

MAVERICK HARMONY

- RAPID CITY, SD -

A Design Thesis Submitted to the
Department of Architecture and Landscape Architecture
of North Dakota State University

By

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In Partial Fulfillment of the Requirements
for the Degree of
Bachelor of Landscape Architecture

Primary Thesis Critic

Thesis Committee Chair

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SITE INFORMATION



The Region, City, and Site

Rapid City South Dakota is a bridge to some of the most intriguing and beautiful attractions in America. The inspirational Mount Rushmore National Memorial, the visionary Crazy Horse Memorial, and the tranquil Black Hills National Forest with its abundant wildlife. There are herds of buffalo roaming Custer State Park, the Badlands and Devils Tower. Rapid City is the largest urban area in western South Dakota and was founded in 1876 to serve as a support community for the Black Hills gold mining camps and settlements. It is located approximately 340 miles northeast of Denver and 350 miles west of Sioux Falls, South Dakota. Rapid City serves as the business, service, and cultural center for a five state, 200,000 square mile area including the states of South Dakota Wyoming, Montana, Nebraska, and North Dakota. The community encompasses over 38 square miles and is located on the eastern edge of the Black Hills, at an elevation of 2,950 to 3,950 feet above sea level.

Statement of Importance

The site this project is located on is very important for several reasons. Rapid City has for the past years been growing outwards. It wasn't until recently "the last 4 to 5 years," that the city began to look at its downtown area. There have been all sorts of improvements to building facades throughout the downtown are. There have been new buildings constructed. There have been entire building renovations and additions. The one thing that is lacking is planned and designed exterior spaces. My project recognizes the need for these spaces. The site provides my project innumerous possibilities because the need for it is so strong.



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Events and Attractions in and around Rapid City

The area in and around Rapid City showcases many unique and awe inspiring events and attractions. These influence the site directly and indirectly, most notably in the financial end of tourism. In an attempt to try and provide a broad-spectrum view of the area the following text outlines some of the most influential elements that draw in the masses. (Refer to the tourism section for direct influences and further study)



The Region

Truly a part of, but not exclusively Old West, this region showcases diverse terrain and scenery. The area contains three major landforms: the Black Hills, the Badlands and the high plains, short-grass prairie. All can be found within a 50-mile radius of Rapid City, the region's hub.

The Black Hills are a beautiful, accessible extension of the Rocky Mountains. Thick forests of tall ponderosa pine, spruce and aspen alternately blanket and reveal towering granite peaks, deep canyons, cascading trout streams and clear, clean lakes. The granite faces of Mount Rushmore National Memorial gaze out over this mountainous landscape. Buffalo herds, elk, deer, antelope and mountain goats make their homes in public parks. Private parks add grizzly bear, wolves and cougars to the list, displayed in their natural environment. Logging is a principal industry.

Badlands National Park encompasses 244,000 acres of striking formations – spires, pinnacles, buttes and gorges of multi-colored sandstone – blended with mixed-grass prairies. Enjoy scenic drives and watch for buffalo, deer, pronghorn antelope, coyotes and other wildlife that freely roam this striking area.



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The balance of the region is high plains, short-grass prairie. Predominantly rolling upland, irregularities such as Castle Rock, Slim Buttes and Thunder Butte rise to 600 feet above the surrounding landscape. The Cheyenne and other rivers meander through the region, providing water for large-scale cattle and sheep ranching operations. The history of the region includes legendary figures such as Crazy Horse, Sitting Bull and George Armstrong Custer, who led his 1874 expedition into the Black Hills, starting the last great gold rush. Others such as Calamity Jane and Wild Bill Hickok shaped the wild frontier town of Deadwood, which lives up to its Old West image with legalized gaming. Ghost towns, nestled quietly in more remote areas of the Hills, may still be explored.



Custer State Park

Nearly 1,500 bison wander the park's 71,000 acres, which they share with swift pronghorn, shy elk, sure-footed mountain goats and a band of curious burros. Slender granite formations called "Needles" dominate the skyline and grassy meadows fill the valleys. Each September, cowboys, cowgirls and park staff round-up the park's herd of bison. They are moved to buffalo corrals along Wildlife Loop Road. Once in the corrals, the animals are sorted and some are readied for auction.

Favorite outdoor activities include hiking 7,242-foot Harney Peak, mountain biking, horseback riding, rock climbing, fishing, chuckwagon suppers and jeep rides to see the bison.

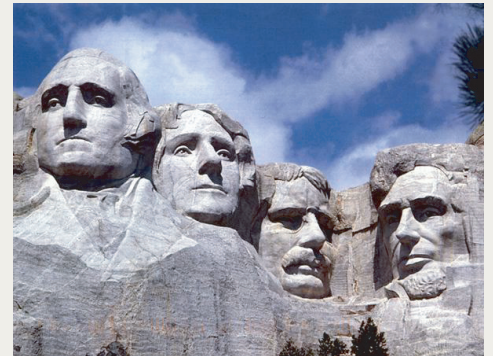
The park boasts scenic drives such as the Needles Highway, which twists and turns its way past towering rock formations and through narrow tunnels. At the end of one tunnel stands the Needles Eye, a granite spire with a slit only 3 to 4 feet wide but reaching 30 to 40 feet in the air.



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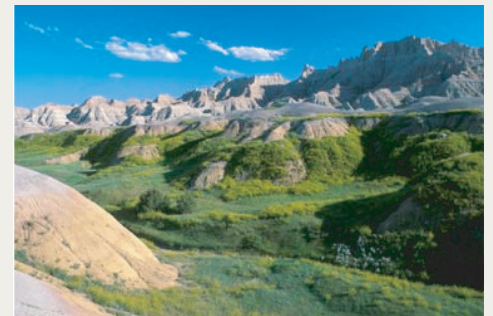
Mount Rushmore

This epic sculpture features the faces of four exalted American presidents: George Washington, Thomas Jefferson, Theodore Roosevelt, and Abraham Lincoln. South Dakota's Black Hills provide the backdrop for Mount Rushmore, the world's greatest mountain carving. These 60-foot high faces, 500 feet up, look out over a setting of pine, spruce, birch, and aspen in the clear western air.



The Badlands

A striking moon-like landscape rises abruptly from South Dakota's western, prairie hills. Chiseled spires, steep canyons, low-slung buttes and jagged ridges were created from millions of years of ruthless ravages by wind and water. When they first encountered these unusual formations, the Lakota aptly called them Mako Sica or bad land. Badlands National Park covers 244,000 acres and contains one of the world's richest deposits of fossils from the Oligocene epoch. The Badlands were once a lush, marshy plain that was home to three-toed horses, giant pigs and saber-tooth cats. Approximately 120,000 acres of the Badlands lie on the Pine Ridge Indian Reservation.



Black Hills Caves

Of all the caves in the United States, none contain the vast variety of rare formations found in Black Hills caves. These caves display more boxwork than any other in the world. They also form some of the largest concentrations of passageways in the world. Eight Black Hills caves are open to the public. Two are part of the National Park Service: Jewel Cave National Monument and Wind Cave National Park.

Jewel Cave is the third-longest cave in the world.



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Nearly 130 miles of passages have been surveyed. Calcite crystals that glitter when illuminated give the cave its name. The cave's most common crystals are dogtooth and nailhead spar. The cave is located about 13 miles west of Custer.

With more than 110 miles of mapped passages, Wind Cave is one of the longest caves in the world. It contains the world's largest display of a rare formation called boxwork. Above ground, the park is comprised 28,000 acres of mixed-grass prairie and ponderosa pine forest that is home to bison, elk, prairie dogs and other wildlife.

The Sturgis Motorcycle Rally

Since 1938, Sturgis has welcomed motorcycle enthusiasts from across the United States and around the world to the annual Motorcycle Rally. Based out of this small community in the northern Black Hills, the Rally officially runs for seven days every August.

Motorcycle traffic to and around South Dakota typically increases as early as two weeks before the official start date of the event and continues for as late as two weeks after the conclusion.

What started as a weekend celebration with less than two dozen racers participating in a handful of events including half-mile races, ramp jumps, and board-wall crashes, the Rally has grown significantly. First organized solely by the Jackpine Gypsies Motorcycle Club, the Rally now takes the efforts of most of the population of Sturgis (approximately 6,400) as well as hundreds of outside vendors.

Rally-goers can still enjoy several of the original events, although many others have been added over the years such as motocross races, professional and amateur hillclimbs, and drag races.

Average Rally attendance is in the hundreds of thousands, with the largest estimated attendance of more



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than 600,000 cruising in for the 60th Anniversary in 2000. Even though the rally is actually held in Sturgis a good portion of the people eventually wind up in Rapid City, some don't even venture to Sturgis.

Some financial figures from the 2004 rally:

Estimated Attendance: 514,951

SD State Sales Tax Collected: \$640,523

SD Dept of Tourism Tax Collected: \$158,979

Sales Tax collection up 8% from 2003: \$1,103,396



AREA HISTORY

The Creation of the Black Hills

Sixty million years ago a series of inland seas advanced and retreated over what is now South Dakota, each one depositing its own layer of rich sediment, which was then compressed into solidified rock over time. Gradually, pressure from under the earth's surface began pushing the earth up into an elongated dome almost 20,000 feet above sea level.

Today the mountain dome - known as the Black Hills - has been whittled down by the erosive forces of wind and water to its present 3,000- to 4,000-foot elevation. More than 50 miles wide and 120 miles long, the crests of the hills reveal the ancient dome's molten core: exposed granite. Surrounding this granite core is a layer of schist that formed when the ancient molten core heat-pressed against shale, the oldest and deepest rock layer.

The granite core is encircled by a rigid ring of sandstone that is blanketed with pine forests. Within its boundaries lies a valley of softer sandstone distinguishable by its red soil. Higher up the hills is a wide plateau of limestone in which numerous caves are found some of which have been opened up for tourism.

The Human History in The Black Hills

Long before European explorers, gold miners, farmers, and ranchers settled South Dakota a century ago, the region was inhabited by a succession of native peoples who flourished on an often unforgiving landscape.

Early inhabitant's gravesites, finely crafted spears, and skinning knives provide evidence of South Dakota's first inhabitants, who hunted the vast plains more than 9,000 years ago. Most of these nomadic tribes migrated with the massive herds of bison (commonly called buffalo) that



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roamed the grasslands of the Great Plains. Early hunters relied on the furry beasts for everything from meat, clothing, and fuel for fire (from dung), to tools, toys, and weapons. For many centuries these peoples persevered, despite the occasional harsh weather and territorial disputes with neighboring tribes.

The Arikara (or Ree) Indians had arrived in what is now South Dakota by A.D. 1500. They were followed by the Cheyenne, Kiowa, Pawnee, and Crow. The Sioux (or Lakota) migrated from Minnesota in the 1700s, in turn driving the other tribes north, west, and south. For more than 150 years, the Sioux commanded a tract of land large enough to support the bison herds on which they subsisted; the center of this area is present-day South Dakota.

At the close of the eighteenth century, the dominant Sioux were at the height of their power, with numerous interrelated bands covering more than 80 million acres. Comprised of three major tribes - Yankton, Santee, and Teton - they were exceptional horsemen, skilled hunters, and superior warriors. The Sioux tribes had no written language, but their history and heritage were entrusted to storytellers and recorded by "winter counts" - drawings painted in a spiral on animal hides, with one drawing depicting each year. A single hide could represent up to a half-century of Sioux history.

The Sioux tribes were divided into bands, then again into smaller extended family groups known as tiyospaye. Children, elders, and the sick were cared for by the entire tiyospaye, and decisions were most often left to the older, respected men in the tribe. But unlike the tribes who raised corn to the east and south, the Sioux and Crow living on the Great Plains were dependent on buffalo and other game. Hunting bison, or tatanka, and processing the meat, hide, and bones were tasks for the entire tiyospaye. They built earthen lodges and conical buffalo hide tipis, while their eastern cousins lived in rounded bark-and-mat wigwams.



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The Dakota, Lakota and Nakota

More than 62,000 American Indians live in South Dakota today. Most of them are Dakota, Lakota or Nakota people. This nation of tribes (sometimes called Sioux) has lived here for hundreds of years. They trace their roots to the "Seven Council Fires," an alliance of tribes. By the early 1800s, the Dakota, Lakota and Nakota dominated the Plains. Buffalo were important to their way of life. The animals provided food, clothing and shelter for the people.

Newcomers

As European immigrants flooded the eastern United States, white settlers gradually moved westward seeking fertile land and suitable townsites. By the 1800s, Native Americans were struggling to maintain their traditional ways of life but were ultimately swept aside.

In the 1700s, French Canadian explorers began mapping the Missouri River with an eye on the pelts and hides they could buy from the Native Americans and sell back East to be made into shoes, hats, and coats. Adventurers Francois and Joseph La Verendrye claimed the region for King Louis XV in 1743 by placing an engraved lead plate on the bank of the Missouri River near present-day Pierre.

Trappers and mountain men had been trading with native tribes for decades when Thomas Jefferson wrote the Declaration of Independence in 1776. When he became the nation's third president, Jefferson pursued a policy of westward expansion: in 1803, the U.S. purchased the 828,000-square-mile Louisiana Territory from Napoleon of France for three cents an acre. The land deal, which included all of what would become South Dakota, more than doubled the size of the young nation.



