

Design in Rural America ~ Preserving the Past by Enhancing the Future Buffalo, South Dakota

An undergraduate thesis submitted to the Department of Architecture and Landscape Architecture North Dakota State University

By:

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In partial fulfillment of the requirements for the degree of Bachelor of Landscape Architecture

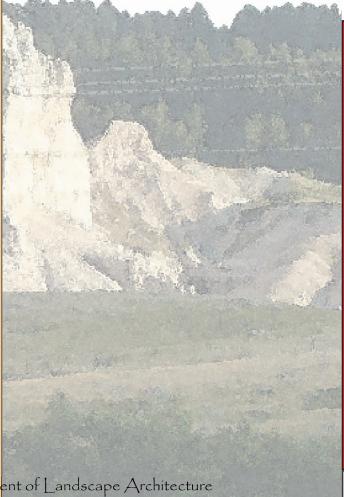
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ABSTRACT:

Rural America of today is faced with major obstacles in the sense of maintaining active urban communities. Some of the factors the feed this fire are aging populations, and young people or moving away and not coming back. The result of this is that many of these small communities are losing local health care, schools and other economic institutions. With decline in active people and economic activity, these town's aesthetics begin to decline. The site for this design the sis is Buffalo, South Dakota, which is and has experienced some of these struggles. With a major highway dissecting the town, this area will be of primary focus. This highway runs from Canada to Mexico and is a major route for tourists on their way to the Black Hills. I focus on enhancing the visual appearance of this corridor without losing the small town feel. Through research and design development a graphic solution for this problem will be the end result of this project.



Department of | and scape Architecture

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DESIGN THESIS PROGRAM

Randy Lyons

May 12, 2005

Design in Rural America—Preserving the Past by Enhancing the Future

. N T R O D U O T I O N

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"The way that I see it, hard times aren't only
About money,
Or drought,
Or dust.

Hard times are about losing spirit,
And hope,
And what happens when dreams dry up.

~Karen Hesse~
From the book: Out of the Dust

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EXECUTIVE SUMMARY:

Many small towns in the Midwest are becoming a piece of American history, rather than active urban communities. Their populations are mostly composed of senior citizens, and the young people are moving to active urban centers. Many of these towns have lost their hospitals and clinics. With dwindling populations, schools are being consolidated, which has caused economic and social voids to these small towns. On a smaller scale, yet very important, the aesthetics of these towns have begun to decline due to economic and population struggles. The site I have chose for my design thesis is one of these vanishing towns—Buffalo, South Dakota, which is also my home town.

Buffalo is the county seat of Harding County. About half of the city population is 50 years of age and over. The primary source of employment in the town is the school system. The economic base of the community is the ranching families that live in Harding County. Buffalo is the largest town in the county, which makes it the social and economic center for the community. My roots in Harding County will help me to understand the cultural and political aspects of this project.

The primary emphasis of this Design Thesis will be on the aesthetics of the U.S. Highway 85 corridor. Highway 85 is the major artery that runs through the center of town from north to south. It runs from Canada to Mexico and is a major route for tourist on their way to the Black Hills. My underlying premise for this project is to show how design can contribute to the preservation of small town life. I believe that the community should be a major consideration in any design problem. My design elements will have a direct affect on this group of people. Some of the design elements that I intend to touch on are: enhancing the visual appearance of the Highway 85 corridor, streetscape issues, town gateway elements, important pedestrian and vehicular nodes, pedestrian circulation plan, connections between the town and the surround-ing landscape, and an overview of spatial opportunities for economic development.

The client base of this project is a unique group of individuals. This group includes the residents of Buffalo, the rural population of Harding County, the people that pass through the town, and the people that someday might call Buffalo home. All these entities as a whole, creates a community. The client for the project is the community.

I am interested in rural have had the privilege to be part of two design charettes in small towns. I was inspired by the results of those charettes. So, I want the take the opportunity to take a more in-depth look at design in rural America. As I stated I have a personal stake in this project. I plan to raise my family on our ranch near Buffalo, as did my parents and my wife's parents. I would like to be a part in preserving the past of small town American, by enhancing its future.

INTRODUCTION

To integrate design that embraces the history of the place. Through this, the social fabric of the community can be strengthened by enhancing small town life.

