REVERSING THE ISOLATION AND INADEQUACIES OF SKATEPARKS: DESIGNING TO SUCCESSFULLY INTEGRATE SKATEBOARDING INTO DOWNTOWN LURAY, VIRGINIA

by

DANIEL BENJAMIN PENDER

(Under the Direction of Bruce K. Ferguson)

ABSTRACT

Skateboarding has become the fastest rising social sport in America. Historically, this sport tends to attract a stereotyped grungy, nomadic, "pack-oriented" crowd that thrives off of the buzz of performing tricks in urban spaces. Unfortunately, this self-expressive crowd, as well as the destructive nature of the sport, has caused much of the general public to form negative opinions of skateboarding. Because of this, in combination with recent trends to "green up" cities and to accommodate for the sport's increasing popularity, skateboarding (both physically and socially) is being forced to the outskirts of communities where poorly-built, less accessible, and environmentally insensitive skateparks are taking the place of socially rich urban skating environments. This thesis investigates the social/environmental issues associated with isolated and inadequate skateparks and the implications they may have on the future of the sport. Insight gained is applied to a skatepark design for my hometown of Luray, Virginia.

INDEX WORDS: skateparks, skate plaza, skateable art, concrete obstacles, prefab obstacles, Luray, Virginia

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1. INTRODUCTION

> *Skaters by their very nature are urban guerillas: they make everyday use of the useless artifacts of the technological burden, and employ the handiwork of the government/corporate structure in a thousand ways that the original architects could never dream of.*
>
> *-qtd. in Weyland, 2002*

Skateboarding has emerged as America's fastest growing social sport. All across the country, teens and young adults alike have flocked to urban environments for the gnarliest jumps, ramps, and grinds. The sport has become so popular that it has encouraged home videos amongst the skating community and has even been featured in many major films. It is a sport that utilizes the many obstacles that urban settings provide, even though they were not intended to do so. In recent years, to accommodate its extreme popularity and in an attempt to reduce the physical destruction caused by the sport, while also "greening up" cities, more and more designers are constructing skateparks that are located away from downtown urban spaces. As a result, this is causing major accessibility issues to skateboarders, while also detracting from the nomadic, "pack-oriented" style that makes the sport so socially rich.

Since its invention in the late 1940's, skateboarding has become increasingly popular, yet is sometimes seen as a nuisance in many urban settings. This is usually due to the perceived destructive nature of the sport, but also because of the stereotyped grungy, self-expressive population that is attracted to it. However, skaters continue to practice

their tricks, using the plethora of obstacles that the built environment naturally provides. In order to combat this physical destruction and as a way of providing skateboarders with their own purpose-built space, many community planners have chosen to construct community skateparks. The problem is, most planners are siting them away from urban, socially rich spaces and are instead siting them on the outskirts of towns, inadvertently making them difficult for skaters to access. As a result, skaters can no longer walk or skate to the park, but instead must rely on automobiles and others, which can ultimately be a major deterrence. Socially, this is putting a damper on the very foundation of the sport--now, instead of using the city as a playground and social hub, planners have virtually rendered a popular youth culture homeless. Essentially, youth are being forced out of downtown, socially-rich areas, discouraging them from mingling with other community members.

Equally important, many of these skateparks are being inadequately built, lacking many of the physical elements that make a desirable skatepark, while also lacking consideration about their environmental impacts. Unfortunately, most skateparks are built almost solely of grey concrete structures, essentially functioning and appearing as vast, monotonous seas of concrete. Little attention is paid to the aesthetics of the site when, as this thesis outlines, there are many methods that can be employed to make skateparks both more engaging and visually appealing to skaters and passersby.

The purpose of this thesis is to present and analyze these current social, physical, and environmental issues associated with skateboarding that are resulting in poorly designed and located skateparks. Insight gained will be applied to a skatepark design for

my hometown of Luray, Virginia, which is experiencing many of these same problems. It is my hope that this design will serve as a tool to help better integrate skateboarding back into the community. In Chapter 2, a brief background of skateboarding and skating styles will be provided in order to gain a better understanding of the skateboarding subculture. Chapter 3 will discuss the sources of the underlying issues and will also discuss overall implications that these issues may have on the sport and on the profession of landscape architecture. Chapter 4 will outline the evolution of skateparks and skatepark construction. This chapter will also investigate the differences in material choices and will provide insight as to what makes a desirable skatepark. Additionally, this chapter will highlight industry innovators and how they are expanding the possibilities of skatepark construction. The conclusions drawn from these chapters will be applied to the design application in Chapter 5. Finally, in Chapter 6, a summary of this thesis will be provided that analyzes the strengths and limitations of the design and discusses the importance this research has on the future of the sport.

2. SKATEBOARDING & ITS SUBCULTURE

This chapter provides background on the sport of skateboarding. It includes a brief history of skateboarding and its subculture, as well as differences in skateboarding styles. All of these play major roles in the current issues with skateparks.

A Brief History of Skateboarding

In order to understand the current social and environmental issues with skateboarding and skateparks, it is imperative to study the sport's history. According to author and architect Iain Borden (2001), skateboarding was probably born during the late 1940's or early 1950's when surfers in California wanted to be able to mimic the same movements that they experienced on their surfboards, only without having to wait for favorable weather conditions. The solution came in the form of a 4-wheeled scooter (Figure 2.1), connected by a 2x4 with a vertical "pushbar" for steering. The wheels were most often steel skates that had been pulled off of a pair of roller skates and nailed to the bottom of the 2x4. Once the steering "pushbar" contraption was broken off, skateboarding was born. During this time period, in the late 1950's, skateboarding remained a predominately West Coast phenomenon. It was an upper class novelty sport mostly concerned with simply riding downhill and performing rudimentary "ooh and ahh" tricks (Figure 2.2) that seem elementary compared to today's standards. It was something to do for fun besides surfing and was therefore often referred to as "sidewalk surfing." However,

manufacturers were turning out boards by the hundreds, defying safety experts who claimed that the boards were dangerous and unsafe (Weyland, 2002).

Figure 2.1: 1950's Original Skateboard Scooter

Source: www.radicalskatekids.com/history.html

Figure 2.2: Rudimentary Tricks of Early Skateboarding

Source: www.sk8terknowledge.com/History.html

By the early 1960's, surfing manufacturers started assembling and promoting skateboards that were made out of pressed layers of wood, designing them to resemble small surfboards. It was at this time that skateboarding experienced its first major increase in popularity. By 1962, skateboarding had already reached places like Nevada and a few places on the East Coast of the United States, as well as various surf towns of south England and Wales. In late 1964, the first issue of *Skateboarder* magazine appeared, and in 1965, skateboarding gained national television coverage when the International Skateboarding Championships were held in Anaheim, California (Borden, 2001). The growth of the sport was also evident in sales figures, as Makaha, one of the pioneer skateboarding manufacturers, quoted $10 million worth of board sales between 1963 and 1965 (Weyland, 2002). Unfortunately, however, much of the general public viewed skateboards as being little more than a temporary toy fad, similar to that of the hula hoop. Consequently, by 1966 sales dropped dramatically, leaving companies with millions of dollars worth of unsold equipment and forcing *Skateboarder* magazine to cancel publication. This decline in popularity would remain until the early 1970's.

Perhaps the most pivotal era for skateboarding, the early 1970's brought another surge in popularity with the introduction of new technology. Frank Nasworthy, a former engineering student and surfer living in Encinitas, California, pioneered the conversion from clay, open-bearing wheels (Figure 2.3), to ones made from polyurethane hot-poured into moulds and fitted with loose bearings held together by an adjustable cone system (Borden, 2001). This polyurethane wheel system (Figure 2.4) offered substantially more traction than its clay predecessor, allowing for higher speeds and increased wheel longevity. One skater recalled, "…going from clay to urethane plastic wheels was like

moving from a Loda to a Lexus" (qtd. in Borden, 2001, p.18). Interestingly enough, Nasworthy appropriately named his new invention the "Cadillac Wheel." The improvement in traction and performance was so immense that from the point of its release in 1972, the popularity of skateboarding began to rise rapidly again, causing companies to invest more in product development. Ultimately, skateboarders took advantage of the improvements in handling and started inventing new tricks that took them away from simple transport or the emulation of surfing. Skateboarders of the time, such as Ty Page, Bruce Logan, and the Z-Boys (Figure 2.5; so-named because of their affiliation with their local Zephyr surf shop), started skating the vertical walls of swimming pools that were emptied due to the 1976 California drought. Now with increased control, skateboarders could skate faster and began performing more dangerous tricks such as "slash grinds" and "frontside/backside airs." As a result, this caused serious liability concerns and increased insurance costs to skatepark owners, ultimately leading to many park closures. In order to continue skating, skateboarders were forced to begin making their own ramps, thus leading to yet another decline in popularity by the early 1980's (Borden, 2001).

Figure 2.3: Original Clay Wheels

Source:

http://skateandannoy.com/tag/60s/

Figure 2.4: Polyurethane "Cadillac Wheels"

Source:

http://skateandannoy.com/tag/60s/

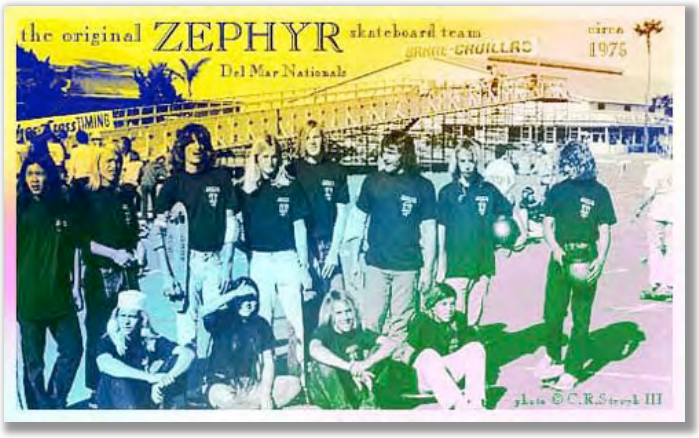


Figure 2.5: Original Zephyr Skateboard Team ("Z-Boys") of Venice, CA

Source: www.vinylodesign.com/blog.htm

By the mid 1980's, skateboarding was entering its third boom, fueled mainly by skateboard companies that were run by the popular skaters of the 1970's. The invention of new boards and tricks meant that vertical ramps were now becoming more popular.

However, because most people did not have access to nearby ramps and could not afford to build their own, street skating gained popularity (Borden, 2001). With most skaters having a freestyle mentality, it was during this time that many of the basic tricks of modern street skating such as the "kickflip" were invented (Hawk & Mortimer, 2000). It was also during this period that skateboarding first became marketable via Video Home System (VHS). Popular 1970's skaters such as Stacy Peralta (member of the infamous Z-boys team in Venice, CA) created skate teams consisting of younger, rising skateboarders. Most notably, Peralta's "Bones Brigade" team began producing skateboarding videos that would set the tone for tricks, attitude, music, culture, and even clothing throughout the skateboarding world. A few years later, in the late 1980's, it was evident that skateboarding was evolving to accommodate the street skater. At this time, few public skateparks were available to skaters, so street skating pushed skateboarders to seek out shopping centers and public and private property to claim as their "spot" to skate. Most importantly, public opposition and threats of lawsuits began forcing businesses and property owners to ban skateboarding on their property (Borden, 2001). Once again, skateboarding popularity fell in the early 1990's.

Dominated by street skaters, skateboarding started to grow again in popularity during the mid 1990's, but this time with even more of a raw, edgy, and dangerous attitude. This mentality coincided with the rise of more angry punk music and the general discontent with the current social system at that time, producing the current image of the poor, angry skater punk (Borden, 2001). Interestingly enough, however, this only helped to fuel skateboarding's popularity. In 1995, ESPN held the first ever Extreme Games in Rhode Island, showcasing extreme sports such as BMX biking, motocross racing,

rollerblading, surfing, and skateboarding. The event was a huge success and helped bring skateboarding closer to mainstream and closer to being accepted among the general population.

Since 2000, media, video games, and commercialization have pulled skateboarding more and more into the mainstream. Popular skateboarders such as Tony Hawk and Shaun White have made it obvious that skateboarding can be a very lucrative sport. Some benefits of this are that skaters are now more accepted, and the assumption that all skaters are criminals is slowly being torn down. Most importantly, with more and more money being invested in skateboarding, there are better skateboards, more skateparks, and companies to keep innovating and inventing new things.

Currently, more than ever before, teens and adults alike all around the world are flocking to the streets to try their hands at skateboarding, continuously taking the sport to new levels. In 2004, "Go Skateboarding Day" was created by a group of skateboarding companies to globally promote the sport—it is now celebrated every year on June 21st. Even the United States military has tested the usefulness of commercial off-the-shelf skateboards (Figure 2.6) during urban combat military exercises to maneuver inside buildings in order to detect tripwires and sniper fire (Noll, 2003).

Figure 2.6: Military Use of Skateboards

Source: http://skateboard.about.com/b/2008/11/10/skateboarding-in-the-military.htm

No one really knows where skateboarding will go from here. It continues to evolve, with skaters coming up with new tricks all the time. Over the past decade, the industry has grown and flourished without experiencing a major recession like those seen by previous generations (Noll, 2003). Skateparks, a scarce commodity in the mid 1990's, now exist in both small and large communities throughout North America and Europe. Skateboarding has always been about pushing the limit, and it is quite obvious that skateboarders alone will determine where the sport will go.

Street Skateboarding versus Vert Skateboarding

Since the inception of skateboarding in the 1950's, two main riding styles have become dominant: street skateboarding and vertical (vert) skateboarding. Today, most skateparks include elements that appeal to both riding styles. In order to understand my

design decisions for the skatepark presented in this thesis, it is important to understand the components of both.

Vert skateboarding is a term used to denote competitions held on a vertical (vert) ramp. This style has historically been the predominant riding style in both the professional and amateur scenes until the early 1990's. Vert skateboarding was first made popular by revolutionary young Californian skateboarders of the 1970's, who would raid empty swimming pools and skate them for their vertical walls. Typical vert skating allows competitors to fly into the air off of a ramp and land back on it. The time in the air allows competitors to perform difficult tricks such as flips and spins that would otherwise be impossible. Traditional vert ramps used are quarter pipes, half pipes (Figure 2.7), bowls, or any combination thereof (Hawk & Mortimer, 2000). Today, even though it has become less popular, vert skateboarding is still heavily featured in competitions such as the annual ESPN X Games.

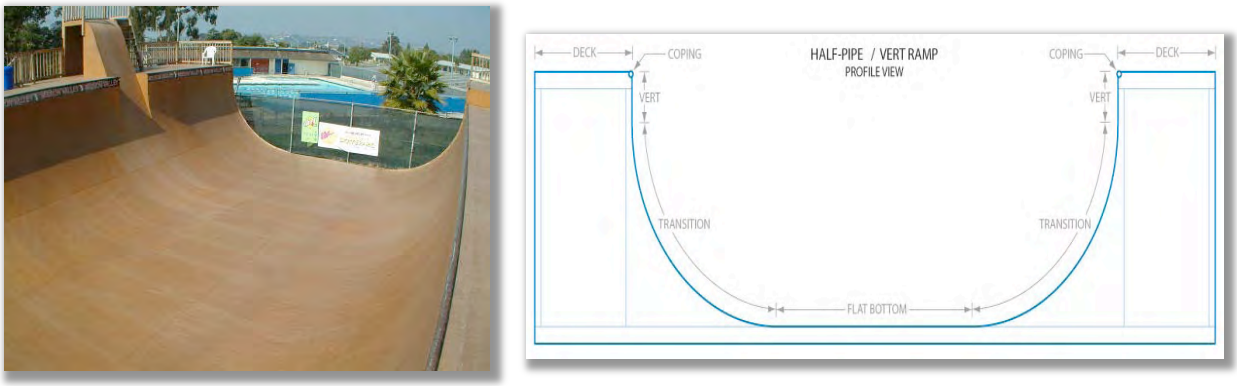


Figure 2.7: Half-pipe Vert Ramp and Profile

Source: http://blog.benjarriola.com/2005/08/; http://en.wikipedia.org/wiki/Vert_ramp

Street skateboarding began in the early 1980's when skateboarding was almost dead. As Rhyn Noll (2003) writes, "It was a time when no professional could make a living by skating alone" (p. 87). The professional scene and the magazines that covered it were dominated by vert skateboarding. Therefore, all street contests, videos, and companies were forced to remain "underground." A few skaters, however, such as Mark Gonzales and Natas Kaupas, were beginning to get creative with variations of vert and freestyle tricks on public terrain. Using VHS tapes as a marketing media, these skaters were broadcasting to the world their innovative tricks such as the ollie (leaping into the air and bringing the board into the air without using their hands), handrail boardslide, and freestyle flip maneuvers. Because of this, street skating progressed to an extraordinary pace throughout the early 1990's, becoming the most dominant riding style among amateurs and professionals alike (Borden, 2001). Higher forms of mainstream media such as the ESPN X Games continued to bring street skateboarding to all time highs. In fact, today, an X Games favorite is the "street" contest consisting of a course of rails, ramps, and banks.

Street skateboarding consists heavily of handrail and large stair skating (Figure 2.8). Skaters first began this in the mid 1980's by grinding on handrails and evolving it throughout the 1990's to include technical flip and grind tricks. These tricks are now the staple for young skaters in professional street skating as well as competitions and demos. Currently, random banks and oddly shaped structures are becoming more popular among street skateboarders (Borden, 2001).

Figure 2.8: Stair & Handrail Skateboarding

Source:
http://photocomp.skateboardphotography.com/gallery_final/source/skateboarding_street2.htm; www.ehow.com/videos-on_1911_do-boardslide_-skateboard-tricks.html

In order to accommodate both types of skaters, my skatepark design includes elements that appeal to both vert and street skateboarding. Chapter 4 will further elaborate on the specifics of street/vert skateboarding and skatepark experiences.

Subculture

To understand how to best appeal to skateboarders and in order to produce the best possible skatepark design, I find it very important to understand the subculture of skateboarding. There is a definite self-expressive mentality and a certain rebellious attitude that is historically shared amongst skateborders. Consequently, in order to attempt to keep skateboarding "alive" in my design and not force it away from its grungy, pack-oriented origins, it is imperative to know who skateboarders really are.

As previously stated, skateboarding first originated from the culture of surfing. However, as it spread across the United States to places that were unfamiliar with surfing or surf culture, it developed an image of its own. Iain Borden (2001) writes that, "Skateboarding, like other subcultures, attempts to separate itself from groups…to be oppositional, appropriative of the city, irrational in organization, ambiguous in constitution, independently creative, and exploitative of its marginal status" (p. 137). Ever since skateboarding experienced its first boom in the 1970's, the image of a skateboarder has been one that is rebellious and non-conforming. The West Coast pioneers such as the Z-Boys of Venice Beach, California, portrayed a definite rejection of society and family that was caught on camera and displayed for the world to see in international magazine publications. Images of long-haired, grungy teens with holes in their jeans (Figure 2.9), who had just trespassed in order to skate an empty family swimming pool, set the standard for subsequent followers. It is even said that, in contests, skaters displayed their rebellious nature by pinning their numbers so they were difficult to read (e.g., upside down or at the very bottom of the shirt) (Beal, 1998). When asked to sum up the culture of skateboarding, one skateboarder of the era responded, "Skaters have a completely different culture from the norms of the world's society. We dress differently, we have our own language, use our own slang, and live by our own rules" (Maeda, 1991, p. 17).

Figure 2.9: "Z-Boys" of California in the 1970's Set the Standard for Skateboarding Image

Source: www.rockersnyc.com/blog/2008/06/

Throughout the 1980's, this image of rebellion and non-conformity was strengthened by the use of movies and VHS. Skate teams such as Stacy Peralta's (legendary 1970's Zephyr team member) "Bones Brigade" released popular mainstream videos that gave the world a further look into the life of a skateboarder. Often surrounded by images of skulls, semi-naked women, and set to the soundtrack of heavy metal music, it became very evident that skateboarders were (and still are) graphic by nature (Figure 2.10). T-shirts, leather jackets, board decorations, and graffiti covered in non-realist, cartoony images and slogans all displayed the artistic affinity that most skateboarders possess even today (Borden, 2001).

Figure 2.10: Marketing Logo & Prevalent Image of Skateboarders in the 1980's

Source: http://sesper.blogspot.com/2009/03/sesper-fave-audio-files-5-bones-brigade.html; www.outlookskates.com/my_OutLookCollection.htm

As street skateboarding and punk rock music became more popular in the 1990's, skaters began leaving their marks in the street, both physically and socially. Cities and other urban environments started to become literal playgrounds for skateboarders to explore. Skating in packs, claiming and personalizing urban sites as their own "skate spots," skaters began to appear as loiterers and nuisances to the general public. This was, without a doubt, a major stimulus for the creation of skateparks—the goal being to deliberately segregate skateboarders from the rest of society. More importantly, amongst the majority of non-skaters, there began to arise a sense of perceived danger from skateboarders. It was thought that skate spots and skateparks were nothing more than breeding grounds for drugs and violence created by these youths in revolt (Borden, 2001). As the next chapter will elaborate, this has caused major problems within communities when deciding whether or not to install skateparks.

In recent years, however, the image of the skateboarder as a rebellious, non-conforming youth has begun to fade (Figure 2.11). Many cities still oppose the building of skate parks in their neighborhoods for fear of increased crime and drugs in the area, but there is now a distinct difference between the old images of skateboarding and the new ones. Author Jocko Weyland (2002) writes that magazines such as *Thrasher* portray skateboarding as dirty, rebellious, and still deeply tied to punk, while other publications such as *Transworld Skateboarding* paint a more diverse and controlled picture of skateboarding. More importantly, as more professional skaters use reggae, hip hop, and even hard rock music to accompany their music videos, many urban youths, hip-hop fans, and hard rock fans are also drawn to the sport, diluting its punk image. Additionally, popular video games and films such as *Grind* and *Lords of Dogtown* have helped improve the reputation of skateboarding youth by depicting them as having a positive outlook on life and having harmless fun while engaging in healthy competition. In fact, most publications today illustrate the sport as being full of respect—one in which egos and hostility towards fellow skateboarders are generally frowned upon.

Figure 2.11: Common Image of a Current Skateboarder

Source: http://blog.seattlepi.com/thebigblog/category.asp?category=826&page=23

As for the specific demographics of the skateboarding subculture-- most recent studies (in 2001 and 2002) report that there were 18.5 million skateboarders in the world. Of the skateboarders polled who had used a board in the last year, 85 percent were under the age of 18 and 74 percent were male (Fetto, 2002). Another popular study of three major European skate spots illustrated that 80 percent of skateboarders were in the age range of 11-22, with nearly 60 percent in the range of 15-22. More specifically, 52 percent of the population were in school, 23 percent were in college/university, 13 percent were employed, and 9 percent were unemployed (Woolley & Johns, 2001). Finally, according to the Action Sports Foundation (2009), skateboarding is currently the third largest sport between the ages of 6-18. During the last 10 years, no sport has had a larger increase in participation among users age 7 and older. It is expected that more than 9.3 million skateboarders will take to the streets in the United States this year.

3. DEFINING THE PROBLEM

This chapter discusses the current social, physical, and environmental issues associated with skateboarding that result in poorly designed and located skateparks. These issues fuel my enthusiasm to design a skatepark in my hometown of Luray, Virginia, so that it does not fall prey to the same problems. Finally, this chapter will discuss the overall implications that these issues may have on the sport as well as on the profession of landscape architecture.

Social Stereotype

> *Please stop viewing us a totally negative race of people. The few people who have come up and watch us skate and spoken to us know that we are nice, educated, and intelligent.*
>
> -K. Maeda, 1991

As alluded to in the previous chapter, street skateboarders exploring the city have become a familiar sight in contemporary urban landscapes. In order to continue challenging themselves, skaters will spend a lot of time exploring the city to find perfect skate "spots." Many will travel around the outskirts of a city, exploring and utilizing old industrial sites, estates, or any other hardscape that may contain exciting slopes or obstacles. Others stay in suburbia, in their local streets, parks, or shopping centers. However, many skaters have moved into the heart of our cities (more opportunities and concentrated social spaces) to practice their sport in the plazas and squares of the

commercial and retail center (Woolley & Johns, 2001). Unfortunately, because of this nomadic nature, exploring and claiming one skate spot after another, the majority of skateboarders are often inaccurately seen as habitual loiterers and public nuisances.

The mentality of street skateboarders is quite different from practitioners of most other sports-- skateboarders prefer hard, urban spaces for their recreation, unlike many of their teenage peers, who value open, natural spaces to be alone and find refuge (Owens, 1988). More importantly, the sport itself is not treated as a team effort; there are no rules or regulations, there is no time limit, and there is certainly no formal structure. Consequently, there is a large amount of just "getting together" and "hanging out" without much focus on "doing" (Figure 3.1). This has, unfortunately, caused skateboarding to become especially annoying to white-collar workers and business owners who enjoy using the same spaces within the urban core. Building owners and managers are annoyed because skateboarders occupy and "claim" urban spaces without engaging in any economic activity—

> …they come in, take over, and put in their makeshift ramps made of patchwork wood and salvaged metal. Furthermore, the repetitive cracks and grinds when the skateboarder engages with the ramp creates a sound pattern more akin to that of a construction site than that of a place of business. (qtd. in Borden, 2001, p. 163)

As a result, skaters are simply seen as trespassing vandals of the urban infrastructure who invade and "infect" popular social spots, rendering them useless to their customers and the rest of the general public. What most people do not realize is that skaters typically inhabit these public spaces at times when they would otherwise be uninhabited and have no other use, and in doing so create a meaning for that space (Woolley & Johns, 2001). In fact, Becky Beal (1998) reports an instance in which a popular restaurant owner in Europe demanded

that skateboarders be banned from skating in front of his business. He believed that they were a visual deterrent and were intimidating to his clientele. Once they were removed, the restaurant ironically became less popular and sales dropped dramatically. Upon further investigation, it was actually found that the activity and liveliness brought by skaters during peak hours is what made the site so appealing to his customers. Many proponents of the sport who have conducted research believe that, as author Jane Jacobs (1993) writes, "Skateboarders can, and do, have a positive part to play in our cities. They inject youth and dynamism into the city, challenging accepted definitions of space and social logic and redefining what we understand the city to mean" (p. 193). It is my hope that in the future, through better design, others will realize this as well and there will be fewer cases of criminalizing and banning skateboarding.

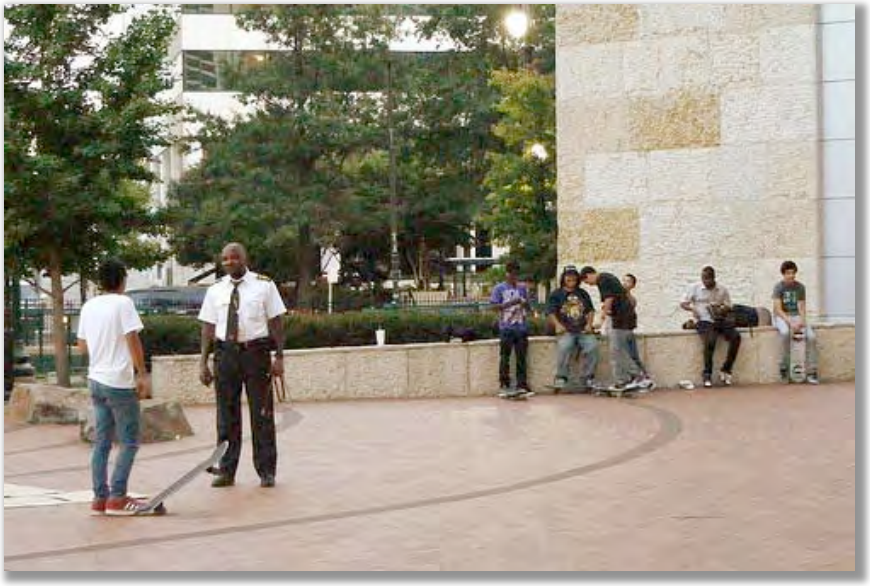


Figure 3.1: Loitering Skateboarders Confronted in a City Plaza

Source: www.justupthepike.com/2009/10/those-who-use-downtowns-pocket-parks.html

When it comes to the outward appearance of skateboarders, there has been a historical trend for participants to be quite artistic and expressive. Dating back to the Z-boys of Venice Beach, California, in the 1970's, the typical accepted look of a skateboarder tends to be a more grungy, dynamic façade that usually garners attention (Figure 3.2). It is, therefore, very unfortunate that in today's society, most skateboarders are viewed as being rebellious and destructive (Declaration, 2001). Many older members of the public especially feel strongly about them, saying, "Well, they're just little vandals aren't they"(qtd. in Woolley & Johns, 2001, p. 226)! It does seem true that most people do not understand skateboarders, and due to their lack of comprehension categorize them the same as they would beggars, vandals, drunks and other "street" people. This is ironic, since most skateboarders found in city centers are actually from middle class families: "A good skateboard costs about $180. Not cheap at all," and "…if you're really good, like some of the skaters, you'll go through one a month, or something like that…it can be an expensive sport" (qtd. in Woolley & Johns, 2001, p. 226)! As for conduct, studies have shown that, for the most part, skateboarders concede to the demands of residents, shopkeepers, or police and look for a place or a time that others have little interest in. And, while many skaters still consider inner-city places to be the most "attractive," they typically find refuge in places where no one else would want to go and are left alone to have the freedom to do as they please (Karsten & Pel, 2000). In fact, much research has shown that they generally use their adopted spaces "after hours" when no one else is around, or stay longer in an urban plaza as others hurry through, which can have the positive effect of policing the space, being the eyes of the street and making it safer for others (Jacobs, 1993). The bottom line is, the popular press has exaggerated the issue and painted a bleak picture of

skateboarders, ultimately leading to a false sense of perceived danger among the general public.

