features

Station One (also proposed in the 2016 light-rail concept)
Location: Research Park and Medical Center associated with Iowa University
Existing Stops: 5
Land Use(s): Commercial, Professional Office, City Managed

Station Two
Location: Coral Ridge Mall
Existing Stops: 0
Land Use(s): Commercial

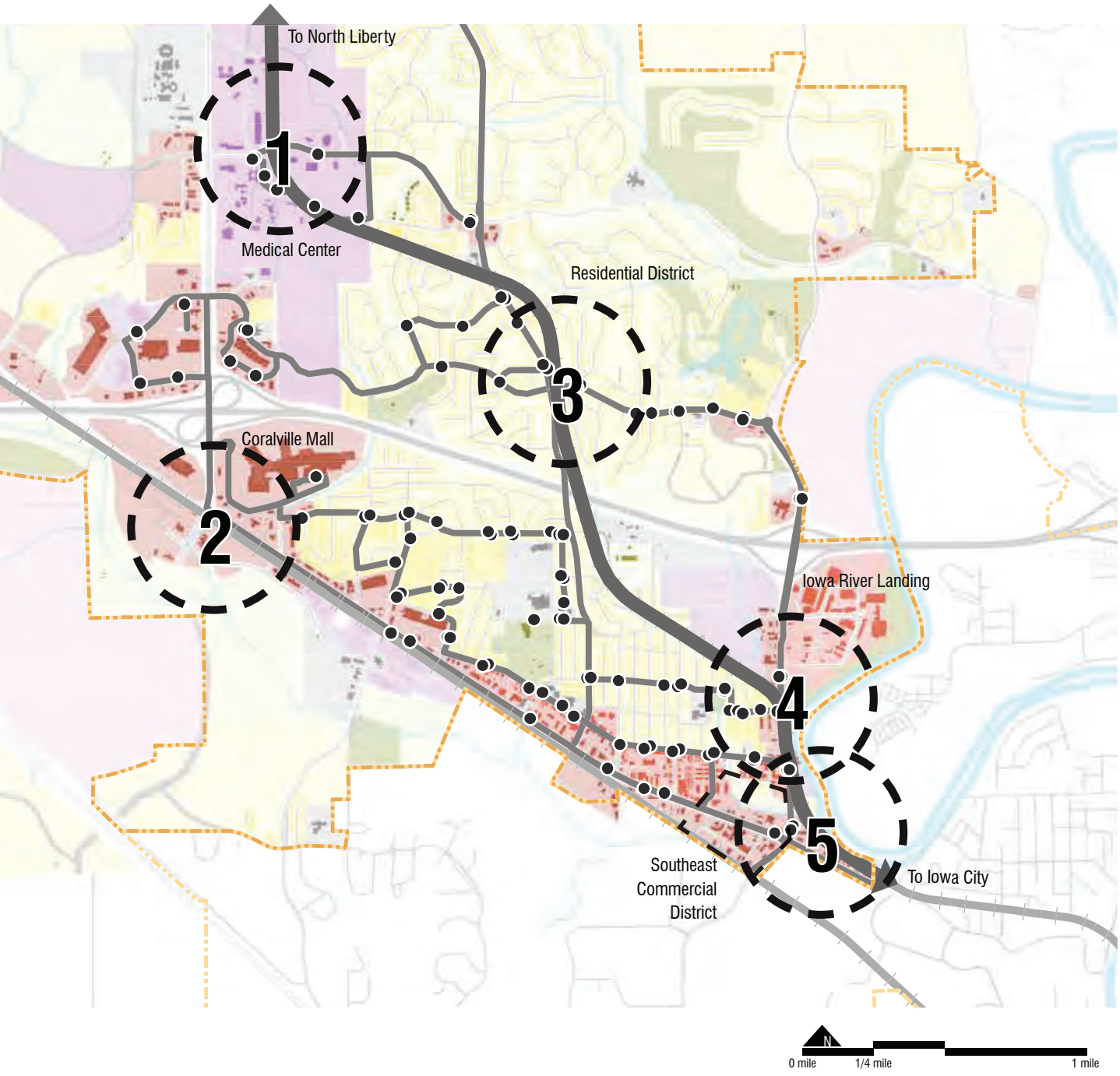
Station Three
Location: Residential Area
Existing Stops: 6
Land Use(s): Residential

Station Four
Location: The Landing
Existing Stops: 10
Land Use(s): Residential, Mixed Use, Commercial, Professional Office, Green Space

Station Five (also proposed in the 2016 light-rail concept)
Location: South East Commercial District
Existing Stops: 6
Land Use(s): Residential, Mixed-Use, Commercial, Industrial, Green Space

Figure 01. Proposed Transit Stations for Coralville
Source: City of Coralville, GIS

Inquiry: Where could potential multi-modal transit stations be located?
Key Extractions: 'Railroad', 'Bus Transit Route', 'Bus Transit Stops', 'Land Use', Opportunity Areas
Methodology: After analyzing the Causal map looking at land use proximity to transit lines, we began to determine possible areas for a multi-mode transit systems. We looked at areas that had both the bus line and railroad that ran though the same area. From there we looked at land use, types of business, and number of existing stops.
Conclusions: After looking at potential areas it was determined that there could be five different multi-modal transit stations throughout Coralville. This informs us that while there are a large number of bus stops, potential exists for multi-modal stations as well. This information does not include potential areas for individual rail stops or future bus stops.


To North Liberty
1
Medical Center
Residential District
3
Coralville Mall
2
Iowa River Landing
4
5
Southeast
Commercial
District
To Iowa City
0 mile
1/4 mile
1 mile
Legend
Railroad
Bus Route
Proposed Crandic Light-rail
Bus Stops
Coralville Boundary
Metropolitan Boundary
Water
Study Area
Opportunity Areas
Residential
Mixed Use
Commercial
Professional Office
Industrial
Green Space
City Managed

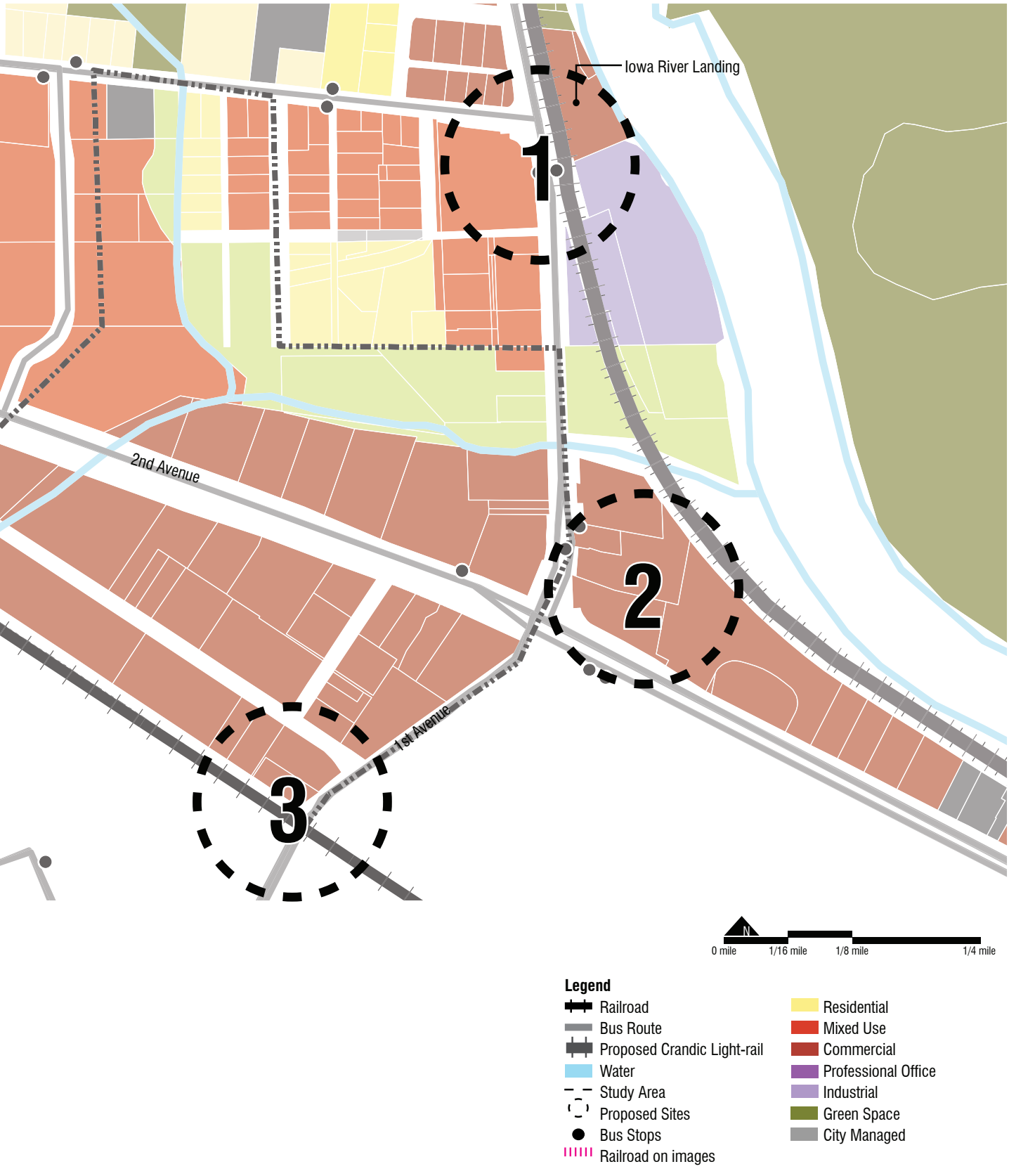
SE Commercial District has Potential for Three New Multi-Modal Transit Station Options

Based on existing transit lines, there are three different locations well-suited for a new transit station.

W3_Dunay01_TransitStation.PDF

Figure 01. Proposed Multi-Modal Transit Stations Locations
Source: Coralville, Google Maps

Inquiry: Where can new multi-modal transit stations be located within the Southeast Commercial District?
Key Extractions: "Land Use" "Bus Route" "Rail lines" "Bus Stops"
Methodology: To examine where potential new transit stations could be located, we examined where existing transit and transit stops were located and what kind of land use surrounded those areas within the site and direct surrounding areas. We first looked at where the different transit systems intersected to determine about 5-7 possible stops. From that point we looked at areas that were predominantly commercial or mixed-use. We then narrowed the selection down to three different locations. To create these images we used GIS and InDesign.
Conclusions: After looking at the site and surrounding areas it was determined that there could be three potential areas for a new transit station. These locations are at the intersection of the southern railroad line and 1st Avenue, between the Iowa River and 1st Avenue, and near the Iowa River Landing District.


Iowa River Landing
1
2
3
2nd Avenue
1st Avenue
N
0 mile
1/16 mile
1/8 mile
1/4 mile
Legend
Railroad
Bus Route
Proposed Crandic Light-rail
Water
Study Area
Proposed Sites
Bus Stops
Railroad on images
Residential
Mixed Use
Commercial
Professional Office
Industrial
Green Space
City Managed

Drastic Elevation Changes Could Impact Design of New Transit Station Locations

Two of the proposed sites have a grade change of over 15ft.

W3_Dunay02_TransitStations.PDF

Figure 01: Proposed Sites for the Transit Stations with Elevation Section Lines
Source: Coralville

Inquiry: What is the elevation differences at the proposed multi-modal transit station locations?
Key Extractions: "Bus Route" "Railroad Lines" Elevation Sections
Methodology: After determining the areas of the proposed transit stations, we identified estimated elevation differences between the rail bed and adjacent access points. This information came from contour lines in GIS.
Conclusions: After identifying the elevation section areas, we began to see challenges and opportunities. At the Iowa River Landing the elevation is fairly flat and only changes by 2 ft. over a 57' section. This is drastically different from the 1st Street and 2nd Avenue Intersection and the Southeast Commercial District where the elevation change over a similar distance is approximately 15'.

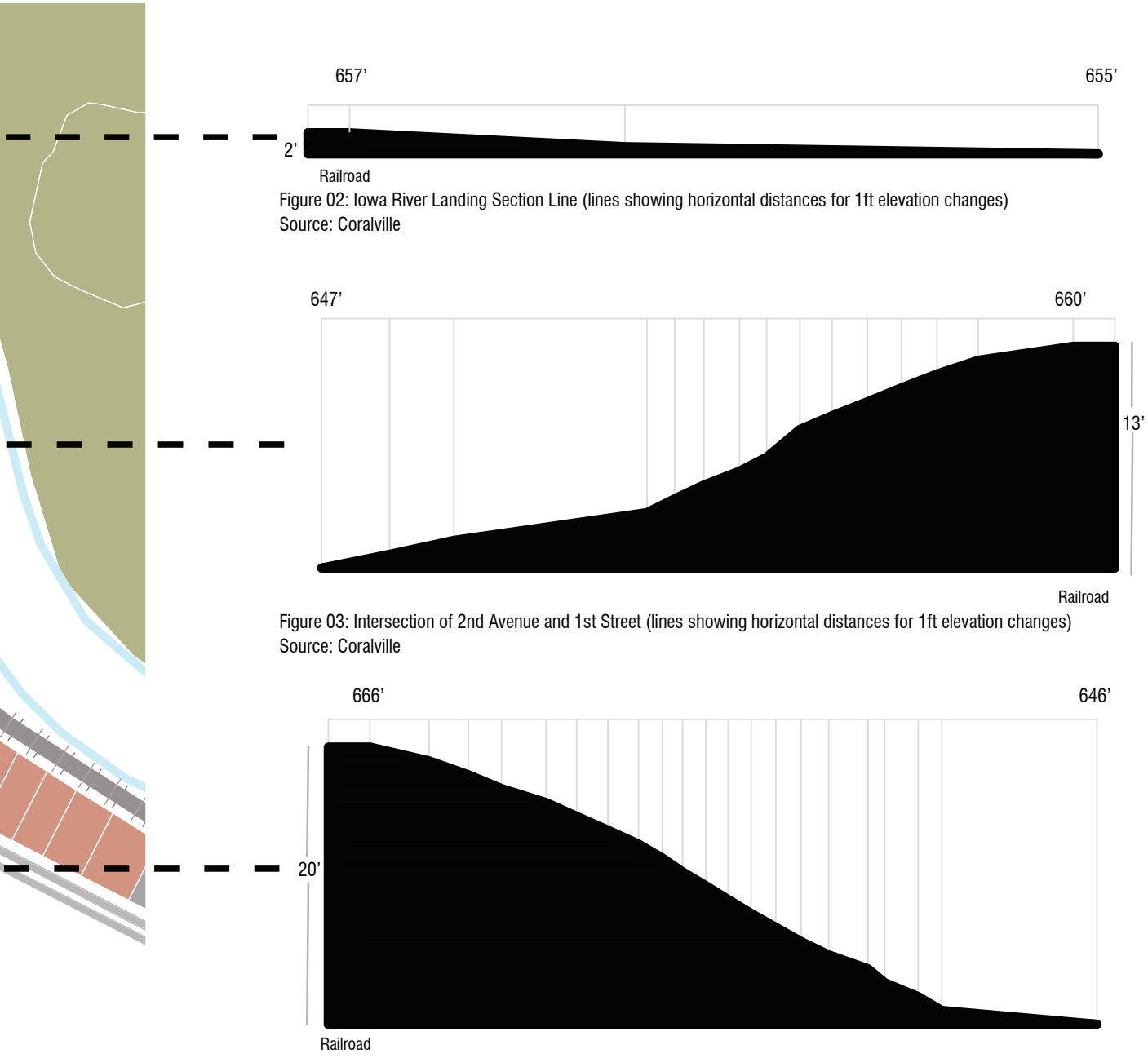
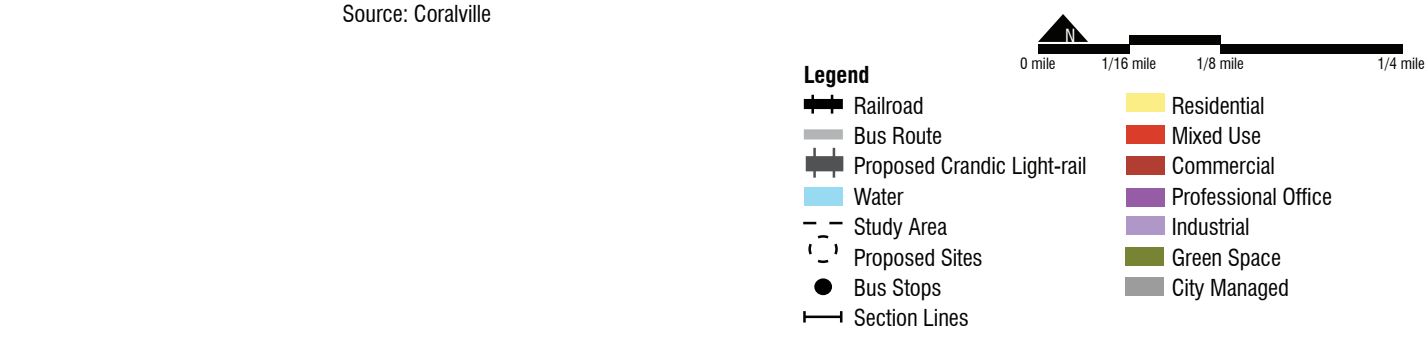


Figure 02: Iowa River Landing Section Line (lines showing horizontal distances for 1ft elevation changes)
Source: Coralville

Figure 03: Intersection of 2nd Avenue and 1st Street (lines showing horizontal distances for 1ft elevation changes)
Source: Coralville

Figure 04: Southeast Commercial District (lines showing horizontal distances for 1ft elevation changes)
Source: Coralville



Multi-level Multi-Modal Transit Stations are Possible in Coralville

Elevated Transit Stations will need to be vertically integrated with compatible building use spaces and access requirements.

W3_Dunay03_TransitStation.PDF

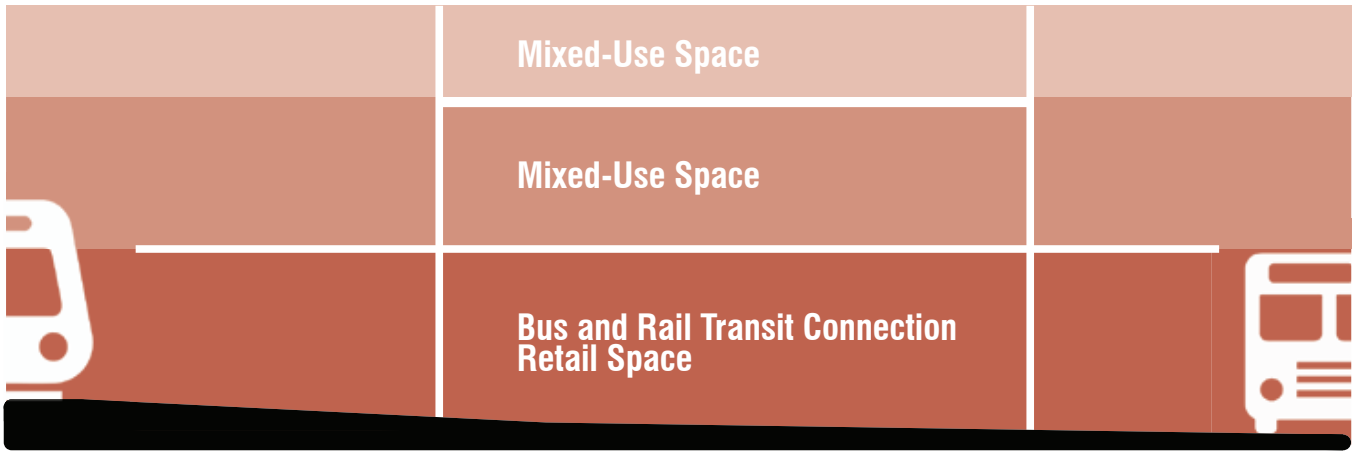


Figure 01. Iowa River Landing Transit Station
Source: Coralville, The Noun Project

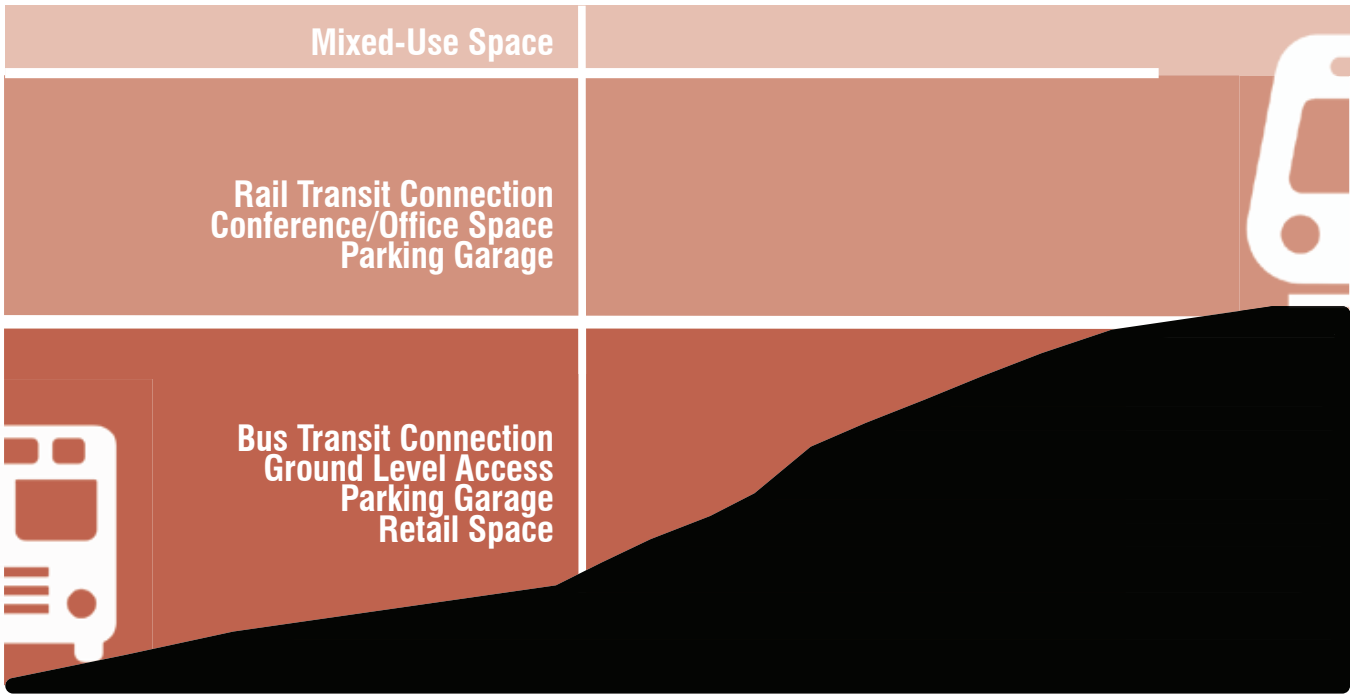


Figure 02. Intersection of 1st Street and 2nd Avenue
Source: Coralville, The Noun Project

Inquiry: How can the Transit Station accommodate elevation change near the railroad lines?
Key Extractions: Section Elevation, Proposal Idea
Methodology: After looking at the elevation changes from the opportunity maps, we began to envision how we could access the railroad and the bus routes through the same station. We envision a multi-level transit station that would allow access to the railroad on the second floor and the bus routes on the first. This was idealized for the two locations, but for the third we envision all transit access to be on the first floor and have mixed-use on the upper levels.
Conclusions: Accessing the railroad through a multi-level station is possible through having platforms coming from the second floor. This strategy needs to be further investigated, but it is a possibility for multi-modal transit stations.

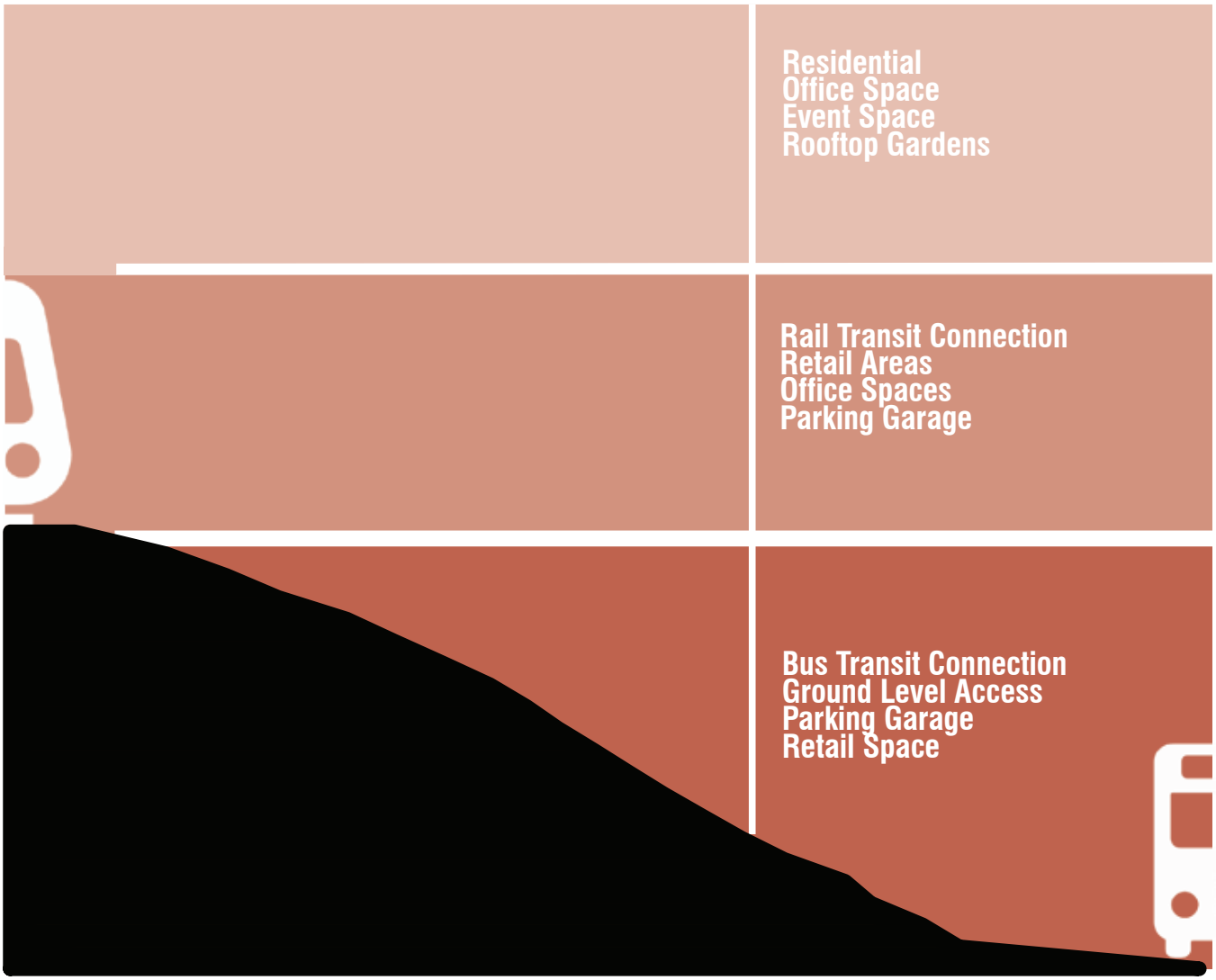


Figure 03. South West Commercial District Rail Line Connection
Source: Coralville, The Noun Project

Legend
Commercial
Railroad
Bus Line

University of Iowa Influence Extends into Coralville Community

Majority of University infrastructure lies within 1.75 miles of the center of campus (Kinnick Stadium)

W2_Hodgson01_UniversitySpatialOrganization.PDF

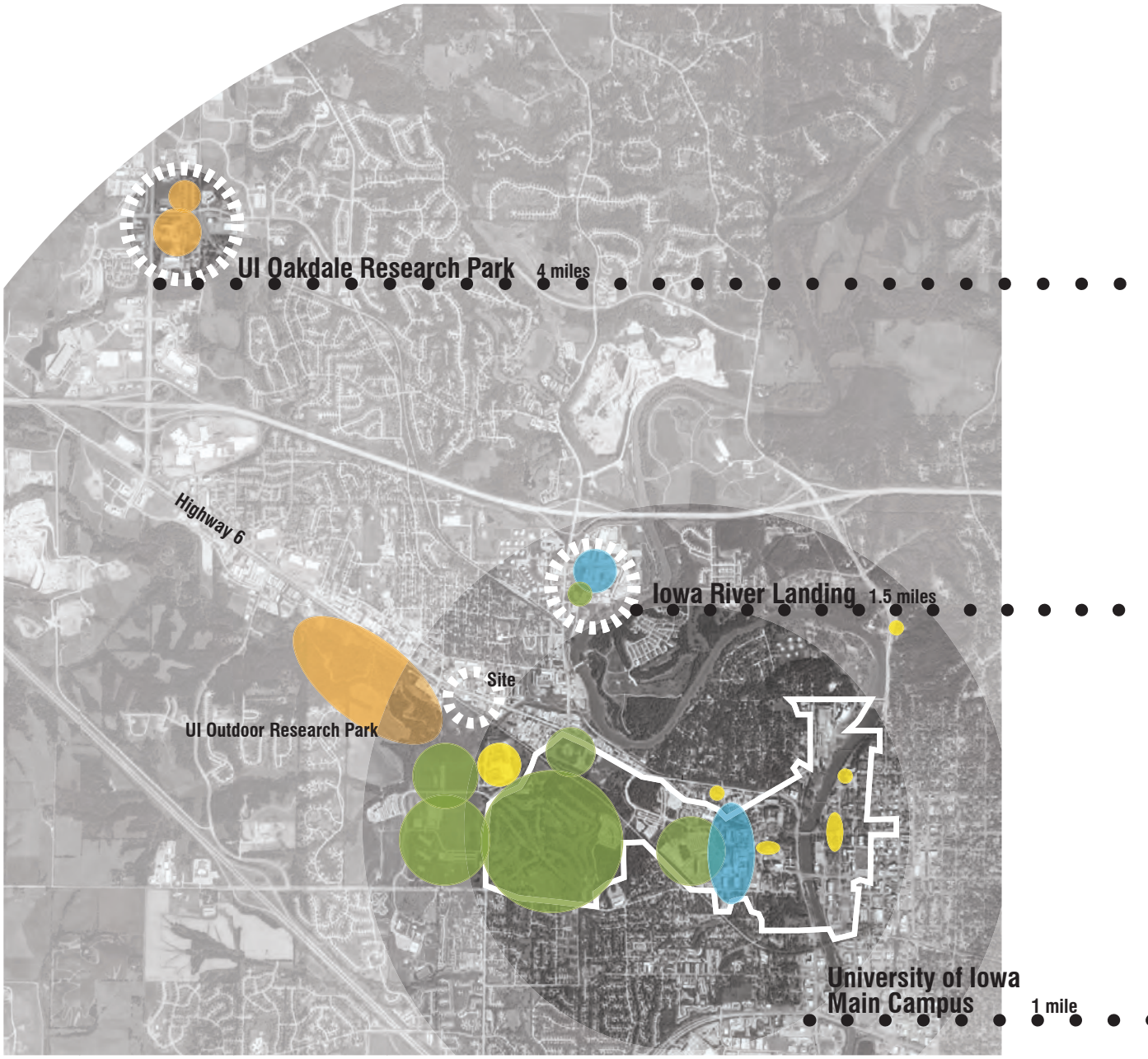


Figure 01. University of Iowa Facilities
Source: GoogleEarth 2018; University of Iowa, 2018

Inquiry: How is the University of Iowa affiliated development related spatially to one another?
Key Extractions: Area of Focus to Connect University Infrastructure
Methodology: Mapping the location of major economic and social drivers related to the University of Iowa. The background decreases in opacity as the distance from the center of the University of Iowa becomes greater. Facilities were chosen as a focus for their potential to influence the local economy.
Conclusions: Almost all of The University of Iowa's major facilities lie within a 1.75 mile radius of its center, specifically regarding Healthcare and Athletic facilities. The study area is therefore a focus point and a central connection to the rest of the University of Iowa facilities.

Legend

- UI Healthcare Facility
- Athletics and Recreation
- Research
- On-Campus Living
- Area of Interest

UI Oakdale Research Park

- State Hygienic Laboratory
- National Advanced Driving Simulator
- Center for Biocatalysis and Bioprocessing
- The UI Technology Innovation Center
- BioVentures Center

Figure 02. UI BioVenturesCenter
Source: GoogleEarth, 2018

Types of Buisnesses at the UI Research Park

Figure 03. Businesses at UI Research Park
Source: UI Research Park

Iowa River Landing

- University of Iowa Healthcare Primary and Specialty Care,
- Pharmacy and Labs

- Iowa Area - Coming Soon
UI Volleyball and Hockey

Figure 04. UI Healthcare at IRL
Source: Iowa River Landing, City of Corallville

Annual Number of UI Healthcare Personnel and Visitors

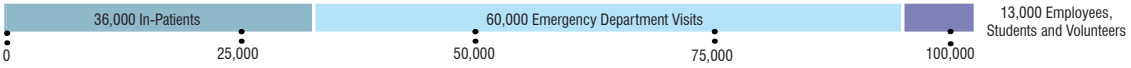


Figure 05. UI Healthcare Annual Numbers
Source: University of Iowa Hospitals and Clinics, 2018

University of Iowa - Main Campus

- Kennick Stadium
- Duane Banks Field
- Carver-Hawkeye Arena
- Finkbine Golf Complex
- Pearl Softball Fields- Softball
- Dr. Christine H.B. Grant Field
- Hawkeye Tennis and Recreation

- University of Iowa Healthcare

Figure 06. Kennick Stadium
Source: Iowa Now, 2013

Johnson County Population vs. Average Game Day Visitors

Figure 07. Game Day Visitors
Source: United States Census Bureau, 2017; Hawkeye Sports, 2015

Southeast Commercial District is a Strong Connection Point to University Facilities

The study area intercepts crucial transportation modes that are currently being under utilized by the University

W2_Hodgson02_UniversityTransportion.PDF

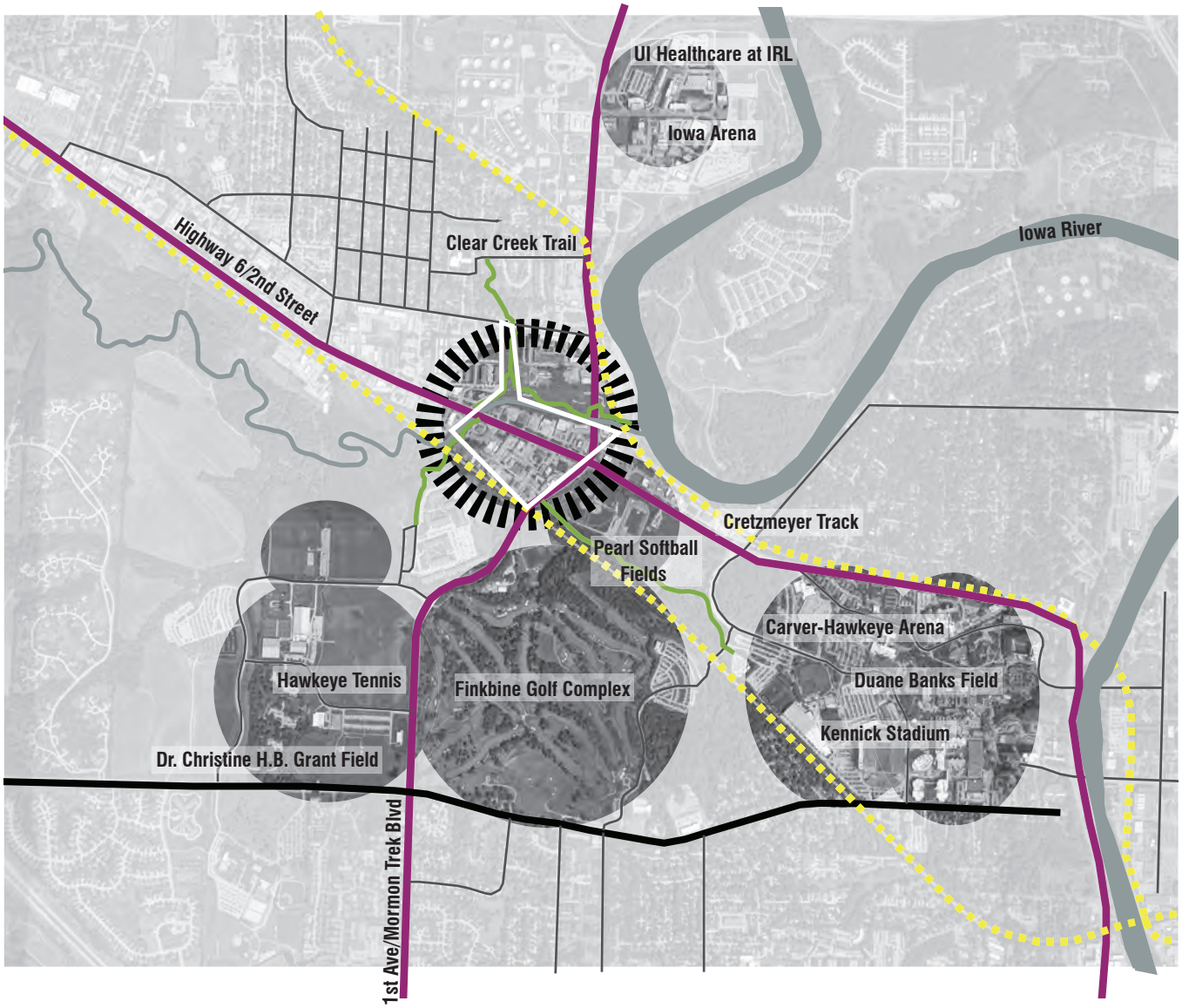


Figure 01. Key Transportation Modes
Source: GoogleEarth, 2018

Legend

- Major Roadway
- Rail Lines
- Trail System
- Area of Greatest Number of Potential Connections to University Facilities

Inquiry: How does the study area physically connect to the University of Iowa
Key Extractions: Major roads, rail lines and trails connections with the University of Iowa
Methodology: Athletics and healthcare facilities from the University of Iowa are highlighted with the existing roads, rail lines and trails to show how a person may get from one place to another.
Conclusions: After mapping the major modes of that stretch between the main western UI campus, one can see that almost all of these transit modes enter or come close to the study area and the Southwest Commercial district of Coralville. This creates a good opportunity to use the study area as a focal point to connect the north and south edges of the University of Iowa.

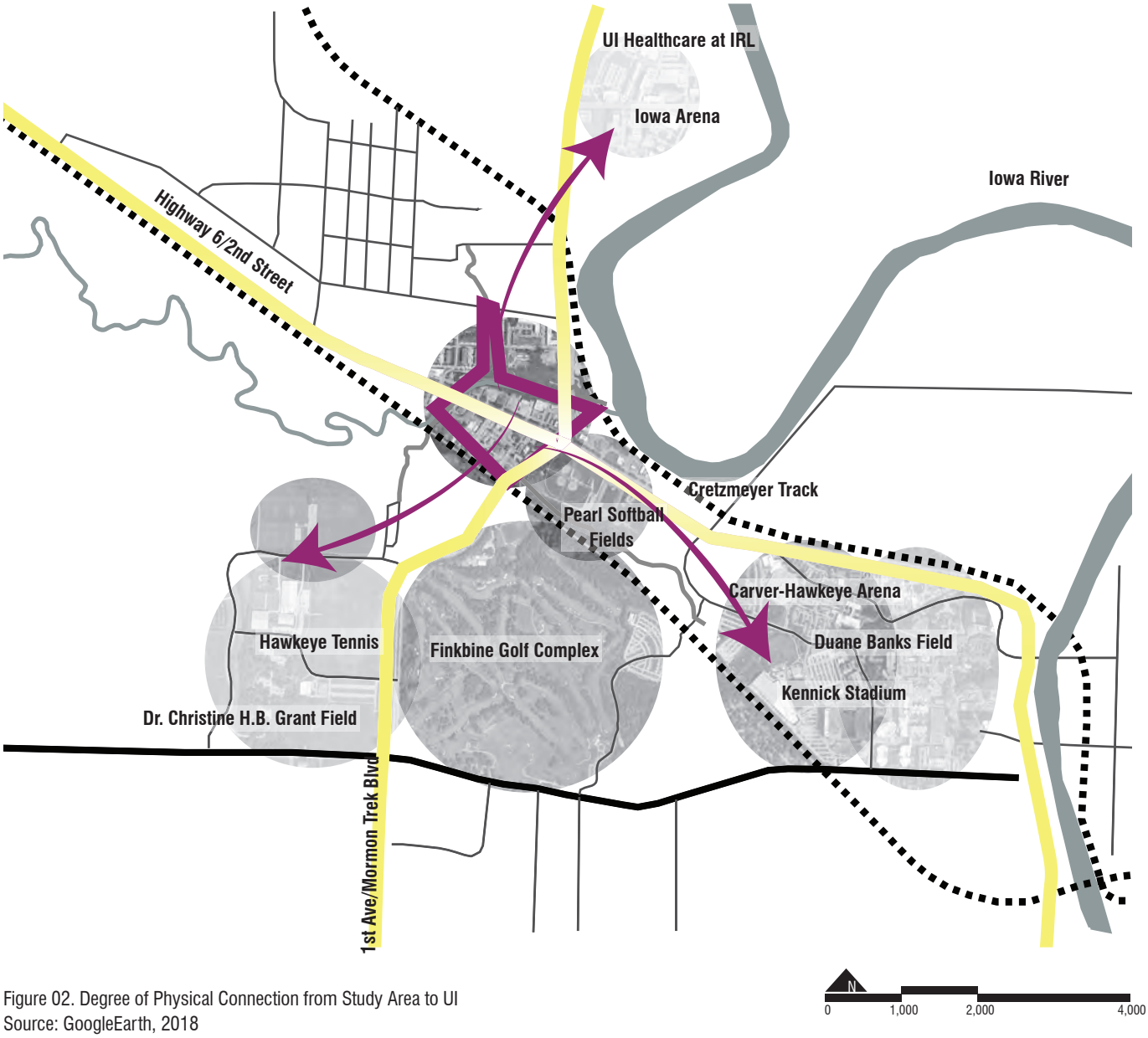


Figure 02. Degree of Physical Connection from Study Area to UI
Source: GoogleEarth, 2018

Needed Connections Between Study Area and Facility

Distance From Southeast Commercial District

Close Proximity — Far Distance

Number of Transit Modes In Area (Trail, Road, Rail Line)

5 4 3 2 1

Creating More Pedestrian Amenities Will Help Connect SCD to the University

More trail attractions, better physical connections, and revitalized rail corridors the site become more unified with UI

W2_Hodgson03_UniversityConnectionStrategy.PDF

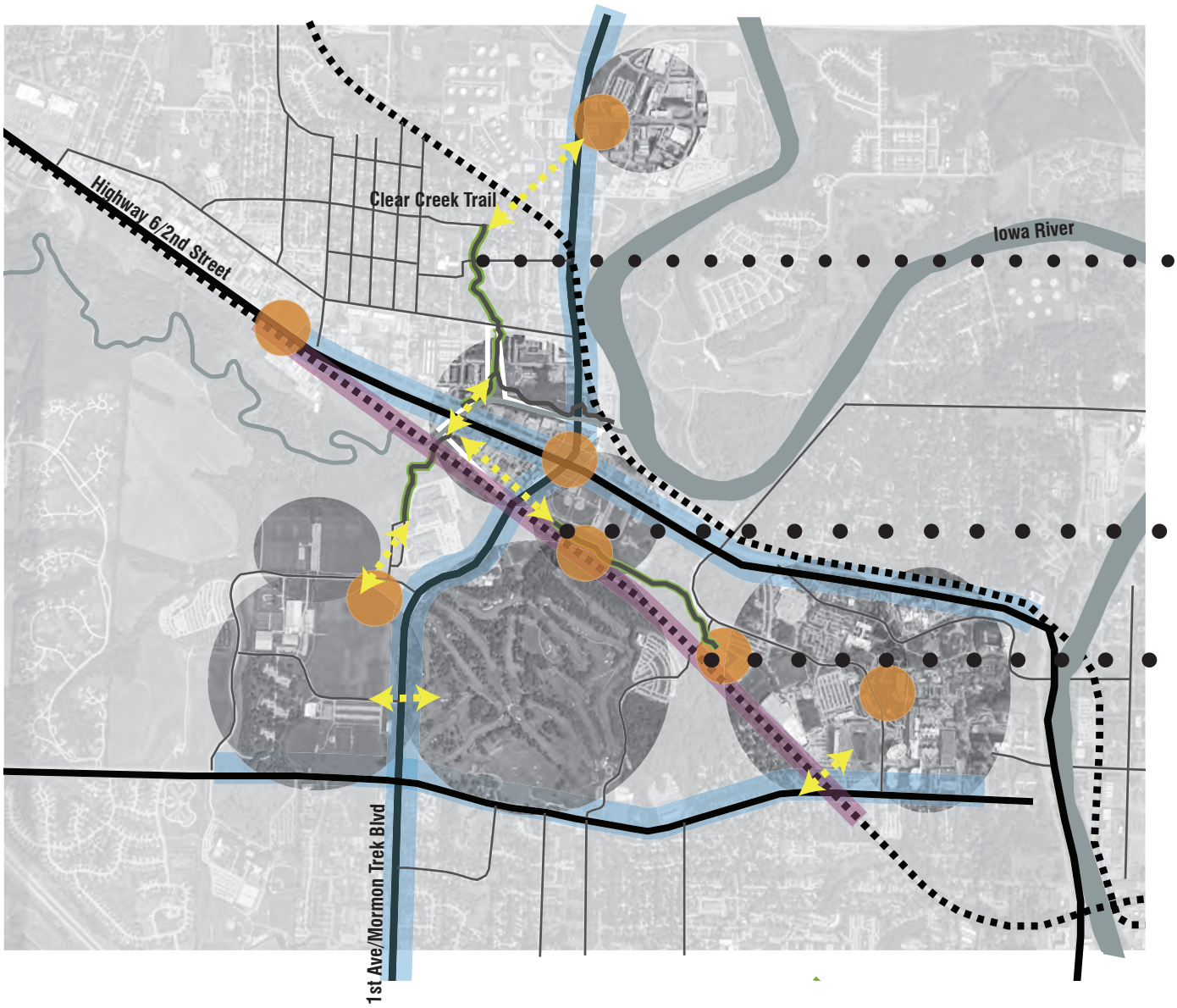


Figure 01. Suggested Improvements to Connect the University of Iowa
Source: Google Earth, 2018.

Inquiry: How can the study area use and expand upon existing transportation modes to create a more connected University of Iowa campus with the City of Coralville?
Key Extractions: Proposed amenities, improved connections to existing infrastructure, revitalization
Methodology: By focusing on the transit modes running through the study area, potential improvements were highlighted that would unite the Athletic and Healthcare facilities of the University of Iowa in the north and south directions
Conclusions: Because much of this portion of the University lies along existing major road lines, improving streetscape in those areas will make the area more attractive for visitors. Expanding existing trails and re-purposing the rail lines south of the study area will also create greater and more secluded transportation corridors. This will not only be an amenity for University staff and students, but also UI athletic fans and healthcare patients/visitors

Figure 02.. Trail Attractions
Source: Cooke, 2018

Attractions

Adding amenities to entice users

Create destination points for socializing or relaxing

Activate existing landscape for additional education

Figure 03. Road Connections
Source: GoogleMaps, 2016

Connections

Improve road intersections

Incorporate aesthetic unity

Create a complete trail system that unites IRL and University of Iowa

Figure 04. Rail Line Revitalization
Source: GoogleMaps, 2013

Revitalization

Re-purpose or add to existing rail lines

Increase exposure to nature along trails and streets

Repair older infrastructure

Maintain local identity

Existing Rail Lines and Trails Pass Close to SE Commercial District

Southeast Commercial District has a well-developed trail system that intersects with the rail line

W2_Zhong01_Framework.PDF

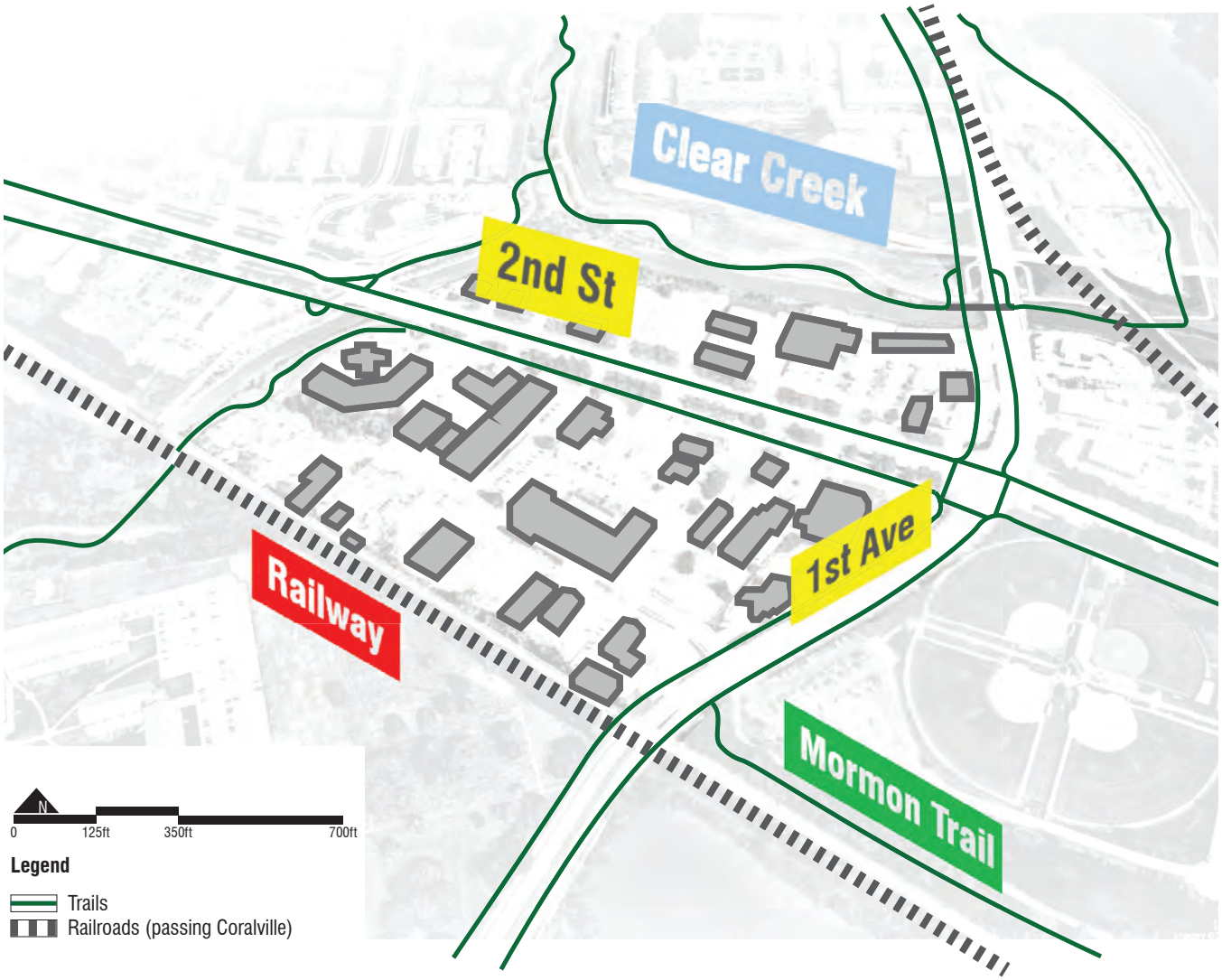


Figure 01. Existing Railroads and Trails in SE Commercial District
Source: Google Maps, Johnson County, IA GIS

Inquiry: Where are the existing railroads and trails in the Southeast Commercial District and City of Coralville ?
Key Extractions: Railroad, Trails, Location
Methodology: Data of existing active and abandoned rail lines and existing trails were derived from Johnson County GIS
Conclusions: There are two active rail lines passing through the city of Coralville, and the railroad in the south passes through the Southeast Commercial District. Expect the Northeast side, the trails system is well-developed in the city of Coralville, and within the Southeast Commercial District. Reading from the map, one can tell that the trails and southern railroad define a “boundary” that includes the Southeast Commercial District. The southern railroad and existing trails intersect in the southwest and southeast corner of the site, creating the possibility for a rail-trail system.

Figure 02. Active Railroads in City of Coralville
Source: Johnson County, IA GIS

Figure 03. Existing Trails in City of Coralville
Source: Johnson County, IA GIS

Figure 04. Existing Active Railroads and Trails in City of Coralville
Source: Johnson County, IA GIS

Legend

Railroads (passing SE Commercial District)
SE Commercial District

Map 4.4b

No Rails and Few Trails Directly Connect to SE Commercial District

Connectivity between railroad and trail happens in their intersections, disconnectivity exists among the existing trail system

W2_Zhong02_Framwork.PDF

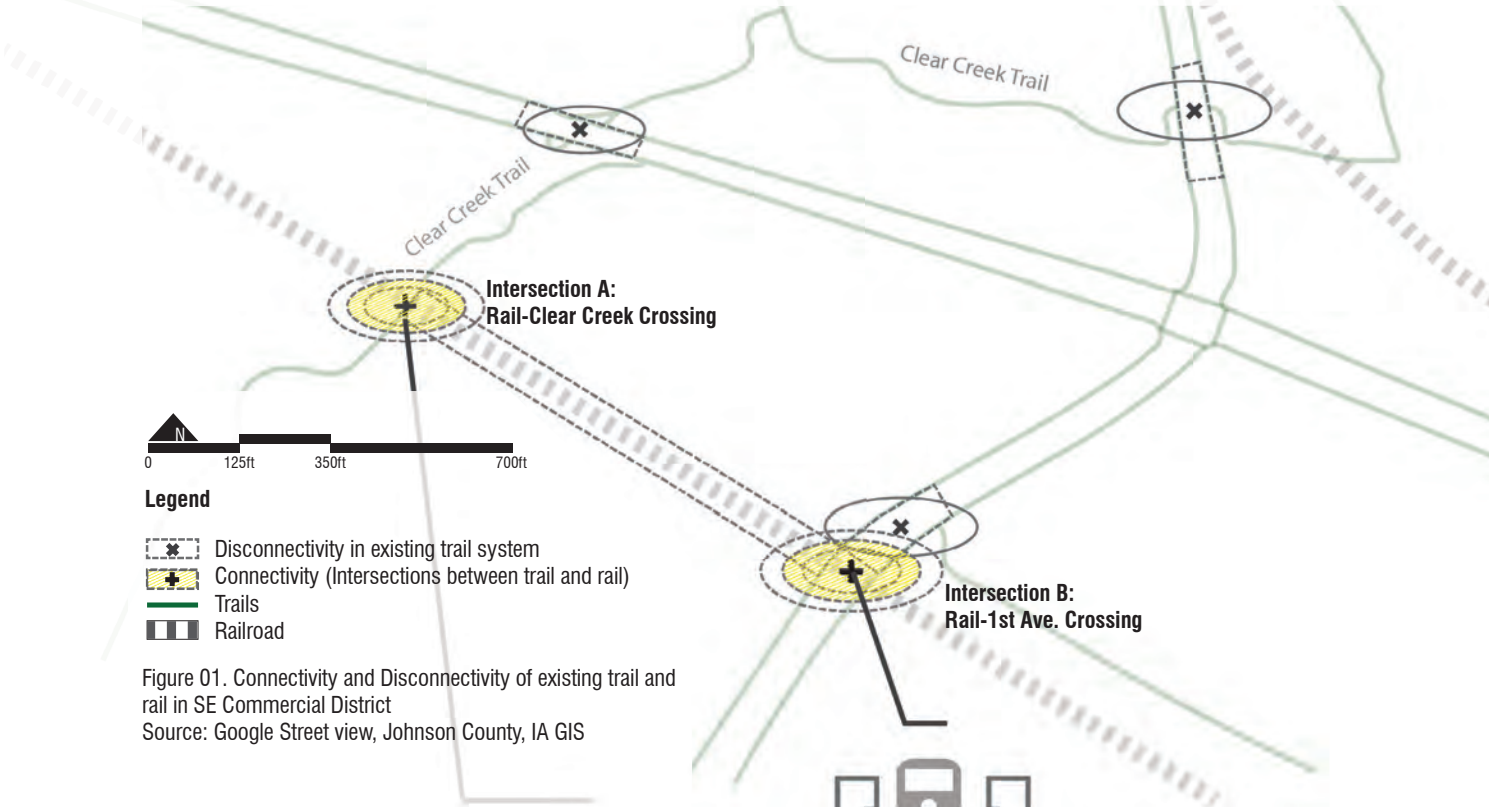


Figure 01. Connectivity and Disconnectivity of existing trail and rail in SE Commercial District
Source: Google Street view, Johnson County, IA GIS

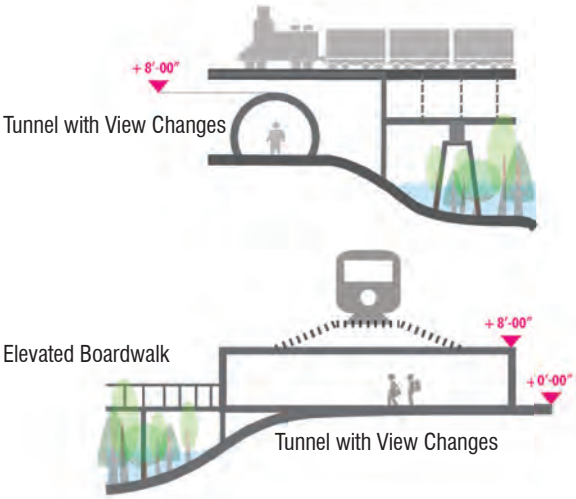


Figure 02. Intersection A
Source: Site Visit

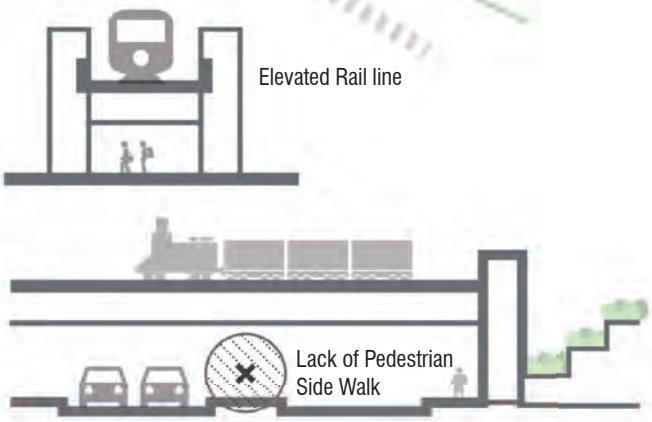


Figure 03. Intersection B
Source: Site visit

Inquiry: What are some opportunities in the existing railroads and trails network in Southeast Commercial District ?

Key Extractions: Railroad, Trails, Opportunities, Intersections

Methodology: Data of existing actives and abandoned rail lines is derived from ArcGIS Online Database, Data of existing trails is derived from ArcGIS Online Database. Based on site visit and Google street view, disconnectivity is determined by lack of pedestrian access to connect two places, connectivity here specifically indicates the intersection between rail lines and trails.

Conclusions: In SE Commercial District, the southern railroad intersects with the existing trails in both southwest and southeast corner of the site, The Southwest intersection/ Intersection A has interesting view changes along the trails, and with rail lines atop to create a movie scenery and interesting sound effects, having a great potential for future development. While in the Southeast Intersection/ Intersection B, lack of streetscape and pedestrian access, making it hard to connect to adjacent area. However, by simply adding pedestrian crosswalk will create opportunities to connect the adjacent site and trails(Moron Trek).

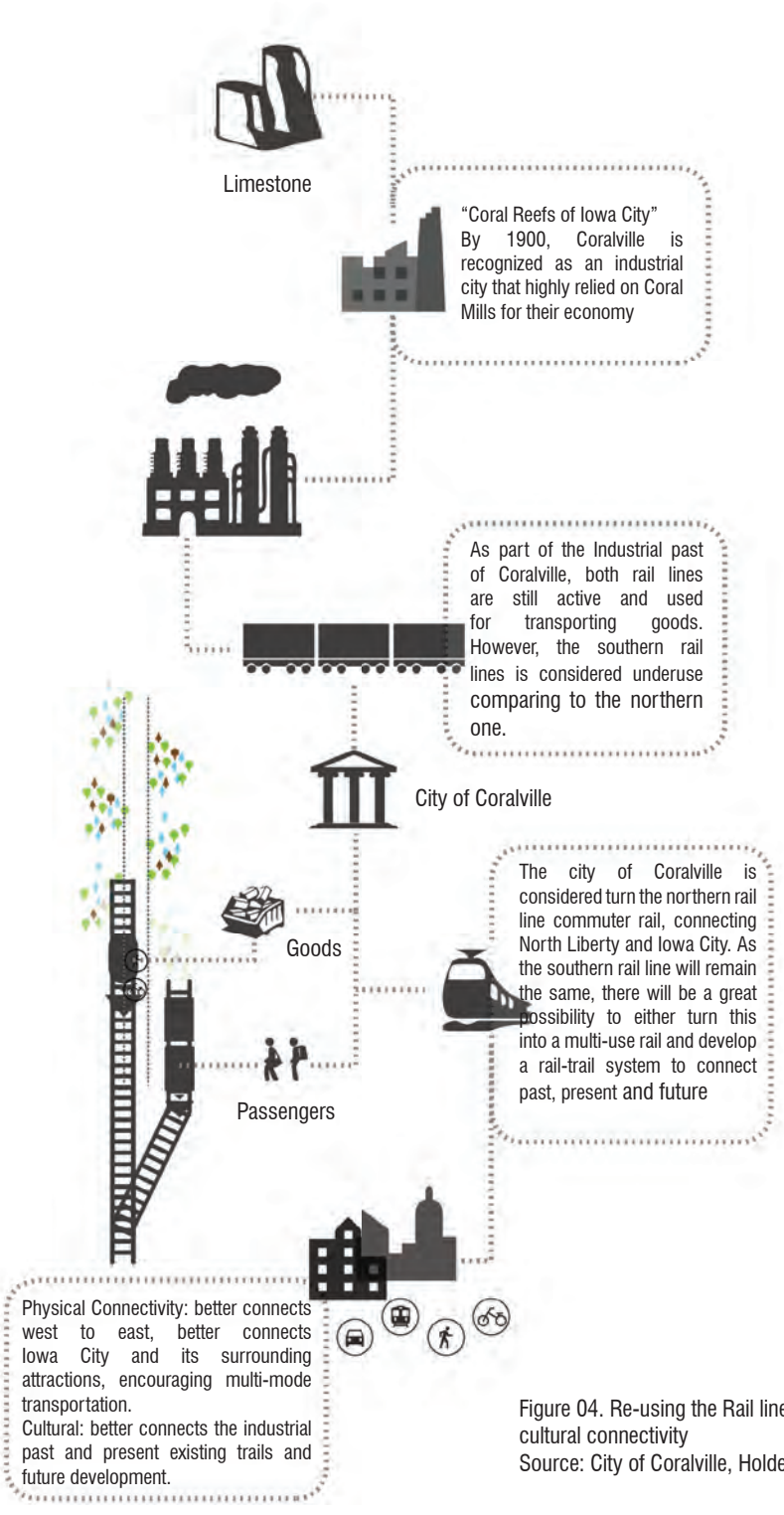


Figure 04. Re-using the Rail line to form physical and cultural connectivity
Source: City of Coralville, Holderness

Rail Stations will Need to Address Elevated Rail Beds

Creating a loop system can improve the regional and local connectivity

W2_Zhong03_Framework.PDF

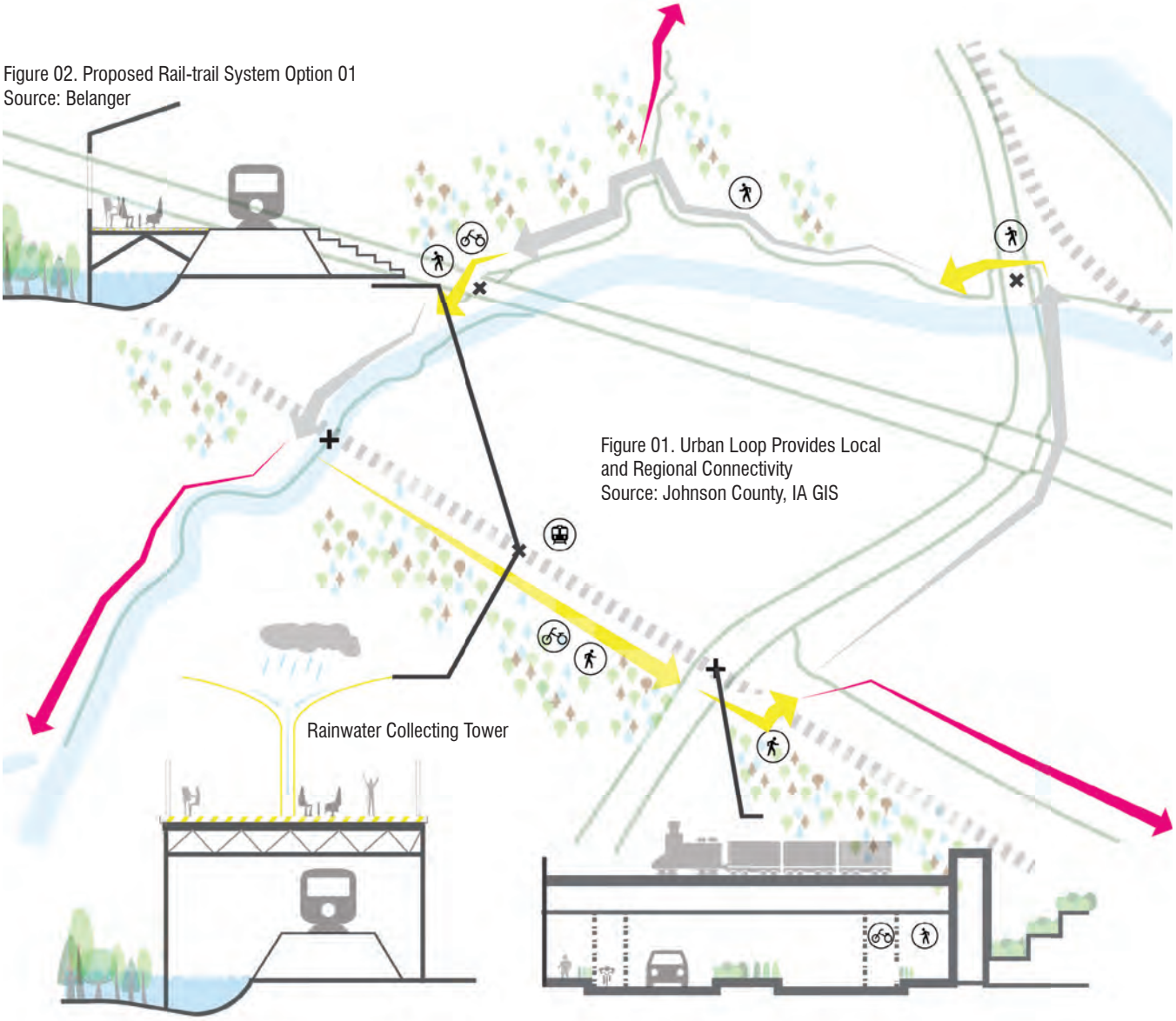


Figure 02. Proposed Rail-trail System Option 01
Source: Belanger

Figure 01. Urban Loop Provides Local and Regional Connectivity
Source: Johnson County, IA GIS

Figure 03. Proposed Rail-trail System Option 02
Source: Zhong

Figure 04. Proposed Streetscape and Added Public Crosswalk in Southeast Intersection
Source: Zhong

Inquiry: How to improve connectivity of the existing rail-trail network in the Southeast Commercial District?
Key Extractions: Rail-trail network, Connectivity
Methodology: Applying different design strategies related to connectivity nodes defined in previous maps to improve local and regional connections in the SE Commercial District.
Conclusions: Improving Pedestrian access to the existing trail network can increase local connectivity. Investing in rail-trail network/system might boost the regional connectivity.

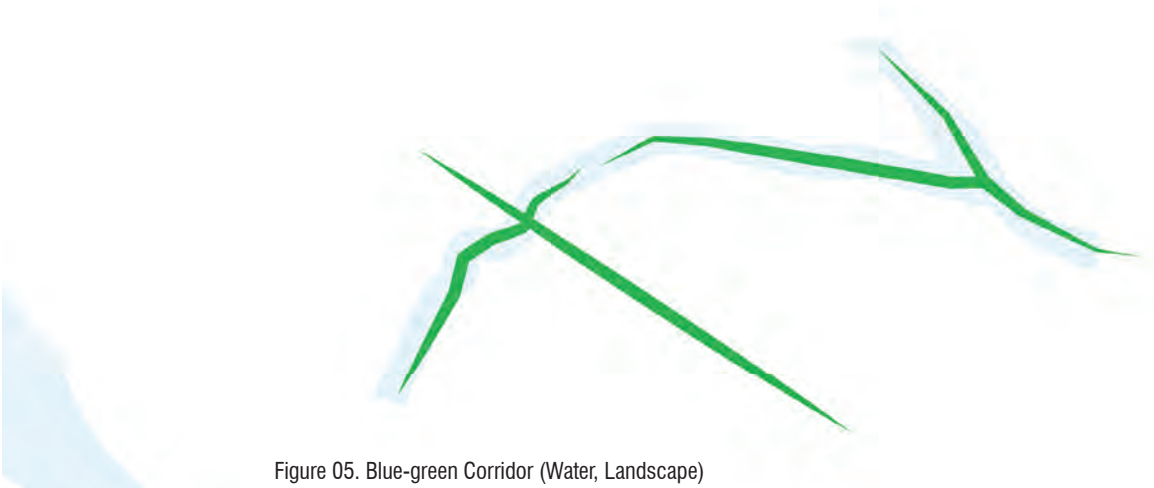


Figure 05. Blue-green Corridor (Water, Landscape)
Source: Google Images

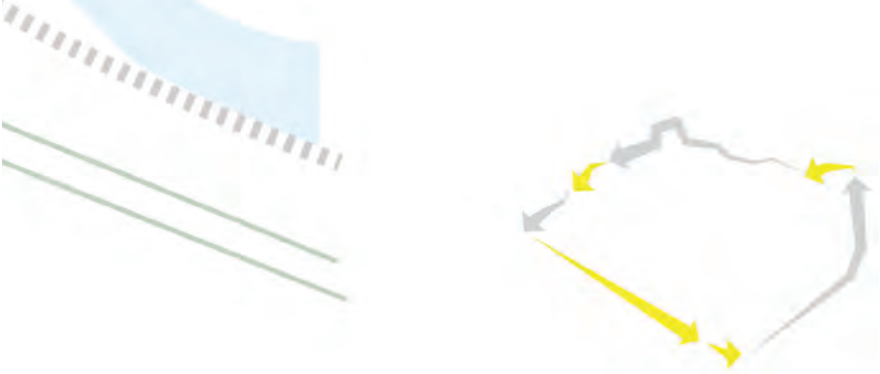


Figure 06. Proposed Urban Loop (improving connectivity and mobility)
Source: Google Images, Johnson County, IA GIS

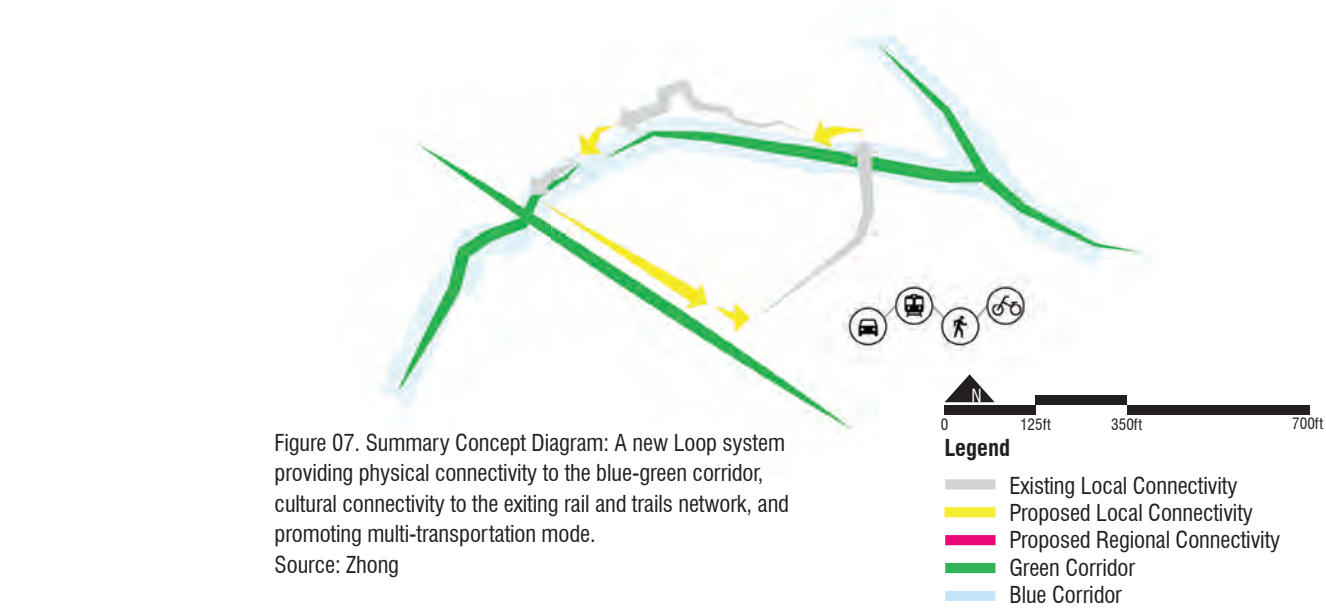


Figure 07. Summary Concept Diagram: A new Loop system providing physical connectivity to the blue-green corridor, cultural connectivity to the exiting rail and trails network, and promoting multi-transportation mode.
Source: Zhong

Current Density of the Southeast Commercial District is Too Low to Support Rail Transit

Major investment is necessary to relocate powerlines and build a critical mass of buildings

W3_larkin01_TOD.pdf

Southeast Commercial District: Coralville, Iowa

Figure 1. Current Density of SE Commercial District (Larkin, 2018).

The site boundary from the Southeast Commercial district is overlaid over the precedents to compare the level of density between the sites.

West Market Street: Philadelphia, Pennsylvania

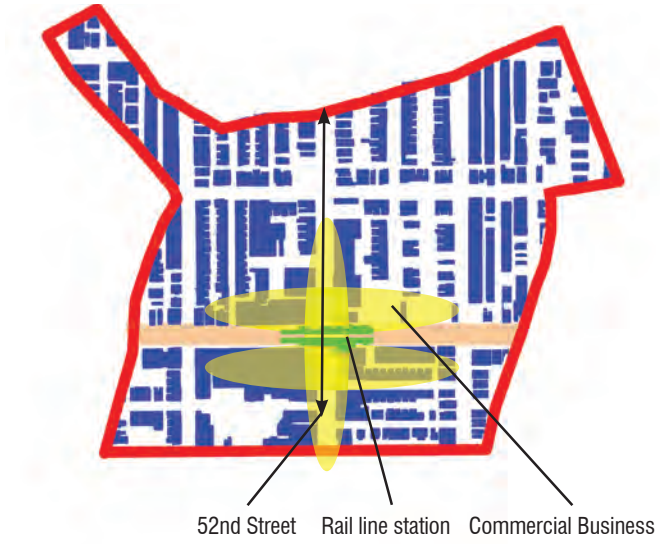


Figure 2. 52nd and West Market Street TOD (Larkin, 2018).

Figure 4. Current Stops Along the Rail Line(Larkin, 2018).
The current stops on the rail line are at James Street and Kinnick Stadium. There is not a stop in the Southeast District (HawkeyeSports.com, 2018).

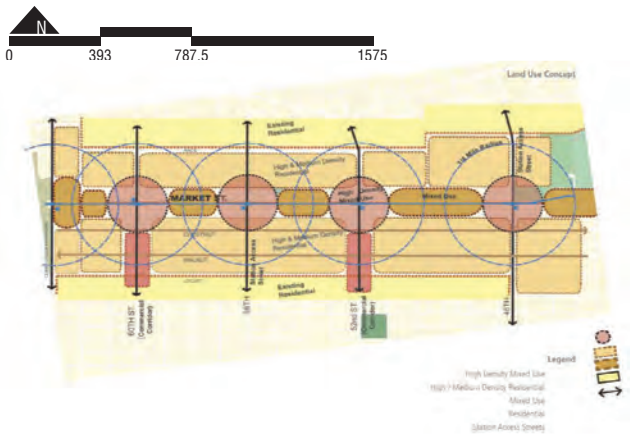


Figure 5. Landscape Concept (PCPC, 2006)

Figure 4. Density within TRANSIT ORIENTED DESIGNS and land use along the rail lines
Sources: Google Earth, Google Maps, (WRT, 2006), (DPD, 2018), HawkeyeSports.com, 2018).

- Commercial use is oriented around the rail line stations for economic activity.
- Dense residental multi-family and row homes are located in proximity to the track to provide accessible transportation
- Revitalization is occuring along the transit to rid the location of blight and infill in vacant areas (WRT, 2006).

Inquiry: How do other transit orientated development designs compare to the current structure of the Southeast Commercial District?
Key Extractions: Density of building footprints and land use
Methodology: Researched designs that focus on Transit Oriented Development around elevated rail lines. The information found was analyzed to determine different land use around the stations.
Conclusions: It was concluded that Transit Oriented Development needs to be incorporated into the Southeast Commercial District to improve spatial use and create opportunities for residential, commercial, and mixed use development. Incorporating a stop along the rail line would attract people to the site and promote economic growth.

Wilton Street, Chicago, IL

Figure 3. Wilton Avenue TOD (Larkin, 2018).

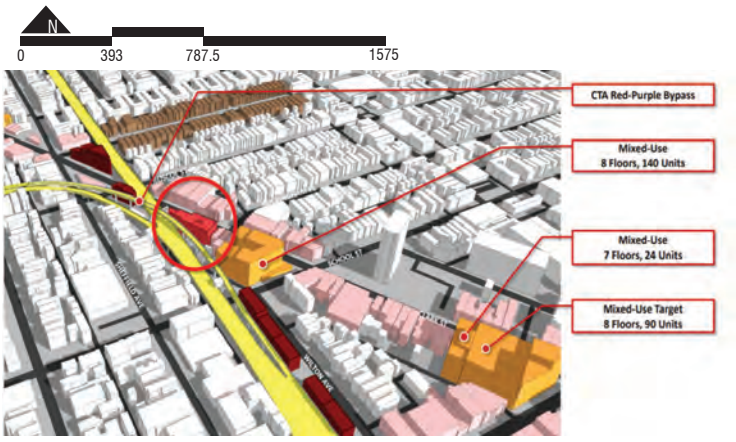


Figure 6. Wilton Avenue (DPD, 2018)

- Provides space for affordable residential use, parking, common spaces to allow for accessibility to transit.
- Provides Mixed Use opportunity
- Programming of the proposed structures is designed to support the growing commercial growth in the area.
- Create diversity (DPD, 2018)

Why should Transit Oriented Development (TOD) be considered for the Southeast District?

Case Studies, at all scales, have a dense building ratio to maximize opportunity along the rail line. Taller, commercial buildings are located close to the station in many designs, but others created residential space. Designs revitalized unused space to increase opportunities. It is important to incorporate housing within a mile to allow for accessibility to transit. Incorporating Transit Oriented Development into the Southeast Commercial District would create **density, residential housing,** and **economic growth** by attracting people to this gateway location.

Legend Showing Land Use in Transit Oriented Development

- Rail Lines
- Building Footprints
- Station
- Stops Along the Rail Line
- Commercial District
- Proposed Residential Space
- Study Area

Map 4.5b

Two Different Rail Lines Adjoin the Southeast Commercial District

Opportunity exists to provide transit connections to Coralville, Cedar Rapids, Iowa City, and Davenport

W3_Larkin02_TOD.pdf

Transit Oriented Design creates **density** along the rail line and provides opportunity for **economic growth and residential housing.** Adding a stop to the Southeast District would attract people to the area, bringing in business and would provide **accessibility** to transit.

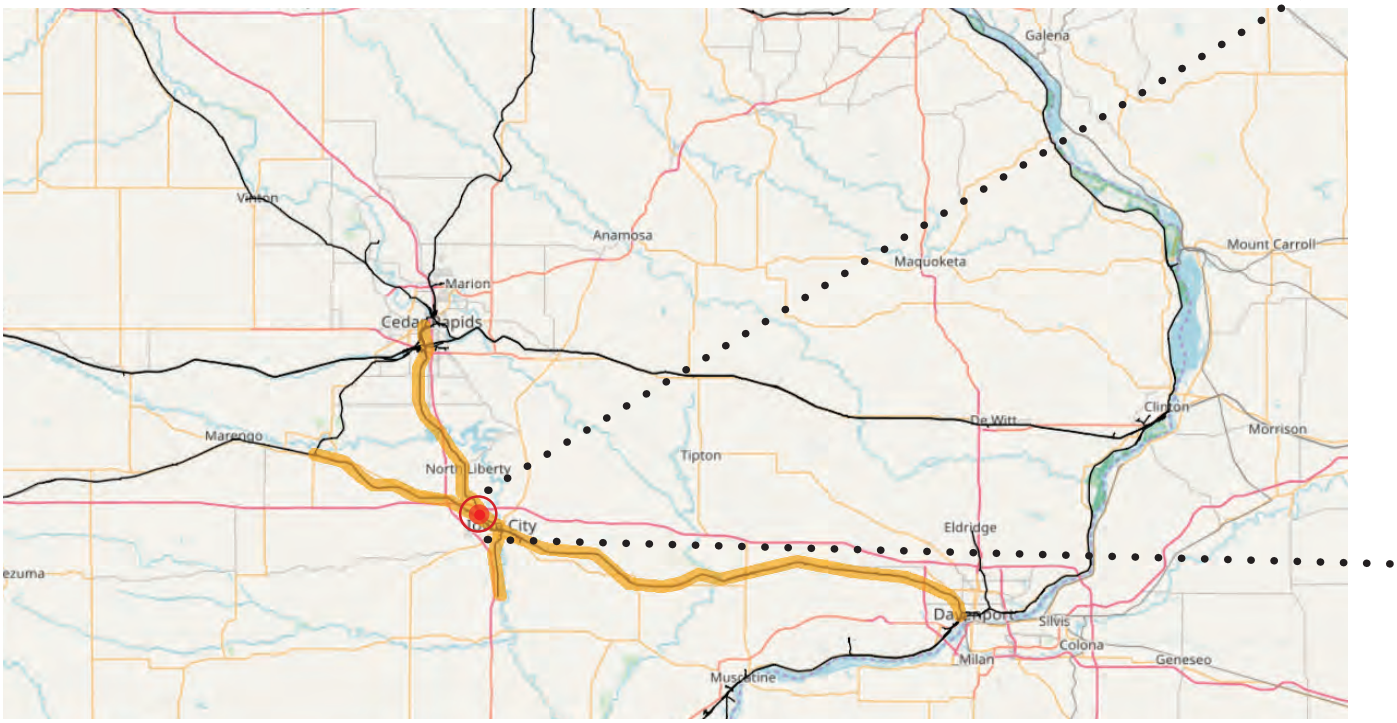


Figure 01: Opportunities to create stops for Transit Oriented Development
Sources: (IowaDOT, 2018) (HawkSports.com, 2018) Google Maps, Google Earth

Figure 2. Concept for the stop located on 1st Avenue (Kate Larkin, 2018), (Google Earth).

Inquiry: Where would it be beneficial to implement a rail line stop for Transit Oriented Development within the SE Commercial District?
Key Extractions: Rail line, Existing and Proposed Rail line Stops
Conclusions: It would be beneficial to incorporate rail stops in Southeast Commercial District. This would provide opportunity to attract people to the site and include commercial, residential, and mixed use development. The transit stops would provide spatial ordering for Transit Oriented Development.

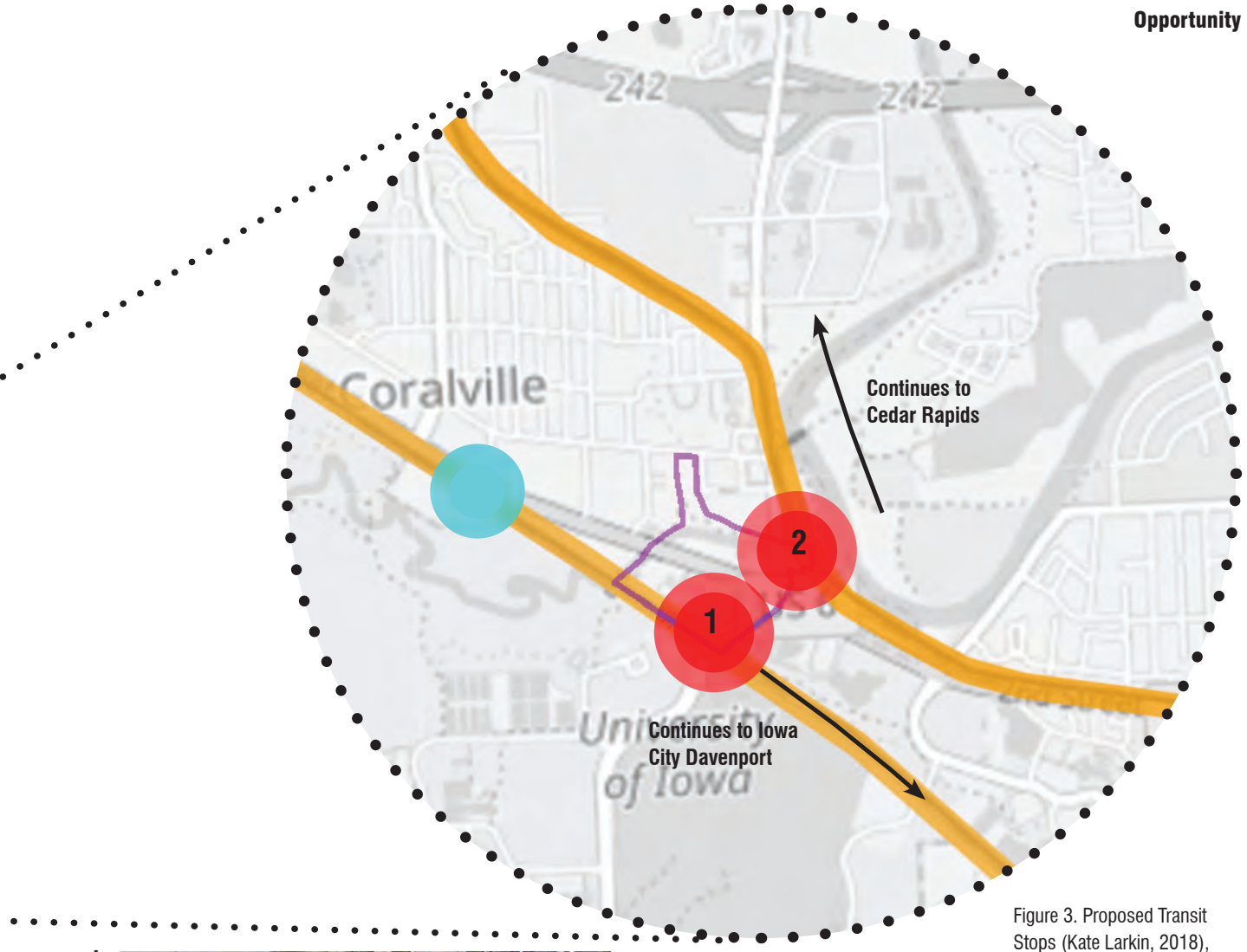


Figure 3. Proposed Transit Stops (Kate Larkin, 2018), (Google Earth, 2018)

1

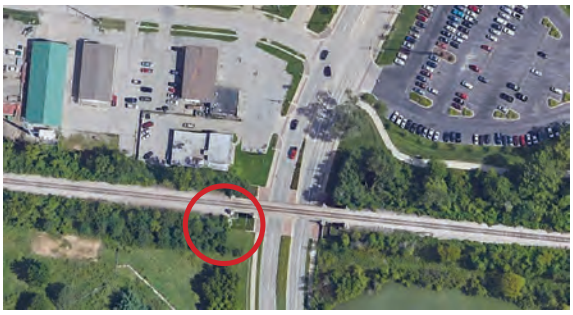


Figure 4. 1st Avenue (Google Earth, 2018)

2

Figure 5. Location Adjacent to the bridge behind Panera Bread (Google Earth, 2018)

It was mentioned at the community meeting that people travel from surrounding cities, such as Cedar Rapids to work in Coralville. Providing connections to surrounding cities brings people to Coralville and increases economic value. There is an opportunity to attract people to the Southeast Commercial District by incorporating a station and commercial and mixed use development towards the eastern part of the site.

Legend Showing Different Types of Community Services

- Rail Lines
- Current Stops Along the Rail Line
- Proposed Stops in Coralville

Map 4.5c

Transit Oriented Development will Increase Value of Gateway Location

Transit Oriented Development will provide commercial, residential, and mixed-use development

w3_Larkin03_TOD.pdf

Figure 1. Transit Oriented Development Strategy for the Southeast District (Larkin, 2018).

Legend Showing Strategy Elements

- Rail Lines
- Residential Development
- Commercial Development
- Mixed-Use Development
- Proposed Station
- Proposed Stop Location
- Green/Open Space
- Study Area

Figure 02: Strategy for Transit Oriented Development in the Southeast Commercial District
Sources: Google Maps, Google Earth, (Pyzyk, 2015), (DangerGarden, 2011)

Inquiry: How could Transit Oriented Design effect the layout of the Southeast Commercial District development? How does it effect the layout of the design?
Key Extractions: Rail line, Proposed Rail line Stop, Development Concept
Conclusions: It was concluded that it would be beneficial to incorporate the commercial district towards 1st Avenue to attract people from the street and exiting the rail line. The parking garage would be located near the commercial and mixed use development to provide close parking. Residential use would be located along the west part of the site to allow houses to be closer to the creek and to green space. The structures will be formed around a common space that will provide opportunities for community actvites. Transit Oriented Development would create possitive opportunities for the Southeast District.

Increasing density opens up space for other uses, such as green space. This space can provide opportunities for community events, such as farmers markets, camps, and recreational activities.

Figure 2. Sustainable Planning and Design (Professionals Working for a Sustainable Quessnsland, 2018).

The commercial development being on the eastern part of the site attracts visitors from the street and from the rail line stop, improving economic opportunity on the site.. The commercial district could create jobs for people living in the residential area to create a work, play, live space.

Figure 3. Libart Retractable Roof Enclosure (Jewell, 2017).

A parking garage in the south east part of the site would decrease the footprint area of parking needed and allow for people to park their vehicles and travel on the rail line or before visit the commercial center.

Figure 4. PDX Parking Garage (Danger Garden, 2011).

A station is proposed at the train stop that will incorporate stairs and elevators for allow for pedestrians to access the site at street level.

Figure 5. Hua Lamphong Station (Dubost, 2011).