PROJECT GOALS AND OBJECTIVES:

City Wide:

Goal: To strengthen the town's relationship to the surrounding landscape and to create hierarchy of community spaces within the town.

Objectives:

- •To determine spatial opportunities within the conomic development
- Develop a pedestrian circulation system throughout the town and into the surrounding landscape
- •To enhance spaces within the town to enforce hierarchy of space
- •Look at street hierarchy in relation to spatial connections
- •To provide the community with an outdoor gathering space

US Highway 85 Corridor—Design Emphasis:

Goal: To enhance the visual appearance of the corridor through gateway experience and streetscape development.

Objectives:

- •To give the community a town center that they can take pride in.
- •To integrate architectural details/materials of the past into new design elements.
- Create a design that weaves the natural landscape elements into the fabric of the town
- •To welcome visitors to stop and interact in the community
- •To slow the speed of traffic as in passes through the town
- Develop an a progression of experiences as you pass through the design
- •To create more of a connection between the downtown and the corridor

INTRODUCTION

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PROJECT GOALS AND OBJECTIVES:

Educational Goal:

This project should give me a sound foundation in rural community planning, along with gateway experience and streetscape design. The thesis process should give me a greater appreciation of digging deeper into research to discover stronger design solutions for any given design problem.

Personal Goal:

This project should help my hometown community to have a greater understanding of design. I also hope to spark excitement within the community that would result in the use of the whole, or parts of my design solution, or that they might spear head there community development programs.



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The emphasis of this project is to create a strong "first impression" with gateway experience elements into the town. This "first impression" of this rural American town should be a progression of experiences as you interact with the site. The gateway experience should progress into a welcoming and attractive streets cape design. The streetscape should be a reflection of the community and its culture. This should be accomplished by integrating architecture, materials, and heritage of the past into the streetscape elements. City wide emphasis is focused on a pedestrian circulation system that is invited into the surrounding landscape. Along with this, spatial opportunities will be examine more at the planning level for economic development.

PROJECT TYPE:

I would classify this project as a rural urban streetscape design project. The reasoning behind this terminology is that the site is an extremely rural urban center. Buffalo's location is somewhat of a unique issue in that it is 40 plus miles to the next urban community, in any direction. From that description I coin the term "rural urban". The streetscape is to be applied to a major US Highway that dissects the town in half, which creates the center of urban activity.

PROJECT DESCRIPTIO

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USER-CLIENT DESCRIPTION:

The User—Client base for this design thesis is the community that makes up the town of Buffalo. This is a dynamic group of unique individuals. I consider four distinct groups:

- •The residents of Buffalo—this group will be most affected by the design by their daily activities, social interactions, and recreational movements. The residents along with the rural population formulate the two main factors of the community. The design is to encompass the sense of community on all levels.
- •The rural population of Harding County—Buffalo is the social hub of the county, and much of the rural community is active in clubs, organizations and is employed here. The rural community is a key element. The rural population is the economic back bone of the town. With the school being attended by kids form all corners of the county; this draws the rural population into town daily. Many of the local ranchers only source of social interaction, besides that of family, occurs here in town.
- •The people that travel through Buffalo—these are the people that would like most to influence. There are hundreds of travelers that pass right through Buffalo each day. The goal is, with design, the town will be able to persuade some of these types of people to stop and enjoy a piece of small town Buffalo. Tourist would be the targeted group.
- •The residents of Buffalo in the Future—through sustainable design elements, hopeful Buffalo can continue to evolve by at tracting new resident to be part of it dynamic community.

P R O J E C T D E S C R P Т Ι 0 N

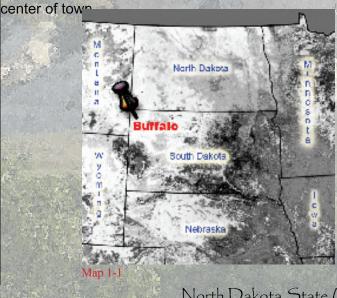
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CHOOSING THE SITE:

The reason I chose Buffalo, South Dakota as the location for this thesis design project is because it is faced with many of the same problems as other rural communities of the United States. Buffalo, along with Harding County has a rich history that dates back to the dinosaurs. Harding County was first settled by the American Indians and they have left they mark on the landscape with tepee rings, halogliphics, and arrowheads. Custer and 7th Calvary have also left behind evidence that were in that area as well. The landscape along is very dynamic. With all that is to be offered at the county level, the town is where it must being. This community is slowly becoming a part of the history of the county. I believe the aesthics of the town can influence the activities of the community and its visitor. My challenge is to be a guide to the next era that the communities my take on that will have a major affect on the town.