Figure 3.2: Common Dynamic, Expressive Skateboarder
Source: www.flickr.com/photos/43837962@N00/2754474257

All of these social issues make up one of the major reasons that skateparks are so controversial among community members and is a major component in the skatepark dilemma. City planners are increasingly feeling the need to rid urban spaces of skateboarders who are perceived as loiterers terrorizing pedestrians who are trying to walk to work. Their solutions—effectively outlaw skateboarding in the wider urban environment and contain skaters within purpose-built skateparks-- further remove them from the urban grid. On the other hand, when planners mention the idea of installing a community skatepark, local residents feel that the park may become a hub of loitering and

dangerous activity and often times are very opposed to the idea (Freeman and Riordan, 2002). In reality, studies have shown that skateboarders and skateparks are extremely safe, normal, and often times family-oriented parks that people of all ages, races, and genders take advantage of to simply take part in a pleasurable activity (Howell, 2008). People (more specifically, non-skaters, planners, designers, etc.) are, as a whole, blinded by image and inaccuracies in perception and have therefore had an overall detrimental impact on the way skateparks are being designed and situated.

Physical Damage

> *People don't understand us—they think we're vandals—we don't go out of our way to damage stuff, we're just using it. We enjoy the stuff that nobody else even notices. What's wrong with that?*
>
> -qtd. in Woolley & Johns, 2001

Another more obvious criticism of skateboarding is the physical damage that it inflicts. Typical activities include grinding on benches, planter/retaining walls, handrails, jumping signs and planter boxes-- all of which take their toll on the structural integrity of the material. With repeated abuse by the rails (narrow strip of plastic/metal attached under the board for protection while grinding) and trucks (metal axel between wheels) of the skateboard, much of the physical urban infrastructure begins to crumble under the stress (Figure 3.3). As one skateboarder comments, "Most would call it senseless vandalism, but loafed curbs (rounded due to damage), dirty buildings, worked planter boxes, and broken benches are true things of beauty. Concrete, wood, rock, or anything in the path is worthy of a skater's wrath" (qtd. in Borden, 2001, p. 208). Again, as is the case

with loitering, business owners have become very annoyed at this destruction. They frequently cite the marks skateboarding causes as proof of criminal damage and, as a result, many skateboarders are arrested: "they smash up all the new curbs and scratch all the banisters" (qtd. in Borden, 2001, p. 253). For these business owners and designers/planners alike, it becomes a nuisance to continuously repair and replace benches, walls, and curbs that were meant for casual pedestrian use. Iain Borden (2001) reports that a common solution to prevent structural damage is to install unsightly anti-skateboarding devices on the materials so that grinding and jumping is physically impossible (Figure 3.4). It is a tactic similar to that of warding off the homeless—

> Where the homeless are ejected from business and retail areas by such measures as curved bus benches, window-ledge spikes, and doorway sprinkler systems, so skaters encounter rough-textured surfaces, spikes and bumps added to handrails, blocks of concrete placed at the foot of banks, chains across ditches and steps, and new, unridable surfaces such as gravel and sand. (p. 254)

Designers will even go to great lengths designing benches with gaps every few feet, rendering them virtually "unskateable." The unfortunate side to this entire dilemma is that there are simple ways to remedy this problem other than complete prohibition and exclusion. Simple construction alterations and differences in materiality are enough to satisfy both parties, but because of price differences and simple neglect, they are often never considered. Personally, I wonder, is there really any reason why landscape elements such as rails, steps, curbs, and benches should not be designed to withstand such use? After all, "…the forces acting upon an element due to skateboarding are negligible in comparison to those exerted by vehicles" (Woolley & Johns, 2001, p. 228). Accordingly, later portions of this thesis will offer improved techniques as to how to allow

skateboarders to remain within the urban environment while minimizing physical structural damage.

Figure 3.3: Structural Damage Caused by Skateboarding

Source: http://www.commercialappeal.com/photos/2009/oct/29/137035/; http://championsgateclocktower.blogspot.com/

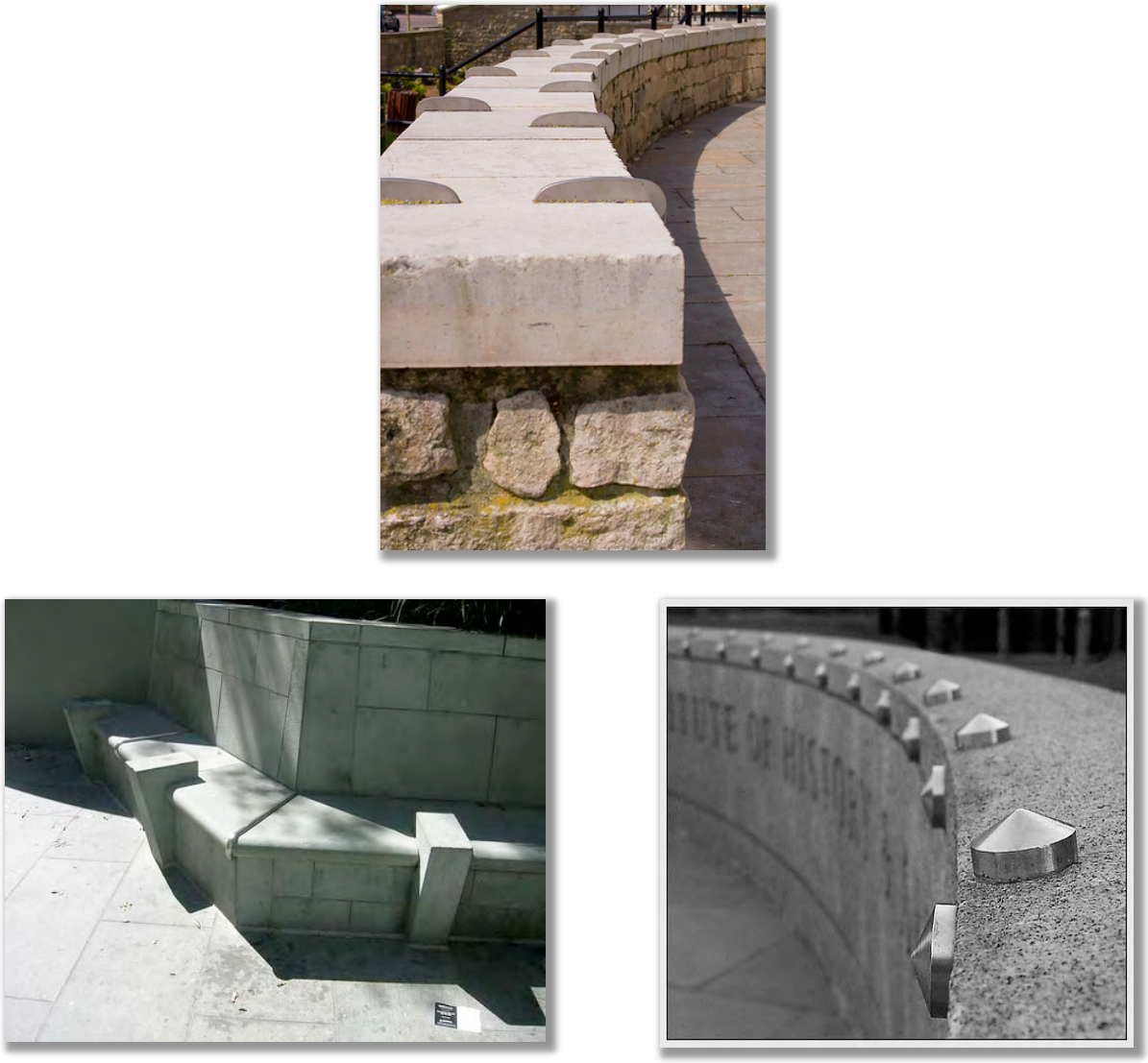


Figure 3.4: Anti-skateboarding Devices to Prevent Grinding

Source: www.flickr.com/photos/33248084@N00/3373119681/; http://liftlab.com/think/nova/2006/09/17/anti-skateboard-devices-on-the-embarcadero/; www.flickr.com/photos/61953557@N00/246687283

All of this considered, to the skateboarding "community," designed, urban environments will always offer the best settings for skateboarding--the props are there for the taking. Since the beginning of the sport, skateboarders have been known and praised

within their social community for their inventiveness utilizing the built environment as a stage (Borden, 2001). While certain restrictions are obviously necessary, to completely remove skateboarders from their "playing field" because of avoidable physical damage would be unethical. Fortunately for skateboarders, installing designated skateparks can offer many of these same urban elements, often built with similar materials, but improved to withstand the damage that skateboards will inevitably inflict. The problem is, as is further explained later, these parks are also often inadequately designed or constructed to optimal skateboarding standards and are typically far removed from the social settings skaters historically so desire.

"Greening Up" of Urban Infrastructure

The third and final issue that is leading to poorly designed and placed skateparks is the "greening up" of cities. Though this is happening for valid reasons, it is having a negative impact on the skating world. Quite simply, cities are increasingly replacing urban infrastructure with green space, physically removing many of the popular skateboarding nodes. Lawn spaces are becoming larger, solid skateable surfaces are being replaced with more porous materials, and more and more hardscape is being removed in favor of vegetation. A perfect example of this, as reported in *Landscape Architecture* magazine (2002), is LOVE Park in Philadelphia, PA. Once one of the top skateboarding sites on the East Coast, skateboarders ranging from school children to semiprofessionals flocked to the smooth granite, concrete ledges, benches, and multitiered steps of the urban park (Figure 3.5). However, recent renovations require breaking up the hardscape and greening the

space with grass and carefully selected plants to refurbish the plaza in order to create a "destination." The goal is to make the park a place that more people can use- to make it an oasis, a pretty place. Planners are hopeful that this will be a beginning to what the design administration wants to do for all the plazas in the Center City. As one can imagine, this is causing quite an uproar among the skating community. Officials were quickly finding out that more damage was appearing to surrounding neighborhoods due to skateboarders seeking new sites for their sport. The ironic aspect of this story is that most of the community, especially parents, are outraged with the renovations, saying that Philadelphia, which has been losing population for years and has recently lost control of its underperforming schools to the state, can only benefit from the influx of hip, young skateboarders to LOVE Park and the city. Critics of the controversial renovations also cite economic value and tourism among their reasons for keeping the plaza skateboard-user friendly. In fact, due in part to its popularity as a skateboarding mecca, Philadelphia was selected by ESPN to host the 2001 and 2002 X Games, which added over $40 million each to the city coffers. It seems only logical that officials should continue to provide for the skateboarder and not totally disregard such a popular youth culture and unique tourist draw. Again, the answer to this issue of greening up cities like Philadelphia—city officials say, "…the responsible thing is for the municipality to support skateboarding in a structured area…" ("Skate Debate", 2002, p. 20). Currently, the mayor and the Fairmount Park Comission of Philadelphia are discussing a location for a recreational skatepark. Let us hope it is a site that maintains the social richness that LOVE Park maintained, and does not force skateboarders to travel far out of their way to retain what they once had. Until then, skateboarding remains banned throughout the park.

Figure 3.5: Skateboarders at Love Park, PA

Source: www.gonomad.com/crossthatbridge/archives/2009_10_01_archive.html

The Skatepark Dilemma: Inadequate Solutions

As previously mentioned, the response by designers/planners to these problems of image (perceived danger), physical damage, "greening up" of cities, and increased popularity, is to design and locate skateparks on the outskirts of town, away from the socially-rich urban fabric (Freeman & Riordan, 2002). To skateboarders, this creates a number of problems. First, by choosing such locations, skateboarders can no longer skate or even walk to the park, but are instead completely dependent upon automobiles and others. Not only is this annoying, but it is also adds to our overall dependency on the automobile for travel: yet another step in the wrong direction. Skateboarding encourages exercise, walking, social interaction, and in many cases is a form of alternate transportation. What kinds of examples are designers setting by making teens jump into a car just so that they can skate for a while, and then get back into a car for the ride home? Unfortunately, there are numerous examples of communities that chose to install

skateparks at sites such as the local community recreational fields and public parks, away from all concentrated urban infrastructure, where teens would not normally hang out. This can be a major nuisance to parents and can ultimately be a deterrent to skateboarders themselves. If they are discouraged from skating in urban areas and have limited access to remote skateparks, then are we, as designers, killing the sport? Essentially, there is a removal of an entire demographic from downtown/urban areas. It is almost as if an entire sect of teens is being cast out of the urban social fabric and asked to take their activities elsewhere. As is the case in LOVE Park, Philadelphia, this issue certainly has an impact on the social richness of our urban sites and should be addressed.

On a similar note, simply the idea of creating a remote skatepark solely for the purpose of attracting skateboarders has faced much opposition from nearby community members (Freeman & Riordan, 2002). As previously stated, most of the surrounding community members feel a sense of perceived danger that the skateboarding demographic projects. Therefore, they are unwilling to support the idea, causing much unneeded turmoil within the community and severely limiting the possibility of a sufficient skatepark being built.

When it comes to materiality, most newly built skateparks are inadequately built and are often sterile and uninteresting (Figure 3.6). There are an embarrassing number of parks that are nothing more than a slab of concrete with a few moveable wooden ramps (Miller, 2004). Though some may find this entertaining, any skater beyond a beginning level would quickly find the park to be boring and insignificant. One of the main purposes of a skatepark is to mimic the urban environment that is attractive to skateboarders, but as

is increasingly evident, even more advanced skateparks appear to be a sea of grey concrete surrounded by a chain link fence. Quite simply, these parks are not being built to appeal to serious skateboarders; they are instead being built with the sole intention of concentrating skateboarders into one spot.

Figure 3.6: "Sterile" Skatepark--John H. Hale Skatepark, Live Oak, FL
Source: www.suwanneeparksandrecreation.org/SKATE%20PARK.HTM

Similarly, most skateparks today are also being built with little to no regard for the environment. Very few skatepark designers are attempting to address issues such as stormwater management and vegetative aesthetic appeal (Figure 3.7). Even the largest, most innovative parks are nothing more than a giant concrete parking lot with no vegetation. It seems as if designers have thrown all sustainable/best management practices out the window. While materiality is greatly limited to smooth, impervious surfaces (for rolling wheels), there are other ways to make a skatepark more environmentally sound and more visually appealing. Chapter 4 will further discuss these

environmental, location, and material issues, offering specific case studies of both positive and negative efforts. There are ways to address these issues and implement successful skatepark designs. My design for Luray, Virginia, will showcase some of these methods (see chapter 5).

Figure 3.7: Skatepark With No Vegetation/Stormwater Management—John Lomas Skatepark, Orange, Australia

Source: www.orange.nsw.gov.au/go/community-facilities/sport-and-recreation/skate-park

Overall Implications

As is the case with most issues in design, it is important to consider the ramifications that our decisions may have. The issues with skatepark development and construction are no exception and raise many questions that are ethically worth examining. First, by locating skateparks on the outskirts of town and erecting them without full design consideration, I wonder, what does this do to our public parks and open spaces? Are we

detracting from them by installing ugly, fenced-in concrete slabs next to our prized community green space? It is very ironic that we, as a whole, want to relocate skateboarding to the outskirts of town so that our urban infrastructure is not damaged, but are willing to sacrifice the beauty and integrity of our community parks by installing these less than adequate skateparks. It does not have to be done this way—as chapter 4 will outline, simple design considerations can make all the difference in the world and could go a long way towards the advancement of skatepark construction.

Next, are designers also killing the expressive nature of the sport? Do sterile, remote skateparks with predetermined ramps and props that never change ultimately take the inventiveness away from teens? Should these spaces be so rigidly defined, or should skateparks accomodate personalization? For example, historically, skateboarders have been known to personalize their spaces with graffiti and are known for their inventive uses of space. While graffiti can certainly be viewed as a major nuisance, a lot of times it is extremely beautiful artwork that is worthy of existence and often adds to the social richness of urban environments. Should this level of personalization be allowed, or will this further separate the gap between skateboarders and their opponents? As for the structural permanence of the park, many believe it can be a disservice to the sport to concentrate, and in most cases, limit skateboarding to one inadequate park. Nothing will replace the breadth of skateboarding sites that a city can offer, but the problem is, we are no longer allowing teens to search for and find/create a space of their own within the urban fabric; designers today just are not doing a good enough job of making skateparks personally unique and optimally engaging to skateboarders.

On a similar note, we should consider what impact these issues will have on teen activities. Are we essentially ridding them of a socially rich hobby? With all these issues of access and inadequacies, it should come as no surprise that one day in the near future, we might see a substantial decline in skateboarding popularity levels. If designers make it too difficult for skaters to engage in their sport, then who is to say they might not give it up for a more accessible hobby? Even more important is the fact that today's society is one that is a technologically dominated, sedentary society—for that reason, we should be doing all we can to preserve and enhance the skateboarding experience so that teens continue to become active citizens who are physically engaged with other community members.

Another implication that must be considered is the impression that these "unsustainable" designs make on the general public. Are we setting a bad example by making the standard skatepark a sea of concrete? Will designers deviate from this popular model in favor of a more inclusive design? In order to move forward, designers must see and know that there are better ways to design the parks using more environmentally friendly techniques (see chapter 4). This responsibility is one that landscape architects should take on and face the same as any other project—otherwise, we will continue down this path and fail to advance our sustainable design mentality.

A final question to examine is, how do we (landscape architects/skatepark designers) design to appeal to adults who are opposed to skateboarding? Obviously, the sport represents only a small demographic in a larger picture, so it is exceedingly important to be able to appeal to majority populations as well. If adults find that skateparks are not as intruding and offensive as they initially thought, then they will accept

them into their neighborhoods and potentially even help fund them. Hopefully, those who felt that false perceived danger would also rid themselves of this restraint and show some interest in the sport. After all, skateboarding is comprised mostly of teens, so the wealth and public say-so that adults have is a highly prized commodity that could be used to advance the sport. Either way, it is evident that the first step begins with a more inclusive design process--once we start producing skateparks that aesthetically appeal to a broader demographic, then we can move forward with a lot more freedom and funding. It is my hope that the skatepark design presented in this thesis will serve as an example as to how to better integrate the sport into the landscape and into the community.

4. SKATEPARKS

This chapter outlines the evolution of skateparks, as well as the basics of concrete, wood, and modular skatepark construction. In addition, it will compare and contrast material choices, while also explaining the components of what makes a skatepark desirable to the skateboarding community. Finally, it highlights industry innovators who are demonstrating new possibilities in skatepark construction. This investigation will provide much needed insight for my own design presented in the next chapter.

Skatepark Evolution: The Concrete Wave

In an attempt to emulate surfing, skateboarders of the 1970's began raiding empty swimming pools all over the state of California. The bowl shape allowed skaters to ride up the wall in a near vertical trajectory, and then, as speed dropped, lift the front wheels and pivot 180^{o} around the rear wheels and drop back down the wall. The higher up the skater went, the more vertical the wall became. Legendary skateboarder Tony Alva compared the experience to surfing saying, "…this [pool] is a wave that never breaks" (qtd. in Borden, 2001, p. 33)! Following their lead and responding to the skateboarding explosion of the 1970's, designers started to create purpose-built skateparks, which exaggerated fragments of the city in order to create intentional skateboarding architecture.

The first commercial Californian skatepark was the concrete "Carlsbad," which opened in the summer of 1975 (Figure 4.1). The park consisted of gently-modulated spaces that were quite limited in design complexity, but was quickly extended with some more advanced elements. The success of the park spread rapidly, and by December of 1976, three new parks were built in Florida. By 1977, 15-20 parks were open, most notably "Concrete Wave" in Anaheim, California. This park was revolutionary in that it was derived from surfing and motocross, offering individual, linear runs (Figure 4.2) that gave the skater a long, linear route along which to encounter a number of spatial situations (Borden, 2001).

Figure 4.1: Carlsbad Skatepark, San Diego, CA, 1976

Source: Borden, 2001

Figure 4.2: Individual, Linear Runs at Concrete Wave Skatepark, Anaheim, CA, 1977

Source: Borden, 2001

Author Iain Borden (2001) reports that most of the early skateparks, despite their inventiveness, did not offer the same challenges as backyard pools. Many of the early skatepark developers had never even seen skateboarders in action, and simply fabricated whatever was on their mind. So, in order to supersede these early parks, builders of the late 1970's focused more on mimicking backyard pools with improved materials. The new pools were not, however, exact copies, and where backyard pools were often too small with overly tight transitions (any upward-curving skating surface) and too much vertical wall, the skatepark version offered carefully tuned transitions and special slightly overhanging coping (capping or covering of the wall) that had been precisely designed for skateboarding. In response to these all-new skateparks, the slightly older parks such as Concrete Wave and "Pipeline" of Upland, California, added their own pools, now with much more care and understanding as to what constituted a skateable terrain. For example, at

Pipeline, designers replaced the former flat, freestyle area of the skatepark with the famous "Combi-Pool"—essentially a 32-foot-wide and 12-foot-deep square pool with rounded corners and a 30-foot diameter 11-foot-deep circular pool joined together at a common shallow end and entrance point (Figure 4.3). The Combi-Pool offered the same white walls, blue tiles, and concrete coping as a typical backyard pool, but offered increased depth (and hence more danger), greater areas of wall (3 feet of pure vertical), faster transitions from base to wall, a flat bottom between walls and a smoother surface optimized for skateboard wheels. At the time, this was "unquestionably the finest, most demanding terrain ever developed for skating; the ultimate playground" (qtd. in Borden, 2001, p. 67). Other parks, such as "Apple" (Columbus, OH) similarly responded, installing no fewer than eight pool-bowls, including an egg-shaped pool, large kidney bean pool, and small keyhole pool (Borden, 2001).

Figure 4.3: Pipeline Skatepark Combi-Pool, Upland, CA

Source: Borden, 2001

It is worth noting that new construction methods were also being developed at this stage—designers were seeing that construction techniques were as important as the design itself. Pipeline and many similar skateparks were constructed using the "gunite process" favored by swimming pool constructors, whereby concrete is sprayed into a framework. In this process, cement and sand are mixed without water, forced along a pipe with compressed air, with water introduced at the nozzle end. Gunite is one of the strongest methods of applying concrete and can be readily applied to vertical or over-vertical walls. The other main system used by skatepark constructors was the similar "shotcrete" or "wet process," where sand, cement, and water are pre-mixed before being forced along a pipeline by a pump, with compressed air being added at the nozzle to allow spraying out. This process requires more water than gunite, which tends to produce a slightly inferior concrete. The lower pressure of application also means it is more difficult to apply to vertical surfaces (Borden, 2001). When completed, both methods provided a pure, smooth texture that made for a pleasant riding experience.

Nearly all purpose-built concrete skateparks were either begun or amended before 1982. Issues with injuries, insurance, and liability forced the majority of the parks to close. Prior to these closings, however, over 190 skateparks had been built in the United States across at least 35 states, of which over a quarter were in California, Florida, and Texas (Borden, 2001). Averaging costs of around $200,000-250,000 for a large skatepark, the industry was seen as big business and was promoted as "one of the 70's most profitable business opportunities" (qtd. in Borden, 2001, p. 58). Throughout the late 1980's and early 1990's, only a few new concrete skateparks were built. However, later on in the decade, California's 1998 law stating that skateboarding is an inherently "Hazardous Recreational

Activity" (HRA), deemed that municipalities and their employees may not be held liable for claims of negligence resulting in skateboarders' injuries, and therefore caused a resurgence of concrete skateparks. By 2000, more than 180 facilities of various sizes, complexity, and ownership had opened across the U.S. (Borden, 2001). Today, concrete skateparks are again, "pretty much the industry standard" (qtd. in Porstner, 2007, p.1).

Skatepark Evolution: Wood

From 1977 onward, skateparks were increasingly complemented by wood ramps provided by skaters. At first, these ramps were seen as a way of providing vertical terrain for those without access to skateparks or Californian pools. However, due to the closing of skateparks in the early 1980's, ramps became the staple terrain for skaters and greatly contributed to skateboarding's resurgence in the mid-1980's (Borden, 2001).

The first ramps of the 1970's were simple, angled straight surfaces, typically built at 40^{o} and usually around five feet tall. A more common type of ramp, however, was the freestanding half-pipe. To begin with, half-pipes were a half-circle in section (Figure 4.4), but from 1979 on, they were commonly built with a flat bottom inserted between the transitions (Figure 4.5). This flat bottom allowed the skater to gain more speed and momentum as he moved from one transition to the next. Half-pipes of this era ranged from 6-15 feet tall, with a surface of plywood (often 2 layers of 9mm thick birch ply), masonite (oil-tempered hardboard), or steel (typically 2-3mm sheets). The transition sections were usually a pure quarter circle with a radius of 8-12 feet. On some of the more advanced half-pipes, copings were often added using 50-60mm steel tubing (Figure 4.6), plastic, or even

concrete pool coping blocks. Throughout the 1980's and 1990's, these ramps were roughly proportionate in size with skatepark pools and offered a ready substitute terrain for vertical skateboarding (Borden, 2001).

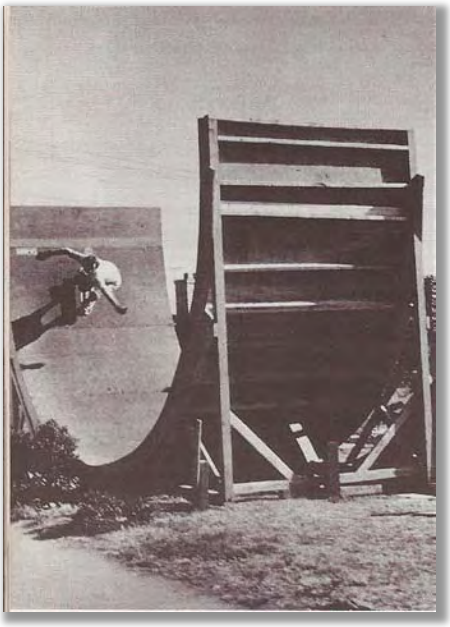


Figure 4.4: An Early Wooden Half-pipe Without Flat Bottom

Source: Borden, 2001

Figure 4.5: Half-pipe With Flat Bottom

Source: www.charlesandhudson.com/archives/buildityourself/

Figure 4.6: Steel Tubing Coping on a Wooden Ramp

Source: http://atroa.livejournal.com/

At the other end of the spectrum, smaller versions of half-pipes called mini-ramps became increasingly popular at the end of the 1980's (Figure 4.7). These were frequently made by skaters for cramped sites and were constructed rapidly and at a minimal cost. The minimal height also reduced the possibility of serious injury and meant that municipal authorities could provide risk-free facilities (Borden, 2001). Even smaller ramps and obstacles were being built for streetstyle courses (courses designed for street skateboarders). These ramps ranged from simple quarter-pipes to pyramid and snowplow-shaped forms (often with metal piping on their upper edges), to handrails, ledges, and other elements that mimic the "natural" features of the urban street. Small flat-angled 1-3-foot-high launch/jump ramps, from which skaters fly over and beyond the lip, were also especially popular in the late 1980's (Borden, 2001).

Figure 4.7: Mini-ramp, 1989

Source: Borden, 2001

Apart from insertions within the open space of the city, ramps also formed skateparks, taking over from the outdoor concrete skateparks typical of the 1970's. Throughout the 1980's and 1990's, these ramp parks became the predominant form of purpose-designed skateboard terrain. Offering a myriad of ramp sizes and combinations, this new generation of wooden, ramp-based skateparks focused less on the single, high-performance pool element and more on a range of skate terrains from streetstyle obstacles to mini-ramps and large vertical half-pipes. Compared to concrete skateparks of the past, these parks were (and still are) cheaper, faster-built, and also more easily modified than concrete, which means they can constantly change to meet the needs of skateboarders (Borden, 2001). Because these ramps were made of wood and exposed to the elements, most such skateparks were built as indoor facilities (Figure 4.8). These were, and still are, especially popular in locations with habitual inclement weather since cold and wet climates provide many hazards to skateboarders ranging from loss of grip to increased chances of

serious accident when falling. Areas with hot climates also benefit from indoor facilities in that they are no longer restricted to evening skateboarding (due to heat), but can provide a climate-controlled environment and allow for all-day, year-round skateboarding.