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Lewis and Clark's Great Adventure

With a new deed to an immense and largely unexplored territory, Jefferson sent the Corps of Discovery into the American West in 1803. Led by Jefferson's personal secretary Meriwether Lewis, and Lewis's friend William Clark, the expedition set out to chart the Missouri River to its headwaters, map the supposedly short divide to the Columbia River, observe the growing British presence in the Pacific Northwest, and introduce the concept of American government to the Native Americans encountered en route.

At first, they traveled by keelboat up the Missouri River. They spent several weeks exploring what is now South Dakota. The 31-member party met little resistance from tribes as they passed through. Here, the men discovered pronghorn, prairie dogs and coyotes. They also had their first meetings with the Yanktons, Tetons and Arikaras. They nearly got in a fight with the Tetons. The Tetons later held a party for the explorers. They prepared a feast and danced around the campfire.

The journals of Lewis and Clark frequently refer to the wide open spaces and black herds of bison they viewed from vantage points along the Missouri River. It was up along this river that the expedition was joined by French trader Toussaint Charbonneau and his 15-year-old wife Sacagawea, whom the Frenchman had won in a gambling match. This legendary young Shoshone woman helped guide Lewis and Clark all the way to the Pacific Ocean.

They returned to South Dakota in 1806. Six years after the trip, Sacagawea died at Fort Manuel in South Dakota.



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Mountain Men

The St. Louis Fur Company organized fur trading with various tribes along the entire route of the Missouri River, bringing frontier forts, pioneer settlements, and skirmishes between Native Americans and immigrants of European descent.

Later, the Rocky Mountain Fur Company arrived on the scene. The ranks of the Company included some of the Wild West's most rough-and-ready characters: Jedediah Smith, Jim Bridger, Hugh Glass, and Thomas Fitzpatrick. Their well-publicized exploits lent an air of untamed excitement to the area.

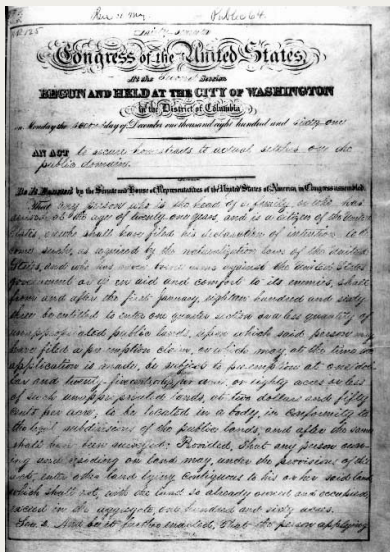
Pioneers, Gold Miners and Cowboys

The U.S. Congress passed the Homestead Act in 1862, offering any able-bodied American citizen the chance to purchase 160 acres of unsettled land for a token payment (about \$18 an acre in parts of Dakota Territory). In return, settlers were expected to "prove up" the land by constructing a dwelling and planting a crop.

The desire for land and a new life brought the settlers to Dakota Territory. They came from Germany, Sweden, Norway, Finland, Ireland and Czechoslovakia. They often settled near people of the same heritage. The prairie had few trees, so settlers used blocks of earth to build homes. They called these homes "soddies." Early pioneers faced challenges such as lack of water, blizzards and isolation.

Land Treaties

As the push for western expansion continued, the federal government entered into a series of treaties with the Sioux, culminating with the Fort Laramie Treaty of 1868.



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This treaty established the Great Sioux Reservation and granted the tribes all lands from the Missouri River west to the Bighorn Mountains of western Wyoming. In addition, the treaty established agencies which would distribute food, clothes, and money to the tribes. Soon, however, the well-intentioned treaty between the tribes and the settlers would be broken.

Black Hills, Paha Sapa

For the Sioux the Black Hills, Paha Sapa, are the center of the world, the place of the gods, where the warriors would go to wait for visions and to speak to the Great Spirit. In 1868 the treaty mentioned above was signed and granted Paha Sapa to the Indians forever.

However, in 1872 miners began to invade the Black Hills in a search for gold. In 1874 the Army ordered a reconnaissance mission. The Indians were not even notified, much less asked for permission. In the spring of 1875, with the hills full of miners, the Army sent General Crook, in a nominal effort to comply with the treaty, to notify the miners that they were in violation of the treaty. However, he made no effort to enforce the law.

Red Cloud and Spotted Tail protested strongly to Washington, realizing that the young warriors would soon take matters into their own hands if the chiefs did nothing. The response from Washington was to send out the usual commission formed of politicians, traders, missionaries and the military to negotiate the "purchase" of the Black Hills from the Sioux. Runners were sent to invite Sitting Bull, Crazy Horse and other non-agency chiefs to the talks. As could have been expected, they were both strongly opposed to the sale of any of the Sioux lands. Crazy Horse sent Little Big Man as an observer for the free Oglalas.

The Commissioners had a much different reception



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than they probably expected. When they arrived at the meeting site, between the Red Cloud and Spotted Tail agencies on the White River, they found the Plains covered with the lodges and the pony herds of the Indians as far as they could see. The Sioux from the Missouri River in the east to the Bighorn Mountains in the west, as well as their Cheyenne and Arapaho supporters, had come to make their feelings known, 20,000 strong.

On September 20, 1875, a shelter to provide shade was constructed by stringing a large tarpaulin under the lone cottonwood at the site. The commissioners congregated under the tarpaulin on chairs facing the multitude of Indians. A troop of 120 cavalymen, all on white horses, filed in to form a line behind the commissioners. Red Cloud had said that he would not attend. Spotted Tail arrived by a wagon. A few other chiefs arrived. Then, charging in in a cloud of dust, a band of Indians, dressed for battle, came over a rise at full gallop directly toward the commissioners. They circled the shelter and commissioners, firing their rifles into the air and uttering war whoops, before moving to form a line behind the cavalymen. Before they were settled, the next band of Indians was charging in. This continued until the commissioners were surrounded by several thousand warriors on horseback. Then the chiefs stepped forward, secure in the knowledge that the commissioners could not feel at ease.

In the few days that they had been at Fort Robinson, the commissioners had already realized that the Sioux would not sell the Black Hills. They decided to negotiate for the mineral rights. The Sioux chiefs found this idea ludicrous. They had already had sufficient experience with the white man to know that anything "loaned" to them was as good as gone. The commissioners also had the audacity to ask for the last of the Sioux hunting grounds, the Powder River country. At this point, a messenger from Red Cloud relayed the message that Red Cloud wished a recess so that the chiefs

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could confer. This wish was granted. The question of the Powder River country was not even discussed by the Indians; there was no question that they would not negotiate their last good hunting ground away. Some chiefs argued that they should get the best price they could for the Black Hills because the Army would not keep the miners out. Others were adamant that, what the Army would not do, the young warriors would.

On September 23, the commissioners returned to the council ground, riding in Army ambulances and accompanied by a larger troop of cavalry than before. Red Cloud protested the larger military presence. As he was preparing to deliver his opening statement to the commissioners, a group of about 300 Oglalas arrived from the Powder River country, firing their rifles as they rode in. One Indian, Little Big Man, stripped for battle and wearing two revolvers, forced his way through the group to the front. He came as Crazy Horse's envoy and stated "I will kill the first chief who speaks for selling the Black Hills," dancing his horse back and forth before the commissioners. Little Big Man was surrounded and escorted away by a group of unofficial Sioux policemen led by Young-Man-Afraid-of-His-Horses. Nonetheless, the commissioners decided to return to the safety of Fort Robinson at this point. A few days later a meeting was arranged between the commissioners and twenty chiefs at the Red Cloud Agency. In three days of speeches, the chiefs made it quite clear that the Black Hills would not be sold. Red Cloud did not even appear for the final meeting. Spotted Tail spoke for all the Sioux when he rejected unconditionally both the sale and the lease offer.

The commissioners returned to Washington, reported their failure to negotiate for the Black Hills, and recommended that Congress ignore this result and appropriate a sum that they regarded "as a fair equivalent of the value of the hills." The forced purchase would be presented to the Sioux as their only choice.



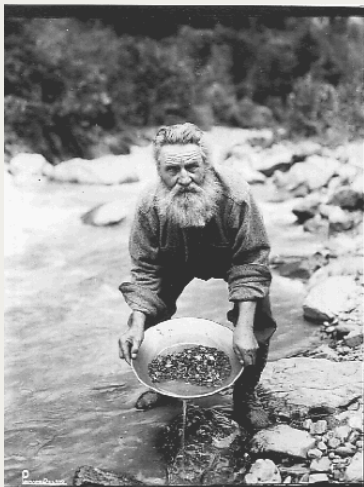
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This decision then began the chain of events that led to the Battle of the Little Big Horn. The plans were begun for a winter campaign against the Sioux living off the agencies. Runners were sent out to the villages to tell them to come in to the agencies by January 31. A very rough winter made it impossible to comply with this order, had they even wished to. This failure to come in, despite the weather, was deemed reason to institute a military campaign against the Sioux winter villages. But the bad winter also delayed the military campaign. The only significant action before the arrival of spring was a dawn attack on March 17 on a peaceful camp of Northern Cheyennes and Oglala Sioux in the Powder River country. The soldiers killed many and burned the lodges and winter supplies after driving the Indians from the village, capturing the entire horse herd. After dark, the warriors stole into the soldiers camps and recovered the horse herd. The Indians then travelled the few miles to the camp of Crazy Horse where they found food and shelter.

Over the next few months the Indians gathered in the Powder River country where, ultimately, Custer found them. After this big victory, they knew that the Army would not allow their defeat to be the final word. Despite the treaty, the Black Hills would be lost.

Gold Rush

In 1874, a brazen young lieutenant colonel, George A. Custer, led the first official white expedition into the Black Hills, ostensibly to survey the uncharted region (which Lewis and Clark had bypassed as they traveled up the Missouri River). But when Custer's dispatches confirmed the presence of gold in the area's creeks and coulees, Gold Rush fever flared. As hordes of treasure seekers swarmed into the region, federal troops futilely attempted to cordon off the



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Hills to protect tribal property boundaries.

From the rush came Deadwood which eventually became one of the West's most famous gold towns. Wild Bill Hickok, Calamity Jane and Potato Creek Johnny lived here.

Settlers soon discovered that the land west of the Missouri River was good for ranching. The wide-open prairie provided range for cattle. Cowboys spent their days herding cattle and their nights telling stories around the campfire.



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Rapid City



Rapid City is the Gateway to the intermountain west and was founded in 1876 by a group of disheartened prospectors that had come to the Black Hills in search of gold. The city was named for the limestone spring that passes through the city and originates high in the Black Hills. It is located approximately 340 miles northeast of Denver and 350 miles west of Sioux Falls, South Dakota. Rapid City serves as the business, service, and cultural center for a five state, 200,000 square mile area including the states of South Dakota Wyoming, Montana, Nebraska, and North Dakota. The community encompasses over 38 square miles and is located on the eastern edge of the Black Hills, at an elevation of 2,950 to 3,950 feet above sea level.

In June 1972, the city was struck by a severe flash flood after heavy rains caused the collapse of two nearby earth dams. More than 200 lives were lost and property damage was estimated at \$120 million. This flood is the reason for the huge park system that follows Rapid Creek. The city arranged a buy back program to buy the worthless flood land from the previous owners. The buildings that were still standing after the flood were demolished and replaced with the park system. The foundations were left in place and covered with dirt and debris in most places.



Economic Base

The economic base in Rapid City remains fundamentally the same as it was in the 1800's. Since its beginning, Rapid City has been a center of commerce, culture, transportation, and education for

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the entire high plains. Rapid City enjoys a diverse economy that includes agriculture, forestry, government, tourism, healthcare, manufacturing, and an extremely strong service sector. The city has experienced an estimated 8.4 percent population growth since 1990. The city is also the tourist center of the Black Hills and the gateway to many attractions, including Mount Rushmore National Monument, the Badlands National Monument, and Wind Caves National Park.

Demographics

The population of Rapid City is approximately 54,523 people in 1990, 59,507 in 2000 of those people there were 15,636 families. The average family size was 3.96. The median age is relatively young at 35.1 for both sexes. The median age broke down is 33 for males and 36.4 for females.

The population of Rapid City grew from 5,777 in 1920 to 42,399 in 1960. The population increased 6 percent between 1970 and 1980, and increased 17 percent from 1980 to 1990. During the last decade, Rapid City grew by 800 persons per year, and grew by over 650 persons per year between 1990 and 1997. The growth spurts occurred in Rapid City's early years and remained fairly constant from 1960 to 1980, ranging from 3 percent per year to six percent per year. Pennington County's population, on the other hand, had an



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average annual increase of 7.6 percent during the past 77 years.

Age Distribution

The age of the city's population provides a good basis for evaluating current and future service needs. While the total population of Rapid City increased 17.3 percent during the 1980's, age characteristics of the city changed dramatically as the community "grayed". This 43.7 percent overall increase in people over the age of 65 is likely to continue in the next two decades as the baby boomers mature. The median age in Rapid City increased from 27.1 in 1980 to 30.9 in 1990 and follows the national trend of aging population.

The following data is based on older information.

The number of household in Rapid City increased 23.1 percent between 1980 and 1990, from 17,223 to 21,206. A household is an individual, a family, or a group of unrelated individuals who occupy a single dwelling unit. Average household size remained roughly the same, with only a slight drop from 2.62 person per household in 1980 to 2.51 in 1990.