LOCATION:

The site is the small town of Buffalo, South Dakota. Buffalo is located in the center of Harding County. It is located in the northwest corner of the state, approximately 30 miles from Montana and 30 miles from North Dakota. The two nearest major trade centers are Belle Fourche, South Dakota and Bowman, North Dakota. Belle Fourche is 70 miles south, and Bowman is 45 miles to the north. The site specific location is US Highway 85 corridor that runs north and south through the



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HISTORICAL OVERVIEW:



Figure 1-1



Figure 1



Figure 1-3



Settlement Patterns of the County:

Native Americans: the Sioux and the Crow were the first know Indians to inhabit the county. The two groups continuously fought over the area until the battle of the Crow Buttes, which the Sioux won nearly wiped out the Crow tribe. This battle took place around 1822. The Sioux did not settle in the area permanently, but remains of villages can still be found around the county that they on hunting expeditions. The Crow Buttes are located in south central Harding County and are located in the US Highway 85 corridor.

Custer and the 7th Cavalry: the expedition went up the Grand River and then southwest to explore a cave of which guides were telling wonderful tales. They camped at the cave the night of July 11, 1874. This cave is located on the east side of the Cave Hills, 4 or 5 miles southwest of present day Ludlow. Crude Indian drawings were found on the walls, and Indian implements were found buried in the cave debris. Two well defined floors were found, one clearly used by the Sioux, while the lower floor was of a more ancient culture.

The Cattle Outfits: Cattle ranchers from Texas and Oklahoma began driving cattle north about 1883. They soon realized that most of the winters were not too bad and did not need to make the fall drive back south. Thus the large ranch era began in Harding County. Some of these early large cattle outfits were the E6 on the Grand River, afterwards bought by the Turkey Track. The Mill Iron, whose 30,000 to 40,000 head of cattle grazed in western Harding County and Montana. The CY ranch ranged west of Buffalo to the Little Missouri area. The Roosevelt Ranch (Maltese Cross Brand) ranged cattle in the northern area, but mostly in the Bad Lands of North Dakota. Along with the large cattle ranches in the area, there was a large horse ranch in the Slim Buttes area ran by Abe Jones.

Preemption: the means used by the early settlers, which was mainly a possessory right. What they had to do was establish a house and make improvements to it. This secured the settlers right to purchase land at the minimum price, before the general sale of the tract of land of which the settlers claim was a part of. This means was used by the early cattle ranchers until about 1891.

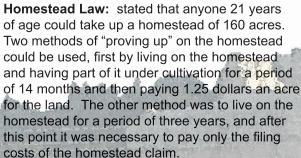
Department of Landscape Architecture

SITE INVETORY

Settlement Patterns of the County:

The Early Settlers and Homesteaders: this group of people lived in sod houses or simple dugouts. Those near timber built log homes. Since most of the pioneers moved by wagon and some came by foot, furniture was of necessity and very simple. Usually, only a stove and a few dishes were brought along. Wooden boxes often served as tables and chairs.

The homesteaders were known as "honyockers". This era peaked between 1907 and 1914, and was perhaps the biggest factor in development of the county. This triggered development of a number of new communities and a need for a county government. Homesteading was the principle means of securing land in the area from about 1907 until 1914, with additional homestead entries being made much later in some areas.



During the homestead era Harding County saw its highest population to present time. However, those homesteaders who remained to live in the county proved to be the exception and not the rule. Looking at the population records this is easily observed: the population in 1910 was 4,228, in 1915 it was 4,821 (the peak of population), in 1920 it was 3,953, in 1925 it was 3,508, in 1950 it was 2285, and in 2000 it was 1869.