Figure 4.8: Wooden Indoor Skatepark, Melbourne, Australia
Source: http://digbmx.com/digthis/melbourne-gets-a-new-indoor-bmx-park

Today, both types of skateparks (concrete and wood) exist, depending on location, funds, and the specific needs of the user group. While indoor wooden ramps tend to serve the needs of vert skaters, concrete parks tend to cater to street skateboarders. Subsequent parts of this chapter will discuss and analyze the elements of both.

Skatepark Evolution: Burnside Skatepark, Portland, Oregon

Modern skatepark design can be traced to 1990, with the commencement of the Burnside Skatepark, a design/build park built on the parking lot of an abandoned hotel beneath the Burnside Bridge in Portland, Oregon (Figure 4.9). Tired of being forced out of

the city by authorities, skateboarders started taking matters into their own hands. Headed by legendary skateboarders Mark Scott and Sage Bolyard, the skaters of Portland, together with some of the local homeless, fabricated concrete banks, spines (two quarter-pipes back to back), bowls, and fun boxes (quarter-pipe-like ramps with a flat deck) without any official permission. With absolutely no money from the city, most of the cement and construction equipment came as surplus material supplied by the local company Ross Island Sand and Gravel (Borden, 2001; Hocking, 2005). In a few short years, what started out as a small assortment of banks, quarter-pipes, and bowls soon grew into what many skaters consider to be the most famous skatepark in the world; a place where skaters from all over the country and the world still come to ride.

Figure 4.9: Burnside Skatepark, Portland, OR

Source: http://commons.wikimedia.org/wiki/File:BurnsideSkatePark.jpg

What makes Burnside Skatepark so unique is that it is an evolving facility with skaters constantly changing and adding to its elements. In fact, many of the elements were designed during the construction process itself. Skaters sculpted the desired shapes during

the excavation and formwork phase, constantly adapting the features before finally setting them in steel re-bar and concrete. One skater explained the process:

> We kept digging until everyone was satisfied with the shape. There were disagreements such as how many cement blocks of vertical we should add, and whether or not to have a 'double pump' into the deep end. The shape we finally came up with was a somewhat elongated kidney with a deep end of about ten feet (including three blocks of vert), a shallow end of about six feet (with a 45^{o} banked section extending five feet higher) and a hip between the deep and shallow ends. (Borden, 2001, p. 76)

Interestingly enough, because of this design/build construction method, it is reported that by 1997, most of these earliest features had been completely rebuilt or buried beneath new, more modern elements (Borden, 2001).

At first, the city government of Portland was less than supportive of this grassroots project. Throughout the years, they have continuously threatened to close it and have even threatened to bulldoze the place on several occasions. However, the Burnside Skatepark project has persisted and evolved, effectively creating a skatepark built by skaters as they see fit (Hocking, 2005). Using this design/build method as a model, most professional skatepark designers today believe that this is the only way to create a successful park. When asked about this model, one skater summed it up saying, "The best skatepark a city could give to its skaters would be a piece of land with nothing on it, and let them design and produce it themselves" (qtd. in Borden, 2001, p. 77). Consequently, Burnside Skatepark is seen as the pioneer project for modern skateparks, using primarily skaters to make on-site design decisions in order to create a truly customized skatepark.

Constructing a Skatepark: Modern Materials and Components

As previously stated, concrete skateparks are again the current industry standard. Though they can cost three times as much to build as parks with ramps and wooden obstacles, in the long run they require fewer repairs and less maintenance. For this reason, and because my design is located outdoors in a moderately moist climate (see chapter 5), I have chosen to design primarily with concrete and other hardscape materials. Therefore, it is imperative to investigate the basics of concrete skatepark construction.

Once a tentative master plan has been created and the site has been prepared, builders first start to dig the basic respective forms, sculpting them to the skaters' liking as they go. The next part of the process focuses on substrate preparation. Concrete skateparks require a proper sub-base of compacted gravel in all but the mildest of climates. It is recommended that skatepark construction begin with a minimum of 4 inches of "3/4 inch minus" (3/4 inch and smaller) crushed gravel on all the horizontal and near-horizontal surfaces, which is then wet and compacted. Once this is complete, forms (wood and/or steel) are fabricated and placed in order to contain and guide the concrete while it is poured and setting. Perhaps the most important part, builders then lay a grid of steel rebar, mimicking the forms of the design, in order to reinforce the concrete and control cracking (Figure 4.10). In most cases, builders recommend using a minimum number three (3/8 inch) tied rebar throughout. The next step is to pour the concrete. Again, as stated earlier, the preferred method of applying concrete is to use the shotcrete method, in which concrete is actually shot out of a high-pressure hose. This method allows workers to spray cement high up onto the transition. It is recommended that skateparks be built using 4000

psi (pounds per square inch) concrete to a minimum depth of 4 inches over the prepared sub-base. Though 4000 psi concrete may seem excessive to some, the point is to be able to eliminate as many contraction (control) joints as possible (SkateParkGuide, 2009). Expansion joints will produce a very bumpy ride and are the cause of the annoying "ka-chunk, ka-chunk, ka-chunk" sound that is heard when a skateboarder rides down a sidewalk. Eliminating expansion joints will result in random hairline cracking, but the idea is that such a strong concrete can adequately withstand this alternative.

The next step is to take drainage into account. Most builders have either already installed underground drainage pipes, or shape the concrete to provide a gentle slope of at least 1% to allow water to run off site. After that, builders finish the concrete by hand, using a float (a flat tool for spreading/smoothing concrete) and a hand trowel to smooth out the concrete. This is done while the concrete is setting, and the goal is to provide a smooth, seamless surface on which to skate. The last step is to install coping on all edges that anticipate grinding. This provides a more durable surface for the skateboard axles to grind against, reducing damage to the concrete. Most builders prefer a 1.90-inch outside diameter (O.D.) Schedule 40 (refers to wall thickness; 0.15 inches) tubular steel pipe that sits 3/8 of an inch above the surface of the concrete (SkateParkGuide, 2009). With all this completed, the final result is a carefully sculpted skatepark that provides a superior riding surface and is durable enough to withstand daily abuse by skateboards.

Figure 4.10: Rebar Grid for Concrete Reinforcement

Source: http://placed-to-ride.com/blog/?m=200807

When it comes to design standards, as is seen at Burnside Park, most designers and skateboarders agree that "there are no standards" (qtd. in Fredericksen, 2002, p.48). Most of the design work as far as exact ramp angles, ramp heights, obstacle locations, etc., are typically loosely drawn up in a master plan and further perfected during construction. There are, however, common obstacles that are almost always found in any skatepark. These obstacles are as follows:

- **Quarter-pipes** (Figure 4.11): Literally, a quarter of a pipe-- riders get air from it and perform tricks in the air or on a platform above the ramp or drop in on it to gain speed.
- **Spines** (Figure 4.12): Two quarter-pipes back to back.
- **Flat banks**: These can vary in angle, but are simply an angled wall on which to ride.
- **Wall rides/vert walls**: A vertical wall above either quarter-pipes or flat banks.
- **Mini ramps**: Two small quarter-pipes facing one another, like a half-pipe, but with a short flat area between.
- **Hips**: Essentially two quarter-pipes or flat banks, each with one edge at a right angle or a more aggressive angle to the other.

- **Funboxes** (Figure 4.13): A steep, quarter-pipe-like lip, with a deck extending to a landing that is often less steep than the lip.
- **Pyramids** (Figure 4.14): A four-way wedge or transition box.
- **Launches**: A curved ramp that launches the rider into the air, like a quarter-pipe, but less steep.
- **Roll-ins**: A long sloping ramp used to gain speed.
- **Euro**: A ramp where the platform drops like a step to a flat ramp.
- **Halfpipe**: Two quarter-pipes joined together (half of a pipe).
- **Bowl**: A ramp that is the shape of a bowl.
- **Pool**: Similar to a typical pool used for swimming, only not filled with water. Most pools tend to have tiles and are usually built as egg, kidney, or keyhole shapes.
- **Stairs** (Figure 4.15): A series of steps used to ramp off of and grind on.
- **Rails** (Figure 4.16): Steel rails that mimic handrails and are usually used for grinding. They can be installed on stairs or alone, but much lower to the ground.
- **Tables**: Literal picnic tables, usually built out of metal, that are meant for grinding and jumping on (Borden, 2001).

Figure 4.11: Quarter-pipe

Source: http://realdupont.com/half-pipe-dream/

Figure 4.12: Spine

Source: www.flickr.com/photos/13260718@N08/2984326225

Figure 4.13: Funbox

Source: www.concretedisciples.com/skateparksdb/skateparks_display.php?id=1026

Figure 4.14: Pyramid

Source: www.northwestskater.com/yakima.html

Figure 4.15: Skatepark Stairs

Source: www.skateoregon.com/Golden/Golden.html

Figure 4.16: Skatepark Grind Rails

Source: www.skateparkramps.com/backyard.htm

In most concrete skateparks, these obstacles are also sculpted solely out of concrete, with the exception of rails, which are usually made of steel. While many of these obstacles are meant for vert skateboarding, such as quarter pipes, half-pipes, and bowls, others are meant to mimic urban infrastructure to accommodate street skaters (i.e. stairs, handrails,

and tables). Most modern skateparks have elements of both, in order to appeal to all types of skateboarders.

As for placement of these obstacles, there is typically no standard method. Most of the time, placement is determined by property boundaries, so the goal is often to pack the space with as many obstacles as possible, while still allowing enough space for gaining speed and avoiding collisions with other skateboarders. All or any combinations of these obstacles together, constructed and located in a way that designers and skaters feel will give them the most challenging ride, is what makes a modern concrete skatepark. As can be seen in later sections of this chapter, some skatepark innovators have found ways to incorporate these obstacles in various unique, subtle, and even aesthetically pleasing ways.

Though concrete skateparks are the dominant form, it is important to note that most of these same obstacles can exist in wooden and prefabricated (prefab), or modular forms. Wooden skateparks, which are usually limited to indoor or dry environments to prevent weather damage, are constructed nearly the same as concrete skateparks. The main difference is that wooden skateparks are typically much cheaper, they are impermanent and adaptable, and they require very little excavation. For these reasons, wooden skateparks are typically reserved for competitions so that they can be quickly and cheaply constructed and dismantled. The construction process, again, begins with a similar sub-base, but this time the only excavation required is enough to make it level. Once the site is leveled, 4000 psi concrete at 4 inches thick is once again poured to create the skating surface (if not entirely wooden) and the base for the wooden ramps to sit on. The next step is to build the obstacles. Similar to rebar in concrete skateparks, wooden obstacles require

a frame of 2x4's in order to give them form and rigidity (Figure 4.17). A plywood surface (often 2 layers of 9mm thick birch ply) is then fastened to the frame, creating the desired form. To make the ramps more durable and the ride smoother, builders often add a layer of masonite or steel (typically 2-3mm sheets) over the plywood. A thin strip of steel is also typically placed at the base of the ramp to cover the lip that exists where the wood and ground meet, allowing for a smooth transition onto the ramp. It also protects the wood from structural damage, ensuring a safe entry onto the ramp. The last step is to add the coping for grinding. This is done in the same way as concrete skateparks, using the same material as well (1.90-inch O.D. Schedule 40 tubular steel pipe) (SkateParkGuide, 2009).

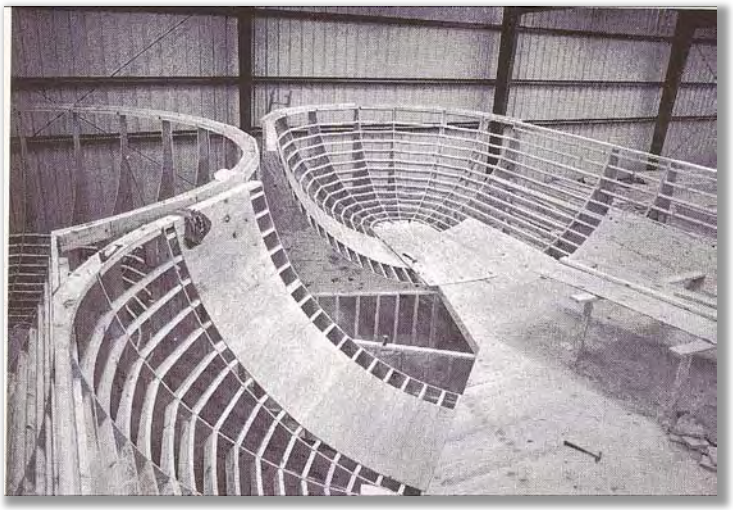


Figure 4.17: Wooden Skatepark Frame

Source: Borden, 2001

Finally, obstacles can also be bought in prefab, modular forms (Figure 4.18). Most of these structures are built of steel or wood, and are often sold separately so that designers can mix and match obstacles without having to construct them themselves. Consequently,

almost all of the aforementioned obstacles are available, already-built, waiting to be installed. Installation requires very little assembly, and involves little more than bolting them down to a prepared (level) concrete pad. At any time, they can be removed and re-configured, giving the park increased flexibility to adapt to skaters' needs. Prefab skateparks are a quick, easy solution to constructing a park from the ground up and are becoming just as popular as concrete skateparks. However, as subsequent sections explain, prefab modular skateparks do raise some serious concerns.

Figure 4.18: Prefab/Modular Skatepark Obstacles
Source: www.techramps.com/en/skateparks/

Prefab Vs. Concrete

Because the current wave of skateboarding passion that is spreading across the United States and the world is not slowing down, many communities are finally starting to realize that skateboarding is a legitimate sport and is here to stay. Therefore, as the demand for skateparks is increasing, municipal governments everywhere are responding by building skateparks as fast as possible. When it comes to deciding what type of outdoor

skatepark to build, communities are faced with the decision of whether to install prefab modular units or to construct permanent concrete facilities. The choice is an important one, as it has practical, economic, and aesthetic ramifications, but most important, it affects the long-term satisfaction of the participants themselves. Many communities today are choosing to build skateparks using prefab, modular units. Though they have their merit, it is my strong belief that these parks are at the root of many of the inadequacies in skatepark design and construction. The following is a comparison of prefab versus concrete skateparks.

One of the most attractive aspects that the prefab industry has to offer city officials is cost. For any given square footage, a prefab park is likely to cost less than concrete. And, in many cases, the difference in price quotes can be dramatic. According to the Skatepark Association of the U.S.A. (2010), a rough cost estimate for a 10,000 square-foot facility can vary from $25,000 for a portable wood ramp park to $200,000 for an in-ground concrete park, with cost per square foot that can range from $10 to $20 or more. Costs for steel-frame modular parks are usually somewhere in between, with a 10,000 square-foot park starting at around $30,000.

Aside from its cheaper price, modular parks have several other important benefits. Prefab units tend to calm community leaders who fear that a skatepark may create more problems than it solves. As stated in the last chapter, in areas where skateparks are not prevalent, community leaders worry about potential risks such as danger, vandalism, and even failure. What happens if, after initial interest, an expensive skatepark is installed only to lay empty? Additionally, as author Carol Newman (2004) explains, young or

inexperienced skaters are often more comfortable learning basic skills on modular equipment. Going from skateboarding in the driveway to skateboarding in a skatepark can be an intimidating move, but modular parks can make the process more manageable. Interestingly enough, many towns have planned parks with both concrete and modular elements to accommodate different skill levels, and a lot of these communities have undergone a progression from successful modular parks to permanent concrete facilities.

A perfect example of this transition is the community of Rio Rancho, New Mexico. P.J. Perry, the development coordinator for the suburban Albuquerque community, said that when Rio Rancho first raised the possibility of building a skatepark, "…there was a lot of resentment for the sport. Starting with a modular park allowed the community to test the waters, to get an introduction to the skatepark environment without making a huge financial commitment" (Newman, 2004, p. 84). The idea was, if the park was not accepted, it could simply be converted into a basketball court—an idea that seemed to please those opposed to the park. However, the community never had to recycle that concrete. In fact, Perry said, "Modular was the catalyst they needed to move on to grander plans" (Newman, 2004, p.85). In 2004, groundbreaking began for a major in-ground skatepark. Similarly, a prefab park in Hailey, Idaho, was built to give local kids a place to temporarily skate while plans for a permanent park were being developed. Community planners hoped that a temporary park would spark community interest in the project and help to raise the needed funds for the concrete park. In the end, the small, temporary park was a success and the city government and local businesses immediately saw how good the park was for the community, making fund-raising far easier. Today Hailey, Idaho, has one of the best skateparks in the West (Newman, 2004).

While cheaper prices can be a strong selling point for prefab parks, it is ironic that cost can also be a limiting factor. Rod Wojtanik, landscape architect and project manager for Portland Parks and Recreation explains:

> In a nutshell, ramps are cheaper to install but in the long run they are considerably more expensive. Ramps made of wood and masonite need to be checked regularly for screw heads that back out. They don't hold up well under inclement weather and they don't take the abuse of the sport very well. These factors increase maintenance costs and in a few years the ramps need replacing. There is no cost savings with ramps if you look at five- to ten-year feasibility of construction, maintenance, and replacement costs. (qtd. in Newman, 2004, p. 87)

Wojtanik later explains that many of the companies that make modular units offer warranties that cover manufacturing defects for up to 15 years. However, the warranties do not cover the normal wear and tear caused by hundreds of daily users, and therefore, will not solve the durability problem for communities trying to save money using prefab materials (Newman, 2004).

Conversely, a well-built concrete skatepark can last for decades. Parks such as Derby Park (Figure 4.19) near Santa Cruz, California, and Stockwell Skatepark (Figure 4.20) in South London, England, have lasted over 30 years and are still drawing large crowds of skaters. Stockwell Skatepark, also known as Brixton Beach, is located at the intersection of two busy roads, and spectators can find skaters taking part at all hours. Besides some regular maintenance such as mowing, tree care, and trash cleanup, well-built concrete parks have proven to be nearly maintenance free. According to Tom Miller of Skaters for Portland Skateparks, "If you want the cheapest skatepark in the sense that you'll get the longest use out of the design, you have to build with concrete" (qtd. in Newman, 2004, p. 89). In the end, though short term costs of prefab can seem less expensive than concrete,

the savings may be a little misleading when all park costs are considered. As author Carol Newman (2004) explains, "some of the largest costs are the same for both venues: the costs of land, site preparation, amenities, landscaping, and signage. A modular park often requires installation of a concrete pad, and there are shipping and installation costs for the units, all of which narrow the gap between concrete and prefab" (p. 90).

Figure 4.19: Derby Skatepark, Santa Cruz, CA

Source: www.concretedisciples.com/skateparksdb/skateparks_display.php?id=4447

Figure 4.20: Stockwell Skatepark (Brixton Beach), South London, UK

Source: www.londonstreetriders.co.uk/index.cfm

When it comes to safety, the deterioration of modular units causes many problems. Sharp edges, loose screws, and widening lips/joints are all hazards that skateboarders will indefinitely be exposed to. In fact, according to skateboarders, the durable, smooth surface and permanent structure of a concrete park is much safer than a deteriorating modular unit (Newman, 2004). For those city officials who are skeptics and assume that deep intimidating bowls of concrete parks must be more dangerous, lifelong skater Eric Davis has an explanation—"The smaller the challenges in a park the less seriously you take them, and the more apt you are to get hurt. A serious park commands a skater's serious attention and as a result can be a safer park" (qtd. in Newman, 2004, p. 91).

While it may be true that well-designed and constructed concrete skateparks are relatively inexpensive to maintain, building errors in materials, construction, and design can result in a poorly-built concrete park that has no advantage over a modular park. For example, Major Taylor Indy Parks Skatepark in Indianapolis, Indiana, a 15,000 square-foot park built in November 2000 at a cost of $470,000, had to close for repairs just three years

later due to intense wear and tear caused by BMX bike pegs (pins protruding from bike wheels that allow riders to perform grinds and various flatland tricks by standing on them). The repairs cost $74,000 and have still not solved the problems caused by bikes. According to park officials, the damage could have been prevented if the construction specifications had been planned with BMX use in mind (Newman, 2004). For towns with tight budgets, such as my design site in Luray, Virginia, these mistakes can be very serious and costly. Just choosing to construct a concrete park does not guarantee a good outcome. Mistakes made in concrete are very expensive, as repairs do not come cheaply.

Proponents of prefab argue that concrete skateparks are limited because they are locked into a permanent design that is bound to eventually bore skaters. These proponents also argue that modular units can be easily rearranged to produce a variety of skating experiences; a point that can make them more attractive to community officials hoping to save money. However, many skateboarders insist that prefab just does not compare to the experience of skating a good concrete park (Newman, 2004). Skateboarder Eric Davis even compares prefab to Putt-Putt golf and a well-designed and constructed concrete park to a world-class golf course saying, "You can't play golf on a Putt-Putt course" (qtd. in Newman, 2004, p. 92). Rod Wojtanik also comments, "Ramp parks do not offer skaters the ability to grow and develop their skills past a certain level of competency, so they quickly lose interest" (qtd. in Newman, 2004, p. 92). He and other advocates of concrete insist that the superior design of concrete parks produces an infinite range of challenges for both novice and professional skateboarders. Furthermore, Kent Dahlgren of Dreamland Skateparks believes that, "the very nature of a modular unit limits it" (qtd. in Newman, 2004, p. 92). For example, he explains that a skater's experience in traversing a 45^0 ramp is identical

whether contact is made at point A, or two feet away from that point. He says, "No matter where the ramp is positioned or how many different ways it is approached, the experience is the same every time. An obstacle designed into a curving concrete structure, on the other hand, creates a different experience with even subtle differences in approach" (qtd. in Newman, 2004, p. 92). Dahlgren also explains that challenges built into a concrete structure can stimulate development of expertise. He believes that conquering each successive challenge prompts a skater to move to the next one. The objective, in his mind, is to create a design that produces great skateboarders. Skateboarders "…can gain proficiency through a design that entices them to meet a goal, and then another more challenging one" (qtd. in Newman, 2004, p. 92).

According to some skateboarders, moving modular units around to improve a park's design also defeats any potential skill progression and socially frustrates younger skaters (Newman, 2004). There is an important social element to mastering a skateable surface. Dahlgren says, "Skaters talk and strategize about conquering obstacles in a park. Moving the obstacles in a prefab park removes this context and broadens the gap between the high-proficiency skaters and others" (qtd. in Newman, 2004, p. 93). As previously stated, the social context of skating is part of what makes a skatepark so valuable to communities—it connects people across all age groups, ethnic groups, and neighborhoods. Unfortunately, modular units ultimately have the potential of weakening this connection.

To advocates of the sport, it seems that nothing is more frustrating than to see a small town spend good money on a disappointing park. Chris Gilligan of Harrison, Tennessee, knows first firsthand the disappointment of an inadequate facility (Newman,

2004). As a skateboarder who now skates with his kids, Chris describes his local park as a "textbook case of the pitfalls of modular prefab" (qtd. in Newman, 2004, p. 93). According to Chris, who is advocating for a concrete skatepark in his town, "A ramp park is a quick, cheap, temporary-- but ultimately ineffective—fix. A well designed and finished concrete park is a long-term addition to the quality of life for a community and an investment in healthy recreation and fitness for youth and adults alike" (qtd. in Newman, 2004, p. 93). Many communities, especially those in rural areas, are choosing to install inadequate, prefab parks as their way of accommodating skateboarders. While it is evident that many factors play a role in the decision of what type of skatepark to construct, hopefully my skatepark design for rural Luray (see chapter 5), may help spare the community from these same issues.

What Makes a Good Skatepark

Many of the problems with skatepark design and construction have been discussed thus far. Besides all the physical features such as ramps, types of obstacles, and construction methods, what else really makes a successful skatepark? My research has led me to the conclusion that a park (or any skate spot for that matter) must have four fundamental qualities to be successful. They are:

- Accessibility
- Trickability
- Sociability
- Compatibility

Accessibility

The location of the park seems to be the most crucial element in the successful adoption of a skatepark. Historically, skateboarding has taken place all over the urban grid in many different ways, but there appears to be a desire to congregate at a central spot that is accessible to all. To demonstrate this, researchers Helen Woolley and Ralph Johns (2001) interviewed skateboarders, asking them about the importance of location. Of the dozen or so skateboarders interviewed, six spoke about the importance of access. "Having a central location," they report, "makes it a natural place to meet" (Woolley & Johns, 2001, p. 223). Centrally located skateparks also have the ability to offer easy transport access for the majority coming by public transportation (if available). Parks that are easily accessible by foot or bus, or even have free parking adjacent to the site, make them substantially more convenient and therefore, more desirable. In addition, if located close to city center amenities and facilities, the skatepark can become a strong focal point, which usually results in more interest (Woolley & Johns, 2001). One skater, speaking of his favorite skatepark, summed it up saying, "…it's just a good communal meeting place. Everyone knows where it is. You meet up here" (qtd. in Woolley & Johns, 2001, p. 223). Another said of his, "…it's central and it's convenient" (qtd. in Woolley & Johns, 2001, p. 223). Finally, centrally located skateparks offer an opportunity for all kinds of social interactions. In another interview by Woolley and Johns (2001), a skateboarder speaks of his favorite park saying, "It's the main hook up point because it's central and you can meet all sorts of people here; there's always someone skating" (p. 224).

Louisville Extreme Park in Louisville, Kentucky (Figure 4.21), offers great insight into the benefits of proper accessibility. A rapid increase in skateboarding popularity, along with substantial inadequacies among existing parks, encouraged planners to design a grand park that was suitable for all skill levels. One of the main goals was to make the skatepark equally accessible to all of Louisville's residents. When the current site—bordered by an eight-lane freeway approach ramp to the west, the Ohio River to the north, and a mixed residential/commercial neighborhood to the east—became available, planners quickly saw its potential. Since the city's transit system is organized in a radial pattern with all routes leading downtown, the site gained even more support. Now, X-Park is, "…only one bus transfer away from anywhere in the city bus system and two blocks from the bus stop along East Main" (Zell, 2006, p. 90). Al Oliver, father of a seven-year-old Louisville skate prodigy says, "People pour into that park from all over. Some hoof it. Some ride their bikes. Others are dropped off" (qtd. in Zell, 2006, p. 91). As a result, the park has become a destination for athletes all over the country. On an average day, after school, there could be 400 to 500 people at the park (Zell, 2006).

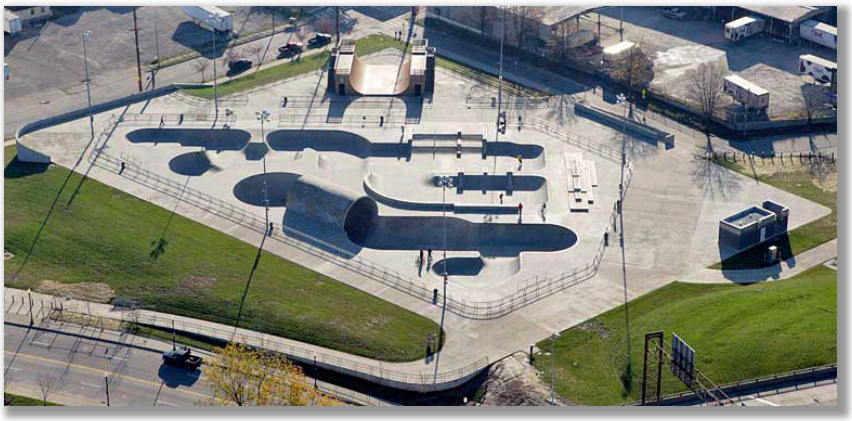


Figure 4.21: Louisville Extreme Park, Louisville, KY

Source: http://en.wikipedia.org/wiki/Louisville_Extreme_Park

In contrast, skateparks such as the public park in Canby, Oregon, experience all too well the consequences of neglecting accessibility. "They should have put it closer to town" (qtd. in Miller, 2004, p. 68), said teen skateboarder Sam Haney, when asked about the decision to site the skatepark at the terminus of a dead-end road on the industrial edge of town. Now, "The skatepark has become a place to meet at night for bad behavior. We see regular graffiti, adjacent businesses complain about property damage from skaters and now have cameras on site, and the helmet requirement is so regularly ignored we could issue exclusionary citations every day. The skatepark has become a hindrance for us", said Patrol Officer T. Brittain (qtd. in Miller, 2004, p. 68). Canby's skatepark "detractors" wanted the skatepark out of sight and out of mind. As a result, "…the town violated the first rule of siting skateparks, which is that they should be located in high-visibility locations" (Miller, 2004, p. 70). Author Tom Miller (2004) stresses the importance of accessibility, believing that this park, and others like it, should be sited within or near existing high-use areas such as busy parks or town centers to establish oversight:

> It is important to acknowledge that teens—skaters or otherwise—can be prone to doing foolish and sometimes dangerous things…a steady flow of spectators and passersby creates de facto supervision that rewards skaters with a needed sense of community inclusion as well as safety and security. By contrast, forced surveillance in the form of *de jure* supervision immediately establishes an unproductive 'them versus us' attitude between skaters and city officials and can direct a town's skatepark budget away from needed skatepark square footage. (p. 72)

When it comes to preventing this mischievous behavior that skateparks skeptics fear, San Jose's Crime Prevention Through Environmental Design (CPTED) process determined that the ideal location for a skatepark is one that can be passed and observed by a vehicle. "Good visibility is critical to a skatepark's success…by reducing supervision from on-site oversight to simple drive-bys, the inevitable unease that occurs when skaters and

authorities meet face to face will be eliminated" (Miller, 2004, p. 72). Ultimately, the hope is that parks will benefit from being highly accessible by attracting skateboarders of all generations, providing a natural policing of the area. Otherwise, as happens all too often, the skatepark might become a nuisance that nobody wants nearby.