Residential Growth from 1990-1997



Based on approved building permits in Rapid City and Pennington County, residential growth for the past 7 years has occurred primarily in three of the fourteen neighborhood study areas, the Downtown/Skyline Drive not being one of them. The neighborhood experienced 2.32 percent of total growth. The growth statistics to the

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current date would reflect a much different percentage due to the increasing residential development Skyline Drive is experiencing.

Year 2025 Residential Growth Projections

The year 2025 projections indicate how much total build will be achieved in twenty-five years. The Future Land Use Study Committee determined the population to be 103,000, based on numerous methodologies. Both the Rapid City Planning Commission and Rapid City Council have adopted this projection as well.

The education enrolment looks like this:

There is a 47% enrolment in 3-4 year olds, a 95% enrolment in 5-14 year olds, 96% enrolment in 15-17 year olds, 60% enrolment in 18-19 year olds, and 27% enrolment in 20-24 year olds. There is a 79% high school graduation, that number includes 5,659 students. Of those graduates 2,463 went on to college.

There is a large civilian veteran population "17.3%," in Rapid City because of the nearby Air Force Base in Ellsworth the home of the B-17 bomber.

Environmental Issues

Rapid City has an annual rainfall of 17 inches per year and an annual snowfall of 38 inches per year. The average temperature is 46.7 degrees F. Flash floods can and sometimes do occur. They generally don't cause any disruption. Rapid City is thought to lie in the "Banana Belt," one of the mildest climates in the Midwest. Protected by the Black Hills, Rapid City enjoys low humidity levels and infrequent participation. Extreme temperatures, either cold or hot are very rare.

Site Area/Specific Location

The amount of land area in Rapid City is 35 sq. miles. The area the site is located on includes but is not limited to 4-5 acres. The site is located on 4 different streets for a total of 8 city blocks in the heart of Rapid City. Streets include one block of 7th street, one block of Quincy St., one block of Kansas City St., and 5 blocks of 6th St. (See Figure 4.1)

Major Landmarks

There are several major landmarks in proximity to the site. These include; The Rapid City Public Library, The Dahl Fine Arts Center, the historic Alex Johnson Hotel, The Journey Museum, and The Rapid City Civic Center. Over the last couple of years the city has been putting up statues of all the american presidents. These statues are all made of bronze and attracting a lot of attention. Further consideration of these statues will be found later on in the project.

Site Topography/Vegetation/Views

The site slopes directly to the north towards Rapid Creek at a relatively shallow grade 0 to 2 percent. There is good drainage throughout the entire area of the site. Recently there have been new planting additions put in on the city corners. There're quite a few tree throughout the site area, the ones that are there are generally into maturity and casting adequate shade. The views into and around the site are more then plentiful and will be further elaborated in the site analysis.

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Geology

The geology of the Black Hills is very interesting. It attracts geologists from all over the world. Toward the end of the Cretaceous or during earliest Tertiary times, the Black Hills were thrust up during a period of mountain building. At that time the highest elevations were probably over 15,000 feet above mean sea level. Over time, this uplifted dome was eroded down to its present elevation. Today, the Black Hills area gives the most complete geologic record of rock history in South Dakota. The oldest rocks are found in the center of the uplifted, eroded dome. These rocks are metamorphic, mostly slates, and quartzites, and are over 2 billion years old.

Soils/Site Hydrology

The soils in and around the Rapid City downtown area are mostly of the Samsil Series. The Samsil series consists of shallow, well drained soils that formed in material weathered from soft shale. Slopes range from 15 to 60 percent. To be more precise the soils that are located on site are SkA – Santana-Urban land complex. This consists of a deep, well drained, nearly level Santana soil. Typically, the surface layer of the Santana soil is dark grayish brown loam about 6 inches thick. The next 5 inches is grayish brown loam. The subsoil is about 16 inches thick. It is yellowish brown, friable clay loam in the upper part and light yellowish brown, friable loam in the lower part. The underlying material to a depth of 60 inches is light brownish gray, calcareous loam. The content of organic material is moderate in the Santana soil. Permeability is moderate. Available water capacity is high. The shrink-swell potential is moderate.

The Santana soil is well suited to lawns, gardens, and recreational development. Lawns, trees, ornamental shrubs, flower gardens, and vegetable gardens are generally

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successful. In areas where cutting has exposed the subsoil, adding organic matter to the soil and mulching can improve the seedbed.

The Santana soil is generally suited to building site development. Installing foundation drains, diverting runoff away from the buildings, and reinforcing foundations and footings help to prevent the structural damage caused by shrinking and swelling.

Solar Orientation/Prevailing Wind Analysis

The site has various degrees of sun exposure. Rapid City for the most part is located on a north south east west bearing. With this in mind the street running north and south "6th St.," gets a moderate dose of sunlight during the afternoon, limited by building heights. Quincy St. the most southern of the site receives the least amount of sun due to large mature trees that cast shade on and around the area. Kansas City St. and 7th St. receive the most amount of sun. They are oriented in different directions but, due to their surrounding context of shorter buildings they receive more sunlight for a longer period of time. Rapid City has a unique wind environment. Because of where it is situated in relation to the Black Hills the city receives little or no prevailing winds. When there is wind it is generally a light breeze in the northerly or southerly direction unless it is from a storm.

The Future Land Use Plan

Rapid City has prepared plans which they deem the Future Land Use Plans. They are a framework designed for ensuring orderly and efficient growth of the community. The Plan is indispensable tool for all sectors of the community. Local government can invest in public infrastructure dollars more wisely if the location and magnitude of anticipated

RAPID CITY

growth is identified. Private sector businesses can use the plan to take more accurate growth projections and better position themselves to meet the needs of the future population.

Bikeway / Walkway Plan

Bikeway planning is not new to Rapid City. As a result of the 1972 flood, a greenway was created along Rapid Creek and a bike path was planned and constructed. Additions to the initial bike path occurred in the late 1970's and early 1980's

Outlined in the plan are some goals and objectives that are important to this project:

- 1) Promote bicycling and walking as a means of reducing traffic congestion and pollutants from automobile emissions.
 - a) Support accommodation for bicyclists at places of employment.

- 2) Relieve vehicle movement and parking congestion in the Central Business District.
 - a) Support downtown bicycle storage facility

- 3) Promote a bikeway / walkway system which serves all major trip generators.
 - a) Complete sections of the bikeway / walkway system to achieve system continuity.
 - b) Develop walkways between neighborhoods to improve circulation and reduce pedestrian traffic along major roadway.
 - c) Map out a corridor bikeway system that links schools with neighborhoods, parks, the greenway, major employers and shopping centers.

- 4) Promote bicycle and pedestrian safety
 - a) Identify hazardous location on roadways and the bikeway/walkway system and work to mitigate the problems.
 - b) Assist with the Rapid City Police Department bicycle safety programs.
 - c) Promote the use of bicycle helmets.
 - d) Increase motor awareness of the needs and rights of bicyclists and pedestrians.
- 5) Integrate the transit / pedestrian interface.
- 6) Assist with the formulation and adoption of design standards.
- 7) Adopt the role of an advocacy group for bicycling and walking.
- 8) Establish a program to conduct traffic counts and surveys of bicycle and pedestrian activity at key location throughout the community.
- 9) Inventory and catalog funding sources and methods for bikeway planning and system improvements.
- 10) Promote the use of alternative easements and right of way, such as drainage ways for bikeway / walkway corridors.
- 11) Promote the construction of sidewalks along school routes, commercial activity centers, and high volume high speed roads.

ANCHOR BUILDINGS



The Alex Johnson (Hotel and Mercantile)

Alex Carlton Johnson (1861-1938), Vice President of the Chicago and Northwestern Railroad, was founder of this grand hotel that bears his name. An admirer of Native Americans, he spoke of a shrine and tribute to the Sioux Indian Nation. The structural design is a successful blend of two spirits: the heritage of the Plains Indians and the Germanic Tudor architecture representing German immigration to the Dakotas.

In 1927 construction began on the hotel the day before work began on Mount Rushmore. Less than a year later, on July 1, 1928, the first guest registered to begin a long successive line of presidents, celebrities and happy visitors to the Hotel Alex Johnson. The walking tour will take you over the same paths that thousands have taken through the years. As you learn more about its rich past, you will begin to understand why the Hotel Alex Johnson is listed on the National Register of Historic Places.



Alex Carlton Johnson, Vice President of the Chicago-Northwestern Railroad set out to build a grand hotel, “The Showplace of the West”, and a tribute to the Native Americans of the area in the Black Hills of South Dakota.

Alex Carlton Johnson’s involvement with the railroad, his love of the Native American culture of the Lakota Sioux located here in the Black Hills and the western history involved in the South Dakota heritage all are reflected in the architecture and the memories surrounding this hotel.

As you walk into the Lobby, you’ll notice the bricks you step on are all original and some have Native American symbols imbedded in them. One of those symbols looks suspiciously like a Swastika. It’s actually an ancient symbol that means the “four sacred corners of the earth” and was adopted by the Native Americans a couple hundred years ago. (and because it was here long before Hitler, we decided to keep it - and explain it - again & again...) That same symbol



ANCHOR BUILDINGS

is reflected in the one of a kind chandelier, made of war spears, that has hung from the decorative rafters for over 75 years.

Restoration of the hotel based on original photographs and plans has returned the hotel’s surroundings to those of the 20s, from the guest rooms to the ballroom to the restaurant and lobby, all displaying her past for those to be a part of today.

Mercantile
A gift shop and art gallery, primarily dedicated to Native American artists and local South Dakota art. Wearable art, Black Hills Gold and Original Black Hills Silver jewelry, original art and crafts, souvenirs, UPS shipping available, plus sundries, stamps, film and newspapers.



The Journey

The Journey Museum brings together four major prehistoric and historic collections to tell the complete story of the Western Great Plains – from the perspective of the Lakota people and the pioneers who shaped its past, to the scientists who now study it.



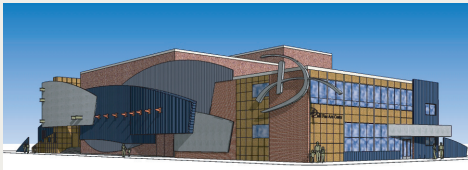
The complete history of the area is factually and entertainingly revealed. Five outstanding collections of artifacts, specimens and memorabilia. Spectacular interactive exhibits allow visitors to witness the formation of the Black Hills billions of years ago; see and hear buffalo herds thundering across the Plains, or meet Sioux Chiefs and courageous pioneer women.

The Dahl Arts Center

The Dahl Arts Center has served as the premier western South Dakota arts center for contemporary visual arts, community theater and arts education since it opened. in 1974. The Center is a community-owned arts facility which houses



ANCHOR BUILDINGS



a 170 seat theater, three admission-free visual arts galleries and classroom spaces. The community arts center was a gift to Rapid City from Mr. & Mrs. A.E. Dahl, a prominent Rapid City banker and his wife. The Rapid City Arts Council, under contract with the city of Rapid City, has administered the Dahl Fine Arts Center since its opening in October, 1974.

The Dahl Center houses the unique Cyclorama Gallery, which features a 180- foot oil-on-canvas panorama spanning 200 years of U.S. history. Enhanced by special lighting and narration, this extraordinary art work was designed and painted by acclaimed muralist Bernard P. Thomas.

The Dahl Arts Center has raised gifts and pledges totaling more than \$2 million dollars from community leaders, local businesses, and area foundations. The community contributions will be used to match \$4 million City of Rapid City 2012 funds, which have been approved to expand and renovate the Dahl and its Education Complex, to purchase furnishings for the facility, and to create an endowment for operations.

The Rushmore Plaza Civic Center

Located in the very center of Rapid City, the Rushmore Plaza Civic Center offers the very finest in meeting facilities. Surrounded by seven acres of park, delegates are welcomed to the complex by a quiet lake just a short stroll from the facility. Within the Civic Center you will find a 10,000 seat arena, a 1,779-seat theatre, 150,000 square feet of exhibit and meeting space, and complete support facilities for food services, staging facilities, sound, light and all necessary accouterments to make your meeting absolutely perfect.



ANCHOR BUILDINGS

Prairie Edge

In 1980 Prairie Edge was established as a purveyor of Plains Indian arts, crafts and jewelry. Prairie Edge had its first shop in Deadwood, SD. In December of 1993 restoration of a historic building in the heart of downtown Rapid City was completed. At that time Prairie Edge tagged “Trading Co. & Galleries” to its name.

Today both regional and nationally acclaimed artists show their works at Prairie Edge. In the Native American Gallery these include Charles Fast Horse and his wife Hazel. Charles is a highly regarded Sioux medicine man and a skilled creative beadworker; James Little Wounded, a superb Plains ceremonial artisan; Kevin Fast Horse, nephew of Charles, an artist of contemporary design and David Claymore, Michael Haskell and Tim Whirlwind Soldier, outstanding silversmiths. In our Fine Art Gallery Native American artists Joanne Bird and Don Montileaux are represented along with aspen wood designer, Margo Gallegos, cast paper sculptors, Allen and Patty Eckman, batik artist Lila Hahn and painters James Van Nuys, Kathy Sigle and Steve Roselles. These are just a few of the beadworkers, quillworkers, painters, photographers, potters and silversmiths whose artwork is featured in the Prairie Edge galleries.