Powerlines

Appendix A.5

Overhead Transmission Lines and Poles Vary in Type and Size

Towers within the SE Commercial District can be divided into four key categories

W2_Mader01_4K_PowerLines.PDF

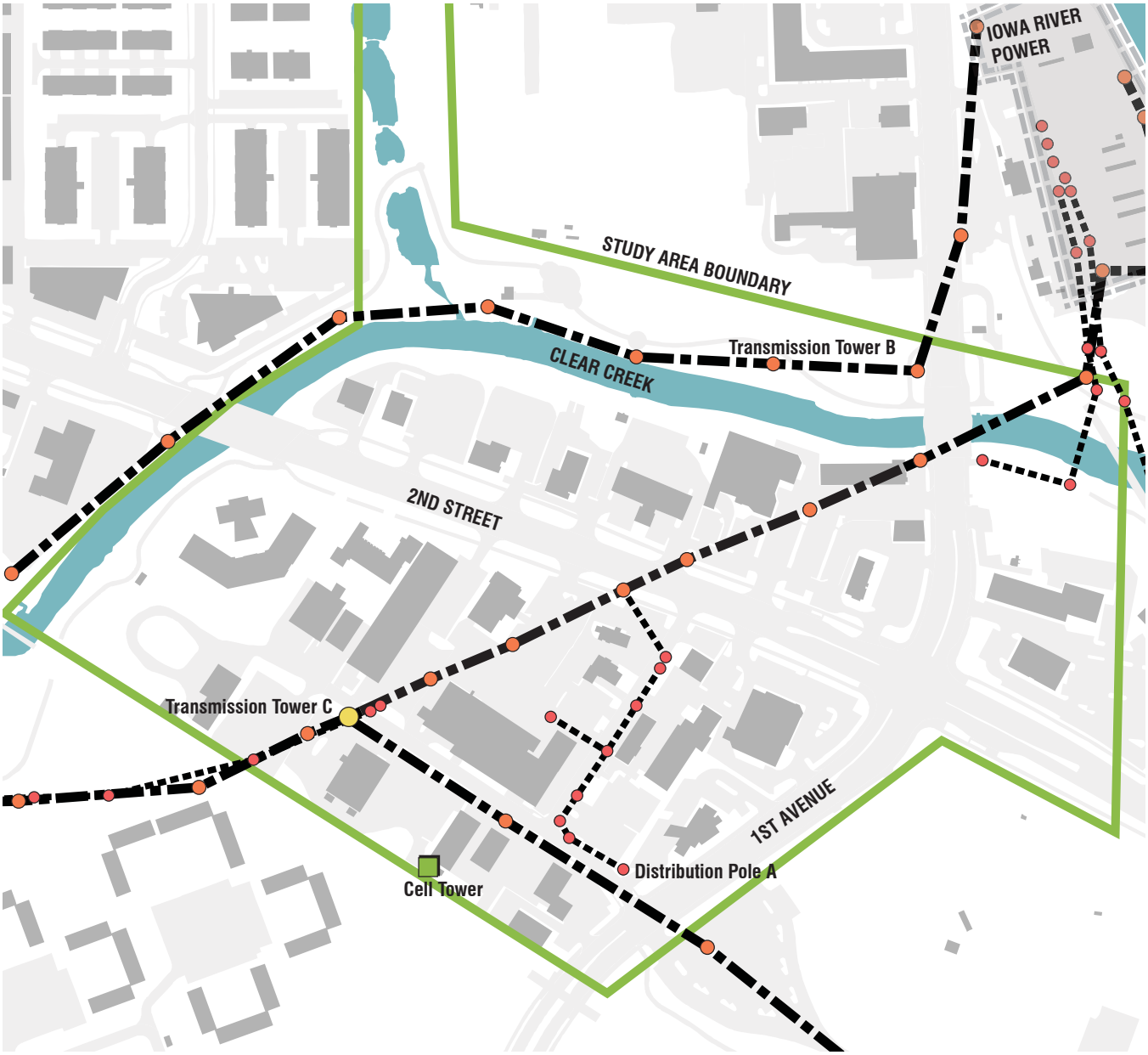


Figure 1: Power Lines and Poles Across the Site
(GIS, 2018)

Inquiry: Where are the existing power lines and poles located?
Key Extractions: Pole locations, buildings, paving, water, site boundary
Methodology: GIS was used for the base layers and Adobe Illustrator was utilized to add lines and points. Power line locations were determined based on aerial imagery and the site visit. Pole types were determined from aerial imagery and site photographs. Voltages and easements were approximated based on online research from other areas and electric companies.
Conclusions: Three large transmission lines, and several smaller distribution lines run within the site boundary. The lines are supported by different types of poles at varying heights and sizes. One cellular tower is also located within the site boundary. Many of the power lines lead towards an electric substation northwest of the site along the Iowa River.

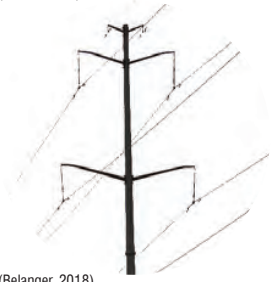
Figure 2: Images of Transmission Poles from Site

(Hodgson, 2018)

(Dunay, 2018)

(Mader, 2018)

(Mader, 2018)


(Belanger, 2018)

(Dunay, 2018)

(Mader, 2018)

(Dunay, 2018)

(Mader, 2018)

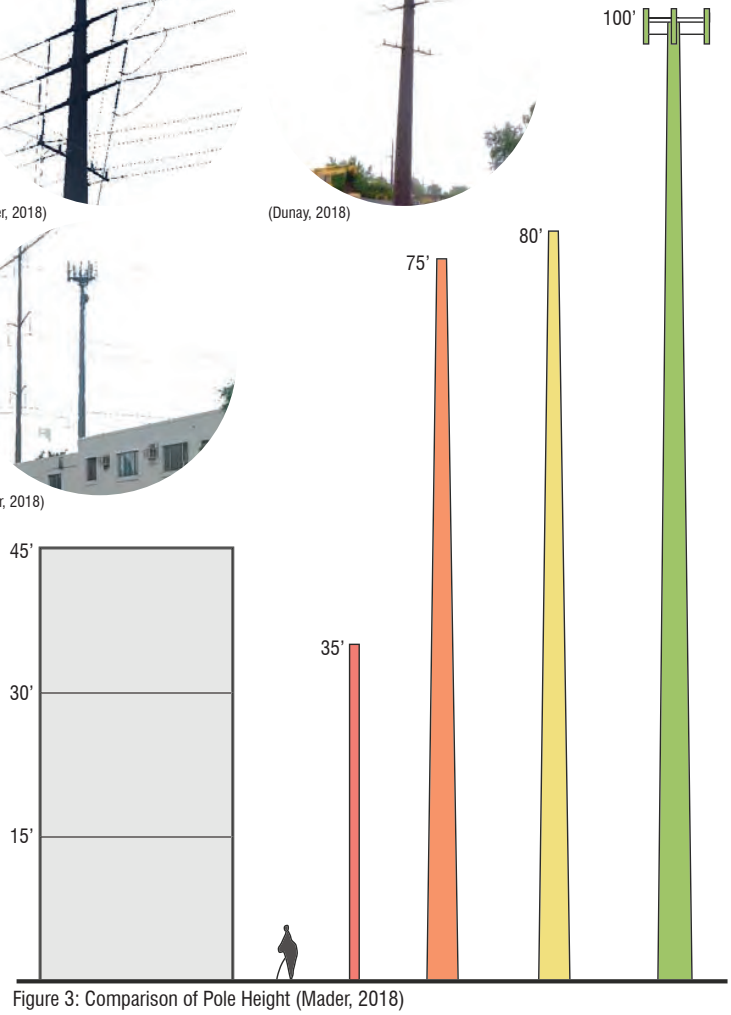


Figure 3: Comparison of Pole Height (Mader, 2018)

Type A: Distribution Pole

Legend Symbol:
Typical Height: approx. 35'
Typical Voltage: 12 kV or 35 kV
Typical Material: wood or steel
Expected Clearance Required: 10'
(Black Hills Corporation, 2018 and ISA, 2018)

Type B: Transmission Tower

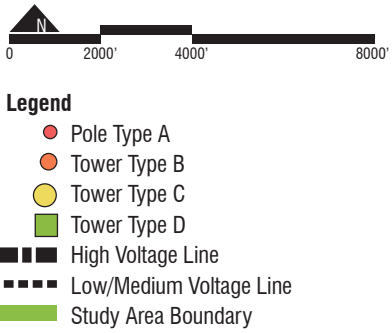
Legend Symbol:
Typical Height: approx. 65-80'
Typical Voltage: 70 kV or 138 kV
Typical Material: wood or steel
Expected Clearance Required: 15'
(Black Hills Corporation, 2018 and ISA, 2018)

Type C: Transmission Tower

Legend Symbol:
Typical Height: approx. 70-85'
Typical Voltage: 70 kV or 138 kV
Typical Material: steel
Expected Clearance Required: 15'
(Black Hills Corporation, 2018 and ISA, 2018)

Type D: Cell Tower

Legend Symbol:
Typical Height: approx. 100'
Typical Material: steel
Expected Clearance Required: 20'
(Black Hills Corporation, 2018 and ISA, 2018)



Multiple Sets of Overhead Power Lines Define Spatial Organization

Power line easements fragment the site into small sections, separating parcels from the road and one another

W2_Mader02_NoScale_PowerLines.PDF

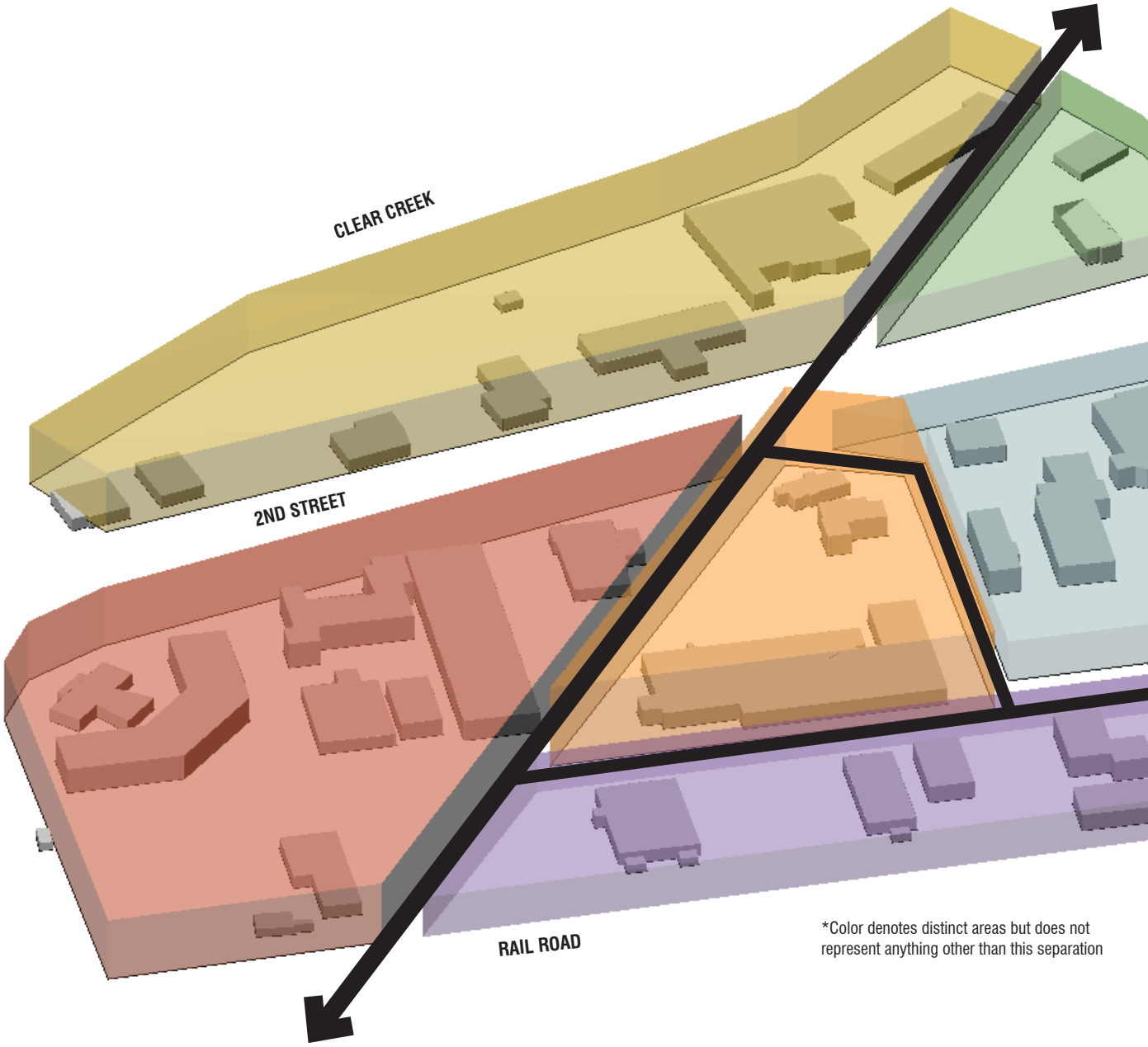


Figure 1: Division of Site by Power Lines and Easements
(GIS, 2018)

Inquiry: How do the power lines and their easements affect where future developers can build?
Key Extractions: Buildings and power line easements
Methodology: Building footprints were imported into Rhino from GIS and extruded. Power line easements were estimated from research and were used to determine sizes of buildable area within the site boundary.
Conclusions: The powerlines fragment the site into multiple small pieces, separating them from one another and from the street. The lines not only determine the sizes of buildable area on the site but also what functions can occur in different areas. Because few things are allowed under the lines due to safety and accessibility concerns, the extensive strips of easements are limited to paving with parking or mown grass.

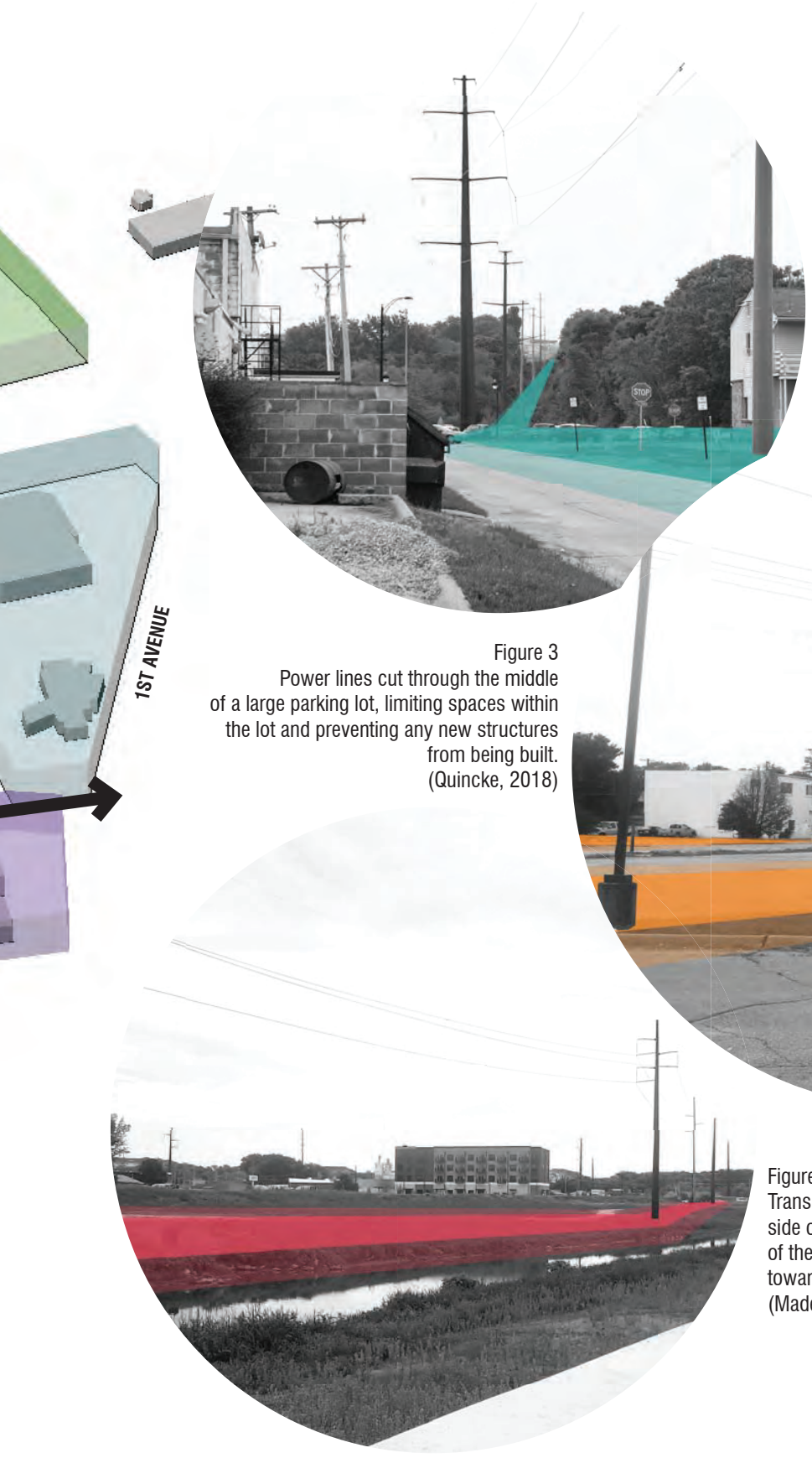


Figure 2
Existing transmission lines run along First Street on the southern side of the site. The transmission lines move East towards University of Iowa softball fields and off the site. The lines break off the sothern portion of the site, separating it from the northern pieces.
(Belanger, 2018)

Figure 3
Power lines cut through the middle of a large parking lot, limiting spaces within the lot and preventing any new structures from being built.
(Quincke, 2018)

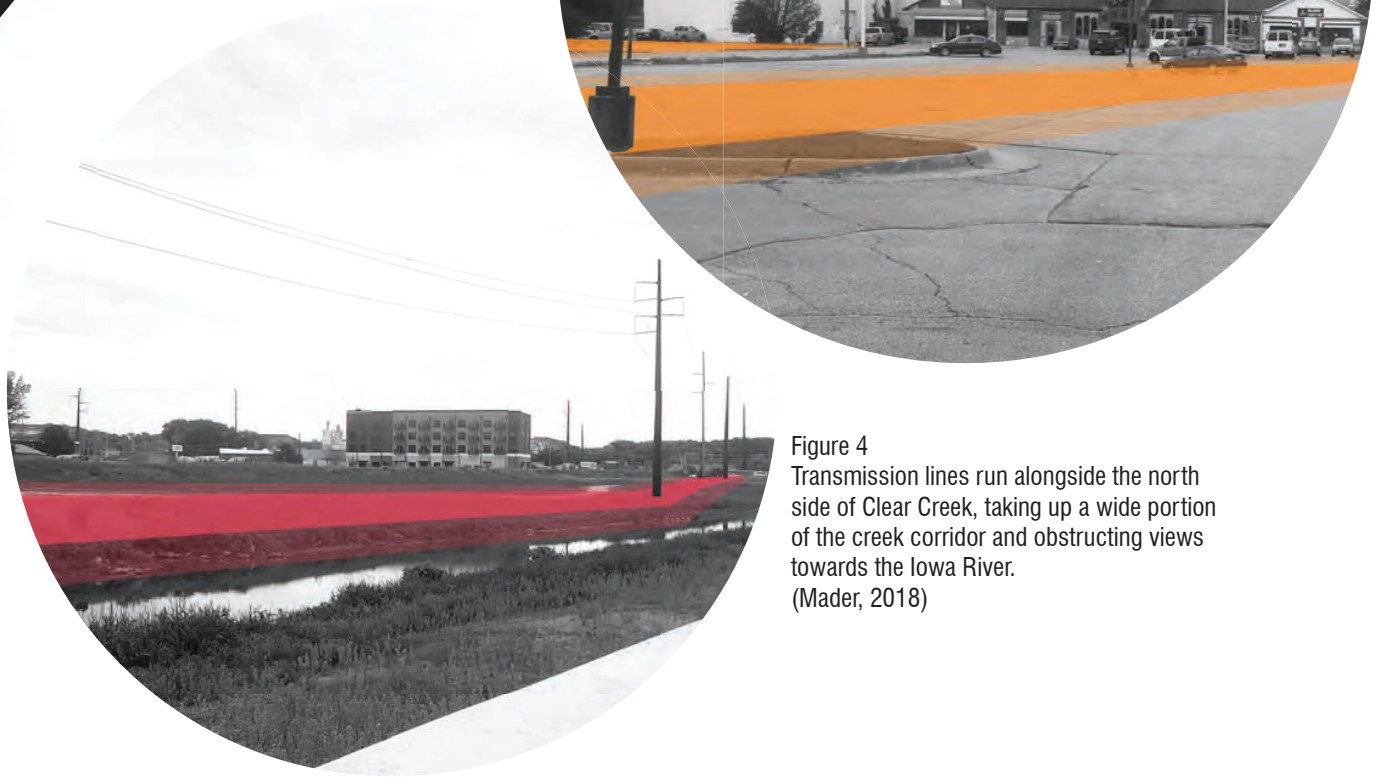


Figure 4
Transmission lines run alongside the north side of Clear Creek, taking up a wide portion of the creek corridor and obstructing views towards the Iowa River.
(Mader, 2018)

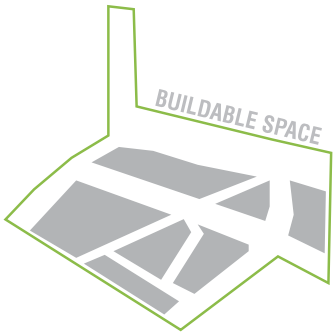
Moving or Burying the Overhead Transmission Lines Allows for More Usable Space

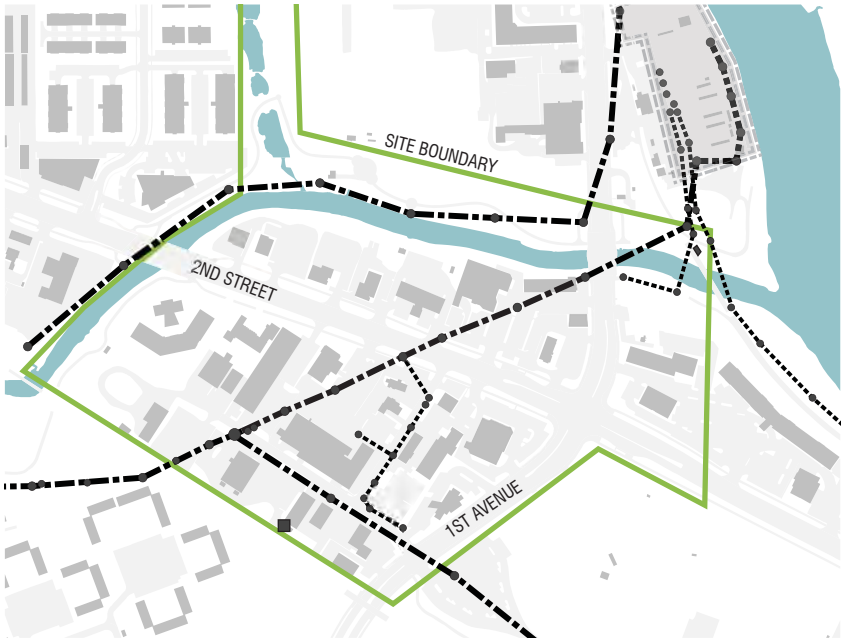
Cost of construction, effect on the landscape, and resulting buildable area should be considered in determining how to handle the li

W2_Mader03_NoScale_PowerLines.PDF

Option A: Work With Lines in Existing Locations Across Site

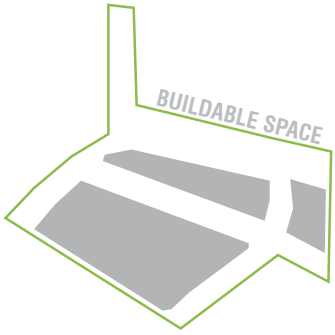
Limits costs of building new infrastructure but does nothing to limit separation of parcels within the overall site. Allows for fragmentation of the site into several small pieces.





Option B: New Location Above Ground

Creates more open space within the site and encourages a more cohesive overall design. However, it could be argued that the new alignment would interfere with the landscape around Clear Creek, limiting the aesthetic quality of the space.



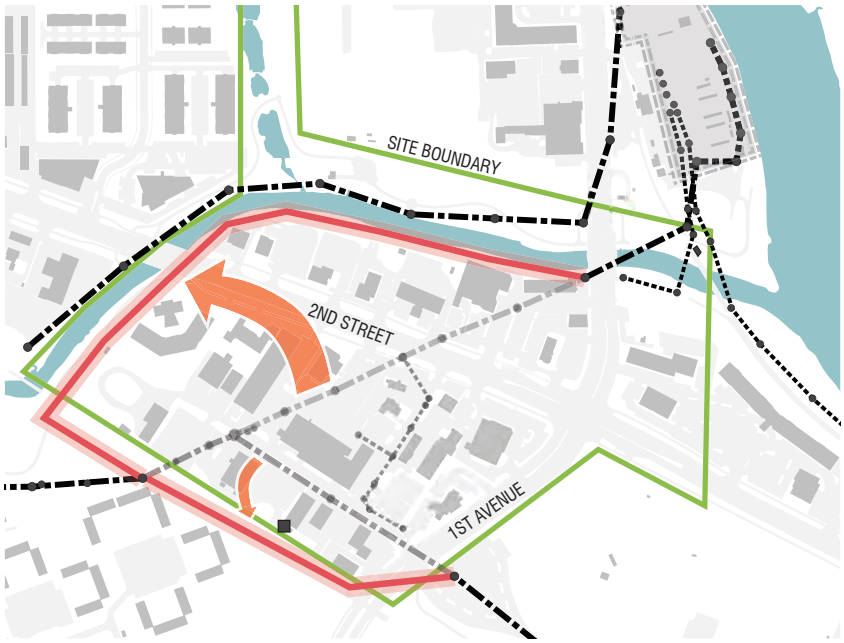
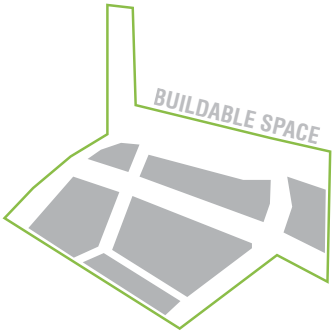


Figure 1: Comparison of New Power Line Strategies (GIS, 2018)

Inquiry: How should the powerlines be handled in order to best allow for future development?
Key Extractions: Site boundary, existing power lines, existing electric poles, proposed power lines
Methodology: Maps were made from GIS and Adobe Illustrator with information gathered from the site and from satellite imagery.
Conclusions: Because of how badly divided the site becomes with the power lines in their current positions, and because these lines will have to be taken down and rebuilt during any site grading, it makes sense to change where the lines are located on the site. Due to cost, only some of the powerlines should be buried with other lines being moved to a different location along the edge of the site boundary. This can be seen in Option D where the central line is buried and the line along the south side of the site is moved farther south.

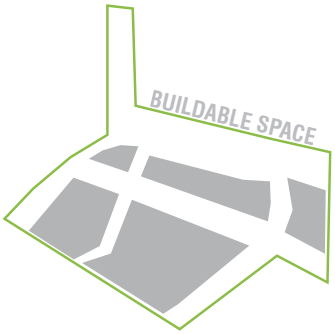
Option C: Move Lines Underground

Removing overhead infrastructure helps to create a more desirable landscape within the site boundary while also protecting electrical lines from wind damage. Though more expensive than above ground lines, moving the power below ground allows for a more pedestrian friendly site design.



Option D: Move Some Lines Underground and Some to A New Location Above Ground

Arguably the most feasible design strategy, moving some lines to a new location and burying others helps to open up the site while limiting excess expenses.



N

Legend

- High Power Transmission Line
- Low/Medium Power Distribution Line
- Removed Transmission Line
- Removed Distribution Line
- New Underground Power Line
- New Above Ground Power Line
- Site Boundary

FEMA

Appendix A.6

Iowa River's Polluted Ecosystem Contributes to Poor Fish Diversity

Data collected through the Iowa DNR reveals a poor river ecosystem, and unbalanced quantities of fish species.

W2_Dirks01_Ecosystem.pdf

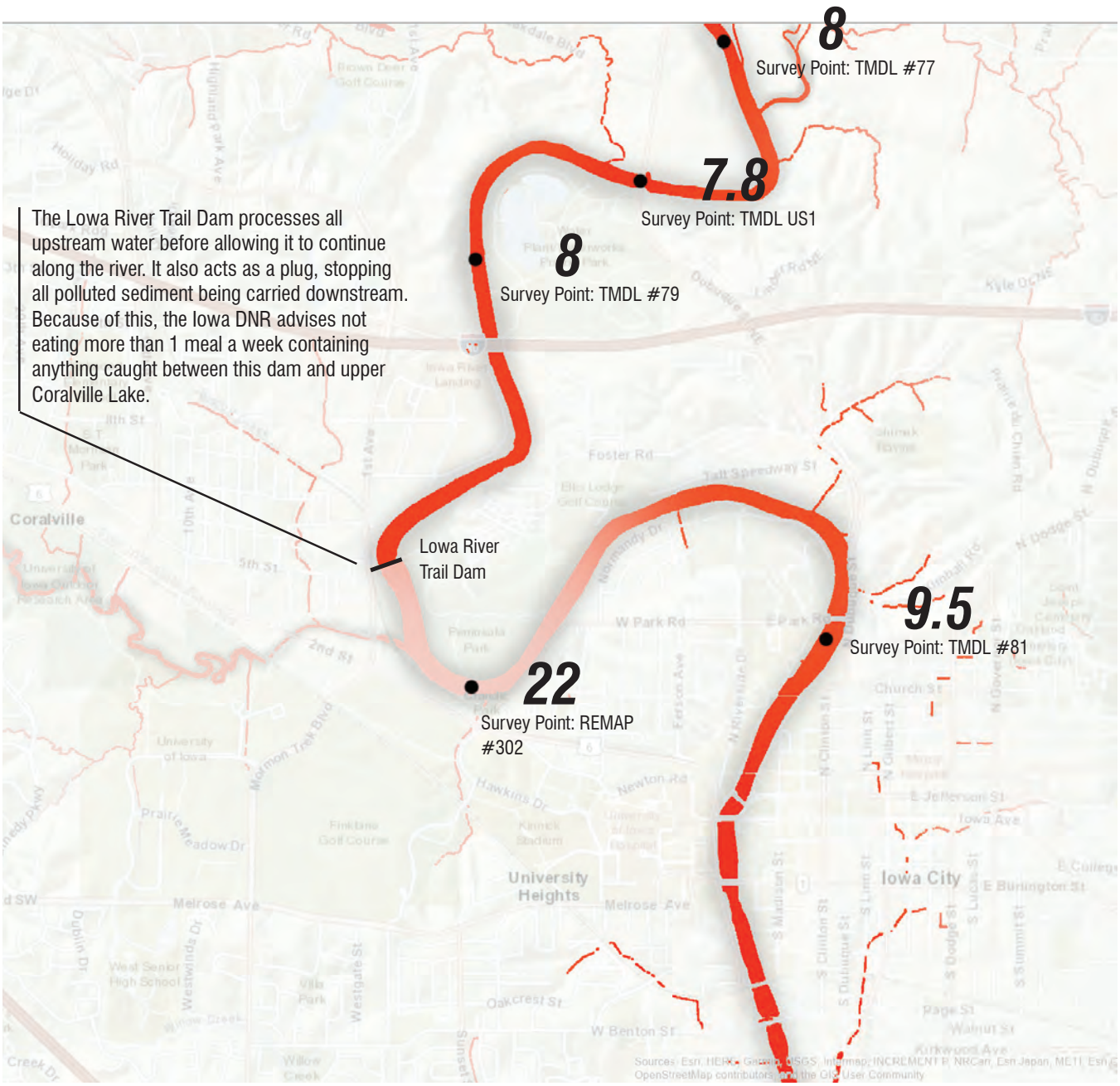


Figure 01. Iowa River Fish Health Map According to Fish Index of Biotic Integrity, "FIBI," Scores (Dirks, 2018)
Source: Johnson County, Coralville, IA GIS "Base map," FIBI scores provided by Iowa DNR

Inquiry: Where is the river in good health, and in which places are the fish species well balanced?
Key Extractions: Over 80% of the River that lies in the Iowa City/Coralville area scores poorly in both FIBI and BMIB
Methodology: FIBI & BMIB data were gathered from the Iowa DNR service called "BioNet." Using a base map from GIS, the survey points were overlaid, and the river was colored according to the scores recorded from BioNet.
Conclusions: The lack of regulations regarding the conservation of the Iowa River's water quality has lead to the degradation of the River's ecosystem. While steps have been taken to prevent the risk of flooding in urban areas, the tactics used did not take into consideration the effects on the river's ecosystem. The largest effect was the destruction of native fish habitats, which caused a rapid decline in numbers of native fish species, and an uncontrollable increase in numbers of tolerant, invasive species such as the Grass Carp and the Gizzard Shad. These invasive species have thrown the original structure of the native fish food web off balance. BioNet generates a water body's FIBI & BMIB score by compiling over 23 individual metrics such as native fish richness, food web proportions, as well as native plant and taxa percentages.

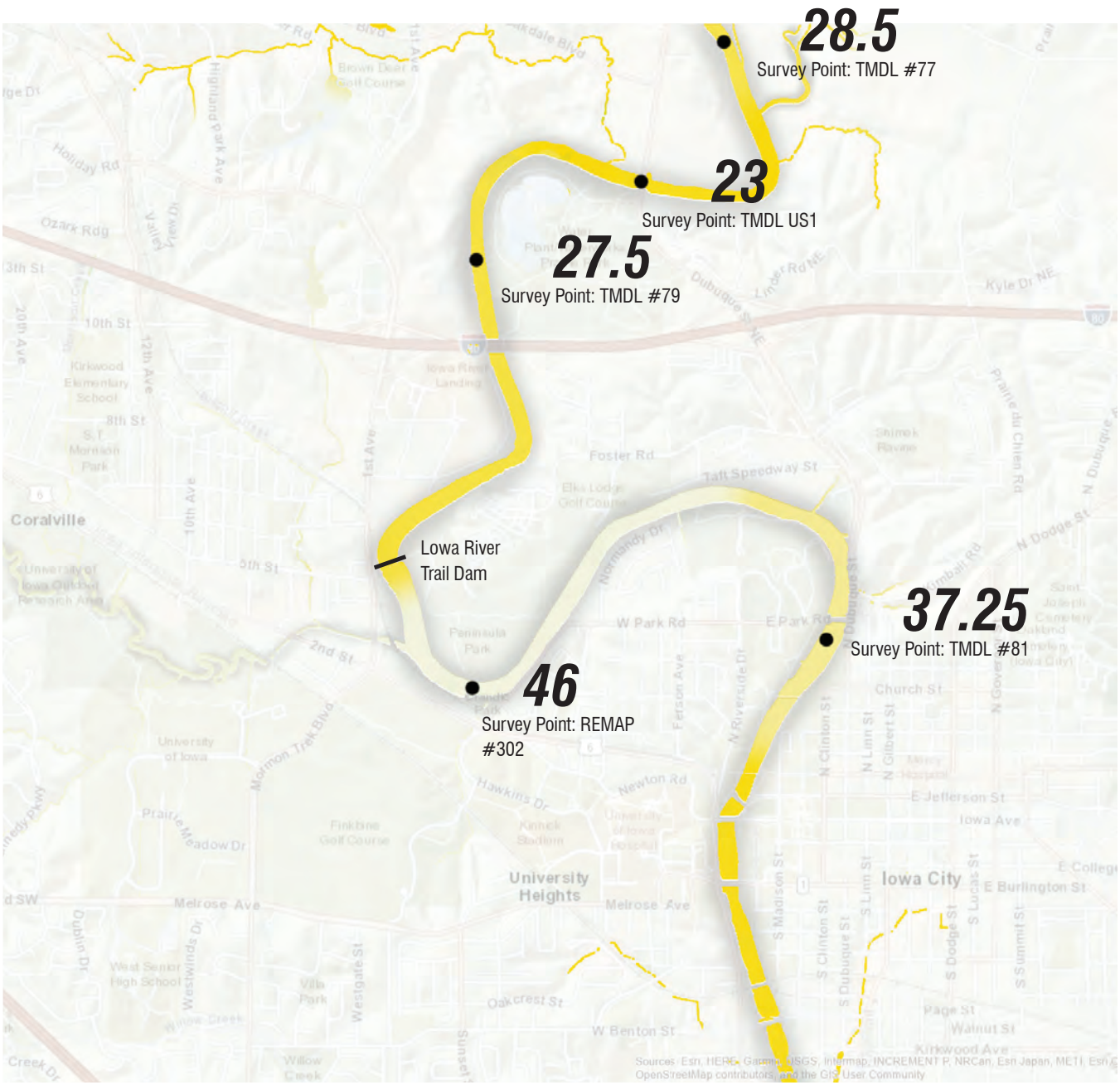


Figure 02. Iowa River Ecosystem Health Map according to Benthic Macroinvertebrate Index of Biotic Integrity, "BMIB," scores (Dirks, 2018)
Source: Johnson County, Coralville, IA GIS "Base map," BMIB scores provided by Iowa DNR

Not to scale

Legend

Fish Diversity Health based on FIBI Score
FIBI: (Fish Index of Biotic Integrity)

Poor | Fair | Good
0 10 20 30 40 50 60 70 80 90 100

River Ecosystem Health based on BMIB Score
BMIB: (Benthic Macroinvertebrate Index of Biotic Integrity)

Poor | Fair | Good
0 10 20 30 40 50 60 70 80 90 100

Improving The Iowa River Ecosystem Using Clear Creek

Cleaning up Clear Creek will ensure that clean water is flowing into the Iowa River, beginning the healing process for the river.

W2_Dirks_02_Ecosystem.PDF

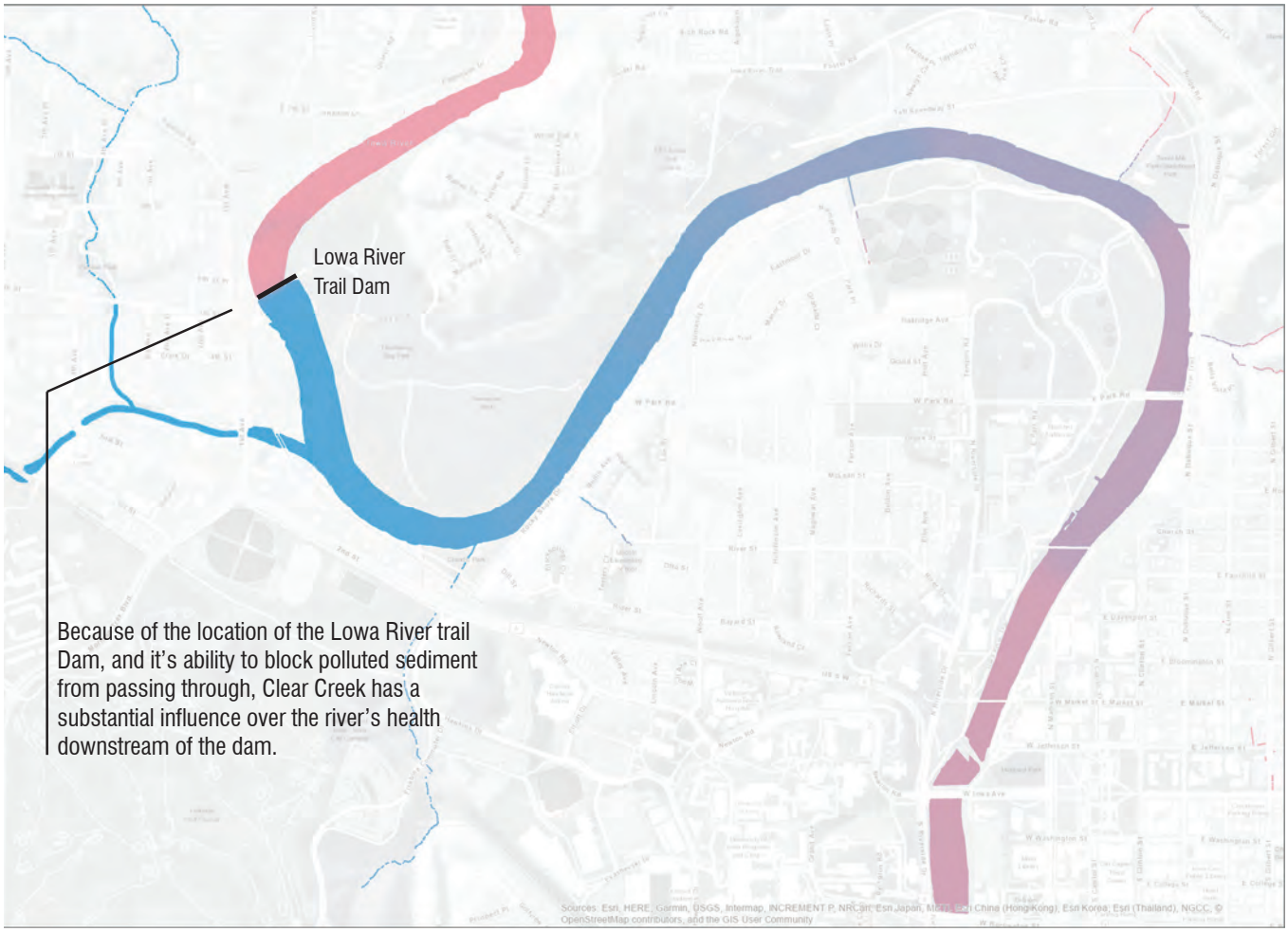


Figure 01. Iowa River Restoration Map in Year 1 (Dirks, 2018)
Source: Johnson County, Coralville, IA GIS "Base map"

Inquiry: How can we use Clear Creek to improve the Iowa River quality downstream of the Lowa River Trail Dam?
Key Extractions: Because Clear Creek is the first and largest tributary to the river upstream of Iowa City but downstream of the dam, it has a substantial influence over the river's health.
Methodology: Using Clear Creek as a source for improving the Iowa River ecosystem, a Photoshop color gradient was applied to the GIS base map to represent the healing process of the river.
Conclusions: The Iowa River is not in a healthy state in the Iowa City & Coralville area, but this study presents an opportunity exists for improvement. The Lowa River Trail Dam stops the flow of polluted sediment coming from upstream before it can continue towards Coralville. While this makes for a very toxic environment upstream of the dam, it allows for a "fresh start" on the lower end. Since Clear Creek is the first and largest tributary upstream from Iowa City, it has a substantial influence on the health of the river downstream. This places great importance on the restoration efforts taking place along Clear Creek.

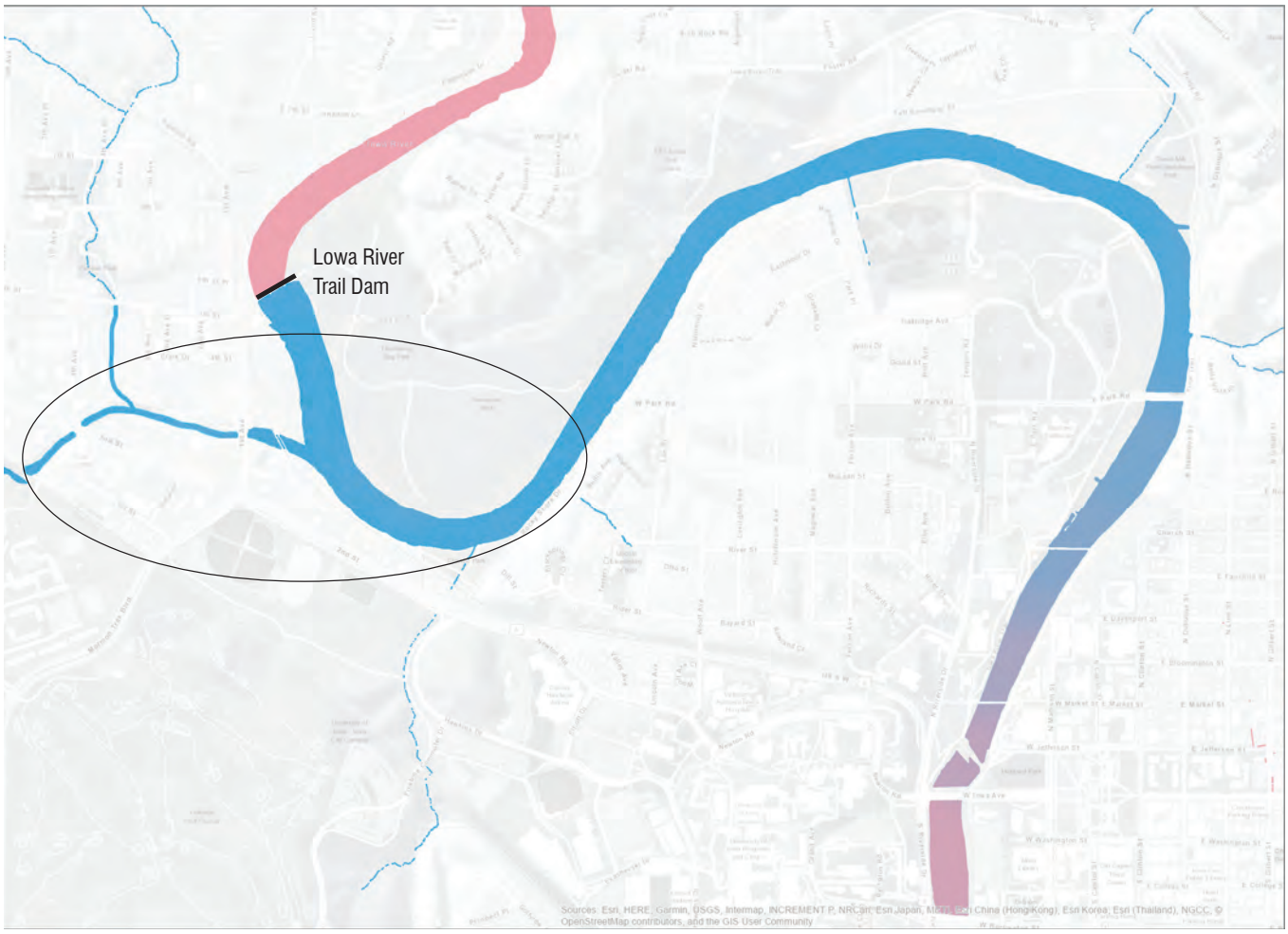


Figure 02. Iowa River Restoration Map in Year 3 (Dirks, 2018)
Source: Johnson County, Coralville, IA GIS "Base map"

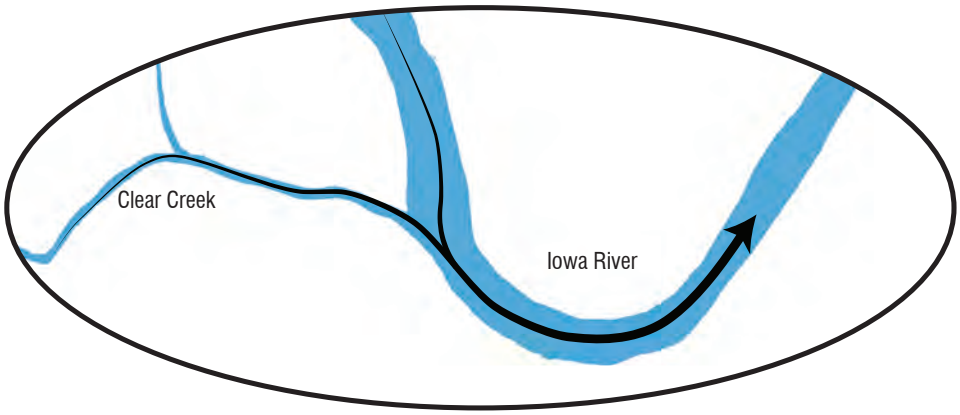


Figure 03. Regenerative Flow of the Iowa River (Dirks, 2018)

Four Techniques Proven to Reduce Creek Pollution

River restoration techniques that can be used to improve the overall health of a water system

W2_Dirks03_Ecosystem.PDF

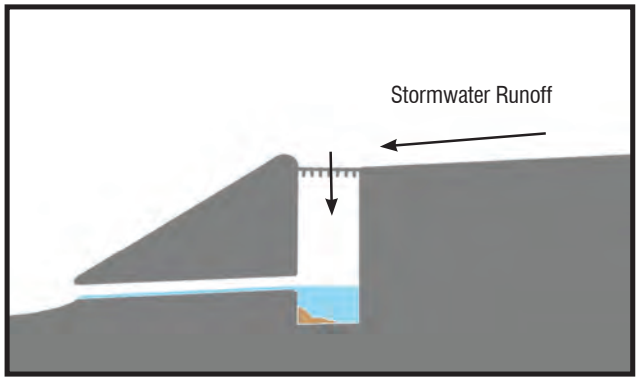


Figure 01: Catch Basins along Streets (Dirks, 2018)

City streets are often collection points for chemicals and debris. During a storm event, these chemicals flow off the road, and into waterways. One way to stop this, is to place catch basins along streets that drain into natural waterways. These sediment catch basins trap harmful chemicals and debris that runs off of concrete and asphalt roads, preventing it from polluting the water.

Figure 02: Removal of Harmful Chemicals on Brownfield Sites (Belanger, 2018)

The scrap yard near the railroad and Clear Creek is likely filled with harmful chemicals and PCBs. The runoff from this site is directed into Clear Creek. Cleaning up this site will reduce the runoff pollution into Clear Creek.

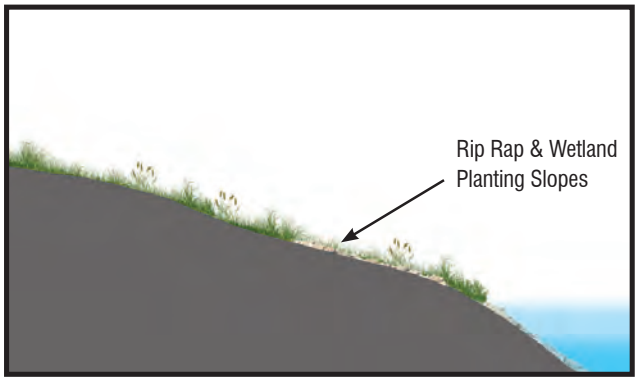


Figure 03: Completing Riparian Buffer Zones Along the Creek's Edge (Dirks, 2018)

Riparian buffer zones are the spaces adjacent to a stream, and can extend 50-100 feet away from the water. These areas use native, wetland grasses and low shrubs to filter and slow rainwater before it gets into the stream. The city of Coralville has distributed rip rap down, but have not yet planted the native species necessary to make the buffer zone more effective.

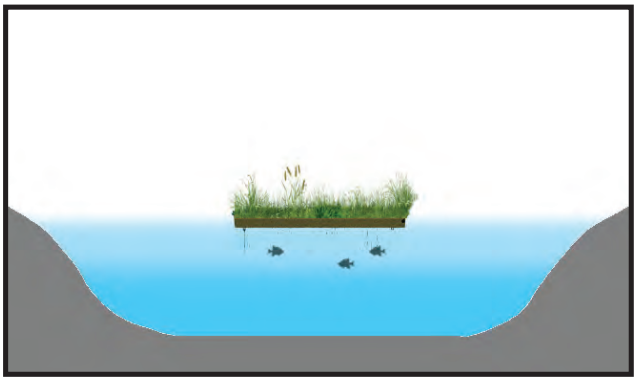


Figure 04: Adding Floating Plant Islands to the Creek (Dirks, 2018)

Floating plant islands are a popular new design solution to restoring creek habitats. They consist of native wetland plants atop a floating structure which allows the roots to hang down into the water, creating an excellent habitat for feeding fish. Implementing these structures along the creek will attract native fish back into the area.

Inquiry: What strategies can be used to clean up pollution in Clear Creek?
Key Extractions: Removing harmful chemicals from the site, as well as preventing harmful chemicals from entering Clear Creek will improve the health of the river south of the dam.
Methodology: After researching stream & river restoration strategies, the above four strategies were selected and represented by using Photoshop color and texture overlays in both section & plan view.
Conclusions: Cleaning up and ridding the study of pollutants is the first step to restoring Clear Creek. The primary source of pollutants on site is likely the scrap yard in the southwest corner. Once efficiently remediated, efforts can be made to restore the creek's ecosystem through the three restoration tactics provided above. Sediment catch basins will prevent most further pollutants from entering the waterway through street runoff. Along the creek, the implementation of riparian buffer zones and floating plant islands will begin to restore the vegetation and stream quality, while also preventing erosion. None of these restoration tactics will interfere with the flood prevention additions recently added to the site.

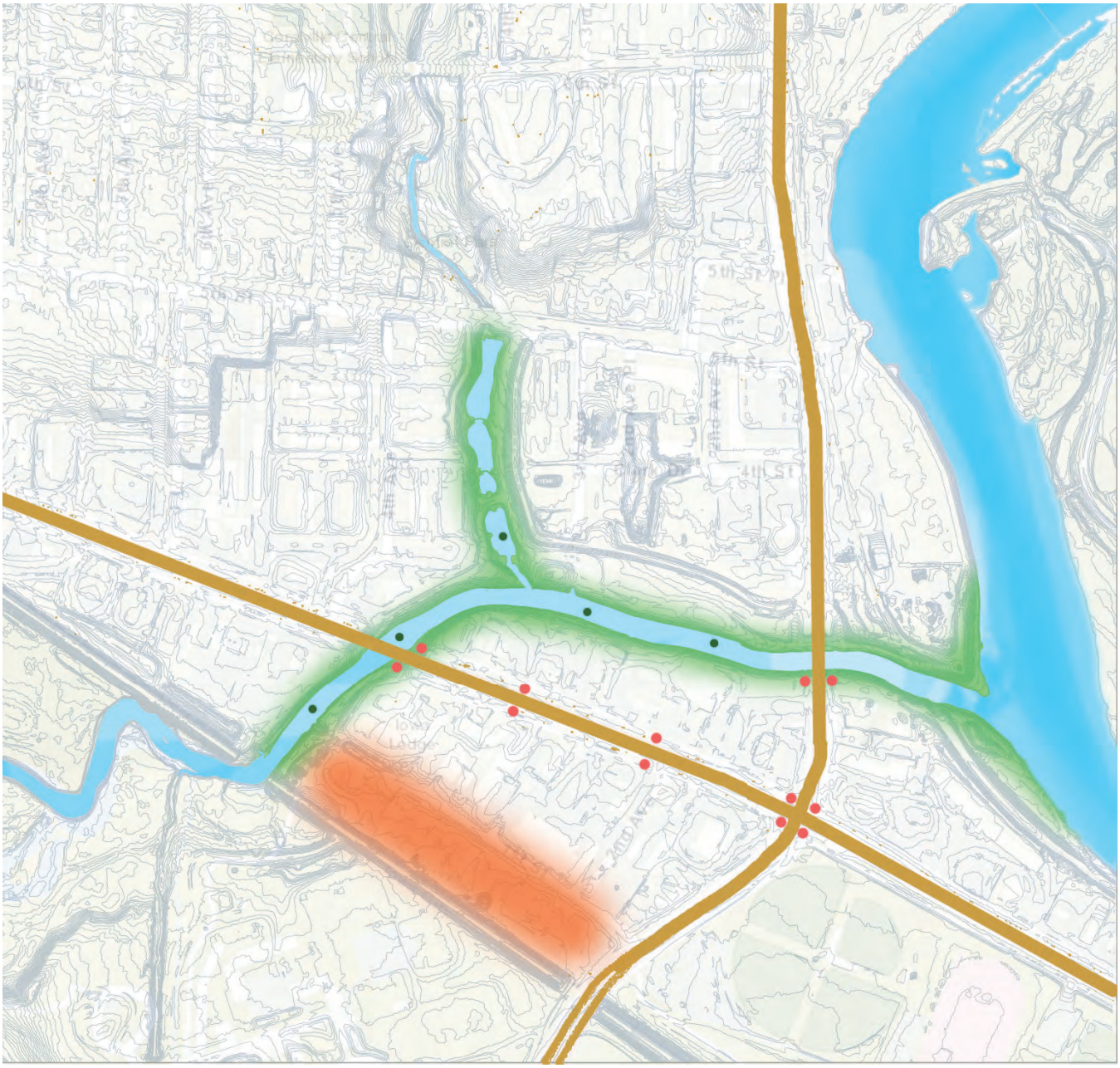


Figure 05. Clear Creek Restoration Strategy Map (Dirks, 2018)
Source: Johnson County, Coralville, IA GIS "Base map"

The 100 and 500 Year Floodplains are Problematic for Future Site Development

Flood mitigation must include elevating buildings to meet FEMA requirements

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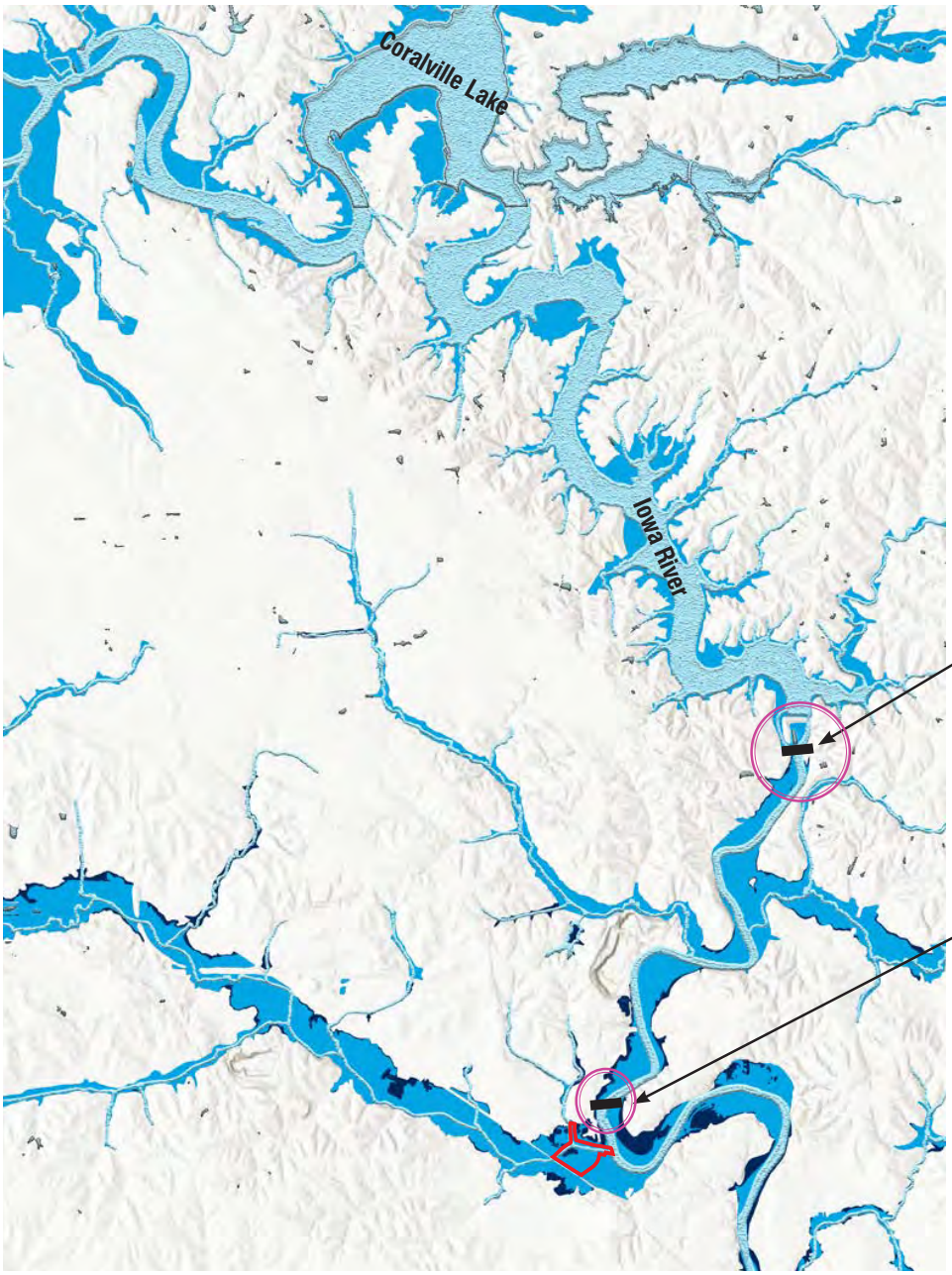

Figure 01. Hydrology Context beyond site
Source: ArcGIS Mapping

Coralville Lake is a man-made reservoir built to control flooding. **The Coralville Dam** was built after widespread flooding in the early 1930s. Coralville Dam regulates runoff from 3,084 square miles of land upstream providing flood protection to 1,703 square miles of Iowa River Valley below the dam. (US Army Corps of Engineers)

Figure 2. View of **Coralville Dam** at Floodstage
Source: Wikimedia Commons (2008)

Figure 3. Iowa River Power Co. Dam
Source: Iowa Whitewater

Inquiry: What are the buildings that are most affected by future flooding in Coralville and the 'Site Boundary'?
Key Extractions: There are only two buildings within the site that are not affected by the 100 year flood, but still affected by the 500 year flood.
Methodology: Use Arc GIS Mapping to analyze what buildings are within the flood plain zones.
Conclusions: The entirety of the site boundary is affected in some way by major flood issues. Even with recent flood mitigation projects recently constructed by the City of Coralville, more action needs to be taken to meet FEMA and Flood insurance requirements.

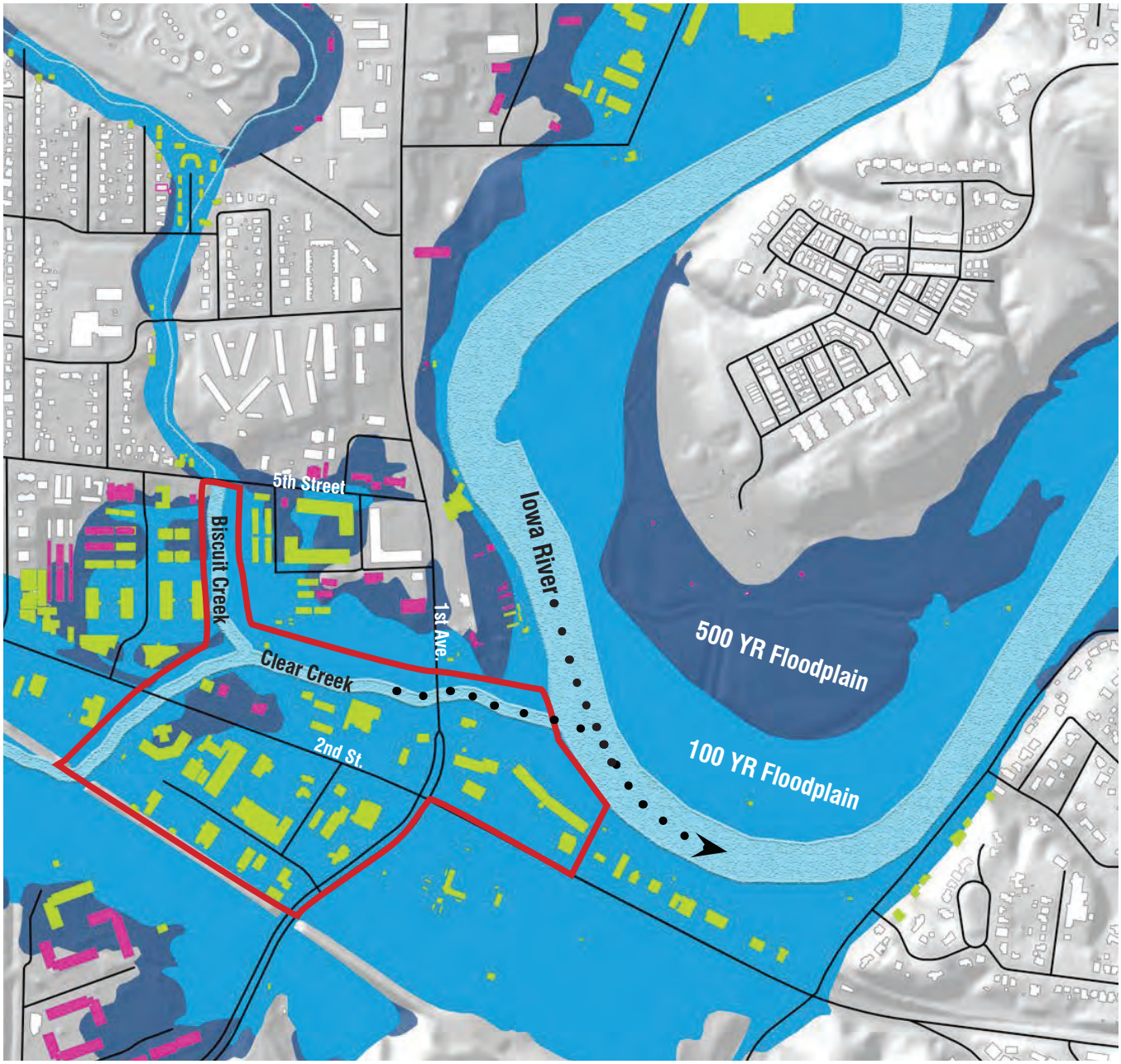

Figure 4. Buildings affected by 100 and 500 Year Flood Levels
Source: ArcGIS Mapping

N
0 420 840 1,680

100 year Flood Level Elevation = 654.70 - 655.50
500 year Flood Level Elevation = 658.00
(Scott Larson, 2018)

Legend
- River/Creek--No Flood
- 100 YR Flood Plain
- 500 YR Flood Plain
- Buildings affected by 100 & 500 YR
- Buildings affected by 500 YR
- Roads
- Buildings Unaffected
- Site Boundary

Map 6.2b

Areas Identified for Additional Flood Mitigation along Clear Creek and the Iowa River

Implemented US Army Corps of Engineer's flood mitigation strategies in the top map are analyzed to realize opportunities for future

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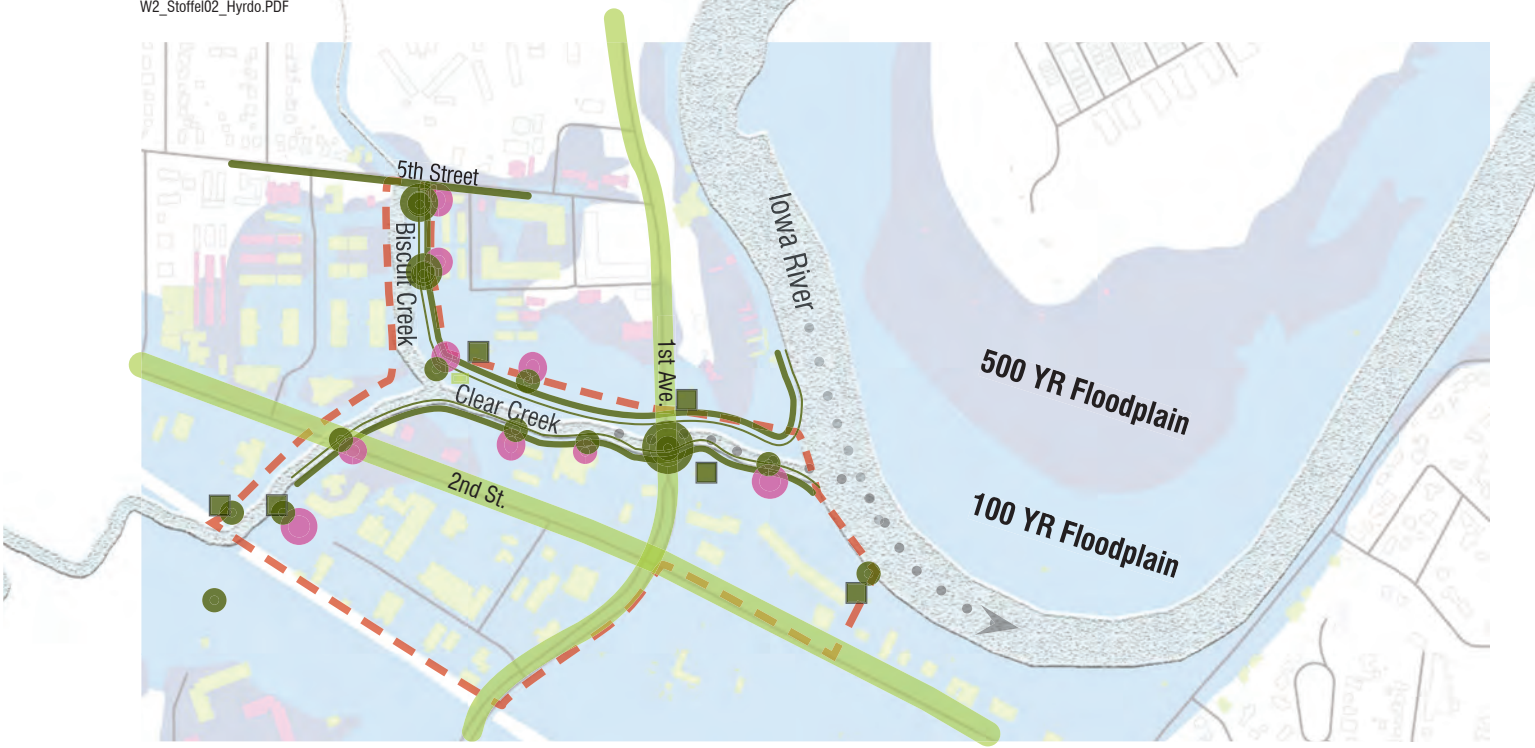


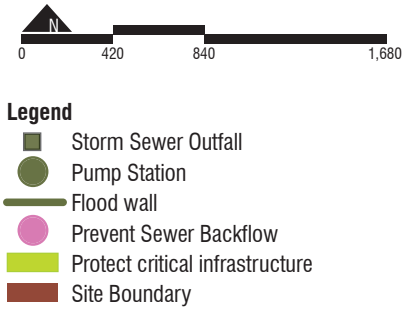
Figure 1. Implemented Areas of Flood Mitigation within the site boundary and surrounding context--US Army Corps of Engineer Plan
Source: ArcGIS Mapping & Stadelmann

Figure 2. Opportunity Areas of Flood Mitigation within the site boundary and surrounding context chosen from site analysis studies
Source: ArcGIS Mapping & Stoffel

Inquiry: What are the best places for flood mitigation that can protect the Southeast Commerical Corridor of the site from damage of key Infrastructure (Existing and Proposed)?
Key Extractions: After visiting the site and seeing what the city had already put in place for flood mitigation after the 2008 flood, there was a a few spots that could use more attention to building on the recently implemented system. Extending the flood wall past the metal scrap yard, better green infrastructure throughout the site, etc.
Methodology: The top map documents recent flood control measures implemented by the City of Coralville. The bottom map identifies areas that still require mitigations to meet FEMA and insurance requirements.
Conclusions: The site boundary is entirely within the 100 and 500 year flood plains so extra precautions need to be met to ensure the protection of lives, businesses, and critical infrastructure. In order to meet FEMA standards, critical infrastructure needs to be elevated 1 foot above the 100 year flood level. The City of Coralville has already developed an engineering strategy that should solve many flood problems of the site but there are still other strategies within the site boundary that can be accomplished to also help mitigate the flooding issue.

Implemented Flood Mitigation described by the City of Coralville after the 2008 Flood

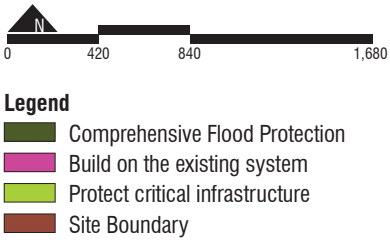
- **Comprehensive Flood Protection**
  - Repair existing storm water pump stations
  - Install storm sewer backflow prevention
  - Mixture of berms, flood walls, and removable flood walls specific to each location and future development / redevelopment plans
  - Additional storm water pump stations to handle interior drainage
- **Build on the existing system**
  - Prevent backflow for entire storm sewer system
  - Raise protection level of existing pump stations and flood walls
  - Close gaps in protection
- **Protect critical infrastructure**
  - Transportation corridors
  - Sanitary lift stations
  - Electrical substations and switch gear



(Stadelmann, Teresa; 1st Avenue Corridor Flood Recovery and Protection 2008-2014)

Specific Site Opportunities for Flood Mitigation after analyzation of existing mitigation

- **Comprehensive Flood Protection**
  - Mixture of berms, flood walls, and removable flood walls specific to each location and future development / redevelopment plans
  - introduce better green infrastructure and stormwater Best Management Practices (BMPs) into the site
- **Build on the existing system**
  - Raise protection level of flood walls
  - Close gaps in protection surrounding and within the site boundary
- **Protect critical infrastructure**
  - Raise elevation of built infrastructure within the site boundary as needed



Determining a more Protected Elevation for Built Infrastructure within the Site Boundary

Elevating proposed critical infrastructure above the 100 year flood level + a foot should meet FEMA standards

W2_Stoffel03_Hydro.PDF

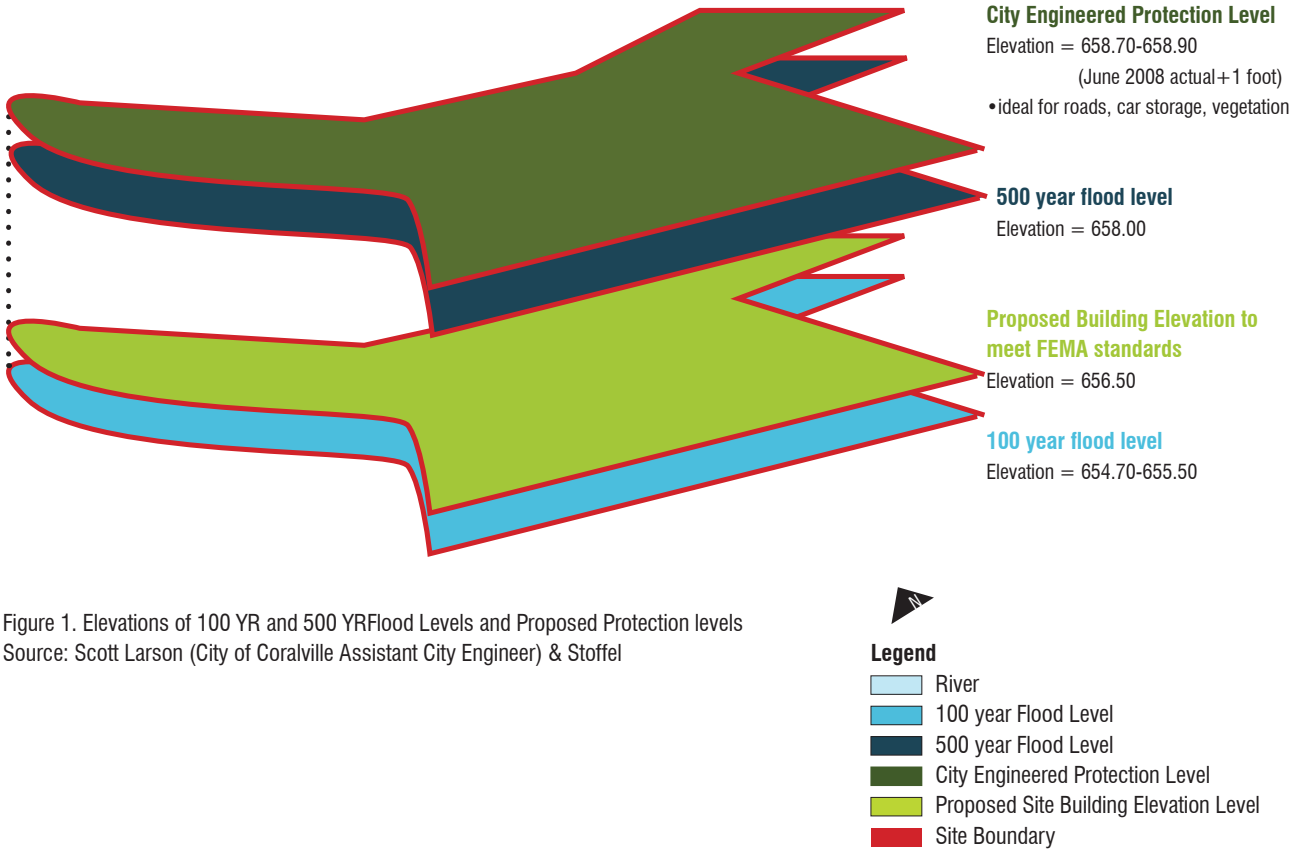


Figure 1. Elevations of 100 YR and 500 YRFlood Levels and Proposed Protection levels
Source: Scott Larson (City of Coralville Assistant City Engineer) & Stoffel

Inquiry: How do the flood levels compare to eachother and how do they compare to the protection levels and FEMA standards?
Key Extractions: The Elevation of 656.50' for future built infrastructure protects from the 100 YR flood and will allow flood insurance for those structures.
Methodology: Using ArcGIS to extrude layers to different base heights, seeing the different levels of flooding or protection levels helped to discover a safe elevation for built infrastructure within the site boundary.
Conclusions: After discovering the more protected elevation of 656.50 for built infrastructure, the next step is to determine how to fill the site to that elevation and where to put much needed multi-use buildings.

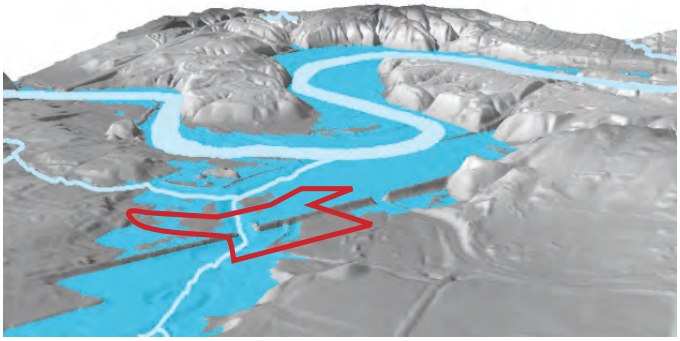


Figure 2. 100 year Flood Level
Source: ArcGIS Mapping--ArcScene

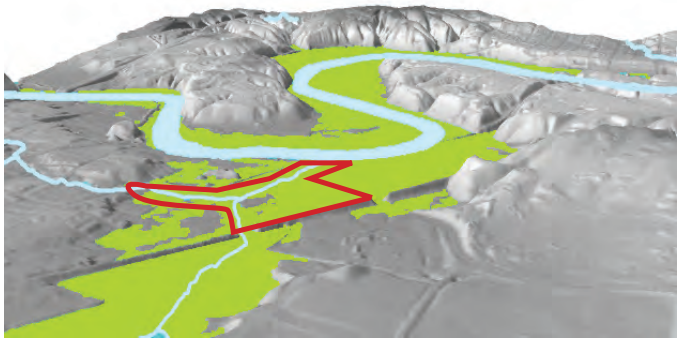


Figure 3. Proposed Building Criteria: 100 YR Flood level + 1 foot
Source: ArcGIS Mapping--ArcScene

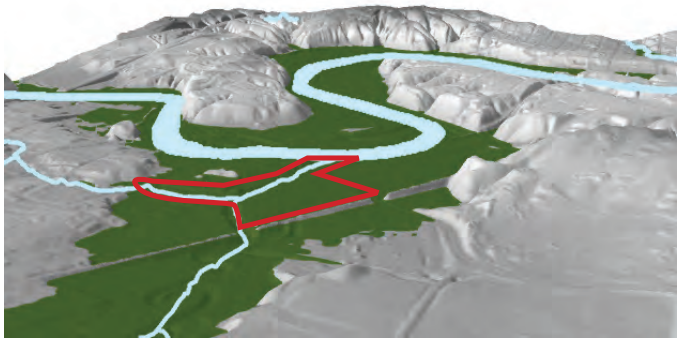


Figure 4. Protection Criteria: June 2008 actual + 1foot
Source: ArcGIS Mapping--ArcScene

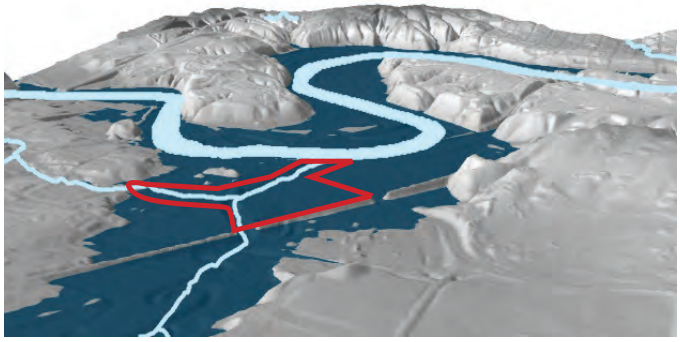


Figure 5. 500 year Flood Level
Source: ArcGIS Mapping--ArcScene

Placemaking

Appendix A.7

2nd Street Provides Sufficient Access to Healthy Food and Healthcare Services

Vehicle access is acceptable but pedestrians often have to traverse heavy vehicle traffic corridors

W2_MA01_FoodandHealth.PDF

Food Sources

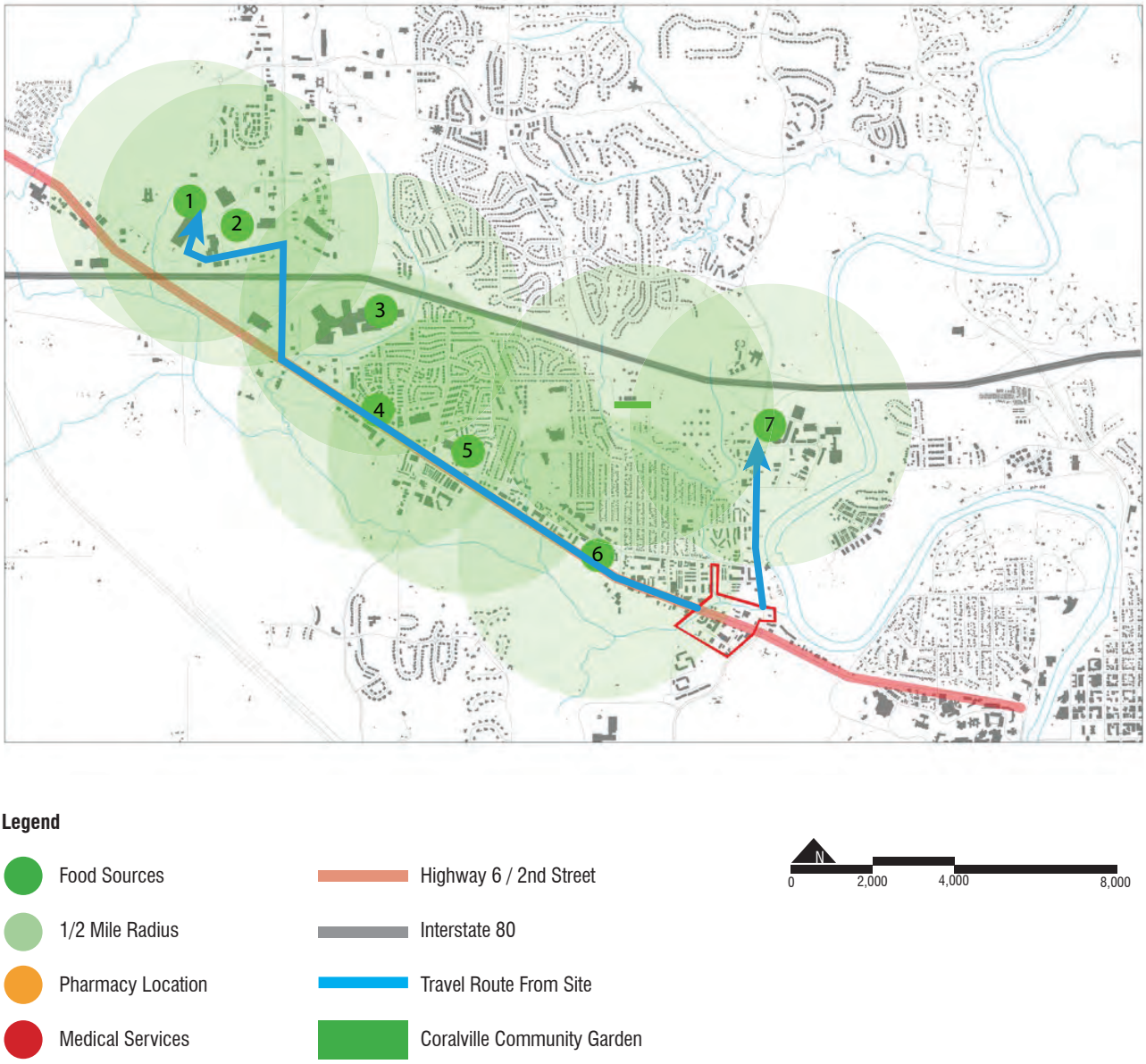
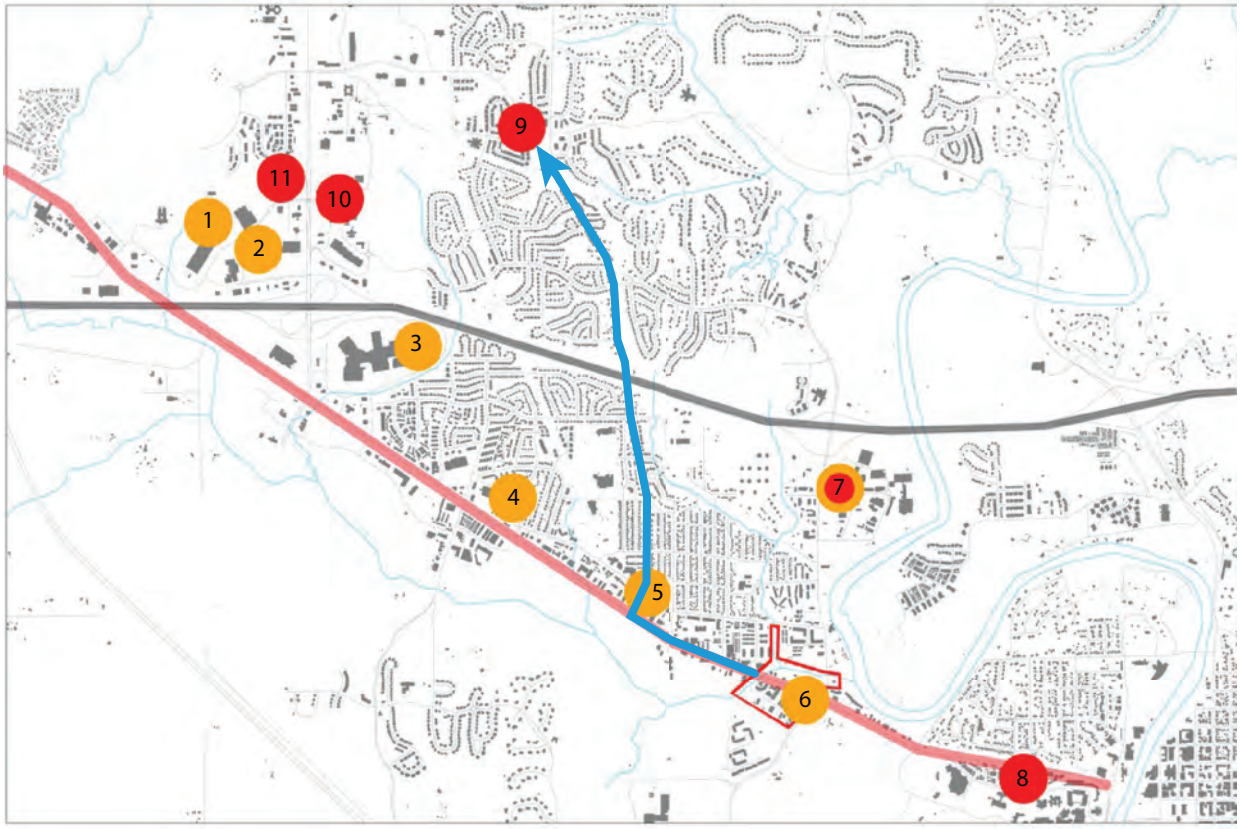


Figure 01. Food and Medical Services in Coralville, Iowa
Source: Coralvilee Resource Directory - http://www.coralville.org/businessdirectoryii.aspx

Inquiry: Does the 2nd Street Corridor provide sufficient access to food and health services to the citizens of Coralville?
Key Extractions: Proximity of Services, Transportation
Methodology: Locations of local businesses were collected via online research and a field visit. Stores selling fresh produce were measured with a 1 mile radius to the site, other neighborhoods, and major roadways. Travel times were researched by inserting addresses of locations (provided by location websites and internet searches) to gps system which approximated times for both vehicle and pedestrian travel.
Conclusions: The maps above show that there are many locations that provide healthy food and medical services to Coralville. Access is limited mostly to vehicles since most of the businesses are located on major vehicle corridors (2nd Street / Highway 6). A majority of the population in the northern neighborhoods must cross a large vehicle corridor (Interstate 80) to reach most of the businesses. The study area is within the radius of a local grocery store, but a majority of the stores require a walk time upwards of thirty minutes.

Health-Related Sources



Food Sources

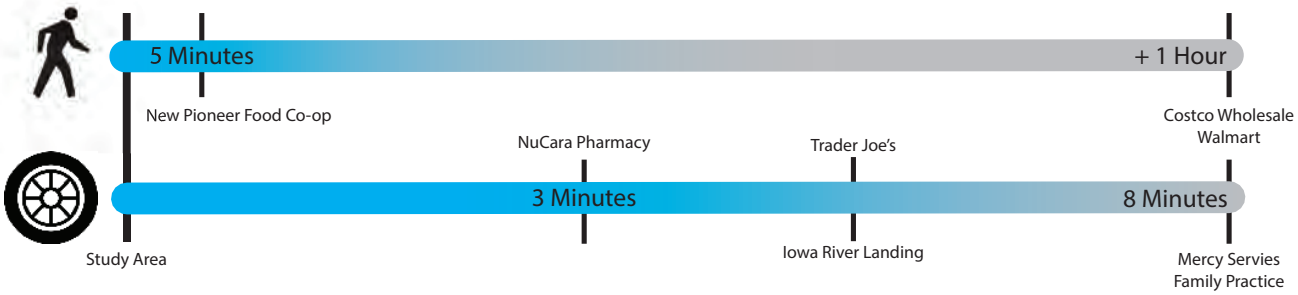
1. Costco Wholesale
2. Walmart
3. Target
4. Taj International Foods (Asian Market)
5. Hy-Vee
6. New Pioneer Food Co-Op
7. Trader Joe's

Pharmacy Locations

1. Costco Pharmacy
2. Walmart Pharmacy
3. Target Pharmacy
4. Hy-Vee Pharmacy
5. NuCara Pharmacy
6. Walgreens Pharmacy
7. UI - Iowa River Landing

Medical Services

8. University of Iowa Hospital
9. Mercy - Family Pracitce
10. Stead Family Childrens Hospital
11. Mercy - Urgent Care



Central Location of the Study Area is Ideal for Food and Health Related Services

Possible sites include remediated contaminated sites, left-over spaces, and utility corridors

W2_MA02_FoodandHealth.PDF

Figure 2.1. New Poineer Food-Coop can help impliment a new community garden the study area (Source: ArcGIS)

Figure 2.2. Unused space shows potential for community garden locations (Source: Google Earth)

Potential sites for a community garden

The New Pioneer Food Co-Op is an organization with a primary goal to supply discounted fresh food products to the community and promote healthy lifestyle choices. One of their many services to the community is establishing community and school gardens.

Figure 02. Possible Implementations and Preservations in the South East Commercial District of Coralville, Iowa
Source: ArcGIS Database, Google Earth

Inquiry: What opportunities lie within the central location of the site to improve the overall health of the community?
Key Extractions: Business, Soils, Community Gardens
Methodology: Research of the New Pioneer Food Co-op revelaed that the organization has assissted with the construction of multiple community and school gardens. Within the study area, parking lots and vacant space was identified as potential sites for a garden. The community meeting revealed that members wanted the close access to a pharmacy within the study area. Areas for relocation were considered in the event that the study area develops larger commercial presence and building density.
Conclusions: While the site is not within a food desert, introducing a community garden could breathe life into the small district. The local food Co-op has done some garden projects in surrounding cities and could be a potential outreach for improving the site. Due to the historic uses of the site, there are many contaminants within the soils. If a garden is to be implemented, the location should be carefully selected to reduce risk to the community. The community has shown great concern for the study area. One of their main concerns is for the pharmacy next to the main intersection. Its central location is ideal for many residents who and wish to keep this element of the site in proposed designs.