Trickability

"Trickability" refers to how engaging a skatepark is when it comes to doing tricks. Consequently, the goal for designers is to create as many "lines" as possible, using the aforementioned obstacles. A line is a designed route that a skateboarder takes through a skatepark that promotes trick completion and usually incorporates a wide variety of the park's features. A successful park design ensures that the features are harmonious and rideable, allowing skateboarders to create endless lines of their own to ride among the many features. When asked by Woolley and Johns (2001) what their favorite elements of a skatepark were, skateboarders responded saying, "the blocks, the stairs, curbs, and good gaps" (p. 224). Though this is only one opinion, it seems that most agree, "the larger the number of features which enable certain moves to be performed, the greater the potential for a really good skate spot" (Woolley & Johns, 2001, p. 224). Any highly successful skatepark today will incorporate both street skating and vert elements. Offering both presents a challenge to most skateboarders, who inherently want to improve their skills. The challenge to designers is to work with skateboarders in order to figure out which spatial arrangements (of obstacles) offer the best lines. Along with the features, most skateboarders seem to prefer a larger skatepark. Bigger areas are important for accommodating large numbers of skaters while still allowing enough space to skate, and

further allowing the skateboarders to share the space with other users (Woolley & Johns, 2001). Another factor that influences trickability is the quality of the skating surface. Skateboarders prefer extremely smooth surfaces so that their ride is virtually seamless, without any uncomfortable jolts caused by uneven surfaces or cracks in the material. This is why designers must eliminate as many contraction (control) joints as possible. It is also why builders must be professionals and must take extreme care when finishing the final surface.

The classic example of a skatepark that demonstrates excellent trickability is Burnside Skatepark in Portland, Oregon (see Figure 4.9). Built solely by skaters, this park has been customized to provide near perfect lines. Obstacles including bowls, quarter pipes, pyramids, curbs, steps, etc., are all strategically placed and re-placed over the years, evolving according to what skaters want. There is no standard for this design; it is simply a clean slate for skateboarders to manipulate as they see fit. And, since this park is so popular among skateboarders, all are willing to do whatever is necessary to keep the surface in premium skating condition.

Sociability

The next quality that a successful skatepark must exhibit is sociability. Sociability refers to a measure of the opportunities within a space for gathering, relaxing, gaining prospect/refuge, and generally just hanging out (Appleton, 1996). As researchers Woolley and Johns (2001) report, a lot of the enjoyment of skateboarding comes from watching and learning from others, as well as from just resting between sessions. Therefore, it is important to skaters that they have the opportunity to sit or lounge around while

inhabiting a skatepark. It must be a park that functions as a high quality meeting place as well as a hang-out spot in order to promote social contact with other skaters. The two previously mentioned qualities of accessibility and trickability play a huge role in making a park sociable. A great location and excellent trickability will result in a more popular park, therefore bringing crowds from all over. If the park is always busy, then skateboarders will come largely to socialize, with the mindset that someone they know will almost always be there. Physically, providing designated seating areas such as tables, benches, bleachers, steps, ledges, etc. will let users know that it is a spot that is meant for both skateboarding and socializing. Essentially, the park must be designed the same way as any public park/ plaza would be, inviting a variety of populations to mingle, socialize, and in this case, also skate.

Compatibility

The final quality that a skatepark must exhibit in order to be successful is compatibility. The measure of compatibility refers to the level of conflict or harmony in a space between skateboarders and other users (Woolley & Johns, 2001). In order to exhibit high levels of compatibility, there must be as little conflict over the use of space as possible. The land use of the areas around the park and the functions of the surrounding buildings have a substantial effect on a skatepark. Depending on their use, these buildings may have special needs or even function in a way that might conflict with skateboarders' use of the space. For example, a nearby theatre may create large amounts of people at certain times of the day, so locating a skatepark directly adjacent to the entrance may create tension between skateboarders and theatre-goers who are not interested in the sport. Another

example might be conflicting uses between a skatepark and a nearby church or other place of worship; skateparks can generate quite a bit of sound, which may disrupt worship, causing tension. Obviously, most of these conflicts are related to the location of the park. Therefore, simple research and a thorough site inventory should be enough to overcome any problems. For minimum conflict and maximum compatibility, the park should be located where there are few surrounding restrictions, both physically and socially. As a result, avoiding incompatibility limits the options in location for accessibility—a location must be found which satisfies accessibility, without violating compatibility.

Most parks today are deficient in at least one or more of these qualities. Whether it is an isolated location making the park less accessible, a few inadequate ramps severely limiting trickability, or a sterile, uninviting space that discourages sociability, it is evident that many parks today are not designed and built with these qualities in mind.

Skatepark Innovators

Though there are currently many issues with skatepark design and construction, there are also many innovators that are starting to surface within the industry. These innovators are beginning to treat skateparks as serious spaces that are here to stay and are offering much hope for the future of skateparks. If we, as designers, follow their lead, skatepark design and construction will finally be headed down the right path.

One of the important areas of innovation in skatepark design and construction is material selection. Chapter 3 discussed the fact that most skateparks-- concrete, wood, or

prefab-- appear to be sterile and uninteresting, especially to non-skaters. They are often little more than seas of concrete surrounded by chain link fences. This can have a profound effect on the vitality of the park and the sport, especially if the park is not built to uphold local aesthetic standards. To counter this problem, a small number of designers have found a solution by incorporating the local aesthetic of the town/city into the park itself. Instead of just sculpting half-pipes and ramps out of concrete, these designers are literally mimicking the urban infrastructure that skateboarders are drawn to. In many cases, as Justin Hocking (2005) writes, some of these more successful parks appear to be urban plazas that have been mimicked and re-created for the sole purpose of skateboarding. Steps, planters, benches, ramps-- all are there, except they are highly designed, just as any major urban plaza would be.

For the most part, the answer is simple material changes. By varying the material, pattern, and color of the ground plane and obstacles, the space begins to become more visually pleasing. If done correctly, observers could see the park and not know that it was meant for skateboarding. A great example of this is the Plaza at the Forks in Winnipeg, Canada (Figure 4.22). This skatepark strays from the regular grey concrete in favor of an off-white that correlates with the surrounding building colors. The pattern on the ground plane also adds aesthetic appeal, with strips of dark grey concrete breaking up the monotony of the typical smooth, continuous concrete surface. This not only makes the site more visually appealing, but the use of grey concrete typically found in skateparks also lets users know that it is okay to skateboard here. Most importantly, this park appears to be just as admirable as any favorable urban plaza. There are a plethora of obstacles ranging from steps, to rails, to benches, to quarter-pipes, but they blend subtly into the design. In

addition, the multi-tiered platforms and steps give the park an added character of depth and complexity, making it seem like more than just a place to do tricks. Without proper advertisement, this park could pass as a city plaza instead of a skatepark.

Figure 4.22: Plaza at the Forks, Winnipeg, Canada
Source: www.skateboardpark.com/default.asp

Another similar example can be seen in Costa Mesa, California, at the skatepark designed for the Maloof Money Cup in 2009 (Figure 4.23). This park also does not look like a typical skatepark. Instead of simply containing some pools or prefab ramps on a slab of concrete, it appears as if portions of the park have been literally pulled from the urban core and replaced in the form of a skatepark. Turf patches, the use of brick to create quarter-pipes, benches made of brick and black concrete, the use of vegetation, and even changes in concrete color all add to the visual integrity of the site. Instead of just being a typical skatepark, it is now a site that has the potential to appeal to a broad range of people. The result is a park that offers inviting spaces for socializing, is high on the trickability scale, and is visually unobtrusive to non-skaters.

Figure 4.23: Maloof Money Cup Skatepark, Costa Mesa, CA, 2009

Source: http://californiaskateparks.com/projectportfolio/

Even subtle improvements can be made to enhance the appearance of vert pools. Take professional skateboarder Bucky Lasek's own private pool, for example (Figure 4.24). In this case, the concrete is stained with hues of reds and browns that complement the local southwestern color palette. A close look at the surrounding vegetation makes it obvious that the site was designed to fit in seamlessly with the desert environment of southern California. These methods can again be seen at Rockwell Skatepark in Bristol, Connecticut. In this case, the pool has been decorated with an attractive tile mosaic that sits just below the coping (Figure 4.25). Both the mosaic and the stain are simple, yet effective ways to improve the appearance of the skatepark. Another simple improvement in material choices can be seen at the Ciaglia Residence, designed by California Skateparks, where designers installed a beautiful stone veneer grinding wall (Figure 4.26). And finally, at Bellevue Highlands Skate Plaza in Bellevue, Washington, designers used a stamped and

dyed concrete to create a quarter-pipe that appears to be made of brick instead of the usual grey concrete (Figure 4.27).

Figure 4.24: Bucky Lasek's Private Pool

Source: http://californiaskateparks.com/projectportfolio/

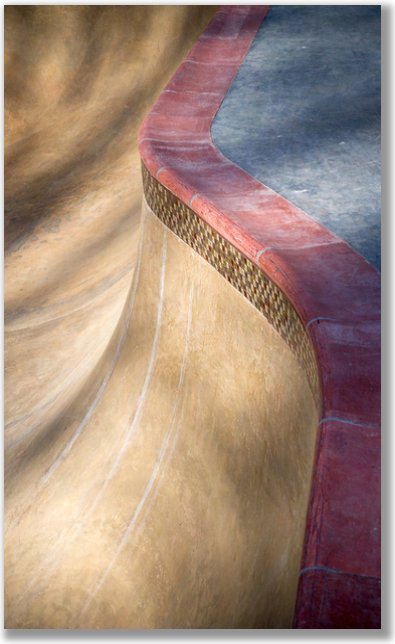


Figure 4.25: Rockwell Skatepark, Bristol, CT

Source: http://californiaskateparks.com/projectportfolio/

Figure 4.26: Ciaglia Residence Stone Veneer Grinding Wall

Source: http://californiaskateparks.com/projectportfolio/

Figure 4.27: Stamped Concrete at Bellevue Highlands Skate Plaza, Bellevue, WA

Source: www.grindline.com/images/fullsize/fs850.jpg

In some cases, more cutting edge companies such as Spohn Ranch (2009), are incorporating "skateable art" in order to stay consistent with the local vernacular. The art includes intricately designed retaining walls, benches, water features, boulders, and even sculptures that have been designed and built to withstand skateboarding, all while subtly blending into the existing established landscape (Figure 4.28). Most of the pieces can have dual purposes, acting as fascinating benches or local art pieces most of the time, while also acting as excellent grinding or ramping elements to passing skaters. More importantly, the art can be scattered throughout towns and can appeal to both skaters and the general public according to local flavor. Strategically placing them throughout the urban environment can create virtual "skate paths" that take skateboarders on a linear skateboarding journey. By linking several spots together—either within the space of a quarter-mile or even a much farther distance—the "dispersed skatepark" can create a long

string of activity with pedestrian and skateboarding traffic traveling between successive spots. Some existing skate paths created by skateable art are dense and span only a few hundred feet, with several obstacles arranged along their length, while others may create a web-like array across an entire downtown area. As a result, this can ultimately be a major tool to help bring skateboarding back into the urban infrastructure without offending non-skaters.

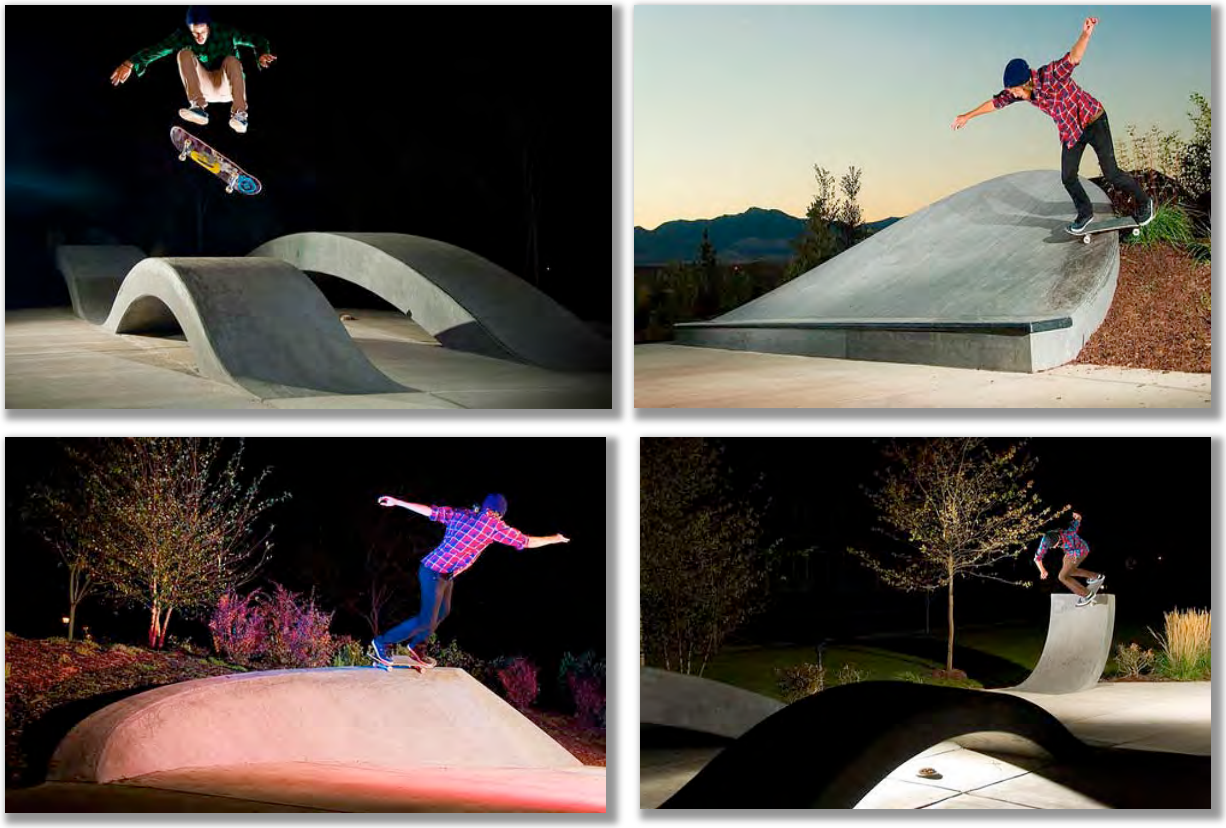


Figure 4.28: Spohn Ranch Skateable Art

Source: www.spohnranch.com/park-options/skateable-art/

Another major issue that some innovators are addressing is the fact that most parks are built with little regard for the environment. Since almost all types of skateparks

require a concrete base and substantial hardscape features, there is often little attention given to the functional and aesthetic benefits that vegetation can bring to a site. Again, top designers are beginning to set examples by creating skateparks that appear to be dominated by vegetation. Kettering Skate Plaza (Figure 4.29) in Kettering, Ohio, is a great example of this. The addition of planters filled with grasses and trees goes a long way to soften the harsh edges of all the hardscape. Also, breaking up the ground plane with patches of turf and planting beds reduces the intensity of impervious surfaces and offers substantial opportunities for stormwater management. Hollenbeck Skate Plaza in Los Angeles further echoes this technique with the incorporation of large planters of trees and regionally-appropriate raked soil (Figure 4.30). Even parks like the Maloof Money Cup and the Ciaglia residence incorporate as much vegetation as possible, with patches placed under benches and between gaps (Figure 4.31).

Figure 4.29: Kettering Skate Plaza, Kettering, OH

Source: http://southeastpirates.com/2006_07/Other/Skate%20Plaza/Skate%20Plaza.htm

Figure 4.30: Hollenbeck Skate Plaza, Los Angeles, CA

Source: http://californiaskateparks.com/projectportfolio/

Figure 4.31: Vegetation Between Gaps & Under Benches, Maloof Money Cup, 2009

Source: http://californiaskateparks.com/projectportfolio/

Using vegetation to make the park more aesthetically pleasing and environmentally functional also has another major benefit-- it makes the park appealing to both skaters and pedestrians alike. A great example of this is the skatepark in Pendleton, Oregon (Figure 4.32). Here, designers created a network of linear skating paths that are separated by planting beds and shade trees. Some ramps are even surrounded by grasses that soften the harsh edges. For the most part, this park looks like normal walking paths that happen to be meant for skateboarders and is therefore substantially less intrusive to non-skaters. Ultimately, it has the character of a vegetated city park that is meant for everyone. The same idea can be seen at Granite Skatepark in Sacramento, California. An early construction photo clearly reveals the path leading the skateboarder around the park, while leaving vast amounts of space to fill with vegetation (Figure 4.33). Even Spohn Ranch often embeds their skateable art into highly designed and vegetated planting beds. In fact, most of the time the skateable art appears to be the less dominant feature as it is frequently softly nestled into a fancy planting design (Figure 4.34). By doing this, skateboarders are seamlessly blended back into the social scene, while simultaneously proving that their sport is not as destructive as may have been believed.

Figure 4.32: Pendleton Skatepark, Pendleton, Oregon

Source: www.concretedisciples.com/skateparksdb/skateparks_display.php?id=4373

Figure 4.33: Granite Skatepark, Sacramento, CA

Source: http://skatedesign.com/new%20pages/granite.html

Figure 4.34: Skateable Art Imbedded in a Planting Design

Source: www.spohnranch.com/park-options/skateable-art/

Another solution to the problem of environmental neglect is to make skateparks more versatile. By serving multiple uses, the site can become considerably more useful to both skateboarders and non-skateboarding community members. If properly designed

with material changes and environmentally sensitive solutions, when not acting as a skatepark, the site has a great opportunity to become an excellent site for community events. For example, incorporating expanses of open spaces that can accommodate crowds could help transform the park into a stage or concert venue as needed. One look at Kettering Skate Plaza, and it is not hard to imagine an event taking place on the top, stage-like square (Page 81 of this manuscript). Other parks even provide turf space adjacent to level skating planes that could double as a seating area or exhibition space for events (Figure 4.35). Or, perhaps even by designing the park to fit within an abandoned building/warehouse, the space can be transformed into a weekday retail center. As is the case in Pendleton, Oregon, the skatepark could be used as a nature park for all demographics if designed accordingly. Furthermore, some places such as the Tunnel Jam Skatepark in Petersfield, England, are even "recycling" spaces, setting up temporary skateparks in abandoned railway tunnels (Figure 4.36). Making it attractive to both skaters and non-skaters can make the skatepark a beneficial site for everyone and therefore double its uses.

Figure 4.35: Turf Space and Open Hardscape for Possible Exhibitions

Source: www.concretedisciples.com/skateparks

Figure 4.36: Tunnel Jam Skatepark in Abandoned Railway

Source: http://doucwhatic.wordpress.com/2009/10/08/nike-6-0-tunnel-jam/

Lastly, industry innovators are pushing the limits with new obstacles. In order to continue the sport's evolution, skateboarders constantly need new challenges. Skateparks such as Lincoln City Skatepark in Lincoln City, Oregon, are beginning to include entirely new obstacles such as the "Cradle" (Figure 4.37). The Cradle is a gigantic, 20-foot-high bowl balanced vertically on its edge that allows fearless skaters to go almost completely upside down on their boards. Another new feature, found at Newberg Skatepark in Newberg, Oregon, is the "spinning volcano of death" (Figure 4.38). This obstacle is the shape of a small volcano (3.5 feet high) with transitions all the way around the base. On top of the volcano is a metal cylinder that actually rotates, allowing skaters to ride up the volcano, stall on the cylinder, and actually spin around before rolling back down. Perhaps the most popular of all the new obstacles is the "full-pipe." Hailey Skatepark in Hailey, Idaho, exhibits a great example of this. The full-pipe is basically a huge concrete tube that is 16 feet tall, allowing skaters to ride through it, or even over top of it (Figure 4.39). Skaters are said to have had the same "stomach-dropping" sensation as riding a roller coaster when they descend from the top down into the deep bowl at the bottom (Hocking, 2005). When it comes to street skating obstacles, some parks contain actual replicas of elements found in the urban environment. Cars, sewer pipes, train tracks, mailboxes; all are designed and built to withstand the damage caused by skateboarding. To further enhance all of these experiences, some designers are installing wall-position sound systems and lighting into the obstacles. This allows skateboarders to use the site at all hours while also listening to their favorite tunes.

Figure 4.37: The Cradle at Lincoln City Skatepark, Lincoln City, OR

Source: www.pbase.com/stevenraygump/image/29820529

Figure 4.38: The Spinning Volcano of Death at Newberg Skatepark, Newberg, OR

Source: www.pbase.com/stevenraygump/newberg

Figure 4.39: Full-pipe at Hailey Skatepark, Hailey, ID

Source: www.dreamlandskateparks.com/hailey.html

All of this considered, the ultimate solution to these problems is to follow the lead of these top designers. Putting more time and effort into the design and creation of skateparks that seamlessly fit in with the existing infrastructure will go a long way in satisfying both skaters and non-skaters. Even if it must be located on the outskirts of town, all it takes to create a substantially more successful park is better planning, care, and knowledge of the skating community. As designers, we put considerable amounts of effort into designing the best site possible, no matter the scope; why should skateboarders and their skateparks be treated any different?

5. LURAY SKATEPARK DESIGN APPLICATION

Intent

The town of Luray, Virginia, is an excellent case study because it contains a typical isolated, inadequately built skatepark that lacks social richness, accessibility, and trickability. It is also a great case study because it exhibits nearly all of the problems identified in chapter three. Furthermore, having grown up there, I am very aware of the need for an improved skatepark and have detailed personal knowledge of local conditions.

The goal of this design is to create a new skatepark in the heart of downtown Luray that is more accessible than the existing skatepark. The new downtown location will bring skaters much closer to the town's amenities and will allow easy access by foot, bike, or board. Through the use of a linear skatepath, this design will also attempt to better integrate skateboarding into the community and make it more socially accepted. Additionally, the park will aspire to appeal to the non-skateboarding community, both visually and functionally, in hopes of making the site a socially rich hub for all users. This design will further seek to remedy the problems associated with structural inadequacies, utilizing mainly concrete obstacles and skateable art instead of wood or prefab obstacles. Finally, the aesthetic will integrate the park with the surrounding urban fabric and will be informed by conclusions drawn from the research of this thesis. Issues raised in subsequent chapters combined with techniques used by innovators will be taken into account and, where appropriate, applied to the design.

Current Skatepark Conditions

The rural town of Luray (Population 4,871 as of 2000) is located in the Shenandoah Valley of northwestern Virginia (Figure 5.1). It is a small, primarily agricultural community with residents widely spread throughout the county (Page County, VA). The town itself has a nostalgic, small town character typical of Appalachia. Main Street, the primary thoroughfare through town and the popular hangout spot amongst teens, is the lifeline of the community that harbors the main commercial and social centers. Tourism and current population influxes from Washington, DC, have further inspired the initiation of the Virginia Main Street Program and the Luray Downtown Initiative, which aims to recognize and highlight the culture of rural communities. As a result, Main Street in Luray has become a popular tourist destination.

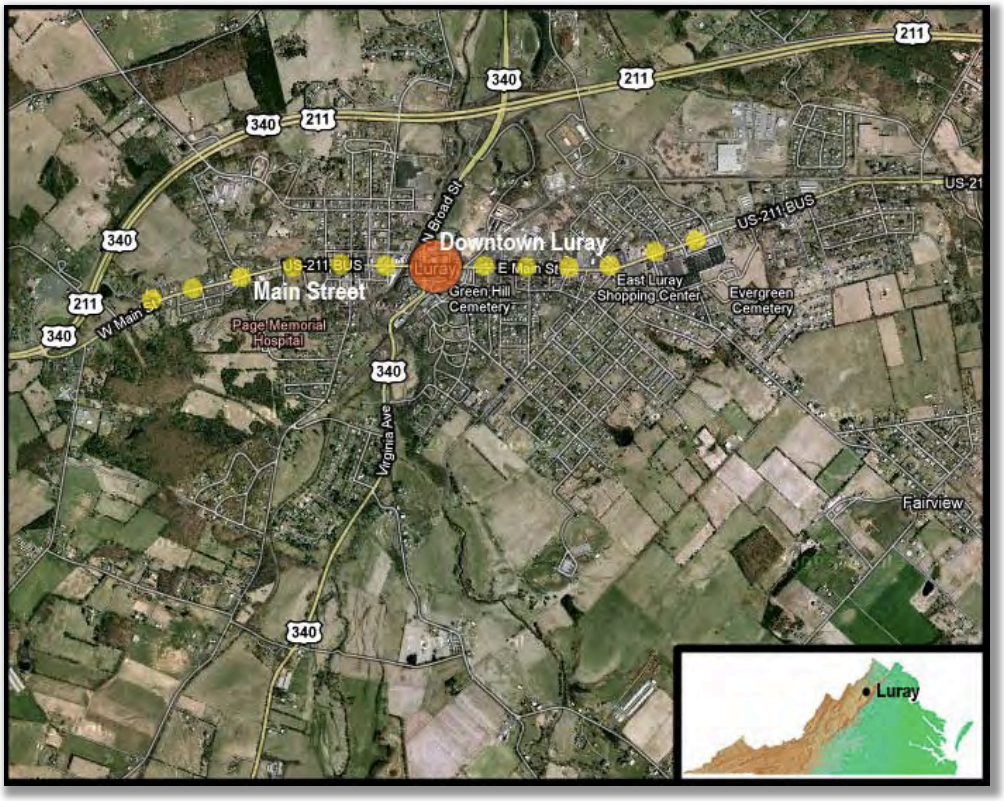


Figure 5.1: Satellite Image of Luray, VA

Source: Adapted from http://maps.google.com

In August of 2008, the Luray Town Council approved the construction of a skatepark to be located at the town's Ralph H. Dean Recreation Park. A short time later, the park was fully funded and erected for a cost of about $31,000 (Town of Luray, 2008). As my research has shown, location and design are crucial to the success of a skatepark. It should be located in an easily accessible and visible location that encourages social interaction. Additionally, it should be designed and built to adequately challenge skateboarders, while also being aesthetically pleasing to non-skaters. Unfortunately, this skatepark is currently not located at such a site, nor is it constructed in a way that is optimally engaging to skateboarders or the rest of the community.

Ralph H. Dean Recreation Park (Figure 5.2) houses multiple baseball/softball fields, a soccer field, cross-country trail, a football field, and a playground for all the community to enjoy. The park is primarily used to host Little League and community league sports. It would only seem logical that, when deciding on a location for a skatepark, it should be similarly located along side all of these other amenities. However, one look at a map and it is not hard to see that the recreation park's remote location is having a profound effect on the success of the skatepark-- Ralph H. Dean Recreation Park is located on the southeast edge of town, nearly 1 1/4 miles away from Main Street and the town center (Figure 5.3). As a result, based on my own experiences while living in Luray, along with periodic site observations conducted over the last year and a half, I find that the preferred method of transportation is to drive to the park in favor of walking or even biking. Furthermore, the park is completely surrounded by farmland and, for a big part of the year, sits relatively vacant with empty parking lots and sports fields (Figure 5.4). For skateboarders, this has proven to be disastrous-- not only must they rely on a vehicle to get there, but it is also far away from downtown and its amenities. Even if a skateboarder does make the trip to the park, due to its location there is a slim chance that any friends might also be there. As my site observations confirm, this has proven to be a deterrent to skaters who might want to use the park.