The Oil Boom: really took off in the 1950's and 1960's. The oil industry bought another influx of settlers into the county. Many of there settlers, lived in the town. There was a lot of activity until the 1980's when the oil prices fell. This had a direct affect on the population of Buffalo. After the boom, there has not been a significant settlement event since, and the population has continued to decrease. However, with high oil and gas priced there has been a recent spark in the oil and gas reserves in the county.







Figure 1-7

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A Fight for the County Seat:

A New County: Harding County was established by the election of 1909 by breaking away from Butte County. One of the first important questions that arose within the newly formed county was that of finding a suitable location for a county seat.

Camp Crook's Argument: 1. It was the largest town in the county at the time. 2. The surrounding community around the town was thickly settled. 3. It was one of the oldest towns in the county. 4. And no other town consisted of much more than one store.

The Birth of Buffalo: Settlers living near the geographical center of the county realized their optimum position and decided to capitalize on this opportunity of obtaining the county seat. They located the proposed town site by drawing an X from the four corners of the county. The intersection point of the X was to be the new town site. Later it was thought best to make use of the present location about five miles distant from the first site. The new site was on the north bank of the south fork of the Grand River, located on the old Medora—Black Hills Stage Coach crossing. Forty acres was purchased on this site by the Gilbert Brothers, William Fried, and Frank Van Horn.

The first buildings to be erected were the Grand River store by the Gilbert Brothers in the fall of 1908. Other building erected soon after were the Van Horn Hotel, the Harding County Bank, and the Harding County Era building.

The County Seat: Camp Crook, the oldest established town in the county, and Buffalo, the young thriving community, engaged in a bitter fight for the county seat. Because of its central location, Buffalo won the November election of 1910 to become the permanent location for the county seat by a landslide, 814 for Buffalo and 159 for Camp Crook. The Grand River store was the temporary office space for the court house until 1911 when the court house was build on its present location. A new court house was built in 1998, which is now one of the newest public buildings in the town, only second to the new community center.

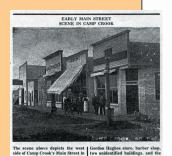


Figure 1-9



Figure 2-0



River Mercantile Company.

Figure 2-1



Figure 2-2

The Importance of Freight:

Trail to Highway: Many towns in the 1900s had a hard time surviving long distances from railroads or major rivers. Buffalo was one of these types of towns. From its very beginning materials and supplies had to be hauled long distances to Buffalo. Many of these goods came by wagon form Bowman, North Dakota, which is 50 miles north. Bowman was the closest railroad town and Buffalo had and still does have a somewhat intimate relationship to this town. Belle Fourche is the closest town to the south that had a railroad and was also in important in supplying Buffalo with goods. In response to this demand form supplies, a new business took hold, freighting. The first freighters into Buffalo were the Carr Brothers from Bowman. The Carr Brothers used oxen teams to transport the supplies. At that time Highway 85 was no more than a two track trail. Charley Fowler started a freighting company out of Buffalo. First he used only teams of horses, but in 1918 he purchased two Truxton trucks, the first in the county. From a 1927 ad he wrote, "Fowler Service, 16 years of service to the people of Harding County. Over 7 times around the world over the Buffalo-Bowman road. Starting when there was only a trail with horses. Drove the first truck over the road when there were no culverts nor bridges, up to the present day with good roads, winter and summer." This transportation routes has and always be very important to the survival of the community of Buffalo.

Present Day Highway 85: with the interest in tourism in the Black Hill, this route has gain more importance for the town. The highway was completed in 1963. The highway is now a major north—south route for the nation. It is one of the few roads that stretches form Canada to Mexico. This is the favored route for people heading north to visit the North Dakota Bad Lands and Medora. Freighting is still important today. Buffalo is still supplied with goods by truck. The trucking industry is also important to the agricultural industry. Most of the cattle that is sold level the county is by truck.



This is an excellent picture of early freighting. The Harding County Era building is extreme right. Center is the Grand River Mercantile. The second hotel - Van Horn Hotel is between Grand River Mercantile and the Drug Store. This is after 1912.

Figure 2-3



Charley Fowler freighting with horses - 1911.