At the community engagement workshop, participants were asked to identify important locations within the study area. Most participants identified **Walgreens Pharmacy** as an important location. This important element of **health services** should be preserved at this central intersection 2nd Street and 1st Avenue.

in

Figure 2.3. Potential areas for relocation of the existing pharmacy in the study area (Source: ArcGIS)

Legend

- 2nd Street and 1st Avenue Intersection
- Proposed Mix Use Areas
- Pharmacy

N

0 2,000 4,000 8,000

Redeveloping SE Commercial District Should Include Health Related Services

Retaining Walgreens, introducing clinics, and providing garden spaces and healthful options

W2_MA03_FoodandHealth.PDF

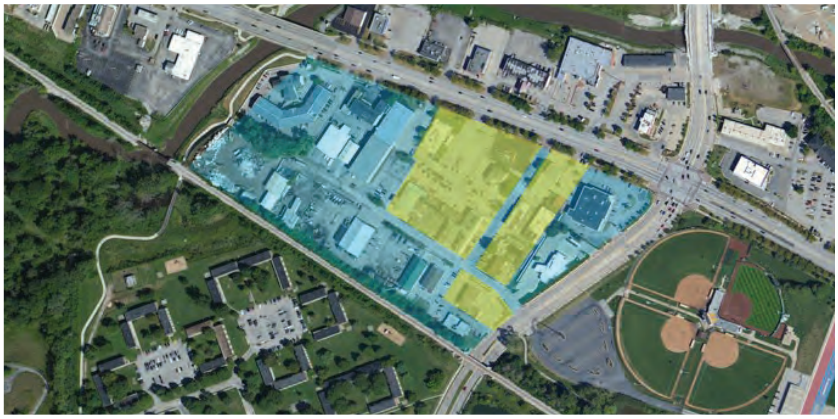


Figure 3.1. Brownfield Locations (Google Earth)

Areas with contamination or suspected of contamination

Areas of potential concern (unchecked)

The limitations of brownfields and contaminated soils will help determine where a garden could be located within the study area.

Figure 3.2.. Proposed green space on the north section of the district
(Source: Morgan Dunay, 2018)

Figure 3.3. Proposed green space on the south section of the district
(Source: Shelby Cooke, 2018)

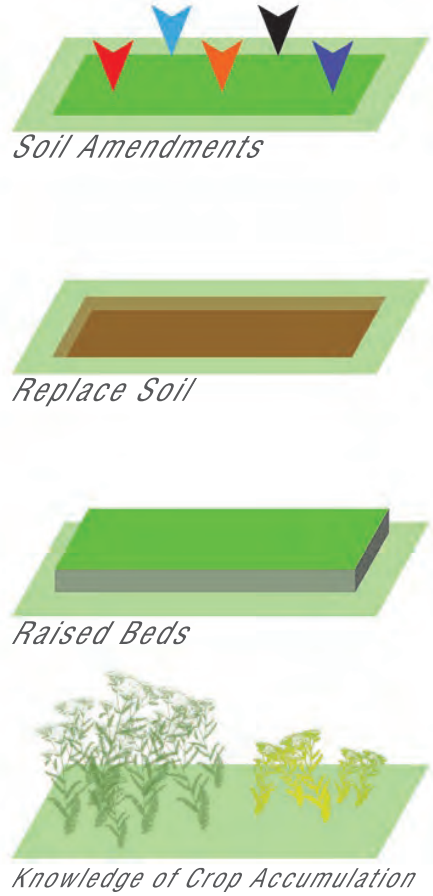


Figure 3.4. Solutions for Contaminated Soils

Figure 03. Proposed Areas for Improving Community Health

Inquiry: How can healthful additions to the site be implemented to reduce risk and preserve the economy of the site?
Key Extractions: Community Gardens, Soil quality, revitalization, mixed zoning
Methodology: Brownfield sites and vacant lots were identified as potential areas for redevelopment into garden space. Areas under existing powerline locations were also considered due to heavy restrictions against developing it these areas. Information from Maggie Egbarts revealed four typical remedation methods: adding soil amendments to counter present contamination, replacing the contaminated soil with clean soil, capping current contamination and utilizing raised beds outside of the contaminated soil, and research certain crop plants that can extract contaminants out of the soil. In the event of the site being redesigned, the possibly of the pharmacy is a major concern.
Conclusions: There are some solutions to contaminated soils so that a garden can be implemented. Parking lots that are normally empty are also potential sites for large scale gardens. The areas below powerlines are also potential garden areas because most practical land uses cannot be set below powerlines. The pharmacy is in a prime location on the intersection but takes up more space than might be needed. Proposing a mixed use

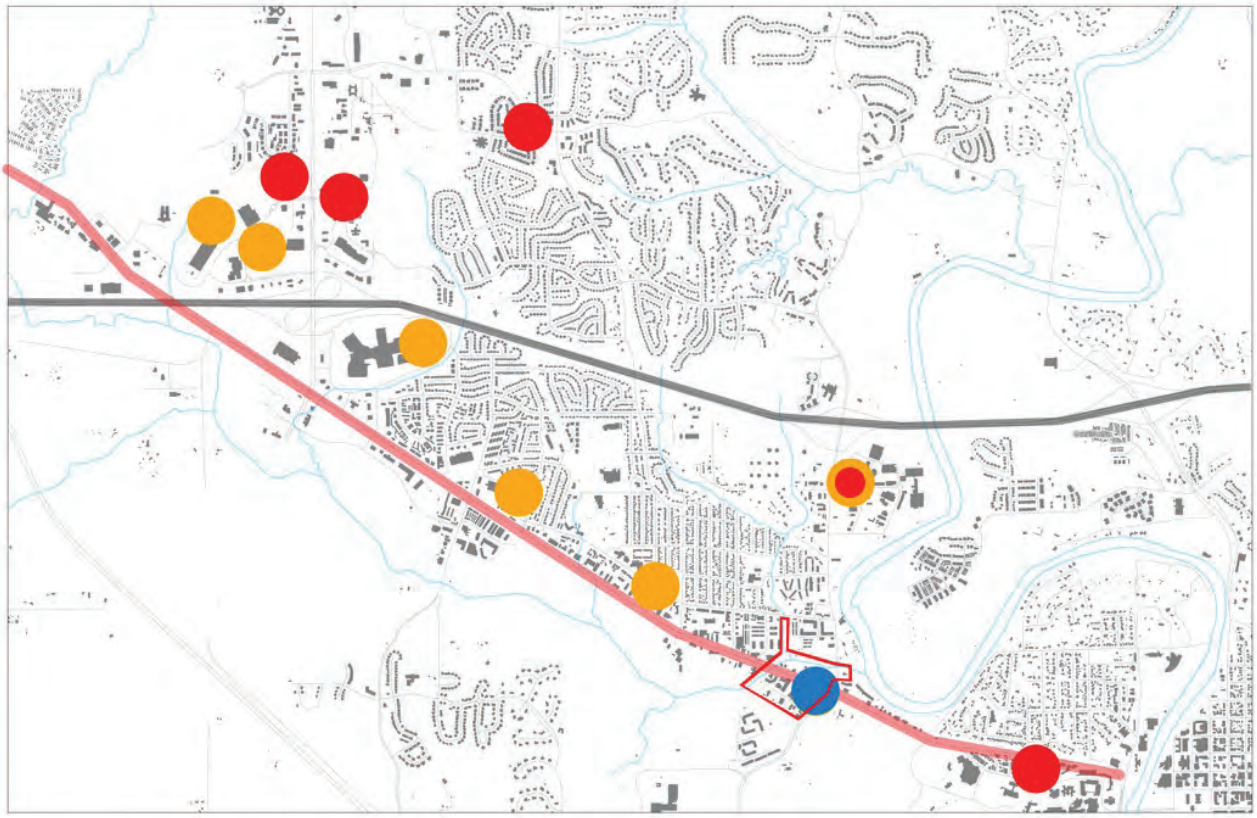
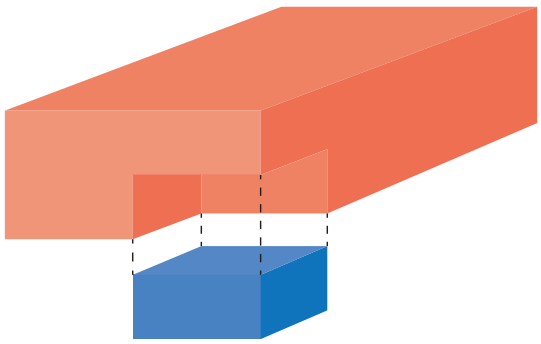


Figure 3.5 Proximity to pharmacies in Coralville (Source: ArcGIS)

Figure 3.6. Example of a pharmacy located in a mixed use building. This allows current business to continue providing the same services in the same area but with higher functionality and efficient use of space.

Figure 3.7. Diagram of mixed use development. One commercial function is surrounded by a different functional development to utilize space efficiently.



The SE Commercial District is in Close Proximity to Three Major Community Attractions

The District is within biking and walking distances to Coral Ridge Mall, the Iowa River Landing, and the Univerisity of Iowa.

W2_JB01_3K_SECommercialDistrictPoximity.PDF

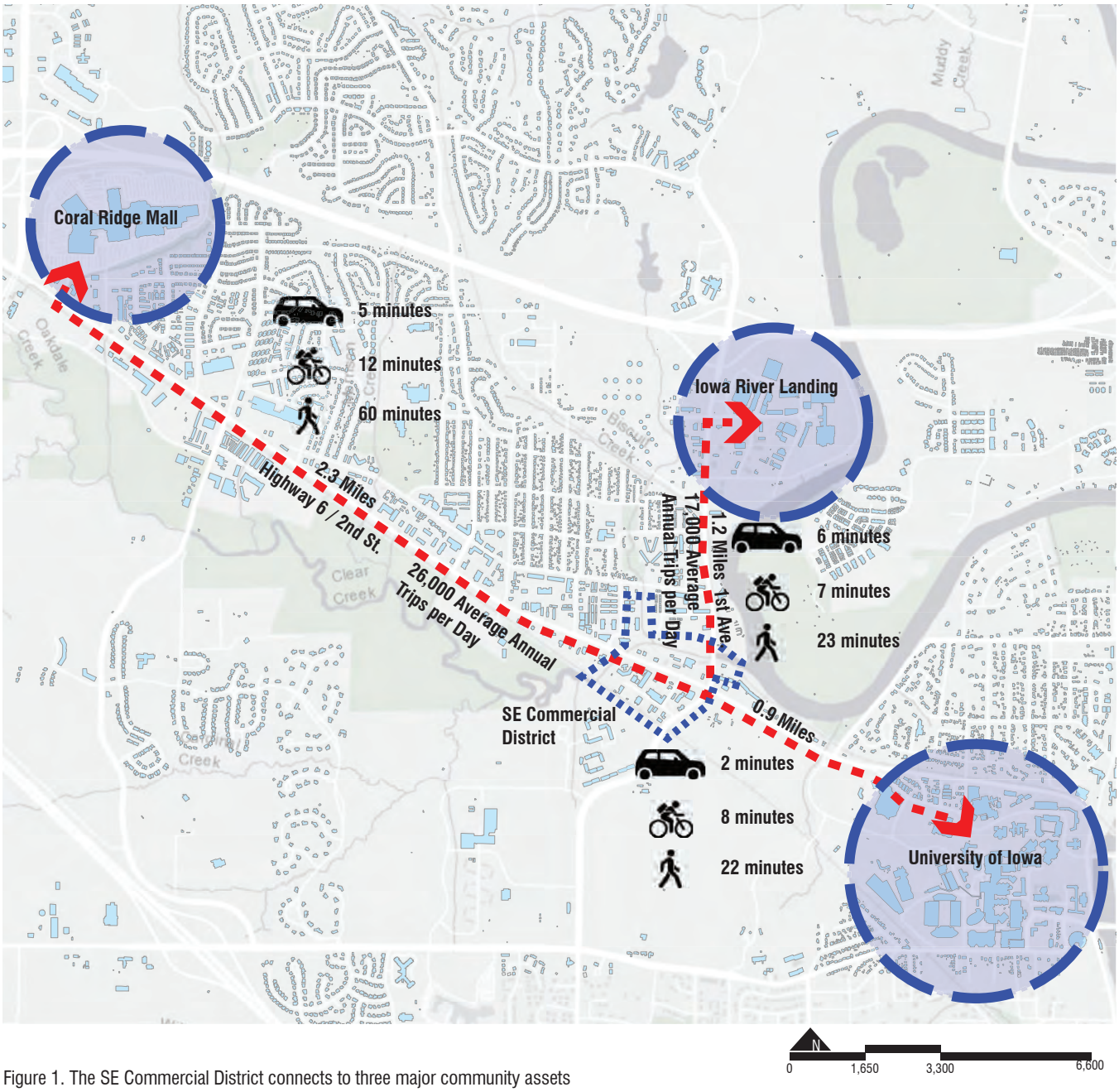


Figure 1. The SE Commercial District connects to three major community assets
Source: Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community

Inquiry: How accessible are the major community destinations in relation to the SE Commercial District?
Key Extractions: The distances and travel times between the SE Commercial District, the Coral Ridge Mall, the Iowa River Landing, and the University of Iowa.
Methodology: Research and a community meeting identified the Coral Ridge Mall, the Iowa River Landing, and the University as three major attractions within Coralville. ArcGIS and Illustrator were used to generate this map. Distances and travel times were generated with Google Maps.
Conclusions: The SE Commercial District is located at a major intersection within Coralville, 2nd St. and 1st. Ave., which connect the three major community attractions. These three locations in Coralville and Iowa City are significant economic drivers and bring in many community members everyday. Within the SE Commercial District boundaries 2nd St. carries over 26,000 vehicles and 1st Ave. carries over 17,000 daily on average (Iowa DOT). This creates opportunities within the SE Commercial District by allowing for easy access to those community within Coralville as well as Iowa City.

Figure 2. Coral Ridge Mall (https://en.wikipedia.org/wiki/File:Coral_Ridge_Mall.jpg)

Coral Ridge Mall

Coral Ridge Mall is the most popular shopping and retail destination in the Coralville area. The mall features more than 100 stores and shops as well as a movie theater and an ice rink. In addition the mall has many dining options (https://www.coralridgemall.com/en.html)

Figure 3. Iowa River Landing (Google Maps)

Iowa River Landing

Iowa River Landing is a mixed-use development 180-acres in size that houses many retail, office, residential, and entertainment space. The IRL is an upscale area with options for dining and shopping. A University of Iowa Health Care clinic is now located in the area as well (https://iowariverlanding.com/about/).

Figure 4. University of Iowa (Barragree 2018)

University of Iowa

The University of Iowa is a Big Ten school with over 33,000 students attending each year. The university is home to a nationally acclaimed medical center which has been ranked as one of America's Best Hospitals (U.S. News and World Report) for 28 consecutive years. Kinnick Stadium, where the UI Hawkeyes football team plays, can hold more than 70,000 fans and is often sold out for games bringing many visitors into the city on game day (https://uiowa.edu/about).

The SE Commercial District Can Become a Unique Destination

The SE Commercial District can link Coralville and Iowa City while establishing a unique sense of place.

W2_JB02_4K_identity.PDF

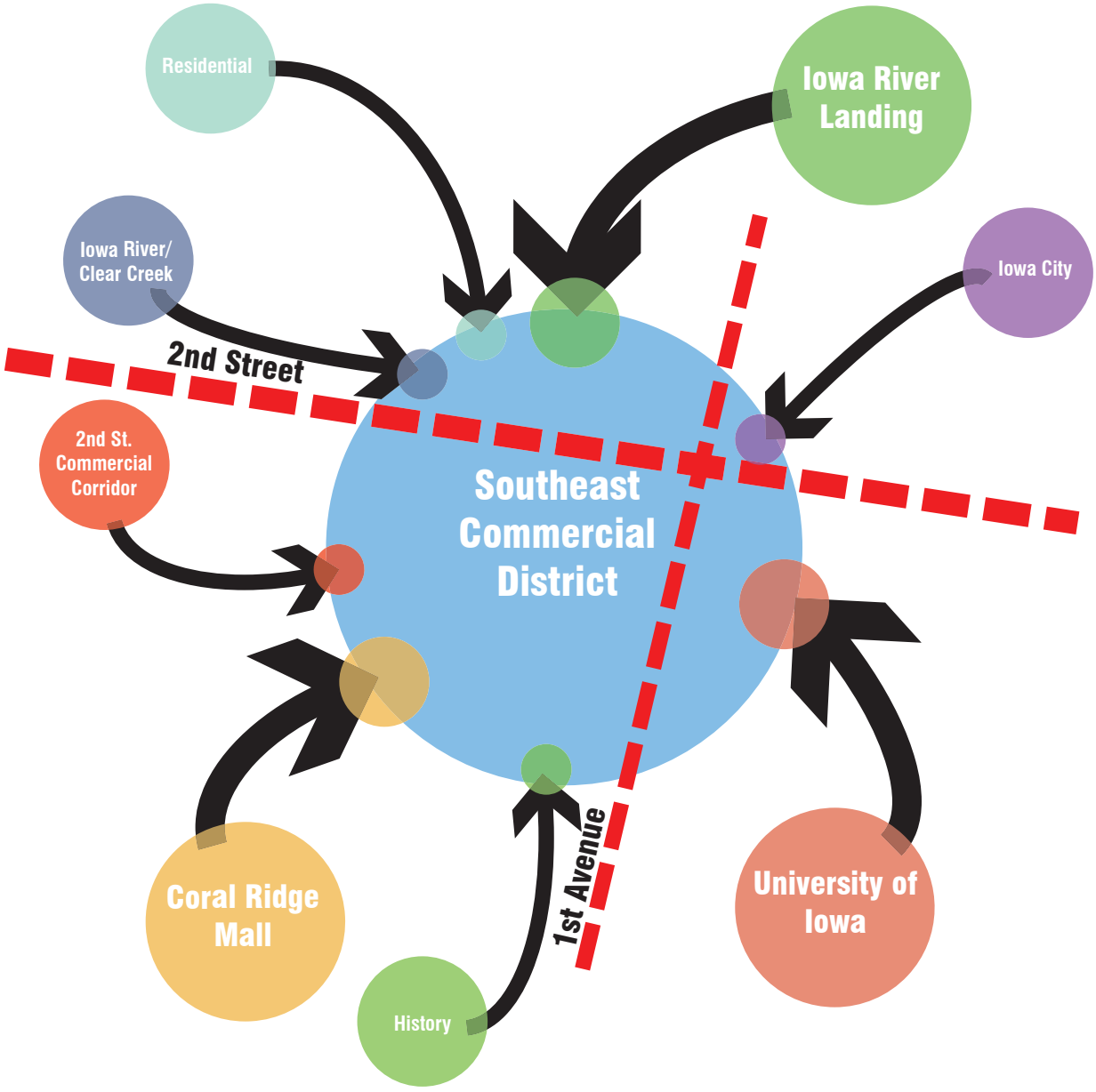


Figure 1. The SE Commercial District will bring influences from a variety of surrounding forces.

Inquiry: How can the SE Commercial District be activated by the surrounding influences of Coralville and Iowa City?
Key Extractions: A variety of city components surround the SE Commercial District and will influence how it will function.
Methodology: Access between the SE Commercial District and the surrounding city components create connections that will influence the site.
Conclusions: Due to the SE Commercial District's location many factors will influence the flow of people to and from the site. 1st Ave. and 2nd St. will carry thousands of people through the site each day coming from or going to Iowa City and the university, the Coral Ridge Mall, the Iowa River Landing, residential areas, and the commercial corridor along 2nd St. This creates an opportunity within the SE Commercial District to establish a unique sense of place as it will receive strong influences from a variety of sources. A unique character could be developed within the site by establishing gateways along 1st Ave. and 2nd St. as well as maintaining a consistent architectural character. Activating the street fronts will increase the productivity of the area.

Opportunities for Improved Connections

The SE Commercial District has many opportunities to improve connections to the surrounding community. Connections to and from the district and to residential areas to the north, the Coral Ridge Mall, the commercial corridor along 2nd St., the Iowa River Landing, and Iowa City and the university will strengthen the usability and accessibility of the site. Although vehicular access to the district exists currently, the connections within the site require improvements. Additional pedestrian and bicycle routes would strengthen accessibility within the site as well as the connections from beyond site boundaries. Designing pedestrian and bicycle routes with shade trees and areas for rest and relaxation will help to increase human comfort as users move to and from the site. Adding public transit that connects the SE Commercial District to the Iowa River Landing, Iowa City, the Coral Ridge Mall, and to residential areas will also benefit the usability and access to the site.

Figure 2. Existing conditions of the walking and bike trail along Clear Creek (Mader 2018)

Figure 3. Existing conditions along 1st. Ave.(Stoffel 2018)

Opportunities to Create a Unique Destination

The location of the SE Commercial District gives many opportunities to develop a site that is unique in character and serves the community as a needed and useful commercial area. Being the immediate link between Coralville and Iowa City promotes the idea that the site can create an entry experience for vehicle traffic as well as pedestrians and cyclists. The district has an opportunity to welcome individuals not only to the site but to the whole city of Coralville. In addition to the district's location in relation to Iowa City, the site is located very close to the Iowa River and contains portions of Biscuit Creek and Clear Creek. Having close connections to water creates opportunities to allow water to shape the functions of the site while establishing a beautiful aesthetic. Finally, the SE Commercial District is a historical site that began the city of Coralville. The history of the site allows connections to be made to the past that could influence the character of the site today.

Figure 4. Existing conditions of Clear Creek and Biscuit Creek (Gray 2018)

The SE Commercial District can Improve Connectivity Between Coralville and Iowa City

The SE Commercial District is located at the juncture between Coralville and Iowa City and can serve as a link between them.

W2_JB03_3K_strategy.PDF

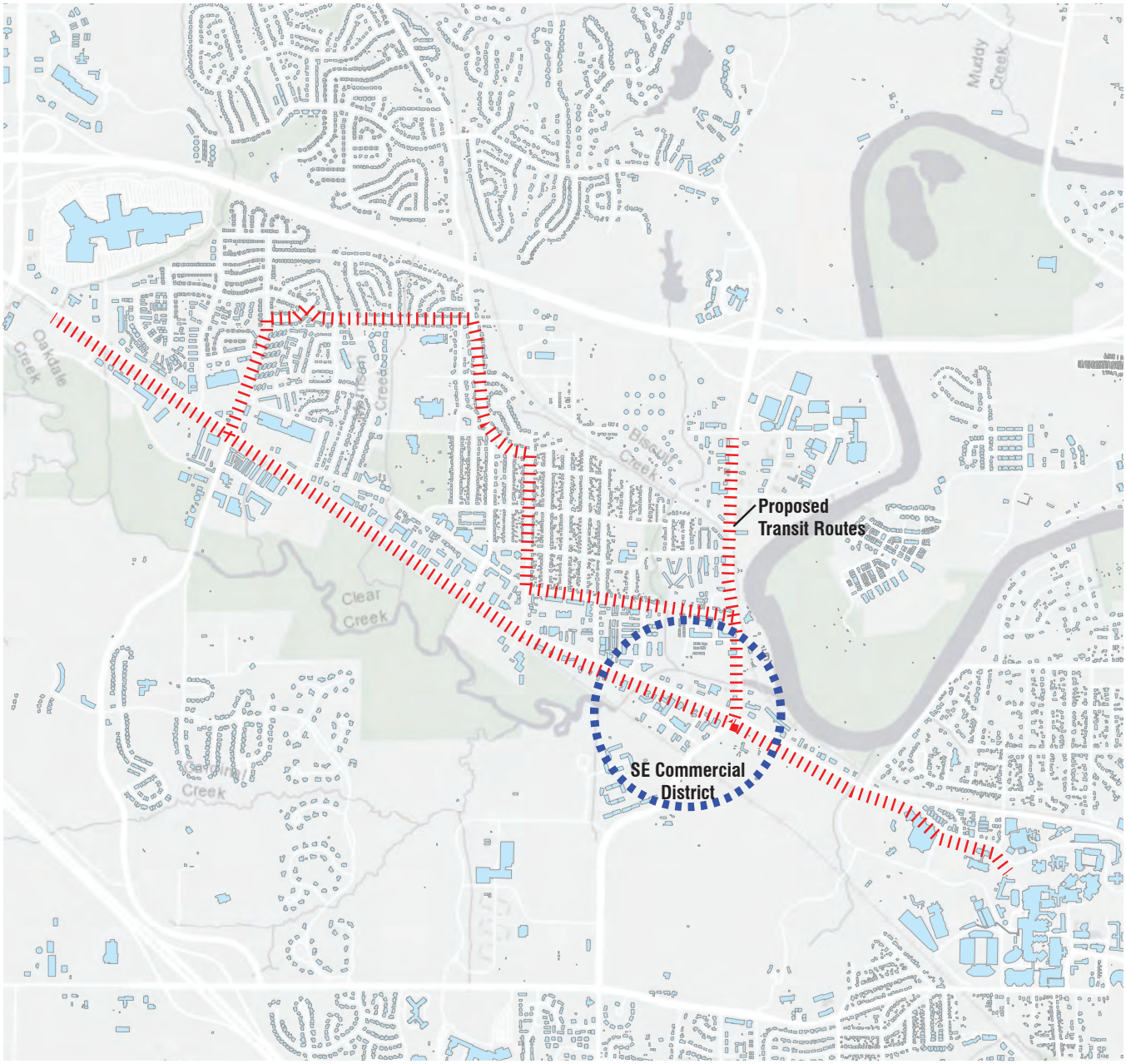


Figure 1. Proposed public transit routes.
Source: Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community

Inquiry: How can the location of the SE Commercial District help connect the communities of Coralville and Iowa City?
Key Extractions: Potential transit routes, land uses, transit stops, gateways, and roadway improvements.
Methodology: Analysis of opportunities map and the possible connections that the site could strengthen were organized graphically.
Conclusions: The SE Commercial District is located on the edge of Coralville directly adjacent to Iowa City and has many opportunities to connect the two cities. Improving transportation infrastructure will increase the usability not only for vehicular traffic but for pedestrian and bicycle flows as well. Having two major roadways, 2nd St. and 1st Ave., creates an opportunity to activate the street by placing mixed-use development with retail on the first floor along the streets. The presence of Biscuit and Clear Creeks creates an opportunity to increase access to the water and improve the quality of the waterway. Finally, establishing gateways at the major entrances on site will begin to create a sense of place and identity within the SE Commercial District.

N
Not to Scale

Legend

- Mixed-use Development
- Improved Waterways
- Potential Options for Transit Stops
- Gateways
- Improved Transportation Infrastructure

Important Places Found in the Coralville, IA Area

Iowa River Landing is an important place for local residents

W2_Cross01_WorkshopResults.PDF

Areas of Importance

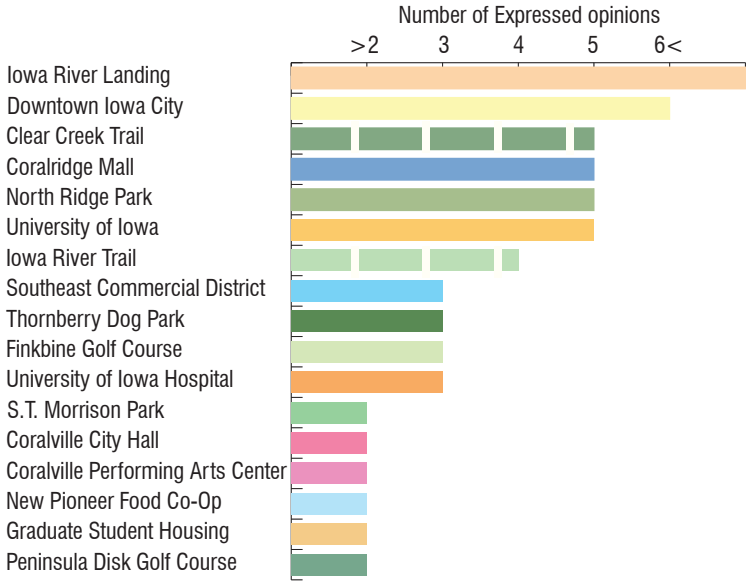


Figure 01. Areas of Importance
Source: Cross, 2018

Amount of people who found each place important

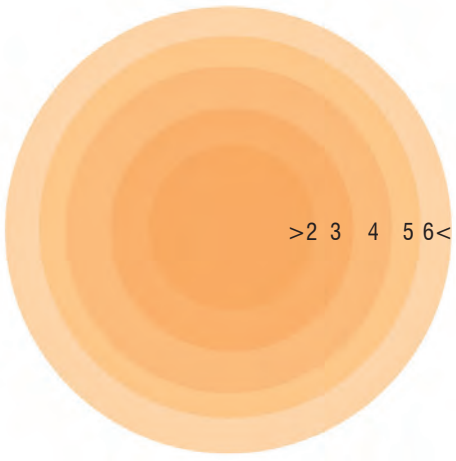
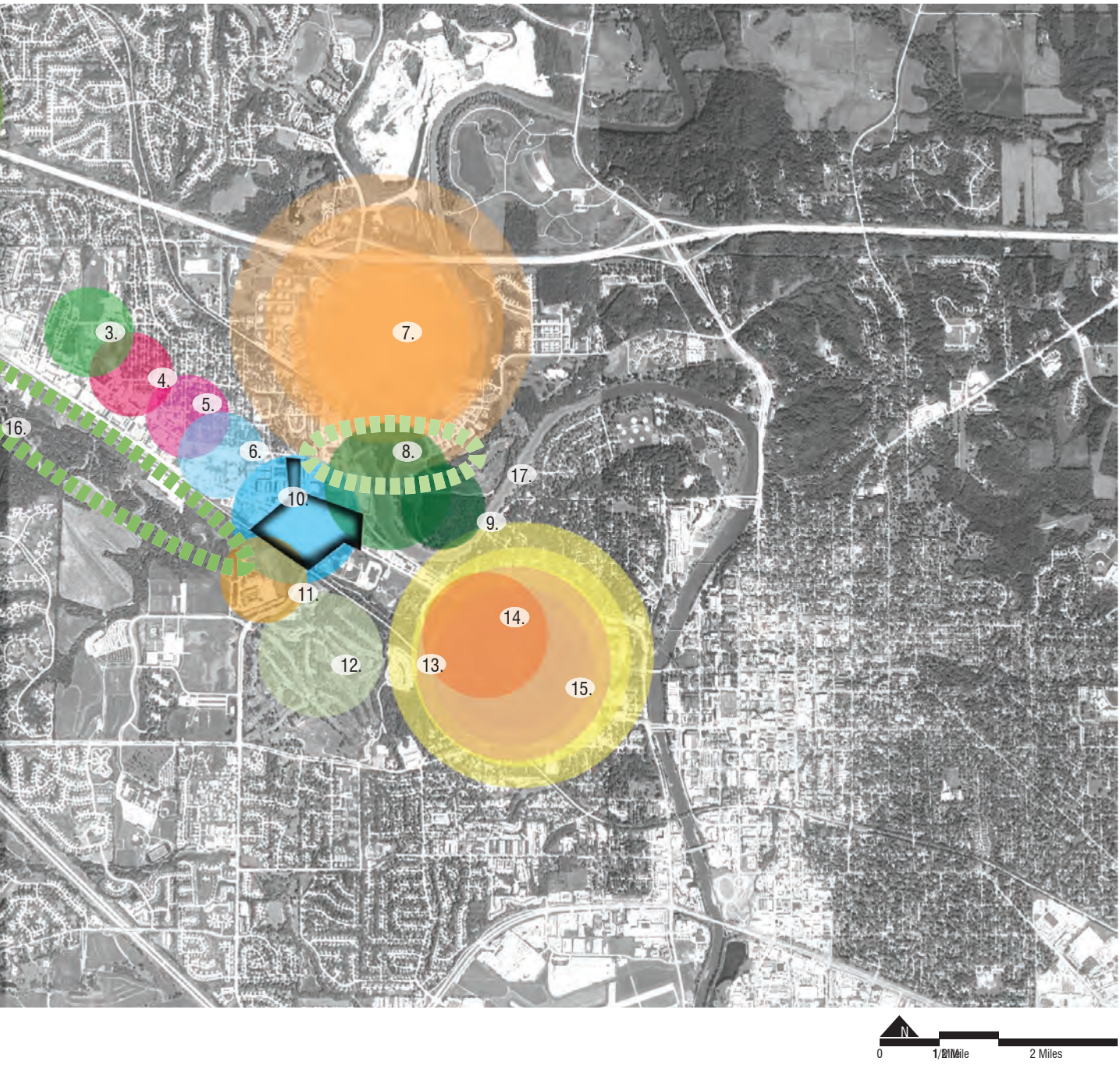


Figure 02. Important Places of Coralville, Iowa Area
Source: Google Earth, 2016

Inquiry: How does each place of importance relate to each other?
Key Extractions: Important Places, Points of interest, Coralville Iowa, City Hall Workshop, Survey
Methodology: Documentation of preferences expressed by May 24 workshop participants; Google Earth, Photoshop, Illustrator
Conclusions: The Southeast Commercial District is surrounded by many important places throughout the Coralville, Iowa area. 2nd Street and 1st Avenue are main roads that go through Coralville and can create a connection source between the site and its context. The research concluded that main areas of importance are mixed-use areas, such as Iowa River Landing and Downtown Iowa City. Also, recreational spaces proved to be important, such as Thornberry Dog Park, Clear Creek Trail System, and North Ridge Park.



Legend

1. North Ridge Park
2. Coral Ridge Mall
3. S.T. Morrison Park
4. Coralville City Hall
5. Coralville Performing Arts Center
6. New Pioneer Food Co-Op
7. Iowa River Landing
8. Thornberry Off-leash Dog Park
9. Peninsula Disk Golf Course
10. Southeast Commercial District
11. Graduate Student Housing
12. Finkbine Golf Course
13. Downtown Iowa City
14. University of Iowa Hospitals and Clinics
15. University of Iowa
16. Clear Creek Trails
17. Iowa River Trails

The Southeast Commercial District is Centrally Located to Other Areas of Importance

Highway 6/2nd Street and 1st Avenue are important connection routes

W2_Cross02_WorkshopResults.PDF

Figure 01. Iowa River Landing
Source: Iowa River Landing News, 2014

Figure 02. Coral Ridge Mall
Source: Shops and Goods, 2017

Figure 03. Downtown Iowa City
Source: On The Move With Skogman Realty, 2017

Figure 04. Creating a Central Connection
Source: Google Earth, 2016

Inquiry: How can identified areas of importance within Coralville be better connected?
Key Extractions: City Hall Workshop, Survey, Coralville, Connections, Iowa River Landing, Downtown Iowa City, Coralridge Mall
Methodology: Extracted from community meeting at City Hall in Coralville, Iowa; Google Earth, Photoshop, Illustrator
Conclusions: Coralville, Iowa has many amenities that can be connected through 2nd Street and 1st Avenue. Further design and evaluation of these arterial travelways are recommended to enhance the pedestrian experience.

Legend

- 1. Coralridge Mall
- 2. Iowa River Landing
- 3. Southeast Commercial District
- 4. Iowa City
- 5. Showing Connections to Site
- 6. Highlighting Street Location

Re-Envisioning Connections Along 2nd Street and 1st Avenue

The use of pedestrian friendly strategies will enhance the streetscape

W2_Cross03_WorkshopResults.PDF

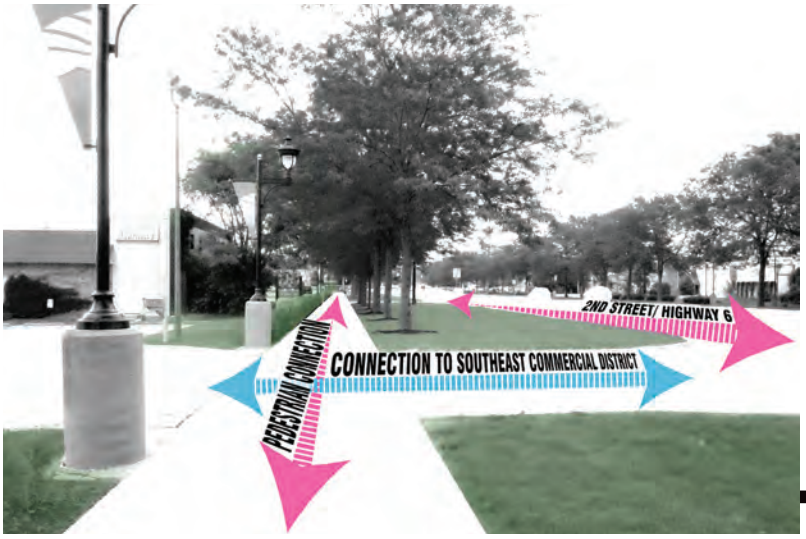
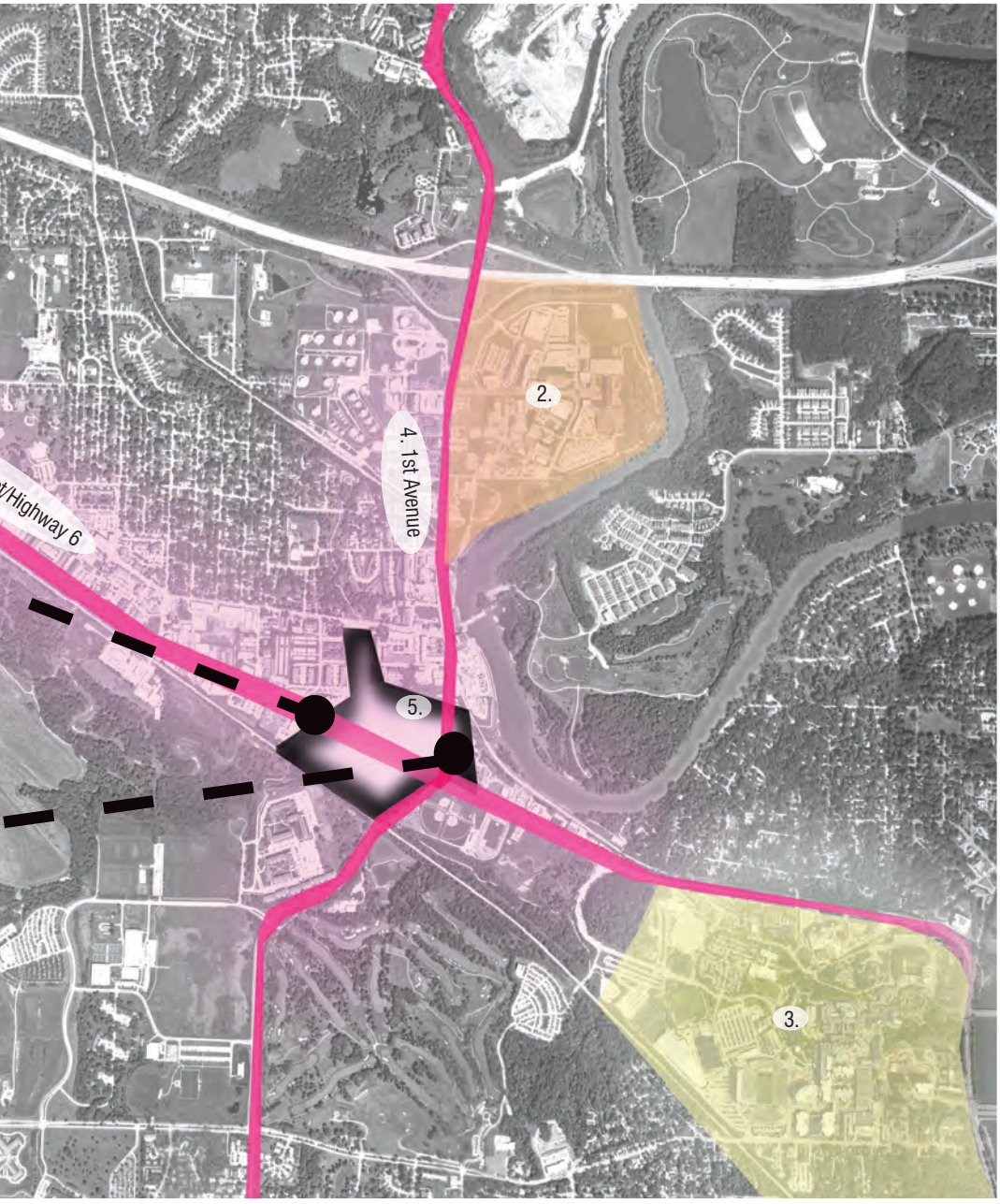


Figure 01. Re-Envisioning multiple connections, while looking north west towards Coral Ridge Mall.
Source: Photo taken by Morgan Dunay

Figure 02. Re-Envisioning pedestrian connection, north on 1st avenue, towards Iowa River Landing.
Source: Photo taken by Grace Mader

Figure 03. Updating Streets of Coralville, Iowa Area
Source: Google Earth, 2016

Inquiry: How can 1st Avenue and 2nd Street/Highway 6 be the connecting factor of places found in the Coralville area?
Key Extractions: City Hall Workshop, Survey, Reenvisioning Connections, 1st Avenue, 2nd Street/Highway 6
Methodology: Extracted from community meeting at City Hall in Coralville, Iowa; Google Earth, Photoshop, Illustrator
Conclusions: While it is important to maintain traffic efficiency of 2nd Street/Highway 6 and 1st Avenue, strategies to improve the pedestrian experience should be pursued.



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0 1/2 K 1 K 2 k

Legend
- 1. Coralridge Mall
- 2. Iowa River Landing
- 3. Iowa City
- 4. 2nd Street and 1st Avenue
- 5. Southeast Commercial District

Strategies to Further Connect 1st Avenue and 2nd Street:

- Well Lit Sidewalks
- Green Infrastructure
- Complete Hiking Trails
- Bicycle Corridor
- Connection to Commercial Infill
- Connection to Residential Areas

Map 7.4a

Many Community Services are Located Within 2 Miles of the Study Area

Community services are primarily located in Iowa City

W1_kl01_CommunitySpaces.pdf

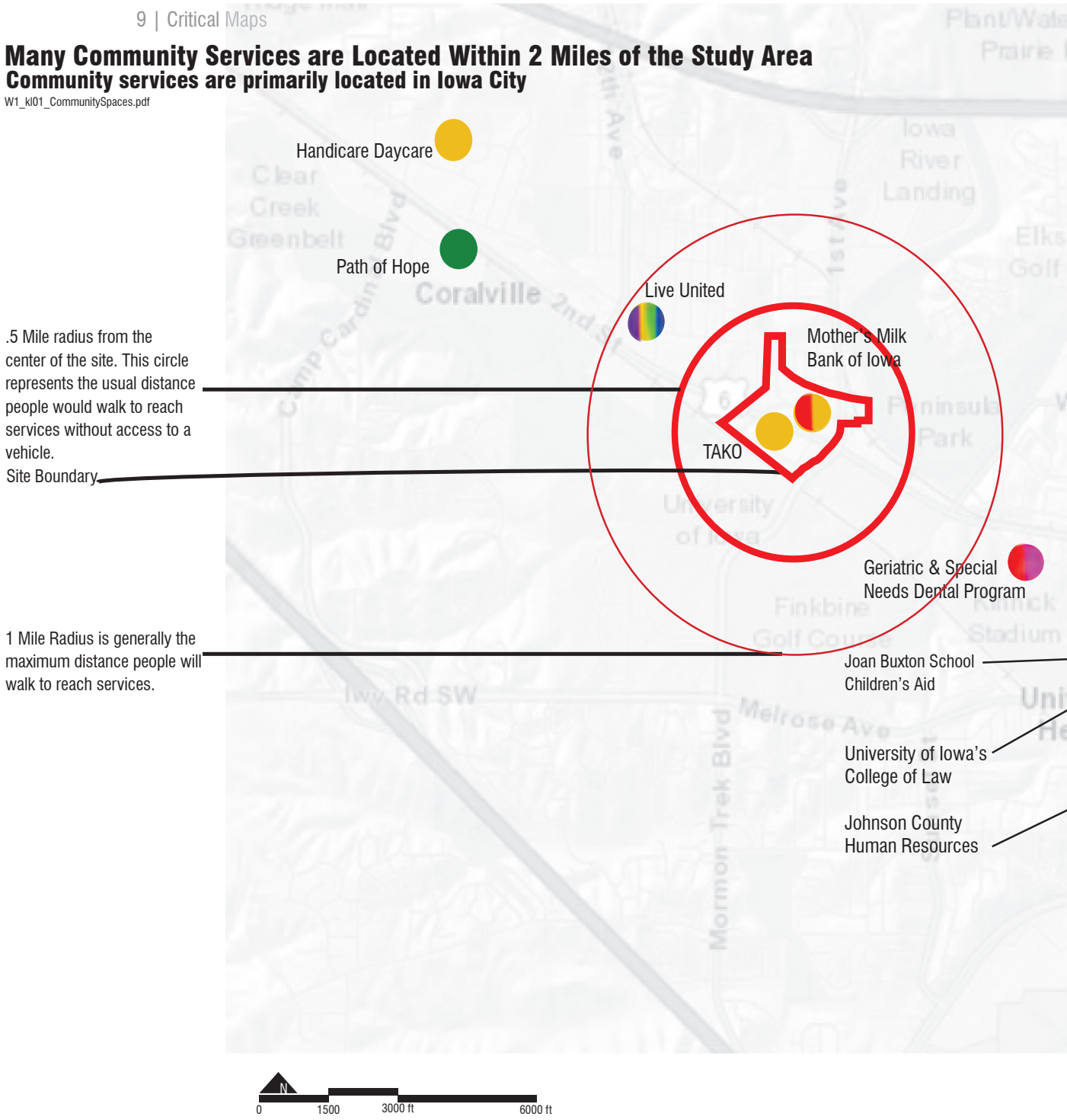
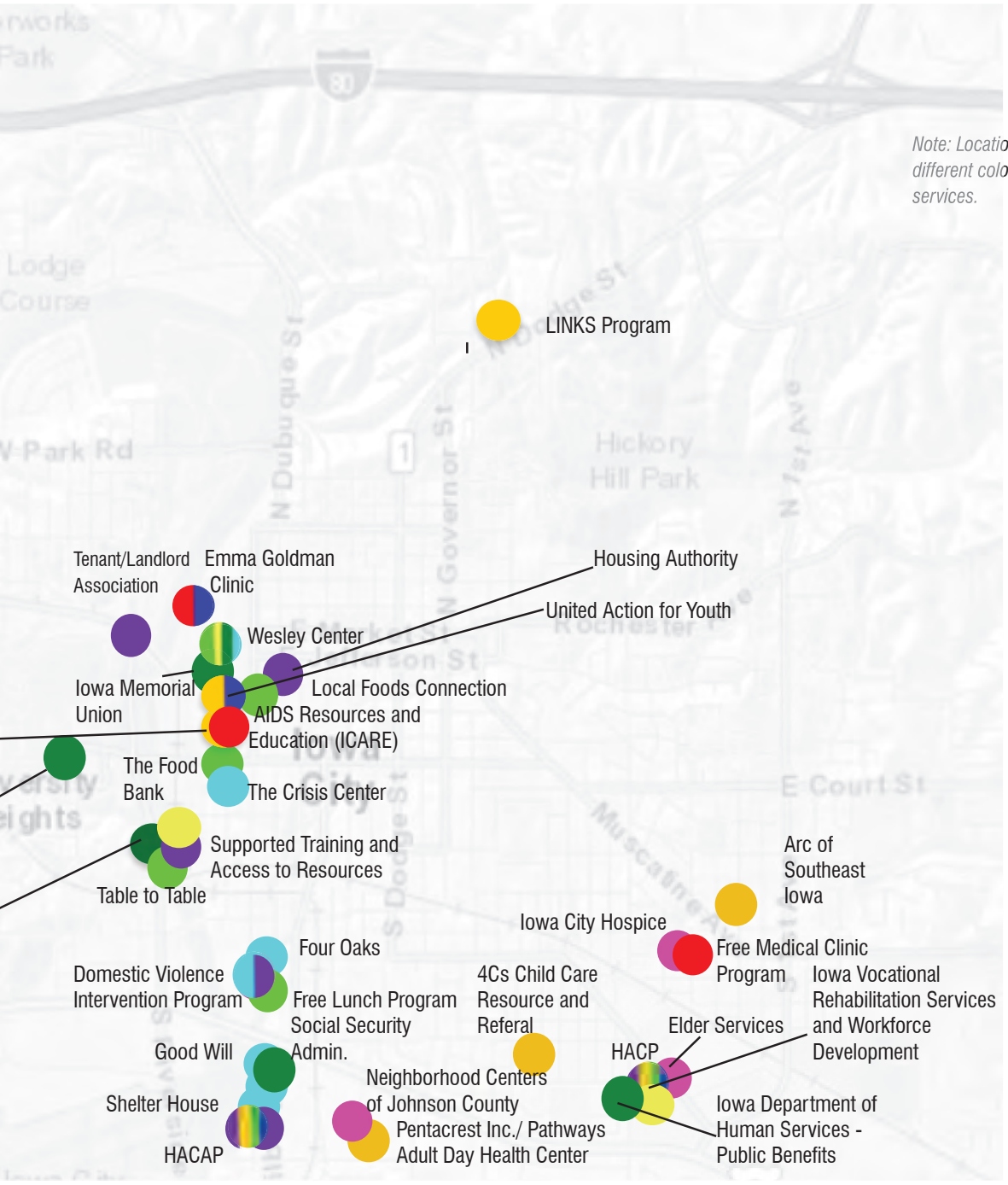


Figure 01. Relationship Between Southeast Commercial District and Community Services
Source: (University of Iowa Department of Family Medicine, 2018), Google Maps, ArchGIS

Inquiry: Are there enough community service located within walking distance of the Southeast Community District?
Key Extractions: Community Services located in Coralville and Iowa City and the bus route towards Iowa City.
Methodology: Research was conducted to locate information on the Community Services located in Coralville and Iowa City. A map was created to show the relation between the services and the Southeast Commercial District to determine walkability and accessibility from the site.
Conclusions: It was concluded that while there are some community services located around the Southeast District, most are located in the western part of Iowa City. The services fall out of range for average walking distance, therefore providing opportunities to introduce more services that will suit the needs of people living in area.

Classification

Note: Locations listed with different colors provide multiple services.



Legend Showing Different Types of Community Services

- **Childcare and Family Support Services-** *These services primarily provide childcare and educational opportunities for low income families and children.*
- **Pre-natal/Antenatal Services-** *Services that give females access to birth control, abortions, pre-natal care, and information.*
- **Food Services-** *Provide food to people in need around the city of Coralville and Iowa City*
- **Housing Services** *Housing Services provide emergency services to people in need. This includes homeless, people effected by abuse and domestic crimes, and provides information to people searching for low income housing or are in the process of transition.*
- **Mental Health/Substance Abuse-** *Provides support and services to people effected by traumatic events or mental illnesses. There are also services that provide counseling and rehabilitation for people subject to substance abuse.*
- **Elder Services-** *Provides assistance, care, and health services to elderly people.*
- **General Medical Services-** *Provides general healthcare and dental services for people with low-income.*
- **Employment Services-** *Employment services gives people who are struggling the opportunity to have a job and build experience so they can transition into better paying jobs.*
- **Legal Services, General Assistance, and Immigration Assistance-** *Provides legal help, financial benefits and assistance to low income people in the community. There are also services to help immigrants with their transition into their new living situations.*

ACCESSIBILITY to Community Services from the Southeast Commercial District

There is an opportunity to bring non-profit community services to the site

w2_KL02_NSCommunityServiceAccessibility.pdf

Figure 1. United Way of Johnson and Washington County (Google Streetview, 2018)

Figure 2. Earthview Environmental: TAKO (Grace Mader, 2018)

Figure 3. Mother's Milk Bank of Iowa (Drulis, 2011)

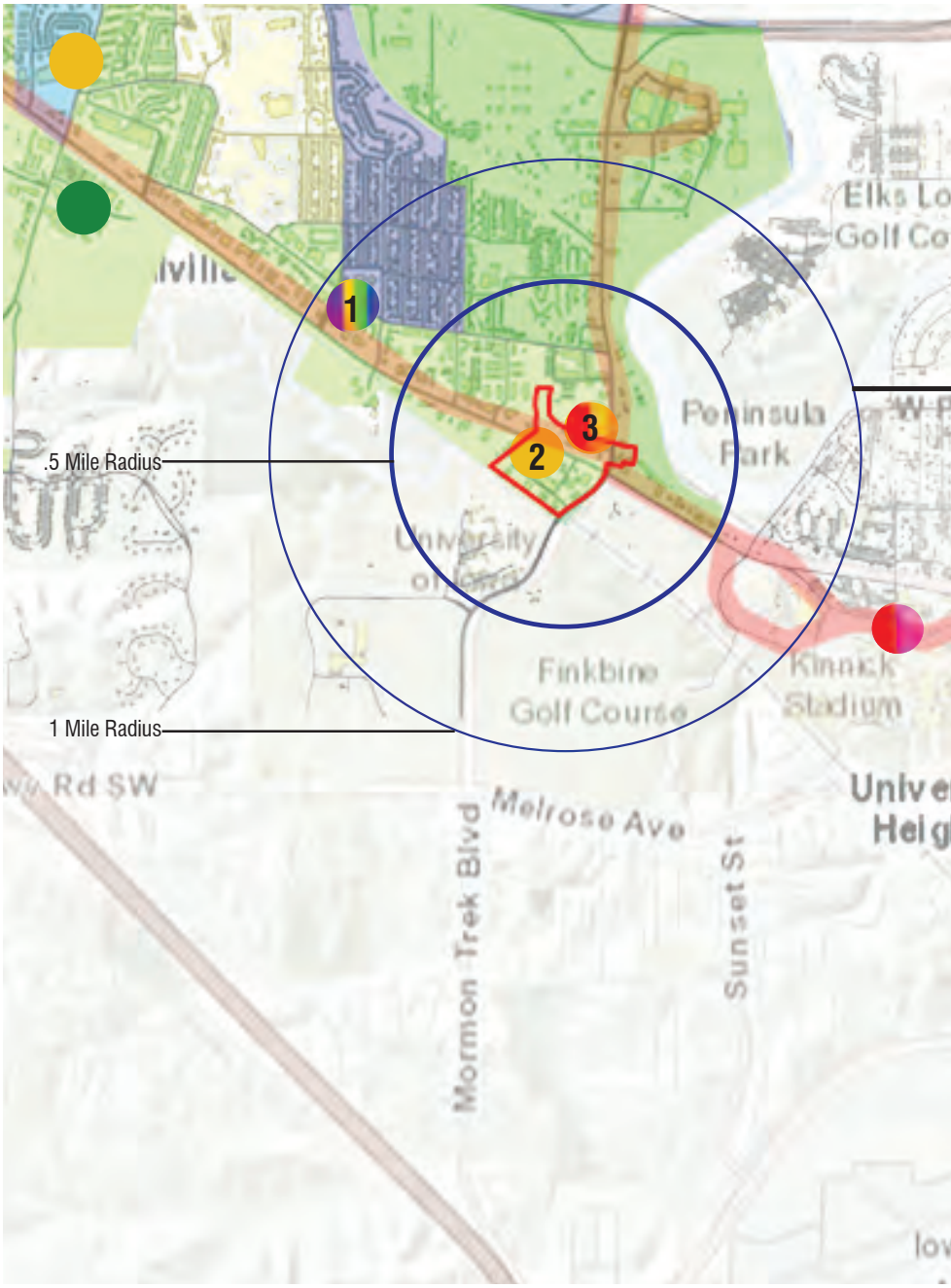
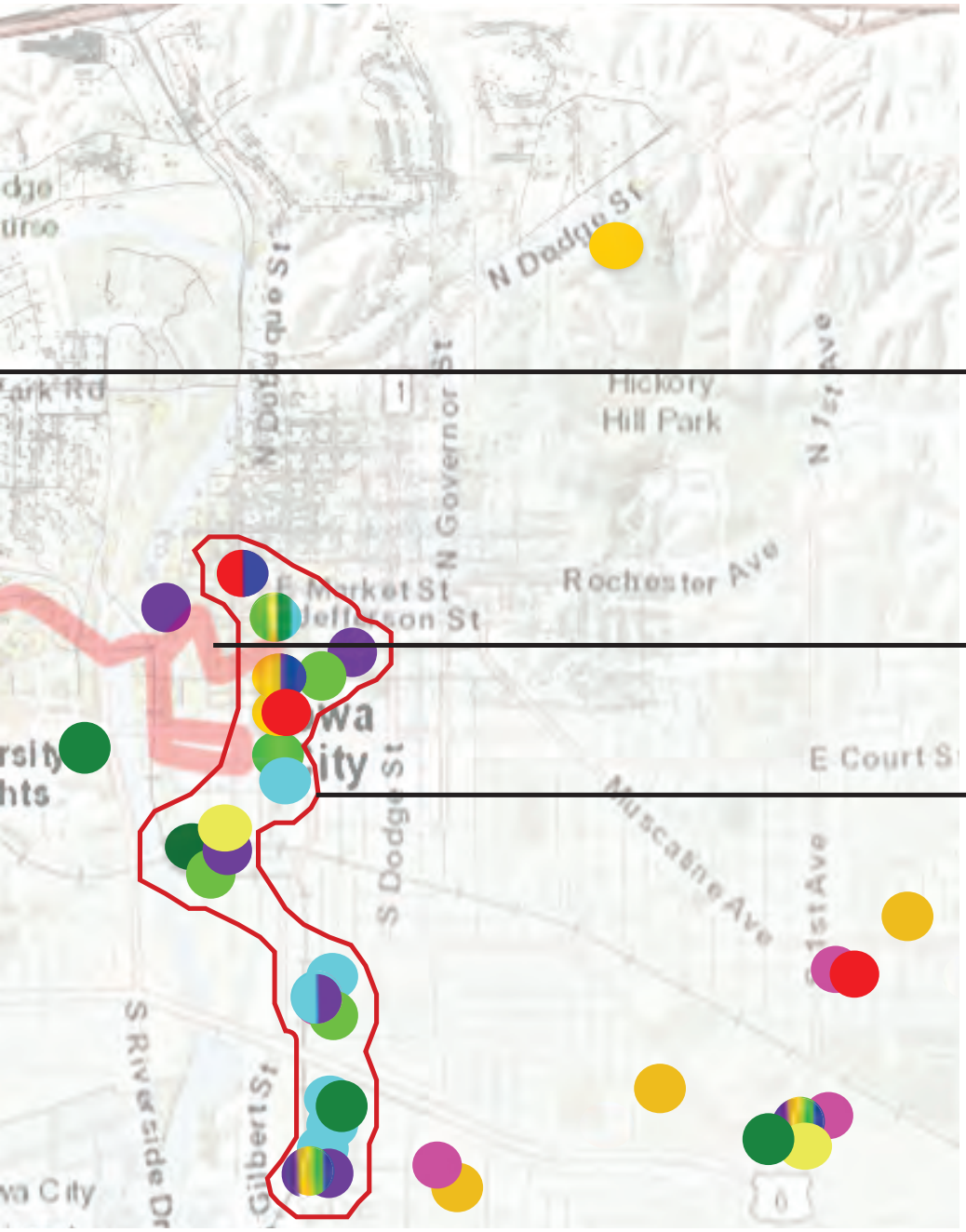


Figure 04. Accessibility to community Services from the Southeast Commercial District
Source: Rent Per Census Block map created by Allyssa Gray, University of Iowa Department of Family Medicine, (2018), City of Coralville, (2018)

Inquiry: Where are the community services primarily located and how do they relate to rent prices and the Southeast Commercial District?
Key Extractions: Community Services located in Coralville and Iowa City, bus route to Iowa City, and the average price of rent
Methodology: After analyzing the information retrieved for community services present in the area and realizing there are few services located within walking distance of the site, an average rent price map was overlaid to determine if it would be feasible to bring community services to the site for people who may live in the affordable housing.
Conclusions: Few of the community services are within walking distance of the Southeast Commercial District and a majority of the services are located in Iowa City. Housing found within the study area can be categorized as affordable housing. This was determined by information presented by the Census Data. There is an opportunity to bring some of these non-profit services to the site for the people living there who may need extra assistance.



This line indicates the site boundary and there are only three community services located within walking distance of the site. The census data concludes that affordable housing is present at this location, revealing that people living in this district may need access to these services.

Bus Route that connects the City of Coralville to Iowa City

The community services are primarily located in Iowa City. They are not walkable from the site, but there is a bus route that connects the Southeast Commercial District to Iowa City.

N

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Legend Showing Different Types of Community Services

- Childcare and Family Support Services
- Pre-natal/Antenatal Services
- Food Services
- Housing Services
- Mental Health/Substance Abuse
- Elder Services
- General Medical Services
- Employment Services
- Legal Services, General Assistance, and Immigration Assistance

Legend: Averge Rent Per Census Block

- 482
- 483-650
- 651-857
- 858-930
- 931-1090
- 1091-1191
- 1192-1233
- 1234-1285
- 1286-1355
- 1356-1499
- Road Centerlines
- Building Footprint

More Community Services Could be Located Closer to Affordable Housing

Community services should be included in the SE Commercial District and development mix.

w2_KL02_NSCommunityServiceAccessibility.pdf

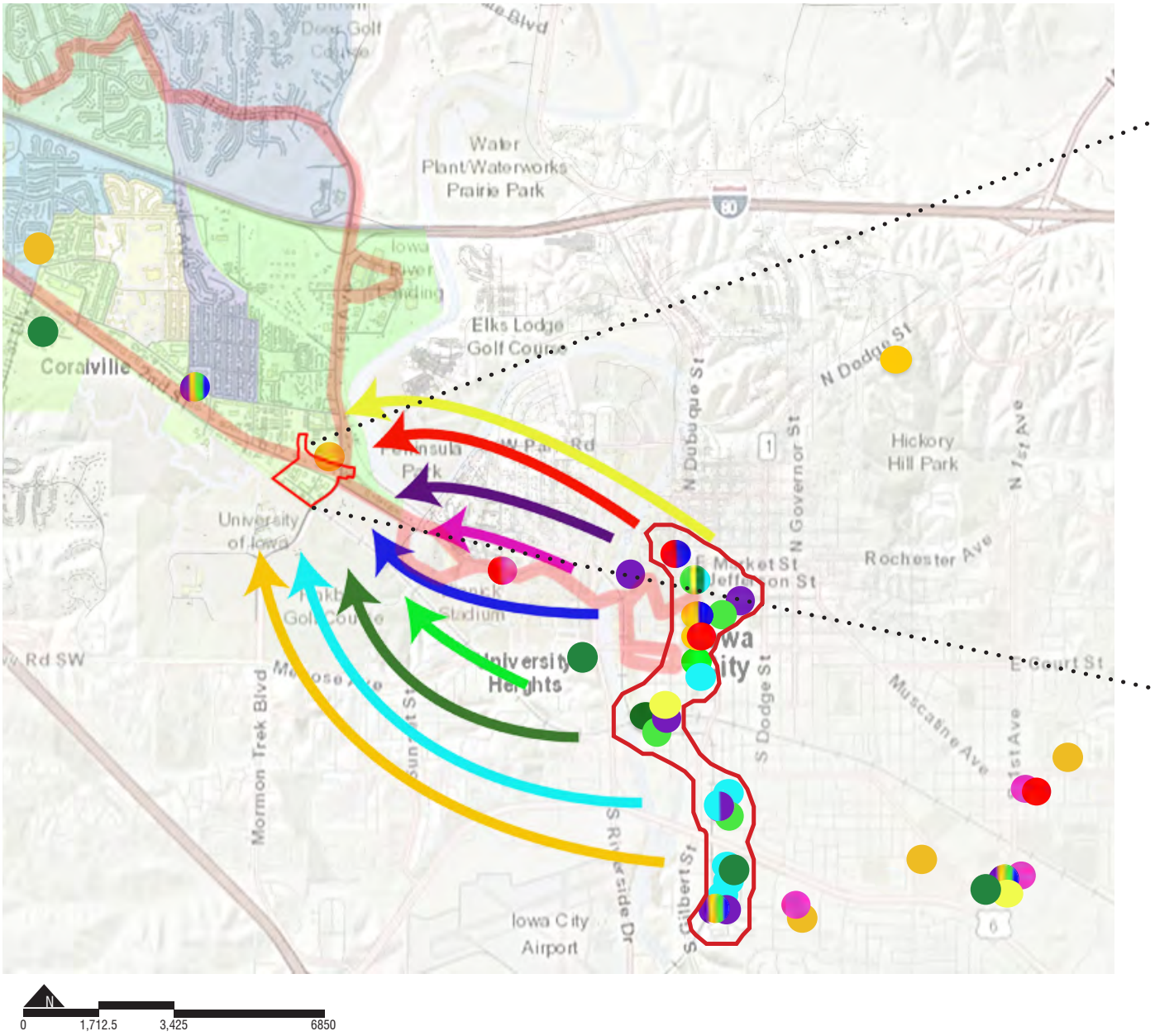
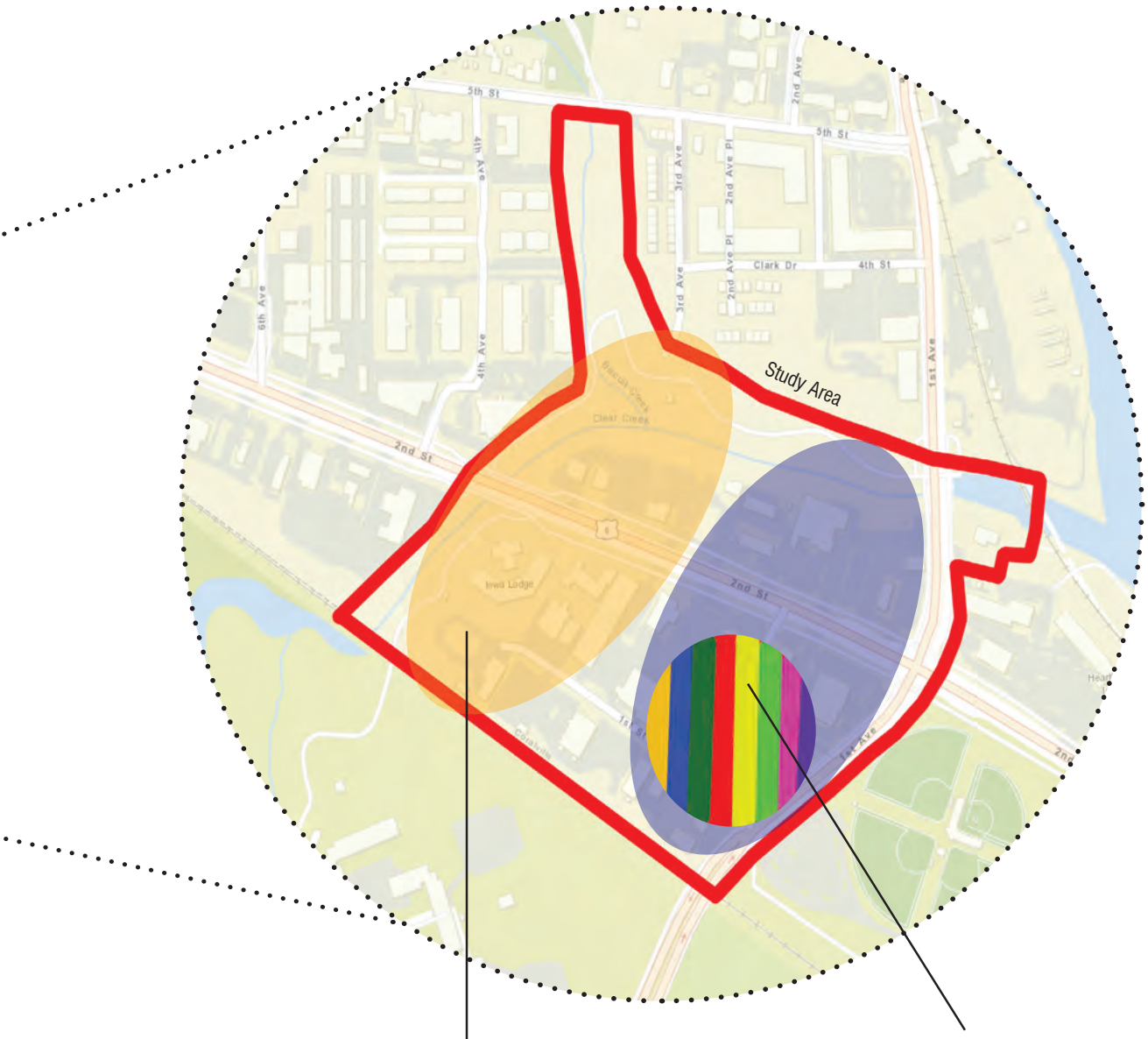


Figure 03. Bringing Community Services to the Southeast Commercial District
Sources: Rent Per Census Block map created by
Allyssa Gray, (University of Iowa Department of Family Medicine, 2018), (City of Coralville, Iowa, 2018)

Inquiry: Can we incorporate community services be incorporated into the Southeast Commercial District to assist people who may be living in affordable housing?
Key Extractions: Community Services located in Coralville and Iowa City, bus route to Iowa City, and the average price of rent
Methodology: Analyzing the community and service location maps revealed that community services need to be brought into Coralville instead of primarily Iowa City. A strategy map was formed to show the overall concept.
Conclusions: Community services need to be introduced to the Southeast district to help support people who may need assistance living in affordable housing. The location would be a non profit organization that may provide help or provide information about programs that people may not know about.



New affordable housing could be introduced to the site to replace the deteriorating housing on site. The location would be along the west side of the site to better allow space between the busy, 1st Avenue, and to allow access to the creek and green space.

A business district could be located on the east side of the site closest to 1st Avenue to attract people traveling down 1st Avenue. The businesses would be affordable to people on the site to decrease traveling and create a live, work, play environment. The businesses would create job opportunities for people who may be living in the affordable housing. A nonprofit organization could be incorporated in this district to provide assistance to people who may need it and provide information for other programs located in Coralville and Iowa City.

Legend: Averge Rent Per Census Block

- 482
- 483-650
- 651-857
- 858-930
- 931-1090
- 1091-1191
- 1192-1233
- 1234-1285
- 1286-1355
- 1356-1499

Legend Showing Different Types of Community Services

- Childcare and Family Support Services
- Pre-natal/Antenatal Services
- Food Services
- Housing Services
- Mental Health/Substance Abuse
- Elder Services
- General Medical Services
- Employment Services
- Legal Services, General Assistance, and Immigration Assistance

Map 7.5a

Cultural Spaces and Events are Accessible from Southeast Commercial District

A majority of cultural spaces and events are within reasonable walking distance.

W2_Updike01_Culture.PDF

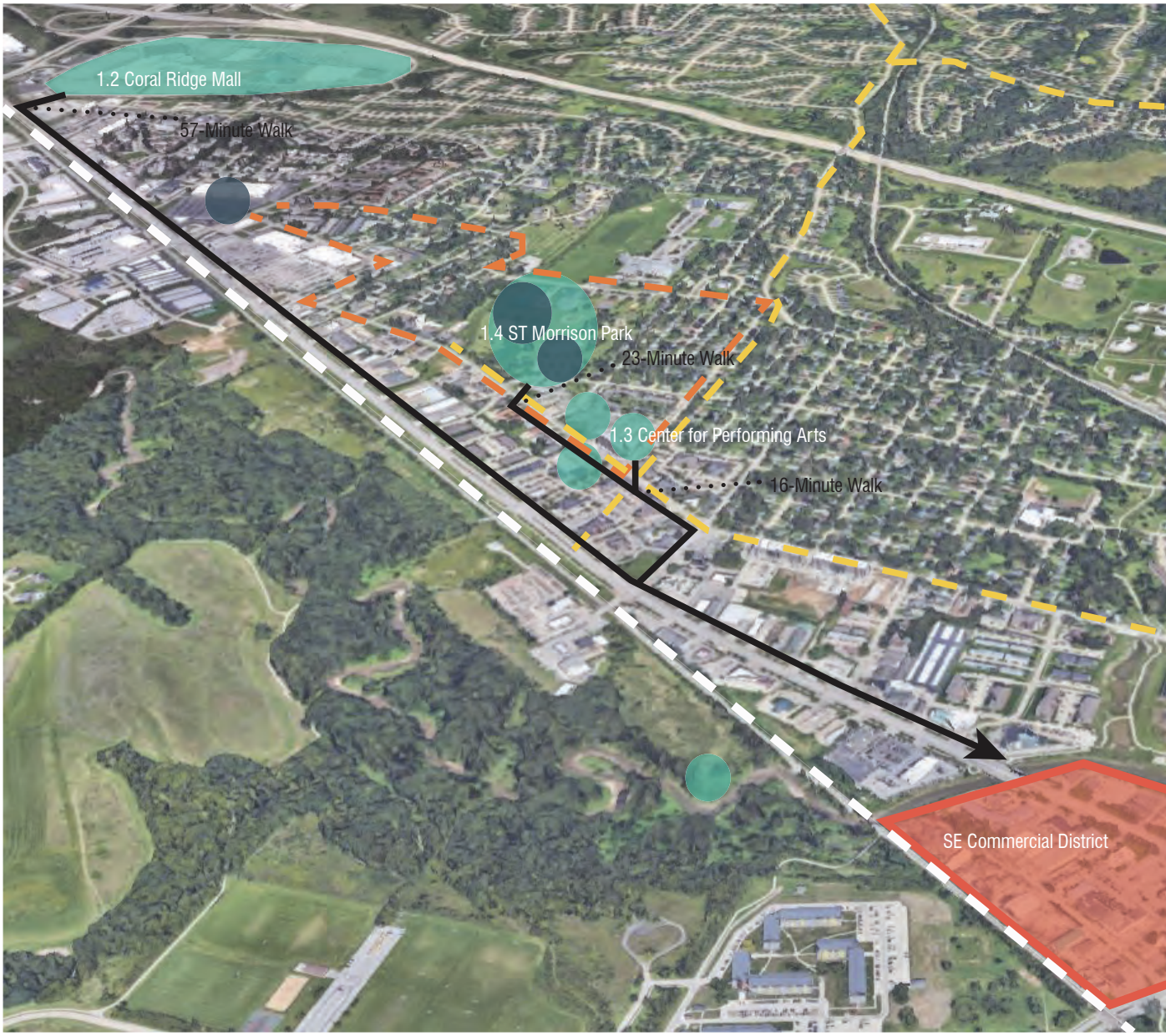


Figure 1. Cultural Accessibility
Source: Miles Updike, 2018

Inquiry: Where are major cultural events in Coralville held? Are these places within walking distance of the Southeast Commercial District?
Key Extractions: Major cultural spaces, cultural events/ routes, walking distances
Methodology: Spaces for cultural events were determined by research done on the Coralville city website. Observations of walking distances and times were obtained from Google Maps and the site photo was obtained via Google Earth.
Conclusions: The major culture space north of the site, the Iowa RIver Landing is within a 20-minute walk of the Southeast Commercial District. The collection of cultural spaces and events west of the site, including ST Morrison Park, the public library, and the Coralville Center for the Performing Arts, are also within a 20-minute walk. The Coral Ridge Mall, home to several events in Coralville, is not easily accessible for pedestrians traveling to and from the Southeast Commercial District. The walking time is around one hour (Google Maps).

(Map Not to Scale)

Legend

- Site Boundary
- Cultural Spaces
- Cultural Events
- 4th Fest Parade Route
- Aisle of Lights
- Rail Line
- Walking Path

Figure 2. Iowa River Landing
Source: Google Earth

Figure 3. Coral Ridge Mall
Source: Google Earth

Figure 4. Center for Performing Arts
Source: Google Earth

Figure 5. ST Morrison Park
Source: Google Earth

Locations of Major Events Create Cultural Corridors

Arrangement of event spaces along 2nd St. and 1st Ave. form corridors of culture that meet at the Southeast District.

W2_Updike02_Culture.PDF

Figure 1. Corridors of Culture
Source: Miles Updike, 2018

Inquiry: Do the locations of cultural attractions create an opportunity for development and connection in relation to the Southeast Commercial District?

Key Extractions: Major cultural spaces in Coralville and Iowa City (Kinnick Stadium), Corridors formed by arrangement of spaces/ events

Methodology: Aerial view taken from Google Earth. Locations of spaces obtained using Google Maps.

Conclusions: The high concentration of spaces and events located along 2nd St. creates an east-west corridor that emanates from the Southeast Commercial District. A second corridor, going north-south on 1st Ave., is formed by the high concentration of cultural spaces and events located along the Iowa River and at the Iowa River Landing. The Southeast Commercial District is uniquely positioned at the crossroads of each of these corridors, creating an opportunity for spatial development not only at the periphery of the site, but within the site as well.

Figure 2. 1st Avenue Streetscape. Source: Google Earth, 2018.

Figure 3. 2nd Street Streetscape. Source: Google Earth, 2018.

Opportunity for Corridor Streetscape Development

The streetscapes of the two major cultural corridors, along 2nd Street (Hwy 6) and 1st Avenue, are well maintained. Pedestrian circulation is permitted by sidewalks and natural shade is provided by vegetation. An opportunity for further development in these streetscapes lies in their lack of seating, pedestrian crosswalks, and buffering vegetation between street and sidewalk.

Corridors of Culture Create Opportunity for Southeast District Integration

Integration opportunities formed with railway and creek, relationship to Iowa River Landing.

W2_Updike03__Culture.PDF

Figure 1. Peripheral Connections
Source: Image from Google Earth.

Legend

- Cultural Centers
- Clear Creek
- Railway
- Existing Rail Line Access
- Proposed Rail Stop
- Proposed Waterfront Access
- Walkways
- Southeast Commercial District

Inquiry: How can the Southeast District connect strongly to nearby centers of cultural events?
Key Extractions: Clear Creek access locations, Commuter railway access
Methodology: Aerial view obtained with Google Earth.
Conclusions: The Southeast Commercial DIstrict is at an important crossroads of culture, but also a railway and a creek. By implementing a railway stop on site, the district will become more accessible. Incorporating this railway stop into a three-story parking garage will help patrons gain access to the railway that is currently twenty feet above grade. Utilizing a parking structure will keep more space open for development on site. Giving patrons more ability to access the creek, as well as the trails across the creek to the north will provide a stronger sense of program along the creek banks.

Figure 2. Rail Stop Parking Garage
Source: Google Earth.

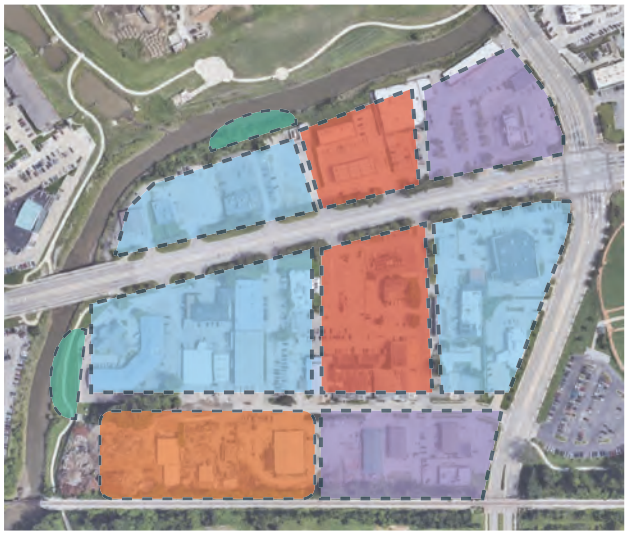


Figure 3. Spatial Function
Source: Google Earth.

Legend
- Open Community Space
- Mixed-Use Development
- Parking Structure
- Rail Line Connection
- Waterfront Access

Figure 4. Creek Access and Bridge Connection
Source: Google Earth.

Seasonal Events Transform the Coralville Area

University of Iowa football games attract large crowds to Coralville each year

W3_Cross01_Events.PDF

Month of Each Event

January:
1. Coralville BrrrFest: Marriot Hotel at Iowa River Landing
2. WinterFest: Iowa River Landing

May-August:
3. Summer Lunches at S.T. Morrison Park
4. Senior Courses at Coralville Recreation Center
5. Arts and Crafts at Kate Wickman Elementary School
6. Adult English Courses at Coralville Public Library
7. Movie Nights at Coralville Public Library

May-October:
8. Farmers Market at Coralville Community Aquatic Center

June:
9. Iowa Arts Festival at Downtown Iowa City

June-July:
10. The Great Golden Medallion Hunt at any Coralville Park

July:
11. 4th Fest at S.T. Morrison Park

August-December:
12. University of Iowa football games

September:
13. FRY Fest- Iowa River Landing

December:
14. Aisle of Lights throughout Coralville, Iowa

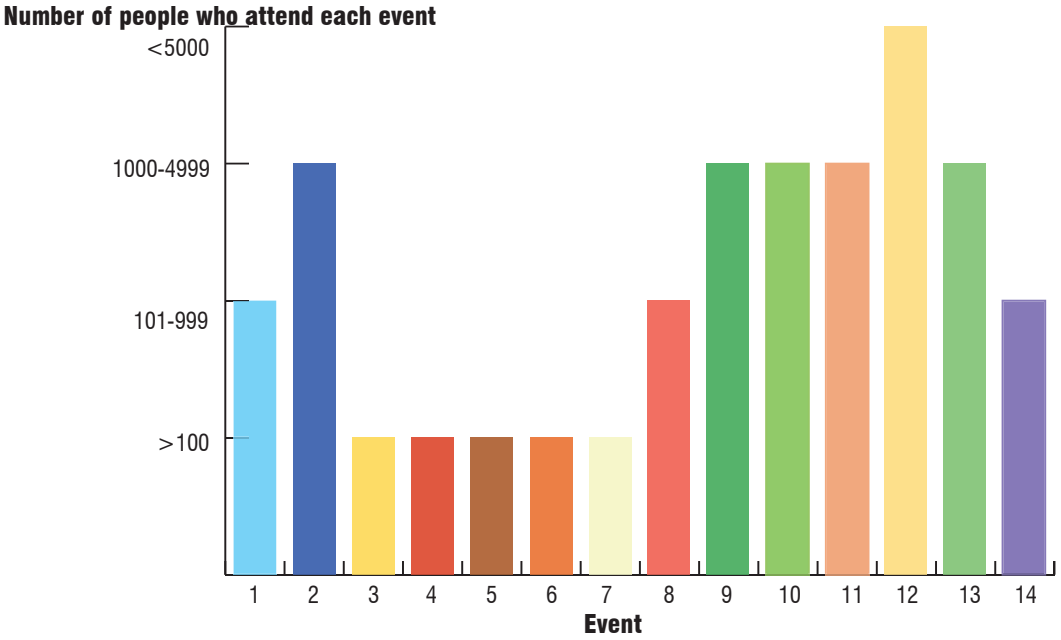


Figure 01. Number of People Who Attend Each Event
Source: City of Coralville, 2018

Inquiry: What are the qualities of the areas where each reoccurring event happens?
Key Extractions: Reoccurring events, Coralville Iowa, University of Iowa, Iowa City
Methodology: Extracted from Coralville Community website, Google Earth, Photoshop, Illustrator
Conclusions: Coralville, Iowa has many reoccurring events that create an identity for multiple spaces around Coralville. The reoccurring events are important to Coralville, because of the attracted crowds boosting the local economy. Most events occur in the summer months with a few occurring in the winter.

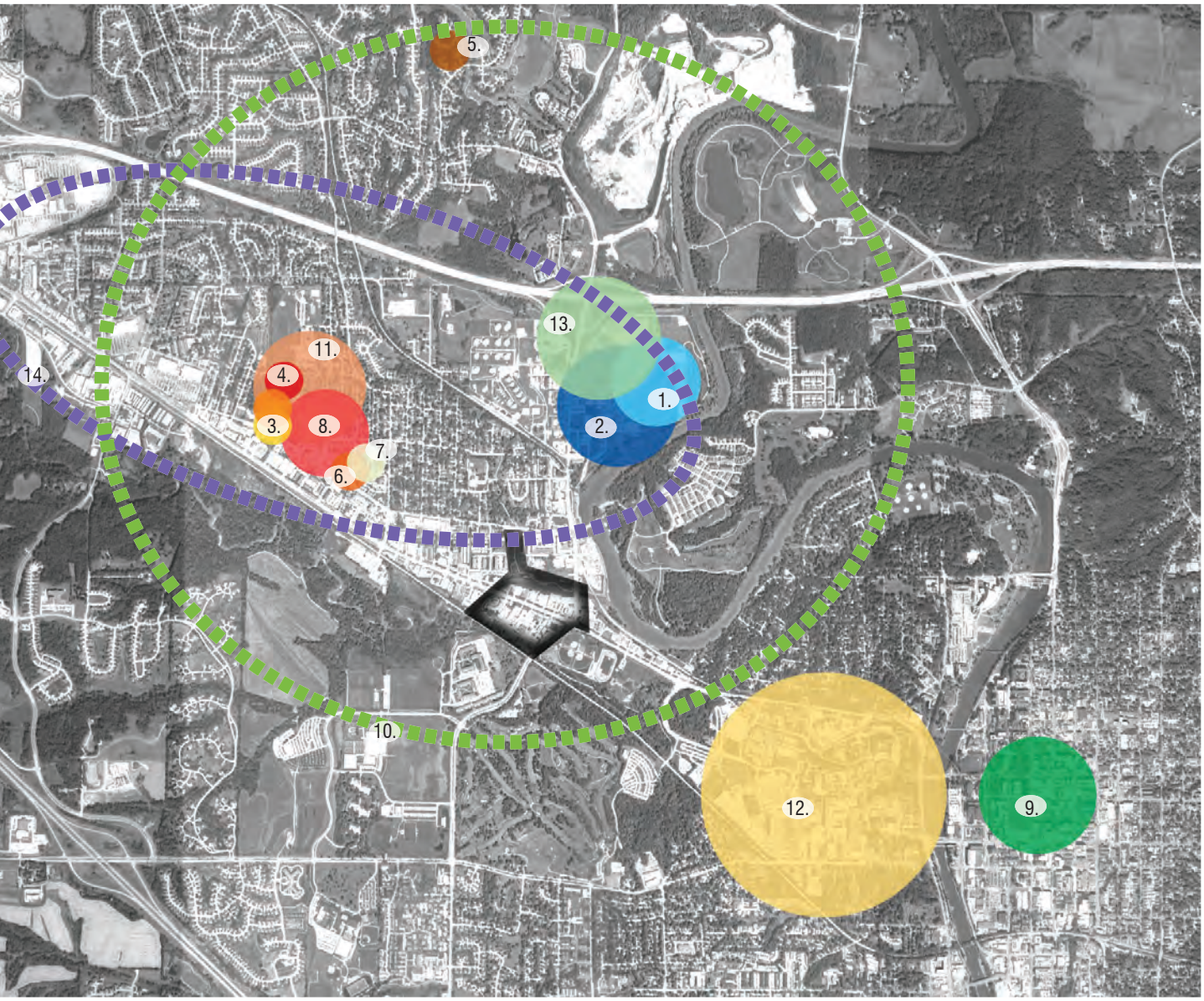
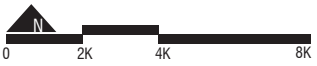


Figure 02. Reoccuring Events in Coralville, Iowa Area
Source: Google Earth, 2016



Legend

1. Coralville BrrrFest
2. WinterFest
3. Summer Lunches: S.T Morrison Park
4. Senior Courses: Coralville Recreation Center
5. Arts and Crafts: Kate Wickman Elementary
6. Adult English Courses: Coralville Public Library
7. Movie Nights: Coralville Public Library
8. Farmers Market: Coralville Community Aquatic Center Parking Lot
9. Iowa Arts Festival: Downtown Iowa City
10. The Great Golden Medallion Hunt: Coralville Park
11. 4th Fest: S.T. Morrison Park
12. University of Iowa Football Games
13. FRY Fest: Iowa River Landing
14. Aisle of Lights: Throughout Coralville

Crowds Headed to Surrounding Events Pass Through the District

The Southeast commercial District is a gateway, but not a place

W3_Cross02_Events.PDF

Figure 01. Aisle of Lights, Coralville
Source: City of Coralville, 2017

Figure 02. 4th Fest
Source: City of Coralville, 2017

Figure 03. Summer Classes offered at Coralville Rec
Source: The Gazette, 2018

Figure 04. Creating a Central Connection
Source: Google Earth, 2016

Inquiry: What is the main contributing factor of connection for each important place in the Coralville area?
Key Extractions: City Hall Workshop, Survey, Coralville, Connections, Iowa River Landing, Downtown Iowa City, Coralridge Mall
Methodology: Extracted from Coralville Community website, Google Earth, Photoshop, Illustrator
Conclusions: The Southeast Commercial District is surrounded by clusters of seasonal events. Many people pass through the District, but currently the District has no unique identity of its own.