Figure 5.2: Ralph H. Dean Recreation Park, Luray, VA

Source: Photograph taken by the author, December 29, 2009

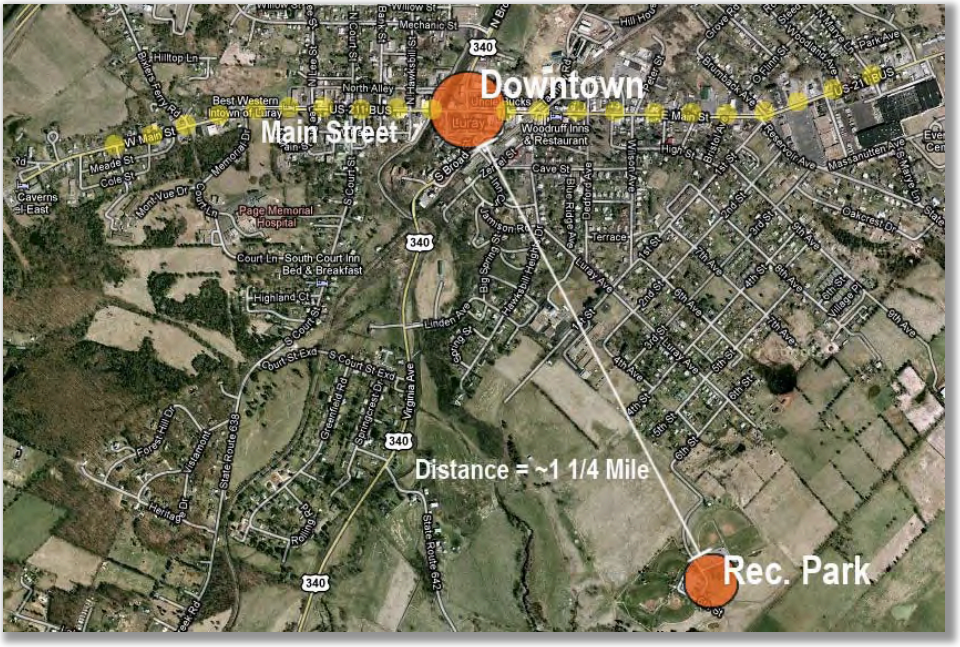


Figure 5.3: Park Isolated From Downtown

Source: Adapted from http://maps.google.com

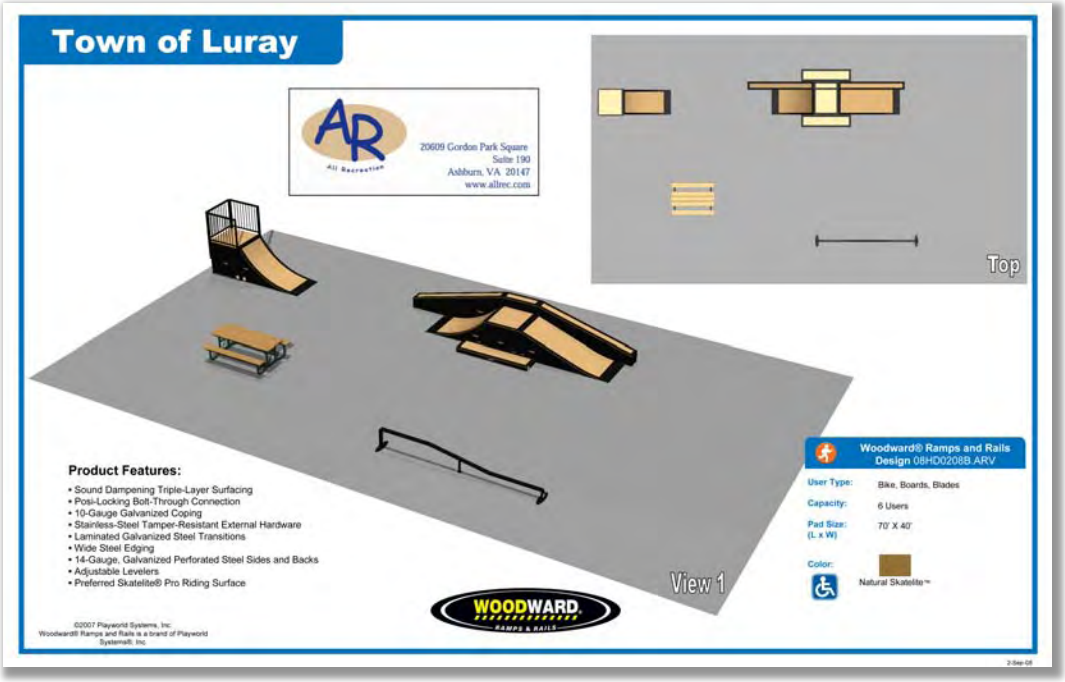
Figure 5.4: Isolated Luray Skatepark Location at Ralph H. Dean Recreation Park (Photo prior to construction)

Source: Adapted from http://maps.google.com

In my mind, this is a classic case of pushing skateboarders to the outskirts of town so that they will not be a nuisance to the rest of the community. I find it ironic that, when advertising to raise construction funds, town officials wrote, "The centrally located, professionally designed skate park will be a safe environment away from the dangers of the streets, sidewalks, and parking lots" (O'Brien, 2008, p. 1). First of all, the park is not centrally located and, though the intent to keep skaters safe is highly admirable, this idea of removing them from the streets, sidewalks, and parking lots completely disregards their inherent desire to skate all of these urban elements. Additionally, as alluded to in chapter 3, this further removes an entire demographic from downtown Luray, discouraging them from physically engaging with other community members. Having lived in Luray most of

my life, I know that the town of Luray is a socially-rich environment, but could certainly benefit from more teen involvement. A centrally located skatepark in downtown Luray would make the park more visible, accessible, and more socially engaging. Otherwise, the skatepark could be headed down the same path as so many others placed in similar locations.

When it comes to the design and construction, the Luray Skatepark is definitely lacking. The "…professionally designed…" (O'Brien, 2008, p. 1) skatepark is nothing more than a 40 X 70-foot prefab park with four obstacles fixed to a level concrete slab (Figure 5.5, 5.6). As outlined in chapter 4, prefab parks have a tendency to be less challenging, less socially engaging, and more expensive in the long run. In this case, there is nothing unique or dynamic about the park that would entice skateboarders to make it their skate spot, nor is it appealing to non-skaters. Furthermore, it lacks any aesthetic integrity without the use of vegetation or variations in materials. The result is a sterile, uninviting environment that lacks accessibility, sociability, trickability, and, according to my own site observations, sits empty most of the time.



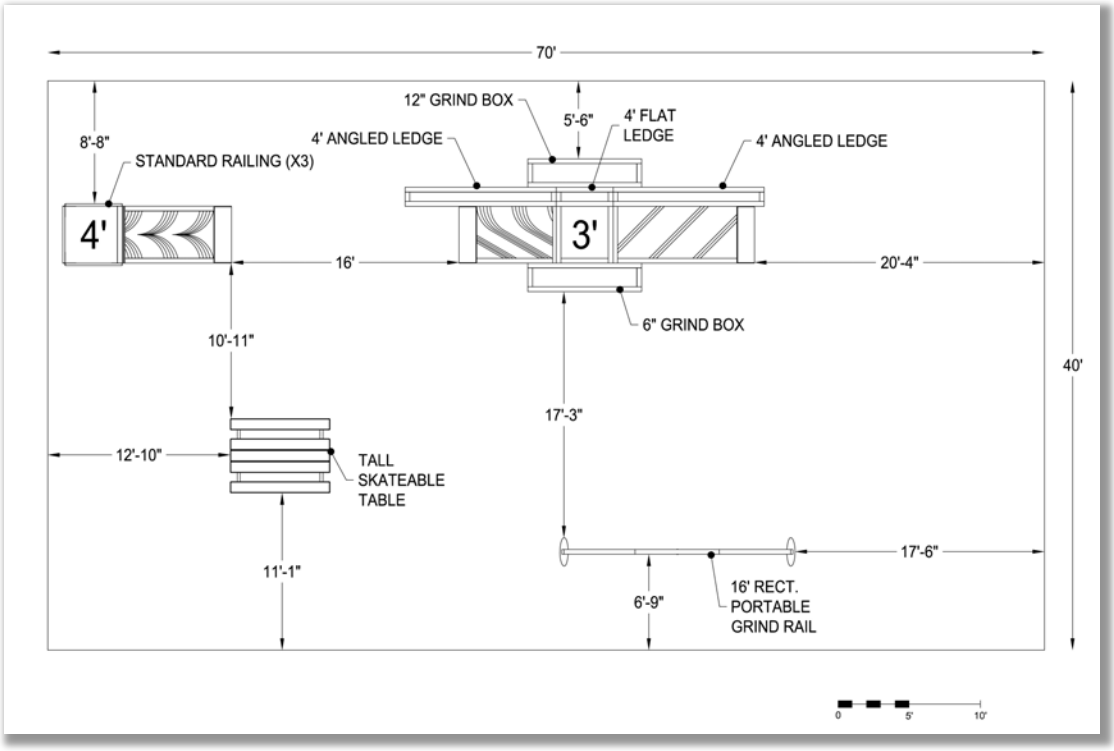


Figure 5.5: Luray Skatepark Design & Construction Details

Source: www.townofluray.com/parks.html

Figure 5.6: Luray Skatepark

Source: Photograph taken by the author, December 29, 2009

Proposed Site Conditions: Downtown Luray & The Hawksbill Greenway

Downtown Luray

In order to improve the accessibility and the sociability of the Luray Skatepark, my proposed location for an improved skatepark is downtown Luray-- right next to Main Street and directly adjacent to the Hawksbill Creek and Greenway (Figures 5.7, 5.8). The site, currently referred to as Ruffner Plaza, sits recessed eight feet below Main Street with access from the sidewalk via steps and a handicap-accessible ramp. The existing plaza primarily serves two functions: First, it serves as a temporary stage for outdoor musical performances, which are typically held during summer months on the weekends. To facilitate these small crowds, turf space in front of a makeshift, wooden stage is filled with rows of moveable benches. When not acting as a musical venue, this portion of the plaza sits vacant and unused—potentially a perfect opportunity for locating multi-use skatepark elements. The rest of this site, complete with murals and welcome signs, functions as a

plaza space for pedestrians traversing the recently built and highly popular Hawksbill Greenway. Built primarily of painted concrete (blue and grey-checkered), the plaza space provides a few benches, brick planters, information kiosks, and vegetation to entice users to stop and socialize, or just enjoy the view of the creek before continuing along the greenway path. Additionally, the plaza contains a wooden arbor with swings attached, a nearby bike rack for cyclers, and street lamps for night usage. The southern-most edge of the plaza abuts a concrete parking lot (16,300 square feet, 39 spaces) for greenway and surrounding business users and is in excellent condition (Figures 5.9-5.16).

Figure 5.7: Proposed Site Near Downtown Luray

Source: Adapted from http\\maps.google.com

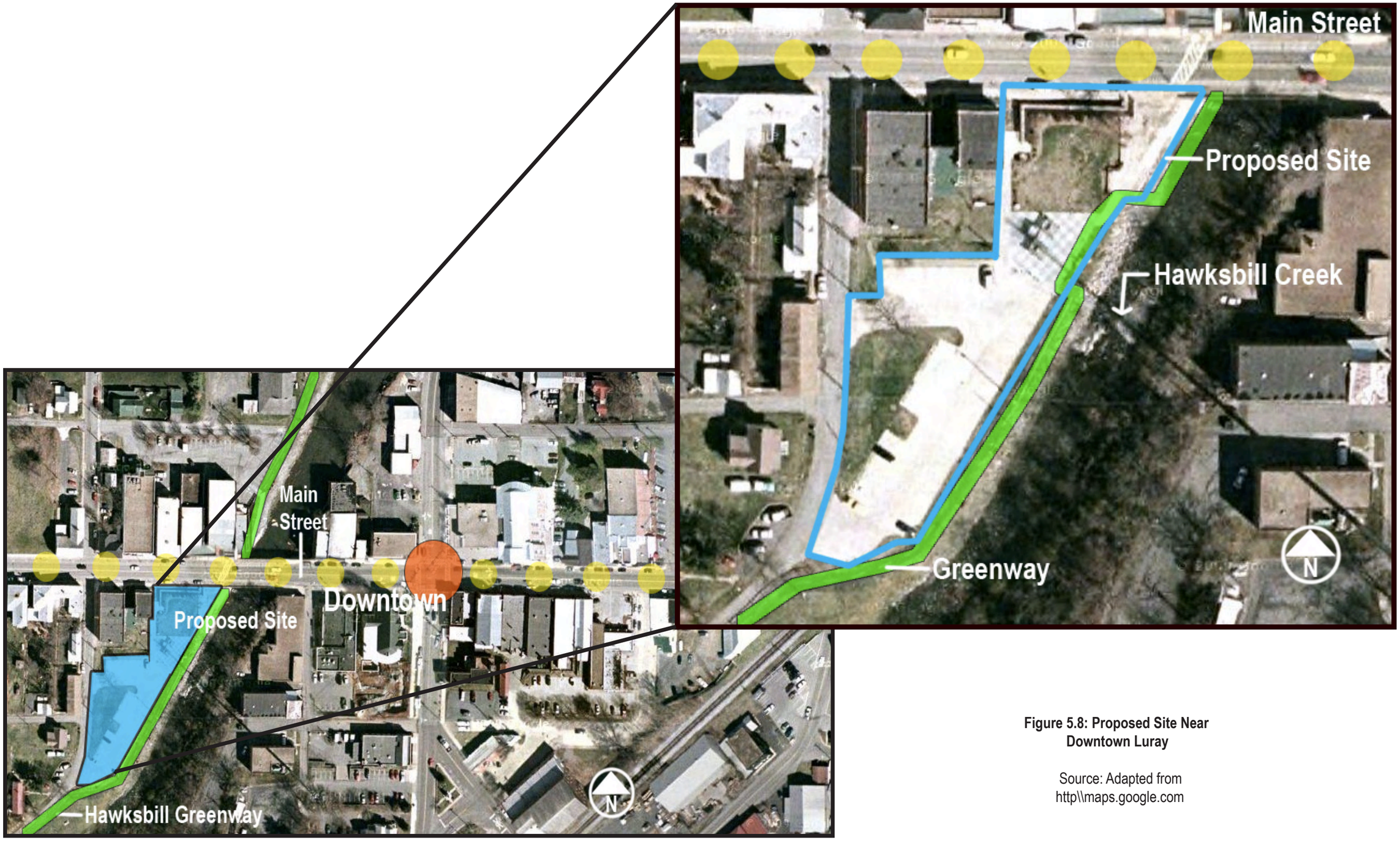


Figure 5.8: Proposed Site Near Downtown Luray

Source: Adapted from http\\maps.google.com

Figure 5.9: Site Inventory

Source: Adapted from http://maps.google.com

Figure 5.10: View Front Stage Area
Source: Photograph taken by the author, December 29, 2009

Figure 5.11: Plaza Mural
Source: Photograph taken by the author, December 29, 2009

Figure 5.12: Main St. Entrance Ramp
Source: Photograph taken by the author, December 29, 2009

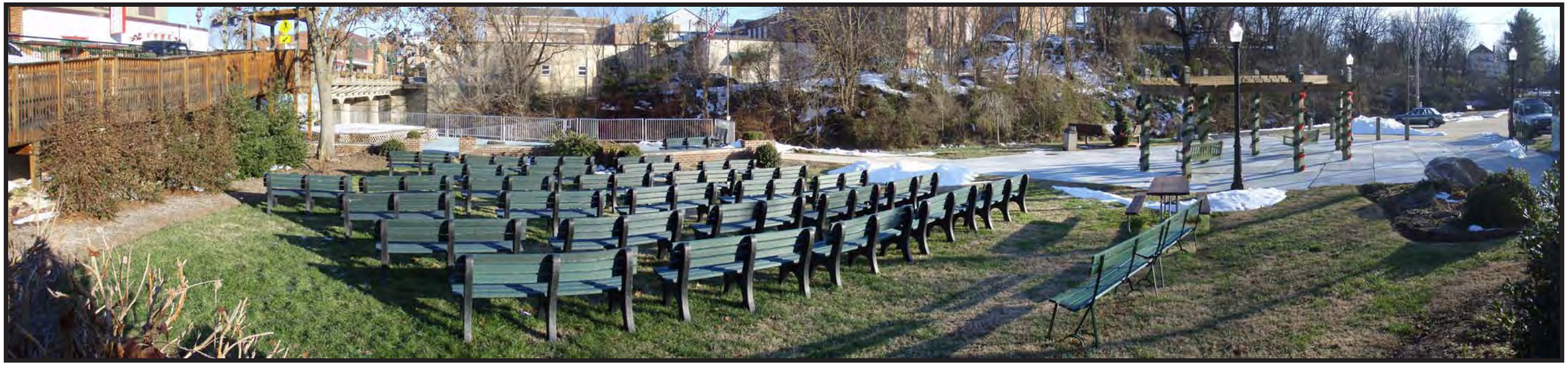


Figure 5.13: View Looking at Stage Area
Source: Photograph taken by the author, December 29, 2009

Figure 5.14: View of Plaza From Main Street
Source: Photograph taken by the author, December 29, 2009

Figure 5.15: Plaza with Arbor & Swings
Source: Photograph taken by the author, December 29, 2009

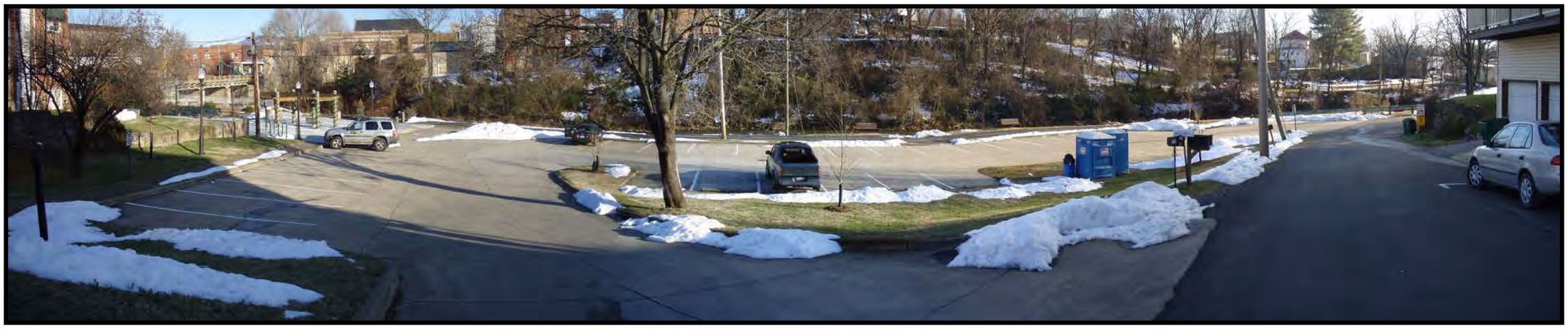


Figure 5.16: Site Parking Lot
Source: Photograph taken by the author, December 29, 2009

Perhaps the most important advantage of this location for a skatepark is that this site is highly visible. It sits just below Main Street and the Main Street bridge (over the Hawksbill Creek) and is easily seen from the street above. This is especially important to passersby who, while walking or driving, will have the opportunity to look down and see who is using the space. It is also important for those in the space, since they can still see all the action on Main Street, yet are low enough so as not to feel like they are "on display" to those above. For teens in Luray, "cruising town" in their cars in search of something to do is a popular activity. This enhanced visibility will even be a great opportunity for them to spot their friends from the road while riding by, further encouraging them to stop and socialize. Finally, from a security standpoint, the site can be easily monitored, as it is perfect for "drive by" observation. Equally as important as visibility, the site is easily accessible by foot, bicycle, and even automobiles with an added bonus of plenty of parking. And, because of its location right next to the greenway (yet far enough off the path to prevent collisions with pedestrians) there is also a better chance of enticing social interactions. As a result, the site has the potential to become a very popular social spot where users, both youth and adult, can hang out, meet friends, and continue on to the greenway or downtown. Another advantage of this relocation is that it brings the park much closer to the amenities that already attract users to Main Street. The lot is closely surrounded by popular venues such as the Luray Fitness Center, the renowned Brown's Chinese-American restaurant, Fairvew Apartment buildings, the Apple Cottage Health Food store, McKim and Huffman Pharmacy, and is only a short walk away from the locally-based Page Valley Bank, BB&T Center for the Performing Arts, Page Movie Theater, and other shops and restaurants located on Main Street (Figure 5.17).

1. Apple Cottage Health Foods
2. Local Novelty Shops
3. Residential Homes
4. Luray Fitness Center
5. Fairview Apartments
6. Page One Discount Store
7. Brown's Chinese-American Restaurant
8. Page Valley Bank
9. BB&T Center for Performing Arts
10. Artisan's Grill
11. Local Novelty Shops
12. Page Movie Theater
13. Police Station
14. Uncle Buck's Restaurant & Bar

Figure 5.17: Points of Interest Near Site
Source: Adapted from http://maps.google.com

It is important to note that maintaining this plaza quality is a major objective in my design program. My intent is not to solely replace the plaza and its current uses, as it certainly has merits as it is. Instead, my goal is to illustrate how a well-designed and constructed skatepark can be integrated into the space and still allow it to adequately serve all users. It is my hope that this will further define the space, enhancing it aesthetically, while also increasing its uses and, most importantly, bring skateboarders back into town in order to provide a better experience than the existing skatepark.

Hawksbill Greenway

In order to further enhance the skateboarding experience in downtown Luray, the proposed skatepark will also extend north along the Hawksbill Greenway. Installed in phases from 2001-2009, the greenway is a 1 1/4 mile asphalt track (10 feet wide) that closely follows the Hawksbill Creek. Since its completion, it has become very popular amongst the community. People can be seen at all times of the day and year walking, jogging, biking, rollerblading, fishing, feeding ducks, and even skateboarding. Murals, painted drainage pipes, benches, picnic tables, and planting designs are all scattered throughout its entirety for users to enjoy.

My focus will be on the portion of the greenway directly connected to the proposed skatepark site, continuing north until it reaches the local park-and-ride at the intersection of Highways 211 and 340 (Figure 5.18). The park-and-ride is a major parking spot for commuters and greenway users and is sited based on its proximity to the intersection of the two main highway systems that connect Luray to surrounding communities. As a result, this location is typically considered the central point of the Hawksbill Greenway,

acting as a meeting spot among users, and consequently, greatly improving access to downtown Luray and the proposed skatepark. It should be noted that, though the greenway continues north, the design will not extend beyond this point due to its increased distance from the proposed downtown skatepark site.

The greenway offers a great opportunity to include skateable art elements that will create engaging skate spots along its path. There are plenty of opportunities to place the art in existing vegetation beds on the sides of the path, if desired. As seen with the Spohn Ranch skateable art structures, these can be incorporated in a non-obtrusive way, so as not to offend other users. Additionally, the expressive quality of the greenway displayed by the murals and painted structures further implies that such art will be accepted. The greenway also offers opportunities to transform the existing benches and picnic tables into more durable and dynamic ones that promote skateboarding (Figures 5.18-5.20). Finally, inclusion of the greenway in the design further encourages social interaction. Instead of being concentrated in one spot, skaters are encouraged to venture away from the skatepark and mingle with other users. As a result of taking advantage of this popular local commodity, the skatepark is extended to include a linear skatepath, further enhancing accessibility, sociability, trickability, and hopefully, compatibility.

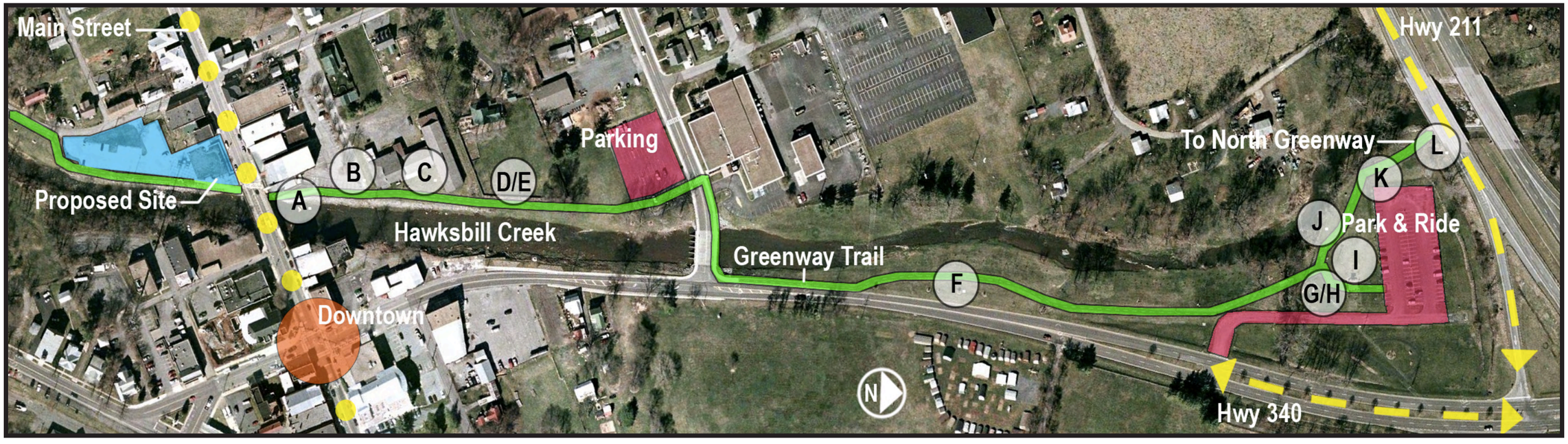


Figure 5.18: Portion of Hawksbill Greenway Included in Skatepark Proposal
(See Figures 5.19 & 5.20 for Noted Points of Interest)

Source: Adapted from http://maps.google.com

A. View Under Main St. Bridge- Adds Visual Interest

B. Benches can be Substituted with Skateable Seating

C. Local Art- Mural on Building Facade

D. Plaque site can be Improved with Skateable Art

E: Planting Beds can Include Skateable Structures

F: Bench can be Substituted with Skateable Seating

Figure 5.19: Greenway Points of Interest & Potential Skate Spots
(See Figure 5.18 for View Location)
Source: Photographs taken by the author, December 29, 2009

G. Plaque Site can be Improved with Skateable Art

H. Benches can be Substituted with Skateable Seating

I: Welcome Plaza can be Modified to Allow Skating

J. Local Art- Mural on Pipe Structure

K: Adequate Space for Skate Structure Beside Path

L: Overpass Offers Oppotunities for Dynamic Skate Spots

Figure 5.20: Greenway Points of Interest & Potential Skate Spots
(See Figure 5.18 for View Location)
Source: Photographs taken by the author, December 29, 2009

Integrating Skateboarding into Downtown Luray

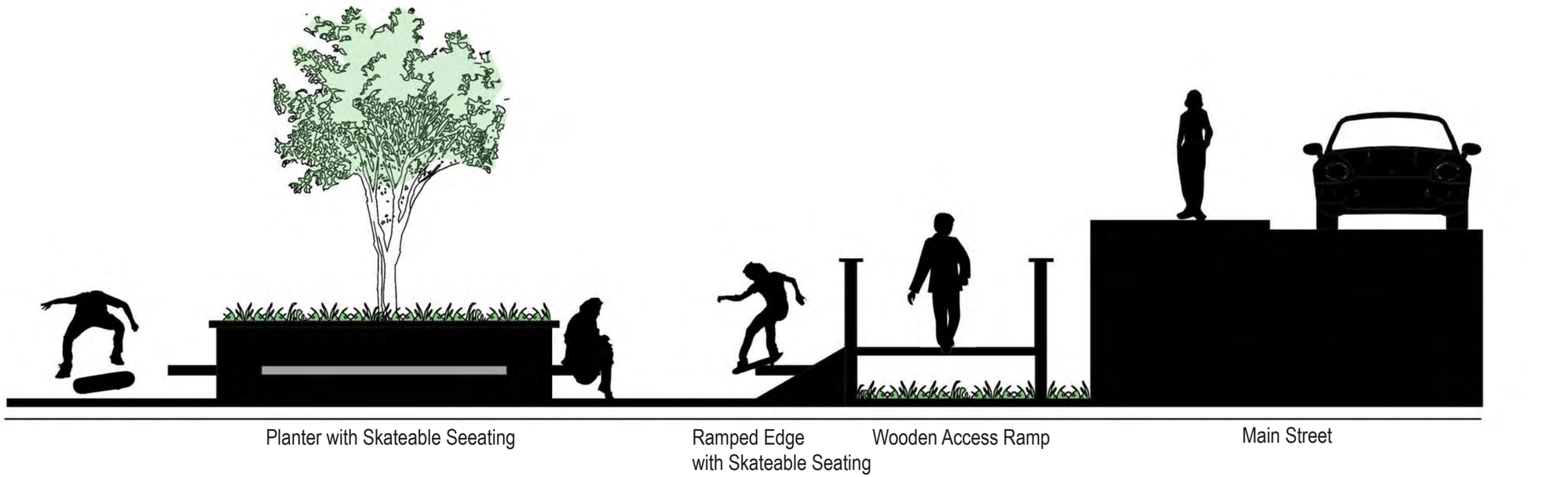
Luray Skate Plaza

The design for this skatepark combines elements of desirable skateparks and skatepark innovators that were reviewed in previous chapters. It takes on the form of a skate plaza—one that is a delicate balance between skateboarding and existing community uses. Much care is taken to accommodate all users so as not to neglect non-skaters who currently enjoy the existing site. A proposed site plan is shown in Figure 5.21, and the following is a description of the design and its purposes.