Prairie Edge has much more. A turn-of-the-century Trading Company offers the finest in glassware, pottery, Pendelton blankets, star quilts, contemporary jewelry, unique clothing, frames, fountains, candles and scents; the original works of regional and nationally acclaimed artists are on display in the Second Floor Fine Art Gallery; a kaleidoscope of color is waiting to be discovered on the east mezzanine’s Italian Bead Library, which houses over 2,600 different styles, shapes and colors of these historic beads; the west mezzanine houses a Book and Music store dedicated to Native American



ANCHOR BUILDINGS

and Western history and culture; Sioux Trading Post supplies crafters with furs, feathers, shells, teeth, claws, hides, buffalo parts, trade cloth, botanicals plus Italian, Czech and Trade beads.

The Elks Theatre

The Elks Theatre, located in the Elks Building, was constructed in 1911-12. The foundation stones, taken from a quarry located near Rapid City's business district, are imprinted with dinosaur footprints. School of Mines President C.C. O'Harra, a renowned geologist, visited the construction site in 1912 and subsequently was able to find a few more of these imprinted stones at the quarry. These additional stones were placed on display in the campus museum.

Originally an opera house, the Elks was the showplace of Rapid City, complete with its own orchestra and trap door in the stage leading to dressing rooms beneath. Opening night, June 6, 1912, featured a musical comedy from New York. Shortly after the Elks opened moving pictures appeared and stock companies disappeared. The Elks Opera House was transformed into the Elks Theatre.

A 1915 advertisement promoted the Elks as the "Largest and Best in the Black Hills. Moving pictures by the most dramatic artistic producers are presented each evening... legitimate drama, musical comedy and vaudeville." The "talkies" arrived in Rapid City in 1929; the Elks was the first to show them.

The Elks Theatre closed its doors on New Year's Eve 1989 and remained empty for more than 2 years. A broken water pipe caused extensive damage on Christmas Eve, 1991. Purchased by present owners, Doug and Lori Andrews in March 1992, the theatre was given a complete facelift and reopened May 14, 1992

As with many theatres, the Elks reportedly is home to a spirit. When he first appeared and where he came from



ANCHOR BUILDINGS

is unknown, but the benevolent ghost, Jimmy, has been in residence for decades.

Emmanuel Episcopal Church

Emmanuel Episcopal Church is the only downtown Rapid City church still in its original building. A small group began holding services in Rapid City in 1887, under the leadership of George G. Ware, a lay reader who was later ordained and became the first rector. The cornerstone of the little sandstone church was laid November 10, 1887, and the first services were held in the new building in 1888.



The church is listed on the National Register of Historic Places. The original church building was enlarged by an addition to the south in the early 1940s, which also incorporated a stone Parish Hall adjacent on the east. In 1954, a large, new Parish Hall with a stage, kitchen and basement classrooms was added and, in 1991, an addition for office space and additional classrooms was completed.

The longest-serving Rector was the Rev. Mr. E. Jerome Pipes, who was here from 1934 until 1960. Perhaps the best-remembered event of his tenure was the attendance of President Franklin D. Roosevelt at a regular Sunday service in 1936.

The Rapid City Public Library

Library Hall 1881 (No Longer Stands)

Newly chartered by the territorial government, the Rapid City Library Association built Library Hall on the corner of 6th and Kansas City Streets on land donated by John Brennan. A finance campaign raised the \$600 seed money to begin the project in February; the flag pole was erected in

ANCHOR BUILDINGS

March.

Library Hall was a 32' x 85' wood frame building for use as a reading-room, library, and theater. It featured a 25' stage, seated 450, and its bookcases were furnished with 500 purchased volumes of biography, poetry, science, and fiction. Its librarian, Lida Mitchell, earned \$5 a month. The reading room was open six hours a week, and only one book could be checked out at a time.

Membership was limited to 100 persons for a \$12 share plus a \$9 initiation fee and \$4 annual dues. The Association was free of debt by 1887. Until the turn of the century, Library Hall served the community, not only as a library, but as the Methodist and Congregational churches, as civic center for social, political, and civic activities, lectures, concerts, ballroom dances, and funerals.

The Rapid City Carnegie Library (Still Standing and located on my site)

In 1914, the Library Board, which was by that time appointed by the city according to state law, formally applied to Andrew Carnegie for a grant. The ensuing process to meet requirements resulted in a site dispute which was ultimately settled in State Supreme Court. Library Hall was removed to make way for the new Carnegie Library on the NW corner of 6th and Kansas City Streets.

The new library was built in 1915 with a \$12,500 Carnegie grant. The Journal wrote of the opening ceremony, "... all expressed themselves as being pleased with everything from the large library room with its many shelves, books, drinking fountain, chairs and tables, to the conveniences below including the charming little assembly room for the use of clubs and committee meetings.

ANCHOR BUILDINGS

Present Day Library 610 Quincy Street

The lack of physical space in the Carnegie Library resulted in the beginning of planning for a new library to serve the growing community. The planning commission that was instituted was comprised of library trustees, city and state officials, an Omaha library consultant and Chamber of Commerce representation. The Rapid City Civic Library Building Association incorporated under state law, and efforts began to build a new library at 610 Quincy St.

On October 24, 1972, the doors opened a new 28,000 sq. ft. building to serve Rapid City library patrons. The new facility boasted reading room seating for nearly 200 people, a spacious children's area, ample office and work space, a periodical/reference room, an art loan display wall, a board/conference room, and a meeting room for groups of up to 60.

After several years of planning, the Rapid City Public Library presented an expansion plan to the City's Vision 2012 capital improvements program. Approval for a new 19,000 sq. ft. addition to be built above the west parking lot was given on the condition of the library successfully raising \$500,000.

The Library Foundation successfully raised over \$650,000, and construction commenced on August 27, 2001. The project also provided renovation monies to convert the old entrance to a solarium, the creation of a South Dakota Research and Genealogy Room, the addition of study rooms, and improvement of the Reference Desk.



INTRODUCTION TO CASE STUDIES

Street Research

All streets exhibit 4 characteristics. Failure in a design has always been associated with any retreat from one or more of these. The four characteristics are:

Accommodation and balance of the activities that are present (vehicle modes, pedestrians, and adjacent functions all operate without compromising each other). Proper behavior of those activities (buses are quiet and don't hang around and pedestrians don't offend each other excessively).

Maintenance of the street's vitality by those who manage it collectively (stewardship is a collaborative responsibility). A design that enriches (the physical quality of the street pleases and inspires all who use it).



Alan Jacobs five criteria for great streets:

They should help build community.

They should be physically comfortable and safe.

They should encourage participation.

They should have memorable qualities.

They should epitomize the best of its city and citizens.

Alan Jacobs discusses the important qualities that are fundamental to the attainment of a successful street.

Order and city structure: Either by design or evolution, city street and block patterns can give order and structure to a city, district, or neighborhood, partly by regular patterns of arrangement, mythological organization, and succession of parts and contrast.

Definition: Great streets have boundaries that are usually walls (building) that communicate clearly where the edges are that set it apart, that make it a place. Noticeably, many fine streets are lined with trees that may be as important as the

INTRODUCTION TO CASE STUDIES

buildings in defining the street. The best streets exhibit what appear to be many owners and mixed uses. These factors help build community.

Beginnings and endings of streets should be well marked to introduce us to them and to take us elsewhere.

Complementary scale: The buildings on the best streets get along with each other.

Magic: we are attracted to great streets not because we have to go to them but because we want to be there.

Density and intensity: density and land use are important to streets. If void of human activity, streets cry out for pedestrians. A community is established when people live along or near its streets.

Leisure and walking: every fine street is one that invites leisurely, safe walking. Curbs and sidewalks may physically separate people from the streets but do not necessarily offer a sense of safety or tranquility. However, trees added at the curb line, if planted close enough to each other, create a pedestrian zone that feels safe.

Accessibility: people must be able to get to the street with ease. Besides being places one can walk to, great streets need to be accessible by public transit.

Visual engagement: Great streets require physical characteristics that help the eyes do what they want to do: move. Generally, light constantly moves over many different surfaces to keep the eyes engaged. What makes trees so special is the movement of their branches and leaves and the ever-changing light that plays on them.

INTRODUCTION TO CASE STUDIES

Many, though not all, of the best streets have lots of people on them, and, if for no other reason than their movement, people help make the streets what they are.

Transparency: The best streets have a transparent quality at their edges where the public realm of the street and the private realm of property and buildings meet.

Transition: on the best shopping streets, there may be a transition zone between the street and the actual doorways of the shops, a zone of receding show windows, and space for outside displays. The best streets are replete with entryways that are as little as 12 feet apart. Windows are important for the person on the street to have a sense of habitation and for the inhabitant to have visual access to the public realm.

Maintenance: Care of all the parts that make up a street, as well as use of high-quality materials and good detail design, are essential.

Design: Contrast in design is what sets one street apart from another and ultimately what makes one street great and another less so. It is the design of the street itself that makes a difference. The best streets, by and large, are designed and continually cared for.

Quality of construction and detail design: Workmanship and materials and how they are used (in design) invite respect, admiration, and stewardship.

OVERVIEW OF CASE STUDIES

While thinking about my program I knew it was extremely important for me to do case studies on important streets that have proven to be more than successful. While researching other parts of my program I came across an invaluable source. The city of Portland was and is working to revitalize the Transit Mall. They had done a "general" case study of city streets they deemed vital and influential to their prospective design ideas. I am going to include the same case studies in this program and elaborate more as to why they are successful and what parts/ideas/concepts of each street can help to further my design. I will also be doing a comparative analysis into the negative and positive perspectives of each street. I have visited 4 of the six streets so I feel I can also add my own personal experiences to these case studies.

The streets and their respective importance as stated in the Great Pedestrian & Transit Streets:

The Corso is the terminating segment of the Via Flaminia, the highway that extended the Roman Empire to Britain. Whether the place for celebrating the latest military victory by Caesar Augustus, the grounds for horse races enjoyed by Goethe, or the front yard for centuries of successive institutions, businesses, and social interactions, the Corso is the backbone of Rome and its hear.

Fifth Avenue is more than a great retail street. New York became a city when its focus of energy moved from the Hudson and east rivers to Fifth Avenue. It, like the Corso, is a spine that exposes its users to Manhattan's diversity, commerce, industry, and neighborhoods and the institutions and public spaces that organize it.

Market Street is another rachis, but more than either Fifth Avenue or the Corso, Market Street accommodates a

OVERVIEW OF CASE STUDIES

mammoth volume of trips carried by more than a half dozen modes on three different levels. Market Street's challenge has been, and remains, balancing its transportation responsibilities with maintaining its inviting and accommodating pedestrian-oriented public realm.

State Street in Chicago was the "greatest retail street in the world." When the Burnham Plan for Chicago identified and redefined the network of great streets that would define its future as a World City, State Street was intentionally left untouched. Daniel Burnham had simply felt that State Street was too good to tamper with, even if it didn't fit with his beaux-arts paradigm. State Street is a public space, and its strength has been in the stewardship of the businesses and institutions that abut it. When their influence waned, the street's value diminished.

Pearl Street Mall in Boulder Colorado is one of the nation's most successful, enduring and beloved outdoor malls. These four blocks once were rubber-smoothed asphalt, and long before the first brick was laid, they comprised a thriving commercial district. Redesigned in 1977 as a pedestrian mall this street had revitalized the heart of downtown Boulder.

VIA DEL CORSO

Via Del Corso

Type: regional and downtown pedestrian-emphasis street
 Location in City: Via Del Corso is located in the heart of Rome, Italy.

Role in the City:

Civic importance: The Corso is a historically important pedestrian connection between the Piazza del Popolo and the Piazza Venezia in downtown Rome. It also links distant destinations via connecting roads at piazza termini. The Corso is also a preeminent pedestrian retail street.

Transit component:

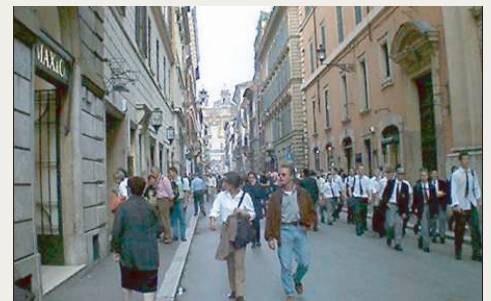
Very limited access. When I was there, there was limited to no traffic. In place of traffic were hordes of people.

Pedestrian linkage:

The Corso is one of the most important pedestrian streets in central Rome and is the origin of other prominent streets in the area.

Context:

Much of the Corso is narrow and sharply defined by four-story buildings on both sides. The street accommodates a variety of retail stores that cater to a wide socio-economic mix of people.



VIA DEL CORSO

Transit and traffic operation:

The Corso is not a significant traffic street. It has a casual mix of vehicles and pedestrians, with a bias towards those on foot. At certain times during the day, pedestrian concentrations are great enough to completely dominate the entire right-of-way width, which is approximately 36 feet. During those surges, there is little or no vehicular traffic. Occasionally, emergency vehicles have to force their way through the crowds.

Sidewalk space use and building frontage interface:

Pedestrian concentrations vary by time of day and day of the week. The Corso has low curbs and narrow sidewalks, but the sidewalks do not function as a separate zone when pedestrian concentrations overwhelm both the sidewalks and the roadway.