Figure 2-4



George and Charley Fowler freighting with their Truxton trucks -

Figure 2-5



Figure 2-6

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SITE INVETORY

The Importance Architecture:

Architecture: many of the buildings within the town were built from the 1910's to the 1930's. The early settles of the county made use of the materials at hand. They use sod to build many of the homes. If timber was close, log homes were built, and many of these original homes are still standing. Another material that was used was that of stone. The stone that they used was sandstone. Only with the old long homes, many of these of stone houses and barns can be found out on the prairie.



The Bill Gardner Garage in Buffalo, 1935, with the new filling station in front. Bill was in the garage business in Buffalo from 1924 to 1953.

Figure 2-7

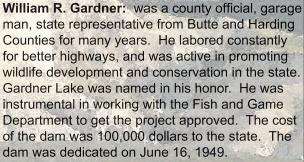


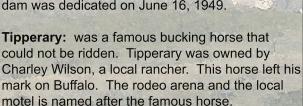
Charley Fowler's first Standard Station - 1923.

Figure 2-8

Prominent Figures in History:

Ray Gilbert, Frank Gilbert, Frank Van Horn, William Fried: this group of individuals were the founding fathers of Buffalo. They bought 40 acres of land that present day Buffalo is sitting on. The Gilbert Brothers erected the first business in town. Frank Van Horn put up the first hotel and William Fried started the first bank. These individuals should be noted for taking a chance in seeing an opportunity and capitalizing on it. Their efforts are still in work today because Buffalo is the now the prominent town in the county.







This is probably Buffalo's first picture. No. 1 is the back of the Harding County Bank, No. 2 the Grand River Mercantile Company Store, No. 3 the Van Horn Hotel, No. 4 the Frank Gilbert residence being constructed, No. 5 a bunkhouse. The men in the foreground are evidently preparing for another building.

Figure 2-9



Figure 3-0



Clyde Jones, Fred Wilson holding Tip-Top and Charley Wilson holding Tipperary. Tipperary and Tip-Top were the two most famous Harding County bucking host Charley raised Tip-Top and bought Tipperary in 1917.

Figure 3-1

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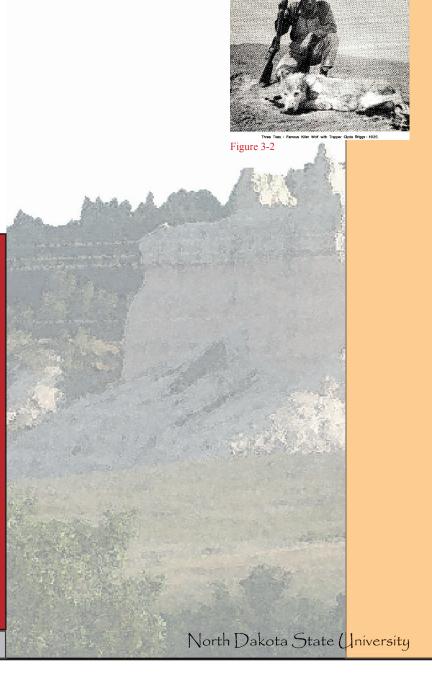
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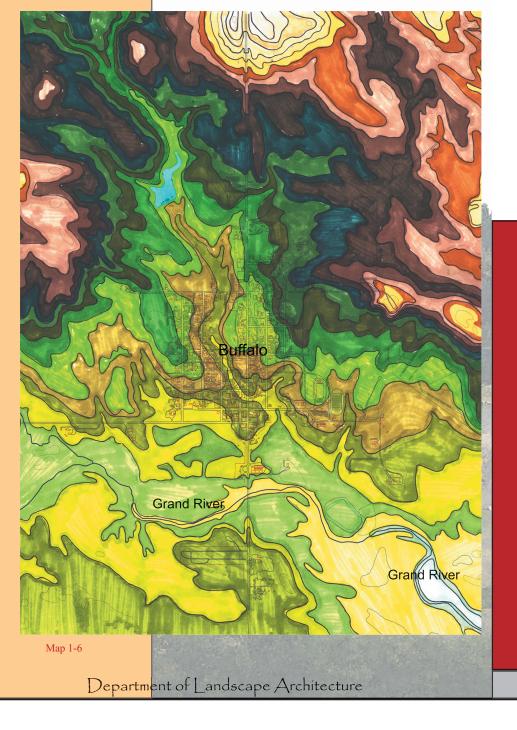
Prominent Figures in History:

Three Toes: was a buffalo wolf that killed thousands of dollars worth of livestock. A trapper was called in the help get old Three Toes. Clyde Briggs was that trapper. He finally trapped the old wolf. When he found him in his trap, Three Toes was lying down, after efforts to make the wolf stand to take its picture, Clyde took the wolf out of the trap and was going to bring him back to Buffalo alive. Three toes died on the lap of Fred Wilson on the way back to town.