The proposed Luray Skate Plaza contains both an upper and a lower plaza space that are meshed together with skateable elements. The upper plaza, which replaces the open turf and temporary seating space in front of the stage area, is elevated three feet above the existing ground level. This not only makes the site more visually dynamic, but it also enhances the trickability potential by allowing for more significant grade changes within the site. In this upper plaza, planters with shade trees and seating ledges now provide excellent sitting spaces, and, when not being used, the seating doubles as skateable ledges. Furthermore, the northern end of the upper plaza space is lined with a concrete ramped edge, which also includes another skateable seating ledge. In addition to being used for grinding, this ramped edge allows skaters to build up speed and, more importantly, prevents them from having to stop and pick up their boards to change direction when they reach the edge of the plaza (Figures 5.22 & 5.23). On the western edge, white concrete capstones frame the plaza to add aesthetic appeal and provide yet another grinding surface for skaters. The two prominent skateable art structures located

Figure 5.21: Master Plan for Luray Skate Plaza

Figure 5.22: Section & View Locations of Subsequent Figures



SECTION A-A'
SCALE 3/16"=1'-0"

0 10 15 20

Figure 5.23: Ramped Edge & Skateable Seating Ledges
(See Figure 5.22 for Section Location)

between the planters include a concrete “Broken Pyramid” (Figure 5.24) and the concrete “Crescent,” (Figure 5.25) which are both ramped obstacles that cater well to those who prefer street skating.

Transitioning down to the lower plaza can be done in a number of ways. First, skaters can use a skateable ramp (Figure 5.26) so that they do not have to jump down a set of steps or stop skating all together. This also allows them to gain speed in order to skate the obstacles on the lower plaza. If desired, skaters do have the option to transition to the lower plaza by using steps, either by jumping or walking down them. The majority of these plaza steps are wider (tread up to 3 feet) and taller (riser up to 10 inches) than average in order to better accommodate skateboarding and to also encourage other activities such as sitting and socializing. Finally, if skaters really want to challenge themselves, they can take advantage of the grinding ledges and a handrail that a few of the stepped portions of the upper plaza offer.

The lower plaza, which is on grade, includes even more skateboarding obstacles. In order to take full advantage of the grade change created by elevating the upper plaza, my main focus here was to produce engaging skating lines that seamlessly link the two plazas together. As a result, the obstacles are all strategically placed with skating lines in mind, allowing multiple obstacles to be engaged without ever getting off the skateboard. For instance, one potential line begins on the upper plaza, continues down the skateable ramp onto the lower plaza where skaters then have the option of engaging “The Wave” (concrete skateable art piece; Figure 5.27), or gaining even more speed and engaging the “Floating Quarter-pipe” (Figure 5.28). After that, they have the option of continuing on to the other

Figure 5.24: View A-- “Broken Pyramid” Skateable Art
(See Figure 5.22 for View Location)

Figure 5.25: “Crescent” Skateable Art
(See Figure 5.22 for Section Location)

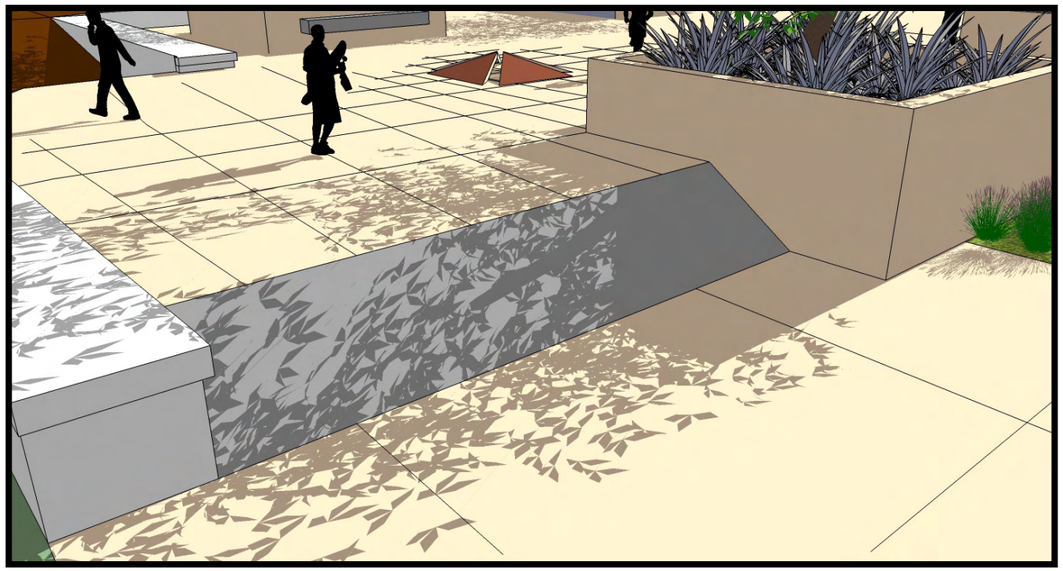


Figure 5.26: View B-- Skateable Ramp Linking Upper & Lower Plaza
(See Figure 5.22 for View Location)

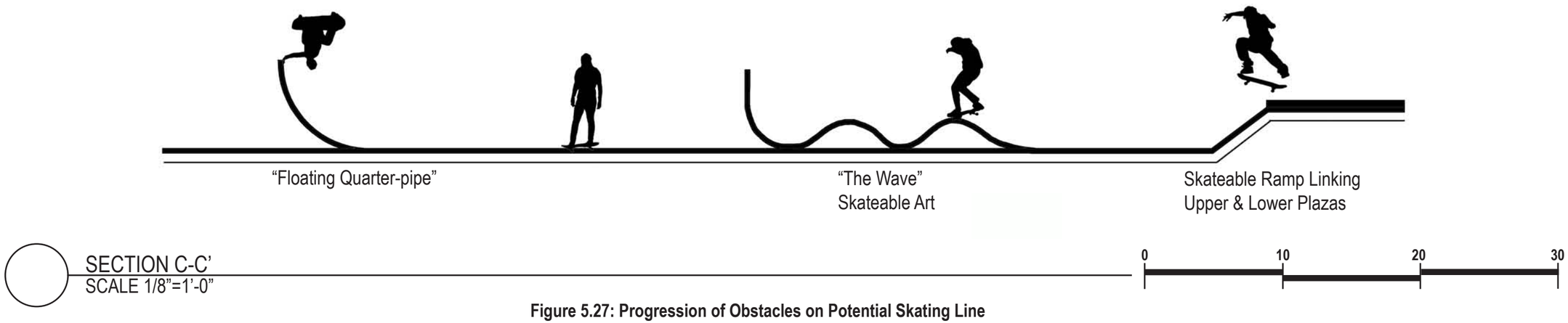


Figure 5.27: Progression of Obstacles on Potential Skating Line
(See Figure 5.22 for Section Location)

obstacles on the lower plaza without having to stop and walk to reach them. Figure 5.29 illustrates more of these potential skateboarding lines. Alternatively, all of the obstacles in this plaza can be individually skated, as the design allows for plenty of room to safely engage and exit each one of them.

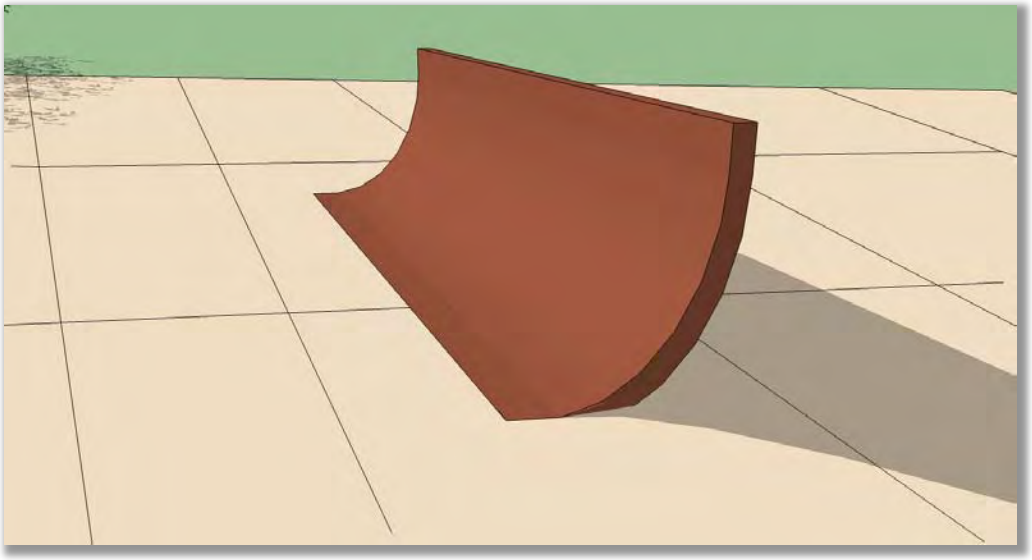


Figure 5.28: View C—"Floating Quarter-pipe"
(See Figure 5.22 for View Location)

As for the obstacles themselves, the Luray Skate Plaza design substantially improves upon the prefab structures at the existing park and offers a variety that will appeal to both street and vert skateboarders. Offering both, as outlined in chapter 4, is a great way to attract a wider range of skateboarding styles and also challenges those who want to expand their skills. As a plaza, the site mimics the urban environment and incorporates plenty of steps, ramps, and even a handrail for skaters to grind on and jump over, making it particularly attractive to street skaters. Because of the smaller size of the site and in order

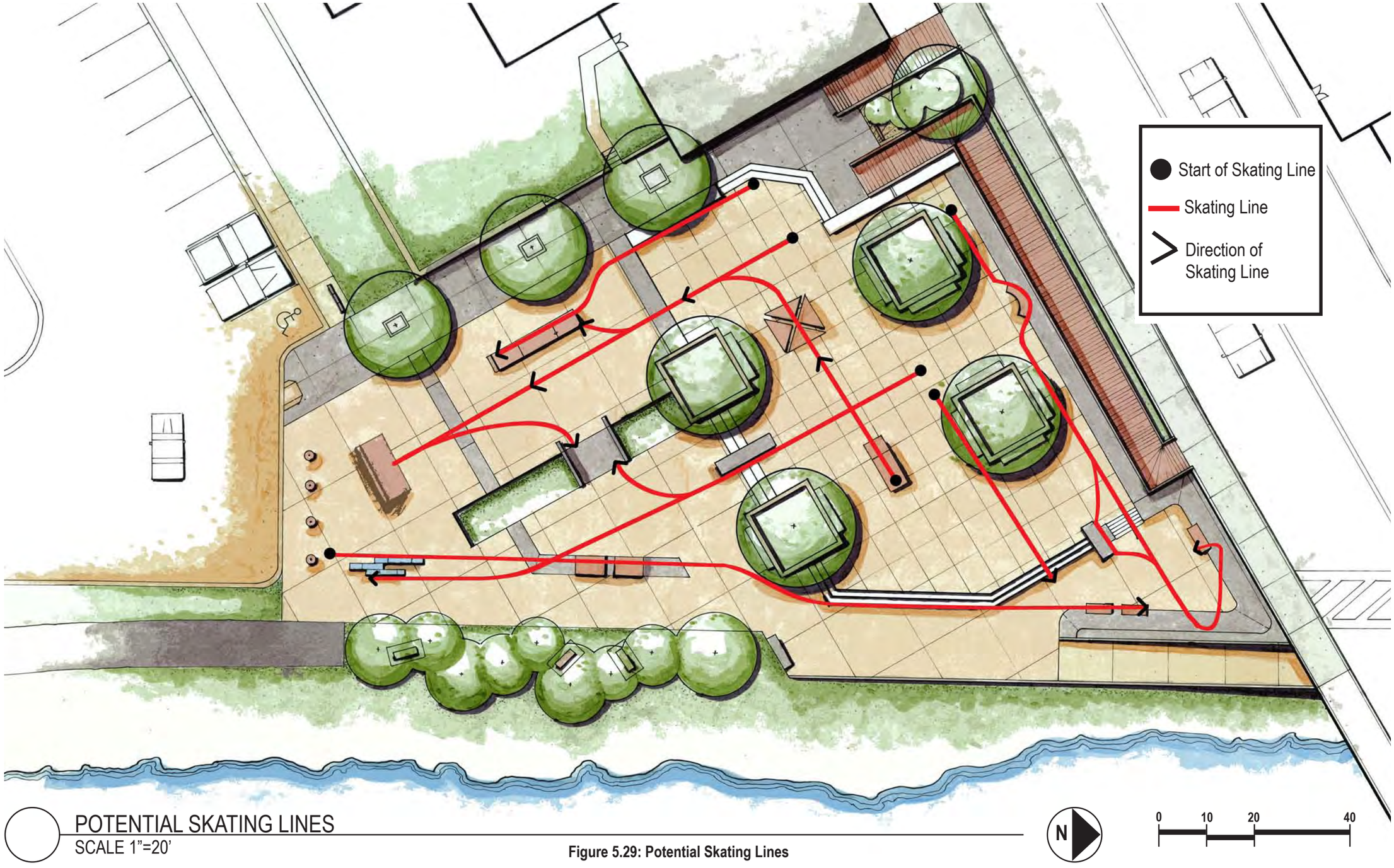


Figure 5.29: Potential Skating Lines

to best accommodate all users, there is no bowl or pool in this design for vert skaters. However, to make up for this, The Wave skateable art structure as well as the Floating Quarter-pipe are both intended to serve this style. In addition, the northern-most point of the design on the lower plaza contains a banked wall (Figure 5.30) that loosely resembles a pool and/or half-pipe and can be used to perform basic vert tricks. As noted on the master plan in Figure 5.21, future expansion into the adjacent parking lot may be possible and would be an excellent place for a vert pool. One of the most important aspects of the obstacles is that they are all designed in a way that is not offensive to locals who may be opposed to the idea of a skatepark. The Broken Pyramid, The Crescent, The Wave, and even "The Gap" (ramped obstacle; Figure 5.31) are all variations of the obstacles typically found in desirable and innovative concrete skateparks, yet are designed to be aesthetically appealing even to non-skaters. Furthermore, nearly all the obstacles are built of concrete, colored with a light brown stain that helps set them apart from the typical grey concrete used in most skatepark obstacles. To those unfamiliar with skateparks, many of these obstacles could be mistaken for art sculptures.

As is the case with most popular skateparks, all of the skateable surfaces are constructed of reinforced concrete (4 inches thick or more) for durability and the smoothest possible ride. However, in order to further enhance the visual appeal of the Luray Skate Plaza, both the ground plane pattern and colors are varied. In this design, control joints are used to create a grid pattern that varies between the upper to lower plazas, giving the site a more formal appearance. Furthermore, the majority of the plaza surfaces include a tan-colored concrete stain, which again strays from the typical monotonous grey concrete color used in most skateparks. The tan color is a direct

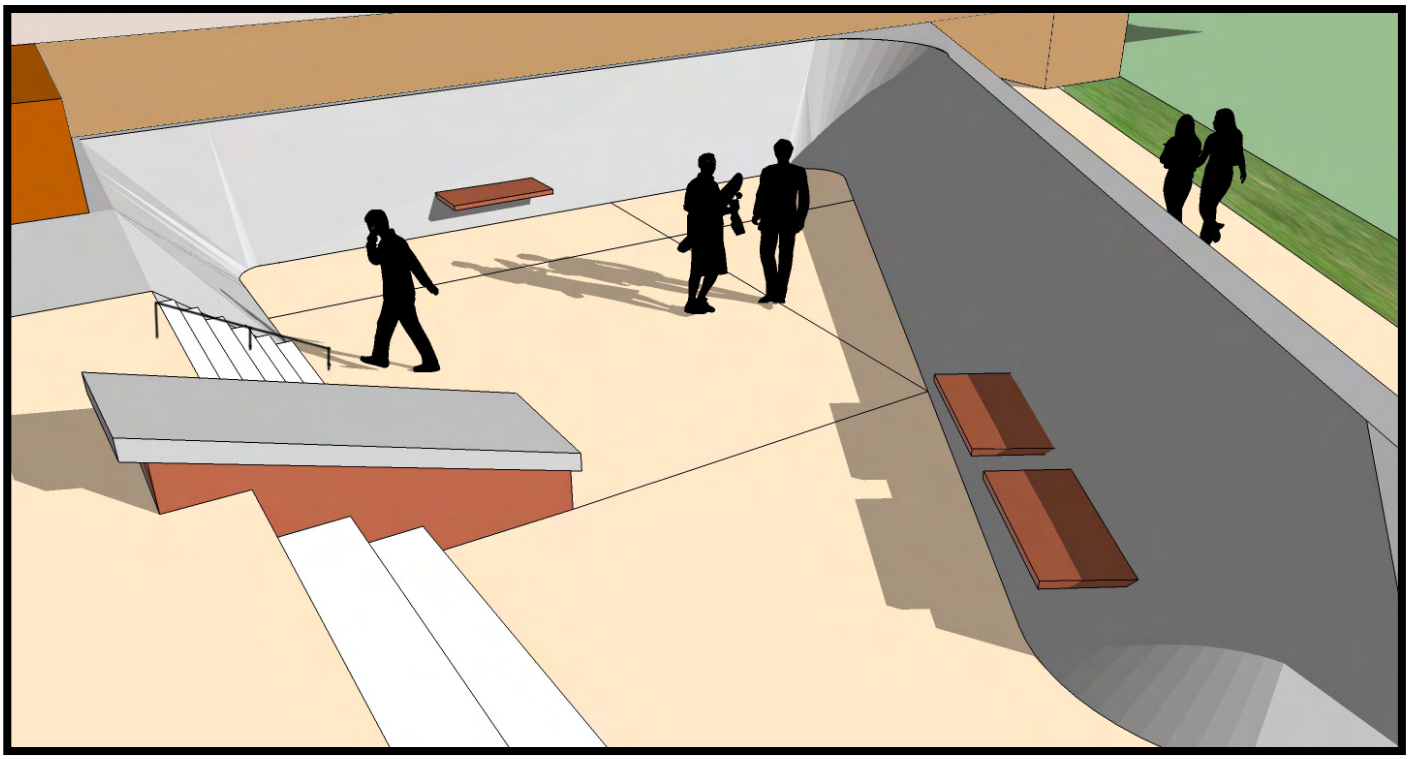


Figure 5.30: View D-- Banked Wall Resembling Bowl/Half-pipe
(See Figure 5.22 for View Location)

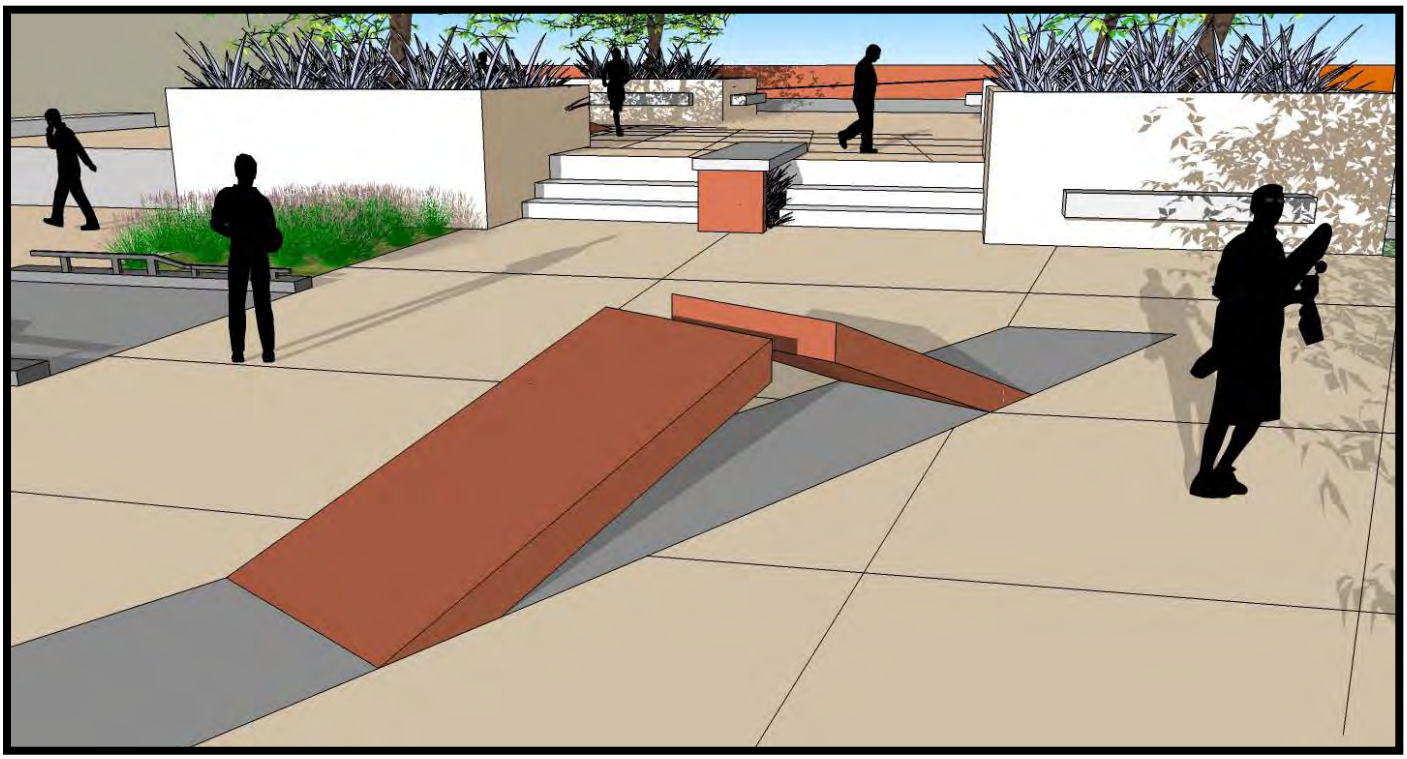


Figure 5.31: View E--"The Gap" Ramped Obstacle
(See Figure 5.22 for View Location)

reflection of the earth tones found in the stones and creek bed of the adjacent Hawksbill Creek, and is further complemented by the light brown stain used in most of the obstacles. An additional diversification of the material color can be seen in the prominent, white-stained steps on the perimeter of the upper plaza. Taking inspiration from the Plaza at the Forks in Winnipeg, Canada (Page 75 of this manuscript), I chose to incorporate some grey concrete elements so that the site still maintains something of a raw skatepark character. The bridge, ramped edge of the upper plaza, the walkway on the western edge of the site, the tree planter seating ledges, and a few of the grinding ledges are all grey for this reason. This can also be seen in the prominent grey strip of concrete that extends into the lower plaza, which further adds to the ground plane variety (see Master Plan; Figure 5.21).

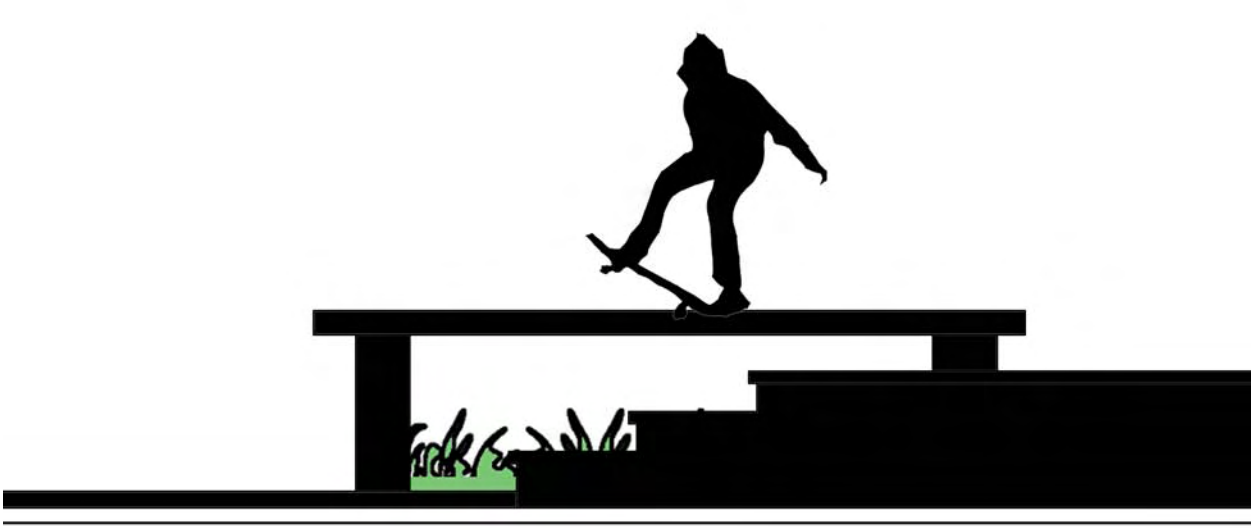
Part of the goal of this design is to maintain the existing uses of the site so that it is equally enjoyable for non-skaters. As previously stated, this site is often used for concerts during the summer months. To accommodate this, the upper plaza is designed to maintain this use, as it still has plenty of open space for a staged performer. Besides the two skating obstacles, there is also still ample room to set up temporary seating. Plus, if need be, temporary seating can extend onto the lower plaza, which even has the advantage of further elevating the performer. When not being used as a stage, the wide steps located at each of the main entrances to the skate plaza invites users to skate or to simply enjoy a seat under the canopy of one of the four shade tree planters.

In addition to the aesthetic appeal of the hardscape material, my design, much like the design for the Maloof Money Cup (Page 76 of this manuscript), also incorporates vegetation in as many locations as possible to further appeal to passersby. One example of

this can be seen with the placement of grasses under the grinding ledge that links the upper and lower plazas together (Figure 5.32). A more prominent example is the turf strip that bisects the lower plaza (Figure 5.33), which also helps to soften the inevitable harshness of the hardscape. In this case, a bridge is situated over the strip, which not only allows skaters to traverse the gap, but is also a neat landscape element that could be intriguing to other users. Equally as important, I chose not to eliminate the existing bench seating space between the plaza and the Hawksbill Creek, as it is already a popular seating area amongst greenway users. Instead, the space now includes more shade trees, which is intended to make the space a bit more intimate, away from skateboarders (See Master Plan; Figure 5.21).

As a part of the Hawksbill Greenway, it is also important that this plaza is compatible with users who are just passing through. Some may fear the possibility of collisions with skateboarders who are coming off of a ramp or are simply out of control. Consequently, my design encourages skating primarily in the center of the plaza. Most of the obstacles are designed to run parallel to the greenway path and none of them are placed in a way that would direct skateboaders into main pedestrian thoroughfares (Figure 5.34). Additionally, the existing concrete walkway on the western edge of the site has been kept to accommodate those who want to traverse around the plaza.

Finally, it is important to note that the Luray Skate Plaza design does retain some currently existing features such as the handicapped accessible ramp and information signs. It also still provides a bike rack and ample parking for those not walking or skateboarding to the site. I took special care to retain the local art by preserving the hand-painted murals



Grinding Ledge with Vegetation Beneath

SECTION D-D'
SCALE 1/4"=1'-0"

0 1 2 3 4 5 10

Figure 5.32: Grasses Under Grinding Ledge
(See Figure 5.22 for Section Location)

Bridge with Grinding Rails Over Turf

SECTION E-E'
SCALE 3/8"=1'-0"

0 1 2 3 4 5

Figure 5.33: Turf Strip Under Bridge
(See Figure 5.22 for Section Location)

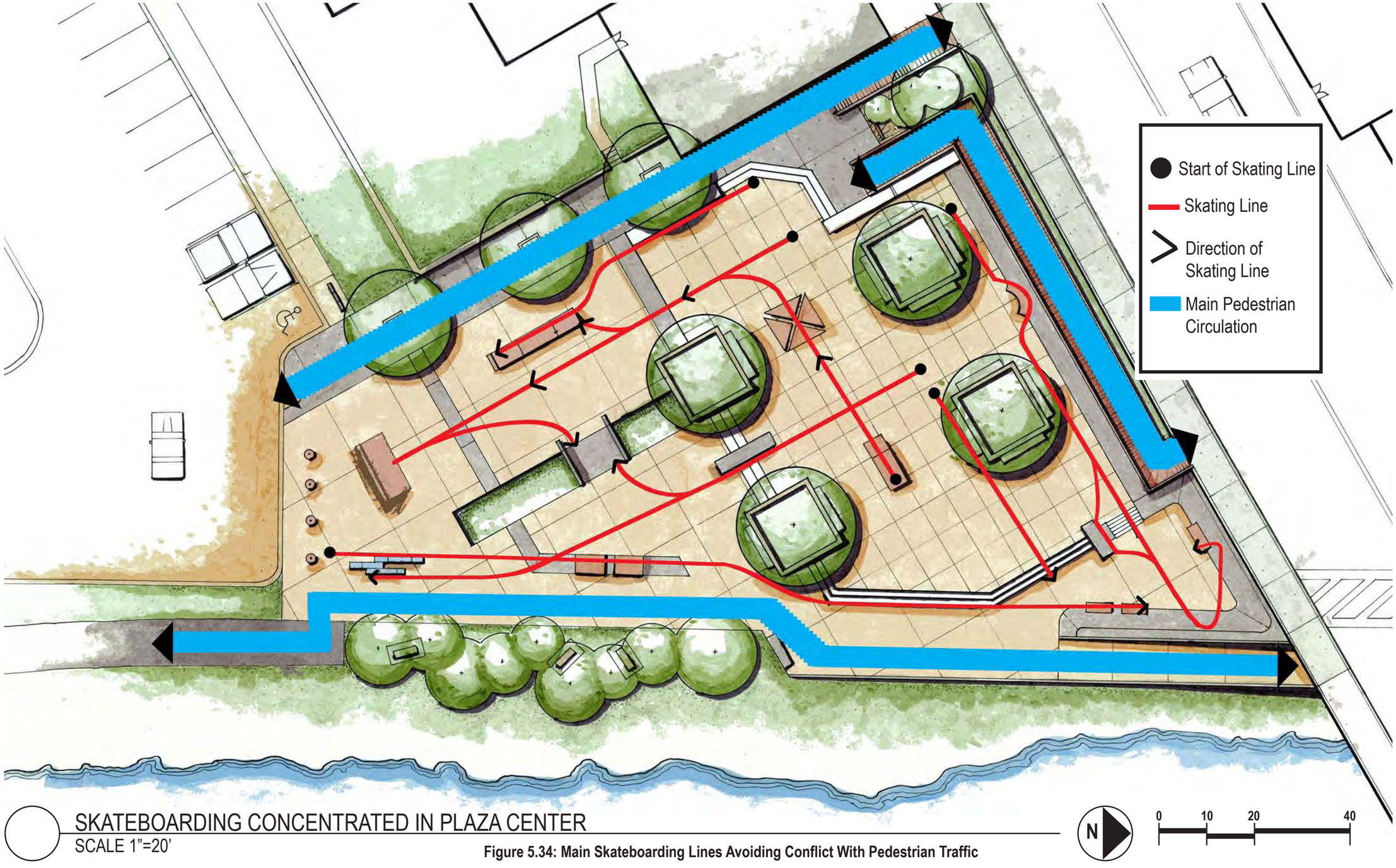


Figure 5.34: Main Skateboarding Lines Avoiding Conflict With Pedestrian Traffic

that are currently in the plaza. And, as my way of adding to this local flavor, I even designed a skateable entrance sign (Figure 5.35) made of blue-stained concrete that represents the sunset over the nearby Massanutten Mountains—a sight widely cherished by community members. It is my hope that this adds a playful touch to the skate plaza and helps to erase some of the negativity that has historically accompanied skatepark installations.