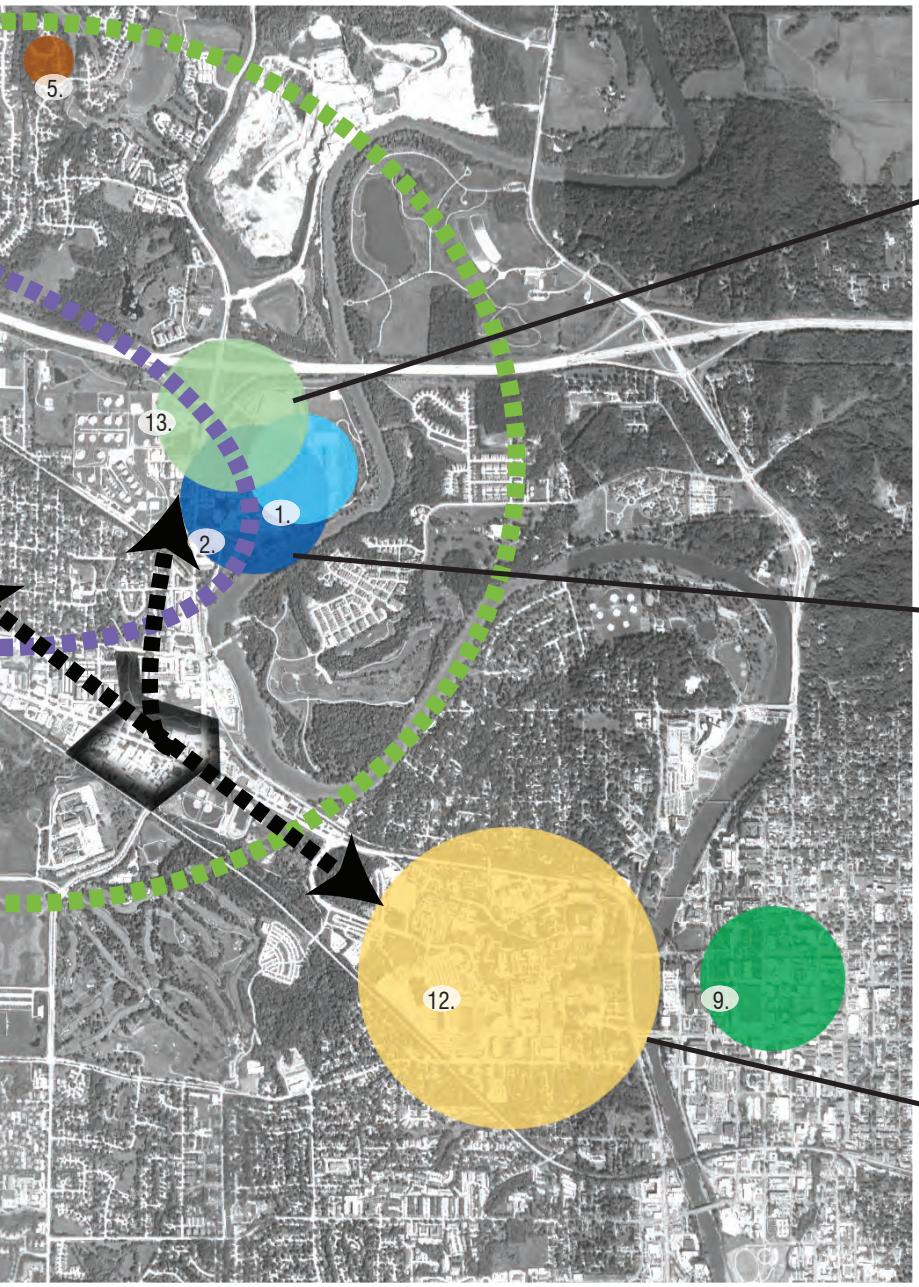


Figure 05. FRY Fest
Source: FRY fest, 2018

Figure 06. WinterFest
Source: City of Coralville, 2018

Figure 07. Hawkeye Football Games
Source: HawkeyeSports, 2018

Legend

- 1. Coralville BrrrFest
- 2. WinterFest
- 3. Summer Lunches: S.T Morrison Park
- 4. Senior Courses: Coralville Recreation Center
- 5. Arts and Crafts: Kate Wickman Elementary
- 6. Adult English Courses: Coralville Public Library
- 7. Movie Nights: Coralville Public Library
- 8. Farmers Market: Coralville Community Aquatic Center Parking Lot
- 9. Iowa Arts Festival: Downtown Iowa City
- 10. The Great Golden Medallion Hunt: Coralville Park
- 11. 4th Fest: S.T. Morrison Park
- 12. University of Iowa Football Games
- 13. FRY Fest: Iowa River Landing
- 14. Asle of Lights: Throughout Coralville
- 15. Areas of Connection

Redevelopment of the District Should Focus on Placemaking

Strategies can draw upon transit connections, multiple cultures, and water assets

W3_Cross03_Events.PDF

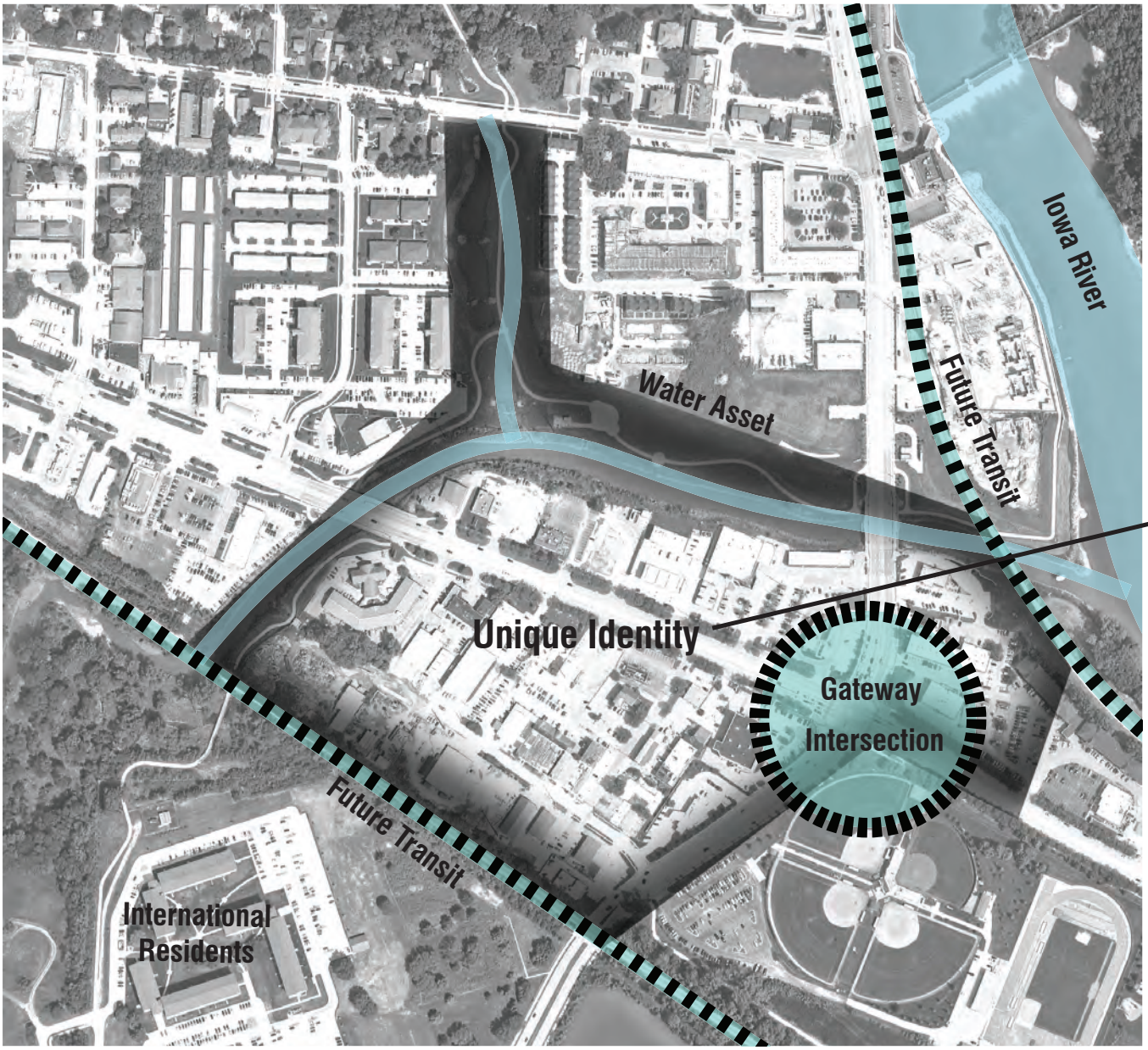


Figure 01. Building a Unique Identity
Source: Google Earth, 2016

N
0 150 K 300 K 600 K

Inquiry: How can 1st avenue and 2nd street/Highway 6 be the connecting factor of places found in the Coralville area?
Key Extractions: City Hall Workshop, Survey, Reenvisioning Connections, 1st Avenue, 2nd Street/Highway 6
Methodology: Google Earth, Photoshop, Illustrator
Conclusions: The Southeast Commercial District resides at a crossroad and gateway location, but lacks a unique identity. However, existing assets can be used to start building an identity and sense of place.

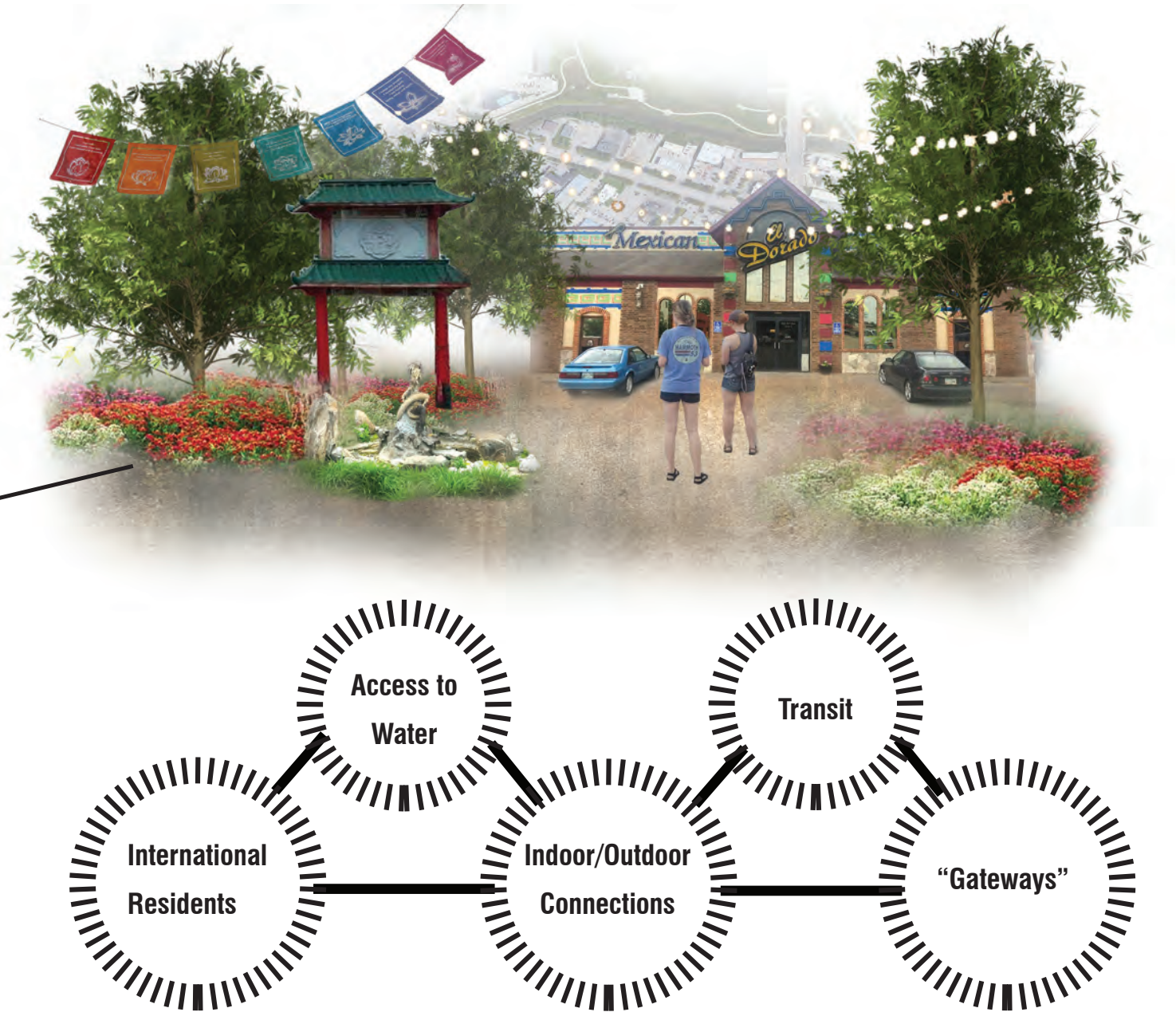


Figure 02. Assets to Begin Building Identity
Source: Photographs by Rachel Cross, Photographs by Grace Mader, https://greennewsupdate.com/2013/07/26/book-mania-gardens-parks-trees/, https://www.freeimages.com/search/buddhist-flag pensthorpe-in-norfolk/, Google Earth 2016

Coralville Has The Cuisine, And Iowa City Has The Arts

Coralville has a variety of international food and city festivals while Iowa City has museums, galleries, and public art projects.

File name: W3_Hake01_ArtsCulture.PDF

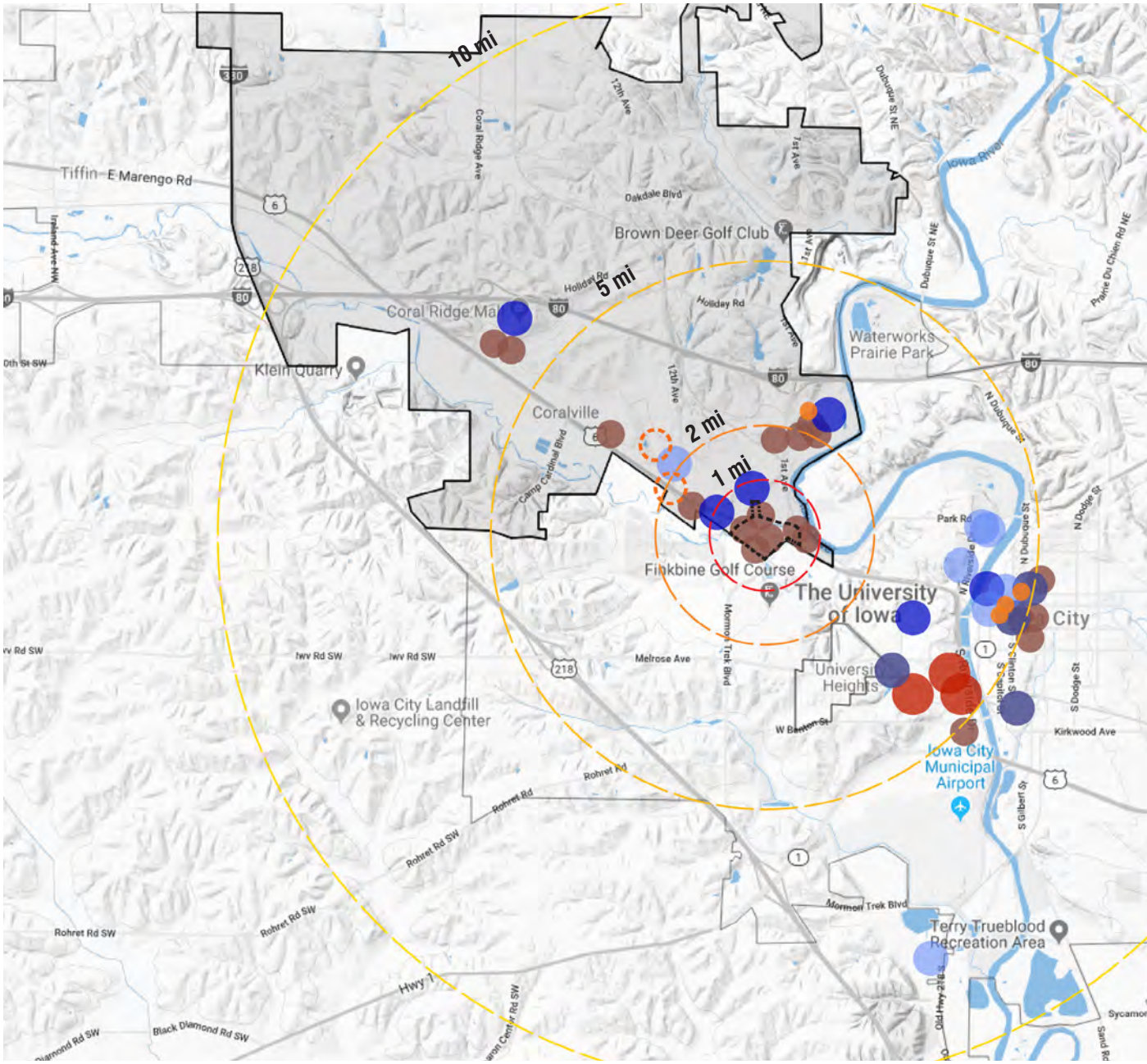


Figure 01. International Culture and Art in Coralville
Source: Data from Coralville MapTechnica

Inquiry: Where are the art and cultural hubs in Coralville and Iowa City?
Key Extractions: Public art, art museums, cultural centers, international restaurants, outdoor art, cultural events, art galleries
Methodology: Researching and finding several centers for arts and culture within Coralville and Iowa City and pinpointing them to find any patterns or gaps in development.
Conclusions: This map shows the sparse nature of the arts and international culture in Coralville and Iowa City. Coralville contains very few museums or public art spaces, but is heavy in restaurants for international cuisine. The Southeast Commercial District is the primary proprietor to many of these restaurants, giving the area a distinct association to international character. Iowa City has very few rich international restaurants, but they are gaining a lot of momentum in their application of public outdoor art and indoor public galleries. University of Iowa houses three different cultural centers including the Latino-Native American Center, the Afro-American Cultural Center, and the Italian American Cultural Center. Both cities have several seasonal community programs that support the arts and culture in the community.

Legend

- Cultural Center
- International Cuisine
- Performing Arts Center
- Public Art Gallery
- Museums
- Outdoor Art
- Temporary/Seasonal Art Display
- 1 Mile Radius
- 2 Mile Radius
- 5 Mile Radius
- 10 Mile Radius

Figure 02: Server from Takanami, a Japanese fusion restaurant in Iowa City, delivers an order to his table (Light, 2012).

Figure 03: Local artist participates in Iowa Ctiy's annual "Rock the Chalk" art festival in the downtown district (Light, 2017).

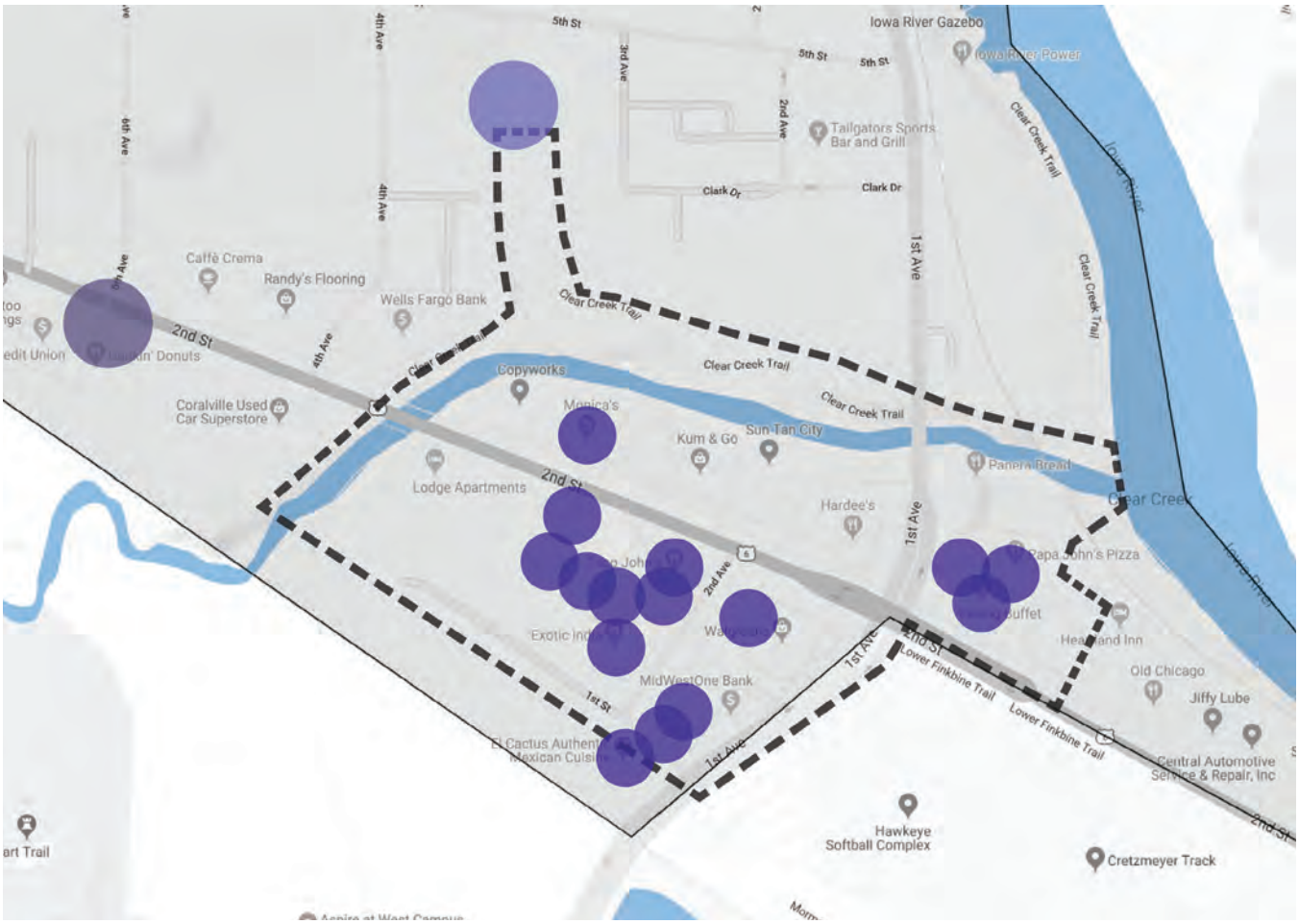
Figure 04: A couple admires a large mural in Iowa City's downtown district. With help from Iowa City's first ever art director, Thomas Agran, the city is working towards widespread beautification through public art projects (Arnold, 2017).

Figure 05: Joan Jett and the Blackhearts performs at Coralville's hit summer festival, FRYfest (Reineke, 2015).

Strong International Cuisine Presence In Southeast Commercial District

The SE Commercial District has the highest density of international dining compared to anywhere in Coralville or Iowa City.

W3_Hake02_ArtsCulture.PDF



Legend

- Museum
- Art Classes
- International Cuisine

Figure 01. Existing International Cuisine in the Southeast Commercial District
Source: Data from Coralville MapTechnica

Inquiry: How strong is the presence of international culture and art in the SE Commericial District?

Key Extractions: Museums, art galleries, art classes, restaurants in Coralville

Methodology: All dining options were found for the SE Commercial District, and those with an international theme are shown on the map as well as art venues.

Conclusions: Coralville's SE Commercial District has a lot of options for international cuisine. This characteristic provides the district with a unique identity that should be maintained throughout redevelopment and design. Many people in Coralville attribute the district with the wide variety of food options. However, the district does not have a very apparent cultural aesthetic or art scene. There is an opportunity to use the international dining as a catalyst for creating a hub for art and culture in the district.

Figure 02

Mexican $$$$ (yelp, 2018)

Figure 03

Chinese $$$$ (yelp, 2017)

Figure 04

Italian $$$$ (yelp, 2018)

Figure 05

Mexican, Grocery $$$$ (yelp, 2017)

Figure 06

Mediterranean $$$$ (yelp, 2018)

Public Rating (1-5)
Price Rating (Low-High)

The Southeast Commercial District Reimagined As A District for Arts and Culture

The SE Commercial District has good potential to become a headquarters for international culture, life, and art.

W3_Hake03_ArtsCulture.PDF

Figures 02-05. Size comparison of these famous districts from around the United States at the same scale compared to Coralville's Southeast Commercial District.

Figure 01. An Integrated District
Source: Data from Coralville MapTechnica

Inquiry: How can the Southeast Commercial Distric become an a place for art and expressive international character?
Key Extractions: Exotic life, culture, streets, housing, art
Methodology: Key images were extracted and compiled to show a vibrant idealization of a concept for the SE Commercial District
Conclusions: The SE Commercial District already has great potential for an international character. Highlighting this identity will make it a must-visit piece of Coralville's urban fabric. Adding art, music, outdoor spaces, rennovated storefronts, restaurants, and housing will help the district reach this goal.

Legend

- Restaurant
- Entertainment
- Shop
- Public Art & Galleries
- Historical Site
- Parks & Green Space

Figure 06. **Boston's Chinatown District**
Boston, Massachussettes- Chinatown is a cultural immersion that contains Chinese housing, hospitals, schools, shops, offices, and some of the best international food in Boston. A few parks lie near or within the district completing the full "live, work, play" cycle.

(Source: Google Earth)

Figure 07. **Mt. Vernon Cultural District**
Baltimore, Maryland - Baltimore's cultural district is a historic part of town that features several of Maryland's oldest and most significant government buildings. Near the area are theaters, parks, art galleries, dining, shops, and small music venues.

(Source: Google Earth)

Figure 08. **International District**
Seattle, Washington - Seattle's International District is home to several dining joints with flavors from around the world. This district features history, culture, art, and theater. Combined with a lot of outdoor recreation opportunities, this district is a well-rounded cultural experience.

(Source: Google Earth)
Maps not to scale

Proximity to UI and Educated Workforce Lay Groundwork for Future Businesses

Demographics and location of Coralville provide opportunity for district of innovation.

W3_Updike01_BusinessIncubatorDispersal.PDF

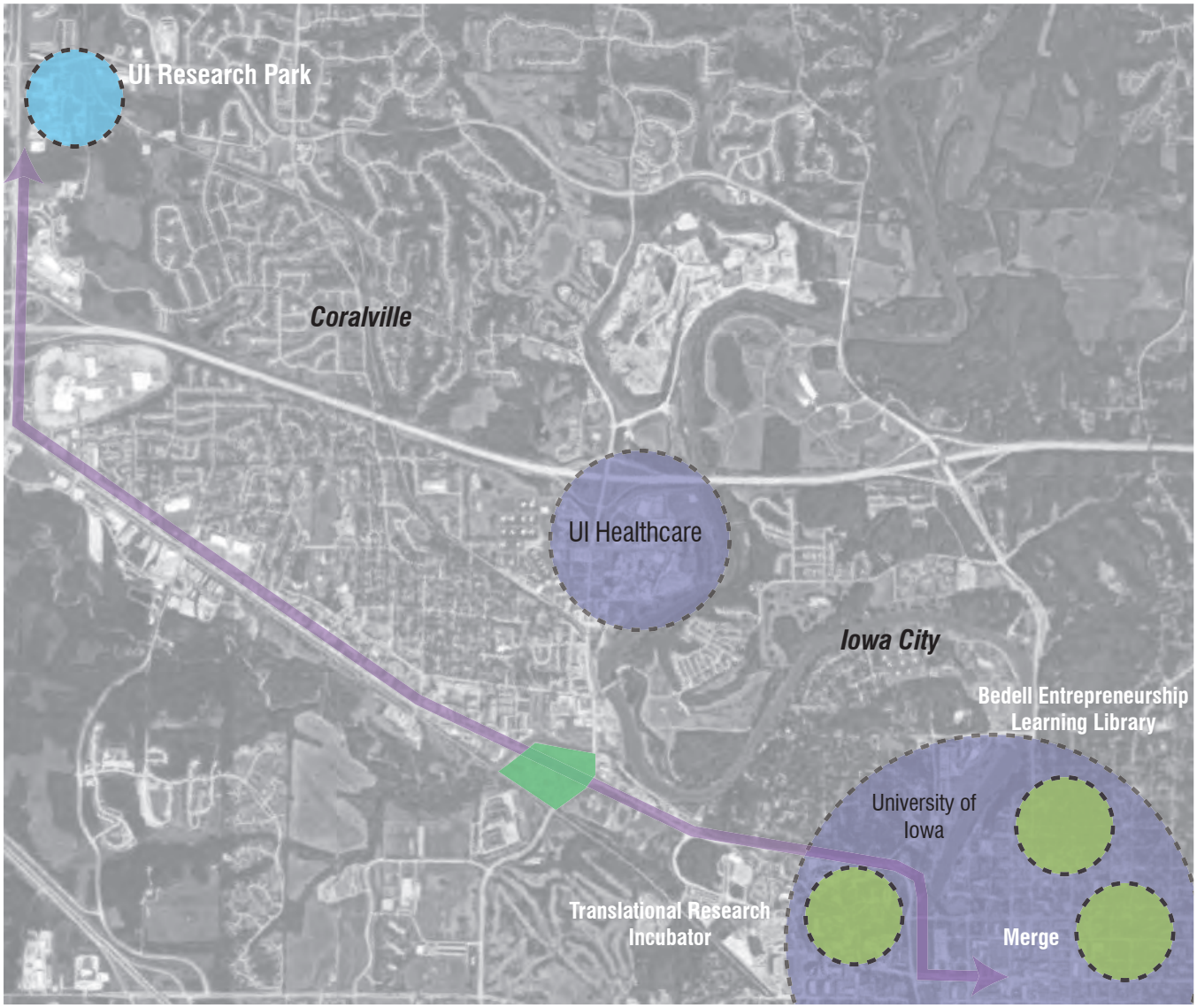


Figure 1. Business Incubator Dispersal
Source: Google Earth (base)
Updike, 2018 (graphics)

Legend

- Southeast Commercial District
- Existing Iowa City Incubators
- Existing Coralville Business Incubators
- Circulation
- Supporters of Business Incubation

N

0 1750 3500 7000

Inquiry: Where are the existing business incubators in the area and how well does Coralville meet the criteria for additional incubators?
Key Extractions: Major places of employment, incubator locations in Iowa City and Coralville, streets
Methodology: Aerial view obtained via Google Earth. Research performed on business incubator loctaions in the Iowa City-Coralville area and major places of employment, as well as focuses on scholastic research.
Conclusions: While nearby Iowa City has a strong concentration of business incubators within its city limits, Coralville is home to just one, the newly constructed University of Iowa Research Park. In order to serve as more than a fringe community to Iowa City, Coralville needs the resources to develop its own culture of innovation. With resources and support from the University of Iowa nearby, a highly educated and specialized general population, a growing economy, a highly regarded local quality of life, and an energized community, Coralville has a strong foundation for a district of innovation.

FOUNDATIONS OF SUCCESSFUL BUSINESS INCUBATORS

Source: American Innovation Network

NEARBY UNIVERSITIES/ INSTITUTIONS

Educational institutions can provide an area with a high concentration of new talent and research support. The University of Iowa campus is one mile from the Coralville site.

Figure 2. UI Research Park
Source: University of Iowa

MARKET SPECIALIZATION

Well established firms and knowledge in an area can help foster a culture of growth and expertise. Coralville's population is well educated and a high percentage of workers are in the medical industry.

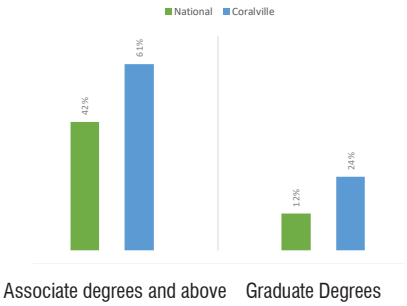


Figure 3. Coralville Education
Source: Iowa City Area Development

QUALITY OF LIFE

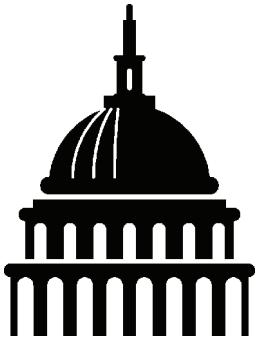
A city's quality of life is an important factor in the recruitment of new talent and the retention of employees. The Iowa City area is consistently highly ranked in terms of the most livable American cities.

Figure 4. Coralville 4thFest
Source: coralville.org

ECONOMIC UPSWING

As one of the fastest growing metro areas in Iowa, with a growth rate nearly double the average growth of American metro areas, the Iowa City metro represents an opportunity for future business development.

Figure 5. Iowa River Landing
Source: iowariverlanding.com



GOVERNMENT AND COMMUNITY SUPPORT

Governing policies that encourage growth, opposed to hindering it, create a community of innovation. A local population of motivated and supportive people helps create this community as well. Coralville clearly boasts a strong concentration of people who want the best for their city, and there are multiple support systems available for entrepreneurs at the University of Iowa.

Lack of Business Incubators, Increased Development Creates Opportunity for Innovation

Increased development in eastern Coralville could be supported with innovation hub in SE Commercial District.

W3_Updike02_InnovationPotential.PDF

Figure 1. Innovation Potential
Source: Google Earth (base)
Updike, 2018 (graphics)

Inquiry: Do potential entrepreneurs in Coralville have access to adequate business incubation resources within their city? What is a potential location for additional business incubators?

Key Extractions: Site boundary, city boundary, traffic circulation,existing centers of business incubation

Methodology: The aerial view of the Coralville-Iowa City area was obtained via Google Earth. Locations of major developments and business incubation sites were obtained through a combination of Internet research and discussions with community members.

Conclusions: With the consideration of the city boundary between Coralville and Iowa City, it becomes evident that entrepreneurs in Coralville have multiple options for support in Iowa City, but just one resource in their own city. The location of this resource, the UI Research Park, is on the opposite side of the city from where new mixed-use development is occurring at the Iowa River Landing. By implementing a business incubator at the Southeast Commercial District location, innovators in Coralville can easily access local resources and at the Iowa River Landing, creating a culture of entrepreneurship amongst these two hubs.

Figure 2. SE Commercial District
Source: Google Earth

Figure 3. UI Research Park
Source: Google Earth

Opportunity for Innovation District in eastern Coralville

While nearby Iowa City is home to a concentration of incubators devoted to helping new and innovative businesses get their start, Coralville currently has just one, the University of Iowa Research Park (Figure 2.2) located in the northwestern part of the city. As the newly developed Iowa River Landing (Figures 2.3, 2.4) emerges in eastern Coralville, an opportunity for business incubation resources unique to Coralville arises on this side of the city. In analyzing the spatial configuration and relationships amongst existing business incubators and emerging developments, the Southeast Commercial District asserts itself as a prime location for a district of business innovation in Coralville.

Figure 4. UI Healthcare at Iowa River Landing
Source: uiowa.edu

Figure 5. Iowa Arena at IRL
Source: Mortenson

Innovation District Creates Corridor Connection with Iowa River Landing

Development of the Southeast Commercial District creates a new urban core of Coralville.

W3_Updike03_InnovationConnection.PDF

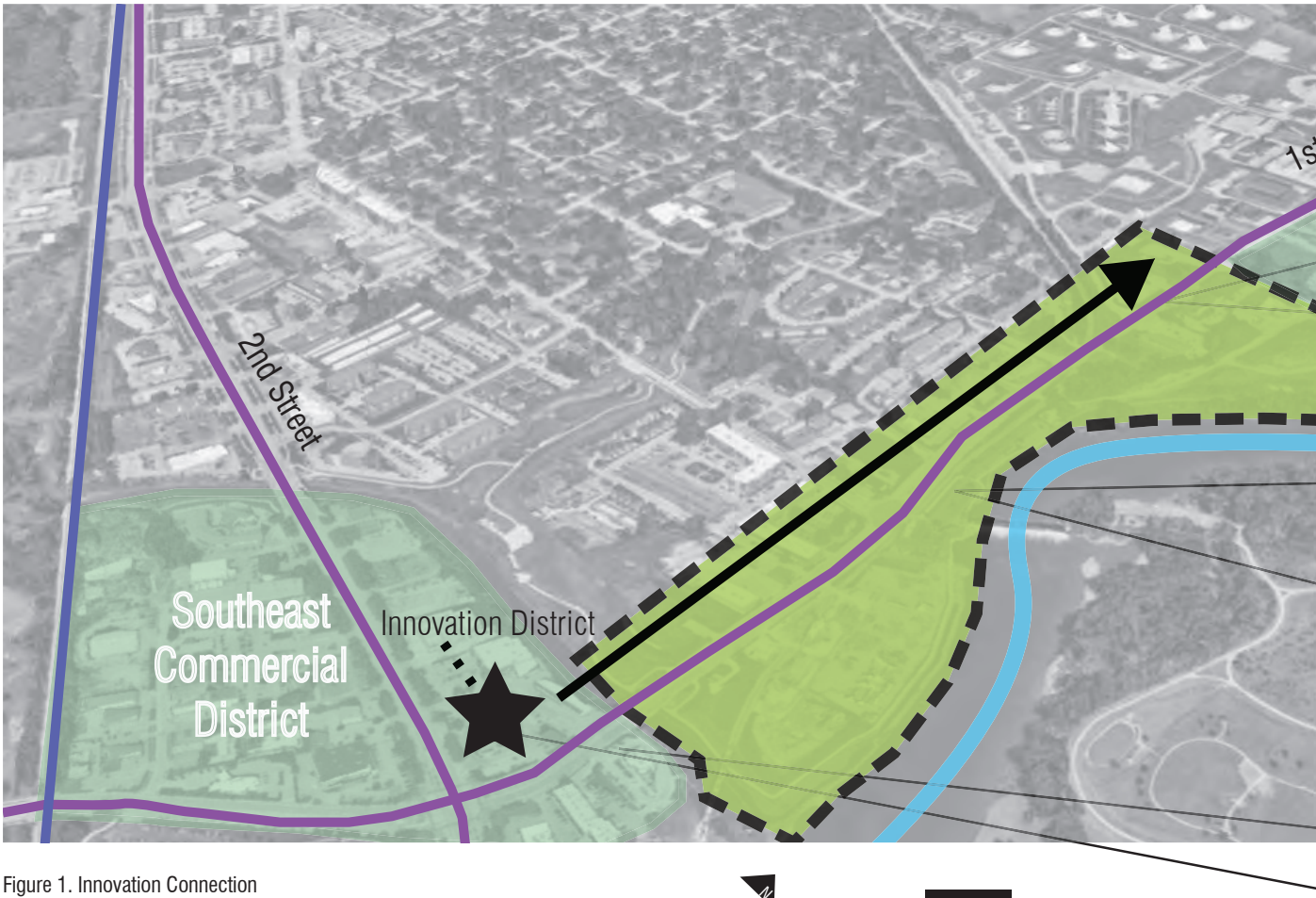


Figure 1. Innovation Connection
Source: Google Earth (base)
Updike, 2018

Innovation Connection

By developing a culture of entrepreneurship and innovation in the Southeast Commercial District, an urban core will form with the site and the Iowa River Landing. With this development, the corridor between these two nodes, running along 1st Avenue and the Iowa River, becomes a vital zone of transition.

Inquiry: How can a district focused on innovation in business at the Southeast Commercial District become a part of a larger developmental context with the Iowa River Landing and the Iowa Riverfront?
Key Extractions: Vehicular circulation, rail lines, major nodes of development, Iowa River
Methodology: Aerial photo obtained via Google Earth.
Conclusions: The Southeast Commercial District presents a viable space for the development of mixed-use district with components of programming focused on fostering innnovation in business. Its proximity to arterial roadways, a rail line with commuter potential, and nearby trails and waterfronts makes the site valuable in terms of multiple levels of access and public recreation space. The Iowa River Landing development, located north of the SE Commercial District would also provide patrons with nearby access to commuity gathering space, entertainment, and commerce. The 1st Ave. connection between to these two nodes runs along the Iowa River and already has a well-developed pedestrian streetscape. This transition zone along the 1st Avenue and Iowa River certainly holds importance for the success of the SE Commercial District. A well developed connection between the two major centers of new development could create a corridor along 1st Avenue delineating a new urban center of Coralville.

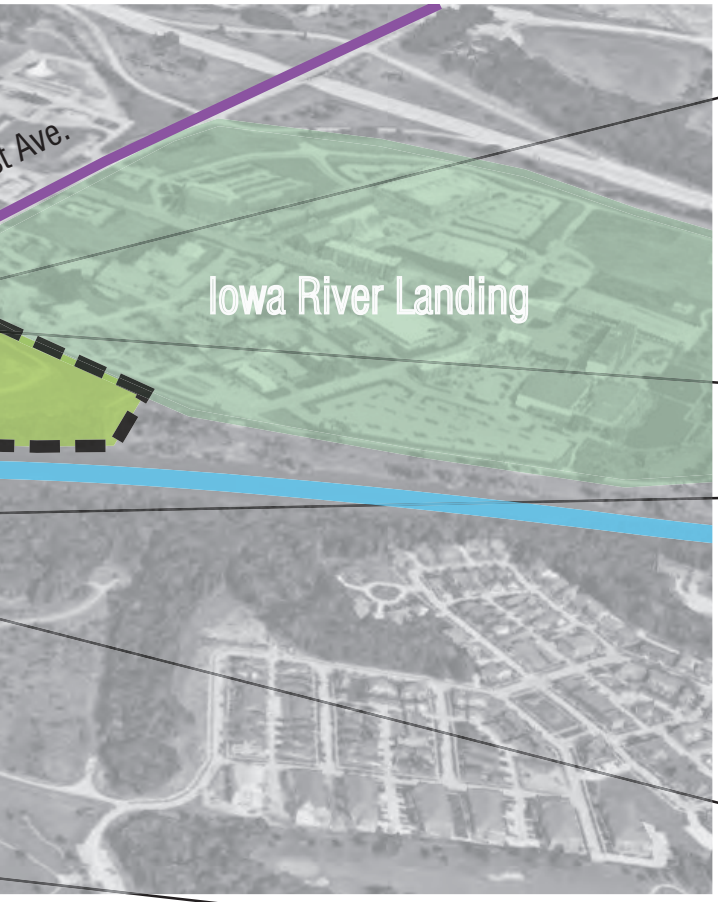


Figure 2. 1st Ave Streetscape
Source: Google Earth

Figure 3. 1st Ave. Streetscape
Source: Google Earth

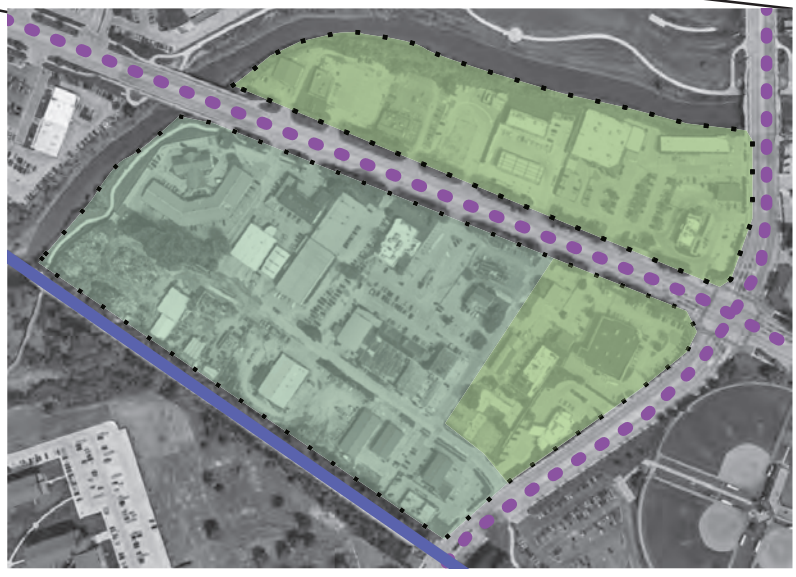


Figure 4. Innovation District
Source: Google Earth

Coralville Demographics are Similar to National Average

Visualization of age, sex, ethnicity and income by geographic position

W3_MY01_4K_DemographicCriticalMaps.PDF

Average Income by Location

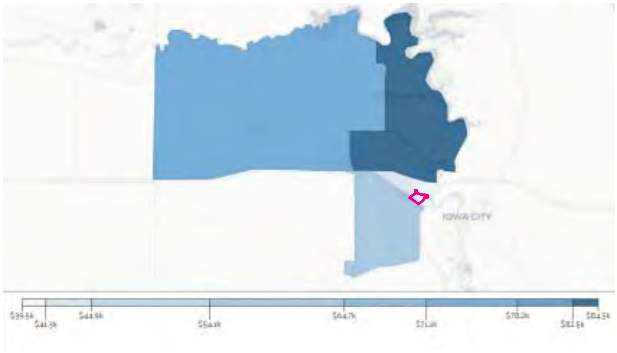


Figure 01. Income by location in Coralville, IA
Source: Data USA, 2018

Average Household Income by Location

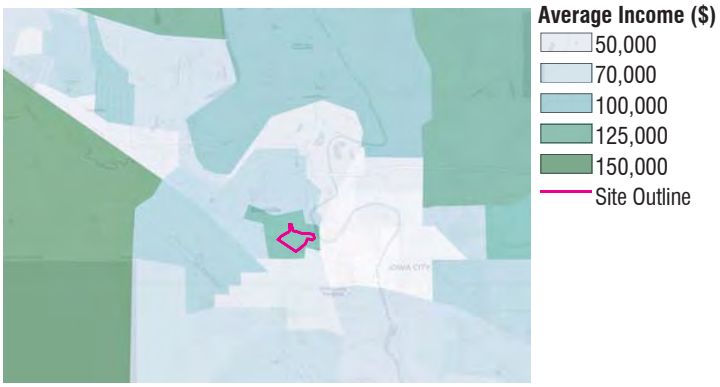


Figure 02. Income by Household in Coralville and Surrounding Areas
Source: Census Bureau, 2018

Ages in Coralville

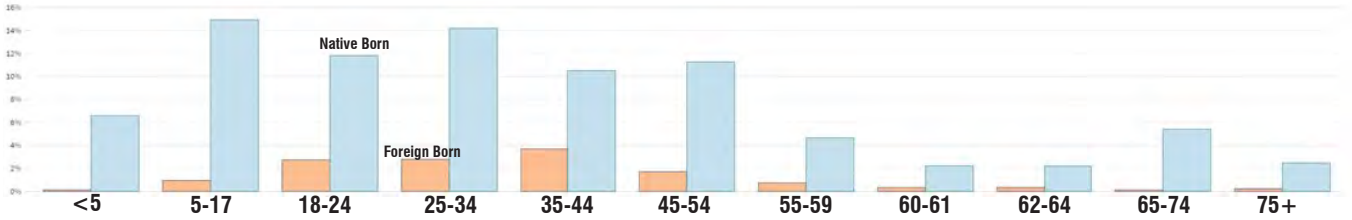


Figure 03. Age by Nativity in Coralville
Source: Census Bureau, 2018

Figure 04. Age by Median Years
Source: Census Bureau, 2018

Inquiry: How does income, age and ethnicity relate to Coralville geographically?
Key Extractions: Income, age and ethnicity demographics.
Methodology: Created in ArcGIS, and on city-data.com where data is derived from carto.com and openstreemap.org. Data creation methodology is unknown. Maps manipulated in photoshop
Conclusions: While Coralville generally has an income comparable to the rest of Iowa, the Southeast Commercial District is slightly lower. Most people living in Coralville are between the ages of 25-30 with a range living within the SCD. The predominant race is White and the most common language spoken is English followed by Spanish.

Race and Ethnicity in Coralville

In 2016, there were 6.54 times more White residents (14,837 people) in Coralville than any other race or ethnicity. There were 2,270 Black and 1,846 Asian residents.

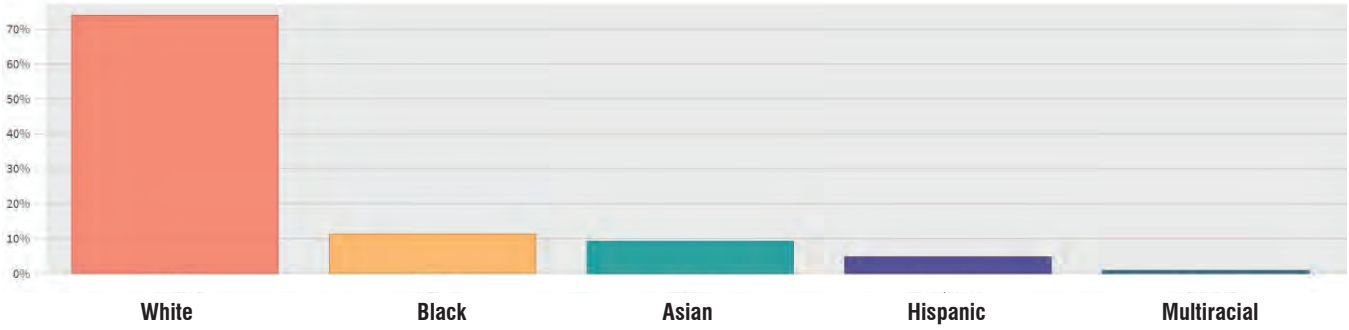


Figure 05. Race and Ethinicity in Coralville, Ia
Source: Coralville, 2018

Non-English Speakers in Coralville

2,729 citizens of Coralville speak a non-English language (lower than the national average of 21.1%)

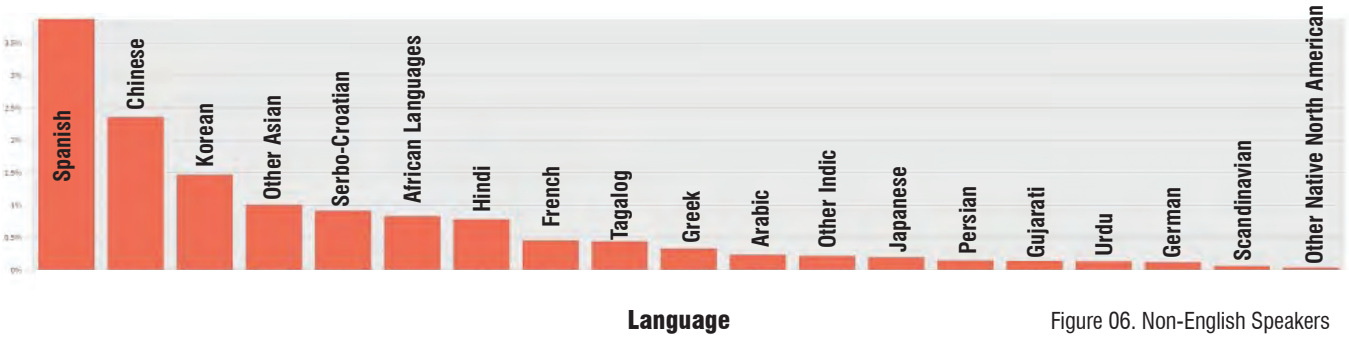


Figure 06. Non-English Speakers
Source: Coralville, 2018

Language Spoken at Home- Spanish

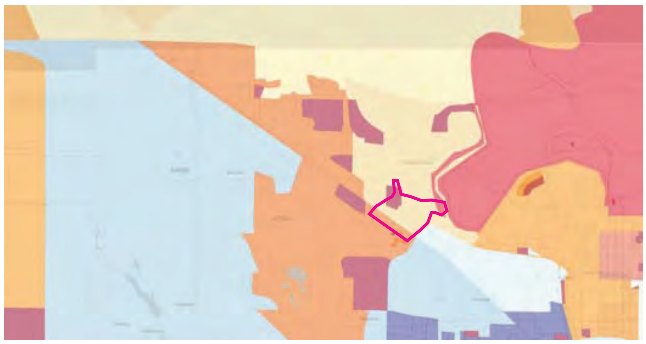


Figure 07. Spanish Spoken at Home
Source: Census Bureau, 2018

Percent Speakers Per Area

- 0%
- 2%
- 4%
- 6%
- 8%
- Site Outline

Language Spoken at Home- English

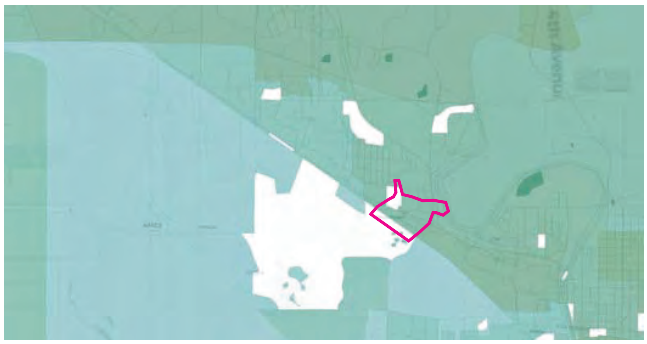


Figure 08. English Spoken at Home
Source: Census Bureau, 2018

Percent Speakers Per Area

- 0-29%
- 30-49%
- 50-69%
- 70-99%
- 100%
- Site Outline

Likely Areas of Improvement in Coralville

Reducing the number of people living below the poverty line and without formal education

W3_MY02_4K_DemographicCriticalMaps.PDF

Residents Living Below Poverty Line

2,570 out of 18,907 people lived below the poverty line in 2016, this was approximately the same as the national average.

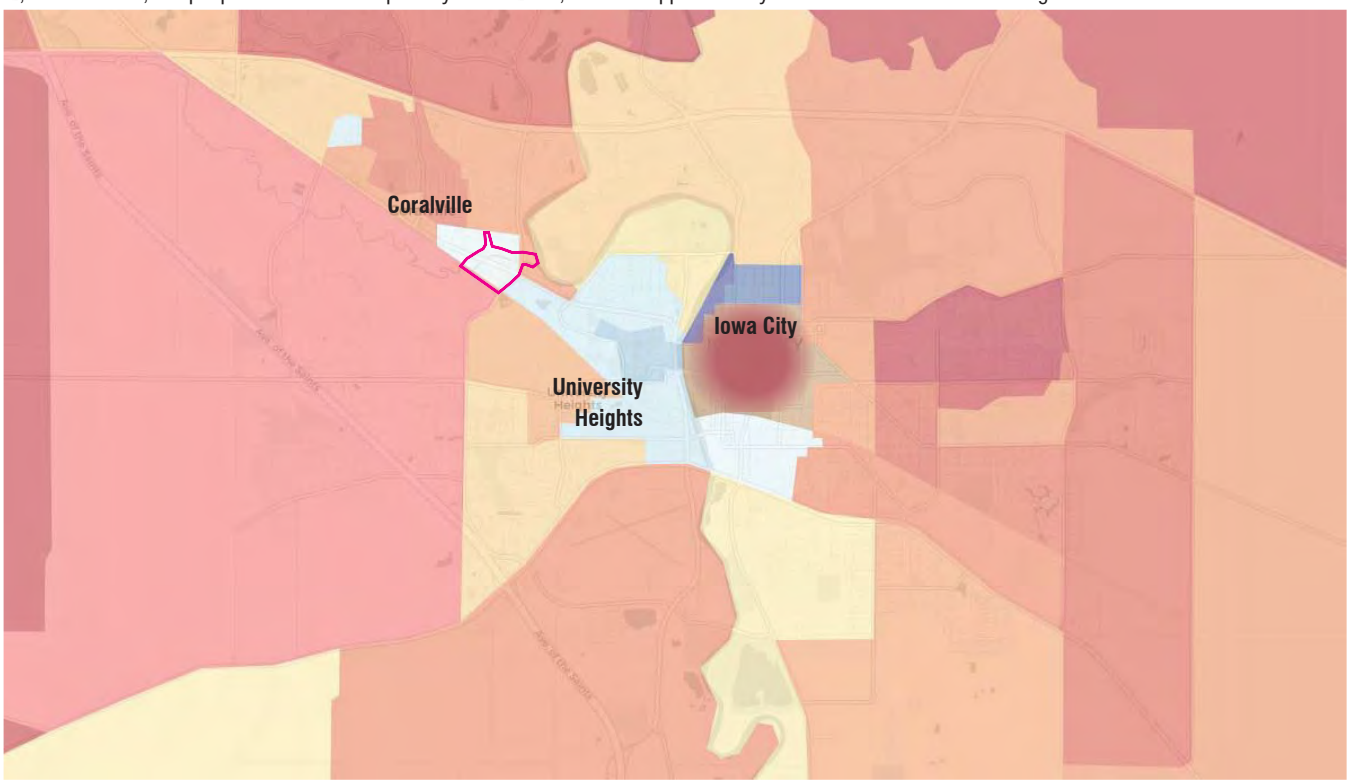


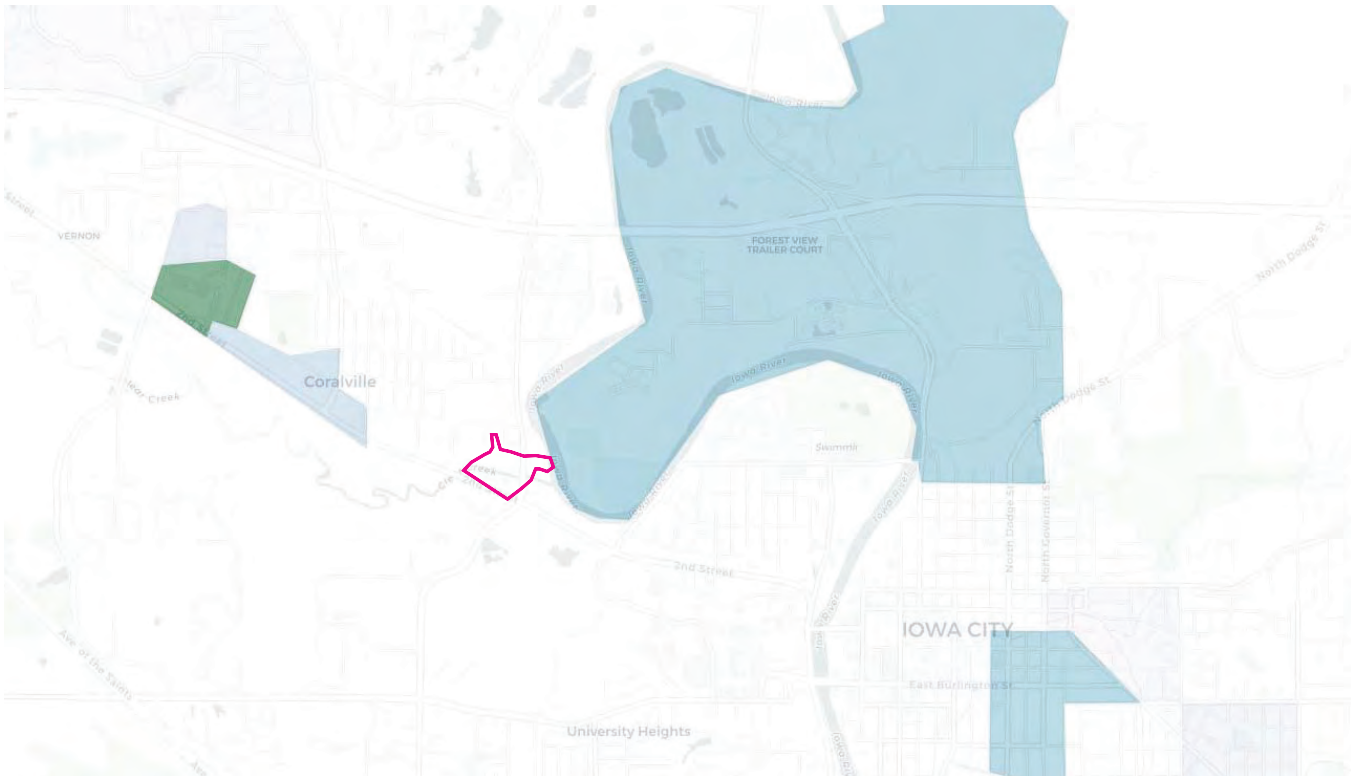
Figure 01. Income Below Poverty Level
Source: Census Bureau, 2018

Percent of Residents With Income Below Poverty Level

- 7%
- 10%
- 15%
- 25%
- 35%
- Study Area

Inquiry: Which blocks are most vulnerable based on demographics?
Key Extractions: Site outline, poverty demographic map, no schooling demographic map
Methodology: Created in City-data.com where data is derived from carto.com and openstreemap.org. Data creation methodology is unknown. Maps manipulated in photoshop.
Conclusions: Compared to the rest of Coralville, the Southeast Commercial District and adjacent areas contain more people living below the poverty line (25% per area). However, the area is also close to financially stable neighborhoods. The SCD is adjacent to the Forest View Trailer Court where there is a decent amount of residents who have never received education. These facts can help guide compassionate and intuitive design decisions.

Residents With no Formal Education



Percent of Residents With No Completed Schooling

- 0%
- 5%
- 8%
- 15%
- Study Area

Figure 02. Residents With no Completed Schooling
Source: Census Bureau, 2018

How can the SCD Cater to Surrounding Populations?

The SCD is in a prime location to serve nearby demographics

W3_MY03_4K_DemographicCriticalMaps.PDF

Design Strategy for the Southeast Commercial District

Figure 01. Coralville Area
Source: Google Maps, 2018

Inquiry: Where can new amenities be placed to improve the living conditions of nearby residents?
Key Extractions: Areas located for possible new amenities
Methodology: Precedents found on internet and transposed onto site map.
Conclusions: Certain changes in the Southeast Commercial District can greatly improve the surrounding community areas by providing public space for everyone to use, better transportation to get to work and affordable housing to live in.

Precedents Illustrating Potential New Uses for SCD Areas

Improved Transportation 1

Pedestrian Friendly Streets

Figure 02. Pedestrian Zone in Boston
Source: Stilfehler, 2008

New Train Station

Figure 03. Steamtown NHS
Source: Nalevanko, 2016

Housing Type Variety 2

Affordable Housing Options

Figure 04. Affordable Artist Housing, Hamden, Connecticut
Source: Ledbetter, 2011

Public Parks 3

New Public Spaces for Activities and Recreation

Figure 05. City Garden, St. Louis
Source: Woltz, 2011

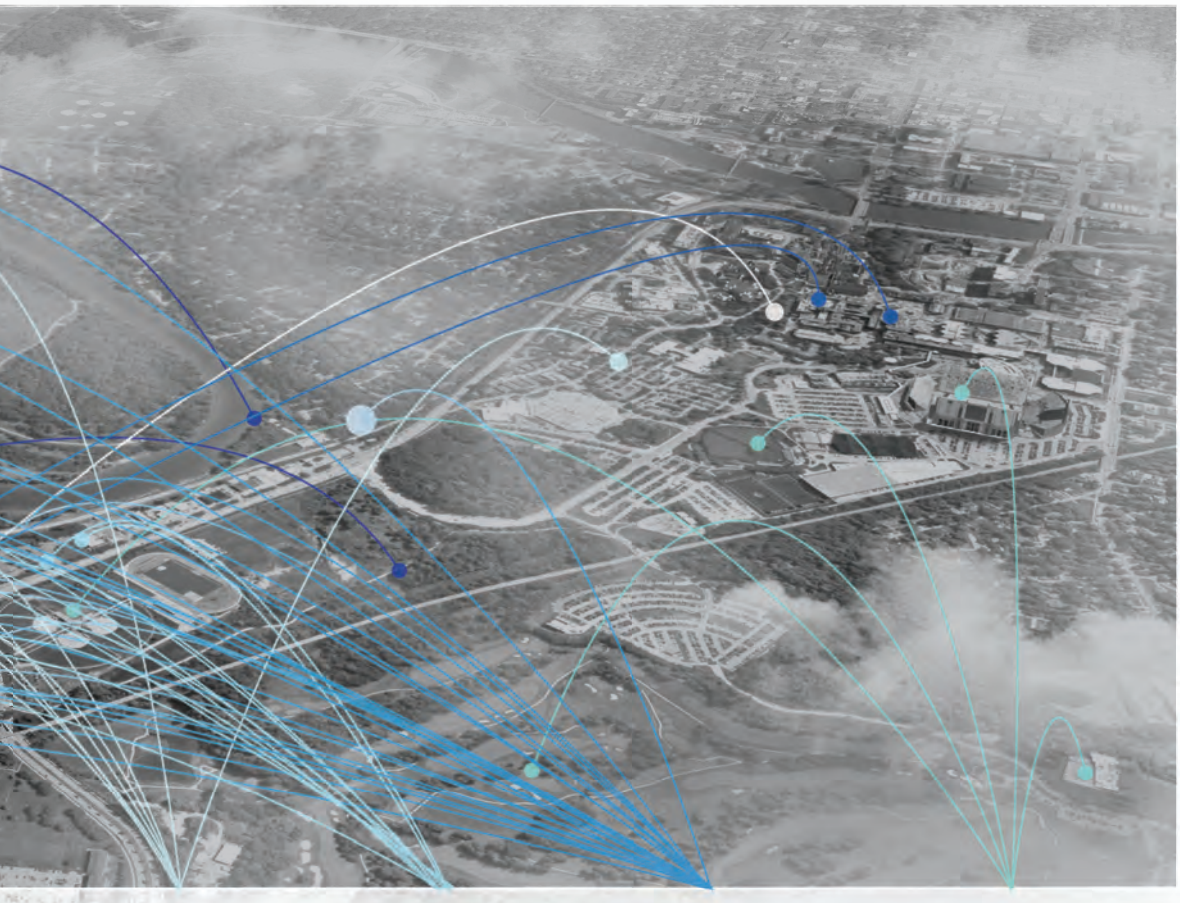
Existing Programs Diversity and Density

Examining the diversity and density of on-site and near-site programs.

W2_Chen01_ProgramsLayout.PDF

Figure 1. Existing Programs Diversity and Density
Source: Google Earth 2018. Open Street Map. Arcmap GIS. Shutterstock.com; Chen2018

Inquiry: What types of programs are on the site and adjacent to the site? What is the most and least type of programs on the site?
Key Extractions: Programs Diveristy, Density.
Methodology: Programs and their locations are documented from Arcmap GIS, Google Earth and Open Street Map. The aerial map is retrieved from Google Earth and edited by the author using Adobe Illustrator. The density of lines represent the density of a specific program, and the color of the line represent the diversity. The various size of the dots on the end of the lines reinforce the density of the programs and showcase the major area of programs' allocation. All the icon are retrieved from shutterstock.com.
Conclusions: According to the map, food retails and pharmacy are least represented on site. On the other hand, restaurants and local businesses are most represented on the site. Civic services such as banks and hospitals are located adjacent to the site. Public green spaces and recreational facility are scattered around the site. This map will inform future design decisions for reallocating land uses and appropriate programs.



Housings

Dining

Bussiness and
Retails

Recreational
Facility

Existing Programs Layout and Adjacency

Examining the fragmentation and disconnection of the major existing programs due to excessive surface parking.

W2_Chen02_ProgramsLayout.PDF

Figure 2. Existing Programs Layout and Adjacency
Source: Open Street Map. Arcmap GIS. Chen 2018.

Inquiry: What is the existing layout of the major site programs, and contribute to the fragmentation and disconnection of the program layout?
Key Extractions: Programs Layout. Adjacency. Fragmentation. Disconnection. Boundary.
Methodology: Programs and their locations are documented from arcmap GIS, Google Earth and Open Street Map, and they are re-traced in separate layers on four individual base maps (retrieved from open street map) by the author using Adobe Illustrator. By showing the individual program layers side by side, it help readers understand the adjacency, and "boundary" of different programs. Moreover, it showcase the intensity (focus area or disconnected area) of the major programs on site and the "factors" of the fragmentation.
Conclusions: According to the map, local business and commercial were scattered freely on the site without a "focus area". Overwhelming parking is the major factor of site fragmentation. The close adjacency of the residential on-site and the brownfield and industrial business is also a future design issue that needs to be resolved.

Industrial Business

Scrapyard

Residential

Context Informs Urban Programs

Achieving urban programs with individual characters from linking the surrouding context.

W2_Chen03_ProgramsLayout.PDF

Figure 3. Context Informs Urban Programs
Source: Google Earth. Chen 2018.

Inquiry: How can the existing context inform urban programs that link to a larger setting and have an unique, individual character?
Key Extractions: Urban Programs. Individual Characters. Linking. Context. Urban Blocks. Boundary.
Methodology: The adjacent context is documented from Google Earth. The author categorized 5 surrounding characters and traced the result using Adobe Illustrator. The surrounding context is connected to the site by five arrows each indicating the pedestrian or vehicular entry/exit to the site. According to the characters on the "boundary" of the site, the author initiated five distinct colors to indicate the linkage from out to in. Then, according to the existing circulation route and adjacency of the programs, the author developed a general layout of "urban blocks" of particular characters.
Conclusions: The western point of the site is connected to a higher level of commercial development. The north is connected to the trail, green space and residential. The southwest side is connected to green space and a golf course. The southeast side is connected to recreational facility and trails. The northeast side is connected to the University of Iowa and public services such as healthcare and libraries.The existing context around the site has a distinct land character which will contribute to the future design of urban programs that are linked into the larger setting.

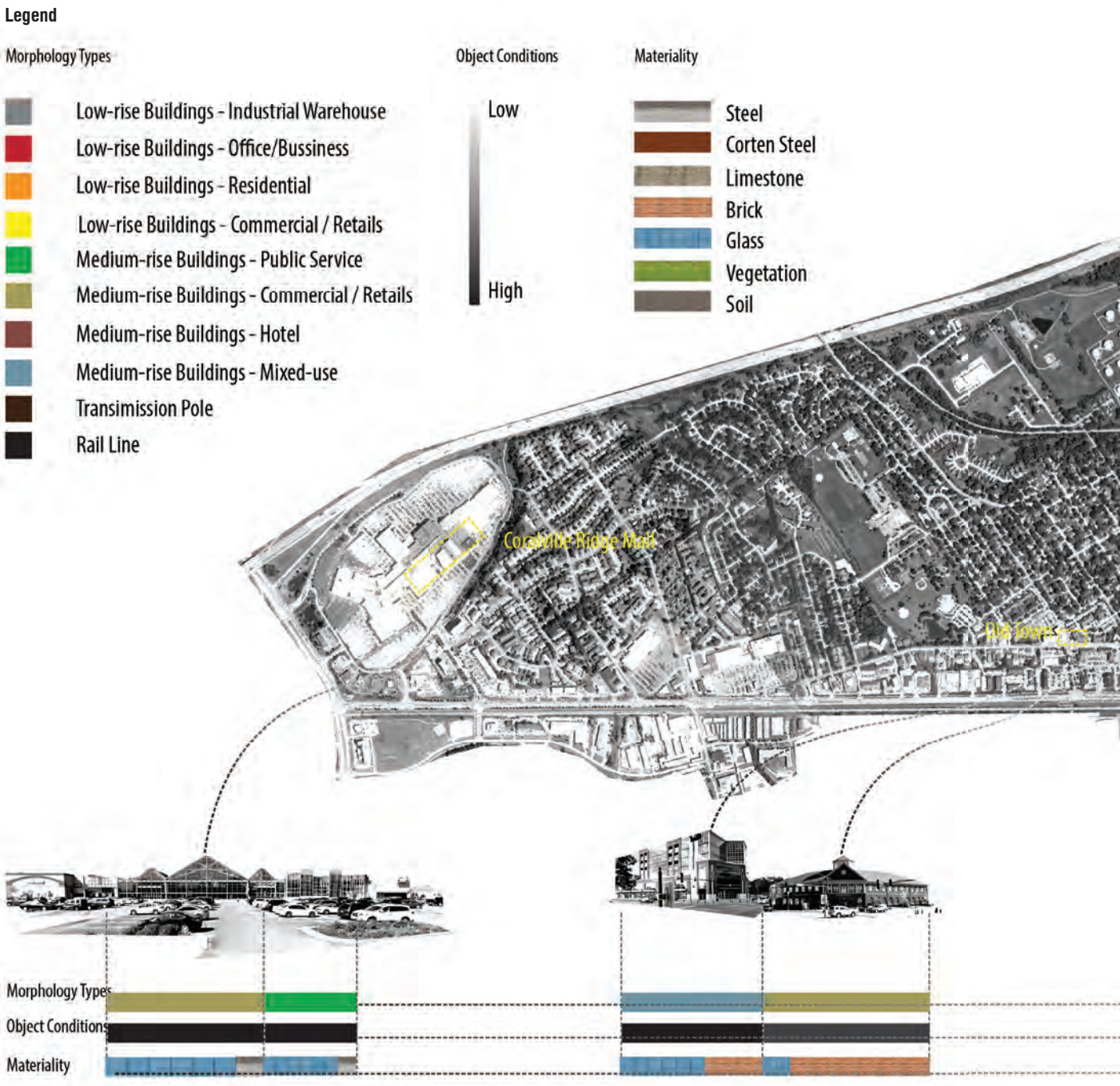
Link In

Map 7.12a

Variety of Architectural and Paving Materials Characterize SE Commercial District

Brick, concrete, limestone, and glass are prevalent materials in Coralville, IA

W3_Zhong01_Materials.PDF



Inquiry: What types of materials are being used in Southeast Commercial District and City of Coralville ?

Key Extractions: Materials, SE Commercial District, Coralville, Brick, Concrete

Methodology: Base map is derived from Google Aerial Image. Through Google street view and site visits, morphology types, materials types, conditions are determined. Buildings Images are derived from Google Street view and individual photographs.

Conclusions: In this map, four areas: Coralville Mall, Old Town, Iowa River Landing and SE Commercial District are being investigated in Morphology types, object conditions and materiality. According to the analysis, Concrete and bricks are very prevalent in the city of Coralville. Specifically to SE Commercial district, (architectural, paving, infrastructure) materials include concrete, steel, brick, Croton steel, limestone, natural fabric(vegetation and soils).

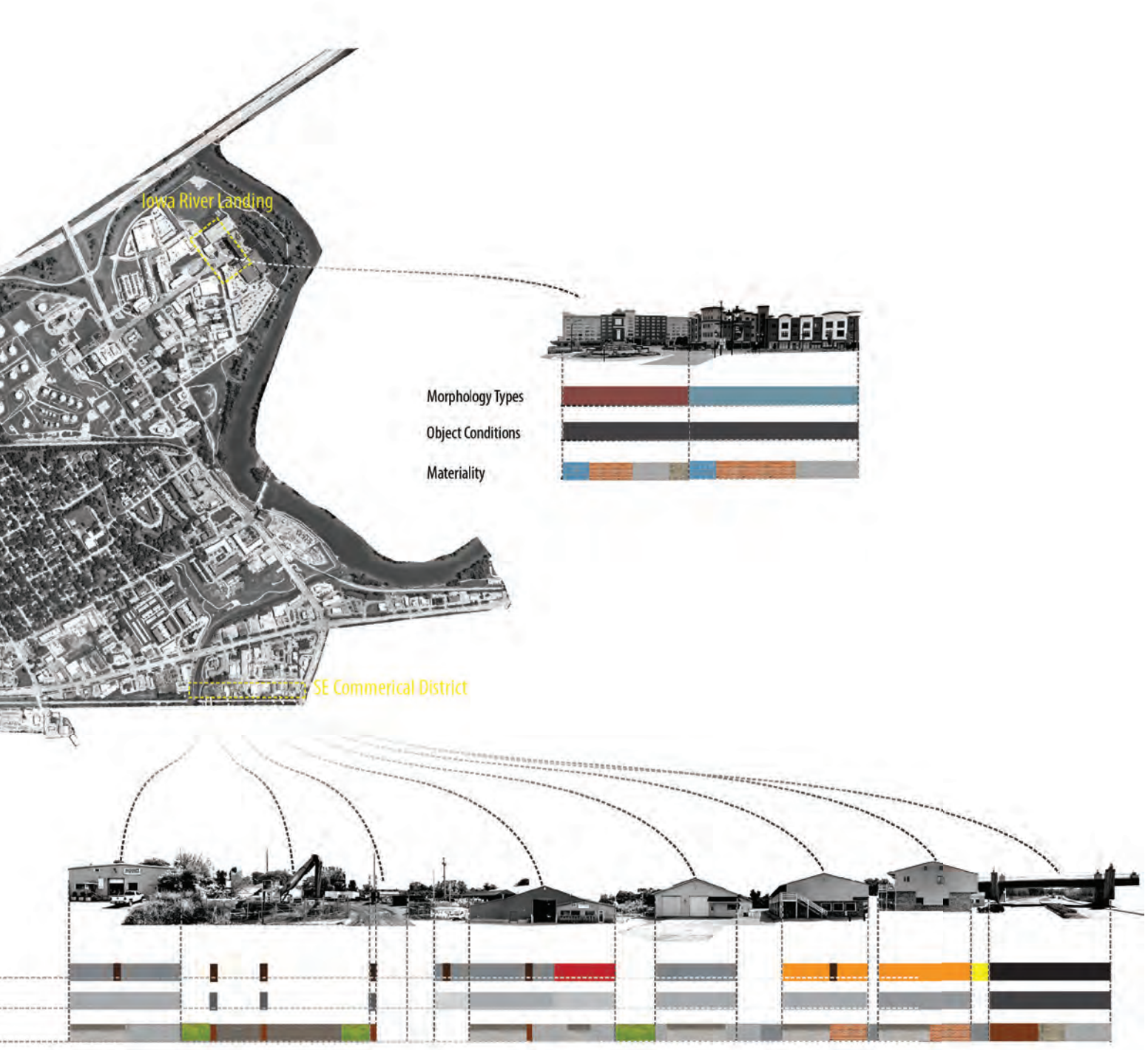


Figure 01. Material types used in Coralville, IA
Source: Google Street View

Map 7.12b

Limestone, Brick, Croton Steel and existing Natural Fabric can be used to increase the historic

Concrete and Asphalt dominates the SE Commercial District associated with Limestone, Brick, Croton Steel and Natural Fabric(vege

W3_Zhong03_Materials.PDF

ACTION:Reduce

Figure 01. Excessive Impermeable Paving Materials
Source: Google Streetview

Figure 02. Excessive Parking Area
Source: Google Streetview

Figure 06. PAVING MATERIAL: Concrete & Asphalt
Source: Google Earth

ACTION:Renovation

Figure 03. Transmission Pole Made with Cortent Steel
Source: Yingyi Z

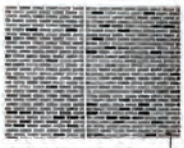


Figure 04. Brick as Architectural and Paving Materials are Prevalent
Source: Yingyi Z

Fig ure05. Existing Southern Rail Line Made with Corten Steel
Source: Yingyi Z

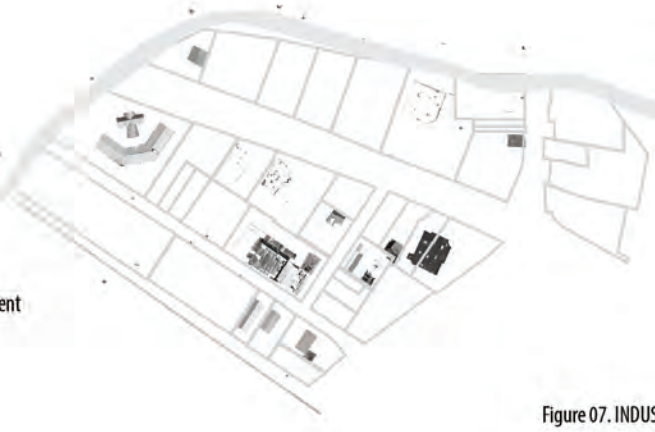


Figure 07. INDUSTRIAL RELIC: Corten Steel & Brick
Source: Google Earth

Inquiry: What types of materials can increase the historical and cultural identity of SE Commercial District

Key Extractions: Materials, Brick, Corten Steel, Natural Fabric

Methodology: Base maps were re-traced from Google maps, and locations of rail line, transmission poles, green space, and 1st Street and its entryway were determined through Google Earth imagery. Images are either derived from Google street view or individual photographs. Materials were determined by Google aerial images and Google Street View.

Conclusions: In the SE Commercial District, concrete and asphalt are the most common paving materials and occupies most of the district area. Natural Fabric(vegetation and soils) are ranked behind concrete and asphalt. Corten steel is found in the rail line and some of the transmission poles. Bricks are commonly found as an architectural material. Limestone is a local material yet not commonly found in this SE Commercial District. According to these maps, choice of materials can be used to reflect the districts prior industrial identity.

Figure 08. LOCAL MATERIAL: Limestone
Source: Google Earth

ACTION:Remain

Figure 10. Limestone is a Local Material that represents Coralville
Source: Yingyi Z

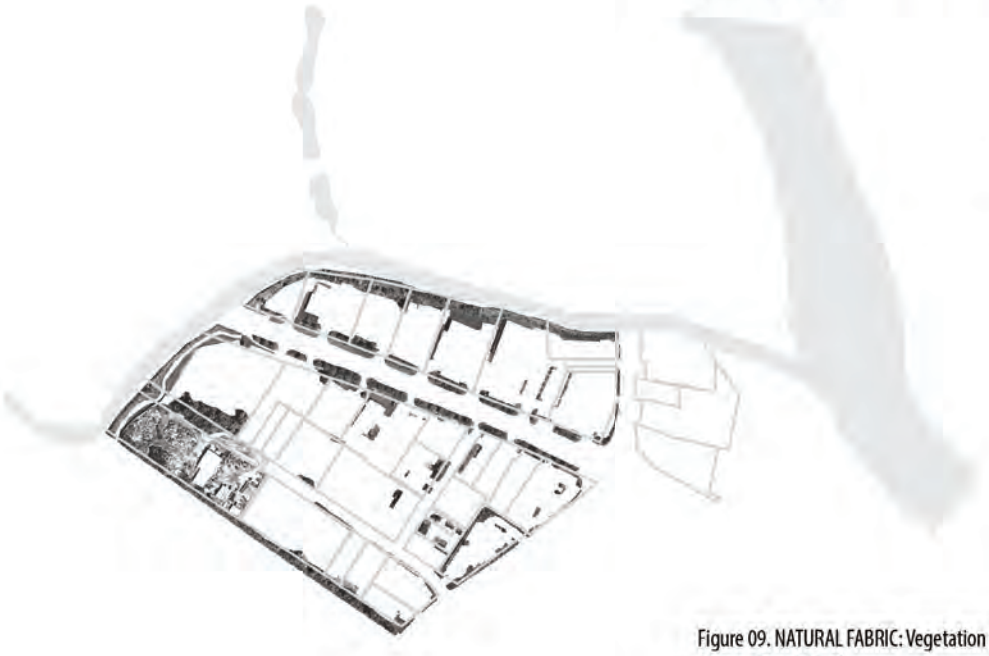


Figure 09. NATURAL FABRIC: Vegetation & Soils
Source: Google Earth

ACTION:Reserve

Figure 11. Existing Landscape Along Clear Creek is attractive and valuable
Source: Yingyi Z

Figure 12. Existing Streetscape is Well Maintained
Source: Yingyi Z

‘Renovate, Reduce, Revise, and Regenerate’ Strategies Guide Redevelopment Framework

Strategies preserve local identity and generate focus areas for future development

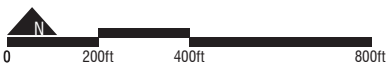
W3_Zhong03_Materials.PDF

Inquiry: How to minimize the disconnectivity and maximize the connectivity in existing rail-trail network in Southeast Commercial District ?
Key Extractions: Rail-trail network, Connectivity, Disconnectivity
Methodology: Base maps are re-traced from Google maps, locations of rail line and transmission poles, green space, and 1st street and its entryway are determined by Google satellite images. Using previous maps in this series, a strategy called “renovate, reduce, and reserve” is generated. The strategy aims to strengthen the historical and cultural identity of SE Commercial District by creating historical corridor, improving and preserving valuable landscape through green corridor, and reducing asphalt and concrete and the investment to them while encourage investing in existing street infrastructure to activate 1st street and create a social corridor for people. To preserve the characteristic of SE Commercial District and improving the current conditions.
Conclusions: The strategy of “Renovate, Reserve and Reduce” will preserve the characteristic of SE Commercial District and improving the current conditions.

Fig 04. Regenerate Concept: Coralville Ring
Source: Google Earth

Regenerate

A New Coralville Ring:
The Highly Defined, Renovated
Boundary Increases City Identity



Legend

- Hydrology
- Renovated Industrial Materials
- Addressed Street Infrastructure
- Green Corridor
- Addressed Boundaries
- Transmission Poles

Successful Pop-Up Spaces Have Similar Attributes When Revitalizing Urban Space

Seating, bright colors, and using salvaged materials are the most common attributes of a temporary space

W3_Quincke01_4K_Comparison.PDF

Figure 1.0. Pop Up Garden revitalized abandoned railroad lot by public installation.
Source: (Instagram, 2017)

Figure 1.0.2. View from soon-to-be Railpark.
Source: (Instagram, 2017)

Figure 1.0.3. Parcels of Philadelphia, PA.
Source: (City of Philadelphia, 2018)

Viaduct- Philadelphia, PA
Parking Lot
Key Elements| Seating, eating, bright colors, artistic element, and night life
Facilitator| Local artists, non-profit and city organizations
Approx. Size| 6,045sqft
Installation Period| 3 Months

Figure 1.2. Crowdus Street shows potential of public space within the cities most urban and creative neighborhood.
Source: (Flickr, 2015)

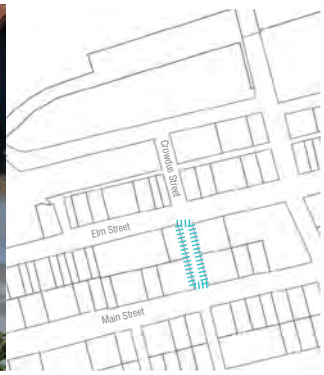


Figure 1.2.2. Parcels of Dallas, TX.
Source: (City of Dallas, 2018)

Crowdus Park - Deep Ellum, TX
1 Block Street
Key Elements| Vegetation, seating, bright colors, ground plane change, entertainment, and night life
Facilitator| Local Volunteers, artists, and city officials
Approx. Size| 8,903.54sqft
Installation Period| 4 Days

Figure 1.3 Social experiment installation to activate previously unsuccessful public plaza in downtown Canberra, Australia.
Source: (Facebook, 2016)

Figure 1.1.2. Parcels of Canberra, Australia.
Source: (ACTMap, 2018)

Garema Place - Canberra, Australia
Public Plaza
Key Elements| Seating, bright colors, artistic element, ground plane change
Facilitator| Surrounding business and local volunteers
Approx. Size| 14,135.03sqft
Installation Period| 8 Days

Inquiry: What are similar elements in precedent temporary installations that could be implemented in Coralville for maximum success?
Key Extractions: Development type, size, key elements, facilitator, amenities, and installation period
Methodology: Precedent images were gathered from a variety of sources with the intent to have a wide range of examples. GIS data was gathered from state and county databases to measure area and parcel footprints. The images on the sheet are in order of smallest to largest size of each site.
Conclusions: All precedent sites analyzed are successful in their own light but it has been concluded that these examples do have similar attributes or implementation styles despite the purpose of installation. The most common amenity to provide in a temporary installation based on these precedents are seating, bright colors, and salvaged materials. The size of each installation likely varies by the amount of community it was exposed to and therefore could vary the successful rate. Overall, each type, size, installation period, and amenities can be applied to the SE Commercial District.

Figure 1.4. Implemented to reimage how an overgrown derelict lot could activate a community. Salvaged materials were used like shipping containers, wood pallets, and bright paint.
Source: (Facebook, 2016)

Figure 1.4.2. Parcels of Louisville, KY.
Source: (LOJIC, 2018)

ReSurfaced- Louisville, KY
Empty Downtown Block
Key Elements| Vegetation, seating, bright colors, ground plane change, entertainment, and night life
Facilitator| Local sponsors, organizations, and volunteers
Approx. Size| 15,666.70sqft
Installation Period| 6 Months (Currently Adopted)

Figure 1.5. Temporary streetscape installed to equip and empower the community of Akron reshape and activate their environments for vibrant and healthy neighborhoods.
Source: (Instagram, 2017)

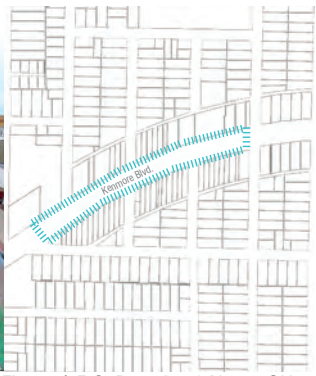
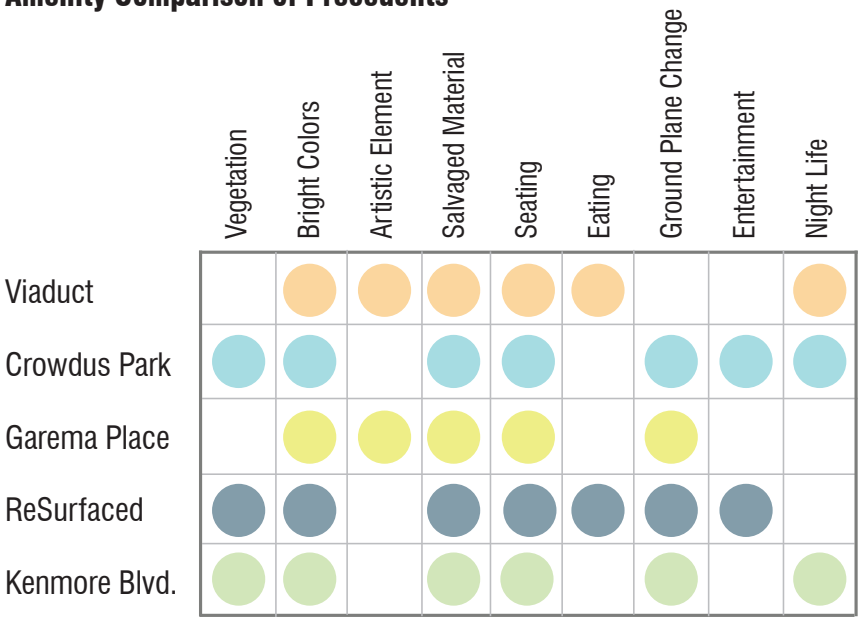


Figure 1.5.2. Parcels of Akron, OH.
Source: (Summit County GIS, 2018)

Kenmore Blvd- Akron, OH
3 Blocks Street
Key Elements| Vegetation, seating, bright colors, ground plane change, and entertainment
Facilitator| Better Block Organization, local volunteers and city council
Approx. Size| 114,803.50sqft
Installation Period| 3 Days

Amenity Comparison of Precedents



SE Commercial District Provides 6 Opportunistic Locations for Temporary Installations

The street, vacant lot, trail, and parking lots may be catalyst sites for temporary installations

W3_Quincke02_200'_Comparison.PDF

Figure 2.0. Opportunistic Locations for Temporary Installations
Source: (Arc GIS, 2018)

Inquiry: Where and what are the types of temporary installation spaces that the SE Commercial District could provide?
Key Extractions: Types and location of potential temporary installations.
Methodology: After a site visit and conclusion of precedent studies, specific existing locations with the most potential were chosen based on their location, type of location, and a proximity to existing popular attractions.
Conclusions: There are six optimum locations within the SE Commercial District and four different types of locations that could be developed: parking lots, streets, trails, and a vacant lot. Each space has its own benefits that could provide a successful temporary installation.

Parking Lot

Benefits | Visual access from Hwy 6, edged with potential business structures, large space

Figure 2.1. Parking lot
Source: (Dunay, 2018)

2nd Ave.

Benefits | Easy access from Hwy 6, edged with potential revitalized businesses

Figure 2.2. 2nd Avenue.
Source: (Dunay, 2018)

Parking Lot

Benefits | Visual access from Hwy 6, large space, close to popular international cuisine

Figure 2.3. Parking lot
Source: (Cooke, 2018)

Vacant Lot

Benefits | Potential development location and easy access from 2nd Avenue, 1st Street, and 1st Avenue

Figure 2.5. Vacant Lot
Source: (Stoffel, 2018)

1st Street

Benefits | Easy access from 1st Avenue, many existing successful business locations

Figure 2.4. 1st Street.
Source: (Quincke, 2018)

Trail

Benefits | Near creek edge, pedestrian connection to Iowa City, improved tunnel experience under railroad

Figure 2.6. Trail connect to U of I
Source: (Mader, 2018)

Temporary Installations Help Revitalize the SE Commercial District

The addition of pop-up installations may increase social and economic benefits for the District

W3_Quincke03_4K_Strategy.PDF

Figure 3.0. Site Opportunity Map
Source: (Arc GIS, 2018)

Trail
Figure 3.1. Trail connection to U of I
Source: (Mader, 2018)

Parking Lot
Figure 3.2. Parking lot
Source: (Dunay, 2018)

2nd Ave.
Figure 3.3. 2nd Avenue.
Source: (Dunay, 2018)

Vacant Lot
Figure 3.4. 1st Street.
Source: (Quincke, 2018)

Inquiry: What could the SE Commercial District look like and benefit from temporary installations?
Key Extractions: Opportunistic locations of the district that temporary installations could be implemented.
Methodology: After selection of opportunistic locations on site, one of each type of temporary installation was chosen to develop a vision based on their location, physical and visual access, and quality of space.
Conclusions: The existing site of the Southeast Commercial District has multiple opportunity location for a range of pop-up installations. Because the site is mostly covered in parking lots, there are many opportunities to activate empty lots with people, food, music and color. Visual access into and from the site will increase the amount of attention the pop-up installation will receive. The dilapidated roads can better utilize residential and business fronts increasing the exposure of existing businesses as well as future development. Connection to Iowa city and attraction to the trail amenities recently implemented in Coralville could be expanded upon with an installation along the trail. Lastly, the vacant lot on the SE Commercial District site provides the most unrestricted opportunity for a temporary or series of temporary installations.

Figure 3.5. Conceptual vision of temporary installation on trail west of SE Commercial District.
Source: (Quincke, 2018)

Trail

Coralville's trails are a wonderful amenity for the local community, but one opportunity missed is the connection to Iowa City and sites southwest of the district. This tunnel running under the railroad tracks connects to University of Iowa's student housing. A temporary installation could attract unaware users to this prime connection point located next to Clear Creek.

Figure 3.6. Conceptual visual of parking lot transformed into a pop-up park.
Source: (Quincke, 2018)

Parking Lot Pop-Up

The location of this lot could provide visual access to and from Highway 6 attracting more community members or visitors to Coralville. This installation could give local artists a chance to shine with the opportunity to make sculptural and paint pieces. Food trucks, games, and bright colors are more activities that could be implemented for all ages.

Figure 3.7. Conceptual vision showing potential on 2nd Avenue.
Source: (Quincke, 2018)

2nd Avenue

With easy access off of Highway 6, this street can provide an easy attraction for business fronts, community gathering, or an introduction to green streets that are being implemented around Coralville.

Figure 3.8. Conceptual vision to activate vacant lot on southeast part of district.
Source: (Quincke, 2018)

Vacant Lot

As a preamble to future developments in the future of the SE Commercial District, the vacant lot space could be activated as an event space to help raise money for development in the district or for a local cause involving local non-profit organizations and city council officials. This space has the most transformative opportunity as there are no existing structural restraints.