TOPOGRAPHY:

The surrounding lands cape has quiet a lot of relief. The lowest contour is little green, and the highest piont shown is north of town, little tan. The Grand River is to the south of town. The water tower is place on top of a mud butte feature. I consider the surrounding landscape to be an opportunity that Buffalo should utilize. Utilization not only by the community, but by travels looking for a place to stretch there legs.



SITE INVETORY

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Buffalo, South Dakota

PHYSIOGRAPHY, RELIEF, & DRAINAGE:

Most of Harding County is on the Cretaceous Table Lands, but the extreme southwest corner is in the Pierre Hills of the Great Plains physiographic province. On the Cretaceous Table Lands, several prominent buttes rise above the surrounding landscapes. A few areas of "badlands" are along the Little Missouri River. The central and north-central parts are drained by the South Fork of the Grand River and the larger perennial streams. Land elevation ranges form 2,680 feet above sea level in the area along the North Fork of the Moreau River in the southeast corner of the county to 4,015 feet on the East Short Pines.



Figure 3-3



NATURAL RESOURCES:

The most important natural resource of Harding County is the soil. It provides a growing medium for the grasses that are grazed by livestock and for growing crops. During the early days of settlement, the coal reserves in the county were used extensively. The last mine to operate commercially was located in the South Cave Hills, in the 1940's. In 1954 uranium discoveries were made in the Slim Buttes and the Cave Hills areas. The oil industry really took off in the mid 1950's. This industry is only second to the ranching industry in Harding County, and has a big influence of the economy. Other important resources are, water, timber, sand and gravel, and wildlife.



Figure 3-5



Figure 3-6

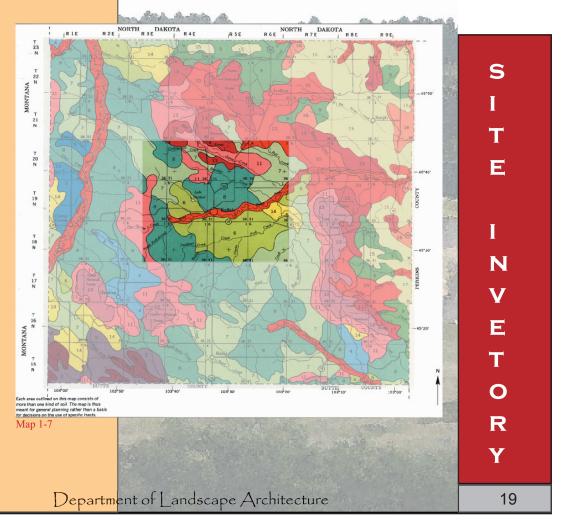
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SOILS:

As stated in the Natural Resources section above, soils are the most important resource to the county. The soils are generally welled drained sandy loams. Buffalo lays on 3 different soil associations.

- 3: Hanly-Kordhea-Glendive Association: Soils are deep, somewhat excessively drained and well drained, nearly level, sandy and loamy soils on flood plains.
- 6: Zeona-Trey Association: Soils are deep and moderately deep, excessively drained and well drained, undulating to hilly sandy soils on uplands
- 8: Twilight-Parchin-Cabbart Association: Soils are moderately deep and shallow, well drained, gently sloping to very steep, loamy soils on uplands.

The three associations are prominently suited for range. Wind erosion can be a controlling factor. Water is also a controlling factor for vegetation. The soils are not able to contain water, and dry out quite rapidly. These soils are not overly fertile. They are recommended to stay rangeland and suggested crops are tame pasture, hay or alfalfa. Xeric type plants will perform the best on there soils.