Insights gained from examining desirable skateparks and industry innovators have been synthesized into this skate plaza design. The obstacles are unique, challenging to both skating styles, and most importantly, do not appear as bland as most skatepark obstacles do. The decision to maintain a plaza arrangement and appearance, using vegetation and varied material patterns and colors to do so, help it seamlessly blend into downtown Luray. It is a definite visual improvement over the existing skatepark at the recreation fields, and, more importantly, its highly accessible downtown location next to the greenway will make it substantially more sociable. Furthermore, the fact that it is constructed almost solely of concrete makes it a more permanent solution that will better serve the entire community in the long run. All of this, combined with the flexibility of uses within the space and the careful attention paid to attracting a variety of users, makes the Luray Skate Plaza a site that can be equally accepted and enjoyed by all. As discussed in previous chapters, such features are capable of better integrating skateboarding into downtown Luray in the form of a well-designed skate plaza that is substantially more accessible, trickable, sociable, and hopefully more compatible than its predecessor.

Concrete (Blue Stain) Skateable Entrance Sign

SECTION F-F'
SCALE 3/8"=1'-0"

0 1 2 3 4 5 10

Figure 5.35: Skateable Entrance Sign
(See Figure 5.22 for Section Location)

The Hawksbill Greenway

As previously outlined, there are numerous locations for potential skate spots along the greenway path. However, after analyzing all sites according to their location and existing conditions, I chose only six to expand upon for this design. Together, these proposed skate spots, stretching from the Luray Skate Plaza to just past the park-and-ride, create a linear skate path that continues to challenge skaters who want to venture beyond the plaza. Equally as important, this design further encourages skaters to mingle with other community members on the greenway. Taking inspiration from Spohn Ranch and their skateable art obstacles, each of the skate spots are designed to improve upon the existing conditions. Where possible, the new skate spots incorporate vegetation and are constructed of materials that stay consistent with the local character. This way, they do not visually overpower the scenic views that the greenway has to offer, nor are they offensive to non-skaters.

Similar to the skate plaza, the obstacles in this design are meant to cater to both street and vert skaters, yet are also meant to seamlessly blend into the existing landscape. As a result, most are variations of common skatepark obstacles, but are substantially more aesthetically pleasing. The first example of this can be seen in the skateable bench design located just north of the plaza (Figures 5.36 & 5.37). Replacing an existing wooden bench, the proposed bench is much larger and is made of concrete and stone in order to withstand the damage caused by skateboarding. To add character to the structure, a red concrete stain is used on the skating surface. Similarly, the legs of the bench are covered in a flagstone veneer, again echoing the rocky creek bed of the nearby Hawksbill Creek. In

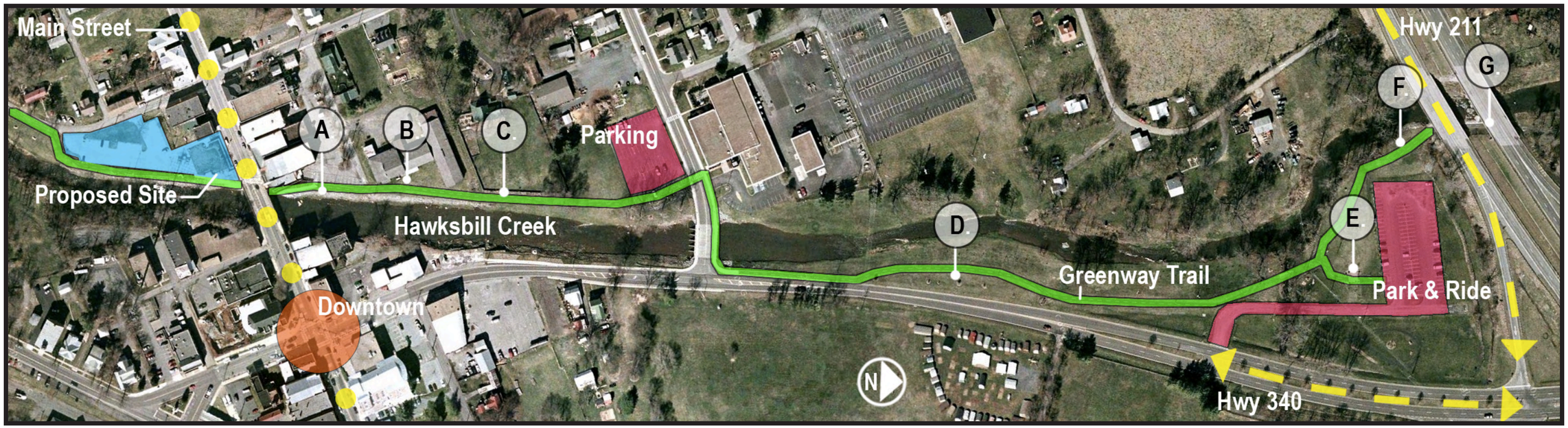
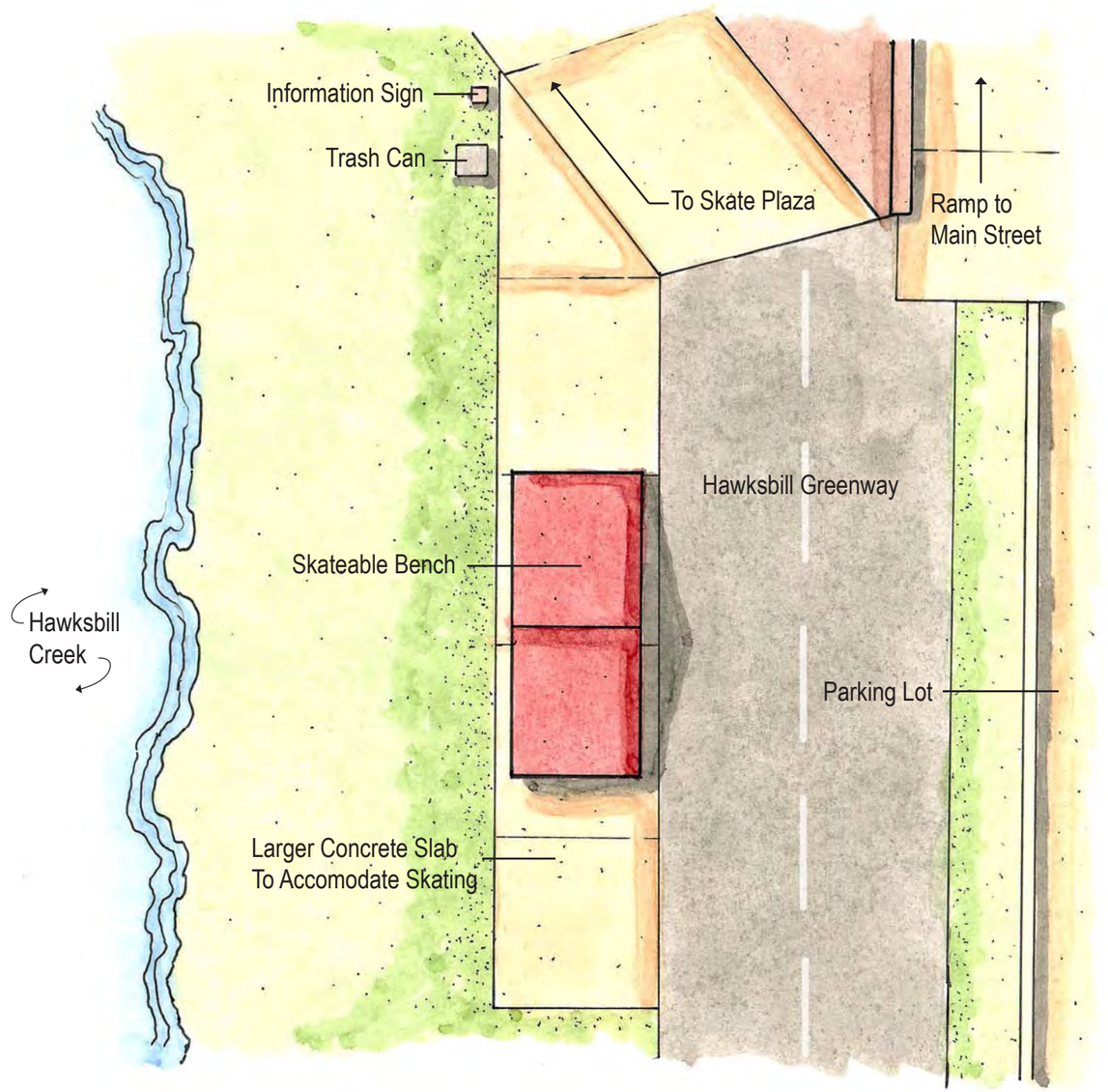


Figure 5.36: Skate Spot Locations Along Hawksbill Greenway
(See Subsequent Figures for Noted Site Designs)

Source: Adapted from http://maps.google.com

View of Existing Bench



PROPOSED SKATEABLE BENCH PLAN
SCALE 3/16”=1’-0”

N

0 10 15 20

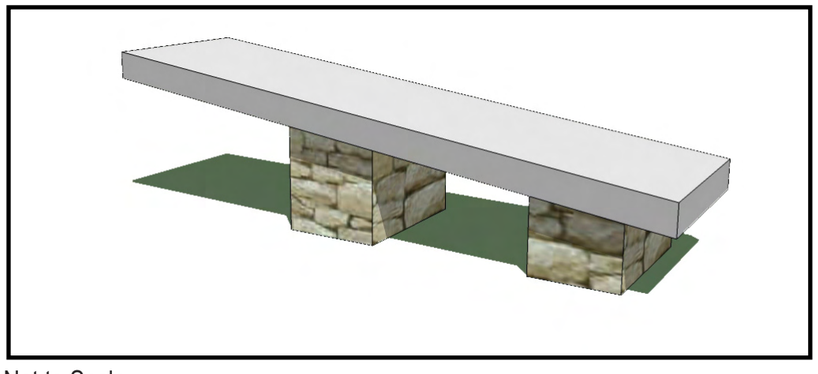
Figure 5.37: Greenway Skate Spot A-- Proposed Skateable Bench
(See Figure 5.36 for Site Location)

order to provide enough room for skaters to comfortably engage and exit this obstacle, a concrete pad is placed at the base of the bench, extending past it on each end. This also provides a smooth transition from the asphalt path to the obstacle. Finally, though it is not ideal for sitting, the angle of the bench allows the skater to gain more speed, creating a more dynamic ride. A similar example of this can be found at site D, located near the middle of the proposed greenway skate path (Figure 5.38). This bench is slightly different in that it is colored light grey instead of red and has a different slope to its skating surface.

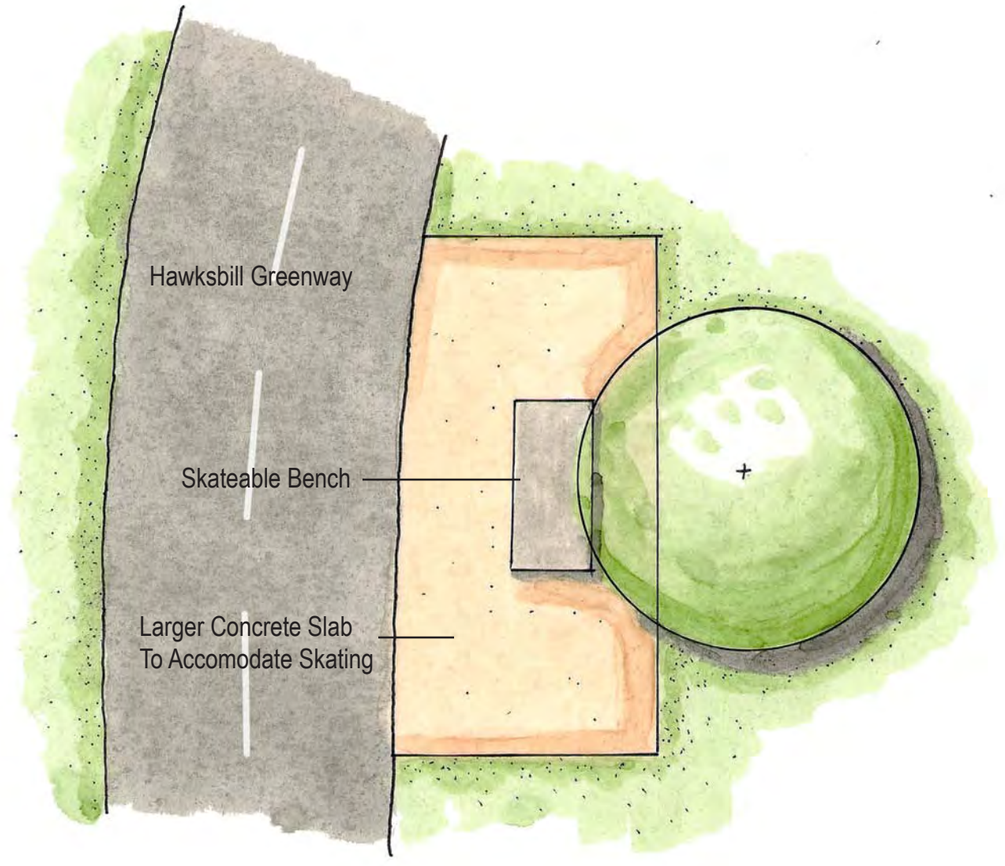
Moving farther north, skaters encounter the second greenway skate spot. This skateable art structure, which I call the "Half Moon," expands upon an existing plaque site (Figures 5.39 & 5.40). The obstacle consists of an angled concrete pad with a protruding concrete box that is excellent for grinding. Similar to the ramped edges and banked walls of the plaza, this structure is also great for gaining speed and changing direction without having to leave the board. And, much to the liking of vert skaters, the Half Moon also mimics the sensation of skating a bowl or pool wall. Finally, for structural support and to add aesthetic appeal, the obstacle is surrounded by a bermed planting bed.

Continuing north, skaters encounter the third skate spot. Here, they will find "The Ridge" which is a curved, concrete grinding obstacle that runs parallel to the path (Figures 5.41 & 5.42). The combination of its close proximity to the walkway and the fact that one edge is flush with the ground means that skaters can quickly transition onto and off of the obstacle without loosing speed. Furthermore, like the benches, the curved shape makes it more challenging and dynamic than if it was straight. Most important, the obstacle is

View of Existing Bench



Not to Scale



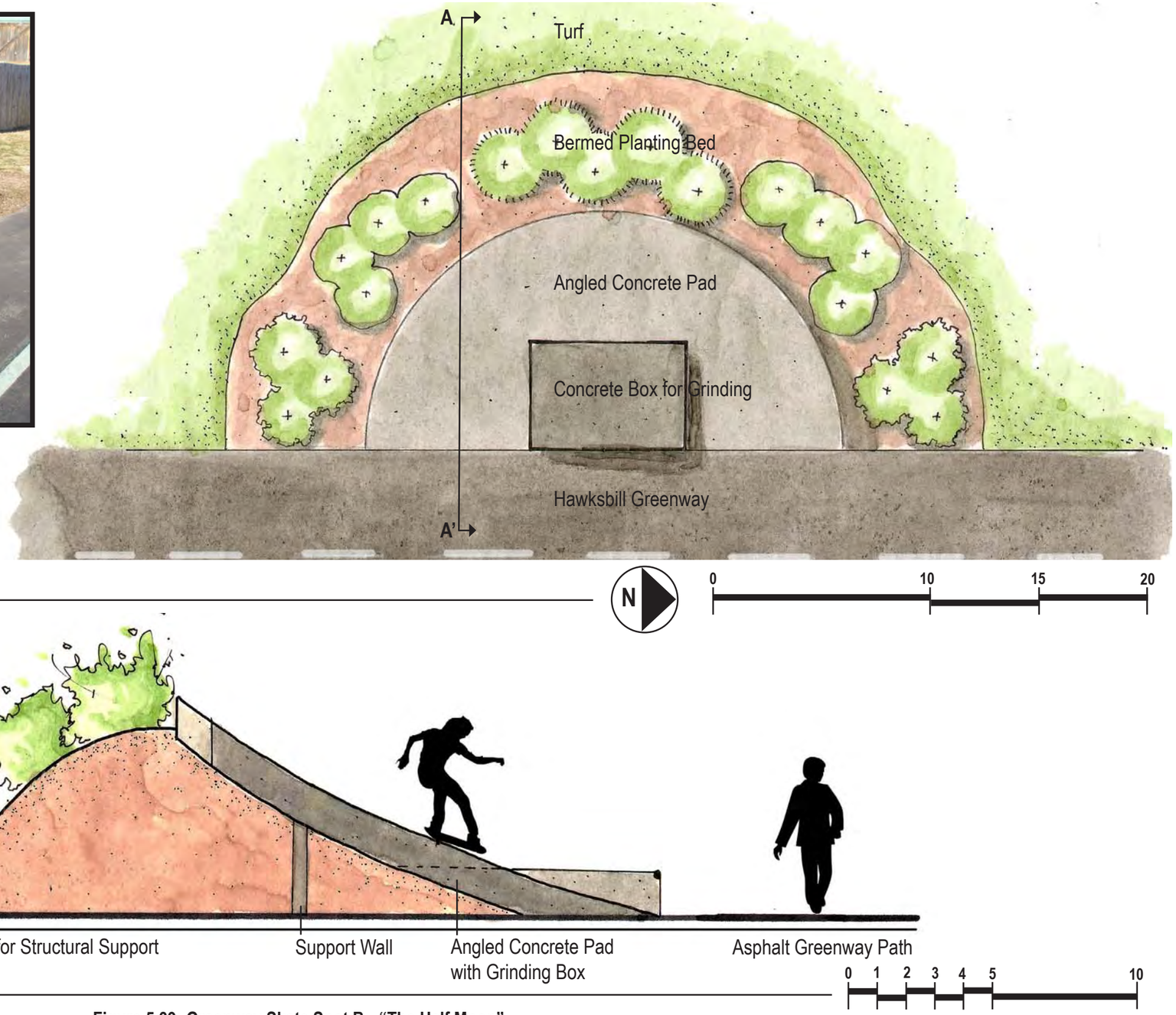
PROPOSED SKATEABLE BENCH PLAN
SCALE 3/16"=1'-0"

N

0 10 15 20

Figure 5.38: Greenway Skate Spot D-- Proposed Skateable Bench
(See Figure 5.36 for Site Location)

View of Existing Plaque Site



"THE HALF MOON" PLAN
SCALE 3/16"=1'-0"

SECTION A-A'
SCALE 1/4"=1'-0"

Figure 5.39: Greenway Skate Spot B-- "The Half Moon"
(See Figure 5.36 for Site Location)

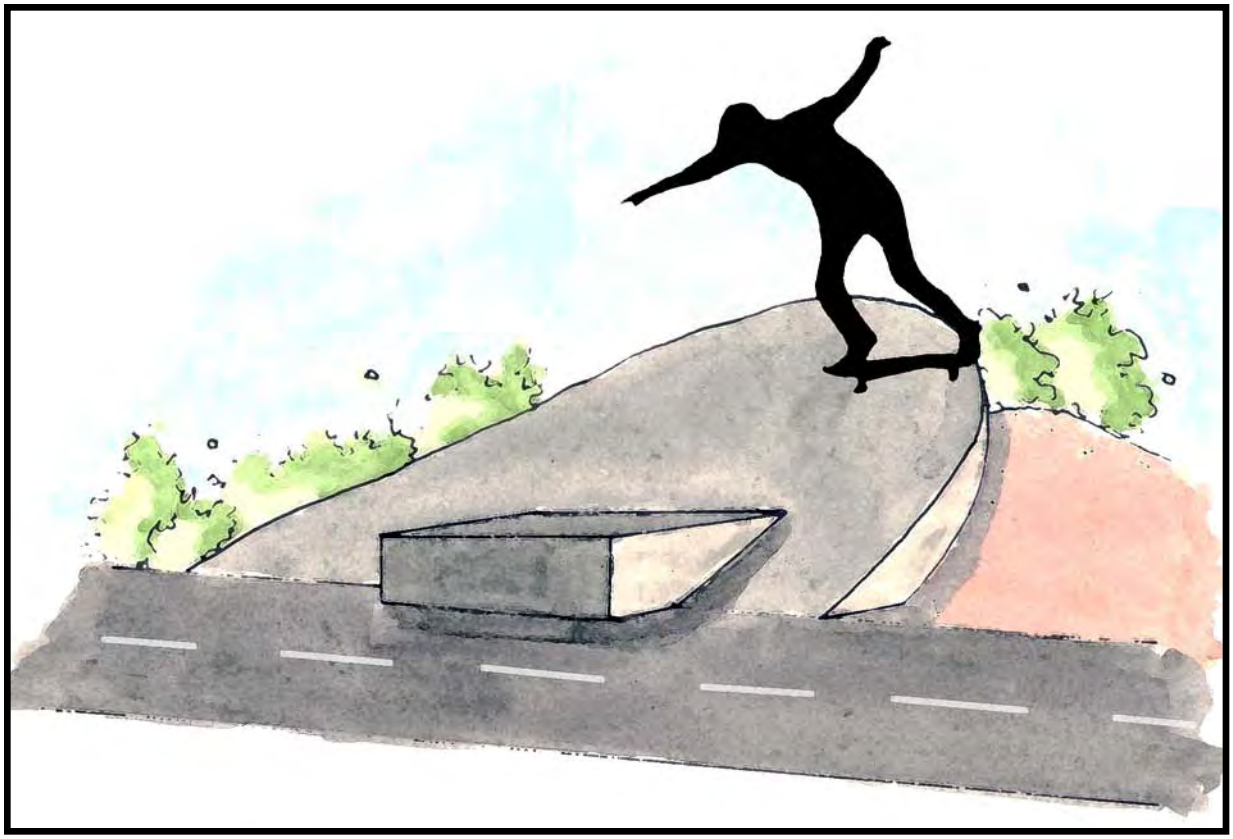
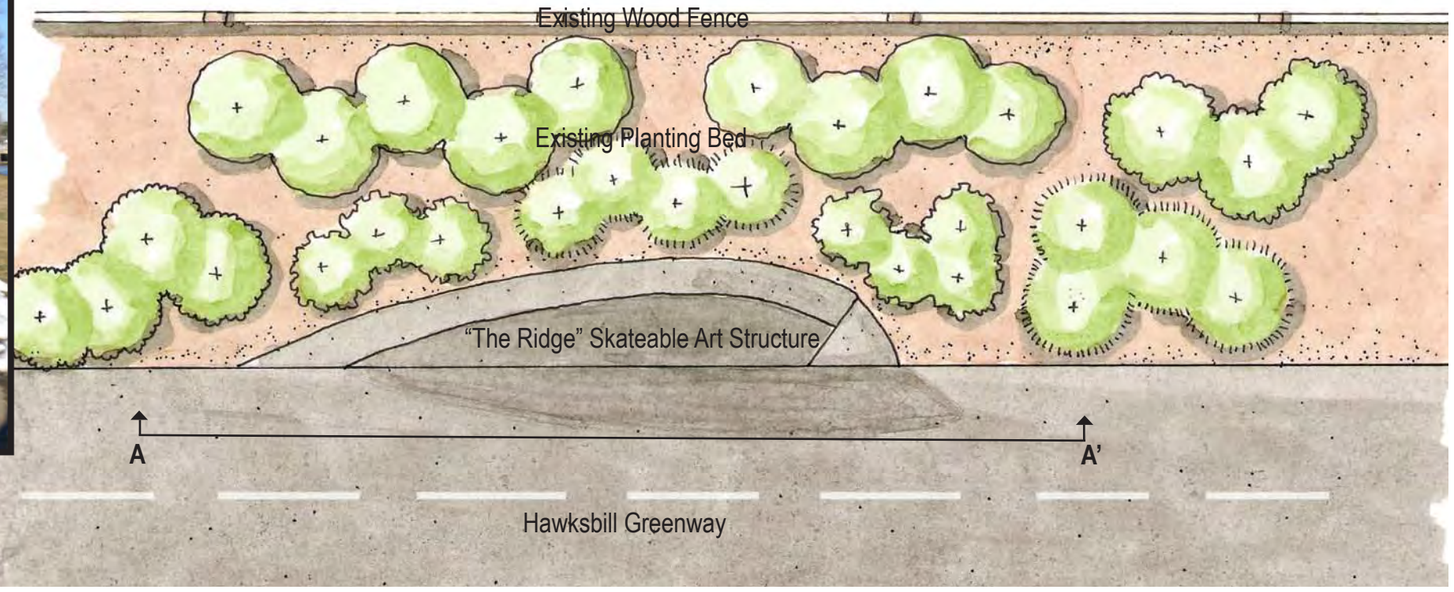
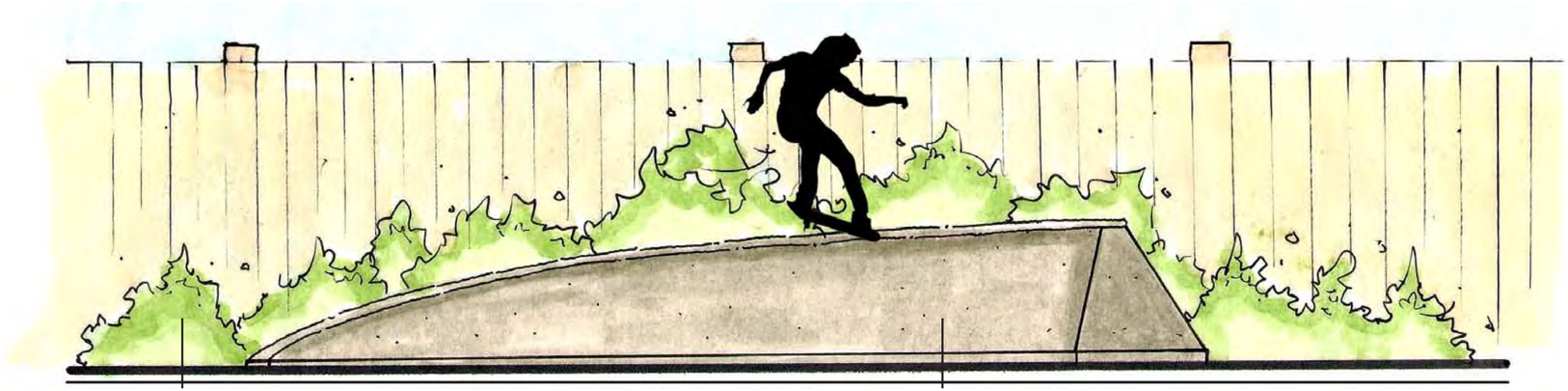


Figure 5.40: Greenway Skate Spot B-- Perspective View of "The Half Moon"
(See Figure 5.36 for Site Location)

View of Existing Planting Bed



"THE RIDGE" PLAN
SCALE 3/16"=1'-0"



SECTION A-A'
SCALE 1/4"=1'-0"

0 1 2 3 4 5 10

Figure 5.41: Greenway Skate Spot C-- "The Ridge"
(See Figure 5.36 for Site Location)