Management:

Emperors, generals, senators, popes, and a variety of other entities contribute to the Corso's management.

Pedestrian amenities:

Limited café seating in adjacent spaces set up daily by restaurants. The Corso is relatively close (between 5-7 blocks) to the Piazza di Spagna a very popular eating area.

Special features:

Major fountains and sculpture and the piazza. The thing I noticed most that I really liked was when you stand at the center obelisk and look towards the twin churches you have a great vantage point down three long streets, on your left and right are two very large sculpture works.



VIA DEL CORSO

Vital Statistics

Block length: Varies

Row width: Variable 36'-0"

Roadway width 20' – 24'

Sidewalk width zones 4' – 8'

5TH AVENUE

5th Avenue

Type: Major retail and traffic street

Location in city: Fifth Avenue runs through central Manhattan from Washington Square to Harlem.

Role in the city:

Civic importance: In the early 19th century, Fifth Avenue evolved into a prestigious address for prominent businesses, civic institutions, residences, and, later, fine stores. As New York grew into a major world-class city in the 20th century, Fifth Avenue continued to evolve. Today it is arguably the greatest retail street in the world. It is also the designated route for major parades and celebrations. Surface improvements, like paving, lighting, and landscaping, change as the street passes through distinct neighborhoods.

Transit component:

City buses operate on the street's right lane.

Pedestrian linkage:

Fifth Avenue connects Central Park, the retail core, Rockefeller Center, and the New York Public Library to Lower Manhattan.

Context:

The street is lined by midtown corporate offices, very high end retail stores, churches, Central Park, and residential neighborhoods.



5TH AVENUE

Transit and traffic operation:

Fifth Avenue is a one-way street with four lanes, three of which accommodate mixed traffic while the fourth is reserved for buses only.

Sidewalk space use and building frontage interface:

The volume of pedestrians during business day significantly fills the available sidewalk space, which has traditional pedestrian-through and flushing zones.

Management:

The Fifth Avenue Association is a powerful private entity responsible for the quality of the street. Instead of special tax or assessment districts, the Association focuses more on entrepreneurship and enterprise. It has been responsible for upgraded lighting, banners, and benches on the street. The New York Parks Department manages open space along Fifth Avenue.

Pedestrian amenities:

Lights: Special design

Trees: Only incidental plantings

Benches: Some special benches in retail area

Special signage: Seasonal or event banners

Enhanced pedestrian paving: Some paving exists in front of certain properties. Design is complementary to the abutting building and is not monolithic.

Special features: Water features, landscaping, and seating are provided at abutting civic spaces, such as the New York Public Library, St. Patrick's Cathedral, Rockefeller Center, and Central Park.

5TH AVENUE

Vital Statistics

Block Length: 200'-0"

Row width: 100'-0"

Roadway width: 50'-0"

Sidewalk width 25'-0"

Relevance to the Rapid City Walk of Presidents:

MARKET STREET

Market Street

Type: Regional and downtown mixed-traffic street

Location in city: Runs southwest to northeast through the heart of San Francisco

Role in the city:

Civic importance: Market Street is one of San Francisco's most important streets. It connects with waterfront, financial, retail, and cultural districts of downtown with southwestern neighborhoods and one of San Francisco's natural landmarks, Twin Peaks. It has a strong urban design affinity with the newly restored Ferry building, which terminates the street at its northeast end. Symbolically, the Ferry building and Market Street are the city's portal to the waterfront.

Context:

Market Street sits diagonally at the juxtaposition of San Francisco's two major city grids: the smaller, north-south blocks to the north and the large, parallel/diagonal blocks to the south. The highest density of commercial office, retail, and institutional buildings along Market Street is generally between Powell and Stuart Streets.

Improvements/renovations:

Market Street reached its greatest prominence in the 1930s to 1940s, when it carried major traffic as well as five privately operated trolley lines. Trolleys picked up passengers at the Ferry Building and carried them to destinations along Market Street. The street was lined with commercial businesses and was a primary route for major parades and events.



MARKET STREET

After WWII, the decline of trolley rider ship and the increasing use of automobiles began to change the nature and vitality of the street. With the construction of cut-and-cover subway tunnels for BART and light rail in the 1960's, there was a major effort to improve the surface appearance of Market Street and distinguish it from other major streets in the downtown area. Widened sidewalks, street trees, ornamental lights, subway entrances, brick and granite paving, and enhanced signage and signals were installed. Initially, rubber-tired trolleys wan a limited service on Market Street using small island platforms. In the 1990s, the Embarcadero Waterfront project proved two transit line extensions that would reestablish surface transit. In the meantime, the city has made a concerted effort to anchor Market Street with a new major retail, hotel, and office development. Today there is vitality on Market Street between the waterfront and the Castro District, but other areas have not yet revitalized.

Transit and traffic operation:

The F-line streetcars are operated by MUNI. Automobiles, buses, and trucks use the street's outside lanes and also share the inside lanes with streetcars.

Sidewalk space use and building frontage interface:
Pedestrians are well set back from traffic near building fronts. Entrances and ground floor uses are encouraged. The small storefront vitality the street had in the 1940s has changed; larger buildings and more scattered retail uses now line the street. Small plazas and entrance courts add open space and additional pedestrian linkages to Market along its middle section.

Management:

There is no formal public/private management entity for

MARKET STREET

Market Street such as the Denver Partnership for the 16th Street Mall. City leaders are generally satisfied with Market Street's current vitality.

Pedestrian amenities:

Lights: Ornamental

Trees: Double rows of London Plane trees

Benches: Custom designed

Trash receptacles: yes

News stands: In new gang-cluster enclosures and kiosks

Movable public or private seating/tables: Only those associated with individual food vendors

Special signage: Part of city-sponsored kiosk program

Special signals: Specially designed box section poles and arms

Enhanced pedestrian paving: Brick sidewalks, granite curbs, exposed aggregate concrete crosswalks

Transit shelters: At streetcar only

Windscreens: At streetcar only

Special features:

There is a vendor agreement on Market Street for transit shelters. Advertising on the shelter sides helps fund an arts program that features visual arts on both temporary and permanent display.

Vital statistics

Block length: variable due to diagonal orientation

Row width 120'-0"

Roadway width: varies; typically 50'-0"; pull out zones as needed

Sidewalk width: typically 35'-0" overall

STATE STREET

State Street

Type: Mixed-traffic urban street

Location in city: Heart of the Loop in downtown Chicago

Role in the city:

Civic importance: State Street was once the greatest commercial street in Chicago, though it has now been somewhat usurped by Michigan Avenue. Since its renovation in 1996, State Street has regained moderate retail activity and has seen the conversion of several buildings into higher education institutions and urban housing. Symbolically it remains one of the premier streets in the downtown Loop area. It is terminated by the Chicago River and Wacker Drive to the north and Congress Parkway to the south.



Transit component:

With its subway and buses, State Street is one of the primary transit streets in the Loop. It probably carries more bus lines than any other street in the Loop; however, the share of transit riders carried into the downtown area by buses is smaller than that carried by commuter rail, subway, and elevated heavy rail. Bus lines on State Street are primarily city routes that serve both distant and close-in neighborhoods.

Pedestrian linkage:

State Street has historically been and remains a primary pedestrian destination and route between the south downtown area and the Chicago River waterfront and Northbank area.

Context:

STATE STREET

State Street is a primary retail street in the Loop area department stores such as Marshall Field’s and Carson Pirie Scott and newer specialty retail outlets. The recent conversion of existing buildings to urban branches of university campuses has added student activity to the street. The new Chicago Library, built in the early 1990s added a civic attraction to the south end of the street. The density of the surrounding development is generally high. Most buildings directly front onto State Street, and the street’s retail prominence is evident in some of these buildings’ elaborate ground-floor architecture. There are limited open spaces along the street.



Improvements/renovations:

State Street was substantially redesigned in 1979 from a traditional mixed traffic street to an exclusive transit mall. The 2-3 lane transit way was configured to weave within the street’s 100-120 foot rights-of-way. Sidewalk areas were resurfaced with pavers and new transit furnishings and lighting were installed. These improvements didn’t engender stewardship of the street by the abutting businesses and property owners, and the street quickly fell into disrepair. The elimination of auto access also accelerated the demise of many retail establishments.

After a decade of visions, analysis, and fundraising by the Greater State Street Council and the City of Chicago, the street was redeveloped in 1996. This new design returned the street to its original mixed-traffic configuration, refurbished it with higher quality furnishings, and re-established its position as one of the premier urban streets in the Loop.

STATE STREET

Transit and traffic operation:

After the 1996 renovation, bus transit mixes with traffic in a five-lane, two-way conventional street. Left turns onto one-way cross streets are allowed. Buses stop near intersections but have no priority lanes or signal preemption.

Sidewalk space use and building frontage interface:
Sidewalks are most crowded at rush hours, although there is heavier pedestrian movement on cross streets with workers going to and from commuter trains and major parking facilities. Sidewalks are arranged with a traditional furnishing zone and a through pedestrian zone. There is some café seating on the sidewalk where there are restaurants.

Management:

The Greater State Street Council and Commission, which initiated the early discussions of a new vision, helped implement the renovation and now provides enhanced maintenance and event programming through tax increment financing. This funding vehicle allows the neighborhood to directly address concerns over security, maintenance, special events, repairs, and the design of new adjacent development.

Pedestrian amenities:

Lights: Replicas of the original grand, ornamental street lights with lower-level pedestrian lamps

Trees: Set in elongated, raised wells built into vaults; ornamental ground covers

Trash receptacles: yes

Planters: Part of the tree wells

Movable public or private seating/tables: Only at restaurants with sidewalk seating

Enhanced pedestrian paving: Colored, exposed aggregate

STATE STREET

paving with granite feature strips
Transit shelters: New vendor designed and installed 5'x10'
Deco glass shelters
Windscreen: Sides of new shelters
Transit seating: Small benches within shelters
Special features: Public art, fountains, and landscape

PEARL STREET

Pearl Street

Type: Pedestrian Mall/Mixed-traffic urban street

Location in city: Heart of downtown Boulder

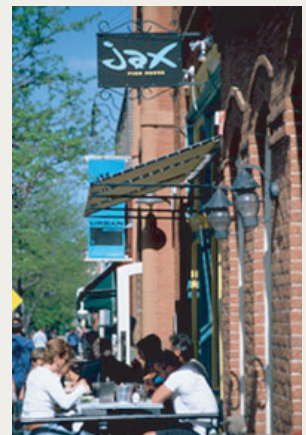
Role in the city:

Civic importance: One of Boulder's most treasured landmarks, this outdoor pedestrian mall boasts an array of boutiques and shops peddling an assortment of goods, from music to kites to trendy clothing. Located in the heart of the city, the tree lined, brick walkway also features a regular host of street performers and unusual Boulder characters. After shopping for the perfect present or browsing one of the art galleries, spend the afternoon on one of the many cafe patios. Sip your favorite beverage, soak in the sunshine and take in the street activity. A play area for children features an assortment of boulders to climb on.



Building frontage interface:

There are sitting spaces and cafes that have activity outdoors. Visitors are in downtown Boulder regardless of the time of year or the weather conditions, making them an active consumer group during traditionally slow times or during inclement weather.



Transit component:

A central location and an exceptional bus system have resulted in downtown Boulder having one of the nation's highest percentage shares of alternative mode transportation (walk, bus, bike) into Downtown.

Pedestrian linkage:

PEARL STREET

The Mall is the most important pedestrian street in central Boulder and is the origin of other prominent streets in the area. The Mall also serves as the hub for biking/hiking trails.

Context:

Pearl Street is adjacent to five historic neighborhoods and is home to a growing residential population in the district itself. Many workers enjoy the convenience of living and working in the downtown area. The four block pedestrian mall serves as an anchor point to the east and west ends of Pearl Street.

Improvements/renovations:

The two-lane blacktop of Pearl Street was transformed in 1977 into a pedestrian sanctuary of paving bricks, statuary, fountains, playgrounds, and a designer jungle of trees, shrubs, and flowers. The original design team was composed of Sasaki Associates, Boston, Everett Zeigel, and Communication Arts. The recent renovations and enhancements are the work of Communication Arts and OZ Architecture.

Pedestrian amenities:

Lights: Ornamental street lights with lower-level pedestrian lamps

Trees: Planted at street level with protective grates around the base, ornamental ground covers

Trash receptacles: yes

Planters: Raised planters can be found around the Mall

Movable public or private seating/tables: Only at restaurants and cafes with sidewalk seating

Enhanced pedestrian paving: Exposed brick pavers

Transit seating: Small benches within shelters

Special features: Public art, fountains, and landscape

BLEEKER STREET

Bleecker Street

Type: Regional and downtown mixed-traffic street

Location in city: Major artery running west to east through Greenwich Village, New York, NY

Role in city:

Bleecker Street has been called many things - most evocatively, perhaps, the "Left Bank of America." It has also been referred to as the "breadbasket of the Village." It was on Bleecker in the early 1900s, when the New York area was America's film capital, that D.W. Griffith shot most of the outdoor scenes in his early silent films. In the 1940s, pushcarts made this street all but impassable. Cart operators were forced by law to move indoors, but the street retained its association with food, and today's Bleecker Street still contains some of the best and freshest fruits, vegetables, pastries, cheeses, meats, fish, and delicacies to be found in the city. Bleecker was immortalized in Allen Ginsburg's poetry, and musicians from Gian-Carlo Menotti to Simon and Garfunkel have paid tribute to its vitality.