Building Mass in the SE Commercial Doesn't Shape Open Space

Three successful precedents demonstrate importance of spatially-ordered buildings

W3_GM01_3K_OpenSpace.PDF

Southeast Commercial District, Coralville, Iowa

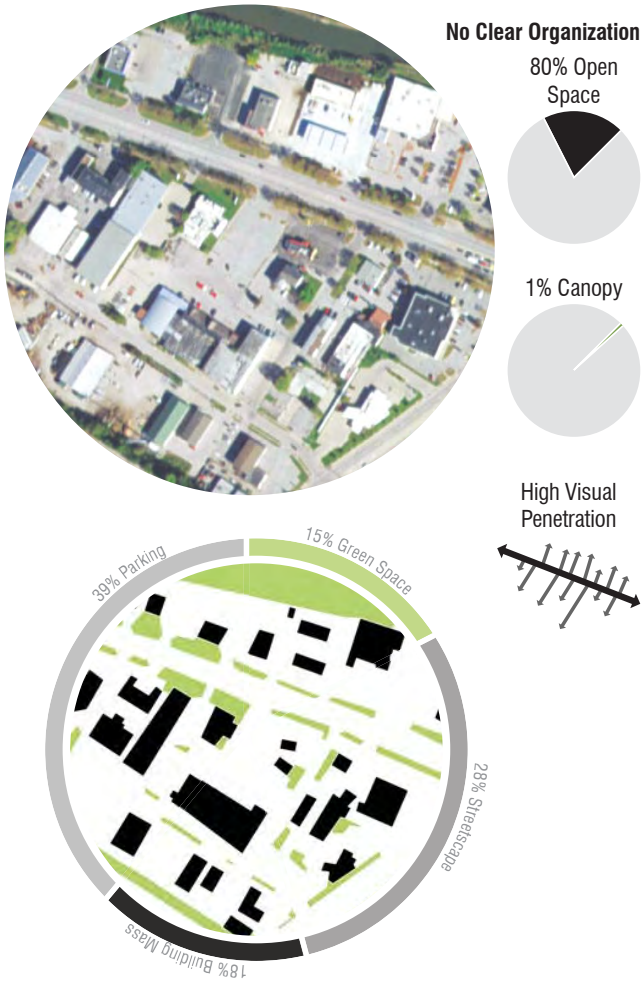


Figure 1: Coralville, Iowa (GIS, 2018)

- Primarily 1-2 story buildings
- Wide open spaces with no formal organization
- Doesn't provide any pedestrian amenities
- Exposed to vehicular traffic
- Low level of enclosure
- Low pedestrian traffic

(Google Maps, 2018)

Pedestrian Mall, Downtown Iowa City, Iowa

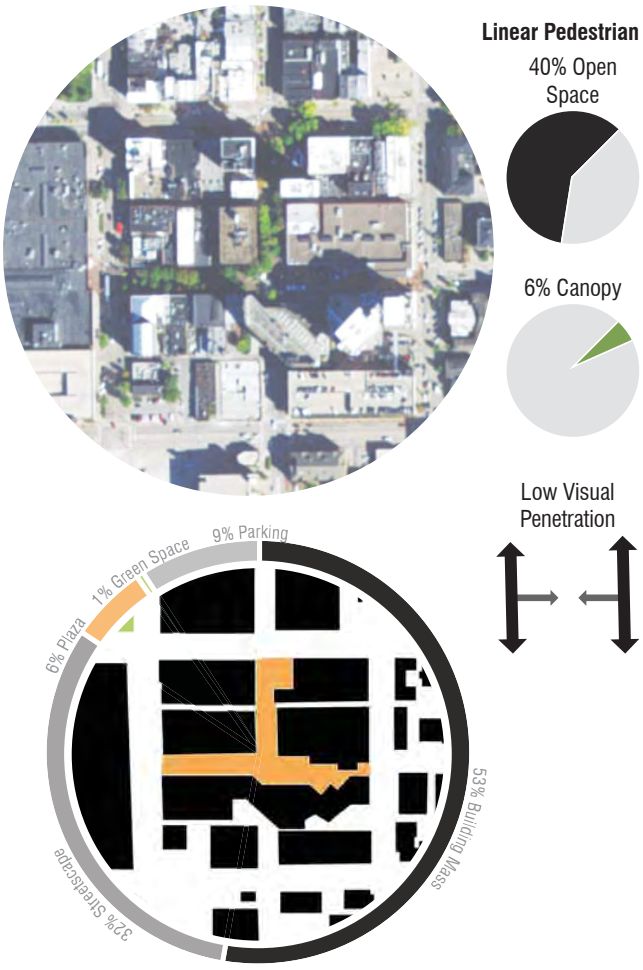


Figure 2: Iowa City, Iowa, (GIS, 2018)

- Primarily 2-5 story buildings
- Long, tree covered pedestrian malls connect arterial streets
- Provides many pedestrian amenities
- Limited exposure to vehicular traffic
- High level of enclosure
- High pedestrian traffic

(Google Maps, 2018)

Inquiry: How does the open space in the SE Commercial District shape building mass in comparison to other locations?

Key Extractions: Building masses, green spaces, plaza spaces

Methodology: Precedent sites were determined based on recommendation and research in order to find a variety of space types and locations to compare. Plaza space, green space, building mass, parking, and overhead canopy was measured via satellite imagery retrieved from GIS. Building height, exposure to vehicular traffic, level of enclosure, and pedestrian traffic were determined based on Google Maps (aerial imagery and street view in combination with user posted site images).

Conclusions: The SE Commercial District in Coralville has considerably lower pedestrian traffic than compared sites. Although reasoning is difficult to determine, noticable differences include the level of exposure to surrounding streets, the amount of structured pedestrian-oriented space and amenities, and building height.

Belmar, Lakewood, Colorado

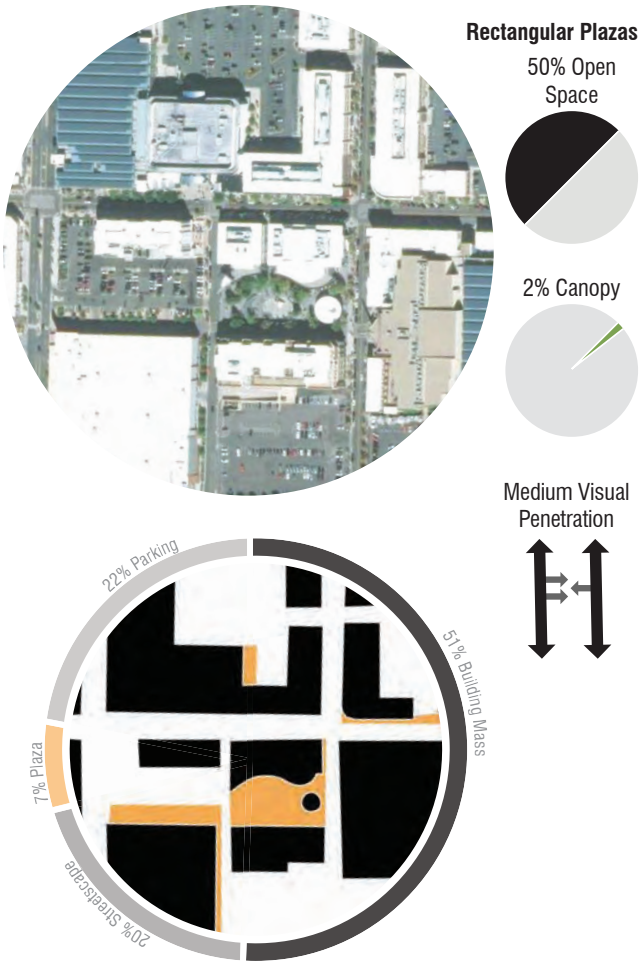


Figure 3: Lakewood, Colorado (GIS, 2018)

- Primarily 3-5 story buildings
- Open, tree covered plaza connects mall district
- Provides many pedestrian amenities
- Some exposure to vehicular traffic
- Medium level of enclosure
- Medium pedestrian traffic

(Google Maps, 2018)

Leipziger Platz, Berlin, Germany

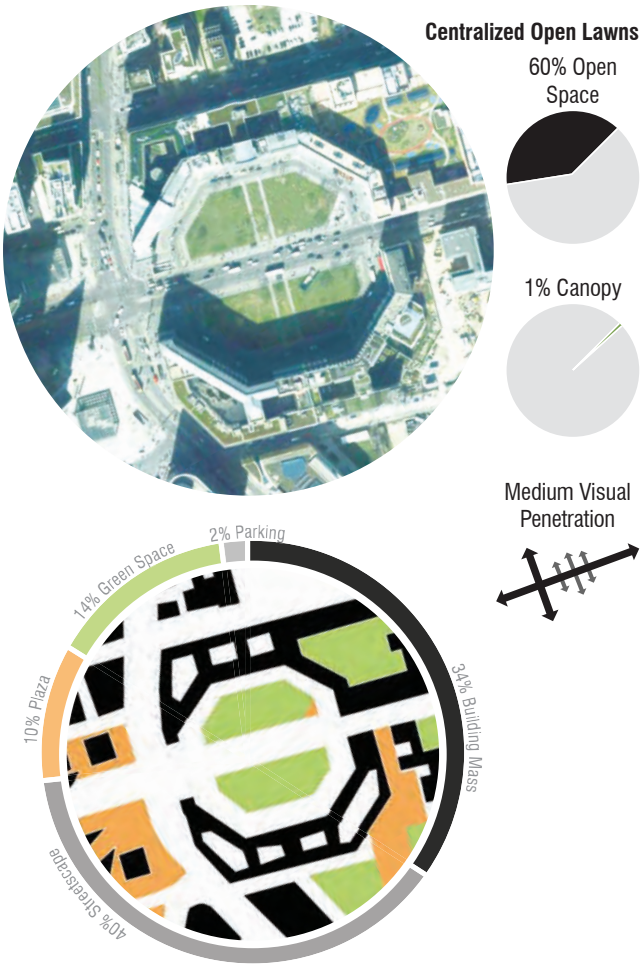
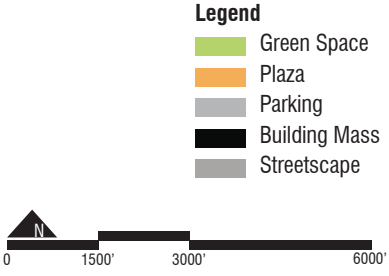


Figure 4: Berlin, Germany (GIS, 2018)

- Primarily 10-20 story buildings
- Formally arranged open lawn with paved edges
- Provides limited pedestrian amenities
- Exposed to vehicular traffic
- Medium/high level of enclosure
- Medium/high pedestrian traffic

(Google Maps, 2018)



The SE Commercial District Has Opportunities for Structured Open Space

Open space could be integrated alongside existing trails, streets, or within the interior of the site

W3_GM02_4K_OpenSpace.PDF

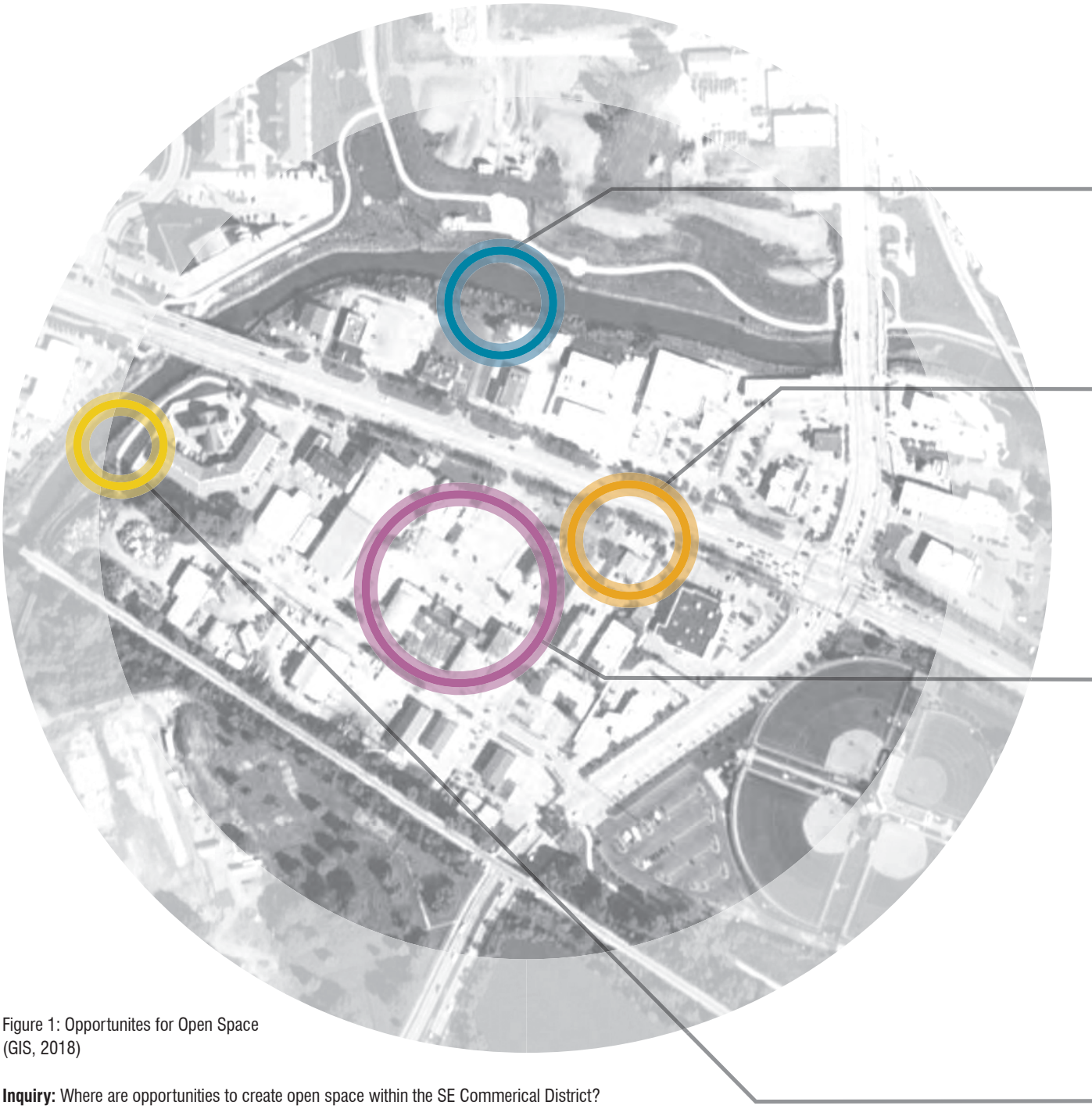


Figure 1: Opportunites for Open Space
(GIS, 2018)

Inquiry: Where are opportunities to create open space within the SE Commerical District?
Key Extractions: Satellite imagery with key areas circled
Methodology: Key locations were determined from site visits based on connection to the surrounding community through water bodies, trail systems, and streets.
Conclusions: The Southeast Commercial District offers several locations that could work for structured open space. These open spaces can be formed through the use of building mass as well as using the edges of the site. Connections could be made to Clear Creek, to the existing trail system, or to one of the adjacent streets. The site is large enough to also offer opportunities to have some open space within the central zone of the southern portion of the site.

Figure 2: Proximity to Clear Creek and the surrounding natural area helps emhasize natural beauty of the region.
(Mader, 2018)

Figure 3: Proximity to streets could lead to further connection between proposed open space to the rest of the community.
(Mader, 2018)

Figure 4: Existing open space is centralized within the site with the potential to be protected from nearby busy streets.
(Mader, 2018)

Figure 5: The existing trail system that wraps along the edge of the site offers the opportunity to help connect new public space to the surrounding community.
(Belanger, 2018)

N

0 2000' 4000' 8000'

*Colors are for clarity only and have no significance

The SE Commercial District Should Use Future Building Masses to Shape Open Space

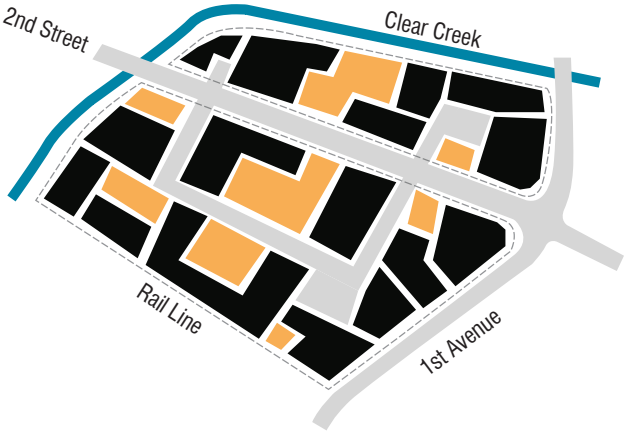
The district could use linear, rectangular, or centralized open space with plazas and with green space

W3_GM03_NoScale_OpenSpace.PDF

Linear Pedestrian Mall

Figure 1: A linear pedestrian mall could be paved or become a linear park. It has the potential to connect to the existing trail system, run alongside (or perpendicular to) roads, and meet Clear Creek. (Mader, 2018)

Rectangular Plaza



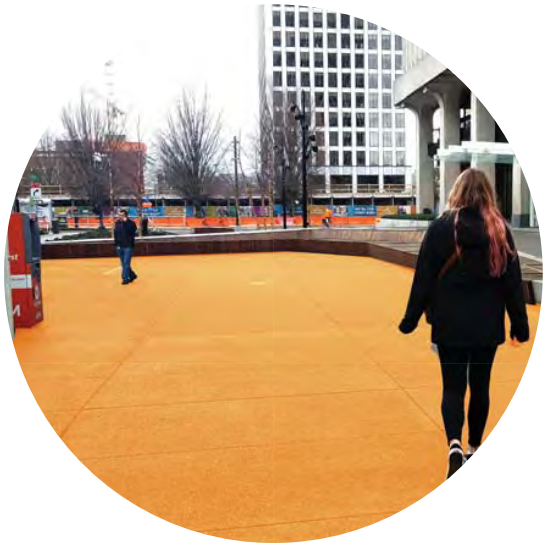


Figure 2: An open plaza provides ample space for pedestrian movement as well as events and gatherings to occur. The plaza could be positioned adjacent to existing streets or near Clear Creek and should include several types of furnishings, seating options, and trees. (Mader, 2018)

Inquiry: How could open space be implemented within the SE Commercial District?
Key Extractions: Optional building masses, plaza spaces, and green spaces
Methodology: Good locations for future open space were determined through case studies of precedents and visits to the site to determine important connections needed for future development.
Conclusions: The placement and shape of future buildings on the site will hold a key role in determining how open space on the site can be developed. The two should be designed at the same time in order to effectively create spaces that move fluidly from interior to exterior. These spaces can be organized as linear pedestrian malls, rectangular plazas or lawns, or centralized plazas or lawns however the best use of space is to combine all three in order to make the most use of the site.

Centralized Lawn

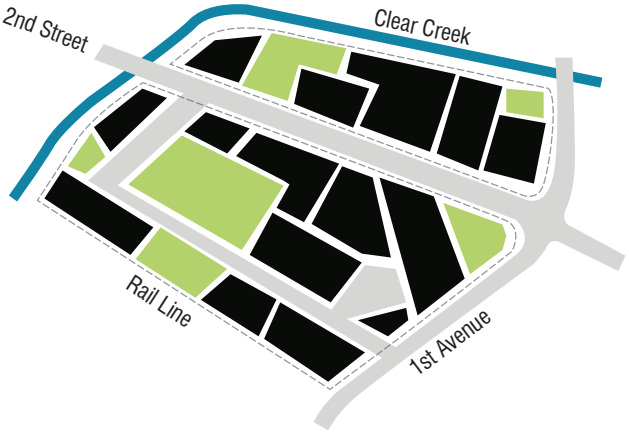


Figure 3: Lawn space could be positioned centrally on the site to provide green space to all surrounding buildings while still being protected from the vehicular traffic along the streets.
(Mader, 2018).

Hybrid

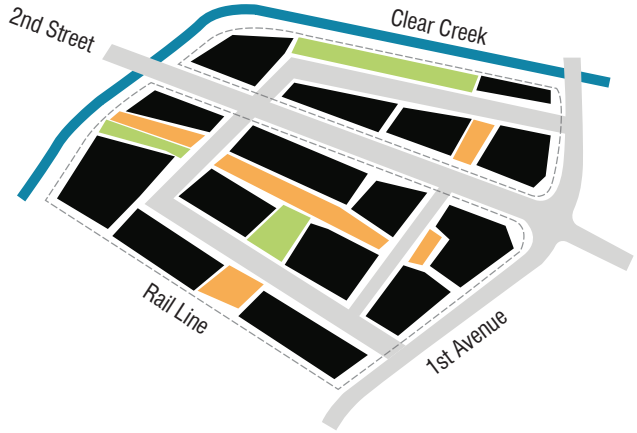


Figure 4: Arguably the most effective strategy, linear space, plazas, and green space can all be combined to use the site as efficiently as possible while also connecting it to the rest of the community.
(Mader, 2014).

Existing Layout of the Outdoor Hardscape and Softscape and Users' Orientation

Examining the general condition of the outdoor hardscape and softscape and user's orientation.

W3_Chen01_HardscapeSoftscape.pdf

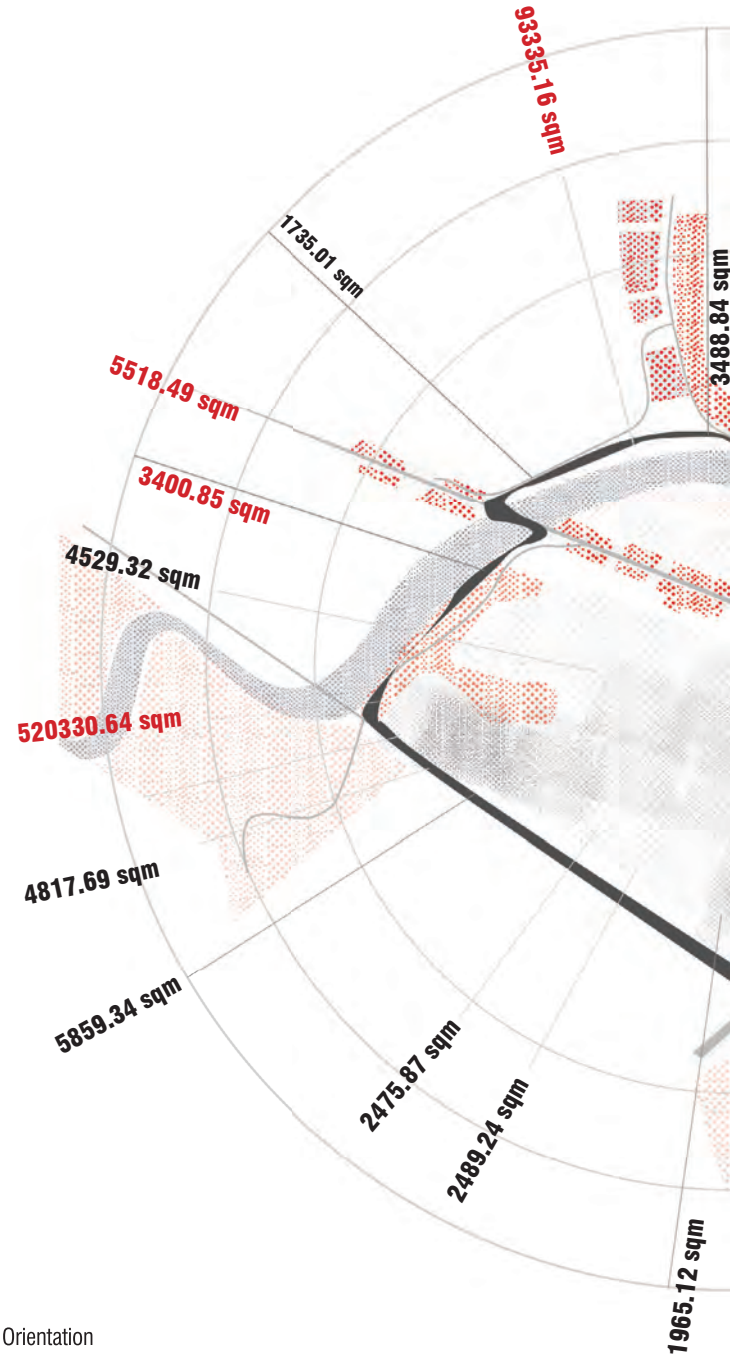
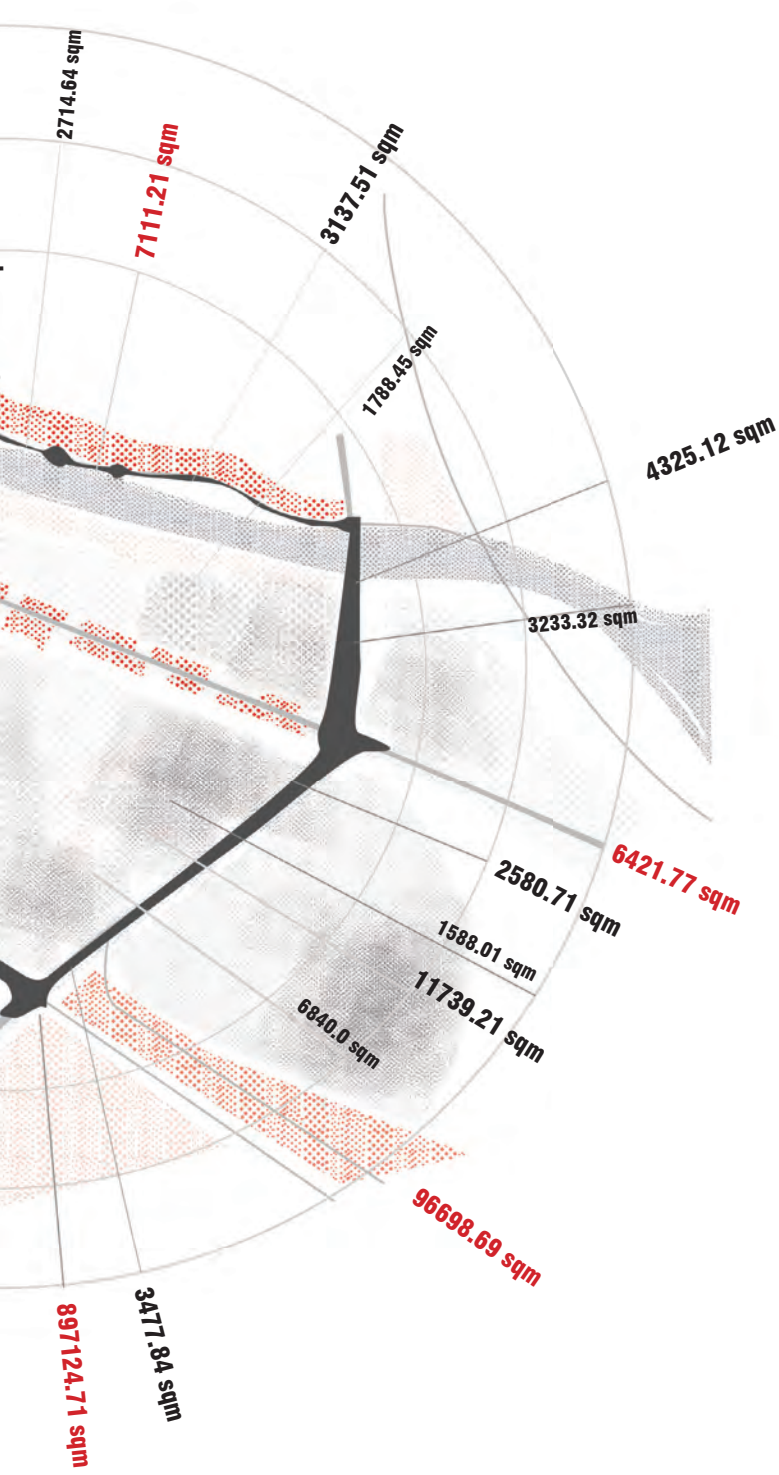


Figure 1. Existing Layout of the Outdoor Hardscape and Softscape and Users' Orientation
Source: Google Earth 2018. Arcmap GIS; Chen 2018

Inquiry: What are the users' orientation pattern on the existing hardscape and softscpae of the site?
Key Extractions: Hardscsape. Softscape. Users' Orientation.
Methodology: The general location for existing softscape(represent in red) and hardscape(represent in light gray) are traced from the data provided by Google Earth. The users' orientation is represented by the opacity of the pattern, and the data is collected in both a objective way (documenting the population density and user occupation from the site inventory) and a subjective way(hypothesizing through analyzing the usage and popularity of program and its surroundings). The three circles represent the level of usage in an abstract way for easier interpretation (the inner ring is the lowest level of usage, and the outer ring is the highest level). The lines give a general understanding of the areas studied, and provide the information of the studied area's size.
Conclusions: According to the map, the users' orientation on the softscape is along the 1st St, Clear Creek Trail and Mormon Trek. It make sense as the above area are valuable accessible green spaces to be preserved and strengthen. Users' orientation to the hardscape is aloing the 2nd Ave, which shows a gradual decrease from the north (where more prominent bussiness such as Walgreens and Midwest Bank are located) to the south (where softball stadium and smaller local retails are located).



Outdoor Hardscape

Open Spaces/Softscape

Site Boundary

N

0 1000ft 2000ft 4000ft

Existing Layout of Outdoor Infrastructure and Open Spaces

Outdoor infrastructure and open space are mapped by size and proximity.

W3_Chen02_HardscapeSoftscape.PDF

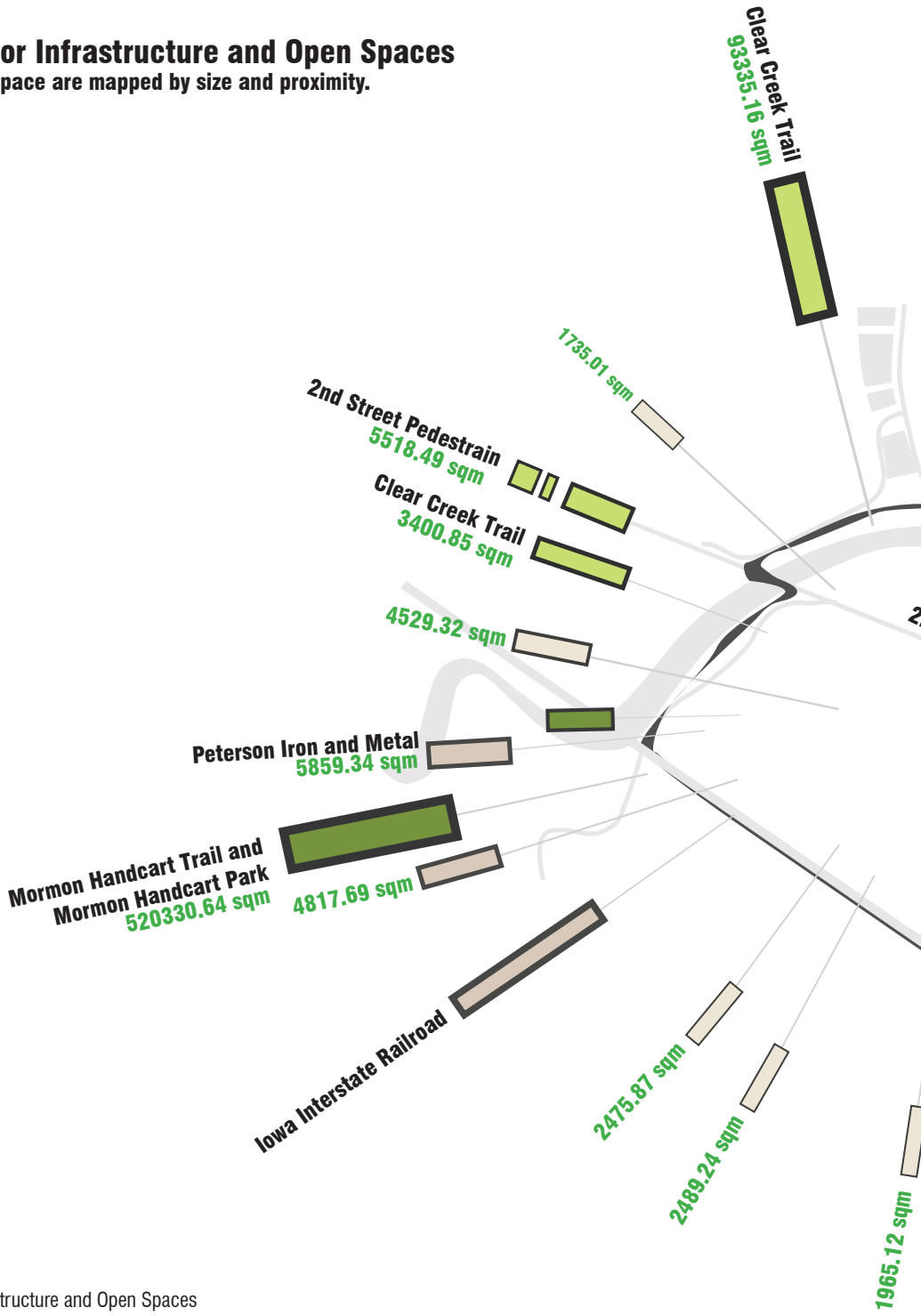
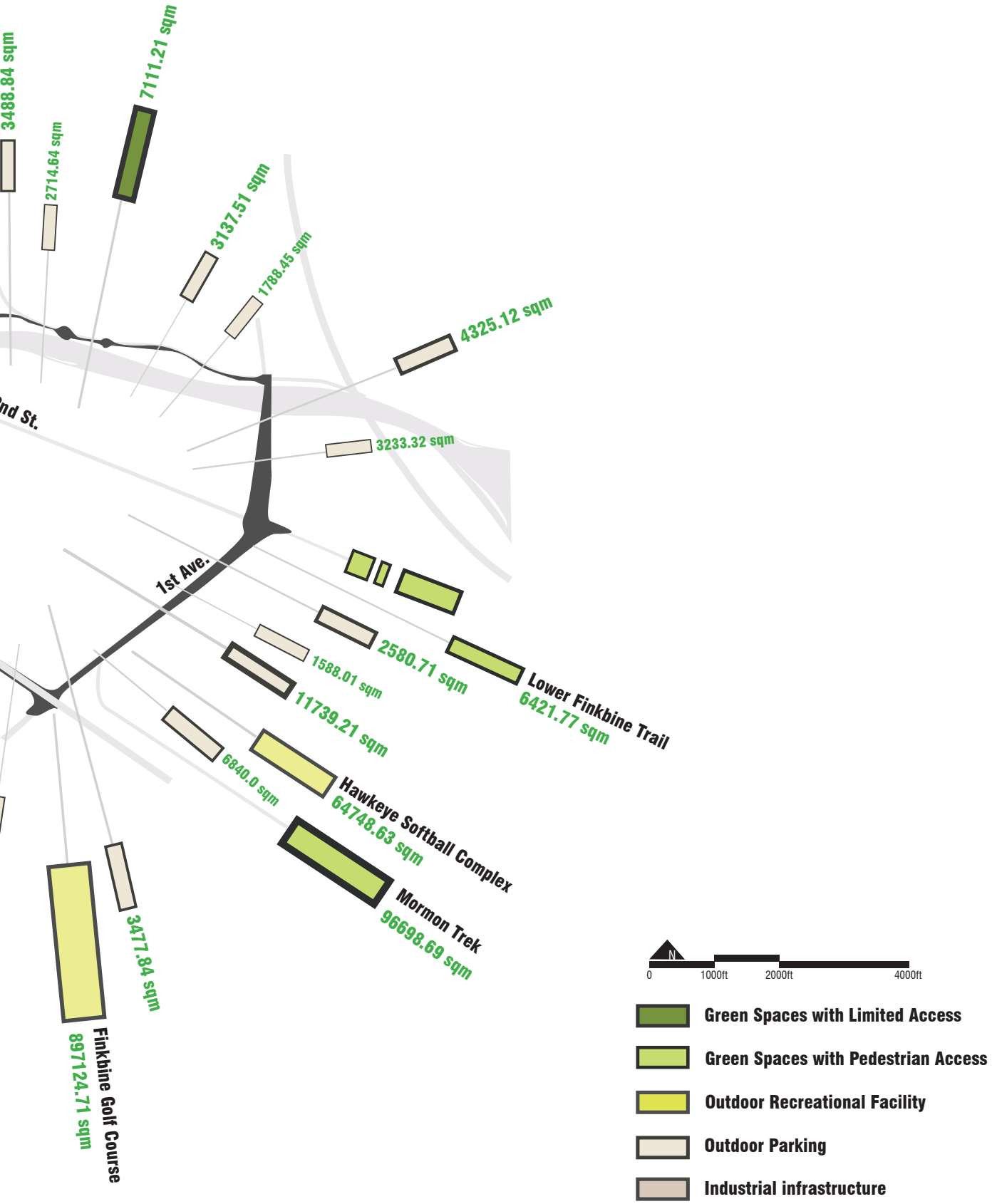


Figure 2. Existing Layout of Outdoor Infrastructure and Open Spaces
Source: Googel Earth Pro; Chen 2018

Inquiry: What are the existing characteristics of the outdoor infrastructures and open spaces?
Key Extractions: Outdoor Infrastructure. Open Spaces. Parking. Green Space. Paving. Size and proximity.
Methodology: Primary types of the outdoor infrastructure(such as rail, industrial sites, parking lots, and recreational facilities) and open spaces (such as green space with limited access, and green space with pedestrain access) were identified and arranged in a radial pattern with a grey line to indicate its location. The size of the colored block indicates the size of the studied areas, while the line weights indicate the level of opportunity or limitation. The location and size information of the outdoor infrastructure and open spaces were retrieved from the Google Earth Pro.
Conclusions: According to the map, outdoor parking and industrail infrastructure dominant the site resulting in limited walkability and program variety, fragementation, urban heat island effect and inefficient landuse. There are some existing green spaces with limited access which hold great potential for social and ecological benefits due to location.


3488.84 sqm
2714.64 sqm
7111.21 sqm
3137.51 sqm
1788.45 sqm
4325.12 sqm
nd St.
3233.32 sqm
1st Ave.
2580.71 sqm
1588.01 sqm
Lower Finkbine Trail
6421.77 sqm
11739.21 sqm
6840.0 sqm
Hawkeye Softball Complex
64748.63 sqm
Mormon Trek
96698.69 sqm
3477.84 sqm
Finkbine Golf Course
897124.71 sqm
N
0
1000ft
2000ft
4000ft
Green Spaces with Limited Access
Green Spaces with Pedestrian Access
Outdoor Recreational Facility
Outdoor Parking
Industrial infrastructure

Urban Nodes and Loops Constitute Framework for Future Redevelopment

Urban nodes and loops emerge from infrastructure and open space analysis

W2_Chen03_HardscapeSoftscape.PDF

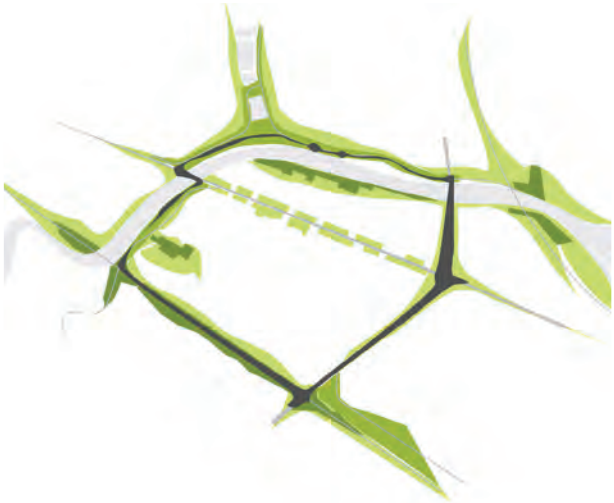
Figure 1. **Infrastructure Landscape Loop**

Figure 2. **Activity Mobility Loop**

Figure 3. Urban Nodes and Loops
Source: Google Earth Pro; Chen 2018

Inquiry: How can the existing characters of landscape infrastructure and open spaces inform the urban loop and nodes?
Key Extractions: Urban Loop. Nodes. Landscape Infrastructure. Green Loop. Mobility. Activity.
Methodology: By analyzing the infrastructure loop, mobility loops, activity nodes, and green loop, a sketch for an urban loop and nodes emerges.
Conclusions: Result of this map could help inform future decisions for an urban setting, through a new perspectives of generating landscape nodes and loop from the existing infrastructure.

Figure 3. **Green Radial Loop**



Landscape Loop as Accessible Green Space

Landscape Nodes as Infrastructure

Landscape Nodes as Open Green Space

Activity Nodes

Figure 4. **Infrastructure Nodes and Green Loop**

Map 7.16a

2nd Street Divides SE Commercial district

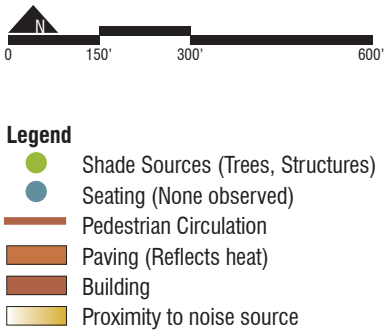
66’ wide highway creates barrier to pedestrian circulation which prevents site unity

W2_Randall01_PedComfort.PDF

Figure 1. Sensory Comfort (Heat)
Source: Google Earth Pro (2018)

Inquiry: How comfortable is the SE Commercial District?
Key Extractions: Heat-absorbing areas (paved), shade trees/structures, roads and paved trails, benches/outdoor seat
Methodology: Mapping trees/shade structures, parking, roads and paved trails, benches/outdoor seating
Conclusions: While there is decent pedestrian connectivity, there is minimal planning and design for human comfort in the outdoor environment. With the notable exception of the 2nd St./HW6 sidewalks, most pedestrian paths are moderately to very exposed to the elements, particularly the sun. The high percentage of parking lot, road, and paved area absorbs heat in the summer, further decreasing human comfort. In addition to the lack of shelter, the only option for seating is the ground. Finally, noise from the road, particularly the intersection of First Ave, and Second Street, creates noticable autditory discomfort near the roads. The cumulative effect of these factros creates an environment that is generally uncomfortable for pedestrian use.

Figure 2. Sensory Comfort (Noise)
Source: Google Earth Pro (2018)



Nodes and Open Spaces are Opportunites for Comfortable Pedestrian Areas

The lack of comfortable spaces is not due to lack of space

W2_Randall03_PedComfort.PDF

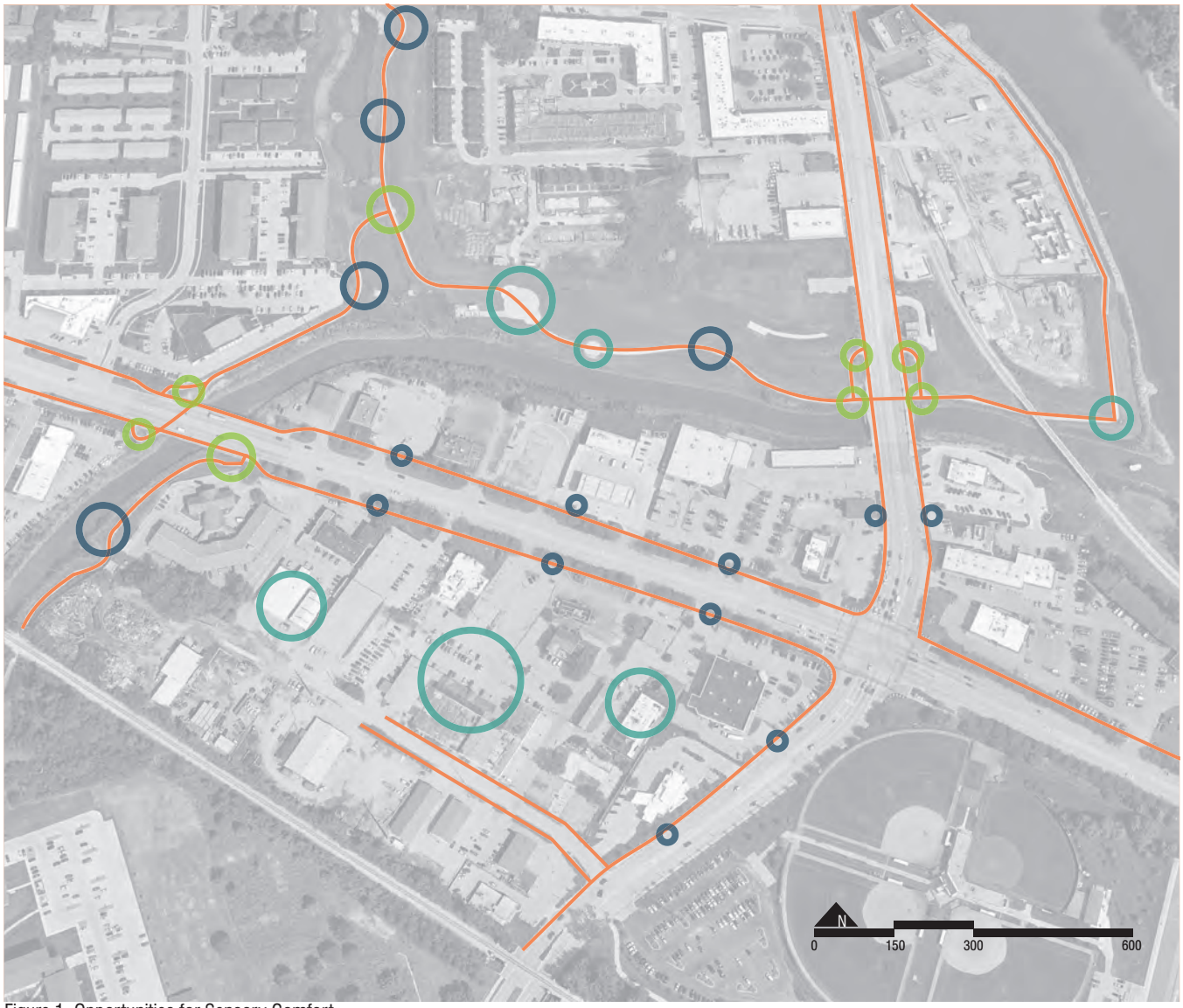


Figure 1. Opportunities for Sensory Comfort
Source: Google Earth Pro (June 1, 2018)

Legend

- Circulation Node Space
- Gathering
- Pedestrian Rest

Approximate Available Space

LESS MORE

Inquiry: What areas present opportunities to create comfortable spaces in the SE Commercial District?
Key Extractions: Opportunites for comfortable spaces
Methodology: Identifying and marking circulation nodes, moderately-sized unprogrammed areas, and potential gathering spaces based on observation.
Conclusions: While there are currently few site elements that provide comfort, there are many opportunities to create comfortable spaces for rest and gathering, particularly along the Clear Creek. Based on site observations, adequate unprogrammed space is available at several pedestrian circulation nodes. The green corridor along Clear Creek has a significant amount of space that can be programmed with seating and shade structures to create places to rest and relax in a greener setting. Along the north and south sides of 2nd Street there is generally adequate shade from trees but nowhere to sit. The wide sidewalks and park strip could accomodate benches to provide places to rest along a very long stretch of sidewalk.

Precedents - Comfortable Urban Spaces

Figure 2. Compact street seating - London, UK
Source: wmbstudio.co.uk (2015)

Figure . Paley Park - NYC, USA
Source: Project for Public Spaces/pps.org (2018)

Figure 4. Hot Tub Parklet - Vancouver, BC, Canada
Source: Paul Krueger via Flickr (2012)

Shade Structures and Outdoor Seating Will Greatly Improve Pedestrian Comfort

Program elements such as small structures, benches and defined pedestrian spaces will improve pedestrian site experiences

W2_Randall03_PedComfort.PDF

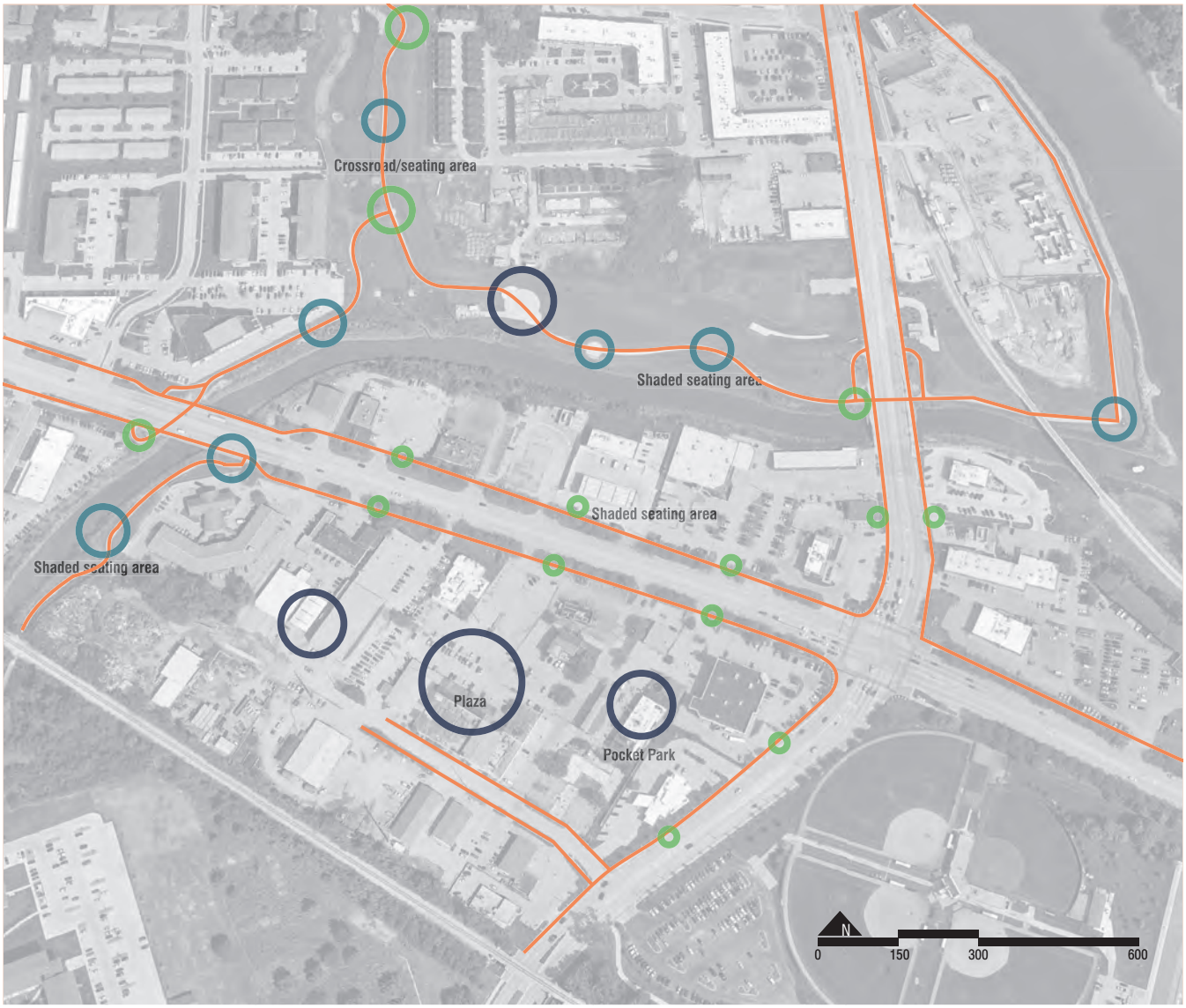


Figure 1. Opportunities for Sensory Comfort
Source: Google Earth Pro (June 1, 2018)

Legend

- Phase I - 1 Year
- Phase II - 3 Year
- Phase III - 5 Year

Approximate Project Size

LESS MORE

Inquiry: How can the pedestrian experience be improved in the SE Commercial District?
Key Extractions: Locations and phasing for improving pedestrian comfort
Methodology: Separating potential sites from opportunity map into three phases - short-,mid-, and long-term based on project size.
Conclusions: Maximizing the site potential for pedestrian experience will be a long-term project, however, there are short-term projects that have the potential for big impacts. Adding benches and seating is a simple solution that can take advantage of existing shade and provide much needed rest on long stretches of pedestrian circulation. Mid-term projects include tree planting and structures to increase available shade for seating. This should be done in conjunction with additional seating to create sheltered, restful spaces. Long-term projects should include dynamic urban spaces to accommodate a variety of activities and gatherings. These projects will include amenities for small and large-scale gatherings and free/paid public events with programming for restful activities when there are no scheduled events. Shade and rest should continue to be factors for these larger spaces.

Short Term - Seating

Figure 02. Benches at the Plaza at Harvard

Source: http://www.stoss.net/projects/16/the-plaza-at-harvard/

Mid-Term - Expand Seating, Shade Structures

Figure 03. Shopes at Dos Lagos, Riverside, California

Source: ranchoreubidoux.com/2010/11/10/linear-movement/

Long-Term - Plazas/Urban Green Space

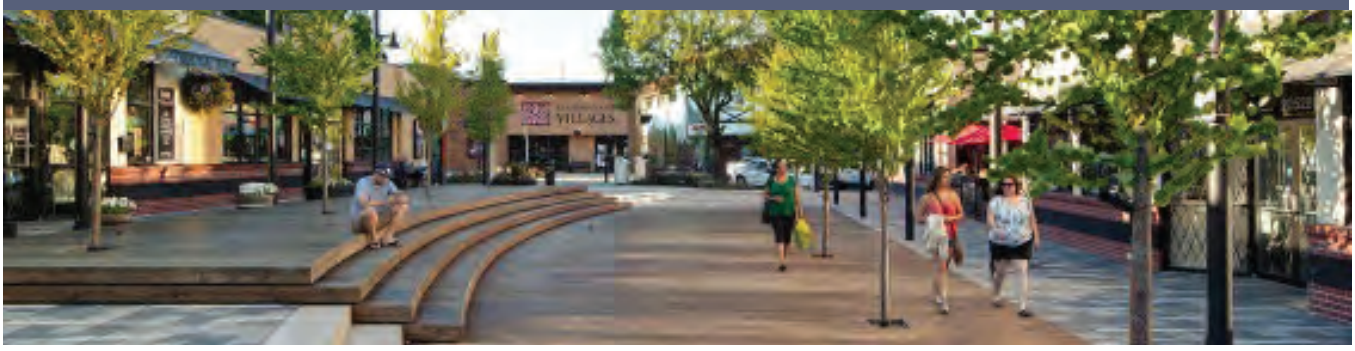


Figure 04. McBurney Lane, Langley, Virginia

Source: worldlandscapearchitect.com

Map 7.17a

Visual Conditions are Highly Varied Within the Southeast Commercial District

Visual conditions are defined by street corridors, utility corridors, elevated rail line, and building setbacks

W2_Benyshek01_Views.pdf

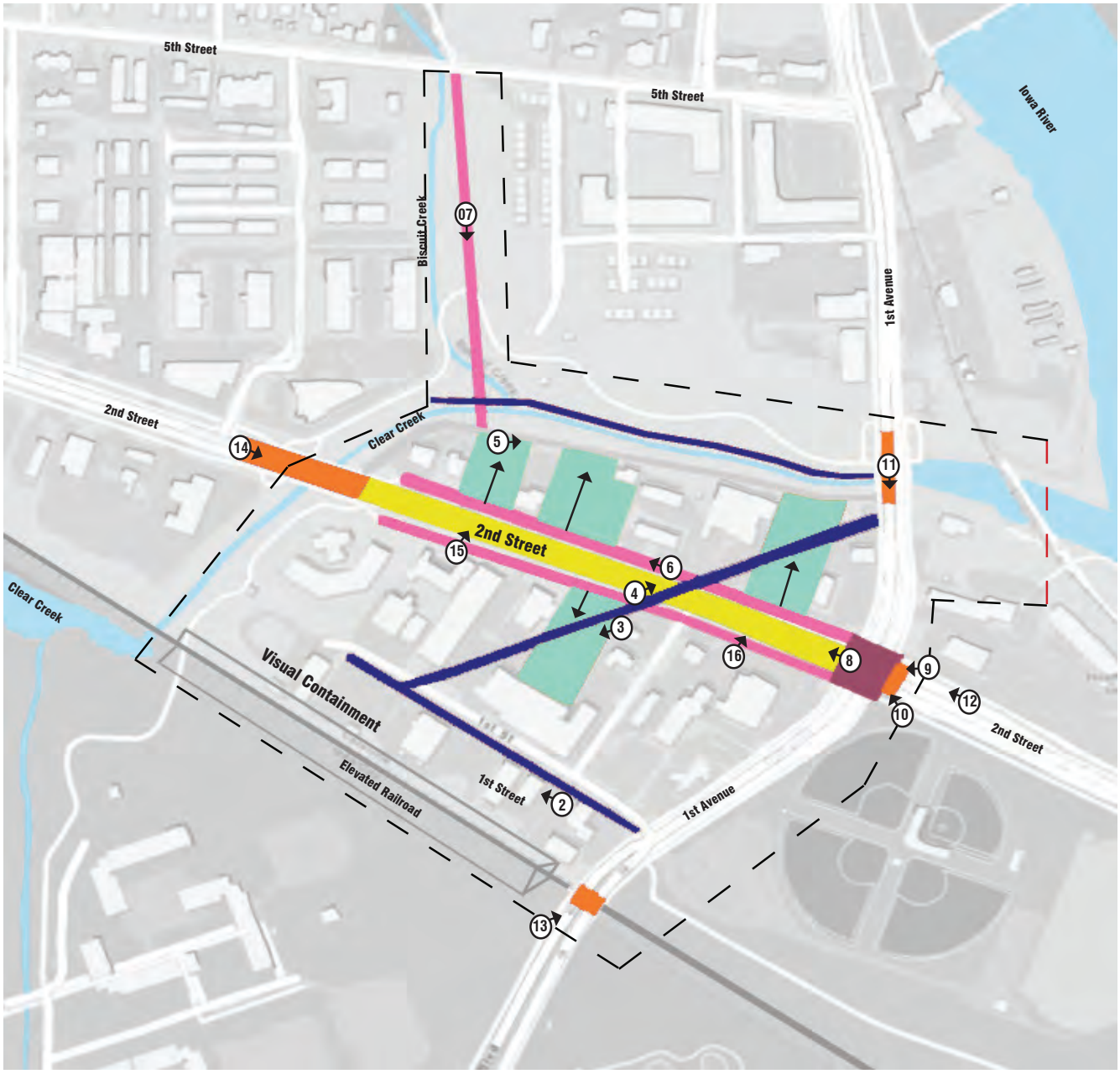


Figure 1. Existing View Conditions of Southeast Commercial District

Source: Benyshek, 2018

Inquiry: What types of visual connections do pedestrians and drivers experience in Coralville's Southeast Commercial District?

Key Extractions: Existing Types of Views

Methodology: These main types of views were photographed and mapped after visiting the Southeast Commercial District.

Conclusions: 2nd Street plays an important role in bringing people to the study area and enabling views into the north and south areas adjacent to the street. Currently drivers and pedestrians have three penetrating views north of 2nd Street and one view on the south side. Utility corridors and an elevated rail line also interfere with views.

Legend

- Site Boundary
- Vehicular Corridor
- Pedestrian Corridor
- Penetrating Views Into Site (> 60 Feet)
- Utility Corridor
- Entryway
- Crosswalk

Corridor Views

Figure 2. Powerline Corridor Running Along 1st Street
Source: Mader, 2018

Figure 3. Powerline Corridor Running Diagonally Across Site (Looking SW)
Source: Stoffel, 2018

Figure 4. Powerline Corridor Running Diagonally Across Site (Looking NE)
Source: Stoffel, 2018

Figure 5. Powerline Corridor Along Clear Creek
Source: Dunay, 2018

Figure 6. Pedestrian Corrdior North of 2nd Street
Source: Cooke, 2018

Figure 7. Pedestrian Corridor Near Biscuit Creek
Source: Stoffel, 2018

Intersection Views

Figure 8. Vehicular Corridor on 2nd Street
Source: Benyshek, 2018

Figure 9. View from Crosswalk (Looking Diagonally to the SW)
Source: Hahn, 2018

Figure 10. View from Crosswalk (Looking Diagonally to the NW)
Source: Hahn, 2018

Entrance Views

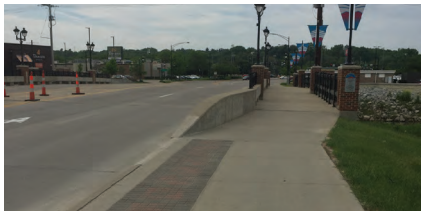


Figure 11. North Entrance
Source: Benyshek, 2018

Figure 12. East Entrance
Source: Benyshek, 2018

Figure 13. South Entrance
Source: Hahn, 2018

Penetrating Views Into District

Figure 14. West Entrance
Source: Benyshek, 2018

Figure 15. Far West View Into the Site
Source: Dunay, 2018

Figure 16. Far East View Into the Site
Source: Mader, 2018

Adding Gateways and Setting Up Axial Views will Contribute to District Identity

New gateways will help mark the boundaries of the district and express its unique character

W2_Benyshek03_Views.pdf

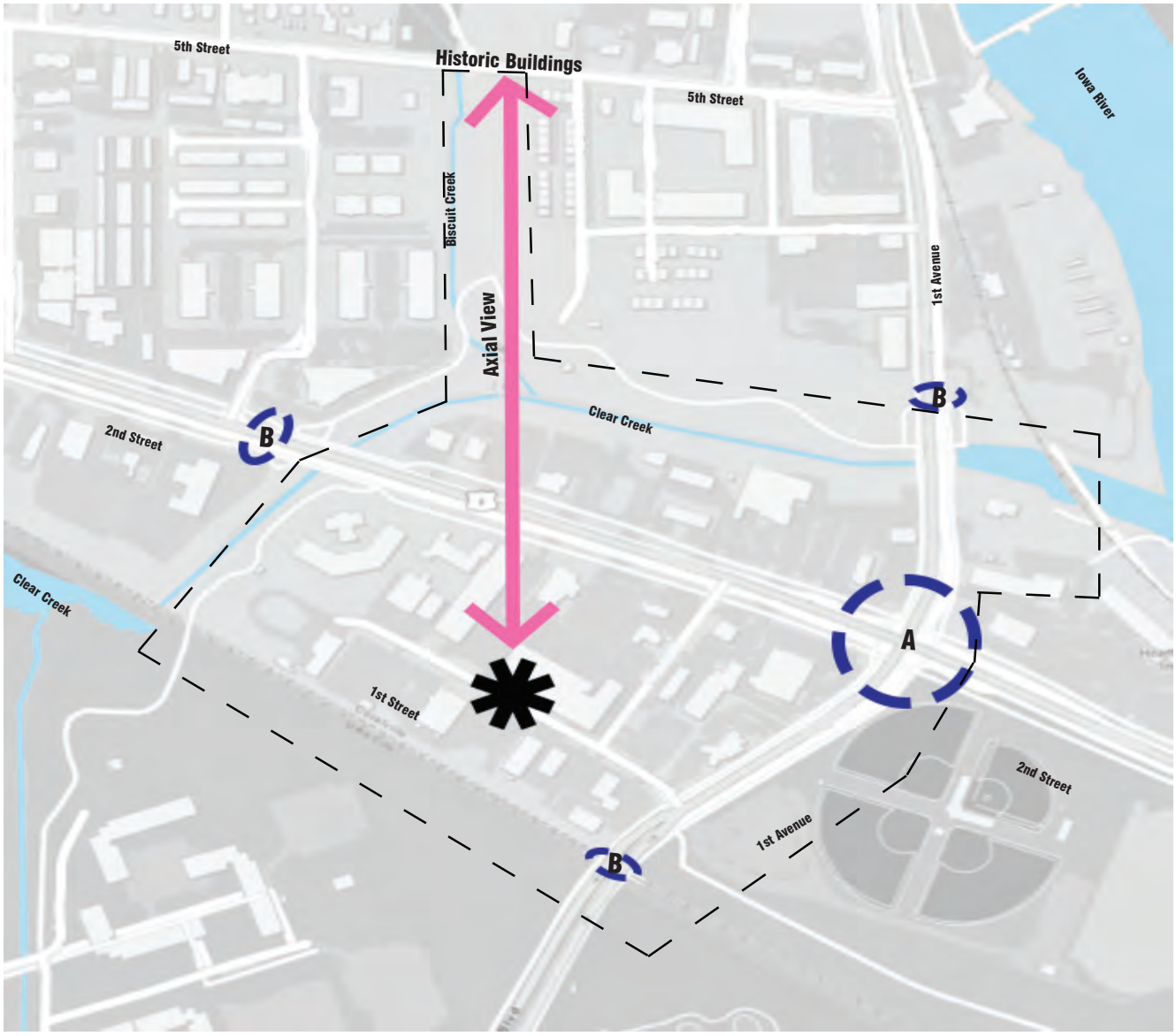


Figure 1. Proposed Changes to Southeast Commercial District Views

Source: Benyshek, 2018

Inquiry: Where can the Southeast Commercial District improve its views and visual connections with pedestrians and drivers?

Key Extractions: Potential areas to develop stronger views

Methodology: These opportunity areas were chosen after analyzing the view classification map.

Conclusions: The Southeast Commercial District does not have any signs or typical gateway elements to mark its four entrances into the site. Therefore, the district is not clearly distinguished from other areas of Coralville. This presents the opportunity to develop gateways at the four entrances into the site as visual indicators for pedestrians and drivers to transition into and out of the site. In addition, the north pedestrian corridor near Biscuit Creek offers a strong visual connection to the north half of the site. Extending the pedestrian corridor could potentially bridge the visual connections between the north and south halves of the site.

Legend

- Study Area Boundary
- A — Potential Primary Gateway Location
- B — Potential Secondary Gateway Location
- Existing Axial View
- Focal Point

Primary Gateway Opportunities

Figure 2. Example of an Overhead Structure as Primary Gateway Element in Chicago's Lincoln Square
Source: Pearce, 2006

This example from Chicago's Lincoln Square shows a gateway structure with vertical columns on both sides of the street and an overhead site sign connected between the two columns. The sign reflects the character of the area through its materials and design and clearly signifies the boundary of the site as drivers approach it. Adding a gateway element to the west entrance of Coralville's Southeast Commercial District with similar goals to this example can help a majority of the drivers and pedestrians going through the site to better understand the unique character of the district and make a stronger connection with it.

Secondary Gateway Opportunities

Figure 3. Example of Vertical Columns as Secondary Gateway Elements in Chesapeake, Virginia
Source: ("Gateways", 2010)

Chesapeake, Virginia's vertical towers are a nice example of secondary gateway elements. The simple and elegant structures remind drivers and pedestrians that they are entering the city, even if the entrance is not as heavily used as other entrances. Adding simple, elegant towers like those found in this example to the north and east entrances of the Southeast Commercial District can improve the welcoming feeling for more drivers and pedestrians as they enter the site.

Elements at View Termination Point

Figure 4. Example of an Element Placed at the Terminating Point of a View at the Washington Monument
Source: (Ruane, 2016)

The Washington Monument is a clear example of an element placed at the end of a line of view to mark its termination point. The monument's height is important for viewers to see it at any point along the line of view. Placing a tall element at the end of the proposed extended north pedestrian path will help draw pedestrians and drivers into more of the site both visually and physically. A tall element at the view's termination point can also become a wayfinding landmark for people as they use the site.

Opportunities Exist to Highlight Entrance Locations and Utilize Axial Views

Gateways and landmarks could contribute to place identity

W2_Benyshek02_Views.pdf

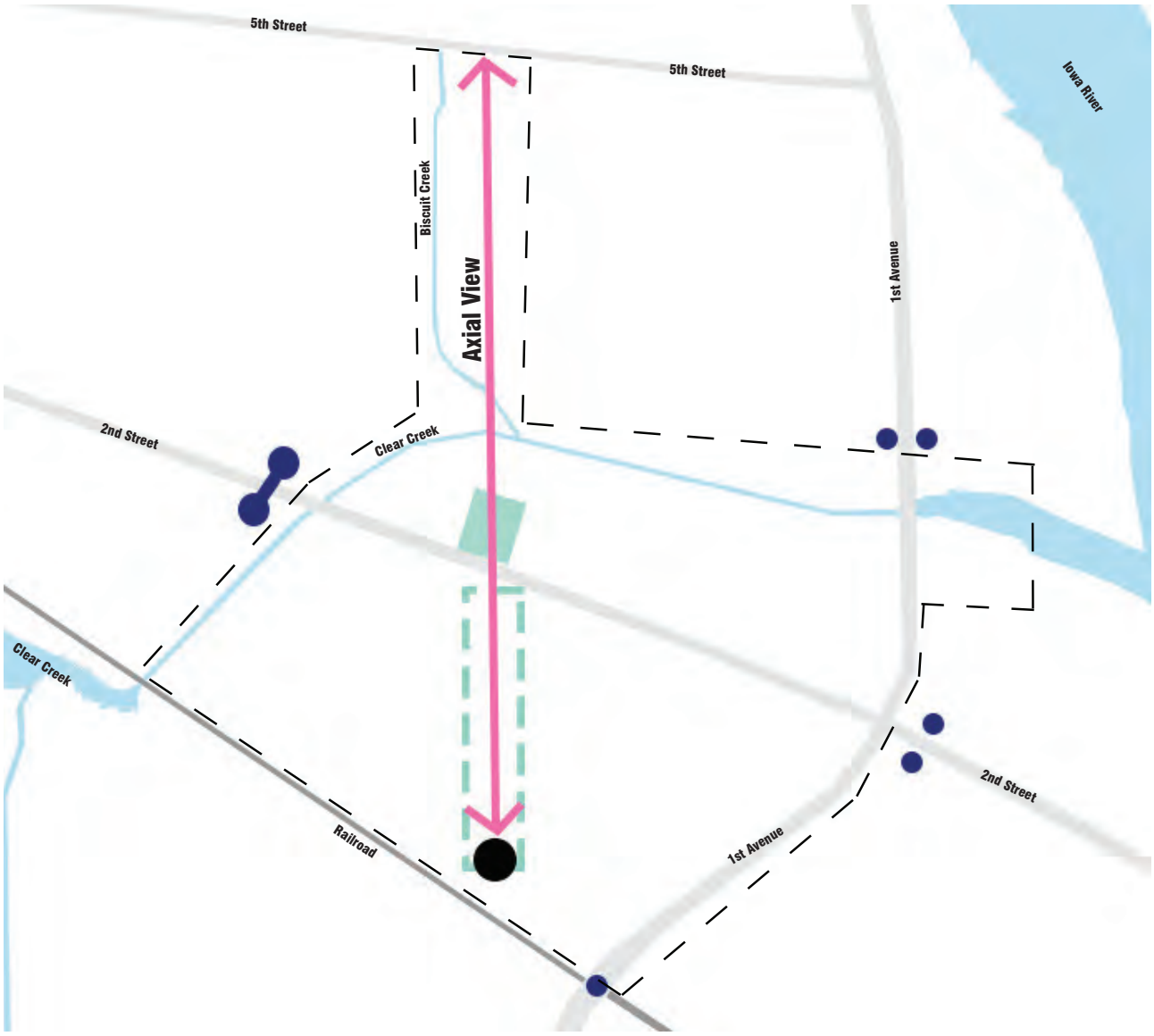


Figure 1. Opportunities to Develop Views in Coralville's Southeast Commercial District
Source: Hahn, 2018

Inquiry: How can the Southeast Commercial District improve their views to better connect with pedestrians and drivers?
Key Extractions: Defined Gateways, Extended Pedestrian Corridor, and New Terminating View Element
Methodology: This plan was created in response to the opportunities map.
Conclusions: Adding primary gateway elements along 2nd Street will help people visually connect with the boundaries of the site and sense the distinct, unique identity of the district. Though three of the four entrances have bridges that provide a sense of transition into the site, adding gateway signs and vertical elements to the four entrances will make the district's identity more obvious for everyone. Creating one continuous pedestrian corridor also helps the site feel visually connected instead of divided into north and south halves. The new pedestrian corridor has the potential to bring users closer to Clear Creek with a new pedestrian bridge and add a second crosswalk within the site.

Legend
- Study Area Boundary
- Primary Gateway
- Secondary Gateway
- Pedestrian Corridor
- Existing View Into Site
- Proposed View Into Site
- New View Termination Element

Gateway Locations

Figure 2. North Entrance
Source: Benyshek, 2018

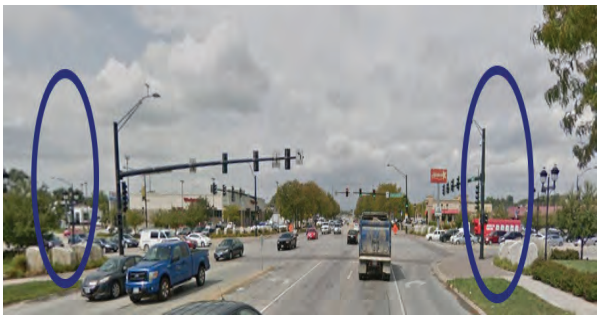


Figure 3. East Entrance
Source: Benyshek, 2018

Figure 4. South Entrance
Source: Hahn, 2018

Figure 5. West Entrance
Source: Benyshek, 2018

Enhanced View

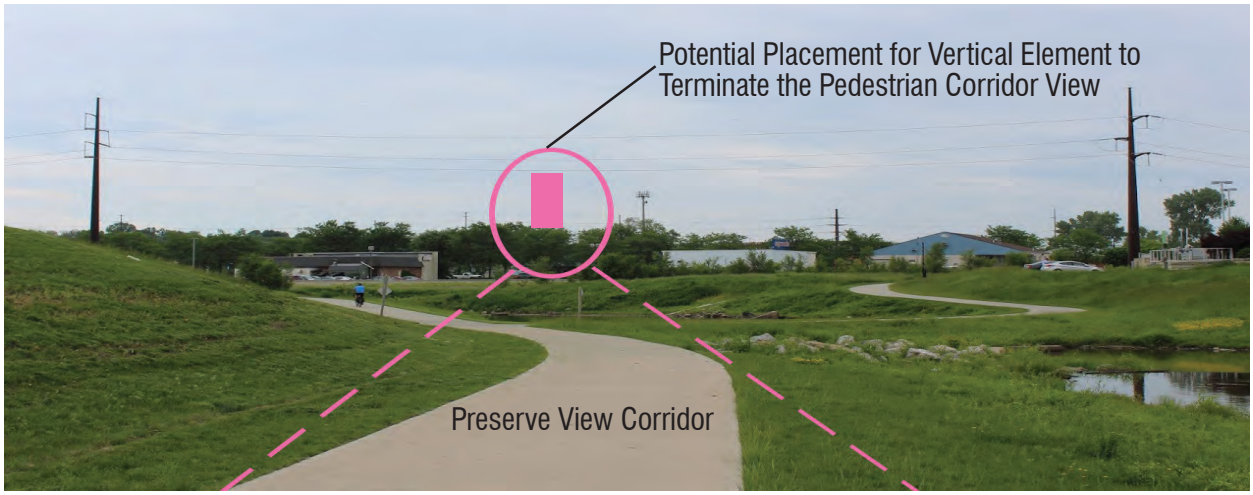


Figure 6. Opportunities for North Pedestrian Corridor
Source: Stoffel, 2018

Area Surrounding Southeast Commercial District Offers Diverse Recreation

Recreation within study area is limited to trails

W2_Sanders01_interaction-hub.PDF

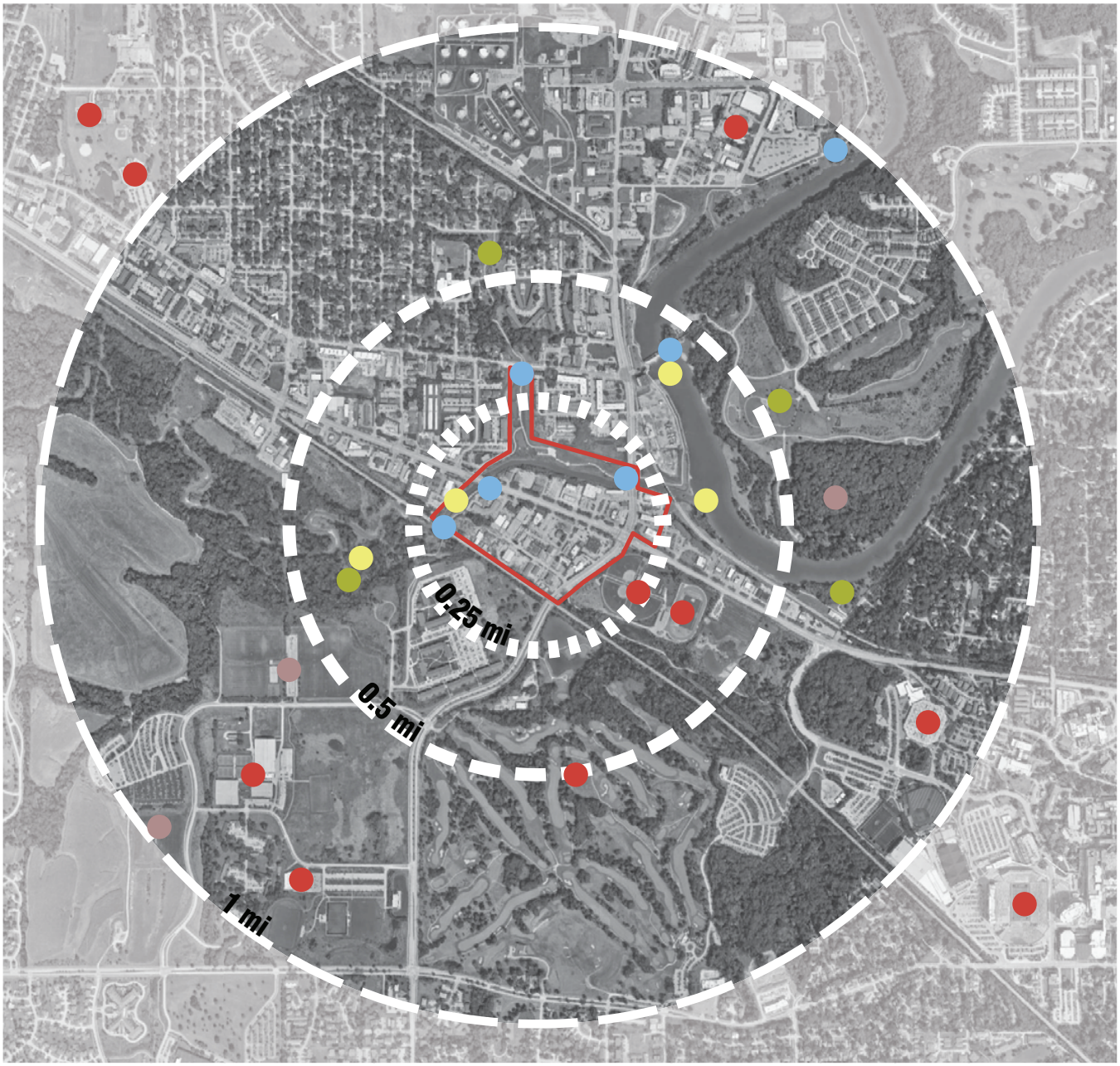


Figure 1. Outdoor Recreation Near Southeast Commerical District
Source: Google Earth. n.d. Coralville, IA Aerial View.

Inquiry: Are outdoor recreational areas easily accessible from the Southeast Commercial District?
Key Extractions: Sports fields, outdoor activity sites, trail system connections, recreational facilities, public parks
Methodology: On-site observations and Google Maps locations condensed within 0.25 mile, 0.5 mile, and 1 mile radii of the study area.
Conclusions: The Southeast Commercial District currently has only two types of recreation available within the study area boundaries: trails and outdoor activities (fishing, birdwatching, etc). A wider range of recreation lies within a one mile radius. Since little opportunity lies within the study area most visitors only pass through the space to get to other activities. All outdoor recreation within the study area is on the north side near Clear Creek and is almost hidden by buildings and other development. The trail system in Coralville is well developed and widely used, but offers no incentive for visitors to stay within the study area or use local businesses or services.

Figure 2. Outdoor Recreation Within Southeast Commercial District
Source: Google Earth. n.d. Coralville, IA Aerial View.

Scale: NTS

Legend

- Sports Fields
- Outdoor Activities
- Parks
- Trails
- Recreational Facilities

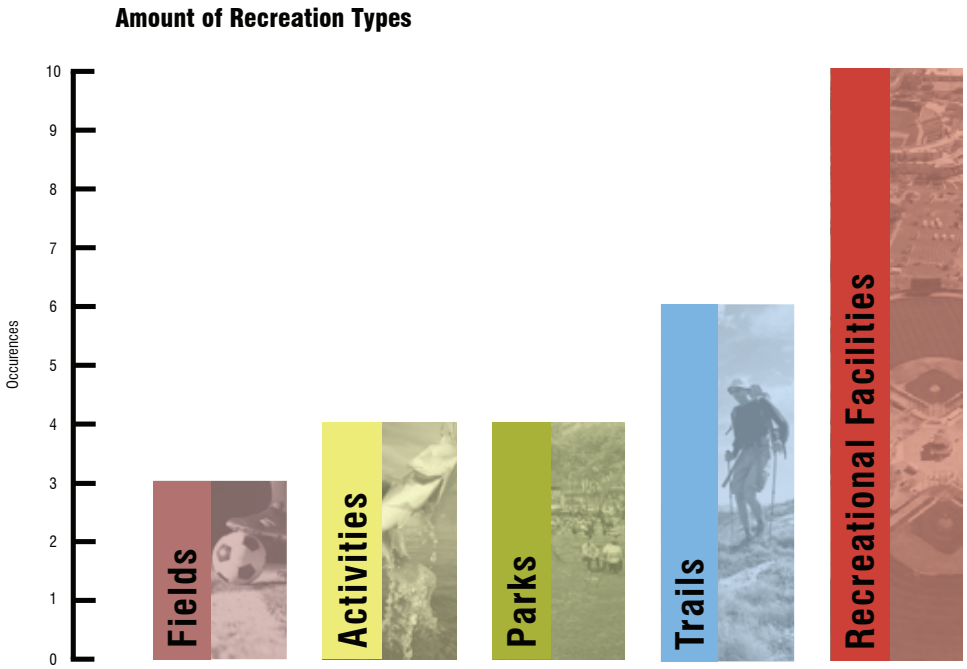


Image Sources: "Dennis Keat Soccer Park.", "ABUNDANT HARVEST AQUAPONICS | A Beginners Guide To Fishing.", "Bryant Park.", Advica Health, UW Bothell Sports and Recreation Complex

Mixed-Use Redevelopment Could Include More Recreational and Social Opportunities

The study area contains the busiest intersection in the metro area and could be a hub of interaction

W2_Sanders02_interaction-hub.PDF

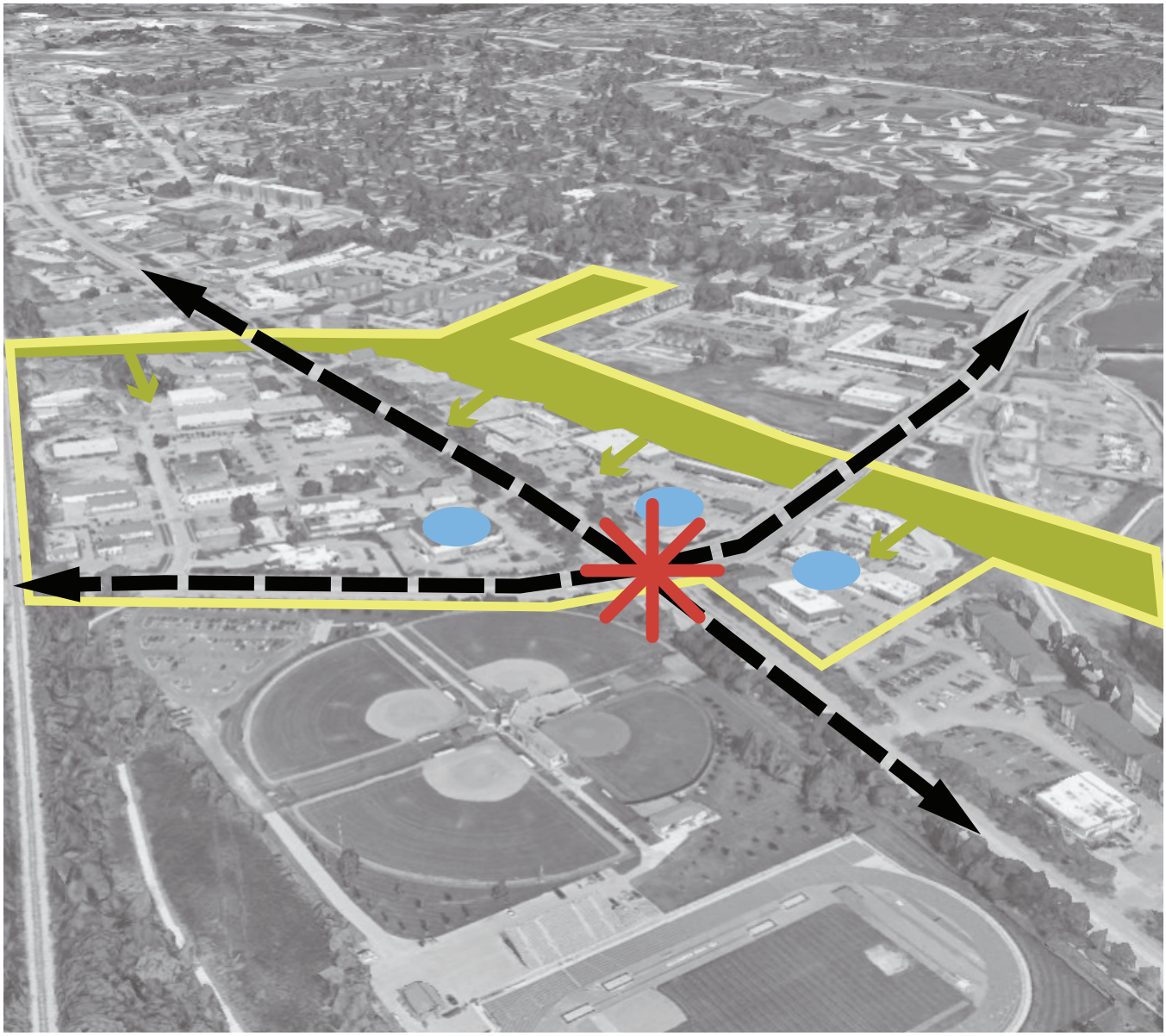


Figure 1. Opportune Spaces for Recreational Development/Expansion
Source: Google Earth. n.d. Coralville, IA Aerial View.

Scale: NTS

Legend

- Roads/Trails & Recreation Sites
- Vital Intersection
- Key Development Areas
- Site Boundary
- Existing Recreation Area

Figure 2. 2nd St. & 1st Ave. Intersection
Source: Google Earth. n.d. Coralville, IA Aerial View.

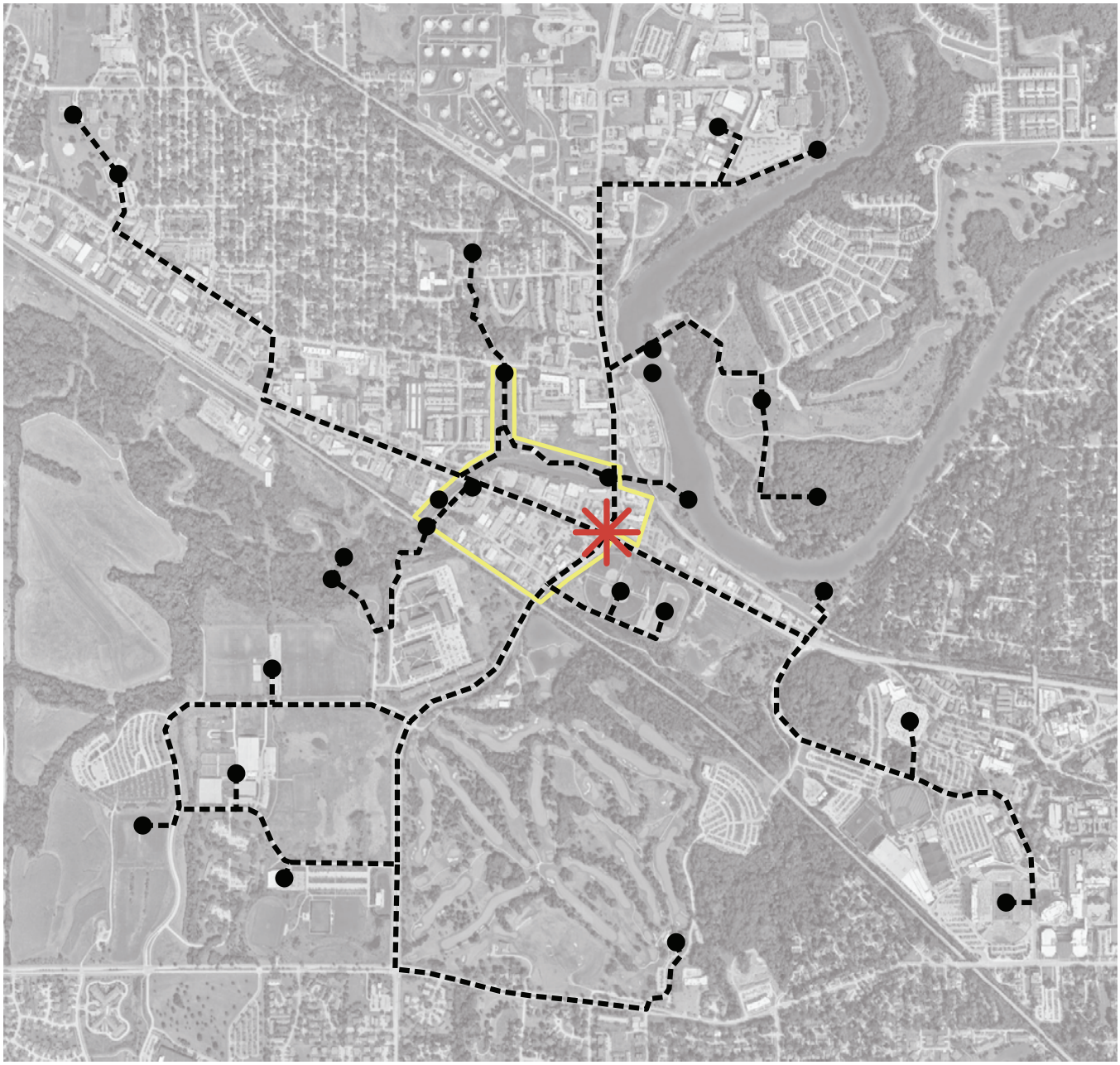


Figure 3. Southeast Commercial District as Recreation Hub
Source: Google Earth. n.d. Coralville, IA Aerial View.

Inquiry: What key areas in the Southeast Commercial District could be developed to retain visitors and use the site as a recreation crossroads?
Key Extractions: Roads and trails, key intersection, suitable areas for development, recreation expansion potential
Methodology: Site visit, connected recreation sites to central spot in the site, identified corner lots as most valuable for visual awareness of site
Conclusions: The main intersection of 2nd St. and 1st Ave is vital to the study area as a whole. The three corners of the intersection are seen by large amounts of passing traffic each day. These three locations are ideal for drawing visitors into the site to use it as a starting point to the various recreational activities in the district and surrounding area. The Southeast Commercial District is central to all of the surrounding recreation sites, but currently lacks the fundamental connections to address visitors needs. Proper development could spur activity and recreation in this key gateway area.