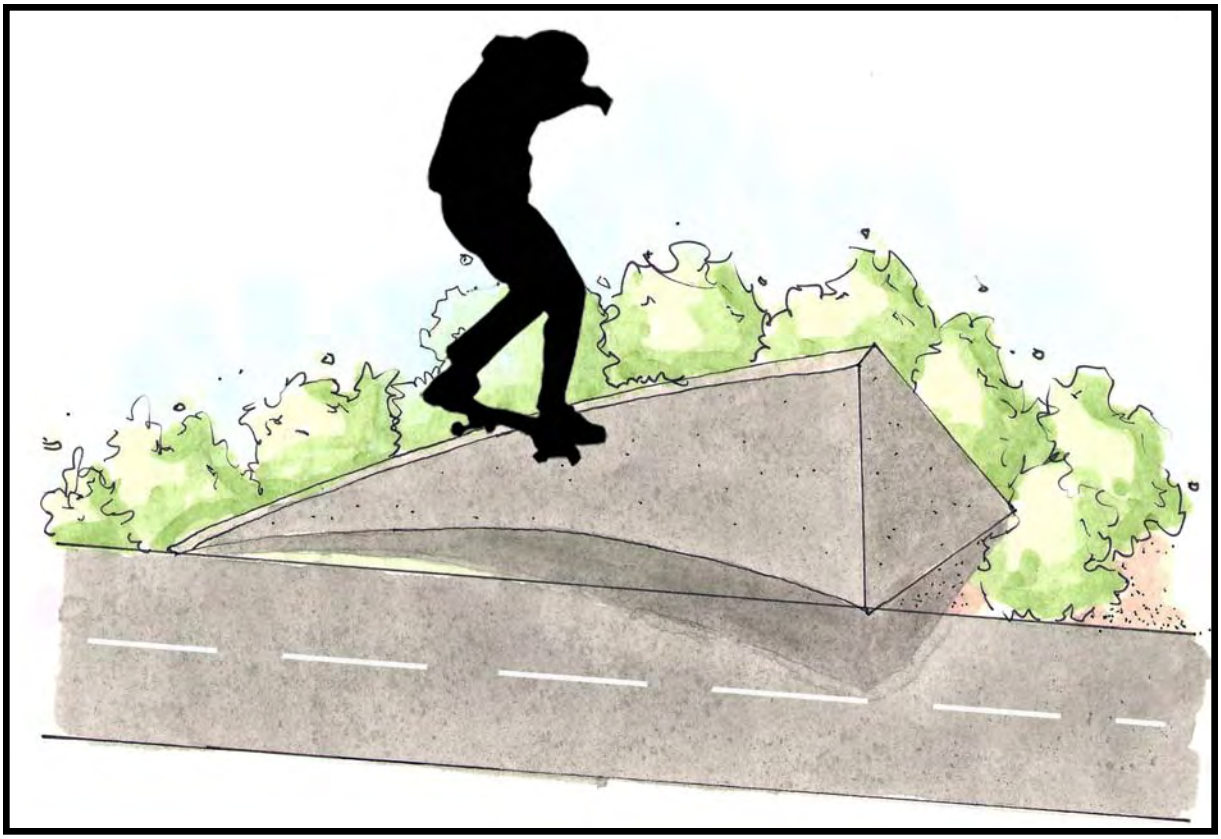


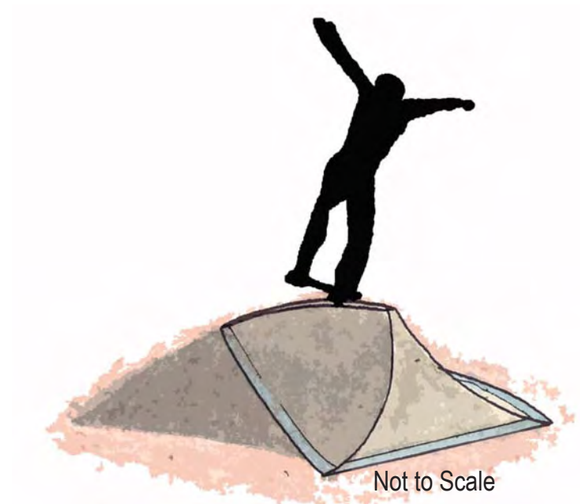
Figure 5.42: Greenway Skate Spot C-- Perspective View of "The Ridge"
(See Figure 5.36 for Site Location)

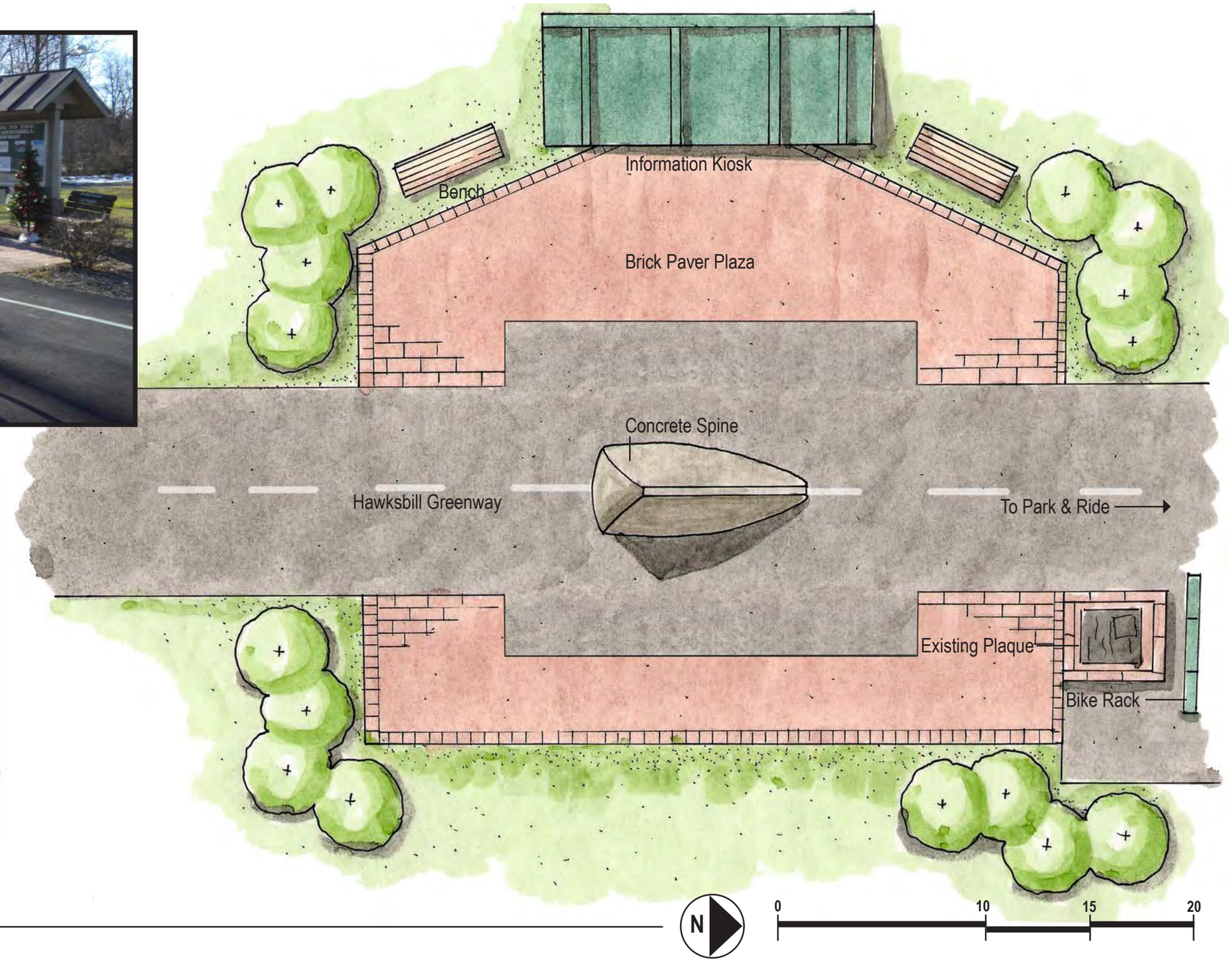
placed within an existing vegetation bed, which, like the Half Moon, helps it visually blend into the landscape.

The next skate spot consists of a concrete spine located in the center of the welcome plaza just next to the park and ride (Figure 5.43). As a part of the welcome plaza, this obstacle will function as a landmark to signify that skateboarding is encouraged along the greenway and serves as a signal that more obstacles are to follow. As it currently exists, the greenway path does not continue through the plaza. But, because the existing brick paver surface is not optimal for skateboarding, I chose to close the gap and continue the asphalt path through the site. This way, skaters can engage the obstacle with plenty of speed on a smoother skating surface. This also allows the spine to be located in the center of the plaza, which in turn provides plenty of room on all sides for passersby and bystanders. Finally, to skate this obstacle, skaters can approach it from many different angles and can use it as a launch ramp or they can grind along the top edge of the spine.

The sixth skate spot on the greenway is located just north of the previous site. This skateable art piece, which I call "The Rim" (Figure 5.44), is an excellent multi-purpose obstacle that also happens to be very attractive. It is constructed of concrete and colored with a light tan stain. And, like many of the previous obstacles, a vegetation bed surrounds it to further add to the aesthetic appeal. The curved, bowl-like shape allows skaters to use this piece as a sloping quarter-pipe or they can grind along the top edge all the way around. It should also be noted that, because of its curved shape, an asphalt patch has been added to close the gap between the path and the obstacle.

View of Existing Welcome Plaza

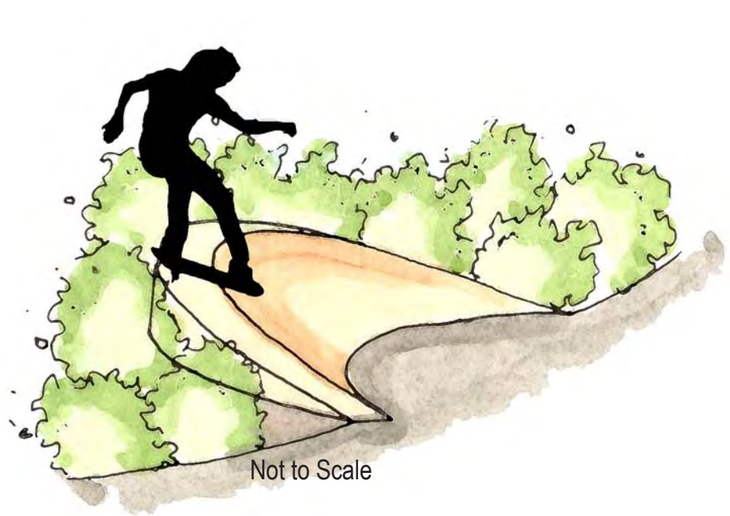


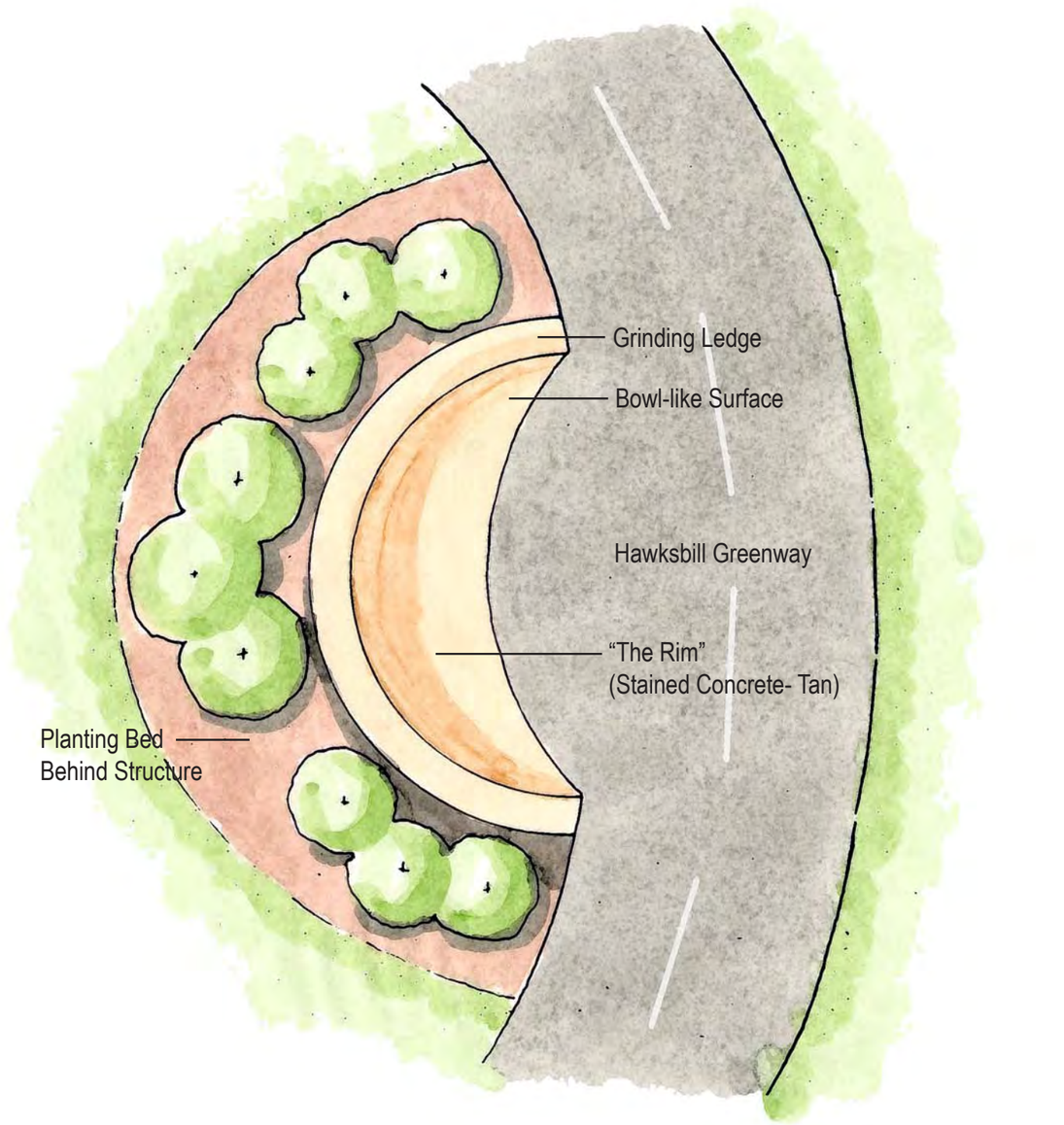


WELCOME PLAZA SPINE PLAN
SCALE 3/16"=1'-0"

Figure 5.43: Greenway Skate Spot E-- Welcome Plaza Spine
(See Figure 5.36 for Site Location)

View of Existing Site





"THE RIM" PLAN
SCALE 3/16"=1'-0"

N

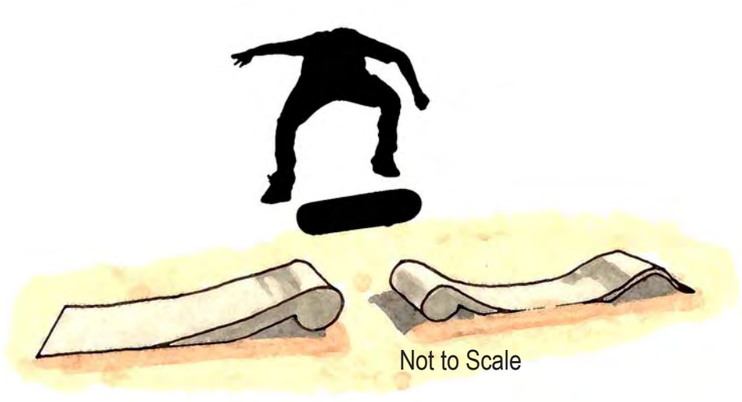
0 10 15 20

Figure 5.44: Greenway Skate Spot F-- "The Rim"
(See Figure 5.36 for Site Location)

The northern-most skate spot, located under the U.S. Highway 211 West bridge, is the final skate spot of this design. Perhaps my favorite piece, this obstacle, called "The Scrolls" (Figure 5.45), is meant to provide skaters with a captivating hangout spot beneath the bridge. Its remote location, in combination with the enclosure brought by an overhead canopy, makes it especially enticing to skaters who desire privacy. This way, those who do not like the openness of the main skate plaza have a more secluded spot that they can go to. Furthermore, the concrete embankment provides an excellent spot for skaters and their friends to sit and rest or watch. More importantly, much like Burnside Skatepark in Oregon (Page 48 of this manuscript), the exposed infrastructure of the bridge and its supports gives the site a raw, underground character. This is further enhanced by the exposed rock and soil of the nearby creek bed. The obstacle itself consists of two separate undulating ramps that allow skaters to jump high into the air and cross the gap between them. With its low profile and gentle curves, the obstacle also appears to be a beautiful art piece. Finally, just like the skateable benches, The Scrolls sit on a concrete pad, beside the greenway path, so that skaters have plenty of room to safely engage and exit the ramp.

Together, all of these obstacles are capable of providing a skate path that is highly engaging, yet subtle enough to maintain the character of the greenway. So as not to seem overwhelming to other users, the obstacles are placed at least 30-40 feet apart along the path, which will continuously lure skaters into and away from the Luray Skate Plaza. This, in combination with the use of skateable art pieces and the incorporation of techniques used by skatepark innovators, makes this a commodity that, just like the skate plaza, can be enjoyed by all. In the end, skateboarding is further integrated into the social setting of downtown Luray—a definite improvement upon the existing skatepark.

View of Existing Site



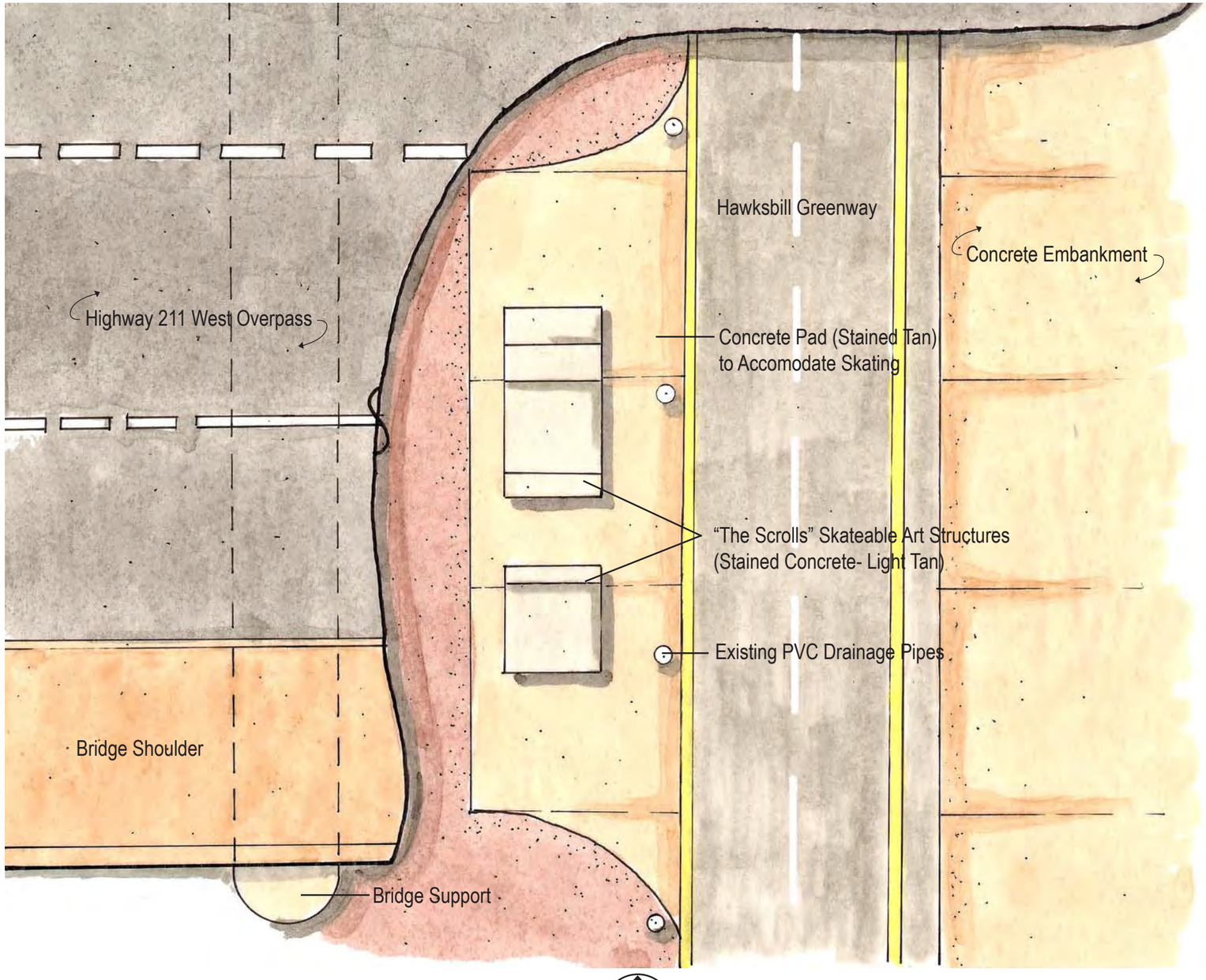


Figure 5.45: Greenway Skate Spot G-- "The Scrolls" Beneath Highway 211 West Bridge
(See Figure 5.36 for Site Location)

6. CONCLUSION

The research presented in this thesis illustrates some issues that will challenge landscape architects as the popularity of skateboarding continues to grow. The fact that I was able to choose the small town in which I grew up as the target for my analysis and recommendations only serves to illustrate how pervasive the issue has become. While it is unfortunate that my own hometown has fallen prey to many of these issues, it can also be viewed as a great opportunity to identify them and, consequently, if future expansion of the town's existing park becomes a possibility, then this thesis can perhaps influence the town planners' decision on how to proceed.

The designs for the Luray Skate Plaza and Hawksbill Greenway produced at the culmination of this application, although not constructed and therefore, unable to be quantifiably measured for their social and environmental successes, are undoubtedly major improvements upon the existing skatepark. The combined design is complete in that, not only does it incorporate the results of my thesis research, but it also includes elements from many of the industry innovators, merging all into one comprehensive proposal that fulfills all the qualities that make a desirable skatepark. Additionally, my choice of building materials not only addresses the aesthetic requirement, but is appropriate for the regional weather and will also help cut costs in the long run. The proposed downtown location is great for local use, but because it can be easily seen from Main Street, it also has the potential to be a significant regional skating site. Another strength of the design is that it

adds even more uses to the existing greenway and provides a unique element to the comprehensive design. It caters to both skateboarders and non-skaters alike in that it not only provides skaters with skating nodes that they can roam and find; but it also encourages them to do it in a place that will not damage the town infrastructure.

As is the case with any design, it is imperative to analyze potential limitations. For example, though my research did not suggest it, there is always the option of claiming a vacant building/warehouse and constructing a wooden skatepark inside. This would result in the accommodation of year round skating, but, conversely, would also be more expensive as employees and rent would need to be paid. Plus, it would not be a site that could be enjoyed by all community members, and therefore would do nothing towards integrating skateboarding back into the community.

Secondly, an initial reaction to my skate plaza design is that the site may appear to be a little too small. However, the advantage of this site, as my design suggests, is that there is plenty of room to expand into the adjacent parking lot if desired. Plus, the decision to include the linear skatepath on the greenway will help spread skaters out into the space.

As for materiality, it would be great to be able to incorporate porous pavements to further address the environmental issues, but because the sport so heavily depends upon a smooth ride currently unparalleled by anything other than concrete, my research showed that the porous pavement approach would be impractical. It is a delicate balance, but I think the best option for addressing hydrologic issues is the incorporation of vegetation and planting beds ('rain gardens') instead.

Last but not least, if this plaza and greenway design were ever built, on the surface it would appear to be extremely expensive. However, the proper way to assess this plan is in terms of value received rather than cost incurred. As outlined in my thesis, the following benefits could reasonably be expected:

- Youth would skate in a highly visible location, increasing overall safety.
- The site would be enjoyed by the entire community, including existing uses.
- Social interaction with the skateboarding subculture would extend beyond the plaza (via the Hawksbill Greenway skating spots).
- The site could become a popular regional destination, attracting more than just locals.
- More liveliness/activity could be brought to downtown Luray.
- The Luray Skate Plaza would be more permanent and more engaging than the existing skatepark at the recreation fields.
- Physical damage would be concentrated into a site that is constructed to withstand it.
- Easy access could lead to increased business in downtown Luray.
- Easy access would alleviate teenagers' reliance on adults and automobiles.
- The design could spark innovation in subsequent local and regional parks of all types.
- Skateboarding would remain a popular activity in Luray and could even flourish.
- Community would be more likely to accept skateboarding and its subculture once these positive results become apparent.

Another outstanding attribute of this design is that its underlying principles can be applied to any design. Skateboarding is a very positive sport that is drawing huge numbers of participants, and, though nothing will take the place of skater-customized skateparks such as Burnside Skatepark, the point is that the type of research represented by this thesis should go into all skatepark designs. The result would be the avoidance of many of the issues presented. As far as the sport itself is concerned, a primary emphasis of this thesis is an attempt to ensure that skateboarding maintains its roots as an urban, social sport, while it is also allowed to grow in many directions. Being the fastest growing social sport in

North America, there must be some recognition of the need to keep the sport within the confines of the urban fabric, so that this subculture does not lose its ability to add to urban social richness. Because skateparks are in such demand among the skateboarding community, I hope that this information helps shed light on the issues and solutions that are at hand. Whether it is problems with location, materiality, or sustainability, there should be an increased awareness that we, as designers, may inadvertently be making a negative impact on the sport. As my research suggests, all it takes is the same time and investment that any other design project would receive. I also hope that my thesis work will serve as a catalyst of sorts in order to help prevent rendering this popular youth culture homeless. Ultimately, the responsibility lies heavily upon us, as landscape architects, and I hope that our work may continue to help the sport grow.

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APPENDIX A: Glossary of Skateboarding Terminology

BMX: "Bicycle Motocross"—a bicycle designed for extreme cycling and a term used to describe an extreme biking sport where cyclists engage obstacles similar to that of skateboarding.

Bowl: A ramp that is the shape of a bowl.

Coping: Capping or covering of an obstacle wall.

Euro: A ramp where the platform drops like a step to a flat ramp.

Flat banks: These can vary in angle, but are simply an angled wall on which to ride.

Funboxes: A steep, quarter-pipe-like lip, with a deck extending to a landing that is often less steep than the lip.

Grinding: Using the skateboard trucks to slide along an edge (such as a curb, bench, rail, coping, etc.).

Halfpipe: Two quarter-pipes joined together (half of a pipe).

Handrail Boardslide: A skateboarding trick. When performing a handrail boardslide, the skateboarder grinds on top of a handrail, with the wheels and trucks on either side of the handrail.

Hips: Essentially two quarter-pipes or flat banks, each with one edge at a right angle or a more aggressive angle to the other.

Launches: A curved ramp that launches the rider into the air, like a quarter-pipe, but less steep.

Line: A designated route that a skateboarder takes through a skatepark that promotes trick completion and usually incorporates a wide variety of the park's features.

Linear Skate Path: Linking several skate spots together to create a dispersed skatepark. This creates a string of activity with pedestrian and skateboarding traffic traveling between successive spots, resulting in an engaging linear skateboarding journey.

Mini ramps: Two small quarter-pipes facing one another, like a half-pipe, but with a short flat area between.

Modular/Prefab Obstacles: Already-built obstacles, typically constructed of steel or wood, that are bolted to a concrete pad and can be easily removed and reconfigured.

Ollie: A skateboarding trick. When performing an ollie, the skateboarder leaps into the air and brings the board into the air without using his hands.

Pool: Similar to a typical pool used for swimming, only not filled with water. Most pools tend to have tiles and are usually built as egg, kidney, or keyhole shapes.

Pyramids: A four-way wedge or transition box.

Quarter-pipes: Literally, a quarter of a pipe-- riders get air from it and perform tricks in the air or on a platform above the ramp or drop in on it to gain speed.

Rails (Obstacle): Steel rails that mimic handrails and are usually used for grinding. They can be installed on stairs or alone, but much lower to the ground.

Rails (Skateboard): Narrow strip of plastic/metal attached under the skateboard for protection while grinding.

Roll-ins: A long sloping ramp used to gain speed.

Skate Spot: A popular skateboarding site that has been claimed and personalized by skateboarders, usually because of its trickability.

Spines: Two quarter-pipes back to back.

Street Skateboarding: A skateboarding style consisting heavily of handrail and large stair skating.

Transition: Any upward-curving skating surface.

Trucks: Metal axel between skateboard wheels.

Vertical/Vert. Skateboarding: A skateboarding style that requires skaters to engage traditional vert ramps such as quarter-pipes, half-pipes, bowls, or any combination thereof. This style allows skaters to fly into the air and perform difficult tricks that would otherwise be impossible and is heavily featured in competitions.

Wall rides/vert walls: A vertical wall above either quarter-pipes or flat banks.