Today, Greenwich Village is a mecca for the shopper in search of something unique. From a hard-to-find record, an antique rocking chair, or a talking parrot - to say nothing of a riff of jazz, an outdoor cafe, or an off-off Broadway show - it is likely to be found on Bleecker. But don't even think about moving here: mere mortals can't afford the rent, and residents never leave.

Building frontage interface:

With its small-scale, historic buildings and creative storefronts, Bleecker Street's attractiveness and diversity reflect the best elements of this famous neighborhood. With its activity, variety, and informality, Bleecker manages to



BLEEKER STREET

function both as a destination (for New Yorkers and tourists alike), and as a neighborhood street where residents can still get shoes repaired and buy groceries.

Transit and traffic operation:

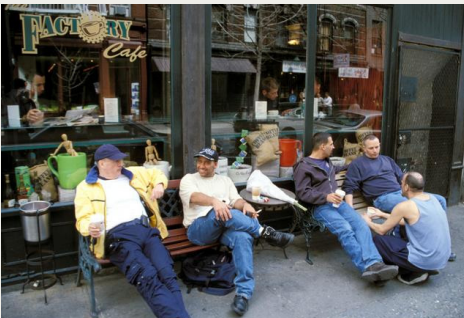
Parking available on one side of the street during the day and both sides at night; because the street is narrow, deliveries and doubled-parked cars serve to slow down traffic (along with heavy pedestrian usage, the street receives heavy car and tourist bus usage). Easily accessible by numerous subway lines. The street is close to many landmarks including Washington Square Park, N.Y.U., and Sheridan Square.

Context:

As a major artery running west to east, the street is walkable in that it is narrow and its sidewalks allow for good pedestrian movement. Presence of people makes the street feel safe and maintains a constant level of energy and use. Bleeker Street has a certain nostalgic charm (which can become rather touristy in some spots); one can sit in open-air cafes, or a small square on the corner of Sixth Ave. and Bleeker.

Pedestrian Linkage:

Very active with pedestrian traffic and a variety of retail establishments - some of which have been there many years and are recognized as landmarks. Most are at street level with residences above, making this place both a neighborhood and a shopping area.



BLEEKER STREET

Pedestrian amenities:

Trees: Located in park area set at street level

Trash receptacles: yes

Planters: Raised planters can be found along the street and in front of business

Movable public or private seating/tables: Only at restaurants and cafes with sidewalk seating

Enhance pedestrian paving: Exposed brick pavers in plaza area

News stands: set on street corners and in front of select businesses



LAS RAMBLAS

Las Ramblas

Type: Regional and downtown pedestrian-emphasis street
 Location in city: Las Ramblas is located in Gothic Quarter, Barcelona, Spain

Role in the City:

A tremendous variety of eateries, shops, markets, and cultural institutions can be found here, along with a huge number of pedestrians and people-watchers. About 1.5 kilometers long, Las Ramblas are really a sequence of three pedestrian-oriented street/boulevards. Its central pedestrian promenade is unique in many respects, not the least being its agreeable aesthetics (which come from its pleasant proportions, relative to adjacent development). Landscaping and provision of ample seating are two other big plusses.

Therefore, pedestrian traffic is always high, partly because of the area's 24-hour attractiveness and partly because of the mixture of activities; regardless of the time of day, there is something to do. A huge number of different enterprises are in operation here - traditional retail, specialized vending, kiosk sales, markets and exchanges, fairs and exhibitions, seat rental, shoe-shining, eateries and pubs, entertainment, etc. There are also a number of museums and cultural institutions.

Las Ramblas are rich in tradition and history. The Font de Canaletes, an old iron fountain at the beginning of the promenade, has an associated legend: all those who drink from it are truly of Barcelona. The monument of Columbus at the waterfront end speaks to Spain's glorious imperial days. And the Ramblas itself, including the Placa de Catalunya at its head, has a secure and storied reputation as a center of high society, debate and discussion, and people-watching - so much so that it has actually entered the Spanish vocabulary: a "ramblista" is one who saunters along the Ramblas, perhaps



LAS RAMBLAS

making a day of it.

What is now Las Ramblas used to be a riverbed; a wall there marked the limits of medieval Barcelona. By the 15th century Barcelona had expanded past this wall, and the character of the Ramblas changed. In the late 18th century, construction began on the characteristic central pedestrian promenade, which replaced a section of the city wall. By 1856, all remnants of the old city wall had been torn down and Las Ramblas, by then Barcelona's main thoroughfare, looked much as it does today.

Building frontage interface:

The street is lined with five-to-seven-story buildings, street-level display windows, and many entrances. The central walkway is, on average, 60 feet wide; sidewalks are usually less than 10 feet wide, encouraging walking in the center. A row of trees separates the central walkway from automobile traffic - two lanes on either side (plus one parking lane). Pedestrians have precedence: Cars are relegated to narrow shoulder-lanes and must at every turn accommodate pedestrians, who are free of intersections in the central promenade.

Transit and traffic operation:

The proportion of street given over to pedestrians is quite pleasing, as is the harmony between street width, building height, landscaping, and intensity of usage. A mix of activities promotes diverse image and flexible character; Las Ramblas are seen as Barcelona's characteristic, most important, and best streets.

Pedestrian linkage:

Major thoroughfare connecting central city plazas with waterfront by way of Gothic quarter; extraordinary pedestrian access from central promenade; walkable along



LAS RAMBLAS

entire length (less than one mile); excellent Metro access.

Context:

Convivial mixed-use retail/eating/entertainment area promotes sociability between users. Ample seating is provided along central promenade (benches, planters), with additional seating in vicinity of cafes and restaurants. Comfortable atmosphere promotes social contact; Ramblas have reputation as forum for interaction. Diversity of uses helps ensure a diversity of people.

Pedestrian amenities:

Trees: Planted at street level with protective grates around the base

Trash receptacle: Yes

Planters: Raised planters can be found throughout the site, ornamental ground covers

Movable public or private seating/tables: Found along entire mall

Enhanced pedestrian paving: Exposed brick pavers and ornamental paving designs

Special features: Extra wide pedestrian walkway



HSS TECHNOLOGY

The following case study came to me by accident. Last year I had the opportunity to visit the The Gateway in Salt Lake City Utah. The fountain feature that is located in the heart of the plaza is similar to the fountain at the Bellagio Hotel in Las Vegas. There is a prominent water feature that has a strong emphasis on technology to power the back end coordination of movements. While visually appealing to four of the major senses, sight, smell, taste, and feel they both fall short on the sound dimension. The reason being that sound as we know it is not directional to the point that we can control where it goes and who it affects and to what degree. With this in mind I stumbled upon a scientific study of sound columns by a company called American Technology Corporation. The technology was first developed by the military as a form of crowd control and adapted by a small time inventor to what it is now. The following research is a lead into the implementation of the technology into my design.



A revolutionary new concept in sound reproduction—a paradigm shift in technology application. HyperSonic Sound technology projects a column of modulated ultrasonic frequencies into the air. These ultrasonic frequencies are inaudible by themselves. However, the interaction of the air and modulated ultrasonic frequencies creates audible sounds that can be heard along a column. This audible acoustical sound wave is caused when the air down-converts the ultrasonic frequencies to the lower frequency spectrum that humans can hear. Since the audible sound is produced inside the column of ultrasonic frequencies (which is highly directional), an important by-product of this is that the audible sound can be tightly focused in any direction within the listening environment. This provides outstanding flexibility in placing the sound exactly where you want it and substantially eliminating sound in all other areas. By eliminating the bulky magnets and moving coil found in a

HSS TECHNOLOGY

conventional speaker, the HSS system has other advantages. The system is small and lightweight; its thin lines make it easy to mount. Positioning is precise, with no bulky housing, cabinet, vibration, or back wave emissions to consider. The directionality of the HSS system is unsurpassed, with the added benefit of long projection distances and retention of intelligibility. Getting sound right where it is wanted eliminates having to use high sound pressure levels to get sound to “carry” to distant points.

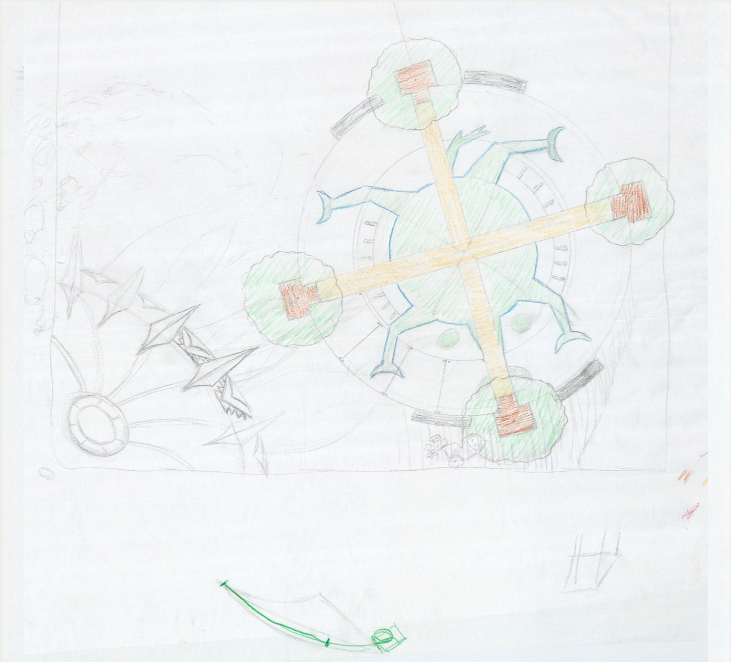
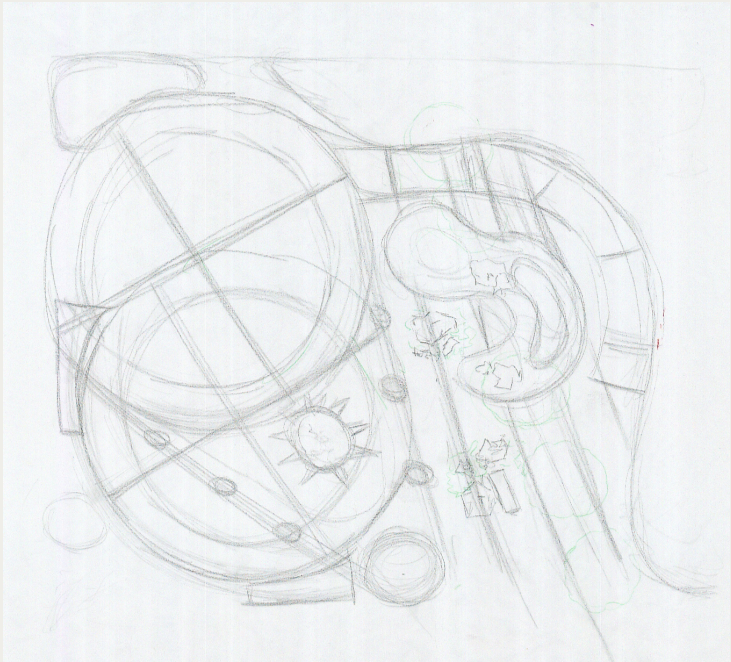
Applications:

- * Digital Signage/NarrowCasting
- * In-Store Advertising
- * Museums
- * Trade Shows
- * Kiosks
- * Corporate Lobbies
- * Command & Control Room
- * Automotive Dealerships

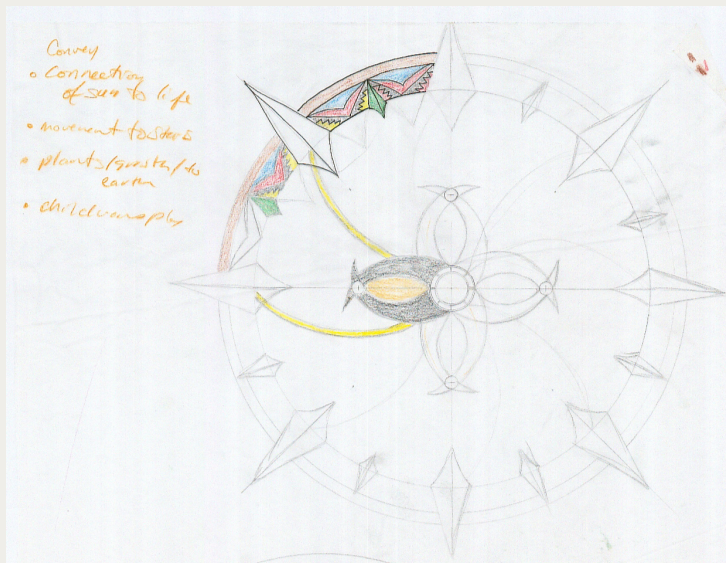
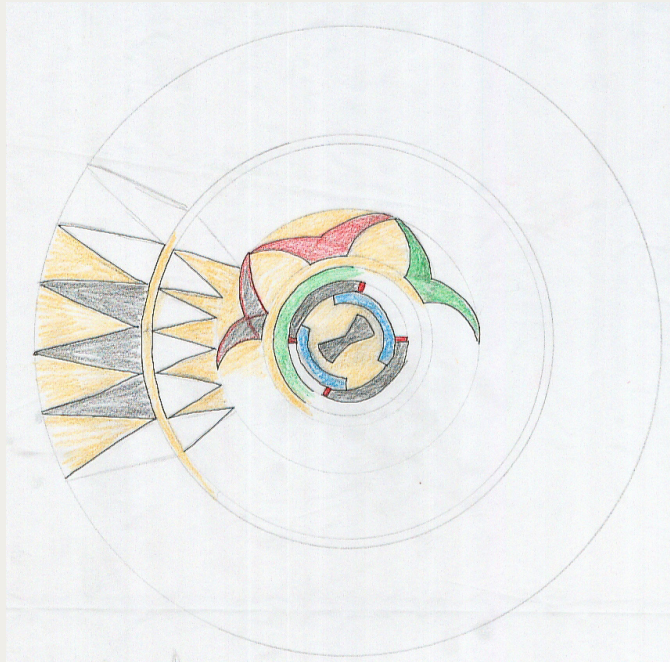
HSS can transform signs, placards, and surfaces into Virtual Speakers. Virtual Mode applications allow units to be placed without cabinet or hardware at the desired sound location. By projecting sound with an HSS unit, a simple display sign can act as a speaker without wiring or changing the sign’s appearance. You can project HSS sound to specific end caps or aisle displays or send sound across the room, without uncomfortable and unwanted volume from loudspeakers.