Connecting the District to Recreation Will Benefit Visitors

Developed corner lots could attract visitors who could benefit from on-site and nearby recreational activities

W2_Sanders03_interaction-hub.PDF

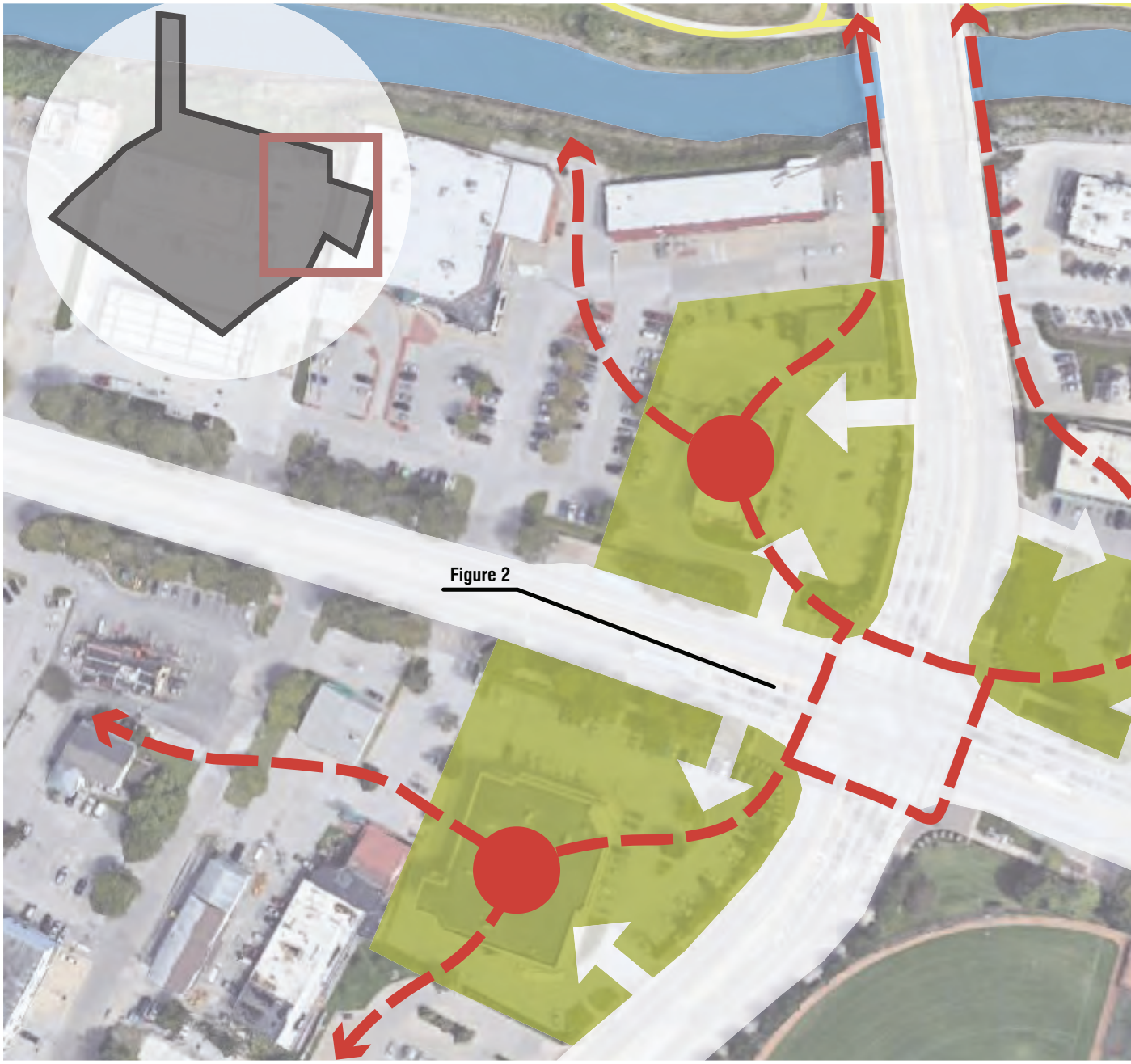


Figure 1. Connecting the Site to Recreation Areas
Source: Google Earth. n.d. Coralville, IA Aerial View.

Inquiry: How can mixed-use redevelopment of the Southeast Commercial District incorporate more recreation and social interaction opportunities?
Key Extractions: Key areas to develop that would draw visitors, connections to recreation, recreation sites
Methodology: Traffic data, site analysis, site observations
Conclusions: Developing corner lots on the site would draw more visitors to the site. Connections from these key areas to trails and other recreation sites will pull visitors into the rest of the site and beyond. Since the Southeast Commercial District has minimal connections to recreation these pathway developments are ne way to attract visitors to the district.

Legend

- Key Development Areas
- Connection Hub
- Potential Connection Paths
- Roads
- Trails
- River/Creek

N

0 75' 150' 300'

Figure 2. Example of Artistic Crosswalk
Source: Francesca Perry, 2016

Figure 3. Example of Improved Trails
Source: The Active Times, 2013

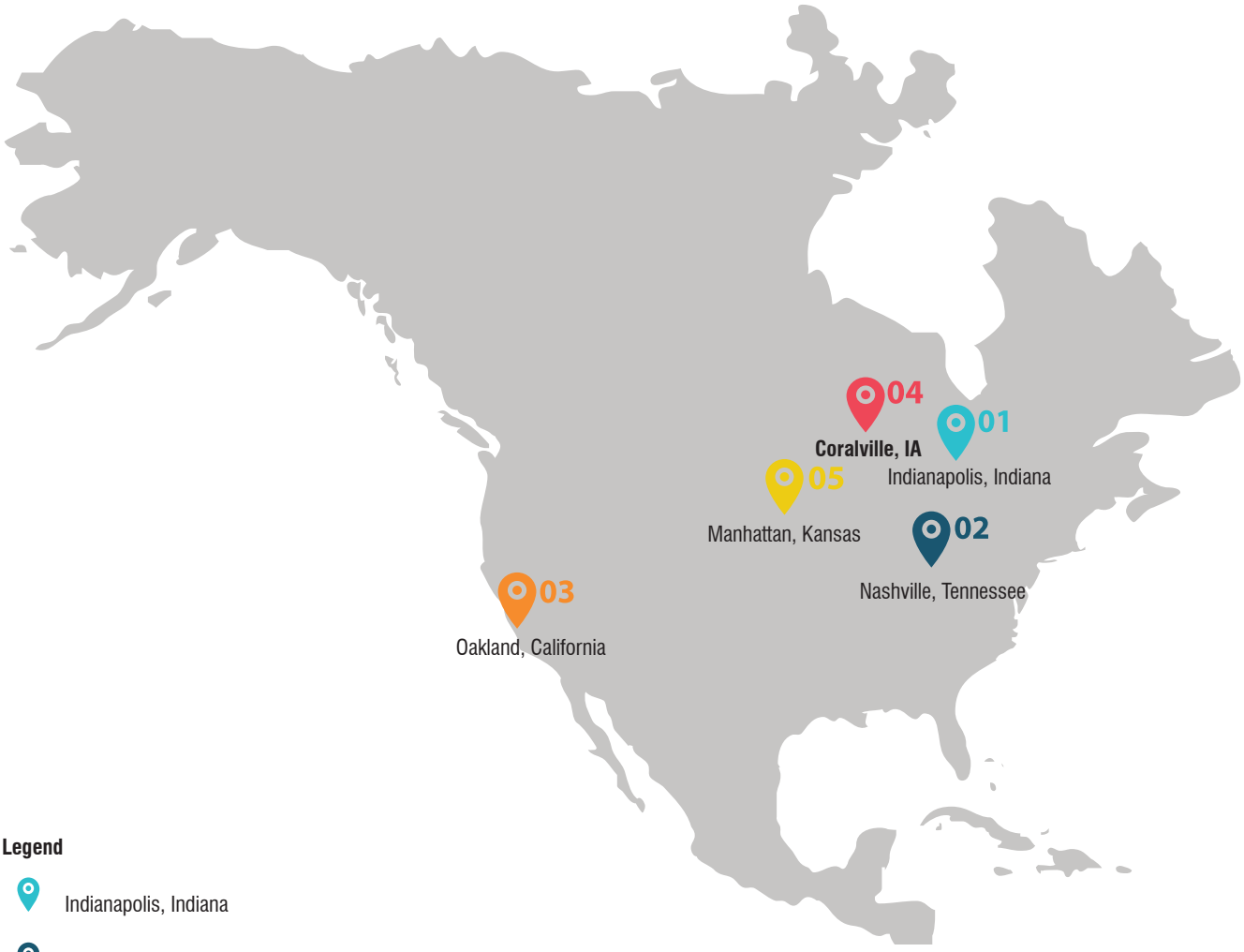
Mixed Use

Appendix A.8

Coralville, IA is Lacking Multiple Types of Affordable Housing

A variety of affordable housing serving all types of families is needed in Coralville, IA.

W3_Gray01_AffordableHousing.PDF



Legend

- Indianapolis, Indiana
- Nashville, Tennessee
- Oakland, California
- **Coralville, Iowa**
- Manhattan, Kansas

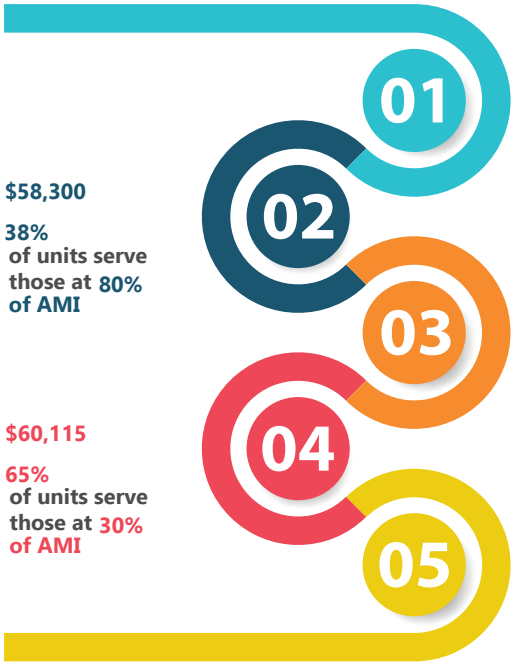
Figure 01. Location of Precedents
Source: Affordable Housing: Designing an American Asset and Freepik

Inquiry: What types of affordable housing are comparable to Coralville, IA across the U.S.?
Key Extractions: Locations, Prices, Percentage of Units that serve a Percentage of the Average Median Income, Unit Types
Methodology: The first task was to find a book that had multiple precedents and look for comparable average median incomes to Coralville. Next, development strategies were identified and the aesthetic qualities of each housing unit were reviewed.
Conclusions: A review of the precedents reveal that there can be affordable housing of multiple types. Affordable housing ranges from efficiencies to purchasing a home.

Figure 02. Development Strategies and Characteristics of the Precedents
Source: Apartments.com and Affordable Housing: Designing an American Asset

		Neighborhood Revitalization	Mixed Uses	Mixed Incomes	Special Needs/ Disability	Rehab/Reuse
01	Mozingo Place	⌂	⌂		⌂	⌂
02	Row 8.9n	⌂		⌂		
03	Swan's Market	⌂	⌂	⌂		⌂
04	Coralridge			⌂		
05	Highland Ridge			⌂		

Figure 03. Residents Served and Area Median Income (AMI)
Source: Apartments.com and Affordable Housing: Designing an American Asset



Nashville, Tennessee/ Row 8.9n

Area Median Income (Family of 4) $58,300

Residents Served 38% of units serve those at 80% of AMI

Coralville, IA/ Coralridge

Area Median Income (Family of 4) $60,115
Source: Data USA

Residents Served 65% of units serve those at 30% of AMI
Source: Affordable Housing Online

Indianapolis, Indiana/ Mozingo Place

Area Median Income (Family of 4) $62,900

Residents Served 100% of units serve those at 30% of AMI

Oakland, California/ Swan's Market

Area Median Income (Family of 4) $76,600

Residents Served 64% of units serve those at 30% of AMI

Manhattan, Kansas/ Highland Ridge

Area Median Income (Family of 4) $50,065
Source: City Data

Residents Served 40% of units serve those at 30% of AMI
Source: Affordable Housing Online

Figure 04. Unit Type and Cost
Source: Apartments.com and Affordable Housing: Designing an American Asset

⌂ Number of Bedrooms

⌂ Efficiency

01 Rent (1st Month) ⌂ $254-336 ⌂ $254-336

02 Sale Price ⌂ $115,000-170,000 ⌂ ⌂ & ⌂ ⌂ ⌂ $130,000

03 Rent (1st Month) ⌂ & ⌂ ⌂ $199-760

04 Rent (1st Month) Source: Apartments.com ⌂ ⌂ $520-995

05 Rent (1st Month) Source: Apartments.com ⌂ ⌂ $860-910 ⌂ ⌂ ⌂ $960-1,010

Map 8.1b

Affordable Housing Should have High Aesthetics and Serve Multiple Types of Families

Case studies prove that affordable housing can have high aesthetics and provide multiple functions.

W3_Gray02_AffordableHousing.PDF

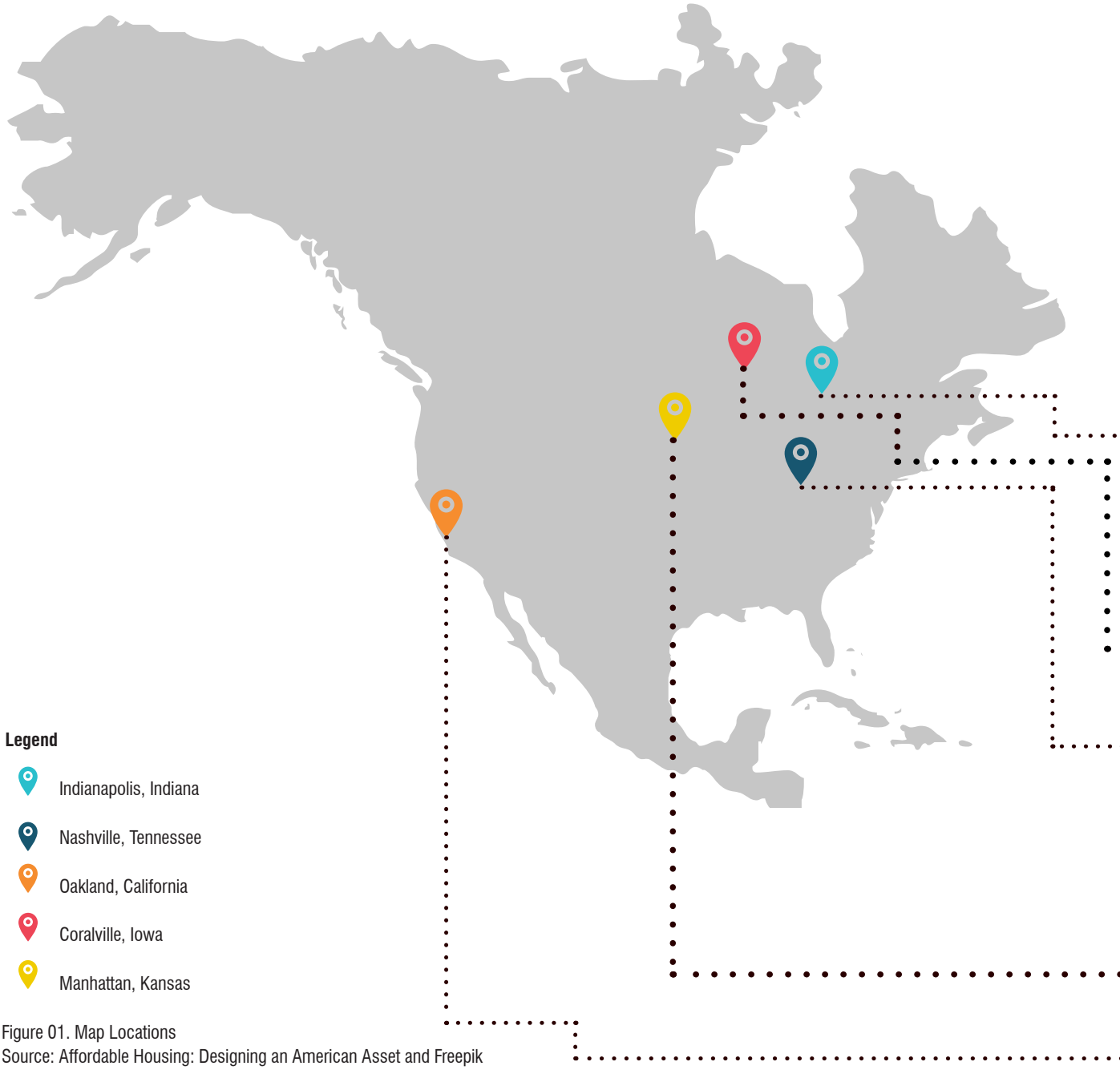


Figure 01. Map Locations
Source: Affordable Housing: Designing an American Asset and Freepik

Inquiry: Can affordable housing have high aesthetics??
Key Extractions: Locations, Aesthetics, Unit Types
Methodology: The first task was to find a book that had multiple precedents and look for comparable average median incomes to Coralville. Lastly, the type of development strategies was identified and the aesthetic qualities of each housing unit.
Conclusions: Affordable housing can have high aesthetics and serve multiple incomes. The units can also be mixed use and also revitalize the surrounding area.

Figure 02. Development Strategies and Characteristics of the Precedents
Source: Apartments.com and Affordable Housing: Designing an American Asset

		Neighborhood Revitalization	Mixed Uses	Mixed Incomes	Special Needs/ Disability	Rehab/Reuse
01	Mozingo Place	⌂	⌂		⌂	⌂
02	Row 8.9n	⌂		⌂		
03	Swan's Market	⌂	⌂	⌂		⌂
04	Coralridge			⌂		
05	Highland Ridge			⌂		

Figure 03. Mozingo Place
Source:Affordable Housing: Designing an American Asset

Figure 04. Row 8.9n
Source:Affordable Housing: Designing an American Asset

Figure 05. Swan's Market
Source:Affordable Housing: Designing an American Asset

Figure 06. Coralridge Apartments
Source: Google Earth

Figure 04. Highland Ridge Apartments
Source: Google Earth

Headline Here [major words in caps]

Sub-title here (supporting statement of evidence) [sentence case--first word capped]

W3_Gray03_AffordableHousing.PDF

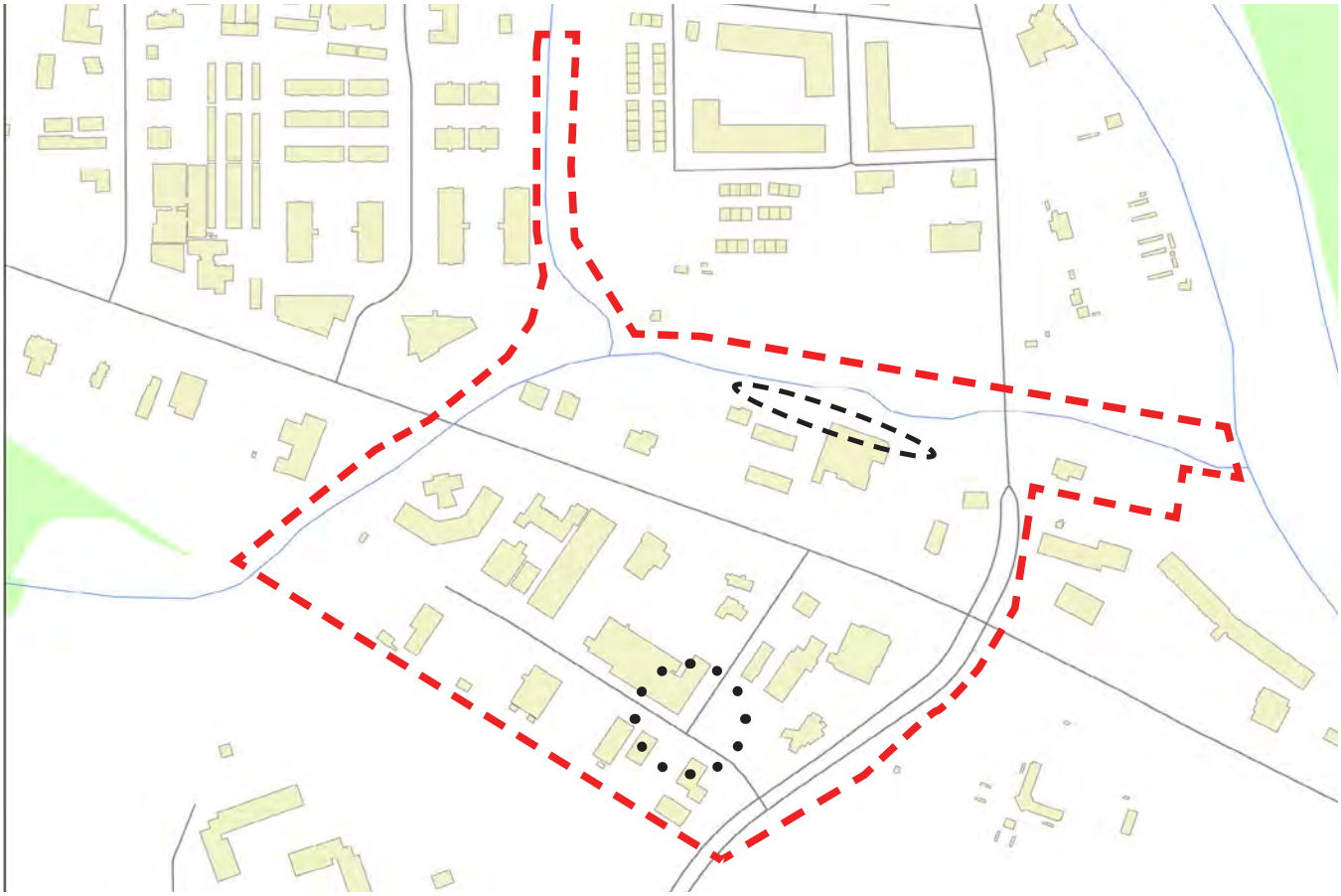


Figure 01. Affordable Housing Potential Locations
Source: GIS

Inquiry: Where are some potential areas where affordable housing could be located?
Key Extractions: Oppourtunistic locations for affordable housing.
Methodology: Locating where the existing apartments are located and desirable locations for housing.
Conclusions: The selected locations for the future development of affordable housing could serve many families. The locations are desireable because of the proximity to transit and a variety of amenities. The location of affordable housing next to clear creek provides a shopping and restaurant strip with apartments on the 2 and 3 story. The affordable housing where apartments once stood provides a more neighborhood feel for a mix of families.

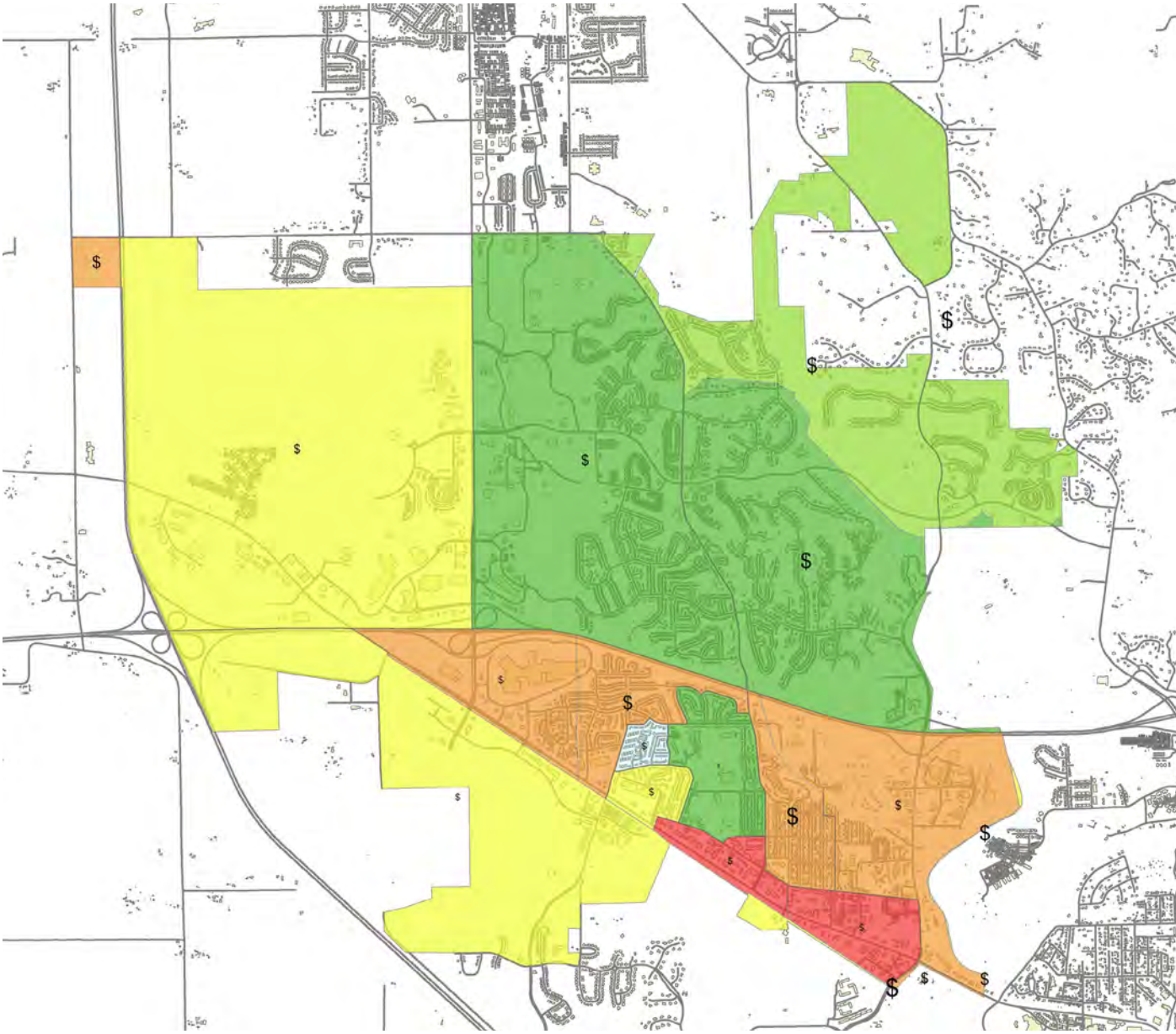
Figure 02. Mixed use along Clear Creek

Figure 03. Neighborhood stlye affordable housing located where exisiting apartments used to be.

Coralville's Low-Costand Affordable Housing is Limited

Low-income and affordable housing is outnumbered compared to medium and higher cost housing.

W2_Gray01_4K_AffordableHousing.PDF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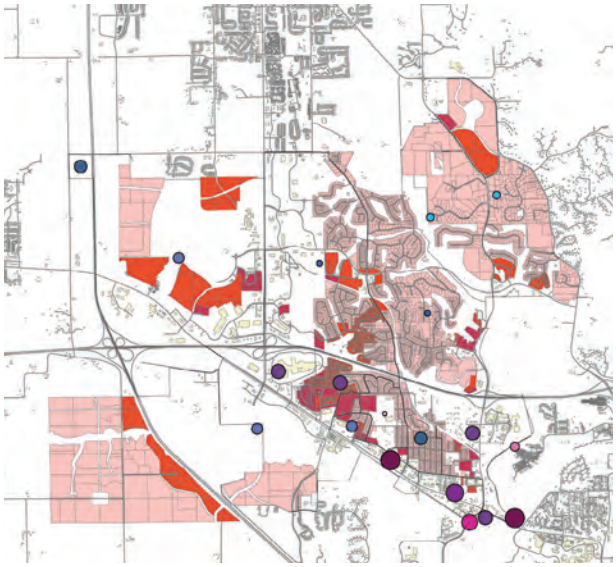

Legend: Percentage of Income Towards Housing Per Census Block

- 10
- 11-14
- 15-18
- 19-20
- 21-22
- 23-24
- 25-26
- 27-30
- 31-38
- 39-53

Legend: Average Rent Per Census Block

- Medium Density Residential
- Low Density Residential
- High Density Residential

Figure 02. Density in Relation to Percentage of Income Towards Housing
Source: Coralville, GIS: Census Data 2013

Inquiry: How does the percentage of income relate to residential density?
Key Extractions: Census Blocks, Land Use, Density, Affordability, Median Household Income
Methodology: The data was extracted from the Land Use folder provided from the city of Coralville Census. The percentage of income towards housing per census block was extracted by dividing the average yearly rent from the median household income.
Conclusions: The southeast commercial district that is being re-fvimagined does not have any data on density. The areas that are medium to high density are similar areas that are in the median percentage of income towards housing per census block

Affordable Housing is paying 30% or less of the household income on housing

Source: American Planning Association

Coralville Affordable Housing and Low-Income Properties

3 Affordable Apartment Properties

159 Low Income Apartments

57 Apartments With Rental Assistance

→ Coralville Senior Residences
→ Coral Ridge Apartments

→ Subsidized HCV Welcome (2 Locations)

Source: Affordable Housing Online

Affordable Housing Needs to be Distributed Throughout Coralville

Affordable housing in a central location begins to segregate the community by income.

W2_AG02_4K_AffordableHousing_DilemmaMap.PDF

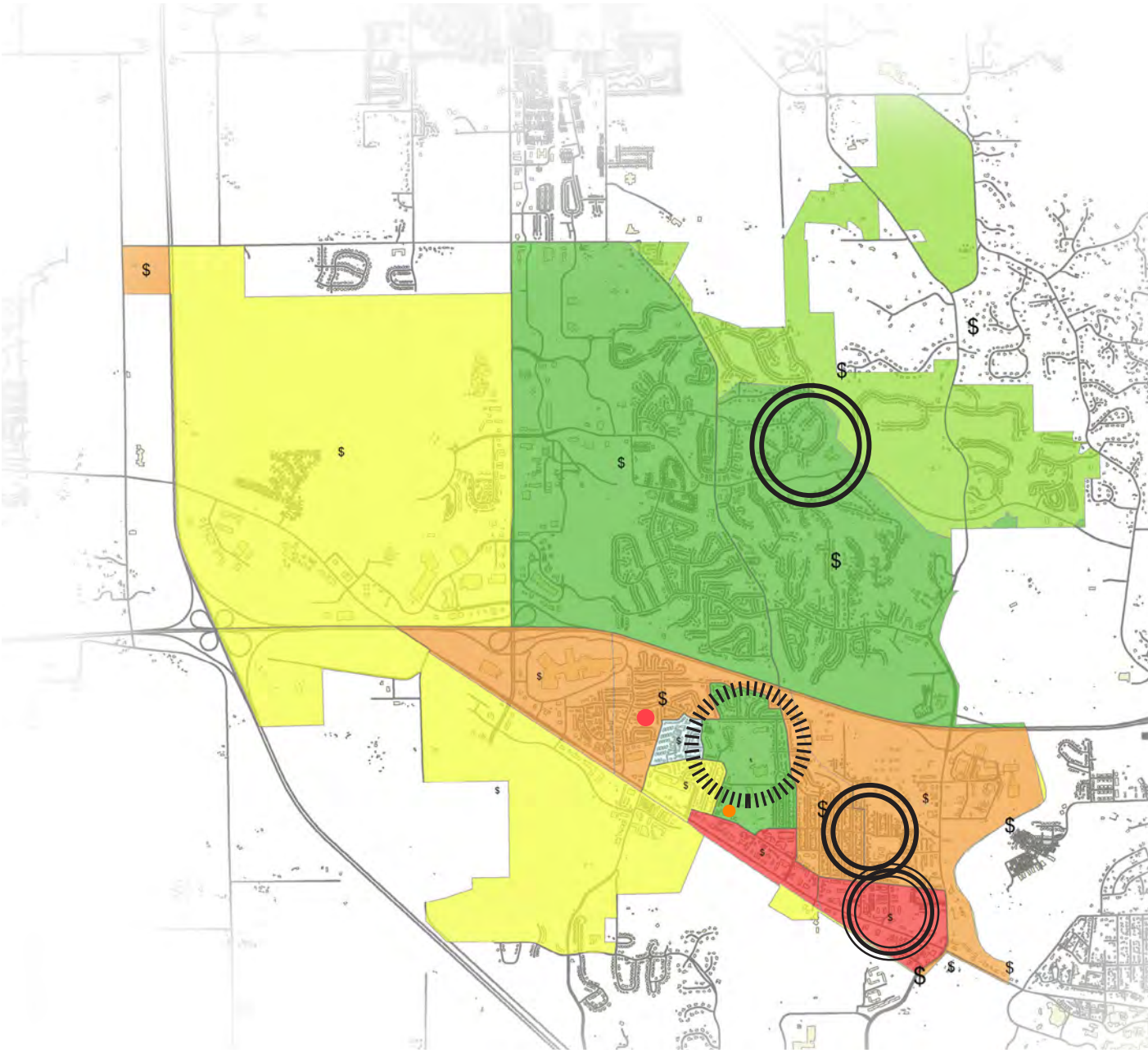

Figure 01. Affordable and Low-Income Housing Dilemma's
Source: Coralville GIS

Inquiry: What area's are in need or better suited for affordable and low-income housing?
Key Extractions: Gross Rent, Affordability, Census Block, Median Household Income, Johnson County, IA GIS, Area's in need
Methodology: Analyzing the affordability to the average rent, key areas with no affordable housing or low-income housing were noted. Also, areas where more activity or day to day tasks are held were also noted. Schools were located in order to analyze if low-income or affordable housing was available.
Conclusions: The centrally located affordable housing is segregating the community as well as making it difficult to have access to different area's of Coralville.

Figure 02. Coralville Senior Residences: Subsidized
Source: Google Earth

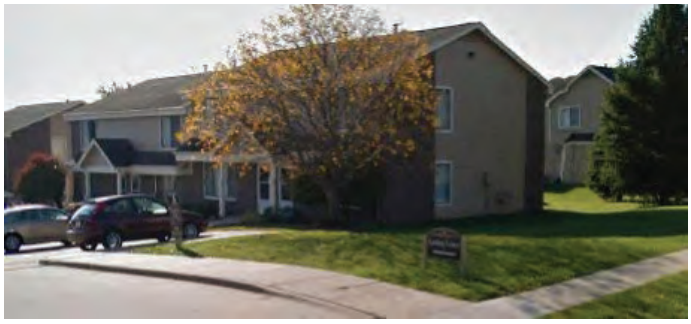

Figure 03. Coralridge Apartments: HCV Welcome
Source: NOTE- GETTING APPROVAL OF IMAGES

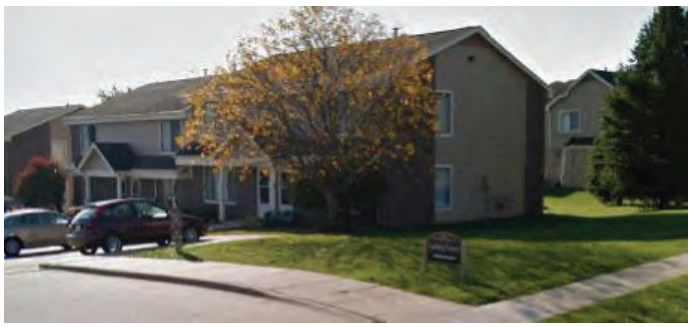

Figure 04. Coralridge Apartments: HCV Welcome
Source: NOTE- GETTING APPROVAL OF IMAGES

Legend

Schools are located within these zones without affordable or low-income housing available.

The southeast commercial district has low-income to median housing but no affordable housing available.

Two schools are identified in this zone, but there are few affordable housing units. The housing is concentrated around the two schools seeming to segregate the community.

Map 8.2c

Proposed Affordable Housing Should Have High Aesthetics

For the aesthetic quality to last over time that material should be durable and maintenance up kept.

W2_AG03_4K_AffordableHousing_StrategyMap.PDF

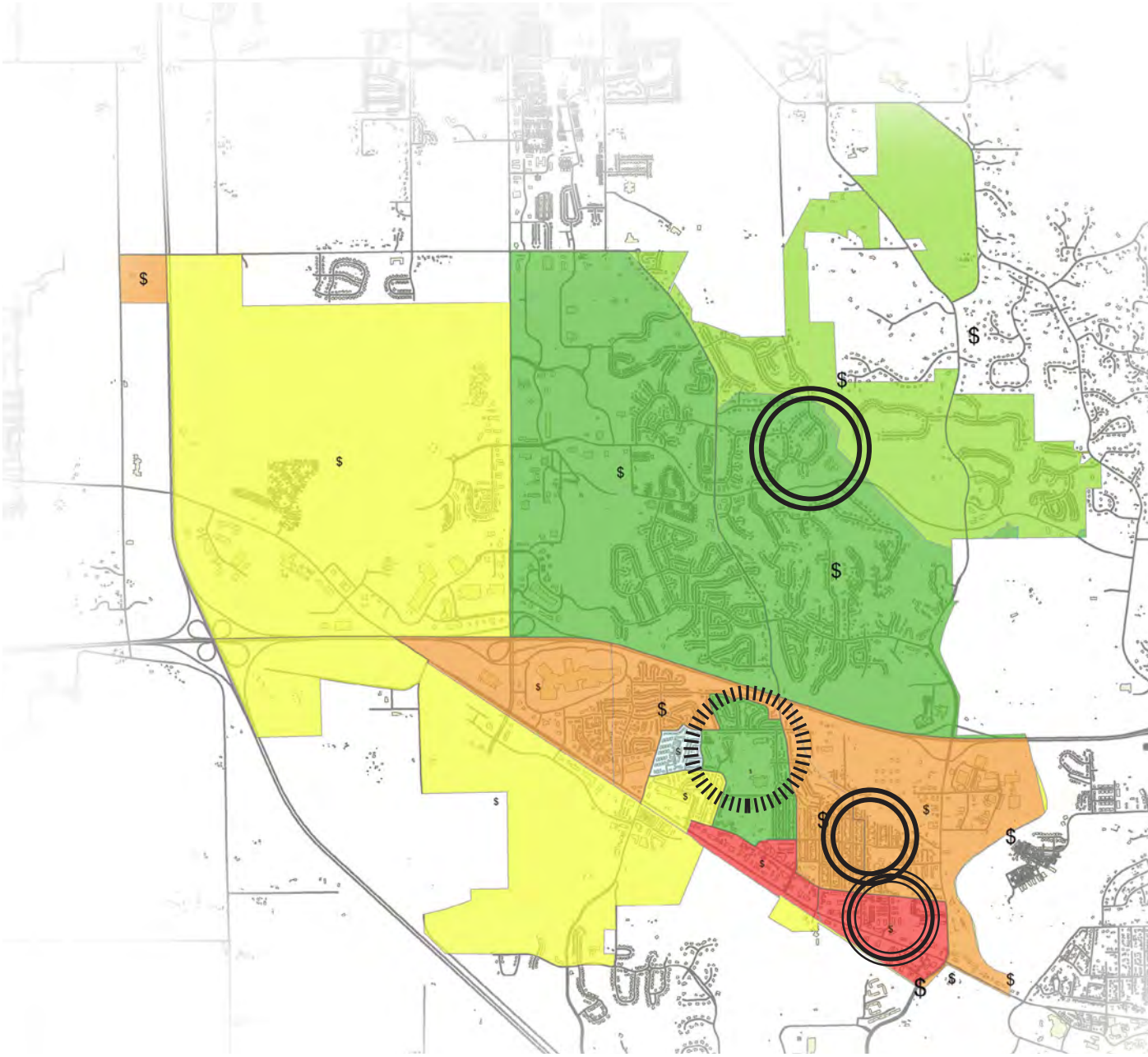

Figure 01. Proposed Areas for Affordbale and Low-Income Housing
Source: Coralville GIS

Inquiry: What aesthetic quality of apartment complex's would fit into the area?
Key Extractions: Gross Rent, Affordability, Census Block, Median Household Income, Johnson County, IA GIS, Area's in need
Methodology: The areas identified with no affordable housing or low-ost housing were extracted. The ellipses are specific to the type of housing that would be appropriate for the area.
Conclusions: The area's extracted were analyzed based on their aesthetic and cultural context. Thus, the precedents begin to represent the area's and begin to bring some modernity to the area.

Figure 02. 3 Story Post Modern Apartment Complex
Source: Max Pixel

Figure 03. Mixed Use Building
Source: Flickr

Figure 04. Mixed Use Building
Source: Geograph

Figure 05. Modern 5 Story Apartment Complex
Source: Wikimedia Commons

Legend: Percentage of Income Towards Housing Per Census Block

- 10-14
- 15-18
- 19-22
- 23-30 — Affordability Threshold
- 31-53

* Per APA Definition

Legend: Average Rent Per Census Block

- $ 482
- $ 483-650
- $ 651-857
- $ 858-930
- $ 931-1090
- $ 1091-1191
- $ 1192-1233
- $ 1234-1285
- $ 1286-1355
- $ 1356-1499

Coralville Businesses Are Well-Mixed And Provide A High Employment Rate

Most businesses are located along major corridors such as Highway 6/2nd St., Coral Ridge, and 1st St.

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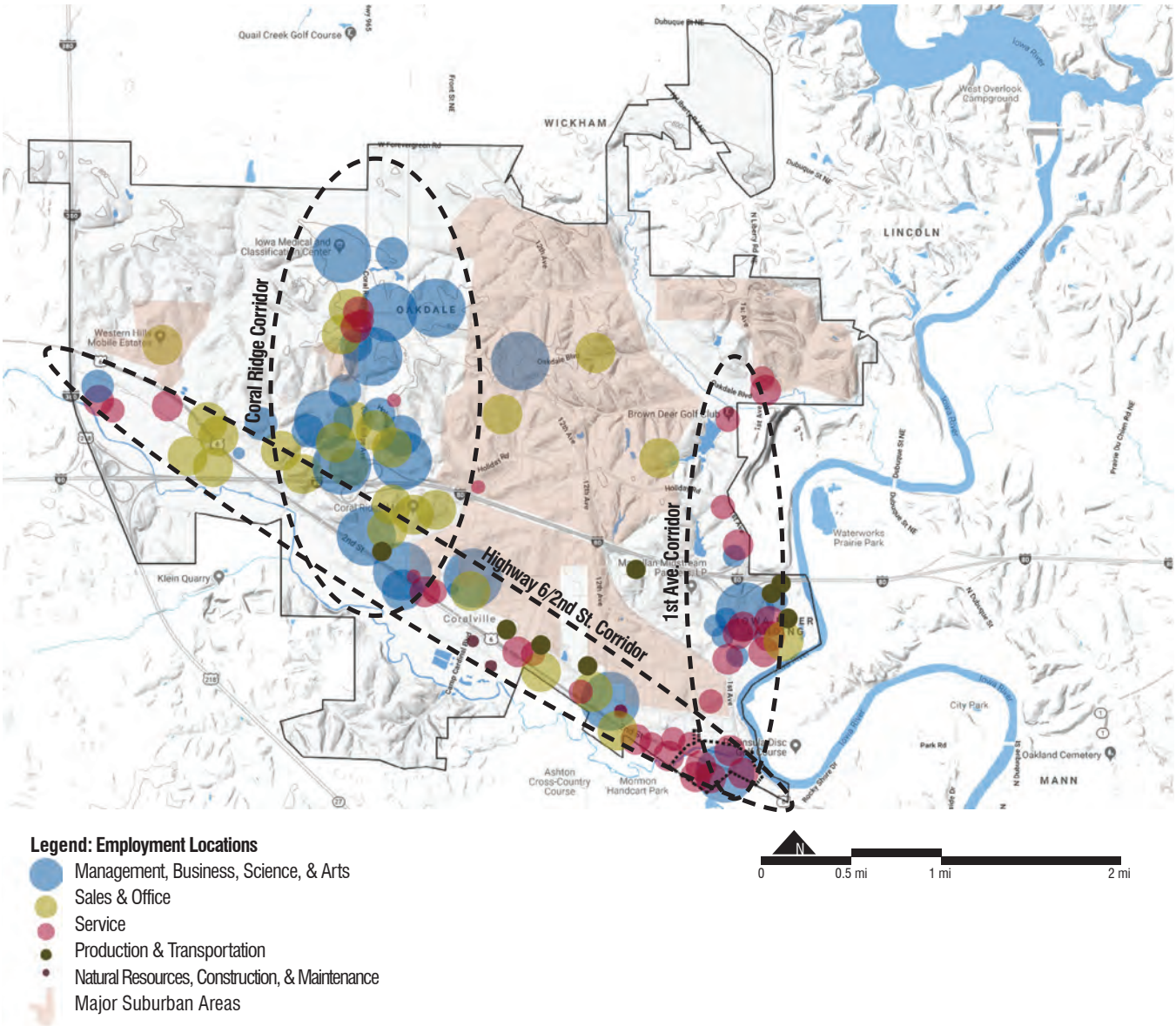


Figure 01. Most Popular Jobs for Coralville Residents in relation to Popular Neighborhoods
Source: Data from Coralville MapTechnica

Inquiry: Where does most of Coralville's population work?
Key Extractions: Popular Jobs in Coralville, Popular Businesses, Coralville Neighborhoods
Methodology: The most popular jobs in Coralville were researched and pinpointed on the map where they relatively lie in the city. The most popular industries with the highest number of workers are inticated by the size of the circle.
Conclusions: This map shows a clear trend of separation of work from the home. Most of Coralville's neighborhoods are suburbs that could not support life on its own, and the bordering businesses require residents to make a longer (and most likely vehicular) commute to work. The Southeast Commercial District is noticeably separated from residential. This fact combined with dilapidated infrastructure results in a general disinterest of the district. There is also an uneven spread between business types, specifically between retail, food, and office. Moving forward, a better system for mixing businesses should be implemented.

Employment by Occupations

Informative

Total

Population	Number of Employees	Poverty Rate
20,078	11,006	13.6%

0.9% higher than national average
(Census Bureau, 2018)

Management, Business, Science, & Art

- 11% Education, Training, & Library
- 10.7% Health Practitioners
- 9.9% Management
- 4.8% Business & Financial
- 3.3% Computer & Mathematical
- 12.6% Other <3% each

Natural Resources, Construction, & Management

- 1.8% Construction & Extraction
- 1.7% Installation, Maintenance, & Repair

Production & Transportation

- 5.8% Production
- 2.3% Transportation
- 1.6% Material Moving

Service

- 5.3% Food
- 3.3% Personal Care
- 3.6% Other <2% each

Sales & Office

- 12.8% Administrative
- 9.2% Sales

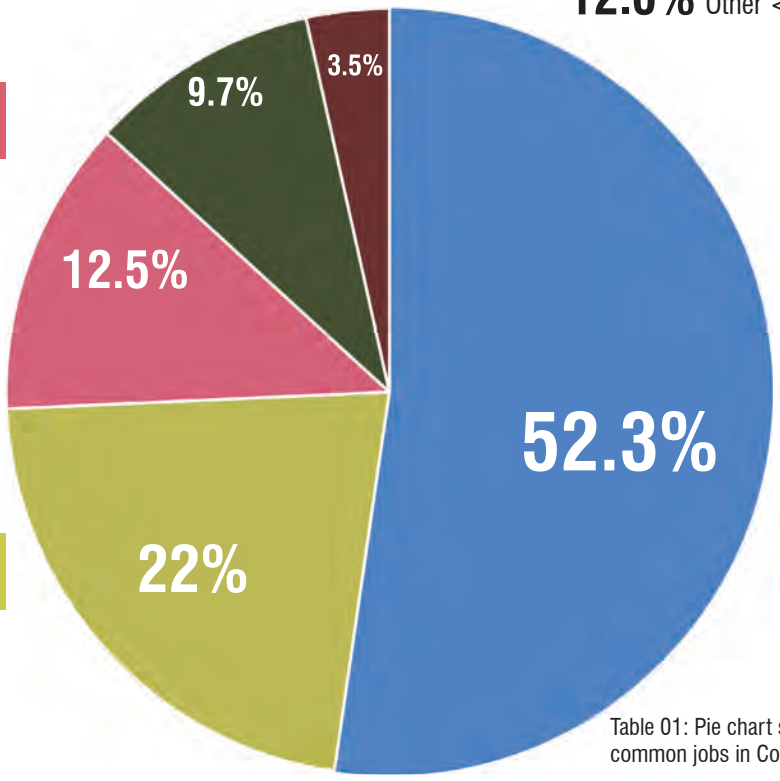


Table 01: Pie chart showing the most common jobs in Coralville.

(datausa, 2016)

Businesses Largely Separated From Residential Areas Force Daily Commute

Most residents in Coralville drive personal vehicles and average an 18-minute daily commute to work.

W2_Hake02_Businesses.PDF

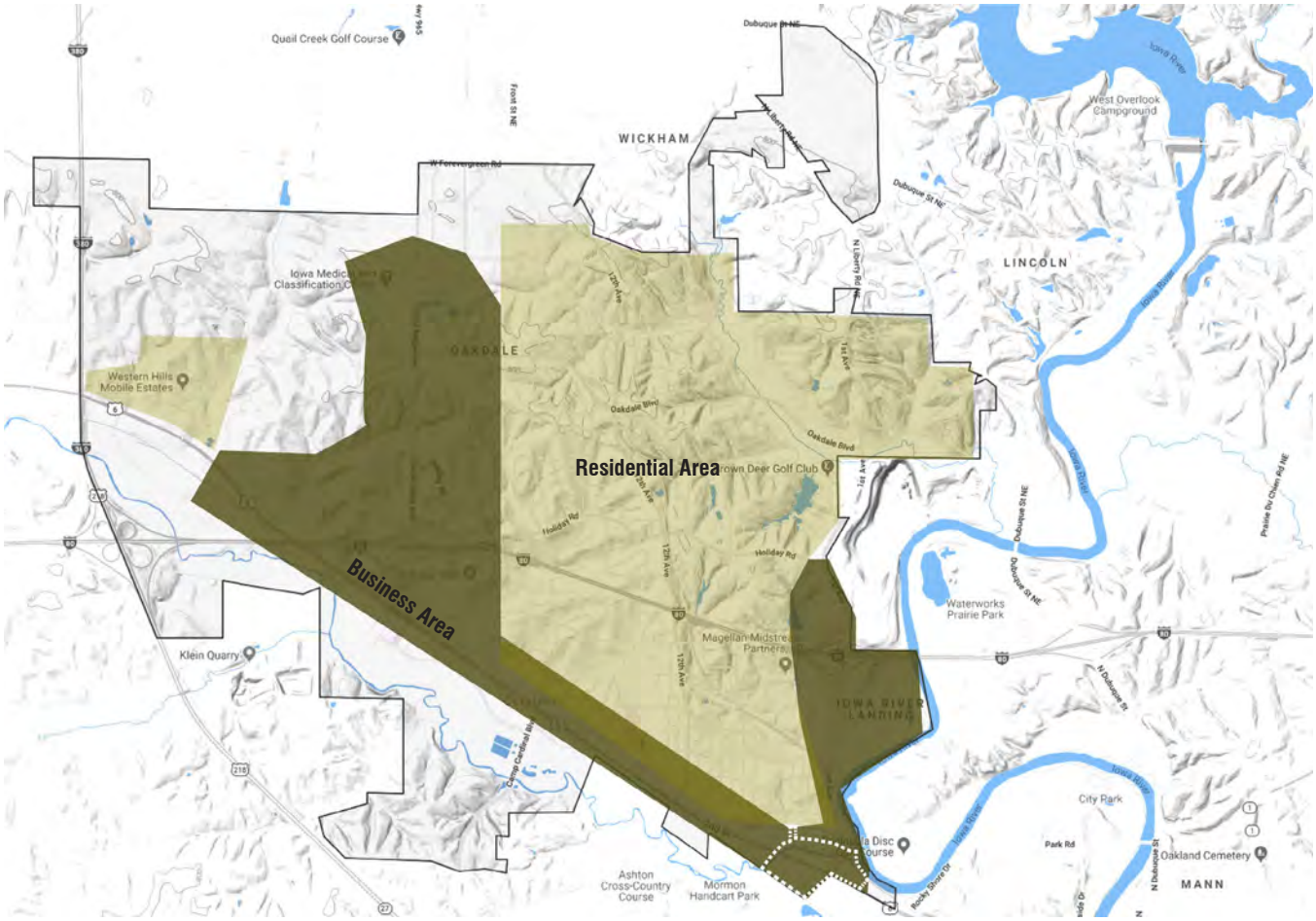


Figure 01. Work and Home Segregation
Source: Data from Coralville MapTechnica

Inquiry: How accessible are the workplaces and businesses in Coralville from neighborhoods and homes?
Key Extractions: Suburban neighborhoods, Coralvile businesses
Methodology: The business and suburban districts have been generalized and annotated to reveal the overall separation.
Conclusions: Businesses border neighborhood districts. Very few businesses are located directly within the neighborhoods. This means that there is a distinct separation of a citizen's work life and home life, which results in longer commuting times.

Average Commute Time

18.4 min

70.9%
Drove Alone

10.4%
Carpooled

9.2%
Public Transit

(datausa, 2016)

Legend

- Apartments & Housing
- Businesses
- Study Area

Figure 02. SE Commercial District Home and Business Separation
Source: Data from Google Maps and MapTechnica

Inquiry: Does the separation of work from home trend also appear in the Southeast Commercial District?
Key Extractions: Coralville Businesses, Housing in Coralville, Residential, Apartments
Methodology: Apartments and temporary housing complexes were noted on the map along with each business in the Southeast Commercial District.
Conclusions: This district has few options for housing, and the ones that are present are beginning to show evidence of neglect. The smaller scale of the district means that those who live and work in the area have a very short commute, but if they are from any of the suburban areas they will need to commute. This area is unique in its mixed-use programming. Many of the businesses are on bottom floors of housing, allowing those who work there to also live there. Updated housing and living conditions may foster a healthier live/work lifestyle.

The Southeast Commercial District Envisioned A Mixed-Use

Businesses and housing within the SE Commercial District blend together, fostering a more integrated, inclusive place.

W2_Hake03_Businesses.PDF

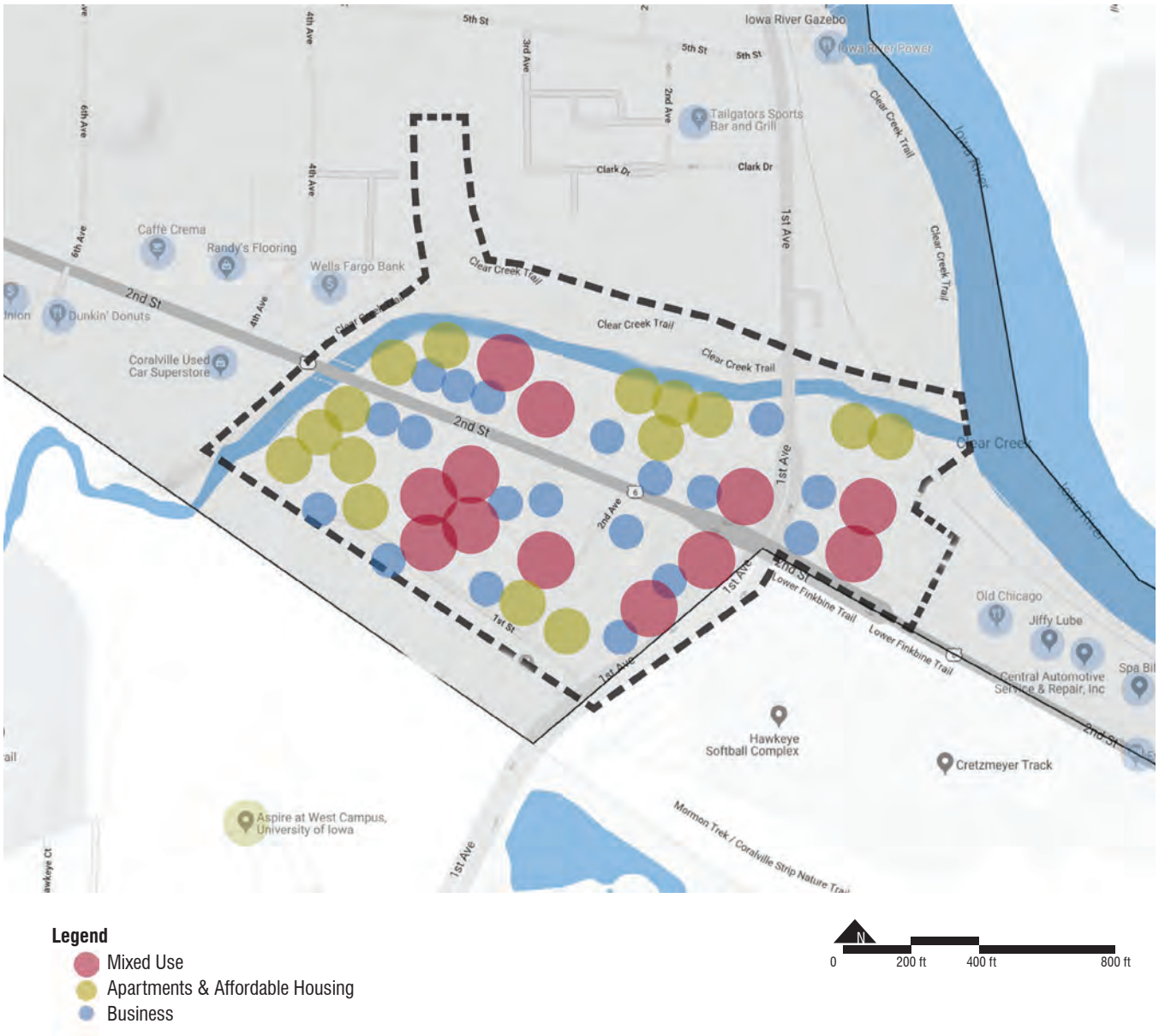


Figure 01. An Integrated District
Source: Data from Coralville MapTechnica

Inquiry: How can homes and businesses by intertwined to create a comfortable and convenient live-work-play place?
Key Extractions: Existing businesses in the SE Commercial District, mixing strategies for homes and businesses
Methodology: Housing and mixed use buildings have been placed strategically throughout the district. Some businesses will remain in their relative location, while new business are added to front major streets and add convenience to the residents living in the Southeast Commercial District.
Conclusions: The existing Southeast Commercial District already has a few buildings dedicated to mixed usage. Proposing a strategic plan for new mixed use infrastructure in this district will help residents live in more comfortable and safe ways. They will save money when all of their amenities are in one place and they will build stronger community bonds with the open and mixed usages.

Figure 02: The mixed use “layer cake”. Mixed use businesses primarily function as businesses at street level, offices or apartments in the middle floors, and apartments or other residential sit on the top floor (Hake, 2018).

Figure 03: (above) Envisioning an applied mixed use building- It is a place for a work and home life. It is a convenient stop for those not living in the area, and provides privacy for those who live in the upper floors (Hake, 2018).

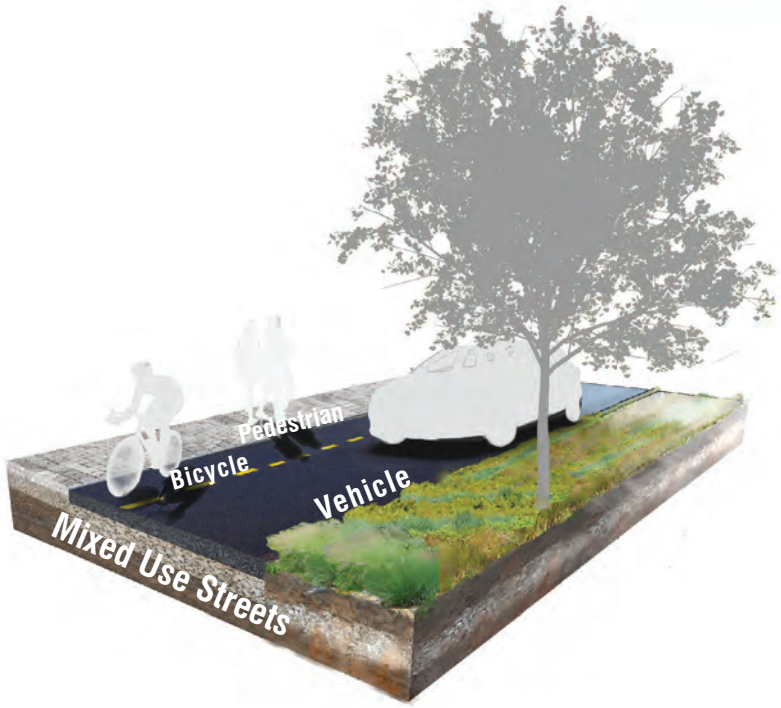


Figure 04: Example of how streets may work in a more community-oriented, mixed-use district. They often provide equal space for bicycles and pedestrians as they do for cars (Hake, 2018).

Overall, Existing Structures within the Southeast Commercial District are Rated "Low"

Structures were rated based upon their general appearance, presence within the landscape, and economic contribution

W2_Baker01_ExistingStructures.pdf

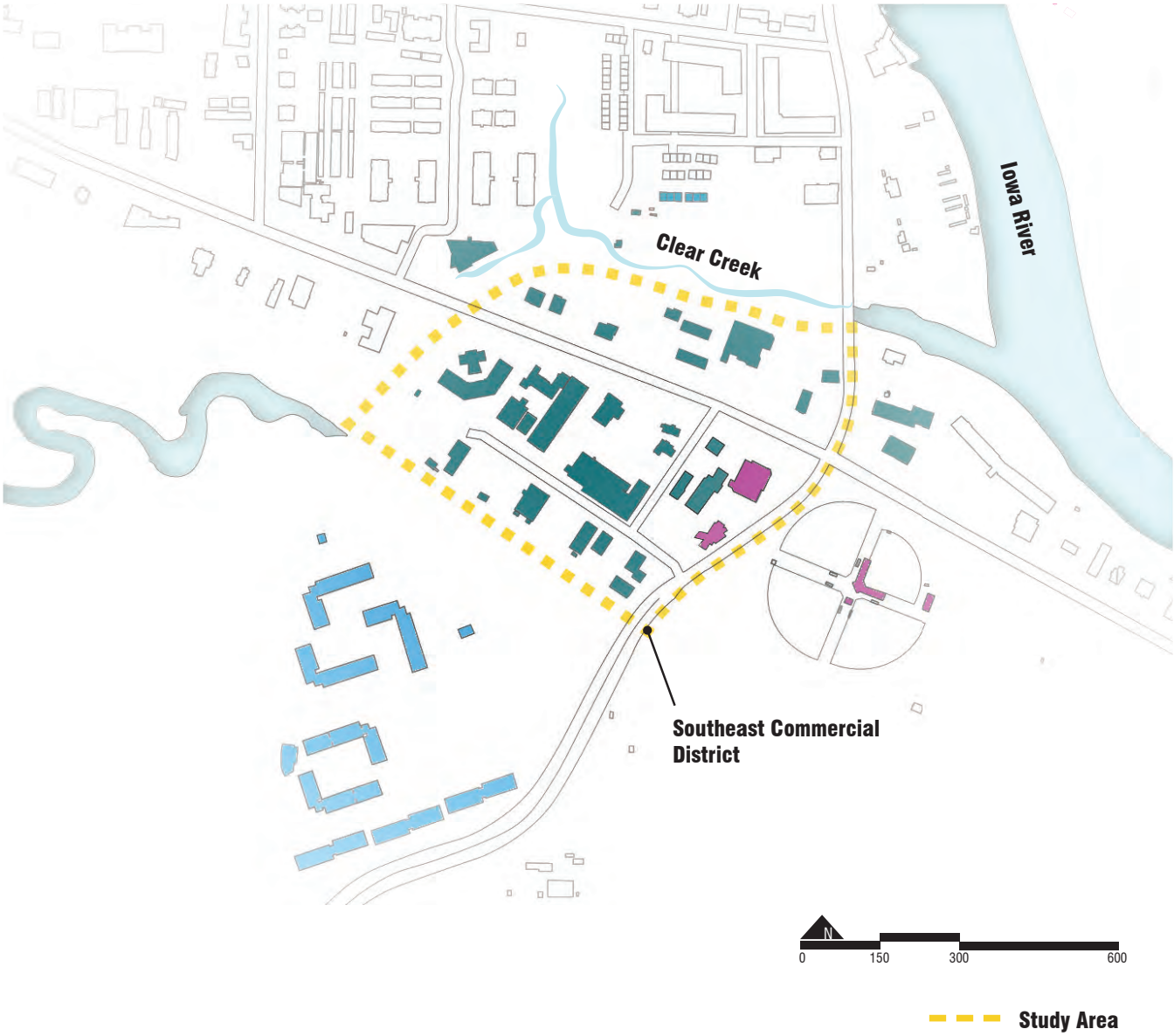


Figure 1.0. Southeast Commercial District Structure Ratings
Source: Baker, 2018

Inquiry: How do existing buildings rate using the modified Pumphrey-Brand system?
Key Extractions: Ratings of structures in the Southeast Commercial District using the Pumphrey-Brand system (2012).
Methodology: ArcGIS building footprint mapping, Analyzation of building conditions through site visits and Google Earth, and the Modified Pumphrey-Brand System. This system rates buildings in the Study Area based on their architectural significance, presence within the landscape, economic contributions, and historical significance. Once the structures were assessed for their fitness and contributions to the Study Area, a rating of "Low", "High", or "Perceived High" was assigned. Ratings criteria are described in Table 1.
Conclusions: Many of the existing buildings in the Southeast Commercial district rate as "Low" structures. This means that though the structures serve a purpose, they have low visibility, lower rent costs, no distinct architectural style, and often, higher turnover rates. Several options are available to address these "Low" structures, including renovation, retrofitting, and even complete removal of the structure in order to better serve the needs of the community.

Classification Building Rating	Characteristics	Actions
"Low"	"Low-visibility, low rent, no style, and high turnover" (Brand). Limited emotional attachment.	May be renovated, retrofitted, or removed to completely to better serve the community.
"Perceived High "	Emotional attachment to a structure due to long-term tenancy, a historic-looking design element, or a landmark. Limited aesthetic value.	Structures may be removed or reconfigured, however steps must be taken to ensure long-term tenants remain.
"High"	Express a prominence in the landscape. Often, they establish an important social role in the community.	Buildings should remain intact.

Table 1. Description of the Pumphrey-Brand Rating System (2012). Recommended actions to be taken are determined by analyzing each building's assigned rating.
Source: Pumphrey, 2012

Composition of Building Ratings within the Study Area

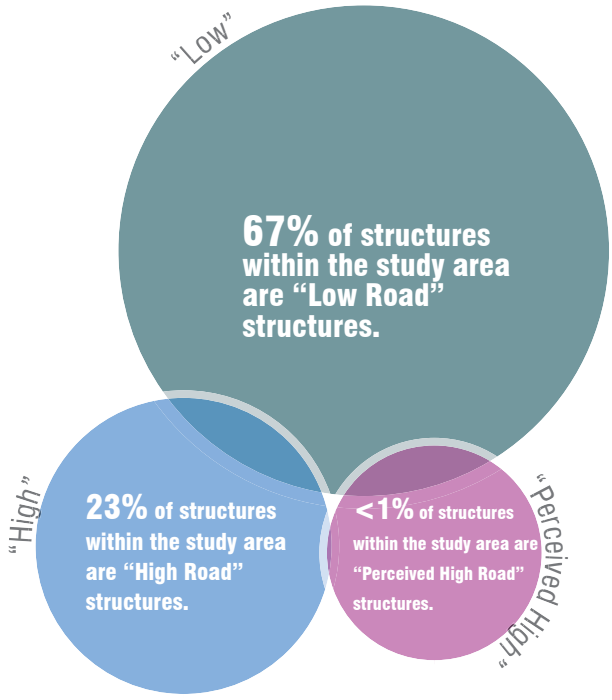


Figure 2. Percentages of "Low", "High", and "Perceived High" buildings within the Study Area.
Source: Baker, 2018

Many Existing Buildings within the District Do Not Contribute to Placemaking

Buildings are spatially unorganized and many show evidence of neglect

W2_Baker02_PlacemakingContributions.PDF

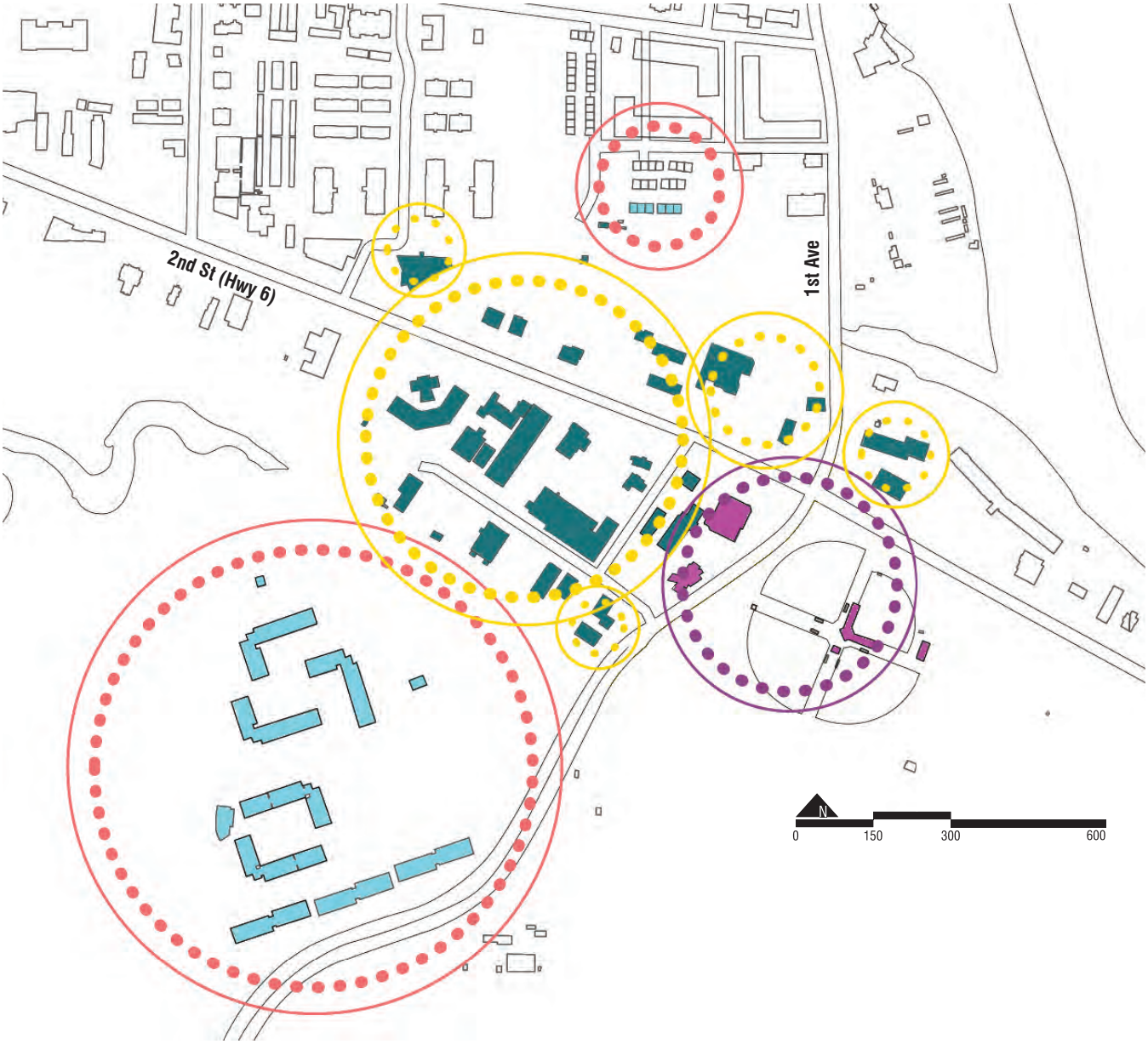


Figure 1.0. Building Condition Impacts Overall Character and Civic Space
Source: Baker, 2018

Inquiry: How do the conditions of existing buildings within the Southeast Commercial District affect the overall quality of building character and civic spaces, and how does this impact community services?
Key Extractions: Impacts upon the Study Area by buildings with varying conditions, as determined by the modified Pumphrey-Brand system.
Methodology: ArcGIS building footprint mapping; Analysis of building conditions assessed through site visits and Google Earth; use of the modified Pumphrey-Brand rating system (2012).
Conclusions: Many buildings within the Study Area are architecturally obsolete, expensive to maintain, and are organized in an inefficient manner. By possibly removing buildings that received “Low” or “Perceived High” ratings, opportunities for enhanced civic space and improvements in overall building character are presented.

Legend

High detrimental impact to overall character and civic space

Moderate detrimental impact, high levels of community services offered

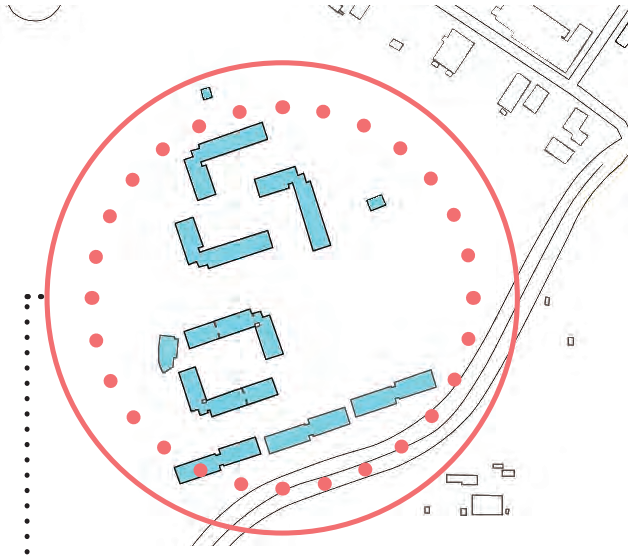
Little to no detrimental impact, high levels of community services offered

"Low" buildings

"Perceived High" buildings

"High" buildings

Figure 2. Evidence of Care Diagram
Source: Baker, 2018



- **Evidence of care:** The university housing adjacent to the Study Area to the south is an excellent example of "High" rated buildings. These structures posses considerable architectural character, their organization provides clear areas for civic and green space, and maintenance is regular and well executed.

- **Evidence of neglect:** The core of the Study Area is composed mainly of "Low" rated buildings. Broken windows, peeling paint, damaged masonry, sagging structural systems and overgrown vegetation are not uncommon. In addition, the lack of a clear spatial organization system makes the addition of civic and green spaces a challenge. It is recommended that these structures be removed to better serve the community.

Figure 3. Evidence of Neglect Diagram
Source: Baker, 2018

- **Evidence of services:** Two well-known buildings, Walgreens and MidWestOne Bank, provide many services to the community. These buildings are rated as "Perceived High" structures due to the services they offer. Though the structures are well-maintained and possess some architectural character, their location is less than ideal. Relative to the Southeast Commercial District redevelopment; it is recommended that these businesses remain in the community, however in a location that better suits the needs of the community.

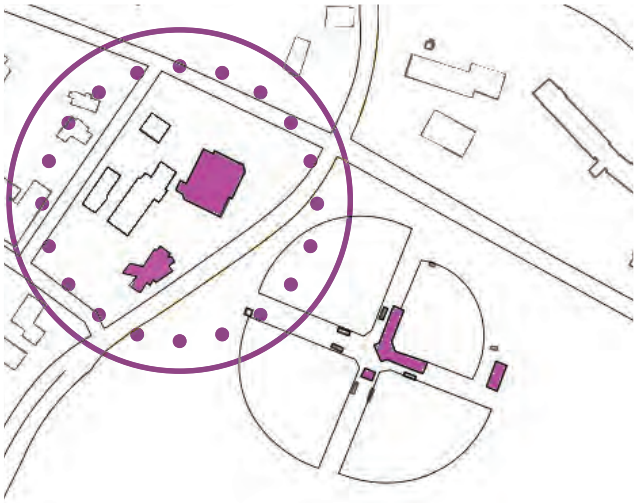


Figure 4. Evidence of Service Diagram
Source: Baker, 2018

Phasing Strategies can Prevent Displacement of Southeast Commercial District Businesses

By analyzing patterns of current business locations, phasing strategies can aid construction and minimize disturbances

W2_Baker03_TransitionalLinkages.PDF

Figure 1.0. Phasing Strategy Map
Source: Baker, 2018

Inquiry: How will businesses in the Southeast Commercial District be affected by development and construction?
Key Extractions: Key areas for the implementation of potential phasing strategies
Methodology: ArcGIS building footprint mapping; Analysis of existing site conditions through site visits and Google Earth; Review of the City of Coralville, Iowa Community Plan
Conclusions: The development process has the potential to be broken down into three phases. Each of these phases allows for minimal displacement of existing businesses and tenants, while providing new areas for business and affordable housing to those businesses or tenants that may be affected by development. In addition, the phasing sequence allows adequate time for essential remediation efforts within the central and southeastern portions of the Southeast Commercial District to take place, minimizing unnecessary disturbance to the community.

Southeast Commercial District Phasing Strategies: Phases 1, 2, and 3

Phase One	Phase Two	Phase Three
Mixed-Use Development: Residential and commercial/retail development along the North and South banks of Clear Creek should be the first area of focus within the Study Area. Ideally, a mixed-use development would satisfy the community's desire for affordable housing, while providing space adjacent to 1st Avenue and 2nd Street for commercial buildings and retail shops. These commercial and retail spaces would gain direct exposure to traffic and pedestrians, as well as provide relocation spaces for existing long-term businesses and tenants of the Southeast Commercial District.	**Commercial Development:** Phase Two addresses the properties centrally located along 1st Avenue and 2nd Street. The prime location of these properties makes them ideal for commercial and retail development. Easy pedestrian and vehicular access combined with high visibility aids in attracting new businesses into the area while providing new locations for existing long-term businesses. Additionally, existing businesses located within the limits of Phase Two could potentially relocate to the new properties created by the completion of Phase One north of 2nd Street.	**Mixed-Use Development:** Similar to Phase One, the properties located within the limits of Phase Three have the potential to be zoned as mixed-use. Moving away from the busy 1st Avenue and 2nd Street, these properties are ideal for development including affordable housing, and the inclusion of public green space. As the last phase of development, Phase Three provides adequate time for the remediation of contaminated soils and groundwater located within the area. This is ideal, as delays during the extensive remediation process could be a possibility.

Table 1. Phases 1,2, and 3 of the Southeast Commercial District Phasing Strategy

Retention of Existing Businesses during Development

By implementing the above proposed Phasing Strategies, higher numbers of existing businesses within the Southeast

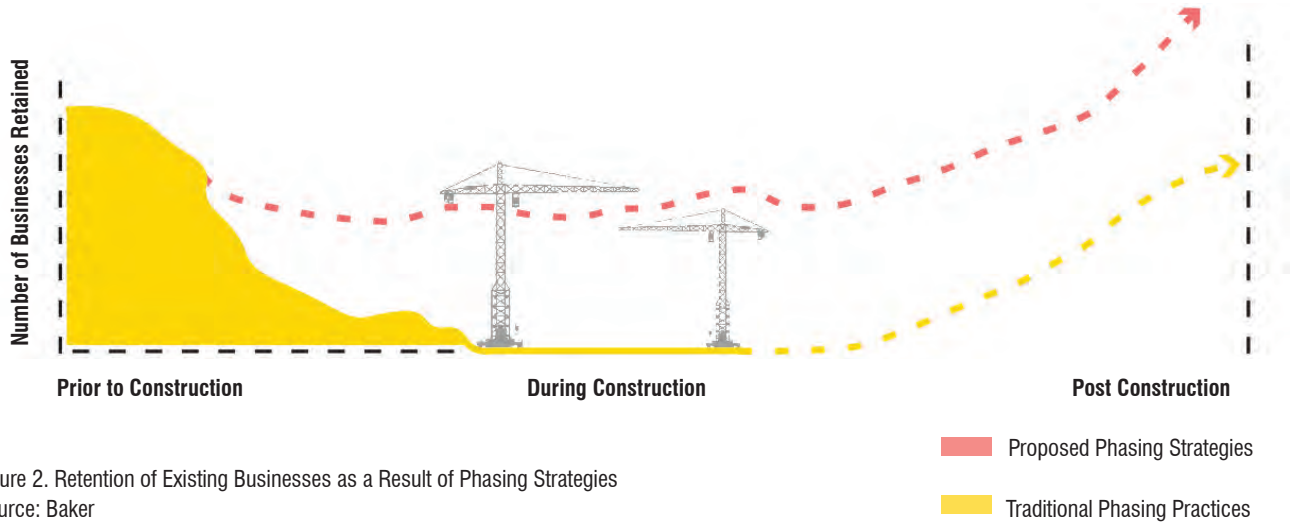


Figure 2. Retention of Existing Businesses as a Result of Phasing Strategies
Source: Baker

Online Reviews Reveal Public Opinion of Local Businesses

Comparing numbers of online reviews with the average rating reveals where people frequently visit

W3_Sanders01_Public-Opinion.PDF

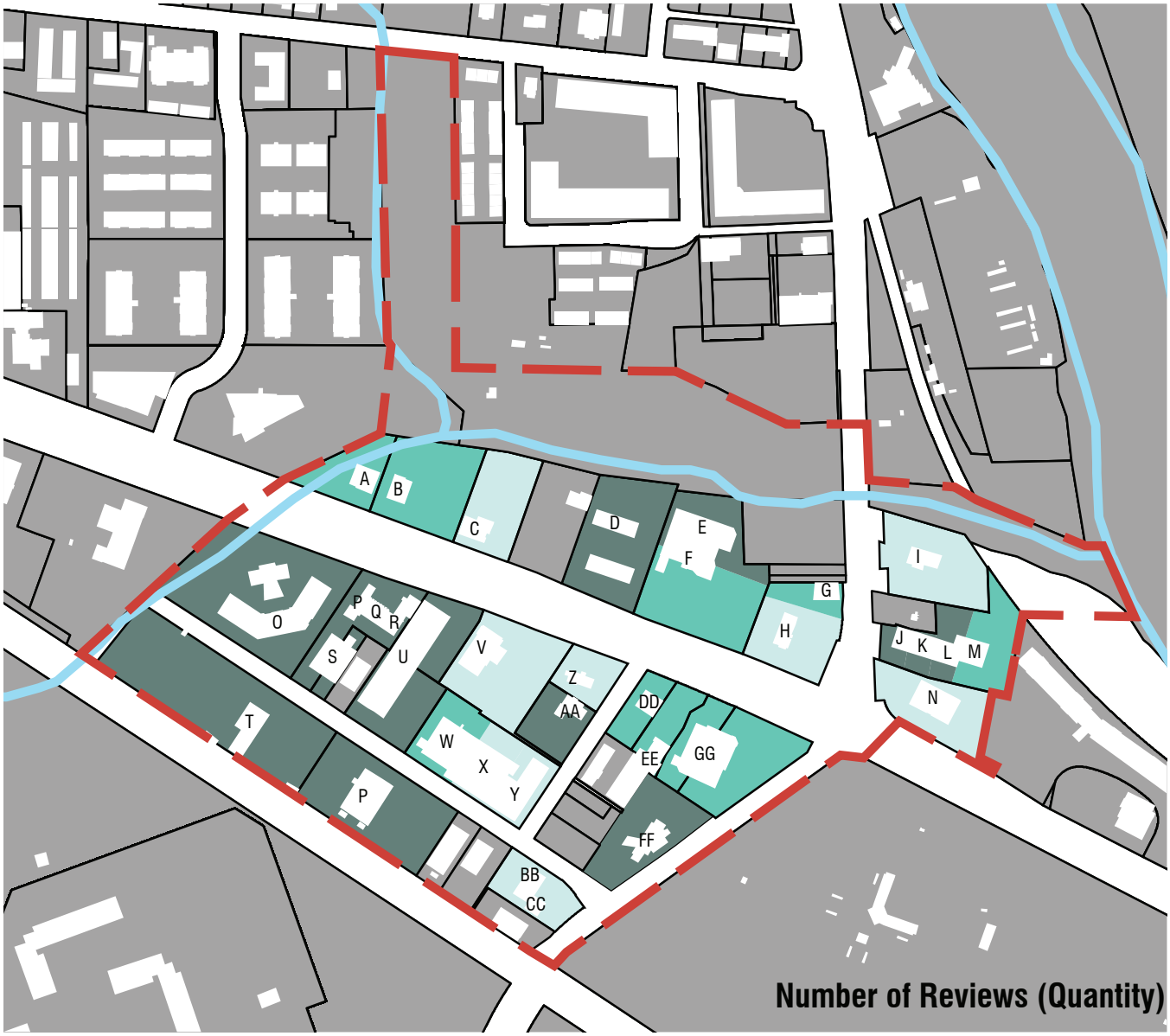


Figure 1. Number of Reviews of Local Businesses
Source: ArcGIS, Howard Hahn, "Johnson County GIS", Facebook, Google, Yelp

Inquiry: Can online reviews reveal where popular businesses are located in the SE Commercial District?
Key Extractions: Average business ratings, number of business ratings
Methodology: Average business ratings from Google, Yelp, and Facebook cross-referenced with the total amount of reviews per business to estimate importance in the public's eyes
Conclusions: Comparing both maps side by side shows that there are parts of the site that are visited less than others. This may be due to the types of businesses that are located there, but may also begin to reveal how important these businesses are to the general public. A general trend is seen that the closer to the street and intersection a business is the more reviews and better ratings it has. Food businesses were more likely to be reviewed than any other type so the data about non-food businesses may be somewhat skewed. Many housing locations had no reviews and preference in further mapping is given to housing locations over businesses.

Legend (Fig. 1)

- High Number of Reviews (100-200+)
- Medium Number of Reviews (51-100)
- Low Number of Reviews (1-50)
- Study Area

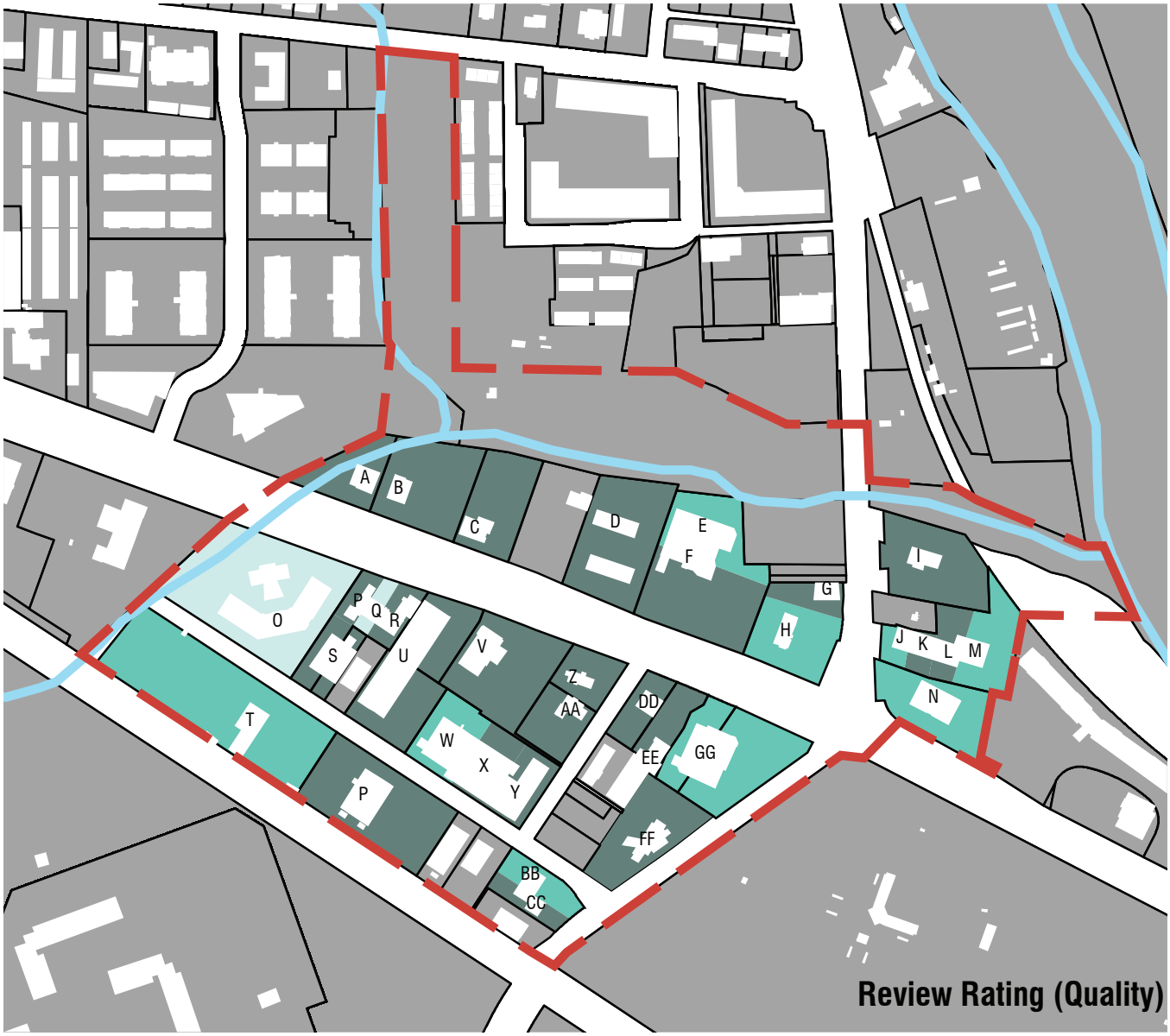


Figure 2. Review Ratings for Local Businesses
Source: ArcGIS, Howard Hahn, "Johnson County GIS", Facebook, Google, Yelp

N
0' 150' 300' 600'

Business Key

- A Tender Care Animal Hospital
- B Copyworks
- C Monica's
- D Kum & Go
- E NXT Bank
- F Sun Tan City
- G Spin City Laundry
- H Hardees
- I Panera Bread
- J Check Into Cash
- K Chez Grace - French Cuisine
- L Global Mart
- M Papa Johns
- N Peking Buffet
- O Lodge Apartments
- P Quality Care Landscapes
- Q Taxes Plus
- R A-1 Uniforms
- S Earthview Environmental Inc.
- T Petersen Iron & Metal
- U Tall Grass Business Resource
- V Tabooleh
- W Happy Joes Pizza
- X El Dorado Mexican Food
- Y Exotic India
- Z Taco Johns
- AA Tienda Mexicana La Lupita
- BB A to Z Thrift
- CC El Cactus Mexican Cuisine
- DD Downward Dog Yoga
- EE China House
- FF Midwest One Bank
- GG Walgreens

Legend (Fig. 2)

- High Rating (4-5/5)
- Medium Rating (2-3.9/5)
- Low Rating (0-1.9/5)
- Site Boundary

Dispersed Key Businesses Pose Development Issue

A wide range of public opinion of businesses on the site may make it hard to make decisions of phasing and relocation

W3_Sanders02_Public-Opinion.PDF

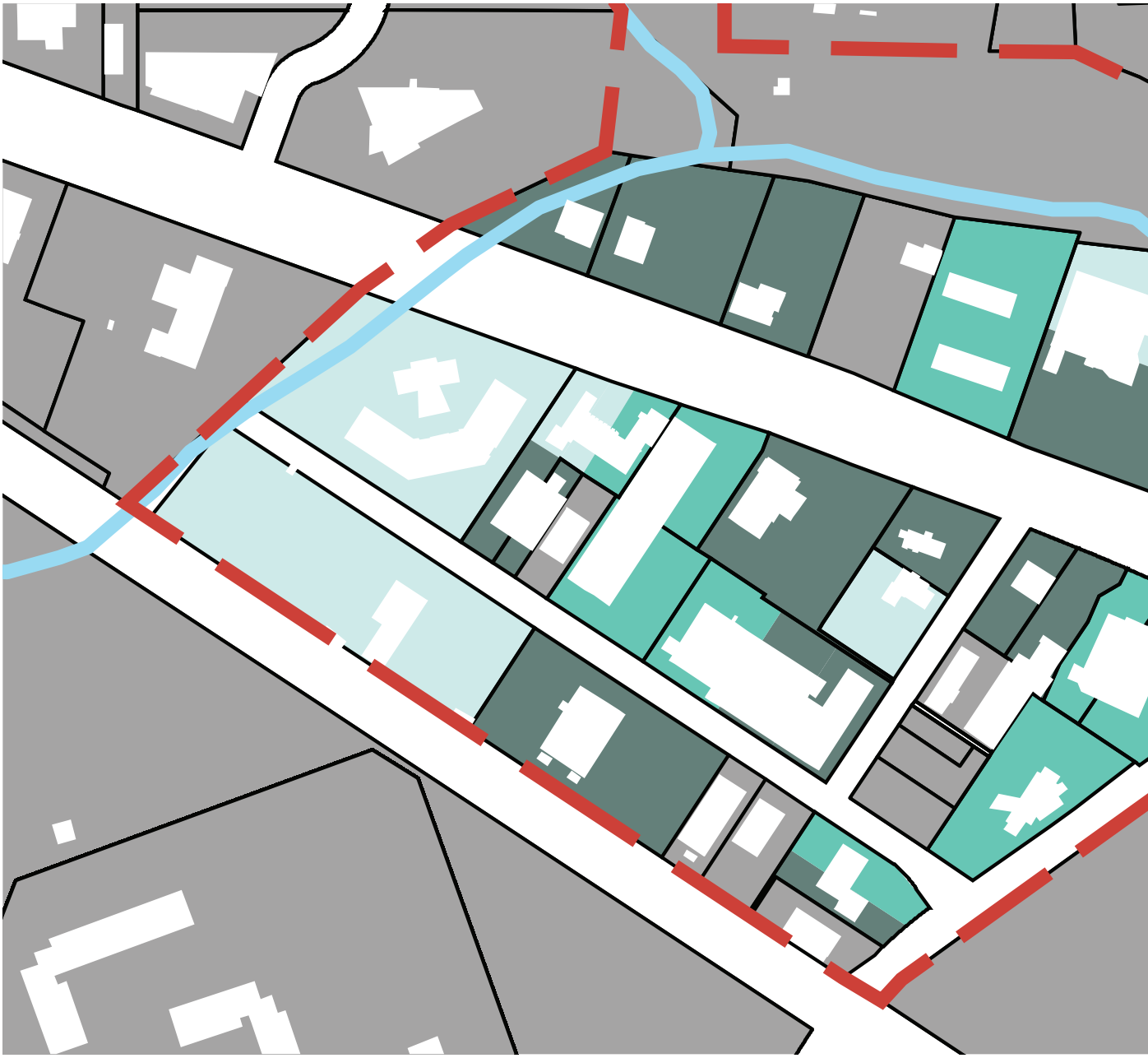


Figure 1. Intermingled Levels of Public Opinion
Source: Johnson County GIS

Inquiry: What is the synthesized public opinion of the site and how will this affect later phases of the project?
Key Extractions: High, moderate, and low opinions of businesses,
Methodology: Using Table 1 to synthesize findings from the online reviews map
Conclusions: Throughout the site businesses of differing public opinion are pushed together with no easily visible pattern. This might pose a difficult hurdle for developers when deciding what to keep and what to remove from future plans. Some long standing businesses and housing developments have low public opinion, yet are valuable to the residents and owners. How will this problem be reconciled to best suit the needs of the people using the site every day and the community at large? According to online reviews businesses at the intersection consistently scored lower than businesses at the core of the site. This may be because corner sites are occupied by chain restaurants and a convenience store. Obviously the community highly values the international food in the district and is a driving factor for visitors.

Figure 2. High Public Opinion
Source: Johnson County GIS

Scale: NTS

Figure 3. Moderate Public Opinion
Source: Johnson County GIS

Scale: NTS

Figure 4. Low Public Opinion
Source: Johnson County GIS

Scale: NTS

Table 1. Public Opinion Chart

		Review Ratings		
		Low Rating	**Medium Rating**	**High Rating**
Number of Reviews	**Low Number**	Low Opinion	Low Opinion	Moderate Opinion
	Medium Number	Low Opinion	Moderate Opinion	High Opinion
	High Number	Low Opinion	Moderate Opinion	High Opinion

Potenial Phasing Plan Would Allow for Housing Residents to Remain on Site

First phase improvements would include affordable, mixed use residences for current residents to move into

W3_Sanders01_Public-Opinion.PDF

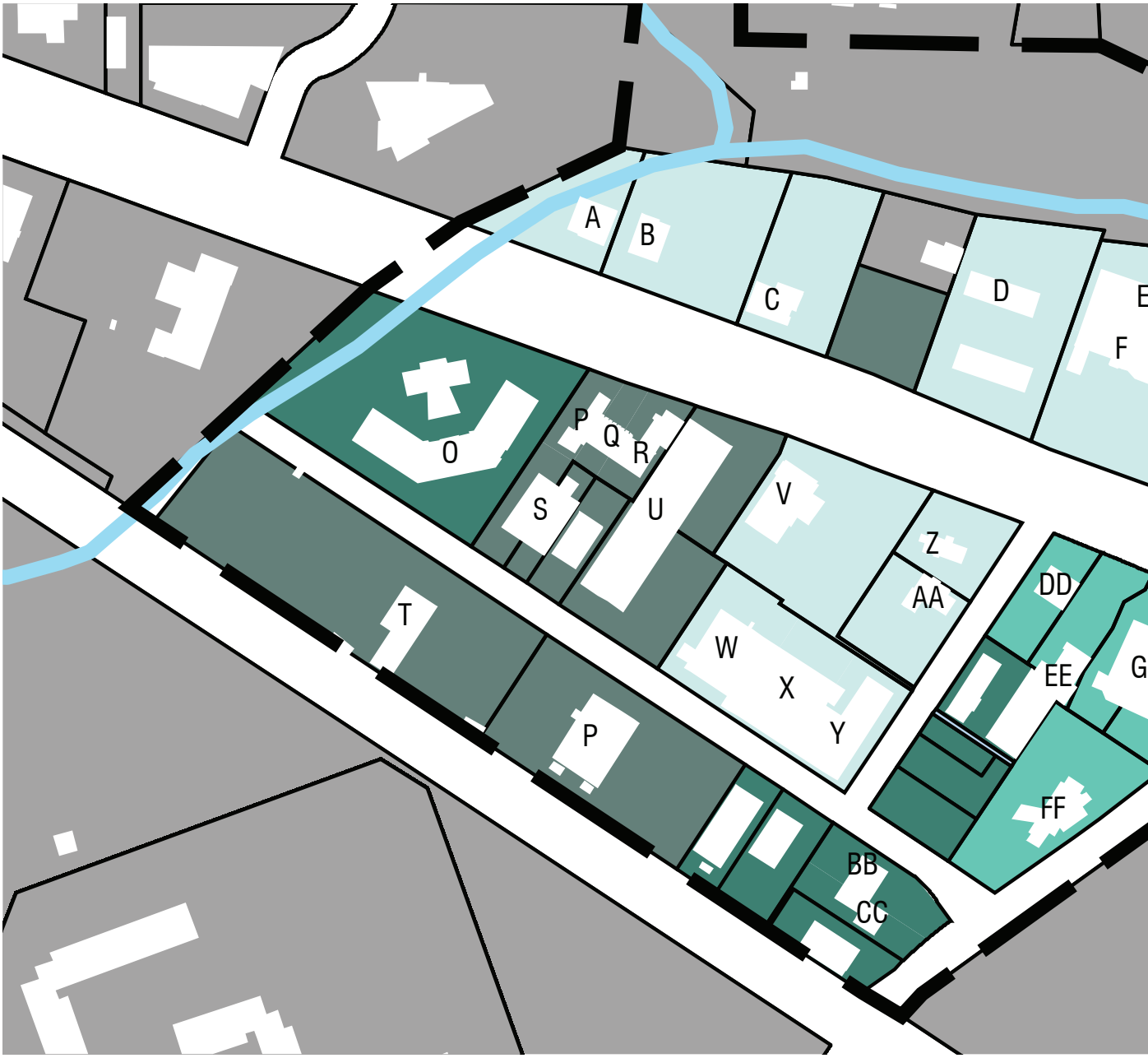


Figure 1. Phasing Map of SE Commercial District
Source: ArcGIS, Howard Hahn, “Johnson County GIS”, Facebook, Google, Yelp

Inquiry: What kind of phasing plan would allow for key international food businesses and residents to remain on site and move into a mixed use development?
Key Extractions: Phasing options, business locations, public opinion synthesization
Methodology: Use public opinion, housing locations, and business type to create a phasing plan that would minimize relocation for residents and businesses that create the most visitors to the SE Commerical District.
Conclusions: The most important businesses to the site are restaurants and housing. Site visits have concluded that the current housing show evidence of neglect and is in need of improvement or replacement. Phase 1 locations include removal of businesses that either 1) have lower average public opinions or 2) Could most easily relocate and 3) are not vital to the district’s identity. Affordable housing, business locations, and public space would then be built to ensure residents and restaurants could relocate before further phases are implemented.

Legend

- Phase 1
- Phase 2
- Phase 3
- Phase 4
- Site Boundary

N

0' 100' 200' 400'

A	Tender Care Animal Hospital
B	Copyworks
C	Monica's
D	Kum & Go
E	NXT Bank
F	Sun Tan City
G	Spin City Laundry
H	Hardees
I	Panera Bread
J	Check Into Cash
K	Chez Grace - French Cuisine
L	Global Mart
M	Papa Johns
N	Peking Buffet
O	Lodge Apartments
P	Quality Care Landscapes
Q	Taxes Plus
R	A-1 Uniforms
S	Earthview Environmental Inc.
T	Petersen Iron & Metal
U	Tall Grass Business Resource
V	Tabooleh
W	Happy Joes Pizza
X	El Dorado Mexican Food
Y	Exotic India
Z	Taco Johns
AA	Tienda Mexicana La Lupita
BB	A to Z Thrift
CC	El Cactus mexican Cuisine
DD	Downward Dog Yoga
EE	China House
FF	Midwest One Bank
GG	Walgreens

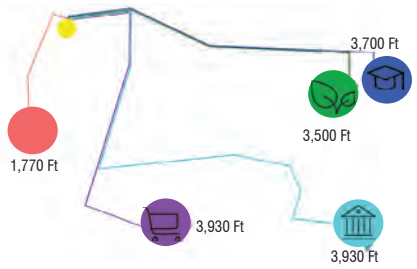
Bus Stops Near Affordable Housing are Important

Coralville lacks bus stops near both of their affordable housing facilities

W3_Benyshek01_CommunityServices.pdf

Coralridge Hampton Apartments

Location: Coralville, Iowa
Average Median Income: $60,000
Affordable Housing Units: 72



Distance from Hampton Apartments to Services

Figure 01. Location of Service Types Near Coralridge: Hampton Apartments
Source: Benyshek, 2018

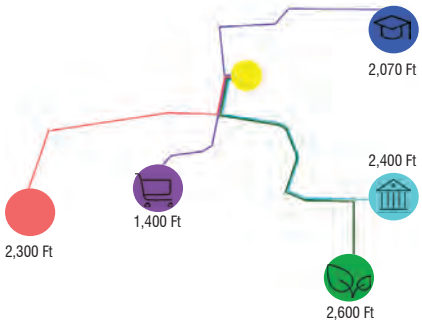
N Not Scaled

Figure 02. Locations of Service Types Near Coralridge: Senior Apartments
Source: Benyshek, 2018

N Not Scaled

Coralridge Senior Apartments

Location: Coralville, Iowa
Average Median Income: $60,000
Affordable Housing Units: 55



Distance from Senior Apartments to Services

Legend

- Affordable Housing Site
- Shopping/Restaurants
- Train
- Grocery Store
- Green Space
- Bus Stop
- Bike Lane
- Community
- School

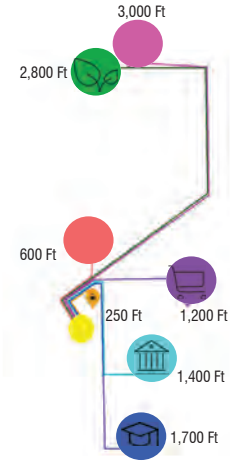
Inquiry: What types of services are affordable housing projects built closest to and how does that compare to existing affordable housing in Coralville?
Key Extractions: Transit, Shopping/Restaurants, Grocery Store, Community Buildings, Green Space, Schools, Travel Distances to Services
Methodology: The types of services near each of the affordable housing sites were mapped and the distances to each service was diagrammed.
Conclusions: Two of the three comparable affordable housing projects had bus stops closest to them. Coralville lacks any bus stops near their two affordable housing facilities. Grocery stores and shops or restaurants were the next types of services closest to affordable housing facilities. Bike lanes and trains were not found as important to have near affordable housing units at all.

1. Archer Courts

Location: Chicago, Illinois
Average Median Income: $68,000
Affordable Housing Units: 150

- **Closest:** Bus Stop
- **Farthest:** Train
- **N/A:** Bike Lanes

Source: Benyshek, 2018 N Not Scaled

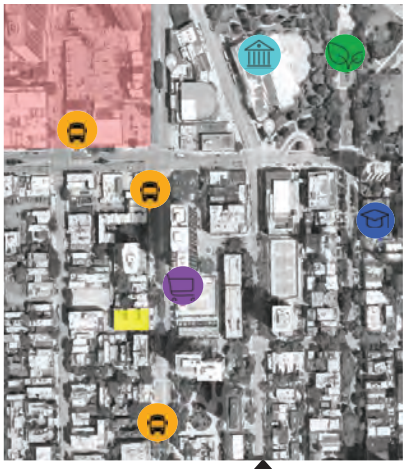


Distance from Archer Courts to Services

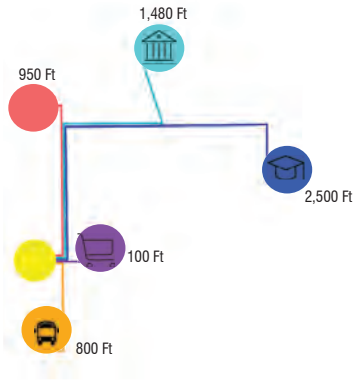
2. Near North SRO

Location: Chicago, Illinois
Average Median Income: $68,000
Affordable Housing Units: 67

- **Closest:** Grocery Store
- **Farthest:** School
- **N/A:** Bike Lanes and Train



Source: Benyshek, 2018 N Not Scaled



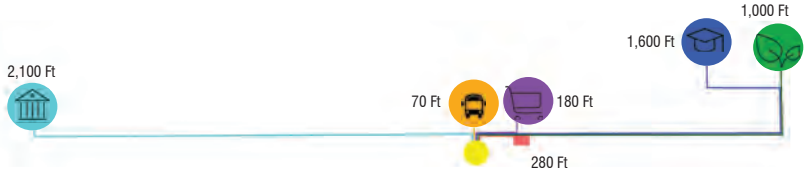
Distance from Near North SRO to Services

3. Mozingo Place

Location: Indianapolis, Indiana
Average Median Income: $62,000
Affordable Housing Units: 22

- **Closest:** Bus Stop
- **Farthest:** Community Building
- **N/A:** Bike Lanes and Train

Source: Benyshek, 2018 N Not Scaled



Distance from Mozingo Place to Services

Map 8.6b

SE Commercial District Offers Numerous Nearby Service Types Benefitting Affordable Housing

Visual conditions are defined by street corridors, utility corridors, elevated rail line, and building setbacks

W3_JB02_NoScale_OpportunityMap

Figure 1.Types of Services Available Near Southeast Commercial District
Source: Benyshek, 2018

Not Scaled

Inquiry: What types of services are near Southeast Commercial District that could serve new affordable housing developments?
Key Extractions: Various types of services near Southeast Commercial District
Methodology: The existing services near Southeast Commercial District were mapped out.
Conclusions: There are several types of services located close to Southeast Commercial District. This presents the opportunity to build affordable housing on site to have strong connections to those services.There is also room to improve bike lanes and grocery store services near or on site.

Legend

- Shopping/Restaurants
- Train
- Community
- Green Space
- Bus Stop
- School

Eight Service Types	Near SE Commercial District
Community Building	X
Shopping/Restaurants	X
School	X
Green Space	X
Bus Stop	X
Train	X
Bike Lane	
Grocery Store	

Figure 2. Person Riding Bike in Bicyle Lane
Source: "File:Hornby", 2012

The Southeast Commercial District lacks any bike lanes near the site, so there is potential to add them when redeveloping the area. Also, grocery strores are located farther from the site. Re-envisioning Southeast Commercial District to incorporate grocery stores and international food markets could benefit the area greatly.

Figure 3. Grocery Store that Includes International Foods
Source: "File:Food", 2010

Map 8.6c

North of 2nd Street is Most Suitable for Developing New Affordable Housing

North of 2nd Street is closest to community buidings, green spaces, a bus stop, and other nearby community services

W3_Benyshek03_CommunityServices.pdf

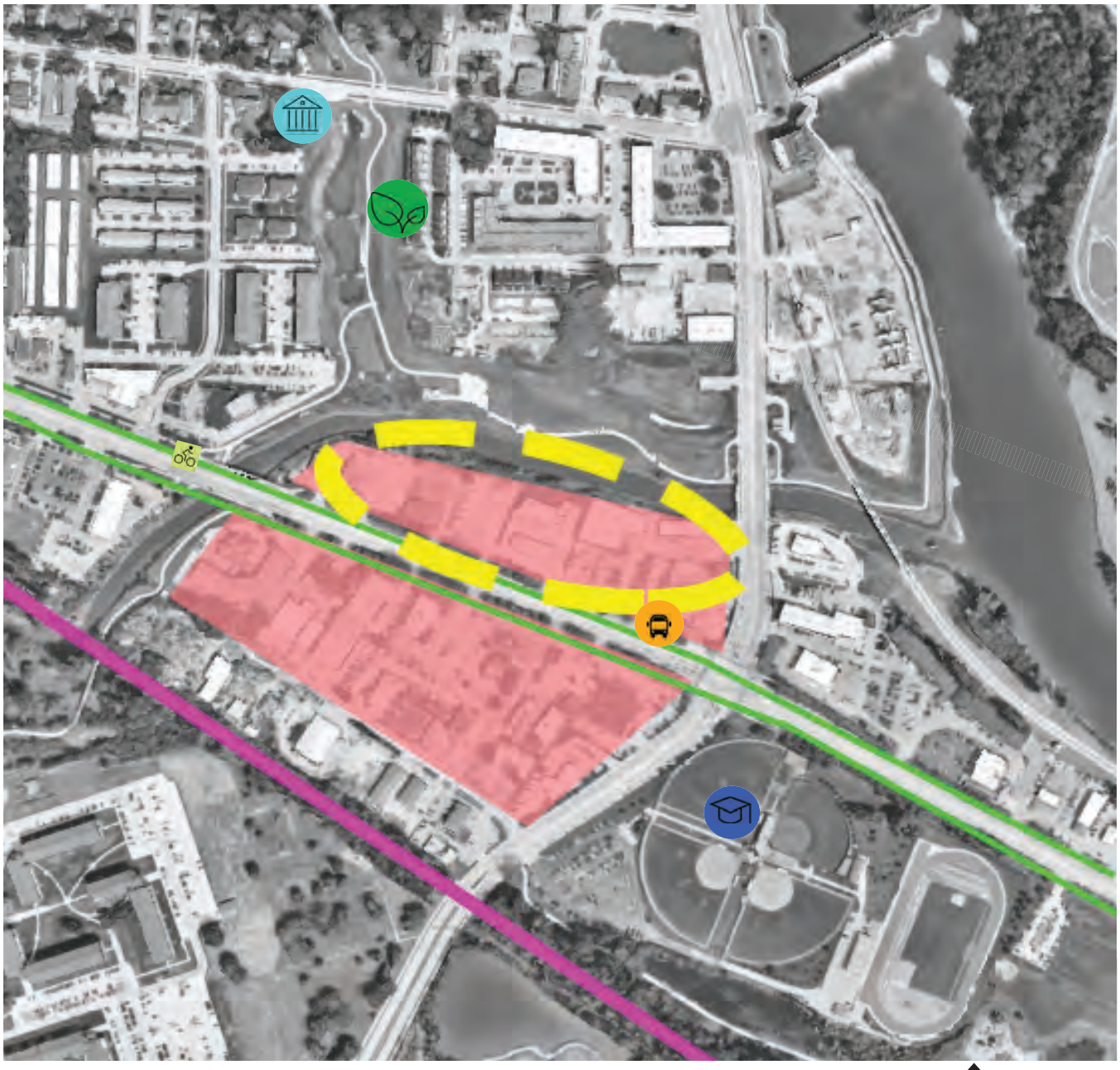


Figure 1. Strategies for Re-Envisioning Southeast Commercial District
Source: Benyshek, 2018

Inquiry: Where should affordable housing be developed in Southeast Commercial District?
Key Extractions: Locations for Affordable Housing, New Bike Lanes, Connections to Existing Types of Services
Methodology: The locations for developing affordable housing and bike lanes were mapped after analyzing the opportunities map.
Conclusions: New affordable housing should be developed north of 2nd Street in Southeast Commercial District to maximize the connection to nearby service types, especially the bus stop. Adding bike lanes along 2nd Street would provide more transit services for new affordable housing in the area too.

Historic Schoolhouse and Town Hall
Walking Trails
Affordable Housing
Bike Lanes
Rail System
Shopping/Dining
University of Iowa

Citations

MAPS

A.1 Streets

Map 1.1a

"Lack of Intersections on 2nd St and 1st Ave Divide the Study Area"
Shelby Cooke

Figure 01.
Cooke, Shelby. 2018. Traffic, Intersections, and Trails in Immediate Site Context. Source data:

- Google Earth. 2016. Accessed June 1, 2018. Iowa DOT. "AADT Maps – Coralville." 2014. Accessed June 1, 2018. https://iowadot.gov/maps/digital-maps/traffic/city-trafficmaps

Figure 02.
Cooke, Shelby. 2018. Quality of Pedestrian Experience. Source data: Google Earth, 2016. Accessed June 1, 2018.

Figure 03.
Cooke, Shelby. 2018. 2nd Street sidewalks create a nice pedestrian experience.

Figure 04.
Cooke, Shelby. 2018. 2nd Street crosswalk allows for safe pedestrian crossing.

Figure 05.
Cooke, Shelby, 2018. 2nd Street traffic makes it difficult to cross the road. Source data: Google Earth, 2016. Accessed June 1, 2018.

Figure 06.
Cooke, Shelby, 2018. Clear Creek Bridge has amenities but is close to traffic. Source: Mader, Grace. 2018.

Figure 07.
Cooke, Shelby. 2018. Trail is not clearly directed and creates unease under bridge.

Map 1.1b

"Lack of Pedestrian Crossings Provide an Opportunity to Connect the Study Area"
Shelby Cooke

National Association of City Transportation Officials. "Urban Street Design Guide." Accessed June 1, 2018. https://nacto.org/publication/urban-street-design-guide/intersection-design-elements/crosswalks-and-crossings/

Figure 01.
Cooke, Shelby. 2018. Intersection Travel Distance and Time Along 2nd Street and 1st Avenue. Source data: Google Earth, 2016. Accessed June 1, 2018. Google Maps, 2018. Accessed June 1, 2018. https://www.google.com/maps/place/Coralville,+IA/@41.6949548,-91.6330888,13z/data=!3m1!4b1!4m5!3m4!1s0x87e443ed1ae602ff:0x9f6a62b2e915a56c!8m2!3d41.6822756!4d-91.5960643

Figure 02.
Cooke, Shelby. 2018. Potential crossings to connect site across 2nd St and 1st Ave. Source data: Google Earth, 2016. Accessed June 1, 2018. Google Maps, 2018. Accessed June 1, 2018. https://www.google.com/maps/place/Coralville,+IA/@41.6949548,-91.6330888,13z/data=!3m1!4b1!4m5!3m4!1s0x87e443ed1ae602ff:0x9f6a62b2e915a56c!8m2!3d41.6822756!4d-91.5960643

Map 1.1c

"Implementing a Pedestrian Grid Could Better Connect the Study Area"
Shelby Cooke

National Association of City Transportation Officials. "Urban Street Design Guide." Accessed June 1, 2018. https://nacto.org/publication/urban-street-design-guide/intersection-design-elements/crosswalks-and-crossings/

Figure 01.
Cooke, Shelby. 2018. Proposed Pedestrian Grid with Key Crossing Points (1 or more). Source data: Google Earth, 2016. Accessed June 1, 2018.

Figure 02.
Cooke, Shelby. 2018. Pedestrian Safety Island. Source data: NATO, 2018. Accessed June 1, 2018. https://nacto.org/publication/urban-street-design-guide/intersection-design-elements/crosswalks-and-crossings/

Figure 03.
Cooke, Shelby. 2018. Rapid Flashing Beacons. Source data: NATO, 2018. Accessed June 1, 2018. https://nacto.org/publication/urban-street-design-guide/intersection-design-elements/crosswalks-and-crossings/

Figure 04.
Cooke, Shelby. 2018. Raised Crossing. Source data: NATO, 2018. Accessed June 1, 2018. https://nacto.org/publication/urban-street-design-

guide/intersection-design-elements/crosswalks-and-crossings/

Figure 05.
Cooke, Shelby. 2018. Pedestrian Friendly Street Strategy.

Figure 06.
Cooke, Shelby. 2018. Sidewalk Strategy.

Map 1.2a

"Few Existing Businesses Have 2nd Street Frontage"
Marcos Aleman

Figure 1.1.
Aleman, Marcos. "Aggieville Business Access (Manhattan, KS)". Kansas State University. LAR 646 2018. Map created using Adobe Photoshop and Adobe Illustrator. Source Data:

- Riley County Community GIS Viewer. Accessed 8 June 2018. https://gis.rileycountyks.gov/

Figure 1.2.
Aleman, Marcos. "SE District Business Access (Coralville, IA)". Kansas State University. LAR 646 2018. Map created using Adobe Photoshop and Adobe Illustrator. Source Data:

- ArcGIS Database, "Buildings_Composite"

Figure 1.3. Aleman, Marcos. "SE Business Value". Kansas State University. LAR 646 2018. Graph created using Microsoft Excel 2018. Source Data:

- Johnson County Property Information Viewer. Accessed 8 June 2018. https://gis.johnson-county.com/piv/

Map 1.2b

"Abundance of Vehicle Access is Hindering Pedestrian Use of Southeast District"
Marcos Aleman

Figure 2.1.
Aleman, Marcos. "Access Observation". Kansas State University. LAR 646 2018. Image created using Adobe Photoshop and Adobe Illustrator. Source Data:

- Aleman, Marcos. 25 May 2018. Photograph.

Figure 2.2.
Aleman, Marcos. 25 May 2018. Photograph.

Figure 2.3.
Aleman, Marcos. 25 May 2018. Photograph.

Figure 2.4.
Aleman, Marcos. "SE District Entries and Parking". Kansas State University. LAR 646 2018. Map created using Adobe Photoshop and Adobe Illustrator. Source Data:

- Google Earth, Coralville, IA.
- ArcGIS Database, "Buildings_Composite", "Road_Centerlines"

Figure 2.5.
Aleman, Marcos. "Aggieville Entries and Parking". Kansas State University. LAR 646 2018. Map created using Adobe Photoshop and Adobe Illustrator. Source Data:

- Riley County Community GIS Viewer. Accessed 8 June 2018. https://gis.rileycountyks.gov/

Map 1.2c

"Rethinking Storefronts and Pedestrian Access"
Marcos Aleman

Figure 3.1.
Aleman, Marcos. Section View "Section – Existing". Kansas State University. LAR 646 2018. Image created using Adobe Photoshop and Adobe Illustrator.

Figure 3.2.
Aleman, Marcos. Plan View "Plan – Existing". Kansas State University. LAR 646 2018. Image created using Adobe Photoshop and Adobe Illustrator.

Figure 3.3.
Aleman, Marcos. Section View "Section – Proposed". Kansas State University. LAR 646 2018. Image created using Adobe Photoshop and Adobe Illustrator.

Figure 3.4.
Aleman, Marcos. Plan View "Plan – Proposed". Kansas State University. LAR 646 2018. Image created using Adobe Photoshop and Adobe Illustrator.

Figure 3.5.
Aleman, Marcos. "Proposed Density Plan". Kansas State University. LAR 646 2018. Map created using Adobe Photoshop and Adobe Illustrator. Source Data:

- Google Earth, Coralville, IA.

Figure 3.6.
Aleman, Marcos. Axonometric "Proposed Access Diagram". Kansas State University. LAR 646 2018. Map created using Adobe Photoshop

and Adobe Illustrator.

- "Tree" Accessed From photoshop motherload 9 June 2018. 4CORCOL0.TIF
- "Table" Home Depot. "42 in. Round Mesh Outdoor Patio Dining Table". Accessed 8 June 2018. hampton-bay-patio-dining-tables-fts60704-64_1000.jpg

Map 1.3a

"2nd Street Divides SE Commercial District"

Scott Randall

Figure 1.
Randall, Scott. 2018. "Streetscape Comparions". Diagram created with Adobe Illustrator

- Google Earth. "Southeast Commercial District - Coralville, IA." October 30, 2018. 41° 40'11.14" N and 91°34'07.04" W. Accessed July 3,2018.

Figure 2.
Randall, Scott. 2018. "Streetscape Section Comparisons". Diagram created with AutoCAD Civil 3D 2018 and Adobe Photoshop

- Jacobs, Allan B. 1993. Great Streets. Cambridge, Mass: MIT Press.
- Jacobs, Allan B., Elizabeth Macdonald, and Yodan Rofé. 2002. The Boulevard Book: History, Evolution, Design of Multiway Boulevards. Cambridge, Mass: MIT Press.

Map 1.3b

"Structure-Free Corridor Creates Opportunity for Streetscaping and Pedestrian Connections"

Scott Randall

Figure 1.
Randall, Scott. 2018. "Available Space for Streetscape Improvements". Diagram created with Adobe Illustrator

- Google Earth. "Southeast Commercial District - Coralville, IA." October 30, 2018. 41° 40'11.14" N and 91°34'07.04" W. Accessed July 3,2018.

Figure 2.
Randall, Scott. 2018. "2nd Street Section". Diagram created with Auto-CAD Civil 3D 2018 and Adobe Photoshop

Figure 3.
Randall, Scott. 2018. "Comparitive European Streets". Diagram created with AutoCAD Civil 3D 2018 and Adobe Photoshop

- Jacobs, Allan B. 1993. Great Streets. Cambridge, Mass: MIT Press.
- Jacobs, Allan B., Elizabeth Macdonald, and Yodan Rofé. 2002. The Boulevard Book: History, Evolution, Design of Multiway Boulevards. Cambridge, Mass: MIT Press.

Map 1.3c

"Intersections and Spatial Layers Will Create a Safer and more Comfortable Streetscape"

Scott Randall

Figure 1.
Randall, Scott. 2018. "Early Phase Concept". Diagram created with Adobe Illustrator

- Google Earth. "Southeast Commercial District - Coralville, IA." October 30, 2018. 41° 40'11.14" N and 91°34'07.04" W. Accessed July 3,2018.

Figure 2.
Randall, Scott. 2018. "Early Concept Phase Section". Diagram created with AutoCAD Civil 3D 2018 and Adobe Photoshop

Figure 3.
Randall, Scott. 2018. "Final Phase Concept". Diagram created with Adobe Illustrator

- Google Earth. "Southeast Commercial District - Coralville, IA." October 30, 2018. 41° 40'11.14" N and 91°34'07.04" W. Accessed July 3,2018.

Figure 4.
Randall, Scott. 2018. "Final Phase Concept Section". Diagram created with AutoCAD Civil 3D 2018 and Adobe Photoshop

Map 1.4a

"While 2nd Street Boast Mixed-Use Development, 1st Avenue Falls Short"

Logan Baker

Figure 1.0.
Baker, Logan. "1st Avenue and 2nd Street Land Use Composition." Kansas State University LAR 646 2018. Map created with Adobe Photoshop and Adobe Illustrator. Source Data:

- Google Earth, Coralville, IA
- Arc GIS, Johnson County, IA, "World Light Grey Base", "Buildings_ Composite"

Map 1.4b

"The 1st Avenue Connection Corridor can Serve as a Transitional Linkage"

Logan Baker

Figure 1.0.
Baker, Logan. "The 1st Avenue Connection Corridor can Serve as Transitional Linkage." Kansas State University LAR 646 2018. Map created with Adobe Photoshop and Adobe Illustrator. Source Data:

- Google Earth, Coralville, IA
- Arc GIS, Johnson County, IA, "World Light Grey Base", "Buildings_ Composite".

Figure 2.0.
Baker, Logan. "Opportunities for Transitional Linkages". Kansas State University LAR 646 2018. Map created with Adobe Photoshop and Adobe Illustrator. Source Data:

- Google Earth, Coralville, IA
- Arc GIS, Johnson County, IA, "World Light Grey Base", "Buildings_ Composite".
- Houseal Lavigne Associates. "City of Coralville, Iowa Community Plan." Coralville.org. March 2014. Accessed June 8, 2018. https://www.coralville.org/DocumentCenter/View/3219/Coralville-Community-Plan-2014_Part-1.

Figure 3.0.
Baker, Logan. "Building Heights along 1st Avenue Connection Corridor." Kansas State University LAR 646 2018. Map created with Adobe Photoshop & Adobe Illustrator. Source Data:

- Google Earth, Coralville, IA

Map 1.4c

"Green Space along the Iowa River and 1st Avenue Corridor can Strengthen Linkage"

Logan Baker

Figure 1.0.
Baker, Logan. "Potential Locations for the Incorporation of Green Spaces." Kansas State University LAR 646 2018. Map created with Adobe Photoshop and Adobe Illustrator. Source Data:

- Google Earth, Coralville, IA
- ArcGIS, Johnson County, IA, "World Light Grey Base", "Buildings_ Composite".
- Houseal Lavigne Associates. "City of Coralville, Iowa Community Plan." Coralville.org. March 2014. Accessed June 8, 2018. https://www.coralville.org/DocumentCenter/View/3219/Coralville-Community-Plan-2014_Part-1.

Figure 2.0
Baker, Logan. "Transitional Linkage Opportunities Diagram." Kansas State University LAR 646 2018. Map created with Adobe Photoshop and Adobe Illustrator. Source Data:

- Google Earth, Coralville, IA
- Houseal Lavigne Associates. "City of Coralville, Iowa Community Plan." Coralville.org. March 2014. Accessed June 8, 2018. https://www.coralville.org/DocumentCenter/View/3219/Coralville-Community-Plan-2014_Part-1.

Map 1.5a

"Vikas Mehta's Typology of Streets within Coralville"

Konner Pendland

Figure 01.
Pendland, Konner. 2018. Street Typologies. Source Data: Google Earth. Coralville, IA. Accessed June 6, 2018.

Figure 02.
Google Earth. 2018. Iowa River Landing. Coralville, IA. Accessed June 6, 2018.

Figure 03. Google Earth. 2018. I-80. Coralville, IA. Accessed June 6, 2018.

Figure 04. Google Earth. 2018. Consumption Street. Coralville, IA. Accessed June 6, 2018.

Figure 05. Google Earth. 2018. Communal Street. Coralville, IA. Accessed June 6, 2018.

Figure 06.
Pendland, Konner. 2018. The Main Street of Coralville is Highway 6. Source Data:

- Mader, Grace. Untitled Photograph of Highway 6. Photograph. 2018. Accessed June 6, 2018.

Figure 07.
Mader, Grace. Untitled Photograph of 1st Avenue. Photograph. 2018. Accessed June 6, 2018.

Figure 08.
Asolsma. Hayden Fry during the official dedication of the "Hayden Fry Way" in Coralville, Iowa at the 2009 "Fry Fest." Photograph. 2009. Accessed June 6, 2018.

Figure 09.
Roeder, Phil. Photos from the Women's March in Iowa City, where more

than 1,000 took part in an event to share concerns about the election of Trump. This event joined with hundreds of others around the nation and world as millions of people joined together to speak out against the authoritarian rhetoric of the new President." Photograph. 2017. Accessed June 6, 2018.

Map 1.5b

"Streetscape Opportunities for Southeast Commercial District"
Konner Pendland

Figure 01.
Pendland, Konner. 2018. Street Typologies within Southeast Commercial District.

- Source Data: Google Earth. Coralville, IA. Accessed June 6, 2018.

Figure 02.
Pendland, Konner. 2018. Add definitive end points along Promenade Streets. Source Data:

- Google Earth. Coralville, IA. Accessed June 6, 2018.

Figure 03.
Pendland, Konner. 2018. Incorporate Green Street elements into and around Biscuit Creek to emphasize the street's sustainability. Source Data:

- Google Earth. Coralville, IA. Accessed June 6, 2018.

Figure 04.
Pendland, Konner. 2018. Emphasize the importance of a Main Street within the Southeast Commercial District through distinct architecture and streetscape. Source Data:

- Google Earth. Coralville, IA. Accessed June 6, 2018.

Figure 05.
Pendland, Konner. 2018. Add buffer zones along Celebration Streets to accommodate for pedestrians and events. Source Data:

- Google Earth. Coralville, IA. Accessed June 6, 2018.

Map 1.5c

"Street Revitalization Could Give Coralville New Life"
Konner Pendland

Figure 01.
Pendland, Konner. 2018. Street Redevelopment Strategies. Source Data: Google Earth. Coralville, IA. Accessed June 6, 2018.

Figure 02.
Betanoff, Eric. City Hall. Photograph. 2012. Accessed June 7, 2018.

Figure 03.
Chung, Payton. Stormwater retention park adjacent to Vancouver Olympic Village. Photograph. 2010. Accessed June 7, 2018.

Figure 04.
Wilson, Mike. Broad Street, early morning. Photograph. 2012. Accessed June 7, 2018.

Figure 05.
Runner. Main shopping and dining street of Mountain View, California. Photograph. 2014. Accessed June 7, 2018.

A.2 Waterfront

Map 2.1a

"Comparative Riverfront Businesses Utilize Water Connection to Provide Public Amenities"
Shelby Cooke

Figure 01.
Cooke, Shelby. 2018. Key businesses located around the water front in the Southeast Commercial District. Source data:

- Google Earth. 2016. Accessed June 7, 2018. ArcMap. "Parks." "Buildings_Composite." 2018. Accessed June 7, 2018.
- Image Source: Cooke, Shelby. 2018. Photograph of Clear Creek in Coralville, IA.

Figure 02.
Cooke, Shelby. 2018. Implementation of Mixed-use Development Next to a River Side Park. Map Source data: Google Maps, 2016. Accessed June 7, 2018. https://www.google.com/maps/place/The+Banks,+Cincinnati,+OH+45202/@39.096667,-84.5138557,17z/data=!3m1!4b1!4m5!3m4!1s0x8841b14561f20983:0x91ba9ba871325707!8m2!3d39.096667!4d-84.511667.

- Image source: Estell, Travis. "Smale Riverfront Park and The Banks." September 3, 2015. Accessed June 7, 2018. Attribution-NonCommercial-ShareAlike 2.0 Generic. https://www.flickr.com/photos/taestell/21676069010/.

Figure 03.
Cooke, Shelby. 2018. Live-work Environment Connected to a Riverwalk. Map source data: Google Maps, 2016. Accessed June 7, 2018. https://www.google.com/maps/place/Allentown,+PA/@40.5930722,-75.5188394,13z/data=!3m1!4b1!4m5!3m4!1s0x89c439929f4adce1:0xeaf9df4b246824a1!8m2!3d40.6022939!4d-75.4714098. The Waterfront, 2018. Accessed June 7, 2018. https://thewaterfront.com/the-waterfront-devel-

opment/the-waterfront-master-plan/. Image source: abSketches, York, Pennsylvania. “River View v01 - TWDC (2018-06-18).” Rendering of The Waterfront project in Allentown, Pennsylvania, including (from right to left) 645 Waterfront Drive (Office), 615 Waterfront Drive (Office), and 560 Waterfront Drive (Apartments) along the campus’s signature River Walk. June 18, 2018. Attribution-permission from Jaindl Enterprises.

Figure 04:
Cooke, Shelby. 2018. Dense Mixed-use Downtown Connected to a Riverwalk.

- Map source data: Google Maps, 2016. Accessed June 7, 2018. https://www.google.com/maps/place/Wyndham+Grand+Chicago+Riverfront/@41.8873787,-87.6278446,17z/data=!3m1!4b1!4m7!3m6!1s0x880e2cb067a4076d:0x14415ccf748e1500!5m1!1s2018-07-01!8m2!3d41.8873787!4d-87.6256559.
- Image Source: Schneider, Richard. “Chicago Riverwalk.” July 30, 2017. Accessed June 7, 2018. Attribution-NonCommercial 2.0 Generic. https://www.flickr.com/photos/picturecorrect/36077251750.

Map 2.1b

“The Study Area Provides Opportunity to Link Businesses to the Waterfront”
Shelby Cooke

United States Environmental Protection Agency. “How Small Towns and Cities can use Local Assets to Rebuild their Economies: Lessons from Successful Places.” May 2015. Accessed June 7, 2018. https://www.epa.gov/sites/production/files/2015-05/documents/competitive_advantage_051215_508_final.pdf

Figure 01.
Cooke, Shelby. 2018. Key opportunities to connect the waterfront to surrounding businesses. Source data:

- Google Earth. 2016. Accessed June 7, 2018. ArcMap. “Parks.” “Buildings_Composite.” 2018. Accessed June 7, 2018.

Opportunity 1. Cooke, Shelby. 2018. Biscuit Creek Connection.

Opportunity 2. Cooke, Shelby. 2018. Clear Creek Connection.

Opportunity 3. Cooke, Shelby. 2018. Iowa River Connection.

Map 2.1c

“Development along the Creek could Activate the Waterfront and Attract more Business”
Shelby Cooke

Figure 01.
Cooke, Shelby. 2018. Strategies to better connect the businesses to the water front. Source data:

- Google Earth. 2016. Accessed June 7, 2018. ArcMap. “Parks.” “Buildings_Composite.” 2018. Accessed June 7, 2018.

River Plaza. Untitled photograph of plaza. May 29, 2017. Accessed June 7, 2018. CC0 Public Domain. https://pxhere.com/en/photo/1402527.

Mixed Use Development. Untitled photograph of retail development. February 23, 2017. Accessed June 7, 2018. CC0 Public Domain. https://pxhere.com/en/photo/819148.

Seating. Muraz, Micahel. “Wet Night.” June, 26, 2015. Accessed June 7, 2018. Attribution-NonCommercial-NoDerivs. https://www.flickr.com/photos/anotherangle/19692870126.

Dining. Cooke, Shelby. 2018.

Pedestrian Bridge. Untitled photograph of pedestrian bridge. February 2, 2017. Accessed June 7, 2018. CC0 Public Domain. https://pxhere.com/en/photo/605312.

Map 2.2a

“Clear Creek Meets Flood Control Requirements, but is Under-utilized as a Social Gathering Space”
Harrison Dirks

Figure 01.
Dirks, Harrison. “Map of Social Gathering Space Near Clear Creek.” Kansas State University LAR 646 2018. Map created with Adobe Photoshop and Adobe Indesign. Source Data:

- Google Earth, Coralville Iowa
- Arc GIS, Johnson County, IA, “Contours,” “World Street Map”

Map 2.2b

“Multiple Opportunities for Water Activities are Present at Clear Creek”
Harrison Dirks

Figure 01.
Dirks, Harrison. “Activity Programming Along Clear Creek.” Kansas State University LAR 646 2018. Map created with Adobe Photoshop. Source Data:

- Google Earth, Coralville Iowa
- Arc GIS, Johnson County, IA, “Buildings,” “Contours,” “World Street Map”
- Meister, Calvin. “Let It Flow: Lessons on Innovative Flood

Management Policies from Napa." M-Group, 19 Aug. 2015, www.m-group.us/m-lab/blog/2015/8/17/let-it-flow-lessons-on-innovative-flood-management-policies-from-napa.

Figure 02.
Dirks, Harrison. "Perspective View of Potential Spaces for Activity Programming." Kansas State University LAR 646 2018. Map created with Adobe Photoshop. Source Data:

- Meister, Calvin. "Let It Flow: Lessons on Innovative Flood Management Policies from Napa." M-Group, 19 Aug. 2015, www.m-group.us/m-lab/blog/2015/8/17/let-it-flow-lessons-on-innovative-flood-management-policies-from-napa.

Figure 03.
Dirks, Harrison. "Direct Interaction vs Indirect Interaction with Clear Creek." Kansas State University LAR 646 2018. Map created with Adobe Illustrator.

Map 2.2c

"Waterfront Amenities Proven to Activate Lake & Rivers"
Harrison Dirks

Figure 01.
Dirks, Harrison. "Location of Waterfront Amenities Along Clear Creek." Kansas State University LAR 646 2018. Map created with Adobe Photoshop. Source Data:

- Google Earth, Coralville Iowa
- Arc GIS, Johnson County, IA, "Contours," "World Street Map"
- Meister, Calvin. "Let It Flow: Lessons on Innovative Flood Management Policies from Napa." M-Group, 19 Aug. 2015, www.m-group.us/m-lab/blog/2015/8/17/let-it-flow-lessons-on-innovative-flood-management-policies-from-napa.

Figure 02.
pxhere, 2017. "Public Dock & Gathering Space." https://pxhere.com/en/photo/691610. February 12th, 2017. Accessed June 8st, 2018.

Figure 03.
Olle, 2017. "Fishing Dock." https://www.pexels.com/photo/three-people-on-a-wooden-fishing-docks-988622/. June 22nd, 2017. Accessed June 8st, 2018.

Figure 04.
TheDockDoctors, 2016. "Kayak Launch Dock." https://thedockdoctors.com/images/slideshows/launch-dock-systems/. September 27th, 2016. Accessed June 8st, 2018.

Figure 05.
BoundToPaddle.com, 2013. "Beach Area." https://www.flickr.com/photos/bound2paddle/8427539288. January 6th, 2017. Accessed June 8st, 2018.

Figure 06.
Secretname101, 2016. "Boardwalk." https://commons.wikimedia.org/wiki/File:2016_Chicago_River_IMG_5901.jpg. August 20th, 2017. Accessed June 8st, 2018.

Figure 07.
Seeger, 2011. "Dinging & Gathering Spaces." https://www.flickr.com/photos/stuseeger/5628413324. April 16th, 2017. Accessed June 8st, 2018.

A.3 Brownfields

Map 3.1a

"The High Concentration of Impervious Surfaces in the SE Commercial District Leads to Nonpoint Source Contamination in the Iowa River"
Caleb Parker

Figure 01.
Stoffle, Elsa. 2018 Parking Lot A (Coralville, Iowa). Digital Photograph.

Figure 02.
Mader, Grace. 2018 Parking Lot A (Coralville, Iowa). Digital Photograph.

Figure 03.
Stoffle, Elsa. 2018 1st Street A (Coralville, Iowa). Digital Photograph.

Figure 04.
Impermeable Surfaces Map. Esri Arconline World Street Map. Coralville Iowa. Accessed June 01, 2018. Modified by Caleb Parker.

Figure 05.
Impermeable Surface Breakdown. Esri Arconline World Street Map. Coralville Iowa. Accessed June 01, 2018. Modified by Caleb Parker.

Map 3.1b

"There is Nothing to Prevent Pollutants From Flowing Directly into Clear Creek"
Caleb Parker

Figure 01.
Contaminants Path in to The Watershed. Esri Arconline World Street Map. Coralville Iowa. Accessed June 01, 2018. Modified by Caleb Parker.

Figure 02.
Iowa River Path. Esri Arconline World Street Map. Coralville Iowa. Accessed June 01, 2018. Modified by Caleb Parker.

Figure 03.
Path of Any Water That Enters Clear Creek or the Iowa River. Google Maps. United States. Accessed Jun 01, 2018.

Figure 04
Red Algae Bloom in the Golf of Mexico. "Scientists Work to Predict and Prevent Algae Blooms." Ocean Portal. Web. Accessed June 01, 2018. Web. http://ocean.si.edu/ocean-news/scientists-work-predict-and-prevent-algae-blooms.

Map 3.1c

"Stormwater Management Systems and Public Open Space Can Help Revitalize the SE Commercial District"
Caleb Parker

Figure 01.
Solution Map. Esri Arconline World Street Map. Coralville Iowa. Accessed June 01, 2018. Modified by Caleb Parker.

Figure 02.
Parker, Caleb. Green Streets Diagram. Digital Image. Accessed June 01, 2018.

Figure 03.
"Manchester." Hurst & Wills. May 15, 2017. Accessed June 01, 2018. Web. https://www.hurstandwills.com/single-post/2017/05/15/MANCHESTER---The-UK%E2%80%99s-No1-city-for-rental-returns.

Figure 04.
Pavliga, John Martinez. "Cincinnati - Plaza Stich." Flickr. August 24, 2017. Accessed June 01, 2018. https://www.flickr.com/photos/virtualsugar/36073956414.

Map 3.2a

"Brownfield Sites Can Artistically Recall Industrail History"
Mackenzie Yeager

Figure 01.
Yeager, Mackenzie. 2018. Southeast Commercial District, Coralville Iowa. Map showing relative scale and orientation of buildings. Source data:

- Arc GIS Online. "World Dark Gray Canvas Base." Accessed June 2, 2018. Data edited in ArcGIS, Adobe Illustrator, and Adobe InDesign.

Figure 02.
Belanger, Blake. 2018. Scrap Yard. Digital photograph.

Figure 03.
Belanger, Blake. 2018. Scrap Yard Machinery. Digital photograph.

Figure 04.
Stoffel, Elsa. 2018. Most of the Southeast Commercial District is home to resturants and businesses. Digital photograph.

Figure 05.
Yeager, Mackenzie. 2018. Zeche Zollverein, Essen Germany. Map showing re-use of former coal mining site. Source data:

- Arc GIS Online. "World Dark Gray Canvas Base." Accessed June 2, 2018. Data edited in ArcGIS, Adobe Illustrator, and Adobe InDesign.

Figure 06.
"Zeche Zollverein Ice skating." 2006. Photograph by Daniel Mai. Courtesy of TrekEarth. Accessed June 2, 2018. Reproduced from "Gallery Photos," https://www.trekearth.com/gallery/Europe/Germany/West/Nordrhein-Westfalen/Essen/photo316318.htm

Figure 07.
Yeager, Mackenzie. 2018. Gravel paths through tree groves sit on top of railway ties. Digital photograph.

Figure 08.
"Zollverein Schacht 12." 2004. Photograph by Thomas Robbin. Courtesy of Wikimedia. Accessed June 2, 2018. Reproduced from "Wikimedia Commons, free media repository," https://commons.wikimedia.org/wiki/File:Zollverein_Schacht_12.jpg

Map 3.2b

"Leftover Industrial Machinery Can Become Iconic Sculptural Element"
Mackenzie Yeager

Figure 01.
"Seattle enjoys sunset at Gas Works Park." 2016. Photograph by Joshua Lewis. Courtesy of Seattle Refined. Accessed June 2, 2018. http://seattlerefined.com/lifestyle/photos-seattle-enjoys-sunset-at-gas-works-park#photo-3.

Figure 02.
“Gas Works Park.” 2008. Photograph by Flickr user Ramanathan Kathiresan. Accessed June 2, 2018. Reproduced from Flickr, https://www.flickr.com/photos/rampix/2984182362/.

Figure 03.
“Gas Works Park 01.” 2007. Photograph by Joe Mabel. Courtesy of Wikimedia. Accessed June 2, 2018. Reproduced from “Wikimedia Commons, free media repository,” https://commons.wikimedia.org/wiki/File:Gas_Works_Park_01.jpg

Figure 04.
“City Museum.” 2011. Photograph by Flickr user sawdust_media. Accessed June 2, 2018. Reproduced from Flickr, https://www.flickr.com/photos/sawdust_media/5565609262.

Figure 05.
“Inside the City Museum.” 2009. Photograph by Flickr user Scott Granneman. Accessed June 1, 2018. Reproduced from Flickr, https://www.flickr.com/photos/rsgranne/3678804004.

Figure 06.
“Skate Park inside of City Museum, St. Louis USA.” 2012. Photograph by The Erica Chang. Courtesy of Wikimedia. Accessed June 2, 2018. Reproduced from “Wikimedia Commons, free media repository,” https://commons.wikimedia.org/wiki/File:Skate_Park_inside_of_City_Museum,_St.Louis_USA_-_panoramio.jpg

Figure 07.
“Rotterdam - Schouwburgplein.” 2007. Photograph by Flickr user Adria Ariste Santacreu. Accessed June 2, 2018. Reproduced from Flickr, https://www.flickr.com/photos/manicomi/2146453534.

Figure 08.
“Schouwburgplein.” 2008. Photograph by Flickr user Tijmen Kielen. Accessed June 2, 2018. Reproduced from Flickr, https://www.flickr.com/photos/nemjit/2450698337

Figure 09.
“Rotterdam - Schouwburgplein.” 2015. Photograph by Flickr user Fred Romero. Accessed June 2, 2018. Reproduced from Flickr, https://www.flickr.com/photos/129231073@N06/26383871553/.
Figure 10.
Voight, Emily. 2018. Phoenix-See. Digital photograph.

Figure 11.
Yeager, Mackenzie. 2018. Digital photograph.

Figure 12
Yeager, Mackenzie. 2018. Digital photograph.

Figure 13.
Yeager, Mackenzie. 2018. Digital photograph.

Figure 14.
Yeager, Mackenzie. 2018. Digital photograph.

Figure 15.
Yeager, Mackenzie. 2018. Westpark. Digital photograph.

Map 3.2c

“Old Materials Can be Given New Creative Uses”
Mackenzie Yeager

Figure 01.
Mackenzie. 2018. Sketch of potential park built with recycled materials. Pencil.

Figure 02.
Mackenzie. 2018. Sketch of a half-pipe as a potential use for the site. Pencil.

Figure 03.
Mackenzie. 2018. Sketch of potential seasonal use of site. Pencil.

Figure 04.
Yeager, Mackenzie. 2018. Fencing. Photoshop.

Figure 05.
“W’eel Turtle.” 2013. Photograph by Flickr user Jimmy Emerson, DVM. Accessed June 2, 2018. Reproduced from Flickr, https://www.flickr.com/photos/auvet/9263921667.

Figure 06.
Mackenzie. 2018. Planters. Pencil on paper.

Figure 07.
Mackenzie. 2018. Furniture. Pencil on paper.

Figure 08.
“Cadillac Ranch in Texas.” 2013. Photograph by Photograph by scott1346. Courtesy of Wikimedia. Accessed June 2, 2018. Reproduced from “Wikimedia Commons, free media repository,” https://commons.wikimedia.org/wiki/File:Cadillac_Ranch_in_Texas_(9313106739).jpg

Map 3.3a

"Site Suitability for Green Infrastructure"

Caleb Parker

Figure 01.

Suitability Map. Esri Arconline World Street Map. Coralville Iowa. Accessed June 03, 2018. Modified by Caleb Parker.

Figure 02.

Mader, Grace. 2018. First Ave. and Second Street Intersection. (Coralville, Iowa). Digital Photograph.

Figure 03.

Dunay, Morgan. 2018. Clear Creek. (Coralville, Iowa). Digital Photograph.

EPA. "Implementing Stormwater Infiltration Practices at Vacant Parcels and Brownfield Sites." July 2013. Publication Number 905f13001. Accessed June 3, 2018.

Map 3.3b

"Contaminated Areas Will Affect Stormwater Management Design"

Caleb Parker

Figure 01.

Suitability Map. Esri Arconline World Street Map. Coralville Iowa. Accessed June 03, 2018. Modified by Caleb Parker.

Table 01.

Terracon. Summary of Recent Phase II Activity. Brownfields Zone 6A. Coralville, Iowa. December 2, 2016. Project No. 06137073Q. Accessed June 3, 2018.

Hollander, Justin B, Kirkwoodk, Niall G, Gold, Julia L. "Principles of Brownfield Regeneration." 2010. Accessed June 2, 2018.

Map 3.3c

"Stormwater Management Can be Implemented Without Spreading Contaminants"

Caleb Parker

Figure 01.

Suitability Map. Esri Arconline World Street Map. Coralville Iowa. Accessed June 03, 2018. Modified by Caleb Parker.

Figure 02.

Caleb Parker. LAR 646 Community Planning and Design Summer Studio. Produced with Adobe Photoshop and Illustrator. June 8, 2018.

Hollander, Justin B, Kirkwoodk, Niall G, Gold, Julia L. "Principles of Brownfield Regeneration." 2010. Accessed June 2, 2018.

Map 3.4a

"Comparing Design Strategies of Brownfield Remediation Projects"

Elsa Stoffel

Figure 01.

Stoffel, Elsa. 2018. "Project Brownfield site with Contaminated Parcels." Source Data: Terracon, Arc GIS. Created using Photoshop.

Figure 02.

Stoffel, Elsa. 2018. "Delineation of the raised boardwalk and concrete terrace to protect humans from capped contamination." Source Data:

- Arch Daily—Modified by Elsa Stoffel using Photoshop. https://www.archdaily.com.br/br/01-10294/praca-victor-civita-levisky-arquitetos-e-anna-julia-dietzsch/10294_10305. Accessed 14 June 2018.

Figure 03.

Stoffel, Elsa. 2018. "Delineation of the raised boardwalk/terrace strategy". Source Data:

- ArchDaily—Nelson Kon—Modified by Elsa Stoffel using Photoshop. https://www.archdaily.com.br/br/01-10294/praca-victor-civita-levisky-arquitetos-e-anna-julia-dietzsch/10294_10316. Accessed 14 June 2018.

Figure 04.

Stoffel, Elsa. 2018. "Cut and Fill Remediation Strategies of the Steel Yard." Source Data:

- Landezine--KMDG—Modified by Elsa Stoffel using Photoshop. http://www.landezine.com/index.php/2015/03/steel-yard-post-industrial-landscape-redesign-klopfer-martin-design/. Accessed 14 June 2018.

Figure 05.

Stoffel, Elsa. 2018. "Delineation of the Remediation strategy of elevating people out of harm's way of the capped contamination—Part 1". Source Data:

- Landezine—Christian Phillips—Modified by Elsa Stoffel using Photoshop. http://www.landezine.com/index.php/2015/03/steel-yard-post-industrial-landscape-redesign-klopfer-martin-design/. Accessed 14 June 2018.

Figure 06.

Stoffel, Elsa. 2018. "Delineation of the remediation strategy of elevating people out of harm;s way of the capped contamination—Part 2." Source Data:

- Landezine—Christian Phillips—Modified by Elsa Stoffel using Photoshop. http://www.landezine.com/index.php/2015/03/steel-yard-post-industrial-landscape-redesign-klopfer-martin-design/. Accessed 14 June 2018.

Map 3.4b

"Contaminant Levels and Flood Levels Pose Risks to the Site and to Users' Health"

Elsa Stoffel

Figure 01.
Stoffel, Elsa. 2018. "Section Locations of Most Dense Contamination". Source Data:

- ArcGIS Mapping—Modified by Stoffel Using Photoshop.

Figure 02 .
Stoffel, Elsa. 2018. "North-South Section". Source Data:

- ArcGIS Profile Graphing—Modified by Elsa Stoffel.
- Prior, J.C.; Boekhoff, J.; et. Al. 2003. Iowa's Groundwater Basics: A geological guide to the occurrence, use, & vulnerability of Iowa's aquifers. Pg. 13. https://www.iowadnr.gov/Portals/idnr/uploads/consites/groundwater_basics.pdf
- Flood Levels and Protection levels from Scott Larson (City of Coralville Assistant City Engineer)

Figure 03.
Stoffel, Elsa. 2018. "East-West Section". Source Data:

- ArcGIS Profile Graphing—Modified by Elsa Stoffel.
- Prior, J.C.; Boekhoff, J.; et. Al. 2003. Iowa's Groundwater Basics: A geological guide to the occurrence, use, & vulnerability of Iowa's aquifers. Pg. 13. https://www.iowadnr.gov/Portals/idnr/uploads/consites/groundwater_basics.pdf
- Flood Levels and Protection levels from Scott Larson (City of Coralville Assistant City Engineer)

Map 3.4c

"Parcels are Strategically Elevated in order to be Protected from Contamination and Flooding"

Elsa Stoffel

Figure 01
Stoffel, Elsa. 2018. "Section Locations of Most Dense Contamination". Source Data:

- ArcGIS Mapping—Modified by Stoffel Using Photoshop.

Figure 02
Stoffel, Elsa. 2018. "North-South Section". Source Data:

- ArcGIS Profile Graphing—Modified by Elsa Stoffel.
- Prior, J.C.; Boekhoff, J.; et. Al. 2003. Iowa's Groundwater Basics: A geological guide to the occurrence, use, & vulnerability of Iowa's aquifers. Pg. 13. https://www.iowadnr.gov/Portals/idnr/uploads/consites/groundwater_basics.pdf
- Flood Levels and Protection levels from Scott Larson (City of Coralville Assistant City Engineer)

Figure 03
Stoffel, Elsa. 2018. "East-West Section". Source Data:

- ArcGIS Profile Graphing—Modified by Elsa Stoffel.
- Prior, J.C.; Boekhoff, J.; et. Al. 2003. Iowa's Groundwater Basics: A geological guide to the occurrence, use, & vulnerability of Iowa's aquifers. Pg. 13. https://www.iowadnr.gov/Portals/idnr/uploads/consites/groundwater_basics.pdf
- Flood Levels and Protection levels from Scott Larson (City of Coralville Assistant City Engineer)

A.4 Rail

Map 4.1a

"Transit Primarily Oriented Around Residential Areas"

Morgan Dunay

Figure 1.
"Coralville, IA - Official Website | Official Website." Accessed June 1, 2018. http://www.coralville.org/.

Figure 2.
"Data.Iowa.Gov." Accessed June 1, 2018. https://data.iowa.gov/.

Map 4.1b

"Coralville Examines Different Types of Multi-Modal Transit Stations"

Morgan Dunay

Figure 1.
"Athens Multi-Modal Transportation Center." Niles Bolton Associates. Accessed June 1, 2018. https://www.nilesbolton.com/athens-multi-modal-transportation-center/.

Figure 2.
"CATS Expanding, Integrating Transit Services for Diverse, Thriving City." Accessed June 1, 2018. http://www.metro-magazine.com/management-operations/article/713288/cats-expanding-integrating-transit-services-for-diverse-thriving-city.

Figure 3.
"Coralville, IA - Official Website | Official Website." Accessed June 1, 2018. http://www.coralville.org/.

Figure 4.
"Data.Iowa.Gov." Accessed June 1, 2018. https://data.iowa.gov/.
Director, Dan Brannan, Content. "Multi-Modal Transportation Center Opening Is 'game-Changer' for Alton." RiverBender.com. Accessed June

1, 2018. https://www.riverbender.com/articles/details/multimodal-transportation-center-opening-is-gamechanger-for-alton-23436.cfm.

Figure 5.
Dobbs, Taylor. “Transit Center Part Of Big Changes To Burlington's Downtown.” Accessed June 1, 2018. http://digital.vpr.net/post/transit-center-part-big-changes-burlingtons-downtown.

Figure 6.
“Iowa City-North Liberty Passenger Rail Conceptual Feasibility Study Draft Study.” Accessed June 1, 2018.

Figure 7.
“Issaquah Transit Center.” Accessed June 1, 2018. https://www.kpff.com/portfolio/project/issaquah-transit-center.

Figure 8.
“Multi-Modal Transit Facility.” Accessed June 1, 2018. https://facilities.vt.edu/content/facilities_vt_edu/en/planning-construction/campus-construction-projects/active-projects/multi-modal-transit-facility.html.

Figure 9.
“Multi-Modal Transit Stop Mall - Google Search.” Accessed June 1, 2018. https://www.google.com/search?tbm=isch&q=multi-modal+transit+stop+mall&chips=q:multi+modal+transit+stop+mall,online_chips:transportation+hub&sa=X&ved=0ahUKEwjHsqbXsrHbAhUJZawKHQUPCOIQ4lYIJygA&biw=1536&bih=710&dpr=1.25#imgrc=QEaflo6iGX9JDM:

Figure 10.
“Pedestrian & Bicycle Information Center.” Accessed June 1, 2018. http://www.pedbikeinfo.org/data/library/details.cfm?id=4919.

Figure 11.
“Rondstadt Multi-Modal Center | Ai Architects.” Accessed June 1, 2018. http://www.ai-architects.com/project_urban/rondstadt-transit-center/.

Figure 12.
“RTD, Union Station.” Accessed June 1, 2018. https://www.masselec.com/our-work/transportation/transit-rail/rtd-union-station/.

Figure 13.
“Tetrarc Architectes Transforms Transit Hub PEM Saint-Nazaire.” designboom | architecture & design magazine, June 20, 2013. https://www.designboom.com/architecture/tetrarc-architectes-transforms-transit-hub-pem-saint-nazaire/.

Map 4.1c

“Five Multi-Modal Transit Stations are Proposed for Coralville”
Morgan Dunay

Figure 1.
“Coralville, IA - Official Website | Official Website.” Accessed June 1, 2018. http://www.coralville.org/.

Figure 2.
“Data.Iowa.Gov.” Accessed June 1, 2018. https://data.iowa.gov/.

Map 4.2a

“SE Commercial District has Potential for Three New Multi-Modal Transit Station Options”
Morgan Dunay

Figure 1.
“Coralville, IA - Official Website | Official Website.” Accessed June 1, 2018. http://www.coralville.org/.

Figure 2.
“Google Maps.” Google Maps. Accessed June 8, 2018. https://www.google.com/maps.

Map 4.2b

“Multi-level Multi-Modal Transit Stations are Possible in Coralville”
Morgan Dunay

Figure 1.
“Coralville, IA - Official Website | Official Website.” Accessed June 1, 2018. http://www.coralville.org/.

Figure 2.
“Google Maps.” Google Maps. Accessed June 8, 2018. https://www.google.com/maps.

Map 4.2c

“Drastic Elevation Changes Could Impact Design of New Transit Station Locations”
Morgan Dunay

Figure 1.
“Coralville, IA - Official Website | Official Website.” Accessed June 1, 2018. http://www.coralville.org/.

Figure 2.
"Google Maps." Google Maps. Accessed June 8, 2018. https://www.google.com/maps.

Figure 3.
"Noun Project." Noun Project. Accessed June 8, 2018. https://thenounproject.com.

Map 4.3a

"University of Iowa Influence Extends into Coralville Community"
Danielle Hodgson

Figure 01.
Hodgson, Danielle. 2018. University of Iowa Facilities. Kansas State University LAR 646 2018. Source Data:

- Google Earth. "Coralville, Iowa". 41°40'25.43"N and 91°33'46.30" W. Accessed May 30, 2018.

Figure 02.
Google Maps. 2018. Coralville, Iowa. Accessed May 31, 2018. https://www.google.com/maps/@41.7085055,-91.605307,3a,75y,293.41h,87.11t/data=!3m6!1e1!3m4!1sVjHC-c_V-yH2QSBHceXyrZw!2e0!7i13312!8i6656

Figure 03.
Hodgson, Danielle. 2018. Businesses at UI Research Park. Kansas State University LAR 646 2018. Source Data:

- UI Research Park. "Overview of Companies". 2018. https://researchpark.uiowa.edu/park-overview/companies

Figure 04.
Iowa River Landing, City of Coralville. 2018. UI Healthcare. https://iowariverlanding.com/uihc/

Figure 05.
Hodgson, Danielle. 2018. UI Healthcare Annual Numbers. Kansas State University LAR 646 2018. Source Data:

- University of Iowa Healthcare. "Basic Facts". https://uihc.org/basic-facts

Figure 06.
Light, Alan. 2009. "Kinnick Stadium, Iowa City, IA". https://www.flickr.com/photos/alan-light/4064927843

Figure 07.
Hodgson, Danielle. 2018. Game Day Visitors. Kansas State University LAR 646 2018. Source data:

- United States Census Bureau. 2017. https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk.
- Hawkeye Sports. 2015. "Economic Impact of Iowa Football Exceeds $110 Million". https://hawkeyesports.com/news/2015/9/3/economic_impact_of_iowa_football_exceeds_110_million.aspx

Map 4.3b

"Southeast Commercial District is a Strong Connection Point to University Facilities"
Danielle Hodgson

Figure 01.
Hodgson, Danielle. 2018. "Key Transportation Modes". Kansas State University LAR 646 2018. Source Data:

- Google Earth. "Coralville, Iowa". 41°40'25.43"N and 91°33'46.30" W. Accessed May 31, 2018.

Figure 02.
Hodgson, Danielle. 2018. "Degree of Physical Connection for Study Area to UI". Kansas State University LAR 646 2018. Source Data:

- Google Earth. "Coralville, Iowa". 41°40'25.43"N and 91°33'46.30" W. 2017. Accessed May 31, 2018.

Map 4.3c

"Creating More Pedestrian Amenities Will Help Connect SCD to the University"
Danielle Hodgson

Figure 01.
Hodgson, Danielle. 2018. "Suggested Improvements to Connect the University of Iowa." Kansas State University LAR 646 2018. Source Data:

- Google Earth. "Coralville, Iowa". 41°40'25.43"N and 91°33'46.30" W. 2017. Accessed May 31, 2018.

Figure 02.
Hodgson, Danielle. 2018. Trail Attractions. Kansas State University LAR 646 2018. Source Data:

- Cooke, Shelby. 2018. Untitled photograph of Clear Creek Trail. Accessed June 1, 2018.
- "People Walking Young Couple Love". Digital Photograph. CCO Public Domain. Accessed on July 2, 2018. https://pixabay.com/en/people-walking-young-couple-love-1556441/
- "Group Beach Friends Friendship". Digital Photograph. Accessed July 7, 2018. https://pixabay.com/en/group-beach-friends-friendship-628432/

Figure 03.
Hodgson, Danielle. 2018. "Road Connections". Kansas State University LAR 646 2018. Source Data:Google Maps. 2016. https://www.google.

com/maps/@41.6677176,-91.5679756,3a,75y,221.8h,85.93t/data=!3m6!1e1!3m4!1siEcoSDk2OFgXNJH8tgOsEA!2e0!7i13312!8i6656. Accessed on June 1, 2018.

- "New York City Urban Header City New York Banner". Digital Photograph. Accessed on July 7, 2018. Creative Commons Zero- CC0. https://www.maxpixel.net/New-York-City-Urban-Header-City-New-York-Banner-2371488

Figure 04.
Hodgson, Danielle. 2018. Rail Line Revitalization. Kansas State University LAR 646 2018. Source Data:

- Google Maps. 2013. Accessed on June 1, 2018. https://www.google.com/maps/@41.661928,-91.559491,3a,75y,321.09h,88.42t/data=!3m6!1e1!3m4!1sTXzjKiUoeLnxNQmMCXYpfA!2e0!7i13312!8i6656
- Yourdon, Ed. "Two girls walking." Taken on August 18, 2011. Accessed on June 1, 2018. https://bit.ly/2L2ZlKw
- Tonisson, Silver. Taken on May 18, 2018. Accessed on June 1, 2018. https://bit.ly/2ufsQ4H

Map 4.4a

"Existing Rail Lines and Trails Pass Close to SE Commercial District"
Yingyi Zhong

Figure 01.
Zhong, Yingyi. 2018. "Existing Railroads and Trails in SE Commercial District." Kansas State University, LAR646 2018. Adobe Illustrate and Photoshop Rendering. Source Images:

- Google Maps. "City of Coralville." Digital Image. 2018. Accessed June 1, 2018. https://www.google.com/maps/@41.6692392,-91.5678037,725m/data=!3m1!1e3

Figure 02.
Zhong, Yingyi. 2018. "Active Railroads in City of Coralville." Kansas State University LAR646 2018. ArcGIS. Source Images:

- Johnson County, IA GIS. "Active Rail Lines. "Accessed June 1, 2018.

Figure 03.
Zhong, Yingyi. 2018. "Existing Trails in City of Coralville." Kansas State University LAR646 2018. ArcGIS. Source Images:

- Johnson County, IA GIS. "Trails. "Accessed June 1, 2018.

Figure 04.
Zhong, Yingyi. 2018. "Existing Active Railroads and Trails in City of Coralville." Kansas State University LAR646 2018. ArcGIS. Source Images:

- Johnson County, IA GIS. Active Rail Lines," "Trails. "Accessed June 1, 2018.

Map 4.4b

"No Rails and Few Trails Directly Connect to SE Commercial District"
Yingyi Zhong

Figure 01.
Zhong, Yingyi. 2018. "Connectivity and Dysconnectivity of Existing Trails and Rails in SE Commercial District." Kansas State University LAR646 2018. Adobe Illustrate.

Figure 02.
Zhong, Yingyi. 2018. "Intersection A." Kansas State University LAR646 2018. Adobe Illustrate. Source Images:

- Iconfont. "Train Icon." PNG Image. 2016. Accessed June 1, 2018. http://www.iconfont.cn/search/index?q=train
- Iconfont. "People Icon." PNG Image. 2016. Accessed June 1, 2018. http://www.iconfont.cn/search/index?q=people
- Iconfont. "Tree." PNG Image. 2018. Accessed June 1, 2018. http://www.iconfont.cn/search/index?q=tree

Figure 03.
Zhong, Yingyi. 2018. "Intersection A." Kansas State University LAR646 2018. Adobe Illustrate. Source Images:

- Iconfont. "Car Icon." PNG Image. 2016. Accessed July 2, 2018. http://www.iconfont.cn/search/index?q=car
- Iconfont. "Train Icon." PNG Image. 2016. Accessed June 1, 2018. http://www.iconfont.cn/search/index?q=train
- Iconfont. "People Icon." PNG Image. 2016. Accessed June 1, 2018. http://www.iconfont.cn/search/index?q=people
- Iconfont. "Tree." PNG Image. 2018. Accessed June 1, 2018. http://www.iconfont.cn/search/index?q=tree

Figure 04.
Zhong, Yingyi. 2018. "Re-using the Rail Line to Form Physical and Cultural Connectivity." Kansas State University LAR646 2018. Adobe Illustrate. Source Image:

- Iconfont. "Bike Icon." PNG Image. 2016. Accessed June 1, 2018. http://www.iconfont.cn/search/index?q=bike
- Iconfont. "Building Icon." PNG Image. 2016. Accessed June 1, 2018. http://www.iconfont.cn/search/index?q=building
- confont. "Car Icon." PNG Image. 2016. Accessed June 1, 2018. http://www.iconfont.cn/search/index?q=car
- Iconfont. "City Icon." PNG Image. 2016. Accessed June 1, 2018. http://www.iconfont.cn/search/index?q=city
- Iconfont. "Train Icon." PNG Image. 2016. Accessed June 1, 2018. http://www.iconfont.cn/search/index?q=train
- Iconfont. "Waking People Icon." PNG Image. 2016. Accessed June 1, 2018. http://www.iconfont.cn/search/index?q=people

- Shutterstock. “Factory Icon.” PNG Image. 2014. Accessed June 1, 2018. https://www.shutterstock.com/search?searchterm=factory+icon&search_source=base_search_form&language=en&page=1&sort=popular&image_type=all&measurement=px&safe=true
- Shutterstock. “Limestone Icon.” PNG Image. 2018. Accessed June 1, 2018. https://www.shutterstock.com/search?searchterm=limestone+icon&search_source=base_search_form&language=en&page=1&sort=popular&image_type=all&measurement=px&safe=true

Map 4.4c

“Rail Stations will Need to Address Elevated Rail Beds”

Yingyi Zhong

Figure 01.
Zhong, Yingyi. 2018. “Urban Loop Provides Local and Regional Connectivity.” Kansas State University LAR646 2018. Adobe Illustrate. Source Images:

- Iconfont. “Bike Icon.” PNG Image. 2016. Accessed June 1, 2018. http://www.iconfont.cn/search/index?q=bike
- Iconfont. “Bus Icon.” PNG Image. 2016. Accessed June 1, 2018. http://www.iconfont.cn/search/index?q=bus
- Iconfont. “Car Icon.” PNG Image. 2016. Accessed June 1, 2018. http://www.iconfont.cn/search/index?q=car
- Iconfont. “Train Icon.” PNG Image. 2016. Accessed June 1, 2018. http://www.iconfont.cn/search/index?q=train
- Iconfont. “People Icon.” PNG Image. 2016. Accessed June 1, 2018. http://www.iconfont.cn/search/index?q=people
- Iconfont. “Tree.” PNG Image. 2018. Accessed June 1, 2018. http://www.iconfont.cn/search/index?q=tree

Figure 02.
Zhong, Yingyi. 2018. “Proposed Rail-trail System Option 01.” Kansas State University LAR646 2018. Adobe Illustrate. Source Images:

- Iconfont. “Train Icon.” PNG Image. 2016. Accessed June 1, 2018. http://www.iconfont.cn/search/index?q=train
- Iconfont. “People Icon.” PNG Image. 2016. Accessed June 1, 2018. http://www.iconfont.cn/search/index?q=people
- Iconfont. “Tree.” PNG Image. 2018. Accessed June 1, 2018. http://www.iconfont.cn/search/index?q=tree

Figure 04.
Zhong, Yingyi. 2018. “Proposed Rail-trail System Option 02.” Kansas State University LAR646 2018. Adobe Illustrate. Source Images:

- Iconfont. “Bike Icon.” PNG Image. 2016. Accessed June 1, 2018. http://www.iconfont.cn/search/index?q=bike
- Iconfont. “Car Icon.” PNG Image. 2016. Accessed June 1, 2018. http://www.iconfont.cn/search/index?q=car
- Iconfont. “Train Icon.” PNG Image. 2016. Accessed June 1, 2018. http://www.iconfont.cn/search/index?q=train
- Iconfont. “People Icon.” PNG Image. 2016. Accessed June 1, 2018. http://www.iconfont.cn/search/index?q=people
- Iconfont. “Tree.” PNG Image. 2018. Accessed June 1, 2018. http://www.iconfont.cn/search/index?q=tree

Figure 05.
Zhong, Yingyi. 2018. “Blue-green Corridor.” Kansas State University LAR646 2018. Adobe Illustrate.

Figure 06.
Zhong, Yingyi. 2018. “Proposed Urban Loop.” Kansas State University LAR646 2018. Adobe Illustrate.

Figure 07.
Zhong, Yingyi. 2018. “Summary Diagram” Kansas State University LAR646 2018. Adobe Illustrate.

Map 4.5a

“Current Density of the Southeast Commercial District is Too Low to Support Rail Transit”

Kate Larkin

Figure 1.
Larkin, Kate. 2018. “Density in the Southeast Commercial District” Kansas State University LAR 646-2018. Created with Adobe Photoshop.

- Google Earth (n.d.) [Google Earth View of Southeast Commercial District, Coralville, IA Retrieved June 9, 2018. Google Earth.

Figure 2.
Larkin, Kate. 2018. “52nd and West Market Street TOD” Kansas State University LAR 646 2018. Created with Adobe Photoshop.

- Google Earth (n.d.) [Google Earth View of 52nd and West Market Street, Philadelphia] Retrieved June 9, 2018. Google Earth.
- PCPC. (2013, January 12). The Market Street Corridor in West Philadelphia. Retrieved June 2, 2018, from https://www.phila.gov/CityPlanning/plans/Area Plans/WestMarketFinal2013.pdf

Figure 3.
Larkin, Kate. 2018. “Wilton Avenue TOD” Kansas State University LAR 646 2018. Created with Adobe Photoshop.

- Google Earth (n.d.) [Google Earth View of Wilton Street, Chicago, Illinois] Retrieved June 9, 2018. Google Earth.
- DPD. (2018). Red-Purple Bypass Project Area. Retrieved June 2, 2018, from https://www.transitchicago.com/assets/1/6/2018-0515_RPB_Public_Mtg_Presentation.pdf

Figure 4.
Larkin, Kate. 2018. “Current Stops Along the Rail Line” Kansas State University LAR 646 2018. Created with Adobe Photoshop.

- Google Earth (n.d.) [Google Earth View of Coralville, Iowa] Retrieved June 9, 2018. Google Earth.
- HawkeyeSports.com. (n.d.). Maps. Retrieved June 2, 2018, from https://footballgameday.hawkeyesports.com/maps/¬

Figure 5.
PCPC. (2013, January 12). The Market Street Corridor in West Philadelphia. Retrieved June 2, 2018, from https://www.phila.gov/CityPlanning/plans/Area Plans/WestMarketFinal2013.pdf

Figure 6.
DPD. (2018). Red-Purple Bypass Project Area. Retrieved June 2, 2018, from https://www.transitchicago.com/assets/1/6/2018-0515_RPB_Public_Mtg_Presentation.pdf

Map 4.5b

“Two Different Rail Lines Adjoin the Southeast Commercial District”
Kate Larkin

Figure 1.
Larkin, Kate. 2018. “Opportunities to create stops for Transit Oriented Development” Kansas State University LAR 646 2018. Created with Adobe Photoshop.

- IowaDOT. (2018). Story Map Series. Retrieved June 2, 2018, from http://iowadot.maps.arcgis.com/apps/MapSeries/index.html?appid=95a7af3a70f948d3b0dc40805e51805a

Figure 2.
Larkin, Kate. 2018. “First Avenue Stop Concept” Kansas State University LAR 646 2018. Created with Adobe Photoshop.

- Google Earth (n.d.) [Google Earth View of Southeast Commercial District, Coralville, IA] Retrieved June 9, 2018. Google Earth.

Figure 3.
Larkin, Kate. 2018. “Proposed Transit Stop” Kansas State University LAR 646 2018. Created with Adobe Photoshop.

- Google Earth (n.d.) [Google Earth View of Southeast Commercial District, Coralville, IA] Retrieved June 9, 2018. Google Earth.

Figure 4.
Google Earth. (2018). First Avenue [Photograph] Coralville, Iowa. Retrieved from Google Earth.

Figure 5.
Google Earth. (2018). Location Adjacent to the Bridge behind Panera [Photograph] Coralville, Iowa. Retrieved from Google Earth.

Map 4.5c

“Transit Oriented Development will Attract People and Provide Space for Mul”
Kate Larkin

Figure 1.
Larkin, Kate. 2018. “Transit Oriented Development Strategy for the Southeast Commercial District” Kansas State University LAR 646 2018. Created with Adobe Photoshop.

Figure 2.
Professionals working for a Sustainable Queensland. (n.d.). Sustainable Planning and Design[Photograph]. Sustainable Queensland Forum, Queensland. Retrieved from http://sustainablequeensland.info/sustainable-planning-design/.

Figure 3.
Jewel, N. (2017, July 11). Libart Retractable Roof Enclosure [Photograph]. Libart. Retrieved from https://inhabitat.com/innovative-retractable-glass-roof-can-convert-mall-into-an-outdoor-space-at-the-touch-of-a-button/

Figure 4. TheDangerGarden. (2011, August 16). PDX Parking Garage [Photograph]. Portland International Airport, Portland. Retrieved from http://www.thedangergarden.com/2011/08/foliage-follow-up-portland.html

Figure 5. Dubost, K. (2011, December 23). Front of Hua Lamphong Train station in Bangkok, Thailand [Photograph]. Bangkok, Thailand. Retrieved from https://fr.wikipedia.org/wiki/Fichier:Gare_Hua_Lamphong.jpg#filelinks.

A.5 Powerlines

Map 5.1a

“Overhead Transmission Lines and Poles Vary in Type and Size”
Grace Mader

Figure 1.
Mader, Grace. 2018. Power Lines and Poles Across the Site. Adapted from GIS. Source Data:

- Johnson County, Iowa GIS. “Coraville_3DPlan_2014,” “IowaCity_3DPlan_2014.” Accessed 29 May 2018.

Figure 2.

- Belanger, Blake. 2018. Images of Transmission Poles from Site. Coralville, Iowa. Photograph. Accessed 29 May 2018.
- Dunay, Morgan. 2018. Images of Transmission Poles from Site. Coralville, Iowa. Photograph. Accessed 29 May 2018.
- Hodgson, Danielle. 2018. Images of Transmission Poles from Site. Coralville, Iowa. Photograph. Accessed 29 May 2018.
- Mader, Grace. 2018. Images of Transmission Poles from Site. Coralville, Iowa. Photograph. Accessed 29 May 2018.
- Mader, Grace. 2018. Comparison of Pole Height. Data from Black Hills Corporation. "Transmission & Distribution."

Black Hills Corporation. 2018. Transmission & Distribution. Accessed 29 May 2018. http://bit.ly/2MXRDSv.

ISA. 2018. Power Line Safety. International Sign Association. Accessed 29 May 2018. http://bit.ly/2NBUxNT.

A.6 FEMA

Map 6.1a

"Iowa River's Polluted Ecosystem is to Blame for Poor Fish Diversity"
Harrison Dirks

Figure 01.
Dirks, Harrison. "Iowa River Fish Health Map According to FIBI Scores." Kansas State University LAR 646 2018. Map created with Adobe Photoshop. Source Data:

- Google Earth, Coralville Iowa
- Arc GIS, Johnson County, IA, "Contours," "World Street Map"
- Iowa Department of Natural Resources. "BioNet - Site Map." BioNet - Master Fish Species List, programs.iowadnr.gov/bionet/Sites/Map/380.

Figure 02.
Dirks, Harrison. "Iowa River Ecosystem Health Map According to BMIB Scores." Kansas State University LAR 646 2018. Map created with Adobe Photoshop. Source Data:

- Google Earth, Coralville Iowa
- Arc GIS, Johnson County, IA, "Contours," "World Street Map"
- Iowa Department of Natural Resources. "BioNet - Site Map." BioNet - Master Fish Species List, programs.iowadnr.gov/bionet/Sites/Map/380.

Map 6.1b

"Removal of Harmful Chemicals on Brownfiled Site"
Harrison Dirks

Figure 01.
Dirks, Harrison. "Iowa River Restoration Map in 1 Year's Time." Kansas State University LAR 646 2018. Map created with Adobe Photoshop. Source Data:

- Google Earth, Coralville Iowa
- Arc GIS, Johnson County, IA, "Contours," "World Street Map"

Figure 02.
Dirks, Harrison. "Iowa River Restoration Map in 3 Year's Time." Kansas State University LAR 646 2018. Map created with Adobe Photoshop. Source Data:

- Google Earth, Coralville Iowa
- Arc GIS, Johnson County, IA, "Contours," "World Street Map"

Figure 03.
Dirks, Harrison. "Regenerative Flow of the Iowa River." Kansas State University LAR 646 2018. Map created with Adobe Photoshop & Adobe Illustrator. Source Data:

- Arc GIS, Johnson County, IA, "Contours," "World Street Map"

Map 6.1c

"Four Techniques Proven to Reduce Creek Pollution"
Harrison Dirks

Figure 01.
Dirks, Harrison. "Catch Basins along Streets." Kansas State University LAR 646 2018. Map created with Adobe Photoshop. Source Data:

- Google Earth, Coralville Iowa

Figure 02.
Belanger, Blake. "Removal of Harmful Chemicals on Brown Field Site." Kansas State University LAR 646 2018. May 25th, 2018. Accessed June 1st, 2018.

Figure 03.
Dirks, Harrison. "Completing Riparian Buffer Zones along the Creek's Edge." Kansas State University LAR 646 2018. Map created with Adobe Photoshop. Source Data:

- iStock, Credit: "How to Care for Streams." My Land Plan, 8 Nov. 2016, mylandplan.org/content/how-care-streams.

Figure 04.
Dirks, Harrison. "Adding Floating Plant Islands to the Creek." Kansas State University LAR 646 2018. Map created with Adobe Photoshop. Source Data:

- Torem, Emily. “Floating Gardens in the Chicago River | Moss Design.” Moss Architecture, 17 Aug. 2017, moss-design.com/chicago-river-floating-islands/.

Figure 05.
Dirks, Harrison. “Clear Creek Restoration Strategy Map.” Kansas State University LAR 646 2018. Map created with Adobe Photoshop. Source Data:
- Arc GIS, Johnson County, IA, “Contours,” “World Street Map”

Map 6.2a
“The 100 and 500 Year Floodplains are Problematic for Future Site Development”
Elsa Stoffel

Figure 1.
Stoffel, Elsa. 2018. “Hydrology Context beyond Site”. Source Data:
- Arc GIS Mapping—Modified by Elsa Stoffel using Photoshop.

Figure 2.
Stoffel, Elsa. 2018. “View of Coralville Dam at Floodstage.” Source Data:
- United States Army Corps of. 2008. https://commons.wikimedia.org/wiki/File:CoralvilleDamSunday15Jun08.jpg. Accessed 8 June 2018.
- US Army Corps of Engineers. Coralville Lake. http://www.mvr.usace.army.mil/Missions/Recreation/Coralville-Lake/About-Us/

Figure 3.
Stoffel, Elsa. 2018. “Iowa River Power Co. Dam” Source Data:
- Iowa Whitewater. https://www.iowawhitewater.org/lhd/LHDcoralville.html. Accessed 8 June 2018.

Figure 4.
Stoffel, Elsa. 2018. “Buildings affected by 100 and 500-year Flood Levels”. Source Data:
- Arc GIS Mapping (Johnson County Info)—Modified Colors and effects by Elsa Stoffel using Photoshop.

Map 6.2b
“Areas Identified for Additional Flood Mitigation along Clear Creek and the Iowa River”
Elsa Stoffel

Figure 1.
Stoffel, Elsa. 2018. “Implementation areas of Flood Mitigation within the site boundary and surrounding context—US Army Corps of Engineer Plan”. Source Data:
- ArcGIS Mapping.
- Stadelmann, Teresa. 2015. 1st Avenue Corridor Flood Recovery and Protection 2008-2014 City of Coralville, Iowa. http://www.mfsma.org/uploads/4/3/5/8/43583695/coralvillefloodmitigation.pdf

Figure 2.
Stoffel, Elsa. 2018. “Opportunity Areas of Flood Mitigation within the site boundary and surrounding context chosen from site analysis studies”. Source Data:
- ArcGIS Mapping—Modified by Elsa Stoffel using Photoshop.

Map 6.2c
“Determining a more Protected Elevation for Built Infrastructure within the Site Boundary”
Elsa Stoffel

Figure 1.
Stoffel, Elsa. 2018. “Elevations of 100 YR and 500 YR Flood Levels and Proposed Protection Levels.” Source Data:
- Flood Levels and Protection levels from Scott Larson (City of Coralville Assistant City Engineer)

Figure 2.
Stoffel, Elsa. 2018. “100 YR Flood Level”. Source Data:
- ArcGIS Mapping—ArcScene; Scott Larson.

Figure 3.
Stoffel, Elsa. 2018. “Proposed Building Criteria: 100 YR Flood level + 1 foot”. Source Data:
- ArcGIS Mapping—ArcScene; Scott Larson.

Figure 4.
Stoffel, Elsa. 2018. “Protection Criteria: June 2008 actual + 1foot”. Source Data:
- ArcGIS Mapping—ArcScene; Scott Larson.

Figure 5.
Stoffel, Elsa. 2018. “500 YR Flood Level”. Source Data:
- ArcGIS Mapping—ArcScene; Scott Larson.

A.7 Placemaking

Map 7.1a
“2nd Street Provides Sufficient Access to Healthy Food and Healthcare Services”
Marcos Aleman

Figure 1.1.
Aleman, Marcos. “Food Sources”. Kansas State University. LAR 646 2018. Map created using Adobe Photoshop and Adobe Illustrator. Source Data:

- ArcGIS Database, Johnson County, IA, “Buildings_Composite”, “FEMA_Stream_Centerlines”
- Google. 2018. Maps Data. Accessed 9 June 2018. https://www.google.com/search?q=coralville%20ia%20grocery%20stores&oq=coral&aqs=chrome.0.69i59j69i57j69i60j69i61j69i60j35i39.1771j0j7&sourceid=chrome&ie=UTF-8&npsic=0&rflfq=1&rlha=0&rllag=41677009,-91584627,792&tbm=lcl&rldimm=5169317811962091151&ved=0ahUKEwjrv_6GvZLcAhVRRa0KHdlHAZYQvS4IUjAB&rldoc=1&tbs=lrf:!2m1!1e2!2m1!1e3!3sIAE,lf:1,lf_ui:10#rlfi=hd:;si:7673537487187696243;mv:!1m3!1d52262.01013383647!2d-91.57051359999998!3d41.69230615!2m3!1f0!2f0!3f0!3m2!1i275!2i421!4f13.1;tbs:lrf:!2m1!1e2!2m1!1e3!3sIAE,lf:1,lf_ui:10

Figure 1.2.
Aleman, Marcos. “Health Related Sources”. Kansas State University. LAR 646 2018. Map created using Adobe Photoshop and Adobe Illustrator. Source Data:

- ArcGIS Database, Johnson County, IA, “Buildings_Composite”, “FEMA_Stream_Centerlines”
- Google. 2018. Maps Data. Accessed 9 June 2018. https://www.google.com/search?tbm=lcl&ei=bJJDW76NH8qUtQX4tLr4Ag&q=coralville+ia+health+services&oq=coralville+ia+health+-services&gs_l=psy-ab.3...137393.141877.0.142044.29.23.0.0.0.0.126.1895.19j4.23.0....0...1c.1.64.psy-ab..9.19.1547...0j35i39k1j0i22i30k-1j0i20i264k1j33i22i29i30k1j0i8i13i30k1j33i160k1j33i21k1.0.1SPb-6SATZUY#rlfi=hd:;si:;mv:!1m3!1d31401.943914639523!2d-91.58927605!3d41.7023763!2m3!1f0!2f0!3f0!3m2!1i148!2i253!4f13.1;tbs:lrf:!2m1!1e2!2m1!1e3!3sIAE,lf:1,lf_ui:2

Figure 1.3.
Aleman, Marcos. “Travel Time” Kansas State University. LAR 646 2018. Created using Adobe Photoshop and Adobe Illustrator.