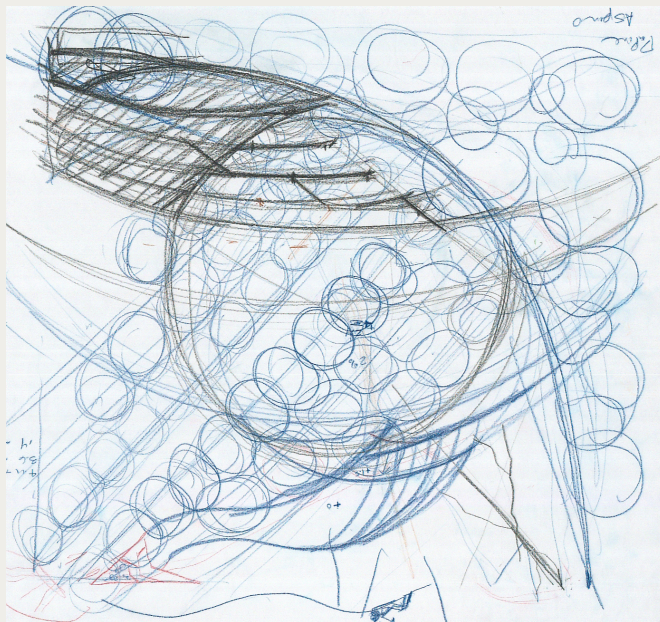
SUN PLAZA



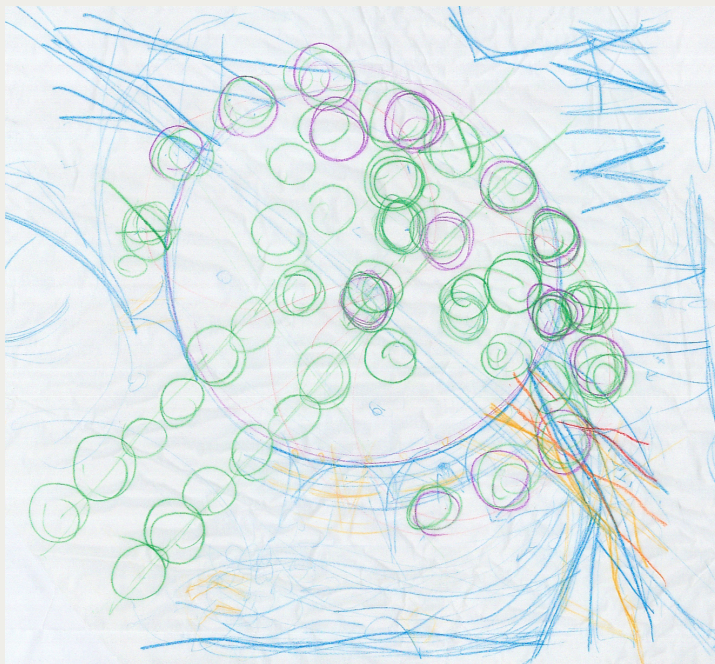
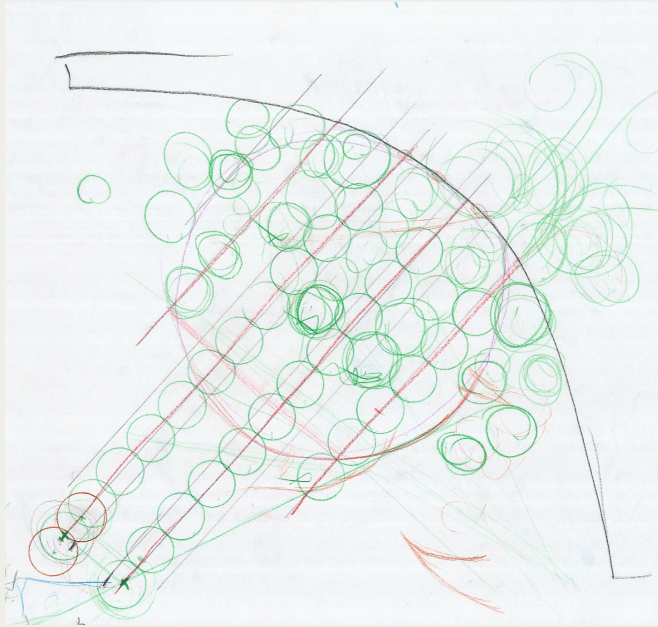
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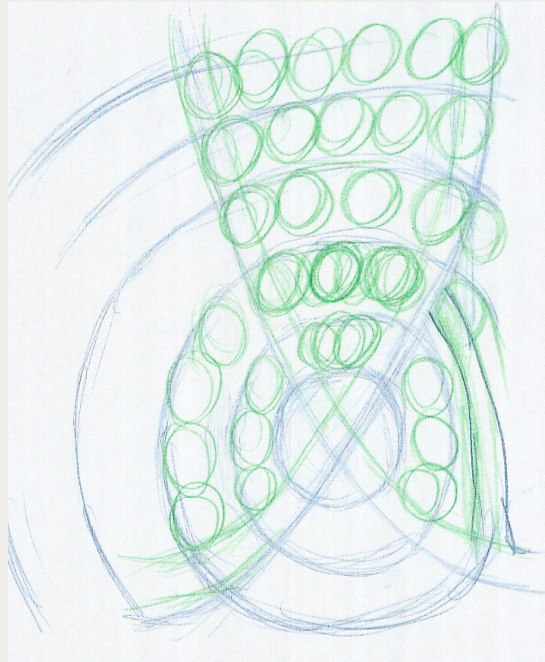
SUN PLAZA



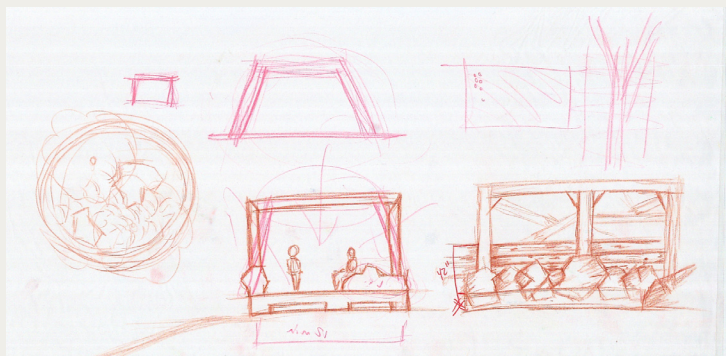
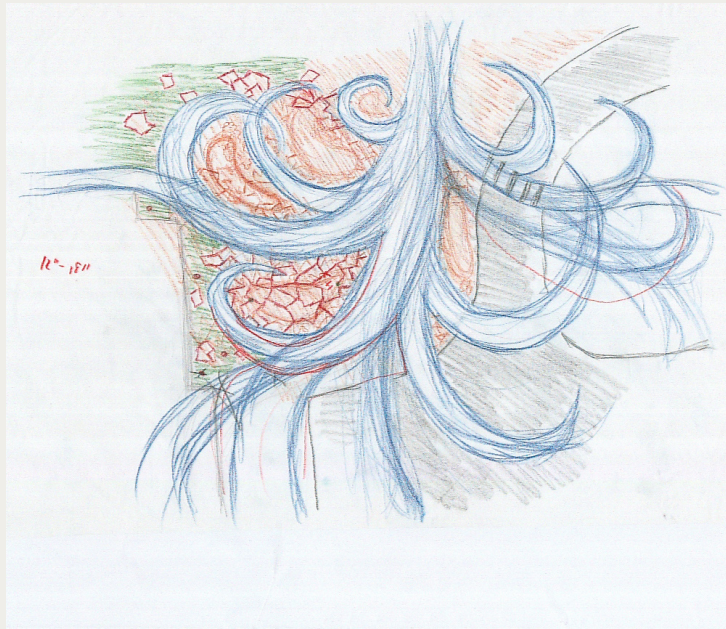
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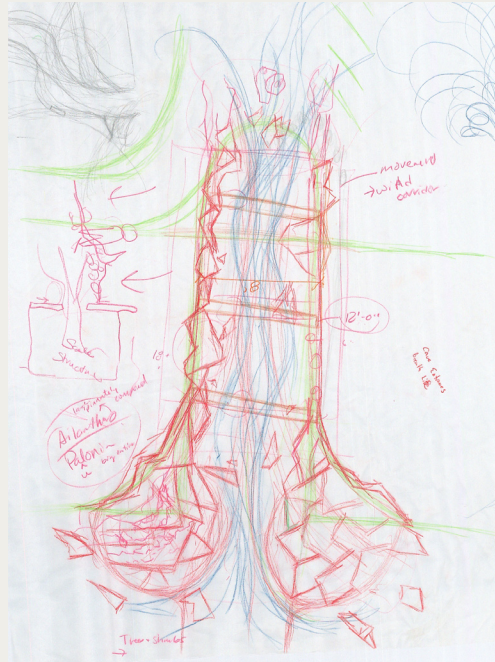
LIBRARY PLAZA



OVERPASS



OVERPASS



LEFT BOARD

MAVERICK HARMONY

- Rapid City, SD -

REGIONAL HISTORY AND EXISTING USES

THE CITY

THE REGION

THE CREATION OF THE BLACK HILLS

THE HUMAN HISTORY IN THE BLACK HILLS

THE DAKOTA, LAKOTA AND NAKOTA

BLACK HILLS, PAHA SAPA, AND LAND TREATIES

DOWNTOWN RAPID CITY IDENTITY COLLAGE

CONTOUR ANALYSIS AND REGIONAL WEATHER

SOUTH DAKOTA CONTOURS **SITE CONTOUR** **AVERAGE ANNUAL PRECIPITATION**

REGIONAL RECREATION AND CULTURAL ACTIVITIES

CUSTER STATE PARK

MOUNT RUSHMORE

THE BADLANDS

BLACK HILLS CAVES

STURGIS MOTORCYCLE RALLY

CHAMPIONSHIP FOW WOW, FINE ARTS SHOW AND GAMES

THE RUSHMORE PLAZA CIVIC CENTER

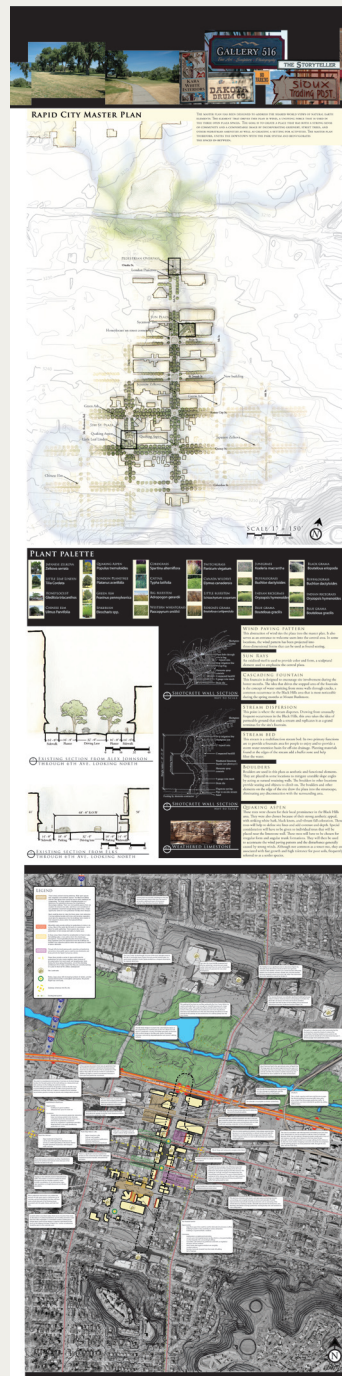
THE DAHL FINE ARTS CENTER

A TIMELINE OF THE LIFE AND HISTORY OF SOUTH DAKOTA AND THE BLACK HILLS

IDENTITY KEY

HISTORIC PHOTOS

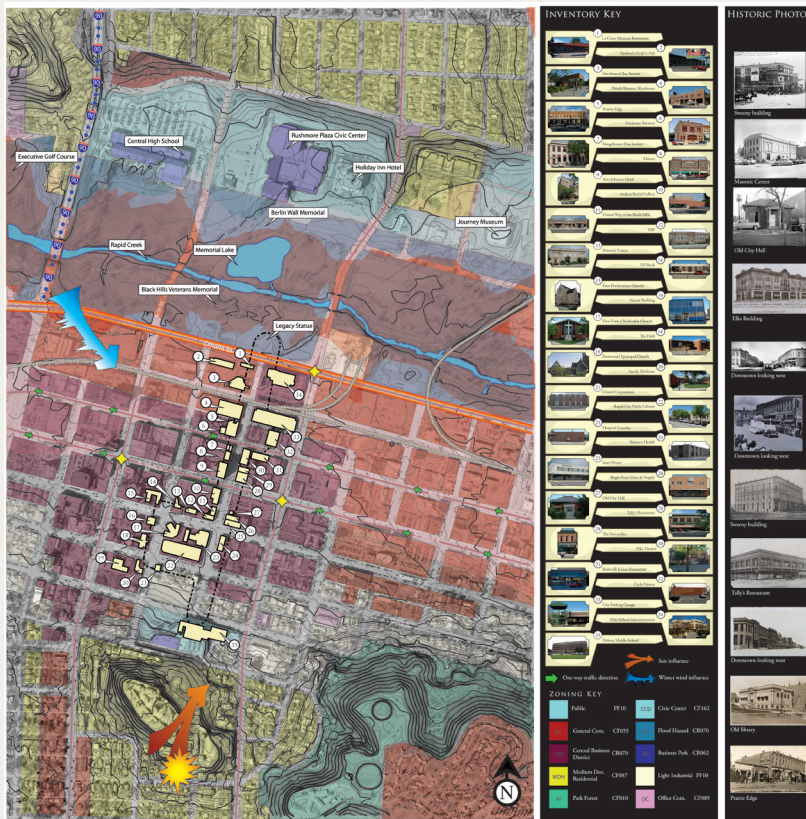
CENTER BOARD



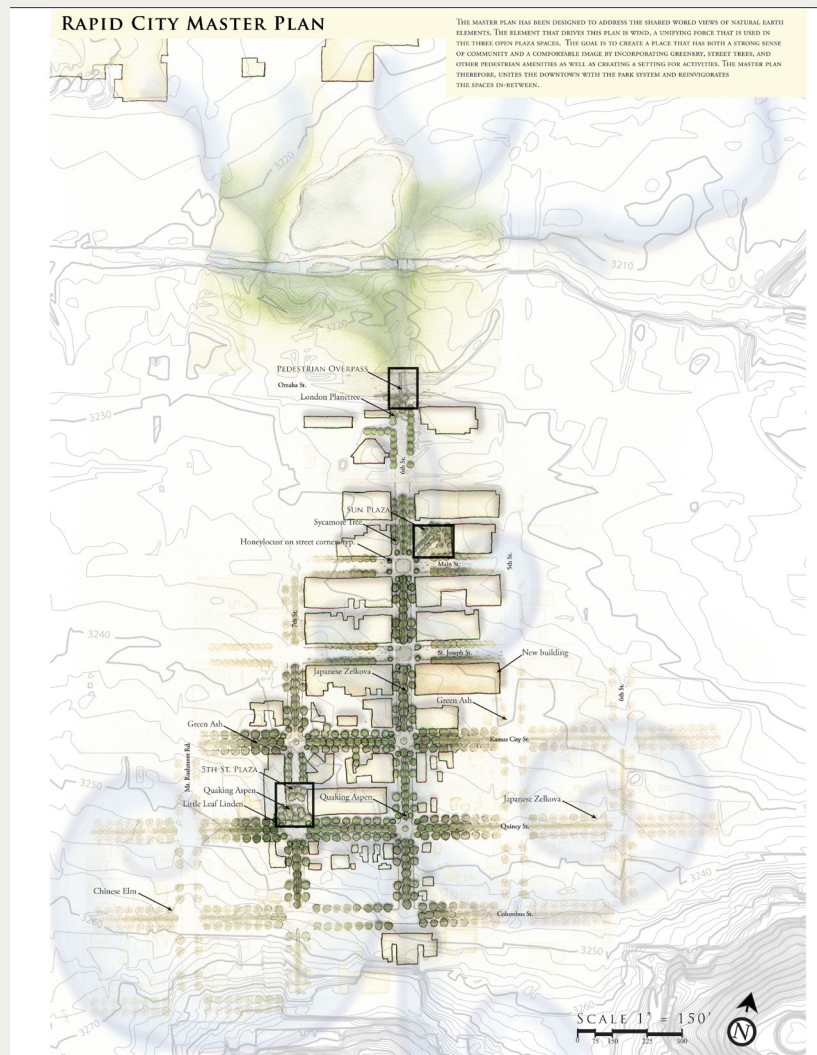
RIGHT BOARD



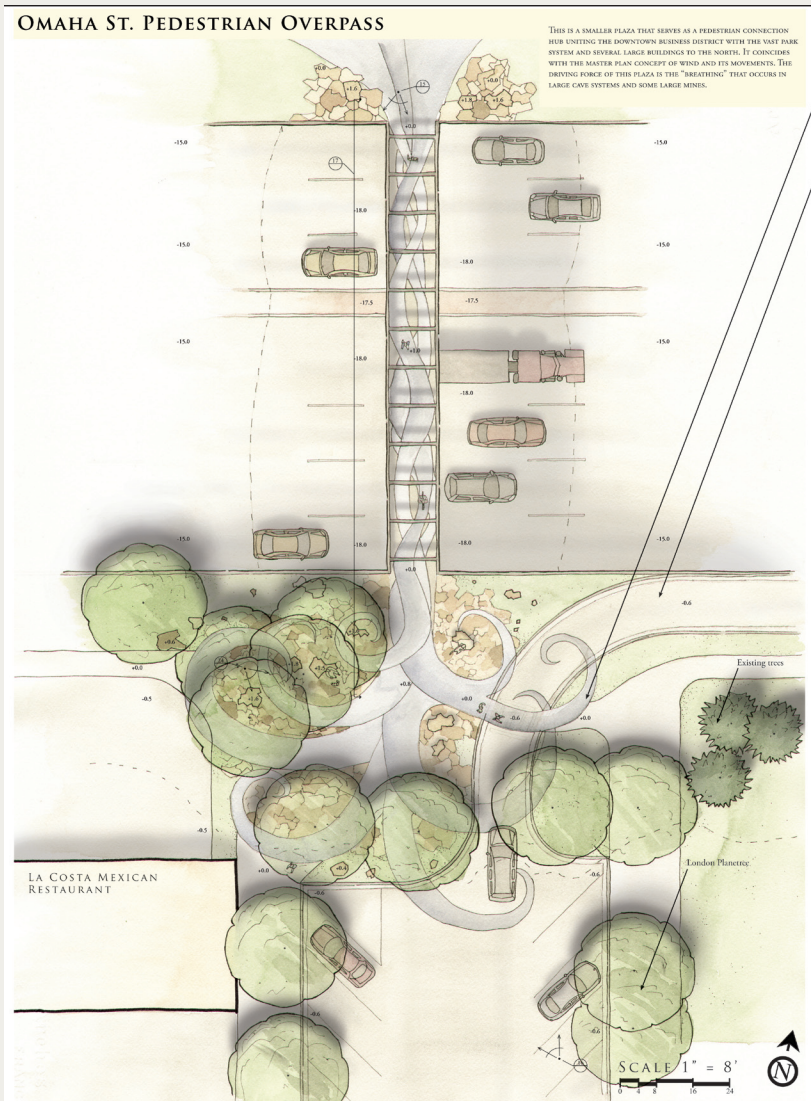
INVENTORY



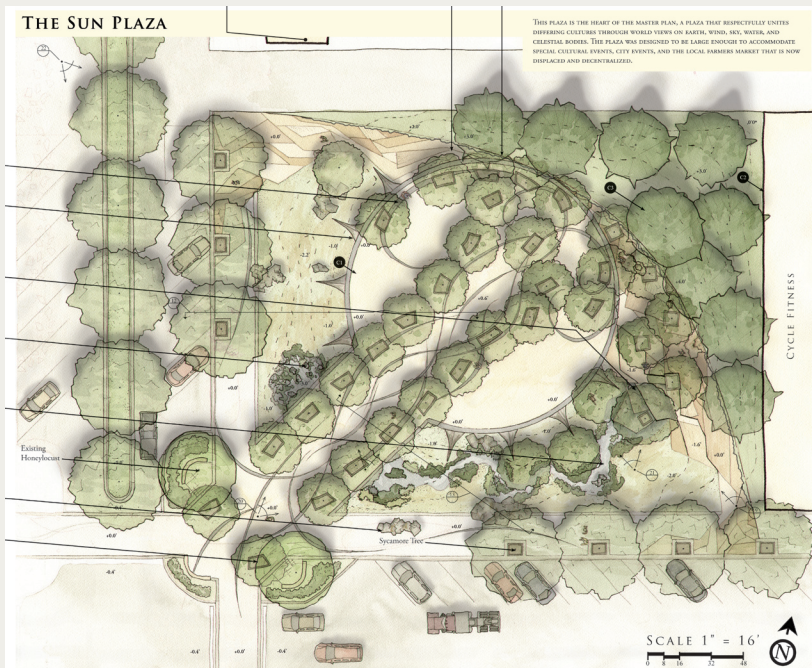
MASTERPLAN



OVERPASS



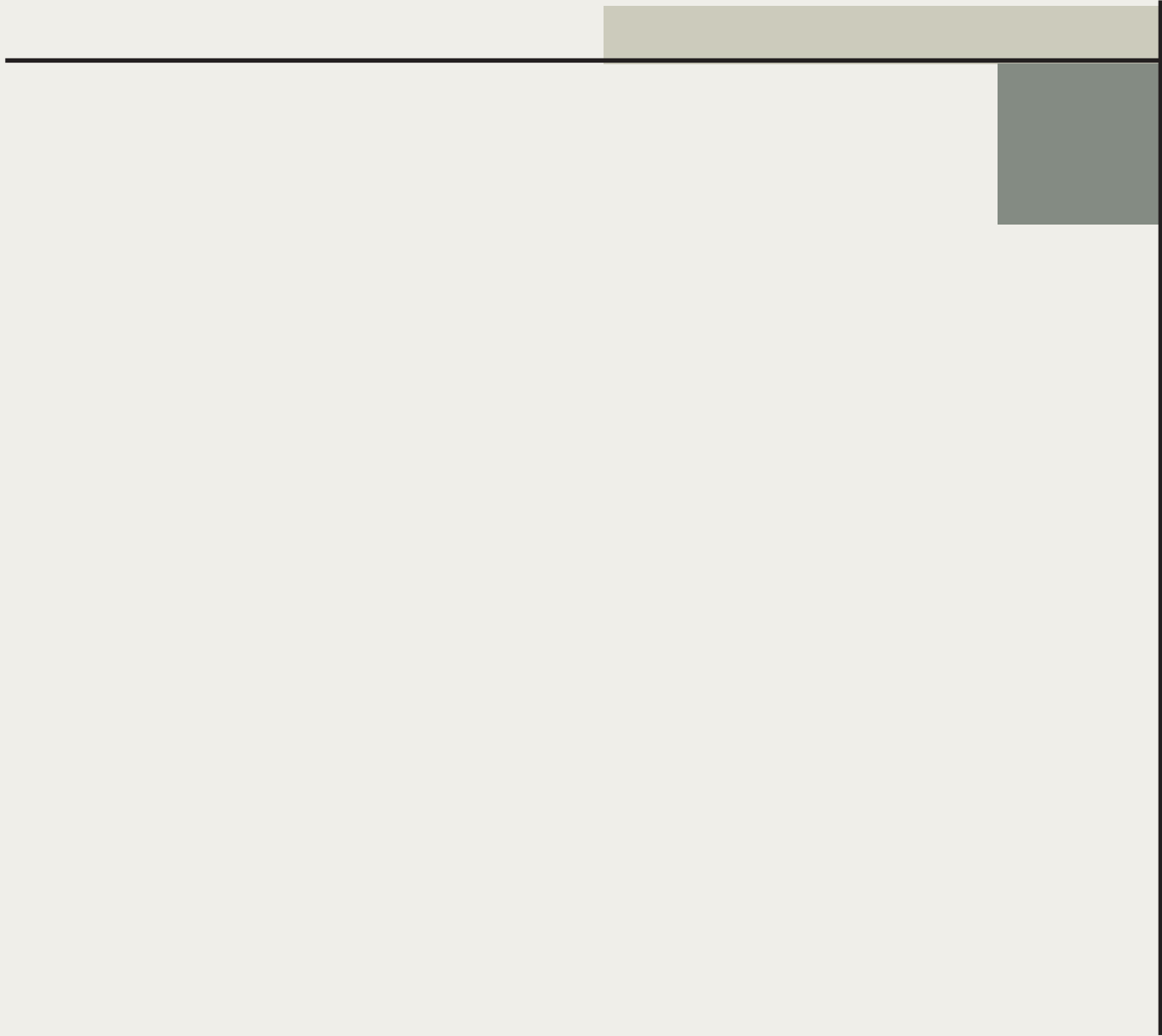
SUN PLAZA





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I couldn't have done it without you.



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