Map 7.1b

“Central Location of the Study Area is Ideal for Food and Health Related Services”
Marcos Aleman

Figure 2.1.
Aleman, Marcos. “New Poineer Food-Coop can help impliment a new community garden in the study area” Kansas State University. LAR 646 2018. Map created using Adobe Photoshop and Adobe Illustrator. Source Data:

- ArcGIS Database, Johnson County, IA, “Buildings_Composite”, “FEMA_Stream_Centerlines”
- New Pioneer Food Co-Op. 2018. Accessed June 9 2018. https://www.newpi.coop/
- Cindy. 2013. “A Representation of New Pioneer Co-Op’s third store, to open in Cedar Rapids, Iowa”. Accessed June 9 2018. http://homegrowniowan.com/new-pioneer-food-co-op-chooses-cedar-rapids-for-its-third-store/

Figure 2.2.
Aleman, Marcos. “Unused space shows potential for community garden locations” Kansas State University. LAR 646 2018. Map created using Adobe Photoshop and Adobe Illustrator. Source Data:

- Google Earth, Coralville, IA

Figure 2.3.
Aleman, Marcos. “Potential areas for relocation of the existing pharmacy in the study area” Kansas State University. LAR 646 2018. Map created using Adobe Photoshop and Adobe Illustrator. Source Data:

- ArcGIS Database, Johnson County, IA, “Buildings_Composite”, “FEMA_Stream_Centerlines”, “Road_Centerlines”

Map 7.1c

“Redeveloping SE Commercial District Should Include Health Related Services”
Marcos Aleman

Figure 3.1.
Aleman, Marcos. “Unused space shows potential for community garden locations” Kansas State University. LAR 646 2018. Map created using Adobe Photoshop and Adobe Illustrator. Source Data:

- Google Earth, Coralville, IA
- Terracon Consultants, Inc. 4 March 2016. “Terracon Project No. 06137073F Phase 1 Environmental Site Assessment”. Accessed 9 June 2018.
- Terracon Consultants, Inc. 12 October 2016. “Terracon Project No. 06137073F Phase 2 Environmental Site Assessment”. Accessed 9 June 2018.
- Terracon Consultants, Inc. 1 March 2016. “Terracon Project No. 06137073H Phase 2 Environmental Site Assessment”. Accessed 9 June 2018.
- Terracon Consultants, Inc. 4 March 2016. “Terracon Project No. 06137073K Phase 1 Environmental Site Assessment”. Accessed 9 June 2018.
- Terracon Consultants, Inc. 19 April 2016. “Terracon Project No. 06137073N Phase 1 Environmental Site Assessment”. Accessed 9 June 2018.
- Terracon Consultants, Inc. 21 October 2016. “Terracon Project No.

06137073N Phase 2 Environmental Site Assessment". Accessed 9 June 2018.

Figure 3.2.
Aleman, Marcos. "Proposed Green Space 1". Kansas State University. LAR 646 2018. Created using Adobe Photoshop and Adobe Illustrator. Source Data:

- Dunay, Morgan. 25 May 2018. Photograph. Accessed 9 June 2018. DSCF0190.JPG

Figure 3.3.
Aleman, Marcos. "Proposed Green Space 2". Kansas State University. LAR 646 2018. Created using Adobe Photoshop and Adobe Illustrator. Source Data:

- Cooke, Shelby. 25 May 2018. Photograph. Accessed 9 June 2018. IMG_0275.HEIC

Figure 3.4.
Aleman, Marcos. "Solutions for Contaminated Soils". Kansas State University. LAR 646 2018. Created using Adobe Photoshop and Adobe Illustrator. Source Data:

- Egbarts, Maggie. Conversation on 1 June 2018 in regards to "opportunities in brownfield locations"

Figure 3.5.
Aleman Marcos. "Proximity to Pharmacies in Coralville". Kansas State University. LAR 646 2018. Map created using Adobe Photoshop and Adobe Illustrator. Source Data:

- ArcGIS Database, Johnson County, IA, "Buildings_Composite", "FEMA_Stream_Centerlines"
- Google. 2018. Maps Data. Accessed 9 June 2018. https://www.google.com/search?tbm=lcl&ei=bJJDW76NH8qUtQX4tLr4Ag&q=coralville+ia+health+services&oq=coralville+ia+health+-services&gs_l=psy-ab.3...137393.141877.0.142044.29.23.0.0.0.0.126.1895.19j4.23.0....0...1c.1.64.psy-ab..9.19.1547...0j35i39k1j0i22i30k-1j0i20i264k1j33i22i29i30k1j0i8i13i30k1j33i160k1j33i21k1.0.1SPb-6SATZUY#rlfi=hd:;si:;mv:!1m3!1d31401.943914639523!2d-91.58927605!3d41.7023763!2m3!1f0!2f0!3f0!3m2!1i148!2i253!4f13.1;tbs:lrf:!2m1!1e2!2m1!1e3!3sIAE,lf:1,lf_ui:2

Figure 3.6.
Stoffel, Elsa. 25 May 2018. Photograph. Accessed 9 June 2018. IMG_2263.JPG

Figure 3.7.
Aleman Marcos. "Proximity to Pharmacies in Coralville". Kansas State University. LAR 646 2018. Created using Adobe Photoshop and Adobe Illustrator.

Map 7.2a

"The SE Commercial District is in Close Proximity to Three Major Community Attractions"
Josh Barragree

Figure 01.
Barragree, Josh. 2018. The SE Commercial District Connects to three major community assets. Source data: Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community. Accessed June 1, 2018. Data edited in ArcGIS, Adobe Illustrator, and Adobe InDesign.

Figure 02.
Iowahwyman. Coral Ridge Mall. https://en.wikipedia.org/wiki/File:Coral_Ridge_Mall.jpg. August 17, 2006. Accessed June 1, 2018.

Figure 03.
Iowa River Landing. Google Maps.

Figure 04.
Barragree, Josh. University of Iowa. Digital Photograph. 2018.

Map 7.2b

"The SE Commercial District has Opportunity to Become a Unique Destination"
Josh Barragree

Figure 01.
Barragree, Josh. 2018. The SE Commercial District will bring influences from a variety of surrounding forces. Edited in Adobe Illustrator and Adobe InDesign.

Figure 02.
Mader, Grace. Existing conditions of the walking and bike trail along Clear Creek. Digital Photograph. 2018.

Figure 03.
Stoffel, Elsa. Existing conditions along 1st Ave. Digital Photograph. 2018.

Figure 04.
Gray, Allyssa. Existing conditions of Clear Creek and Biscuit Creek. Digital Photograph. 2018.

Map 7.2c

"The SE Commercial District can Improve Connectivity Between Coralville and Iowa City"
Josh Barragree

Figure 01.
Barragree, Josh. 2018. Proposed transit routes. Source data: Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community. Accessed June 1, 2018. Data edited in ArcGIS, Adobe Illustrator, and Adobe InDesign.

Barragree, Josh. 2018. Proposed improvements and land uses. Source data: Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community. Accessed June 1, 2018. Data edited in ArcGIS, Adobe Illustrator, and Adobe InDesign.

Map 7.3a

"Important Places Found in the Coralville, IA Area"
Rachel Cross

Figure 1.1.
"Areas of Importance." Created on Adobe Illustrator by Rachel Cross on May 30, 2018

Figure 1.2.
"Important Places of Coralville, Iowa Area." Image extracted from Google Earth on May 30, 2018, edited by Rachel Cross with Adobe Illustrator and Adobe Photoshop.

Map 7.3b

"The Southeast Commercial District is Centrally Located to Other Areas of Importance"
Rachel Cross

Figure 2.1.
"15 Reasons We Love Iowa City." Cedar Rapids Homes for Sale. Accessed June 01, 2018. https://www.skogman.com/blog/2017/03/15-reasons-we-love-iowa-city/ .

Figure 2.2.
"Coral Ridge Mall." Skateboard Shop «Funtastik Skate and Snowboard Shop», Reviews and Photos, 18 W Main St, Mechanicsburg, PA 17055, USA. Accessed June 01, 2018. http://stores-goods.com/Iowa/Coralville/Coral_Ridge_Mall .

Figure 2.3.
"April 10 Updates." Iowa River Landing. Accessed June 01, 2018. https://iowariverlanding.com/iowa-river-landing-april-10-updates/.

Figure 2.4.
"Creating a Central Connection." Image extracted from Google Earth on May 30, 2018, edited by Rachel Cross with Adobe Illustrator and Adobe Photoshop.

Map 7.3c

"Re-Envisioning Connections Along 2nd Street and 1st Avenue"
Rachel Cross

Figure 3.1.
"Re-Envisioning multiple connections, while looking north west towards Coralridge mall." Image taken by Morgan Dunay on May 25, 2018, edited by Rachel Cross on June 1, 2018.

Figure 3.2.
"Re-Envisioning pedestrian connection, north on 1st Avenue, towards Iowa River Landing." Image taken by Grace Mader on May 25, 2018, edited by Rachel Cross on June 1, 2018.

Figure 3.3.
"Updating Streets of Coralville, Iowa Area." Image extracted from Google Earth on May 30, 2018, edited by Rachel Cross with Adobe Illustrator and Adobe Photoshop.

Map 7.4a

"Many Community Services are Located Within 2 Miles of the Study Area"
Kate Larkin

Figure 01.
Larkin, Kate. 2018. "Relationship Between Southeast Commercial District and Community Services" Kansas State University LAR 646-2018. Created with Adobe Photoshop.

- ArchGIS (n.d.) [Iowa] Retrieved June 9, 2018. ArchGIS.
- University of Iowa Department of Family Medicine. (n.d.). Social Services. Retrieved May 29, 2018, from https://www.healthcare.uiowa.edu/familymedicine/fpinfo/SocialServices.htm#Childcare
- Google Maps (n.d.) [Coralville and Iowa City] Retrieved June 9, 2018. Google Maps.

Map 7.4b

"Accessibility to Community Services from the Southeast Commercial District"
Kate Larkin

Figure 01.
Larkin, Kate. 2018. "Accessibility to community Services from the Southeast Commercial District" Kansas State University LAR 646-2018. Created with Adobe Photoshop.

- Gray, Alyssa. 2018. "Rent Price per Census Block" Kansas State University LAR 646-2018.
- University of Iowa Department of Family Medicine. (n.d.). Social

Services. Retrieved May 29, 2018, from https://www.healthcare.uiowa.edu/familymedicine/fpinfo/SocialServices.htm#Childcare
- Google Maps (n.d.) [Coralville and Iowa City] Retrieved June 9, 2018. Google Maps.
- City of Coralville. (2009-2018). Bongo. Retrieved May 30, 2018, from https://bongo.org/routes/coralville/amexpress

Figure 2.
Mader, Grace. 2018. "Earthview Environmental" Kansas State University LAR 646-2018.

Figure 3.
Drulis J. (2018, April 30). Mother's Milk Bank of Iowa [Photograph]. Coralville, Iowa from http://www.dailyherald.com/article/20110429/news/704299647/

Map 7.4c

"More Community Services Could be Located Closer to Affordable Housing"
Kate Larkin

Figure 01.
Larkin, Kate. 2018. "Bringing Community Services to the Southeast Commercial District"
Kansas State University LAR 646-2018. Created with Adobe Photoshop.
- Gray, Alyssa. 2018. "Rent Price per Census Block" Kansas State University LAR 646-2018.
- University of Iowa Department of Family Medicine. (n.d.). Social Services. Retrieved May 29, 2018, from https://www.healthcare.uiowa.edu/familymedicine/fpinfo/SocialServices.htm#Childcare
- City of Coralville. (2009-2018). Bongo. Retrieved May 30, 2018, from https://bongo.org/routes/coralville/amexpress
- Google Maps (n.d.) [Coralville and Iowa City] Retrieved June 9, 2018. Google Maps.

Map 7.5a

"Cultural Spaces and Events are Accessible from Southeast Commercial District"
Miles Updike

Figure 1.0.
Updike, Miles. 2018. Corridors of Culture. Source map: Google Maps. Edited in Adobe Illustrator.

Figure 1.1.
Iowa River Landing. Picture from Google Earth. Accessed May 30, 2018.

Figure 1.2.
Coral Ridge Mall. Picture from Google Earth. Accessed May 30, 2018

Figure 1.3.
Center for Performing Arts. Picture from Google Earth. Accessed May 30, 2018.

Figure 1.4.
ST Morrison Park. Picture from Google Earth. Accessed May 30, 2018.

Map 7.5b

"Locations of Major Events Create Cultural Corridors"
Miles Updike

Figure 2.0.
Updike, Miles. 2018. Locations of Major Events Create Cultural Corridors. Source map:
- Google Earth. Accessed May 30, 2018. Edited in Adobe Illustrator.

Figure 2.1.
1st Avenue Streetscape. Picture from Google Earth. Accessed May 30, 2018.

Figure 2.2.
2nd Street Streetscape. Picture from Google Earth. Accessed May 30, 2018.

Map 7.5c

"Corridors of Culture Create Opportunity for Southeast District Integration"
Miles Updike

Figure 3.0.
Updike, Miles. 2018. Peripheral Connections. Source map:
- Google Earth. Edited in Adobe Illustrator.

Figure 3.1.
Rail Stop Parking Garage. Source photo:
- Google Earth. Accessed May 30, 2018. Edited in Adobe Illustrator.

Figure 3.2.
Spatial Function. Source photo:
- Google Earth. Accessed May 30, 2018. Edited in Adobe Illustrator.

Figure 3.3.
Creek Access and Bridge Function. Source photo:
- Google Earth. Accessed May 30, 2018. Edited in Adobe Illustrator.

Map 7.6a

"Seasonal Events Transform the Coralville Area"
Rachel Cross

Figure 1.1.
Cross, Rachel. 2018. "Amount of People Who Attend Each Event." Source data:
- Illustrator.

Figure 1.2.
Cross, Rachel. 2018. "Reocurring Events in Coralville, Iowa Area." Source data:
- Google Earth. Coralville, IA. 41d40'09.11"N 91d34'06.76"W. Accessed 06, June 2018.

Map 7.6b

"Crowds Headed to Surrounding Events Pass Through the District"
Rachel Cross

Figure 2.1.
Cross, Rachel. 2018. "Aisle of Lights, Coralville." Source data:
- The City of Coralville, Iowa. 2018. http:// www.coralville.org/316/Aisle-of-Lights

Figure 2.2.
Cross, Rachel. 2018. "4th Fest." Source data:
- The City of Coralville, Iowa. 2018. http://www.coralville.org/421/concert

Figure 2.3.
Cross, Rachel. 2018. "Summer Classes offered at Coralville Rec." Source data:
- TheGazette. 2012. http://thegazette.com

Figure 2.4.
Cross, Rachel. 2018. "Creating a Central Connection." Source data:
- Google Earth. Coralville, IA. 31d40'09.11"N 91d34'06.76"W. Accessed 06, June 2018.

Figure 2.5.
Cross, Rachel. 2018. "FRY Fest." Source data:
- FRY Fest: A celebration of all that is a hawkeye. 2018. http://fryfest.com/about

Figure 2.6.
Cross, Rachel. 2018. "WinterFest."
- Source data: The City of Coralville, Iowa. 2018. http://www.coralville.org/318/winterfest

Figure 2.7.
Cross, Rachel. 2018. "Hawkeye Football Games." Source data:
- HawkeyeSports. 2018. http://hawkeyesports.com/sports/2016/6/13/facilities-kinnick-stadium-html.aspx

Map 7.6c

"Redevelopment of the District Should Focus on Placemaking"
Rachel Cross

Figure 3.1.
Cross, Rachel. 2018. "Re-envisioning pedestrian connection, north on 1st avenue, towards Iowa River Landing and along 2nd street." Source data:
- Google Earth. Coralville, IA. 31d40'09.11"N91d34'06.76"W. Accessed 07, June 2018.

Figure 3.2.
Cross, Rachel. 2018. "Photomontage depicting the identity and culture of the Southeast Commercial District." Source data:
- Photographs from Rachel Cross and Grace Mader. http://greennewsupdate.com/2013/07/26/book-mania-gardens-parks-trees

http://www.freeimages.com/search/buddhist-flagpensthorpe-in-norfolk/
https://www.elizabethannedesigns.com/blog/2011/05/19/outdoor-reception-estate-tables-string-lights/outdoor-reception-string-lights/
- Google Earth. Coralville, IA. 31d40'09.11"N91d34'06.76"W. Accessed 07, June 2018.

Map 7.7a

"Coralville Has The Cuisine, And Iowa City Has The Arts"
Bridget Hake

Figure 1.
Arnold, Madison, and Madison Arnold. "Iowa City Downtown District Hires Its First Public Art Director." The Gazette, The Gazette, 21 July 2017, www.thegazette.com/subject/news/government/iowa-city-downtown-district-hires-its-first-public-art-director-20170721.

Figure 2.
Boundary Map of Coralville, Iowa [Map]. (2018). In MapTechnica. Retrieved May 30, 2018, from https://www.maptechnica.com/city-map/Coralville/IA/1916230.

Figure 3.
Light, Alan. "Art Festival." Flickr, Iowa City, 3 June 2018, www.flickr.com/photos/alan-light/42547528581/.

Figure 4.
Light, Alan. “Rock the Chalk.” Flickr, Iowa City, 11 Aug. 2017, www.flickr.com/photos/alan-light/35686981634.

Figure 5.
Light, Alan. “Takanami, Iowa City.” Flickr, Iowa City, 4 May 2012, www.flickr.com/photos/alan-light/6997637364/in/photostream/.

Figure 6.
Reineke, Seth. “Full Band | Joan Jett and the Blackhearts.” Flickr, Coralville, 2015, www.flickr.com/photos/sethreineke/20964279300/.

Map 7.7b

“Strong International Cuisine Presence In Southeast Commercial District”
Bridget Hake

Figure 1.
Boundary Map of Coralville, Iowa [Map]. (2018). In MapTechnica. Retrieved May 30, 2018, from https://www.maptechnica.com/city-map/Coralville/IA/1916230

Figure 2.
China House - Coralville, IA. (2017, February 12). Retrieved June 6, 2018, from https://www.yelp.com/biz/china-house-coralville.

Figure 3.
El Dorado Mexican Restaurant - Coralville, IA. (2016, October 11). Retrieved June 6, 2018, from https://www.yelp.com/biz/el-dorado-mexican-restaurant-coralville.

Figure 4.
Cooke, Shelby. 2018. “Monica’s.” Kansas State University, LAR646 2018. Photograph.

Figure 5.
Cooke, Shelby. 2018. “Tabooleh.” Kansas State University, LAR646 2018. Photograph.

Figure 6.
Mader, Grace. 2018. “El Dorado Mexican Restaurant.” Kansas State University, LAR646 2018. Photograph.

Figure 7.
Mader, Grace. 2018. “China House.” Kansas State University, LAR646 2018. Photograph.

Figure 8.
Mader, Grace. 2018. “La Lupita Mexican Grocery.” Kansas State University, LAR646 2018. Photograph.

Figure 9.
Tabooleh - Coralville, IA. (2018, May 13). Retrieved June 6, 2018, from https://www.yelp.com/biz/tabooleh-coralville.

Figure 10.
Tienda Mexicana La Lupita - Coralville, IA. (2017, September 16). Retrieved June 6, 2018, from https://www.yelp.com/biz/tienda-mexicana-la-lupita-coralville.

Map 7.7c

“: The Southeast Commercial District Reimagined As A District For Arts And Culture”
Bridget Hake

Figure 1.
Hake, Bridget. 2018. “Coralville Culture and Arts District.” Kansas State University, LAR646 2018. Photoshop Photomontage.

Figure 2.
Hake, Bridget. 2018. “Chinatown Boston.” Kansas State University, LAR646 2018. Illustrator Diagram.

Figure 3.
Hake, Bridget. 2018. “Coralville Diagram.” Kansas State University, LAR646 2018. Illustrator Diagram.

Figure 4.
Hake, Bridget. 2018. “Mount Vernon Cultural District.” Kansas State University, LAR646 2018. Illustrator Diagram.

Figure 5.
Hake, Bridget. 2018. “Seattle Culture District.” Kansas State University, LAR646 2018. Illustrator Diagram.

Figure 6.
Dancers in the national dance festival, El Grande de Grandes [Photograph found in Intibucá]. (2014, July 26). Retrieved June 7, 2018, from https://en.wikipedia.org/wiki/La_Esperanza,_Honduras#/media/File:Oro_Lenca_Bailarina_La_Esperanza_Intibucá.JPG.

Source: “Chinatown, Boston.” 42° 20’59.92” N and 71° 03’39.39” W. Google Earth. June 9, 2017. June 6, 2018.

Source: “Mount Vernon Cultural District.” 39° 17’49.94” N and 76° 36’58.07” W. Google Earth. June 9, 2017. June 6, 2018.

Source: “Seattle International District.” 47° 35’54.87” N and 122° 19’14.25” W. Google Earth. May 22, 2017. June 6, 2018.

Source: “Southeast Commercial District.” 41° 40’24.13” N and 91° 34’33.54” W. Google Earth. August 30, 2017. June 7, 2018.

Map 7.8a

“Proximity to UI and Educated Workforce Lay Groundwork for Future Businesses”
Miles Updike

Figure 1.0.
Updike, Miles. 2018. Business Incubator Dispersal. Source map:
- Google Earth. Accessed June 7, 2018. Edited in Adobe Illustrator.

Figure 1.1.
UI Research Park. Source: University of Iowa. Accessed June 7, 2018.

Figure 1.2.
Coralville Education. Source: Iowa City Area Development. Accessed June 7, 2018.

Figure 1.3.
Coralville 4thFest. Source: City of Coralville. Accessed June 7, 2018.

Figure 1.4.
Iowa River Landing. Source: iowariverlanding.com. Accessed June 7, 2018.

Map 7.8b

“Lack of Business Incubators, Increased Development Creates Opportunity for Innovation”
Miles Updike

Figure 2.0.
Updike, Miles. 2018. Innovation Potential. Source:
- Google Earth. Accessed June 7, 2018. Edited in Adobe Illustrator.

Figure 2.1. SE Commercial District. Source:
- Google Earth. Accessed June 7, 2018.

Figure 2.2.
UI Research Park. Source: Google Earth. Accessed June 7, 2018.

Figure 2.3.
UI Healthcare at Iowa River Landing. Source: University of Iowa. Accessed June 7, 2018.

Figure 2.4.
Iowa Arena at IRL. laSource: Mortenson. Accessed June 7, 2018

Map 7.8c

“Innovation District Creates Corridor Connection with Iowa River Landing”
Miles Updike

Figure 3.0.
Innovation Connection. Source photo:
- Google Earth. Accessed June 7, 2018. Edited in Adobe Illustrator.

Figure 3.1.
1st Ave. Streetscape. Source:
- Google Earth. Accessed June 7, 2018.

Figure 3.2.
1st Ave. Streetscape. Source:
- Google Earth. Accessed June 7, 2018.

Figure 3.3.
Innovation District. Source:
- Google Earth. Accessed June 7, 2018. Edited in Adobe Illustrator.

Map 7.9a

“Coralville Demographics are Similar to National Average”
Mackenzie Yeager

Figure 01.
Yeager, Mackenzie. 2018. Income by location in Coralville, IA. Source data:
- Data USA. Income by Location. Coralville. [map]. 4000 feet to an inch. https://datausa.io/profile/geo/coralville-ia/#category_wages

Figure 02.
Yeager, Mackenzie. 2018. Income by Household in Coralville and Surrounding Areas. Source data:
- United States Census Bureau. 2012-2016. Median household income (in 2016 dollars). Coralville. [map]. 2000 feet to an inch. https://www.census.gov/quickfacts/fact/table/coralvillecityiowa#viewtop

Figure 03.
Yeager, Mackenzie. 2018. Age by nativity in Coralville. Source data:
- United States Census Bureau. 2012-2016. Age by nativity in Coralville. Coralville. [graph]. https://www.census.gov/quickfacts/fact/table/coralvillecityiowa#viewtop

Figure 04.
Yeager, Mackenzie. 2018. Age by median years. Source data:

- United States Census Bureau. 2012-2016. Age by median years. Coralville. [map]. 1000 feet to an inch. https://www.census.gov/quickfacts/fact/table/coralvillecityiowa#viewtop

Figure 05.
Yeager, Mackenzie. 2018. Race and Ethnicity in Coralville. Source data:

- Data USA. Race and Ethnicity. Coralville. [graph]. https://datausa.io/profile/geo/coralville-ia/#demographics

Figure 06.
Yeager, Mackenzie. 2018. Non-English speakers in Coralville. Source data:

- Data USA. Language. Coralville. [graph]. https://datausa.io/profile/geo/coralville-ia/#demographics

Figure 07.
Yeager, Mackenzie. 2018. Language Spoken at Home-Spanish. Source data:

- United States Census Bureau. 2012-2016. Hispanic or Latino, percent. Coralville. [map]. 2000 feet to an inch. https://www.census.gov/quickfacts/fact/table/coralvillecityiowa/PST045217#viewtop

Figure 08.
Yeager, Mackenzie. 2018. Language Spoken at Home-English. Source data:

- United States Census Bureau. 2012-2016. White alone, percent. Coralville. [map]. 2000 feet to an inch. https://www.census.gov/quickfacts/fact/table/coralvillecityiowa/PST045217#viewtop

Map 7.9b

"Likely Areas of Improvement in Coralville"
Mackenzie Yeager

Figure 01.
Yeager, Mackenzie. 2018. Residents Living Below Poverty Line. Source data:

- United States Census Bureau. 2012-2016. Persons in poverty, percent. Coralville. [map]. 2000 feet to an inch. https://www.census.gov/quickfacts/fact/table/coralvillecityiowa/PST045217#viewtop

Figure 02.
Yeager, Mackenzie. 2018. Residents with no formal education. Source data:

- United States Census Bureau. 2012-2016. High school graduate or higher, percent of persons age 25 years+. Coralville. [map]. 2000 feet to an inch. https://www.census.gov/quickfacts/fact/table/coralvillecityiowa#viewtop

Map 7.9c

"How can the SCD Cater to Surrounding Populations?"
Mackenzie Yeager

Figure 01.
Yeager, Mackenzie. 2018. Design strategy for the Southeast Commercial District. Source map:

- Google Images. Coralville. 41°40'13.26"N 91°33'55.69"W. Accessed June 6, 2018.

Figure 02.
"Pedestrian Zone in Boston." 1993. Photograph by Stilfehler. Courtesy of Wikimedia. Accessed June 6, 2018. Reproduced from "Wikimedia Commons, free media repository," https://commons.wikimedia.org/wiki/File:Pedestrian_Zone_in_Boston.jpg

Figure 03.
"Steamtown NHS Announces 2016 Fall Foliage Excursions." 2016. Courtesy of National Park Service. Accessed June 6, 2018. Reproduced from "Steamtown," https://www.nps.gov/stea/learn/news/fall-foliage-2016.htm

Figure 04.
"Residential Building." 2011. Photograph by Flickr user Ben Ledbetter. Accessed June 6, 2018. Reproduced from https://www.flickr.com/photos/benledbetter-architect/6282896719.

Figure 05.
"City Park." 2011. Photograph by Nelson Byrd Woltz. Courtesy of Asla. Accessed June 6, 2018. Reproduced from "ASLA Professional Awards," https://www.asla.org/2011awards/522.html

Map 7.10a

"Existing Programs Diversity and Density"
Si Chen

Figure 1.
Chen, Si. 2018. "Existing Programs Diversity and Density." Kansas State University, LAR646 2018. Adobe Photoshop Rendering. Adobe Illustrator Rendering. Source Images:

- Google Earth. City of Coralville. Source map: Google Earth. Coralville, IA. 41d31'14.49''N 41d21'38.56''W. Accessed 26 May 2018.
- Iconfont. "tree Icon." PNG Image. 2016. Accessed 26 May 2018. http://www.iconfont.cn/search/index?q=tree
- Iconfont. "Grocery Icon." PNG Image. 2016. Accessed 26 May 2018.

http://www.iconfont.cn/search/index?q=Grocery

- Iconfont. “Hospital Icon.” PNG Image. 2016. Accessed 26 May 2018. http://www.iconfont.cn/search/index?q=hospital
- Iconfont. “School Icon.” PNG Image. 2016. Accessed 26 May 2018. http://www.iconfont.cn/search/index?q=school
- Iconfont. “Grocery Icon.” PNG Image. 2016. Accessed 26 May 2018. http://www.iconfont.cn/search/index?q=Grocery
- Iconfont. “Diner Icon.” PNG Image. 2016. Accessed 26 May 2018. http://www.iconfont.cn/search/index?q=diner
- Iconfont. “dollar Icon.” PNG Image. 2016. Accessed 26 May 2018. http://www.iconfont.cn/search/index?q=dollar

Map 7.10b

“Existing Programs Layout and Adjacency”

Si Chen

Figure 1.

Chen, Si. 2018. “Existing Programs Layout and Adjacency.” Kansas State University, LAR646 2018. Adapted from ArcGIS and Google Earth Pro. Adobe Photoshop Rendering. Adobe Illustrator Rendering. Source Images:

- OpenStreetMap. “City of Coralville.” Source map: Google Earth. Coralville. Accessed 26 May 2018.

Map 7.10c

“Context Informs Urban Programs Adjacency”

Si Chen

Figure 1.

Chen, Si. 2018. “Context Informs Urban Programs.” Kansas State University, LAR646 2018. Adapted from ArcGIS and Google Earth Pro. Adobe Illustrator Rendering. Source Images:

- Google Earth “Coralville, IA.” Source map: Google Earth. Coralville. Accessed 26 May 2018.
- Iconfont. “housing Icon.” PNG Image. 2016. Accessed 26 May 2018. http://www.iconfont.cn/search/index?q=housing
- Iconfont. “School Icon.” PNG Image. 2016. Accessed 26 May 2018. http://www.iconfont.cn/search/index?q=school
- Iconfont. “tree Icon.” PNG Image. 2016. Accessed 26 May 2018. http://www.iconfont.cn/search/index?q=tree

Map 7.11a

“Variety of Architectural and Paving Materials Characterize SE Commercial District”

Yingyi Zhong

Zhong, Yingyi. 2018. “Regional Scale Urban Fabrics.” Kansas State University, LAR646 2018. Adobe Photoshop and Illustrate. Source Images:

- Google Earth. Coralville, IA. 41d40’12.89’’N 91d31’38.56’’W. Accessed 8 June 2018.
- Google Street-view. “Coralville Ridge Mall: Series of building in Coralville, IA.” Accessed June 1, 2018. https://www.google.com/maps/place/Taco+John’s/@41.6894831,-91.6007153,3a,74.7y,3.96h,93.01t/data=!3m6!1e1!3m4!1sSUd72ucUqGo6C-gT9wDukA!2e0!7i13312!8i6656!4m8!1m2!2m1!1scity+of+coralville+gis!3m4!1s0x87e4417d69fa000f:0xdc0ac689fc306d69!8m2!3d41.6693741!4d-91.5681341
- Google Street-view. “Coralville Center for the Performing Arts: Series of building in Coralville, IA.” Accessed June 1, 2018. https://www.google com/maps/place/Taco+John’s/@41.6759435,-91.5807136,3a,60y,9.46h,90t/data=!3m6!1e1!3m4!1sfDhVvFGkcj8JFTpy9nYxjQ!2e0!7i13312!8i6656!4m8!1m2!2m1!1scity+of+coralville+gis!3m4!1s0x87e4417d-69fa000f:0xdc0ac689fc306d69!8m2!3d41.6693741!4d-91.5681341
- Google Street-view. “Seva Center for Healing Arts: Series of building in Coralville, IA.” Accessed June 1, 2018. https://www.google.com/maps/place/Taco+John’s/@41.6758519,-91.580942,3a,60.7y,67.88h,93.69t/data=!3m6!1e1!3m4!1so4ZUnpSa91PtkuBq8wsvxw!2e0!7i13312!8i6656!4m8!1m2!2m1!1scity+of+coralville+gis!3m4!1s0x87e4417d-69fa000f:0xdc0ac689fc306d69!8m2!3d41.6693741!4d-91.5681341
- Google Street-view. “Petersen Iron & Metal: Series of building in Coralville, IA.” Accessed June 1, 2018. https://www.google.com/maps/@41.6693049,-91.5706792,3a,75y,218.56h,89.15t/data=!3m6!1e1!3m4!1sXsbi2bUT3r2Wmvhdd8HLdQ!2e0!7i13312!8i6656
- Google Street-view. “Quality Care: Series of building in Coralville, IA.” Accessed June 1, 2018. https://www.google.com/maps/@41.6688754,-91.5698837,3a,75y,212.06h,89.15t/data=!3m6!1e1!3m4!1sA3pDrGaY0E103sES0Gsp5Q!2e0!7i13312!8i6656
- Google Street-view. “Vacant Lot and apartment building: Series of building in Coralville, IA.” Accessed June 1, 2018. https://www.google.com/maps/@41.6684385,-91.5690251,3a,75y,214.15h,91.35t/data=!3m6!1e1!3m4!1stEcDsktb4rMX5O17g7T5IQ!2e0!7i13312!8i6656
- Google Street-view. “Retail store with apartment atop: Series of building in Coralville, IA.” Accessed June 1, 2018. https://www.google.com/maps/@41.6681622,-91.5684758,3a,60y,214.82h,87.93t/data=!3m6!1e1!3m4!1slatzfj47AVy65SbyPmUEjw!2e0!7i13312!8i6656
- Google Street-view. “Iowa River Landing (Coralville Marriott Hotel and Vesta): Series of building in Coralville, IA.” Accessed June 1, 2018. https://www.google.com/maps/place/Taco+John’s/@41.681735,-91.5602492,3a,60y,95.32h,91.4t/data=!3m6!1e1!3m4!1sme69A_B7vugUNqsY33rGyw!2e0!7i13312!8i6656!4m8!1m2!2m1!1scity+of+coralville+gis!3m4!1s0x87e4417d69fa000f:0xdc0ac689fc306d69!8m2!3d41.6693741!4d-91.5681341
- Textures. “Steel material.” Accessed June 1, 2018. https://www.

textures.com/download/metalbare0212/123227?q=steel
- Textures. “Corten steel material.” Accessed June 1, 2018. https://www.textures.com/downloadrust0217/128484?q=+steel
- Textures. “Glass”. Accessed June 1, 2018. https://www.textures.com/download/highriseglass0055/66262?q=glass
- Textures. “Limestone” https://www.textures.com/download/brickmedievalblocks0200/83055?q=limestone Accessed 1 June, 2018
- Textures. “Soil.” Accessed June 1, 2018. https://www.textures.com/download/sandpebbles0080/53799?q=soil
- Textures. “Vegetation” https://www.textures.com/download/brickmedievalblocks0200/83055?q=limestone Accessed 1 June, 2018. https://www.textures.com/download/groundplants0207/113853?q=grass
- Burbin, Bryce. “Brick Wall.” Digital Photography. 2012. Accessed June 8, 2018. https://www.flickr.com/photos/dicebourbon/7858825042/in/photolist-cYswTu-6m4Rfk-84anxC-bhMKn4-73s7xj-86AZ5g-9netMw-a2t2R5-f19aC-3Qdei-73s7iu-a5nnqQ-eTMKDf-7TBRjF-6si547-8qp2nm-eLUnBG-wkLeMC-vFv7JF-p4fDim-8gwSAM-7nbD7j-aWZT1c-ntXTfj-kphUA3-aq9jfV-cmKQcC-8TmkRf-6MRwX-nHq15A-wA4Rwm-eTAsq4-eQoSzs-9cDGSe-eiuCwz-dVAkVd-d9Qdpd-5tk6ZV-dC5cXb-5TXH3Y-2tJK6Y-7-hGjb-5926Bf-bhMJSv-ajDoDC-6vHV2J-5nUEEA-5XRLSh-5XYhWF-aEAAbe

Map 7.11b

“Limestone, Brick, Croton Steel and existing Natural Fabric can be used to increase the historical and cultural identity of SE Commercial District”

Yingyi Zhong

Figure 01.
Google Street-view. “Excessive impermeable paving materials.” Accessed June 1, 2018. https://www.google.com/maps/place/Taco+John’s/@41.6681622,-91.5684758,3a,60y,34.03h,83.62t/data=!3m6!1e1!3m4!1sIatzfj47AVy65SbyPmUEjw!2e0!7i13312!8i6656!4m8!1m2!2m1!1scity+of+coralville+gis!3m4!1s0x87e4417d-69fa000f:0xdc0ac689fc306d69!8m2!3d41.6693741!4d-91.5681341
Figure 02.
Google Street-view. “Excessive parking area.” Accessed June 1, 2018. https://www.google.com/maps/place/Taco+John’s/@41.6696398,-91.5683416,3a,60y,217.53h,93.87t/data=!3m6!1e1!3m4!1suZSGi-BLAeaSiLCB7aRCtg!2e0!7i13312!8i6656!4m8!1m2!2m1!1scity+of+coralville+gis!3m4!1s0x87e4417d-69fa000f:0xdc0ac689fc306d69!8m2!3d41.6693741!4d-91.5681341
Figure 03.
Zhong, Yingyi. “Transmission Pole made with Corten steel.” Coralville, IA. Photograph.

Figure 04.
Zhong, Yingyi. “Brick as architectural and paving material is prevalent.” Coralville, IA. Photograph.

Figure 05.
Zhong, Yingyi. “Existing Southern rail line made with Corten steel.” Coralville, IA. Photograph.

Figure 06.
Zhong, Yingyi. “Paving Material: Concrete & Asphalt.” Kansas State University LAR646 2018. Adobe Illustrate and Photoshop rendering. Source Image:
- Google Earth. Coralville, IA. 41d40’12.89’’N 91d31’38.56’’W. Accessed 8 June 2018.

Figure 07.
Zhong, Yingyi. “Industrial Relic: Corten Steel & Brick.” Kansas State University LAR646 2018. Adobe Illustrate and Photoshop rendering. Source Image:
- Google Earth. Coralville, IA. 41d40’12.89’’N 91d31’38.56’’W. Accessed 8 June 2018.

Figure 08.
Zhong, Yingyi. “Local material: Limestone.” Kansas State University LAR646 2018. Adobe Illustrate and Photoshop rendering. Source Image:
- Google Earth. Coralville, IA. 41d40’12.89’’N 91d31’38.56’’W. Accessed 8 June 2018.

Figure 09.
Zhong, Yingyi. “Natural Fabric: Vegetation & Soils.” Kansas State University LAR646 2018. Adobe Illustrate and Photoshop rendering. Source Image:
- Google Earth. Coralville, IA. 41d40’12.89’’N 91d31’38.56’’W. Accessed 8 June 2018.

Figure 10.
Zhong, Yingyi. “Limestone is a local material that can represent Coralville.” Coralville, IA. Photograph.

Figure 11.
Zhong, Yingyi. “Existing landscape along Clear Creek is attractive and valuable.” Coralville, IA. Photograph.

Figure 12
Zhong, Yingyi. “Existing streets-cape is well maintained.” Coralville, IA. Photograph.

Map 7.11c

“‘Renovate, Reduce, Revise, and Regenerate’ Strategies Guide Redevelopment Framework”
Yingyi Zhong

Figure 01.
Zhong, Yingyi. 2018. “Renovate Selected Transmission Poles and Existing Rail Line.” Kansas State University LAR646 2018. Adobe Illustrate.

Figure 02.
Zhong, Yingyi. 2018. “Invest in 1st Street Infrastructure.” Kansas State University LAR646 2018. Adobe Illustrate.

Figure 03.
Zhong, Yingyi. 2018. “Reserve Existing Landscape.” Kansas State University LAR646 2018. Adobe Illustrate.

Figure 04.
Zhong, Yingyi. 2018. “Regenerate Concept: Coralville Ring.” Kansas State University LAR646 2018. Adobe Illustrate.

Map 7.12a

“Successful Pop-Up Spaces Have Similar Attributes When Revitalizing Urban Space”
Madison Quincke

Figure 1.0.
2017. Photography by Rob Cardillo. Courtesy of Instagram. Accessed June 6, 2018. Reproduced by pewcenterarts Instagram, https://bit.ly/2uaa0vP.

Figure 1.0.2.
2016. Photograph by Kylea Cook. Courtesy of Instagram. Accessed June 6, 2018. Reproduced by Instagram, https://bit.ly/2tYArp0.

Figure 1.0.3.
Quincke, Madison. 2018. Current Property Lines of Philadelphia, PA. Source data: City of Philadelphia Open Maps. “Current Property Lines.” https://bit.ly/2lVgXwT. Accessed June 6, 2018.

Figure 1.2.
2015. Photograph by Flickr user Steve Rainwater. Accessed June 6, 2018. Reproduced from Flickr, https://bit.ly/2u7K5ow.

Figure 1.2.2.
Quincke, Madison. 2018. Current Property Lines Dallas, Texas. Source data: City of Dallas. “Tax Parcels.” https://bit.ly/2IXMuaE. Accessed June 6, 2018.

Figure 1.3.
“Garema Place Canberra.” 2016. Photography by Mili Cifali. Courtesy of Facebook. Accessed June 6, 2018. Reproduced by Facebook, https://bit.ly/2tY9py5.

Figure 1.3.2.
Quincke, Madison. 2018. Current Property Lines of Canberra. Source data: ACT Government Map. “Cadastre for Imagery.” https://bit.ly/2MSDN3A. Accessed June 6, 2018.

Figure 1.4.
2015. Photography by ReSurfaced. Courtesy of Facebook. Accessed June 6, 2018. Reproduced by Facebook, https://bit.ly/2KCc3DI.

Figure 1.4.2.
Quincke, Madison. 2018. Current Property Lines of Louisville, KY. Source data: Louisville and Jefferson County Information Consortium. “Current Property Lines.” https://bit.ly/2MSM2g6. Accessed June 6, 2018.

Figure 1.5.
“Come ride on our bike lanes at #kenmorebetterblock!” 2017. Photograph by betterblock. Courtesy of Instagram. Accessed June 6, 2018. Reproduced by Instagram, https://bit.ly/2tTUfK7.

Figure 1.5.2.
Quincke, Madison. 2018. Parcels of Akron, OH. Source data: Summit County GIS. “Parcels”. Accessed June 6, 2018.

Map 7.12b

“SE Commercial District Provides 6 Opportunistic Locations for Temporary Installations”
Madison Quincke

Figure 2.0.
Quincke, Madison. 2018. Figure Ground SE Commercial District. Source data: Johnson County GIS. “Building Composite.” Accessed June 6, 2018.

Figure 2.1.
Dunay, Morgan. 2018. Parking Lot. Photograph.

Figure 2.2.
Dunay, Morgan. 2018. 2nd Avenue. Photograph.

Figure 2.3.
Cooke, Shelby. 2018. Parking Lot. Photograph.

Figure 2.4.
Quincke, Madison. 2018. 1st Street. Photograph.

Figure 2.5.
Stoffel, Elsa. 2018. Vacant Lot. Photograph.

Figure 2.6.
Mader, Grace. 2018. Trail. Photograph.

Map 7.12c

"Temporary Installations Help Revitalize the SE Commercial District"
Madison Quincke

Figure 3.0.
Quincke, Madison. 2018. Site Opportunity Map. Source data: Johnson County GIS. "Building Composite." Accessed June 6, 2018.

Figure 3.1.
Mader, Grace. 2018. Trail. Photograph.

Figure 3.2.
Dunay, Morgan. 2018. Parking Lot. Photograph.

Figure 3.3.
Dunay, Morgan. 2018. 2nd Avenue. Photograph.

Figure 3.4.
Stoffel, Elsa. 2018. Vacant Lot. Photograph.

Figure 3.5.
Quincke, Madison. 2018. Conceptual vision of temporary installation on trail west of SE Commercial District. Source:
- Mader, Grace. Photograph.

Figure 3.6.
Quincke, Madison. 2018. Conceptual vision of parking lot transformed into a pop-up park. Source:
- Dunay, Morgan. Photograph.

Figure 3.7.
Quincke, Madison. 2018. Conceptual vision showing potential on 2nd Avenue. Source:
- Dunay, Morgan. Photograph.

Figure 3.8. Quincke, Madison. 2018. Conceptual vision to activate vacant lot on southeast part of district. Source:
- Stoffel, Elsa. Photograph.

Map 7.13a

"Building Mass in the SE Commercial Doesn't Shape Open Space"
Grace Mader

Figure 1.
GIS. 2018. Coralville, Iowa. GIS. Source Data: World Imagery. Accessed June 5, 2018.

Figure 2.
GIS. 2018. Iowa City, Iowa. GIS. Source Data: World Imagery. Accessed June 5, 2018.

Figure 3.
GIS. 2018. Lakewood, Colorado. GIS. Source Data: World Imagery. Accessed June 5, 2018.

Figure 4.
GIS. 2018. Berlin, Germany. Source Data: World Imagery. Accessed June 5, 2018.

Google Maps. 2018. Accessed June 5, 2018. Berlin, Germany. http://bit.ly/2tVHbE8

Google Maps. 2018. Accessed June 5, 2018. Coralville, Iowa. http://bit.ly/2KQVIXX

Google Maps. 2018. Accessed June 5, 2018. Iowa City, Iowa. http://bit.ly/2IXq21w

Google Maps. 2018. Accessed June 5, 2018. Lakewood, Colorado. http://bit.ly/2NqZEAI

Map 7.13b

"The SE Commercial District Has Opportunities for Structured Open Space"
Grace Mader

Figure 1.
Mader, Grace. 2018. Coralville, Iowa. GIS. Source Data: World Imagery. Accessed June 5, 2018.

Figure 2.
Mader, Grace. 2018. Photo of Site. Coralville, Iowa. Accessed June 6, 2018.

Figure 3.
Mader, Grace. 2018. Photo of Site. Coralville, Iowa. Accessed June 6, 2018.

Figure 4.
Mader, Grace. 2018. Photo of Site. Coralville, Iowa. Accessed June 6, 2018.

Figure 5.
Belanger, Blake. 2018. Photo of Site. Coralville, Iowa. Accessed June 6, 2018.

Map 7.13c

"The SE Commercial District Should Use Future Building Masses to Shape Open Space"
Grace Mader

Figure 1.
Mader, Grace. 2018. Photo of Pedestrian Mall. Iowa City, Iowa. Accessed June 7, 2018.

Figure 2.
Mader, Grace. 2018. Photo of Plaza. Portland, Oregon. Accessed June 7, 2018.

Figure 3.
Mader, Grace. 2018. Photo of Lawn. Portland, Oregon. Accessed June 7, 2018.

Figure 4.
Mader, Grace. 2014. Photo of Plaza. Panama City, Panama. Accessed June 7, 2018.

Map 7.14a

"Existing Layout of the Outdoor Hardscape and Softscape and Users' Orientation"
Si Chen

Figure 1.
Chen, Si. 2018. "Existing Layout of the Outdoor Hardscape and Softscape and Users' Orientation." Kansas State University, LAR646 2018. Adapted from ArcGIS and Google Earth Pro. Adobe Illustrator Rendering.
Source Images:

- OpenStreetMap. "City of Coralville." Source map: Google Earth. Coralville. Accessed 1 June 2018.

Map 7.14b

"Existing Layout of Outdoor Infrastructure and Open Spaces"
Si Chen

Figure 2.
Existing Layout of Outdoor Infrastructure and Open Spaces
Chen, Si. 2018. Existing Layout of Outdoor Infrastructure and Open Spaces." Kansas State University, LAR646 2018. Adapted from ArcGIS and Google Earth Pro. Adobe Illustrator Rendering. Source Images:

- OpenStreetMap. "City of Coralville." Source map: Google Earth. Coralville. Accessed 1 June 2018.

Map 7.14c

"Urban Nodes and Loops Constitute Framework for Future Redevelopment"
Si Chen

Figure 1.
Chen, Si. 2018. "Infrastructure Landscape Loop." Kansas State University, LAR646 2018. Adapted from ArcGIS and Google Earth Pro. Adobe Illustrator Rendering. Source Images:

- OpenStreetMap. "City of Coralville." Source map: Google Earth. Coralville. Accessed 1 June 2018.

Figure 2.
Chen, Si. 2018. "Activity Mobility Loop." Kansas State University, LAR646 2018. Adapted from ArcGIS and Google Earth Pro. Adobe Illustrator Rendering. Source Images:

- OpenStreetMap. "City of Coralville." Source map: Google Earth. Coralville. Accessed 1 June 2018.

Figure 3.
Chen, Si. 2018. "Green Radial Loop." Kansas State University, LAR646 2018. Adapted from ArcGIS and Google Earth Pro. Adobe Illustrator Rendering. Source Images:

- OpenStreetMap. "City of Coralville." Source map: Google Earth. Coralville. Accessed 1 June 2018.

Figure 4.
Chen, Si. 2018. "Green Radial Loop." Kansas State University, LAR646 2018. Adapted from ArcGIS and Google Earth Pro. Adobe Illustrator Rendering. Source Images:

- OpenStreetMap. "City of Coralville." Source map: Google Earth. Coralville. Accessed 1 June 2018.

Map 7.15a

"2nd Street Divides SE Commercial district"

Scott Randall

Figure 1.
Randall, Scott. 2018. "Sensory Comfort (Heat)". Diagram created with Adobe Illustrator

- Google Earth. "Southeast Commercial District - Coralville, IA." October 30, 2018. 41° 40'11.14" N and 91°34'07.04" W. Accessed July 3,2018.

Figure 2.
Randall, Scott. 2018. "Sensory Comfort (Noise)". Diagram created with Adobe Illustrator

- Google Earth. "Southeast Commercial District - Coralville, IA." October 30, 2018. 41° 40'11.14" N and 91°34'07.04" W. Accessed July 3,2018

Map 7.15b

"Nodes and Open Spaces are Opportunites for Comfortable Pedestrian Areas"

Scott Randall

Figure 1.
Randall, Scott. 2018. "Opportunities for Sensory Comfort". Diagram created with Adobe Illustrator

- Google Earth. "Southeast Commercial District - Coralville, IA." October 30, 2018. 41° 40'11.14" N and 91°34'07.04" W. Accessed July 3,2018.

Figure 2.
"WORK." n.d. WMBstudio. Accessed July 13, 2018. http://www.wmbstudio.co.uk/

Figure 3.
"More Great Public Spaces: Nominate Your Favorite Plazas and Parks." n.d. Accessed July 13, 2018. https://www.pps.org/article/more-great-public-spaces-nominate-your-favorite-plazas-and-parks.

Figure 4.
Krueger, Paul. 2012. Hot Tub Parklet 4. Photo. https://www.flickr.com/photos/pwkrueger/7952952636/.

Map 7.15c

"Shade Structures and Outdoor Seating Will Greatly Improve Pedestrian Comfort"

Scott Randall

Figure 1.
Randall, Scott. 2018. "Opportunities for Sensory Comfort". Diagram created with Adobe Illustrator

- Google Earth. "Southeast Commercial District - Coralville, IA." October 30, 2018. 41° 40'11.14" N and 91°34'07.04" W. Accessed July 3,2018.

Figure 2.
"The Plaza at Harvard – Stoss." n.d. Accessed July 13, 2018. http://www.stoss.net/projects/16/the-plaza-at-harvard/.

Figure 3.
"Line, Light, Movement | Rancho Reubidoux." n.d. Accessed July 13, 2018. https://ranchoreubidoux.com/2010/11/10/linear-movement/.

Figure 4.
"McBurney Lane| City of Langley, Canada | Hapa Collaborative" n.d. Accessed July 13, 2018 http://worldlandscapearchitect.com/mcburney-lane/#.W0i81NJKiiN

Map 7.16a

"Visual Conditions are Highly Varied Within the Southeast Commercial District"

Julie Benyshek

Figure 1.
Benyshek, Julie. "Existing View Conditions of Southeast Commercial District." Kansas State University LAR 646 2018. Map created with Adobe Photoshop.

- Hahn, Howard. "FieldTripBaseMap_StudyArea_11x17Map." Kansas State University LAR 646 2018. Base map created with GIS.

Figure 2.
Benyshek, Julie. "Powerline Corridor Running Along 1st Street." Kansas State University LAR 646 2018. Rendering created with Adobe Photoshop and Adobe Illustrator.

- Mader, Grace. "Untitled Image of Powerlines Near 1st Street." Kansas State University LAR 646 2018. Photograph taken in Coralville, IA.

Figure 3.
Benyshek, Julie. "Powerline Corridor Running Diagonally Across Site (Looking SW)." Kansas State University LAR 646 2018. Rendering created with Adobe Photoshop and Adobe Illustrator.

- Stoffel, Elsa. "Untitled Image of Main Diagonal Powerline (Looking SW)." Kansas State University LAR 646 2018. Photograph taken in Coralville, IA.

Figure 4.
Benyshek, Julie. "Powerline Corridor Running Diagonally Across Site

(Looking NE)." Kansas State University LAR 646 2018. Rendering created with Adobe Photoshop and Adobe Illustrator.

- Stoffel, Elsa. "Untitled Image of Main Diagonal Powerline (Looking NE)." Kansas State University LAR 646 2018. Photograph taken in Coralville, IA.

Figure 5.
Benyshek, Julie. "Powerline Corridor Along Clear Creek." Kansas State University LAR 646 2018. Rendering created with Adobe Photoshop and Adobe Illustrator.

- Dunay, Morgan. "Untitled Image of Powerlines Near Clear Creek." Kansas State University LAR 646 2018. Photograph taken in Coralville, IA.

Figure 6.
Cooke, Shelby. "Pedestrian Corridor North of 2nd Street." Kansas State University LAR 646 2018. Photograph taken in Coralville, IA.

Figure 7.
Benyshek, Julie. "Pedestrian Corridor Near Biscuit Creek." Kansas State University LAR 646 2018. Rendering created with Adobe Photoshop and Adobe Illustrator.

- Stoffel, Elsa. "Untitled Image of Sidewalk North of 2nd Street." Kansas State University LAR 646 2018. Photograph taken in Coralville, IA.

Figure 8.
Benyshek, Julie. "Vehicular Corridor on 2nd Street." Kansas State University LAR 646 2018. Photograph taken in Coralville, IA.

Figure 9.
Benyshek, Julie. "View from Crosswalk (Looking Diagonally to the SW)." Kansas State University LAR 646 2018. Rendering created with Adobe Photoshop and Adobe Illustrator.

- Hahn, Howard. "Untitled Image of Crosswalk at 1st Ave and 2nd Street." Kansas State University LAR 646 2018. Photograph taken in Coralville, IA.

Figure 10.
Benyshek, Julie. "View from Crosswalk (Looking Diagonally to the NW)." Kansas State University LAR 646 2018. Rendering created with Adobe Photoshop and Adobe Illustrator.

- Hahn, Howard. "Untitled Image of Crosswalk at 1st Ave and 2nd Street." Kansas State University LAR 646 2018. Photograph taken in Coralville, IA.

Figure 11.
Benyshek, Julie. "North Entrance." Kansas State University LAR 646 2018. Photograph taken in Coralville, IA.

Figure 12.
Benyshek, Julie. "East Entrance." Kansas State University LAR 646 2018. Photograph taken in Coralville, IA.

Figure 13.
Hahn, Howard. "South Entrance." Kansas State University LAR 646 2018. Photograph taken in Coralville, IA.

Figure 14.
Benyshek, Julie. "West Entrance." Kansas State University LAR 646 2018. Photograph taken in Coralville, IA.

Figure 15.
Benyshek, Julie. "Far West View Into the Site." Kansas State University LAR 646 2018. Rendering created with Adobe Photoshop and Adobe Illustrator.

- Dunay, Morgan. "Untitled Image of Farthest West Penetrating View Across 2nd Street." Kansas State University LAR 646 2018. Photograph taken in Coralville, IA.

Figure 16.
Benyshek, Julie. "Far East View Into the Site." Kansas State University LAR 646 2018. Rendering created with Adobe Photoshop and Adobe Illustrator.

- Mader, Grace. "Untitled Image of Farthest East Penetrating View Across 2nd Street." Kansas State University LAR 646 2018. Photograph taken in Coralville, IA.

Map 7.16b

"Opportunities Exist to Highlight Entrance Locations and Utilize Axial Views"

Julie Benyshek

Figure 1.
Benyshek, Julie. "Proposed Changes to Southeast Commercial District Views." Kansas State University LAR 646 2018. Map created with Adobe Photoshop and Adobe Illustrator.

- Hahn, Howard. "FieldTripBaseMap_StudyArea_11x17Map." Kansas State University LAR 646 2018. Base map created with GIS.

Figure 2.
Benyshek, Julie. "North Entrance." Kansas State University LAR 646 2018. Rendering created with Adobe Illustrator. Photograph taken in Coralville, IA.

Figure 3.
Benyshek, Julie. "East Entrance." Kansas State University LAR 646 2018.

Rendering created with Adobe Illustrator. Photograph taken in Coralville, IA.

Figure 4.
Benyshek, Julie. "South Entrance." Kansas State University LAR 646 2018. Rendering Created with Adobe Illustrator.

- Hahn, Howard. "Untitled Image of South Bridge in SE Commercial District." Kansas State University LAR 646 2018. Photograph taken in Coralville, IA.

Figure 5.
Benyshek, Julie. "West Entrance." Kansas State University LAR 646 2018. Rendering created with Adobe Illustrator.

Figure 6.
Benyshek, Julie. "Opportunities for North Pedestrian Corridor." Kansas State University LAR 646 2018. Rendering created with Adobe Illustrator.

- Stoffel, Elsa. "Untitled Image of View Corridor North of 2nd Street." Kansas State University LAR 646 2018. Photograph taken in Coralville, IA.

Map 7.16c

"Adding Gateways and Setting Up Axial Views will Contribute to District Identity"

Julie Benyshek

Figure 1.
Benyshek, Julie. "Proposed Changes to Southeast Commercial District Views." Kansas State University LAR 646 2018. Map created with Adobe Photoshop and Adobe Illustrator.

- Hahn, Howard. "FieldTripBaseMap_StudyArea_11x17Map." Kansas State University LAR 646 2018. Base map created with GIS.

Figure 2.
Pearce, Barry. "Neighborhood Markers a Sign of the times in Lincoln Square." Digital image. YoChicago. April 12, 2006. Accessed June 01, 2018. http://yochicago.com//

Figure 3.
"Gateways." City of Chesapeake, Virginia - Design Guidelines Manual. Digital Image. January 2010. Accessed June 1, 2018. http://www.cityofchesapeake.net/Assets/documents/departments/planning/design_guidelines/Chapter-V.pdf.

Figure 4.
Ruane, Michael E. "Washington Monument To Remain Closed For At Least Two More Years." Digital Image. Washington Post. December 03, 2016. Accessed June 01, 2018. http://matzav.com/

Map 7.17a

"Area Surrounding Southeast Commercial District Offers Diverse Recreation"

Spencer Sanders

Figure 1.
Sanders, Spencer. "Outdoor Recreation Near Southeast Commercial District." Kansas State University LAR 646 2018. Map created with Adobe Photoshop and Adobe Illustrator.

- Google Earth, Coralville, IA

Figure 2.
Sanders, Spencer. "Outdoor Recreation Within Southeast Commercial District." Kansas State University LAR 646 2018. Map created with Adobe Photoshop and Adobe Illustrator.

- Google Earth, Coralville, IA

Figure 3.
Sanders, Spencer. "Amount of Recreation Types." Kansas State University LAR 646 2018. Chart created with Microsoft Excel and Adobe Photoshop.

- Abundant Harvest. 2018. "A Beginners Guide to Fishing." Digital Image. May 3, 2018. Accessed July 2018. http://abundantharvestaquaponics.org/a-beginners-guide-to-fishing/
- Advica Health. 2017. "5 Ways Hiking Can Change Your Life and Improve Your Health." Digital Image. December 5, 2017. Accessed July 2018. http://advicahealth.com/.
- Bryant Park. 2018. "The Park." Digital Image. Accessed June 2018. http://bryantpark.org/index.php/the-park.
- TripAdvisor. 2018. "Dennis Keat Soccer Park." Digital Image. October 17, 2016. Accessed July 2018. https://www.visitgreaterpalmsprings.com/blog/post/dennis-keat-soccer-park/
- University of Washington at Bothell. 2018. "About the Sports and Recreation Complex." Digital Image. Accessed July 2018. https://www.uwb.edu/campusplanning/construction/sports-field.

Map 7.17b

"Mixed-Use Redevelopment Could Include More Recreational and Social Opportunities"

Spencer Sanders

Figure 1.
Sanders, Spencer. "Opportune Spaces for Recreational Development/Expansion." Kansas State University LAR 646 2018. Map created with Adobe Photoshop and Adobe Illustrator.

- Google Earth, Coralville, IA

Figure 2.
Sanders, Spencer. “2nd St. & 1st Ave. Intersection.” Kansas State University LAR 646 2018. Map created with Adobe Photoshop and Adobe Illustrator.

- Google Earth, Coralville, IA

Figure 3.
Sanders, Spencer. “Southeast Commercial District as Recreational Hub.” Kansas State University LAR 646 2018. Map created with Adobe Illustrator.

- Google Earth, Coralville, IA

Map 7.17c

“Connecting the District to Recreation Will Benefit Visitors”
Spencer Sanders

Figure 1.
Sanders, Spencer. “Connecting the Site to Recreation Areas.” Kansas State University LAR 646 2018. Map created with Adobe Photoshop and Adobe Illustrator.

- Google Earth, Coralville, IA

Figure 2.
Perry, Francesca. “Creative Crosswalks Around the World – In Pictures.” Digital Image. July 14, 2016. Accessed July 2018. http://www.theguardian.com/

Figure 3.
The Active Times. “America’s Best City Bike Path.” Digital Image. December 6, 2017. Accessed June 2018. https://www.huffingtonpost.com/the-active-times/

A.8 Mixed Use

Map 8.1a

“Coralville, IA is Lacking Multiple Types of Affordable Housing”
Allyssa Gray

Figure 1.
Location of Precedents /

- Schmitz, Adrienne. Affordable Housing: Designing an American Asset. Washington, D.C.: Urban Land Institute, 2005.
- “Grey World Map.” Freepik. Accessed July 10, 2018. https://www.freepik.com/free-vector/grey-world-map_893780.htm.

Figure 2.
Development Strategies and Characteristics of the Precedents/

- “Coral Ridge Apartments Rentals - Coralville, IA.” Apartments.com. Accessed June 06, 2018. https://www.apartments.com/coral-ridge-apartments-coralville-ia/zfd9sxz/.
- Schmitz, Adrienne. Affordable Housing: Designing an American Asset. Washington, D.C.: Urban Land Institute, 2005.

Figure 3.
Residents Served and Area Median Income (AMI).

- “Coral Ridge Apartments Rentals - Coralville, IA.” Apartments.com. Accessed June 06, 2018. https://www.apartments.com/coral-ridge-apartments-coralville-ia/zfd9sxz/.
- Schmitz, Adrienne. Affordable Housing: Designing an American Asset. Washington, D.C.: Urban Land Institute, 2005.

Figure 4.
Unit Type and Cost.

- Schmitz, Adrienne. Affordable Housing: Designing an American Asset. Washington, D.C.: Urban Land Institute, 2005.

Map 8.1b

“Affordable Housing Should have High Aesthetics and Serve Multiple Types of Families”
Allyssa Gray

Figure 1.
Map Locations.

- Schmitz, Adrienne. Affordable Housing: Designing an American Asset. Washington, D.C.: Urban Land Institute, 2005.
- “Grey World Map.” Freepik. Accessed July 10, 2018. https://www.freepik.com/free-vector/grey-world-map_893780.htm.

Figure 2.
Development Strategies and Characteristics of the Precedents.

- “Coral Ridge Apartments Rentals - Coralville, IA.” Apartments.com. Accessed June 06, 2018. https://www.apartments.com/coral-ridge-apartments-coralville-ia/zfd9sxz/.
- Schmitz, Adrienne. Affordable Housing: Designing an American Asset. Washington, D.C.: Urban Land Institute, 2005.

Figure 3.
Mozingo Place.

- Schmitz, Adrienne. Affordable Housing: Designing an American Asset. Washington, D.C.: Urban Land Institute, 2005.

Figure 4.
Row 8.9n.

- Schmitz, Adrienne. Affordable Housing: Designing an American Asset. Washington, D.C.: Urban Land Institute, 2005.

Figure 5.
Swan's Market.

- Schmitz, Adrienne. Affordable Housing: Designing an American Asset. Washington, D.C.: Urban Land Institute, 2005.

Figure 6.
Coralridge Apartments. Source:

- "Coral ridge Apartments." 41°41'13.64"N 91°35'47.72W Google Earth. October, 2012. July 8, 2018

Figure 7.
Highland Ridge Apartments. Source:

- "Highland Ridge Apartments." 39°11'10.10"N 96°38'41.80W Google Earth. June, 2013. July 8, 2018

Map 8.1c

"Headline Here [major words in caps]"
Allyssa Gray

Figure 1.
Allyssa Gray. 2018. Average Rent in Relation to Percentage of Income Towards Housing Per Census Block. Source data: ArcGIS 2013. Accessed June 01, 2018.

Figure 2.
Mixed use along Clear Creek.

- "Mader_Building_01.jpg" Grace Mader. April 2018. Accessed June 6, 2018.
- "Peopl206.tif." Matt McCoy. Accessed July 3, 2018.
- "Peopl212.tif." Matt McCoy. Accessed July 3, 2018.
- "Peopl227.tif." Matt McCoy. Accessed July 3, 2018.
- "Untitled.jpg." Elsa Stoffel. May 25, 2018. Accessed June 6, 2018

Figure 3.
Neighborhood style affordable housing located where existing apartments used to be.

- "Free Image on Pixabay - Black Forest Village, Rome." Accessed July 10, 2018. /en/black-forest-village-rome-apartments-1538560/.
- "Peopl417.tif." Matt McCoy. Accessed July 3, 2018.
- "Peopl1027.tif." Matt McCoy. Accessed July 3, 2018.
- "Peopl1034.tif." Matt McCoy. Accessed July 3, 2018.
- "TETRIS APARTMENTS on Vimeo." Accessed July 10, 2018. https://vimeo.com/51124535.
- "Untitled.jpg." Morgan Dunay. May 25, 2018. Accessed June 6, 2018

Map 8.2a

"Coralville's Low-Costand Affordable Housing is Limited"
Allyssa Gray

Figure 1.
Allyssa Gray. 2018. Average Rent in Relation to Percentage of Income Towards Housing Per Census Block. Source data: ArcGIS 2013. Accessed June 01, 2018.

Figure 2.
Allyssa Gray. 2018. Density in Relation to Percentage of Income Towards Housing. Source data: ArcGIS 2013. Accessed June 01, 2018.

Map 8.2b

"Affordable Housing Needs to be Distributed Throughout Coralville"
Allyssa Gray

Figure 1.
Allyssa Gray. 2018. Affordable and Low-Income. Source data: ArcGIS 2013. Accessed June 01, 2018.

Figure 2.
Source: "Coralville Senior Residence." 41°41'13.64"N 91°35'47.72W Google Earth. October, 2012. July 8, 2018

Figure 3.
Source: "Coralville Senior Residence." 41°41'13.64"N 91°35'47.72W Google Earth. October, 2012. July 8, 2018

Figure 4.
Source: "Coralridge Apartments: HCV Welcome." 41°40'45.88"N 91°35'15.14W Google Earth. September, 2016. July 8, 2018

Map 8.2c

"Proposed Affordable Housing Should Have High Aesthetics"
Allyssa Gray

Figure 1.
Allyssa Gray. 2018. Proposed Areas for Affordbale and Low-Income Housing. Source data: ArcGIS 2013. Accessed June 01, 2018.

Figure 2.
"Free Photo Energy Saving Rome Apartments Black Forest Village - Max Pixel." Free Photo Hands Head Psychosis Face Man Headache Burnout - Max Pixel. Accessed June 01, 2018. https://www.maxpixel.net/Energy-Saving-Rome-Apartments-Black-Forest-Village-1538560.

Figure 3.
VA, Brett. “Mix Massing Mixed-use Carlyle Alex.” Flickr. August 19, 2010. Accessed June 01, 2018. https://www.flickr.com/photos/smart_growth/4907646013.

Figure 4.
Cornfoot, Roger. “Apartment Block on Headland Road (C) Roger Cornfoot.” Footbridge Wildlife (1), Brown Rat (C) Cameraman :: Geograph Britain and Ireland. Accessed June 01, 2018. https://www.geograph.org.uk/photo/5747984.

Figure 5.
Nyttend. “File:Mark at Durham One Apartments.jpg.” Wikimedia. November 2017. Accessed June 1, 2018. https://commons.wikimedia.org/wiki/File:Mark_at_Durham_One_Apartments.jpg.

Map 8.3a

“Coralville Businesses Are Well-Mixed And Provide A High Employment Rate”
Bridget Hake

Figure 1.
Boundary Map of Coralville, Iowa [Map]. (2018). In MapTechnica. Retrieved May 30, 2018, from https://www.maptechnica.com/city-map/Coralville/IA/1916230.

Figure 2.
Coralville, IA. (2016). Retrieved May 30, 2018, from https://datausa.io/profile/geo/coralville-ia/#category_occupations.

Figure 3.
Hake, Bridget. 2018. “Occupation Table.” Kansas State University, LAR646 2018. Excel Table.

Map 8.3b

“Businesses Largely Separated From Residential Areas Force Daily Commute”
Bridget Hake

Figure 1.
Boundary Map of Coralville, Iowa [Map]. (2018). In MapTechnica. Retrieved May 30, 2018, from https://www.maptechnica.com/city-map/Coralville/IA/1916230.

Figure 2.
Coralville, IA. (2016). Retrieved May 30, 2018, from https://datausa.io/profile/geo/coralville-ia/#category_occupations

Map 8.3c

“The Southeast Commercial District Envisioned as Mixed-Use”
Bridget Hake

Figure 1.
Boundary Map of Coralville, Iowa [Map]. (2018). In MapTechnica. Retrieved May 30, 2018, from https://www.maptechnica.com/city-map/Coralville/IA/1916230.

Figure 2.
Hake, Bridget. 2018. “Mixed-Use Diagram.” Kansas State University, LAR646 2018. Illustrator Diagram.

Figure 3.
Hake, Bridget. 2018. “Mixed-Use Housing Example Diagram.” Kansas State University, LAR646 2018. Illustrator Diagram.

Figure 4.
Hake, Bridget. 2018. “Mixed Streets.” Kansas State University, LAR646 2018. Photoshop Diagram.

Map 8.4a

“Overall, Existing Structures within the Southeast Commercial District are Rated “Low””
Logan Baker

Figure 1.0.
Baker, Logan. “Southeast Commercial District Structure Ratings.” Kansas State University LAR 646 2018. Map created with Adobe Photoshop and Adobe Illustrator. Source Data:

- Google Earth, Coralville, IA
- Arc GIS, Johnson County, IA, “World Streets”, “Buildings_Composite”
- Pumphrey, Jared T. “The Exchange: Reprogramming Vacant Built Landscapes To Increase Social Equity and Create Identity.” 2012, 75-78. Accessed June 8, 2018. https://krex.k-state.edu/dspace/handle/2097/13693.

Figure 2.0.
Baker, Logan. “Percentages of “Low”, “High”, and “Perceived High” buildings within the Study Area”. Kansas State University LAR 646 2018. Map Created with Adobe Photoshop and Adobe Indesign. Source Data:

- Google Earth, Coralville, IA
- ArcGIS, Johnson County, IA, “Buildings_Composite”
- Pumphrey, Jared T. “The Exchange: Reprogramming Vacant Built Landscapes To Increase Social Equity and Create Identity.” 2012, 75-78. Accessed June 8, 2018. https://krex.k-state.edu/dspace/handle/2097/13693.

Table 1.0.
Baker, Logan. "Description of the Pumphrey-Brand Rating System (2012)." Kansas State University LAR 646 2018. Table Created with Adobe Indesign. Source Data:

- Pumphrey, Jared T. "The Exchange: Reprogramming Vacant Built Landscapes To Increase Social Equity and Create Identity." 2012, 75-78. Accessed June 8, 2018. https://krex.k-state.edu/dspace/handle/2097/13693.

Map 8.4b

"Many Existing Buildings within the District Do Not Contribute to Placemaking"
Logan Baker

Figure 1.0.
Baker, Logan. "Building Condition Impacts on Overall Character and Civic Space." Kansas State University LAR 646 2018. Map created with Adobe Photoshop and Adobe Illustrator. Source Data:

- Google Earth, Coralville, IA
- Arc GIS, Johnson County, IA, "World Streets", "Buildings_Composite".
- Pumphrey, Jared T. "The Exchange: Reprogramming Vacant Built Landscapes To Increase Social Equity and Create Identity." 2012, 75-78. Accessed June 8, 2018. https://krex.k-state.edu/dspace/handle/2097/13693.

Figure 2.0.
Baker, Logan. "Evidence of Care Diagram". Kansas State University LAR 646 2018. Map created with Adobe Photoshop and Adobe Illustrator. Source Data:

- Google Earth, Coralville, IA
- Arc GIS, Johnson County, IA, "World Streets", "Buildings_Composite".
- Belanger, Blake. Conversation on 5/30/2018 on accepted planning terminology in regards to "Evidence of Care" and "Evidence of Neglect".

Figure 3.0.
Baker, Logan. "Evidence of Neglect Diagram." Kansas State University LAR 646 2018. Map created with Adobe Photoshop & Adobe Illustrator. Source Data:

- Google Earth, Coralville, IA
- Arc GIS, Johnson County, IA, "World Streets", "Buildings_Composite".
- Belanger, Blake. Conversation on 5/30/2018 on accepted planning terminology in regards to "Evidence of Care" and "Evidence of Neglect".

Figure 4.0.
Baker, Logan. "Evidence of Services Diagram." Kansas State University LAR 646 2018. Map created with Adobe Photoshop & Adobe Illustrator. Source Data:

- Google Earth, Coralville, IA
- Arc GIS, Johnson County, IA, "World Streets", "Buildings_Composite".
- Belanger, Blake. Conversation on 5/30/2018 on accepted planning terminology in regards to "Evidence of Care" and "Evidence of Neglect".

Map 8.4c

"Phasing Strategies can Prevent Displacement of Southeast Commercial District Business"
Logan Baker

Figure 1.0,
Baker, Logan. "Phasing Strategy Map." Kansas State University LAR 646 2018. Map created with Adobe Photoshop and Adobe Illustrator. Source Data:

- Google Earth, Coralville, IA
- ArcGIS, Johnson County, IA, "World Streets", "Buildings_Composite".
- Houseal Lavigne Associates. "City of Coralville, Iowa Community Plan." Coralville.org. March 2014. Accessed June 8, 2018. https://www.coralville.org/DocumentCenter/View/3219/Coralville-Community-Plan-2014_Part-1.

Table 1.0.
Baker, Logan. "Phases 1,2, and 3 of the Southeast Commercial District Phasing Strategy." Kansas State University LAR 646 2018. Created with Adobe Indesign. Source Data:

- Google Earth, Coralville, IA
- Houseal Lavigne Associates. "City of Coralville, Iowa Community Plan." Coralville.org. March 2014. Accessed June 8, 2018. https://www.coralville.org/DocumentCenter/View/3219/Coralville-Community-Plan-2014_Part-1.

Figure 2.0.
Baker, Logan. "Retention of Existing Businesses during Development." Kansas State University LAR 646 2018. Created with Adobe Photoshop and Adobe Illustrator. Source Data:

- Houseal Lavigne Associates. "City of Coralville, Iowa Community Plan." Coralville.org. March 2014. Accessed June 8, 2018. https://www.coralville.org/DocumentCenter/View/3219/Coralville-Community-Plan-2014_Part-1.

Map 8.5a

"Online Reviews Reveal Public Opinion of Local Businesses"
Spencer Sanders

Figure 1.
Sanders, Spencer. "Number of Reviews of Local Businesses." Kansas State University LAR 646 2018. Map created with Adobe

Photoshop and Adobe Illustrator.

- Hahn, Howard. Kansas State University LAR 646 2018. Base map created with ArcGIS: "Johnson County GIS"
- "Facebook." n.d. Accessed July 10, 2018. https://www.facebook.com/
- "Google Reviews." n.d. Accessed July 10, 2018. https://www.google.com/webhp?hl=en&sa=X&ved=0ahUKEwiE2bC8qJXcAhVSRK0KHWYgDDEQPAgD
- "Yelp." n.d. Yelp. Accessed July 10, 2018. https://www.yelp.com/

Figure 2.
Sanders, Spencer. "Review Ratings for Local Businesses." Kansas State University LAR 646 2018. Map created with Adobe Photoshop and Adobe Illustrator.

- Hahn, Howard. Kansas State University LAR 646 2018. Base map created with ArcGIS: "Johnson County GIS"
- "Facebook." n.d. Accessed July 10, 2018. https://www.facebook.com/
- "Google Reviews." n.d. Accessed July 10, 2018. https://www.google.com/webhp?hl=en&sa=X&ved=0ahUKEwiE2bC8qJXcAhVSRK0KHWYgDDEQPAgD
- "Yelp." n.d. Yelp. Accessed July 10, 2018. https://www.yelp.com/

Map 8.5b

"Dispersed Key Businesses Pose Development Issue"
Spencer Sanders

Figure 1.
Sanders, Spencer. "Intermingled Levels of Public Opinion." Kansas State University LAR 646 2018. Map created with Adobe Photoshop and Adobe Illustrator.

- Hahn, Howard. Kansas State University LAR 646 2018. Base map created with ArcGIS: "Johnson County GIS"
- "Facebook." n.d. Accessed July 10, 2018. https://www.facebook.com/
- "Google Reviews." n.d. Accessed July 10, 2018. https://www.google.com/webhp?hl=en&sa=X&ved=0ahUKEwiE2bC8qJXcAhVSRK0KHWYgDDEQPAgD
- "Yelp." n.d. Yelp. Accessed July 10, 2018. https://www.yelp.com/

Figure 2.
Sanders, Spencer. "High Public Opinion." Kansas State University LAR 646 2018. Map created with Adobe Photoshop and Adobe Illustrator.

- Hahn, Howard. Kansas State University LAR 646 2018. Base map created with ArcGIS: "Johnson County GIS"
- "Facebook." n.d. Accessed July 10, 2018. https://www.facebook.com/
- "Google Reviews." n.d. Accessed July 10, 2018. https://www.google.com/webhp?hl=en&sa=X&ved=0ahUKEwiE2bC8qJXcAhVSRK0KHWYgDDEQPAgD
- "Yelp." n.d. Yelp. Accessed July 10, 2018. https://www.yelp.com/

Figure 3.
Sanders, Spencer. "Moderate Public Opinion." Kansas State University LAR 646 2018. Map created with Adobe Photoshop and Adobe Illustrator.

- Hahn, Howard. Kansas State University LAR 646 2018. Base map created with ArcGIS: "Johnson County GIS"
- "Facebook." n.d. Accessed July 10, 2018. https://www.facebook.com/
- "Google Reviews." n.d. Accessed July 10, 2018. https://www.google.com/webhp?hl=en&sa=X&ved=0ahUKEwiE2bC8qJXcAhVSRK0KHWYgDDEQPAgD
- "Yelp." n.d. Yelp. Accessed July 10, 2018. https://www.yelp.com/

Figure 4.
Sanders, Spencer. "Low Public Opinion." Kansas State University LAR 646 2018. Map created with Adobe Photoshop and Adobe Illustrator.

- Hahn, Howard. Kansas State University LAR 646 2018. Base map created with ArcGIS: "Johnson County GIS"
- "Facebook." n.d. Accessed July 10, 2018. https://www.facebook.com/
- "Google Reviews." n.d. Accessed July 10, 2018. https://www.google.com/webhp?hl=en&sa=X&ved=0ahUKEwiE2bC8qJXcAhVSRK0KHWYgDDE-QPAgD
- "Yelp." n.d. Yelp. Accessed July 10, 2018. https://www.yelp.com/

Figure 5.
Sanders, Spencer. "Public Opinion Chart." Kansas State University LAR 646 2018. Table created with Microsoft Excel and Adobe Photoshop.

Map 8.5c

"Potenial Phasing Plan Would Allow for Housing Residents to Remain on Site"
Spencer Sanders

Figure 1.
Sanders, Spencer. "Phasing Map of SE Commercial District." Kansas State University LAR 646 2018. Map created with Adobe Photoshop and Adobe Illustrator.

- Hahn, Howard. Kansas State University LAR 646 2018. Base map created with ArcGIS: "Johnson County GIS"
- "Facebook." n.d. Accessed July 10, 2018. https://www.facebook.com/
- "Google Reviews." n.d. Accessed July 10, 2018. https://www.google.

com/
webhp?hl=en&sa=X&ved=0ahUKEwiE2bC8qJXcAhVSRK0KHWYgDDE-QPAgD

- "Yelp." n.d. Yelp. Accessed July 10, 2018. https://www.yelp.com/

Map 8.6a

"Bus Stops Near Affordable Housing are Important "

Julie Benyshek

Figure 1.
Benyshek, Julie. "Location of Service Types Near Coralridge: Hampton Apartments." Kansas State University LAR 646 2018. Map created with Adobe Photoshop and Adobe Illustrator.

- Google Earth, Coralville, IA

Figure 2.
Benyshek, Julie. "Location of Service Types Near Coralridge: Senio¬ ¬r Apartments." Kansas State University LAR 646 2018. Map created with Adobe Photoshop and Adobe Illustrator.

- Google Earth, Coralville, IA

Figure 3.
Benyshek, Julie. "Archer Courts." Kansas State University LAR 646 2018. Map created with Adobe Photoshop and Adobe Illustrator.

- Google Earth, Chicago, IL

Figure 4.
Benyshek, Julie. "Near North SRO." Kansas State University LAR 646 2018. Map created with Adobe Photoshop and Adobe Illustrator.

- Google Earth, Chicago, IL

Figure 5.
Benyshek, Julie. "Mozingo Place." Kansas State University LAR 646 2018. Map created with Adobe Photoshop and Adobe Illustrator.

- Google Earth, Indianapolis, IN

Map 8.6b

"SE Commercial District Offers Numerous Nearby Service Types Benefitting Affordable Housing"

Julie Benyshek

Figure 1.
Benyshek, Julie. "Types of Services Available Near Southeast Commercial District." Kansas State University LAR 646 2018. Map created with Adobe Photoshop and Adobe Illustrator.

- Google Earth, Coralville, IA

Figure 2.
File: Hornby. "Person Riding Bike in Bicycle Lane." Digital Image. March 5, 2008. Accessed June 01, 2018. https://www.tastingtable.com/

Figure 3.
File:Food. "Grocery Store that Includes International Foods." Digital Image. May 2, 2012. Accessed June 01, 2018. https://www.tasting-table.com/

Map 8.6c

"North of 2nd Street is Most Suitable for Developing New Affordable Housing"

Julie Benyshek

Figure 1. Benyshek, Julie. "Strategies for Re-Envisioning Southeast Commercial District." Kansas State University LAR 646 2018. Map created with Adobe Photoshop and Adobe Illustrator.

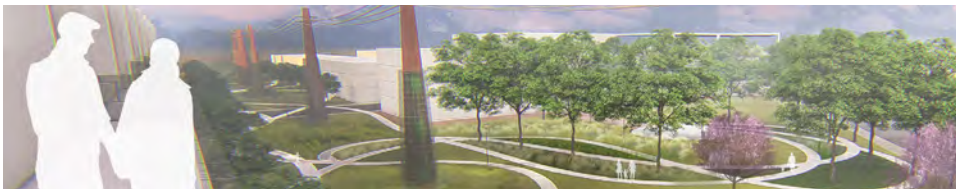
- Google Earth, Coralville, IA

Figure 2.
Benyshek, Julie. "Affordable Housing Connections with Nearby Services." Kansas State University LAR 646 2018. Map created with Adobe Illustrator.

Regional Hub

District 1

Industrial Greenway



Horizontal Flows

Negotiating Boundaries

Strip Zipper

Building Up

Marcos Aleman

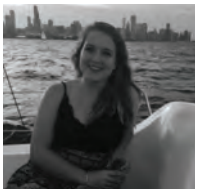
Kate Larkin

Elsa Stoffel

Miles Updike

Josh Barragree

Rachel Cross


Allyssa Gray

Logan Baker

Dani Hodgson

Spencer Sanders

Mackenzie Yeager

Julie Benyshek

Shelby Cooke

Scott Randall

Si Chen

Xingyi Zhong

Harrison Dirks

Caleb Parker

Konner Pendland

Morgan Dunay

Bridget Hake

Grace Mader

Madison Quincke

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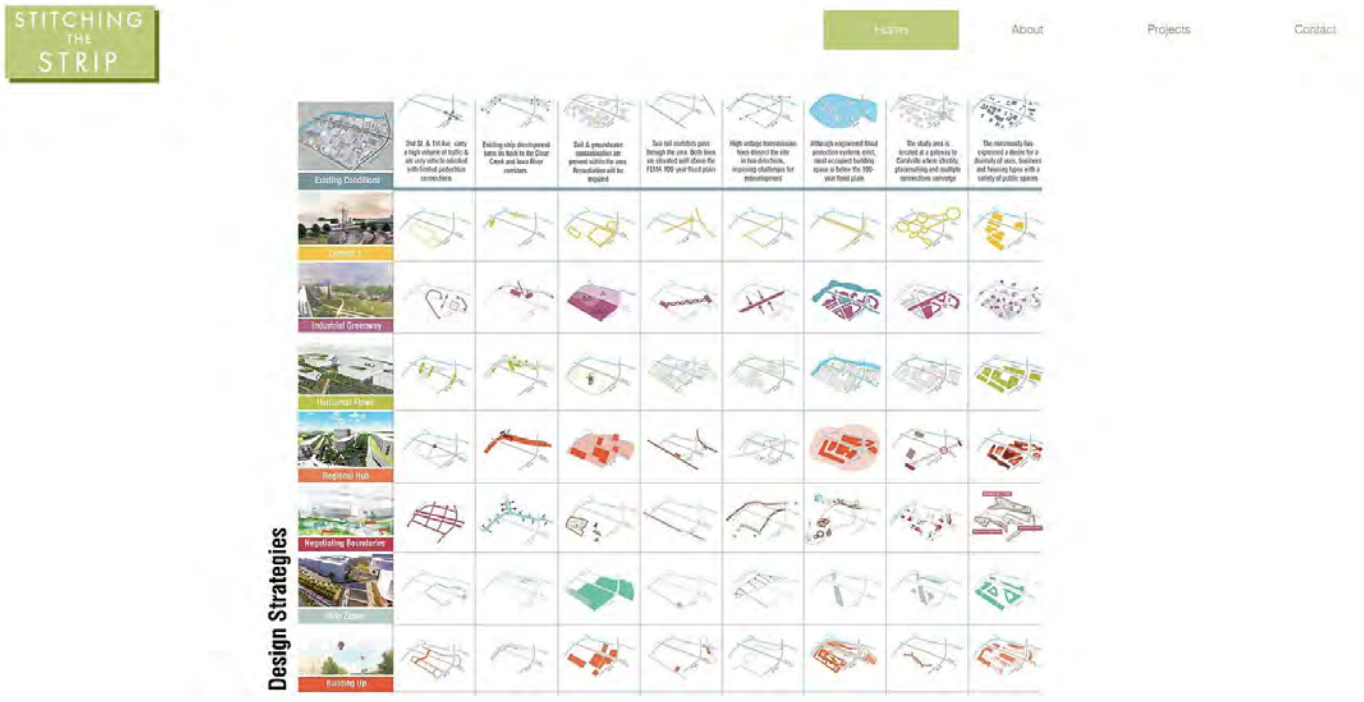
The Homepage

The Dilemmas



Each Team's Work

STITCHING THE STRIP

Home About Projects Contact

FEATURED PROJECTS

STITCHING THE STRIP

REGIONAL HUB

Design Concept

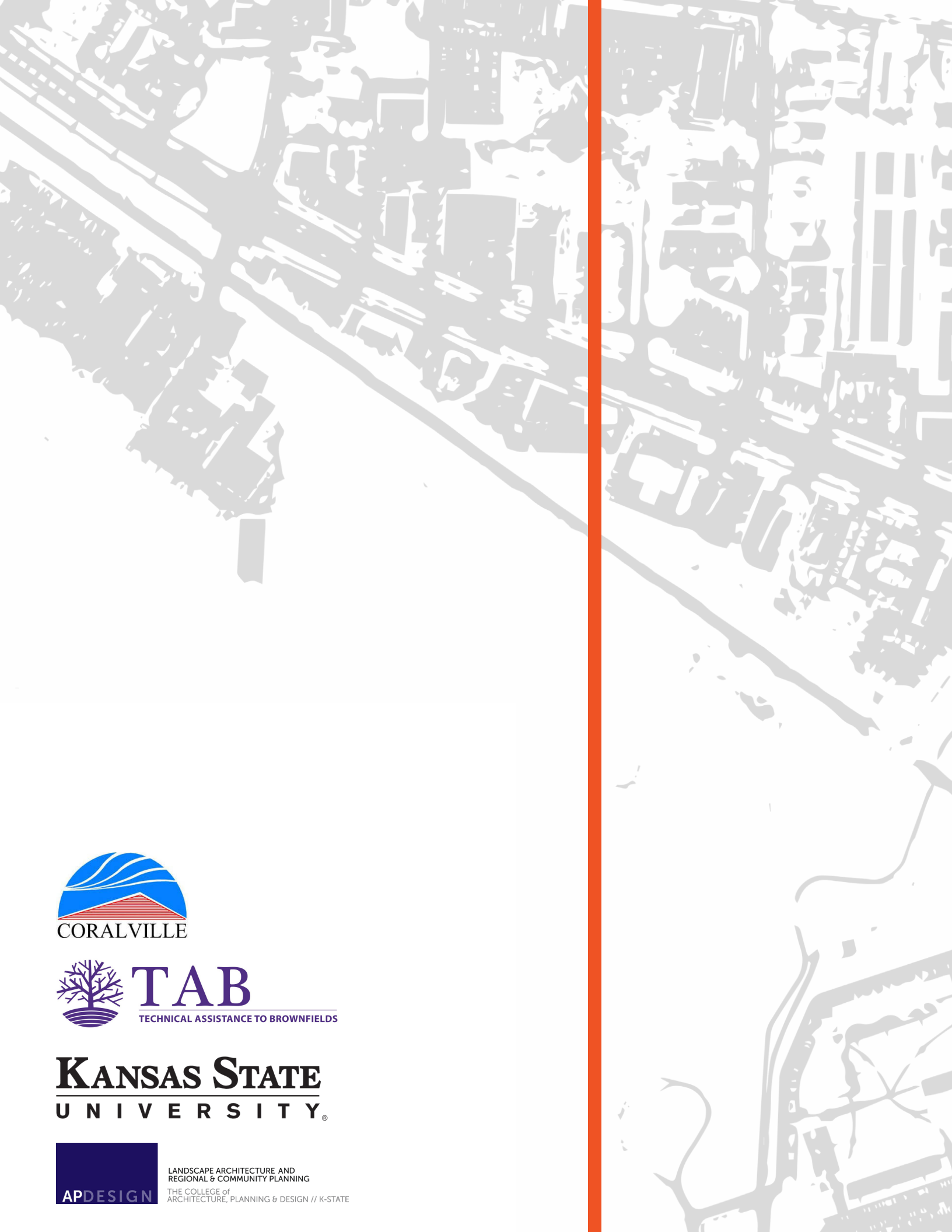
Design Goals

STITCHING THE STRIP

Strip Zippers

Design Concept

Integrating resilience into the southeast commercial district embodies the history of flooding in Coralville while balancing the green space and built infrastructure. Traveling along the north-south axes create a dynamic experience for pedestrians, because it acts as a time line describing periods of development and periods of flooding. The green way functions as both an outdoor space as well as a detention basin in case of extreme storm events. Incorporating a myriad of mixed-use buildings transforms the Southeast Commercial District into an exciting new area within the city of Coralville. Together with the history, the green way, and the mixed-use development, the site will honor its past and move towards its future in a way that embraces the concept of resiliency.



CORALVILLE

TAB
TECHNICAL ASSISTANCE TO BROWNFIELDS

KANSAS STATE UNIVERSITY

APDESIGN
LANDSCAPE ARCHITECTURE AND
REGIONAL & COMMUNITY PLANNING
THE COLLEGE of
ARCHITECTURE, PLANNING & DESIGN // K-STATE