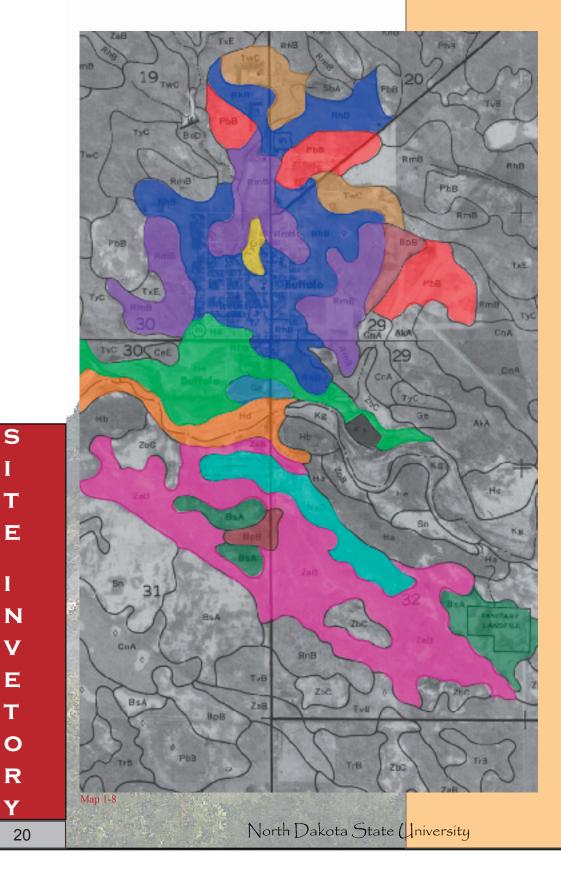


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Soils:



SOILS:

Detailed Soil Units on Site:

BpB—this soil is very low in fertility and dominated with Slickspots.

Slickspots are small areas of soils having a puddle, crusted, or smooth surface and an excess of exchangeable sodium. The soil is generally silty or clayey, is slippery when wet. These soils are usually form 2 to 9 percent slope. The shrink-swell potential is moderate. The soil is generally unsuited for environmental plantings

BsA—this soil is very low in fertility and dominated with Slickspots The shrink-swell potential is moderate. The soil is generally unsuited for environmental plantings. These soils are usually form 2 to 9 percent slope.

Ge—this is deep well drained soil. It is located on flood plains and is subject to occasional flooding. These soils are suited for environmental planting. Trees and shrubs will grow well.

Hd—these solls are deep, well drained, nearly level on flood plains.
Flooding is rare on these areas. They are made of primarily silts and clays, and have high contents of salts. This soil is suited to environmental plants, but only evergreen trees and shrubs can be successfully established.

He—these soils are intermingled with slickspots. Permeability is rapid, water capacity is low and runoff is slow. This soil is poorly suited for environmental plantings, but only evergreens should be used.

NaD—these soils are well drained, strongly sloping to steep soils are on uplands. Scattered boulders and stones are on uplands. These areas can have 4 to 40 percent slopes. This soil is very gravelly loam about 3 inches thick. Shrink-swell potential is low and permeability is moderately rapid. These areas are unsuited for plantings and optimum growth or survival is unlikely.

PbB—this soil is moderately fertile. They have a 2 to 6 percent slopes, moderately deep and well drained. Organic matter is moderate. These soils are suited for environmental plantings.

RhB—this is moderately deep, well drained, gently sloping on uplands. They are sandy loam soils with a 2 to 6 percent slope. The organic content is moderate and fertility is medium. These soils are suitable for farming and have high a potential for supporting environmental plantings.

RmB—these are moderately deep, well drained, undulating soils on uplands. They have a medium fertility, but the water capacity is low to very low. They are suited for environmental plantings but soils are droughty.

Twc—(tan on map) these are moderately deep, well drained, moderately sloping soils on uplands. They have a 6 to 9 percent slope. The organic and fertility is low. Permeability is moderately rapid, water capacity is low, runoff is medium and shripk-swell potential is low. This soil is suited environmental plantings, but subject to drought.

TyC—(yellow on map) these soils are sandy loams with 6 to 15 percent slopes. They are low in fertility and organic matter. The shrink-swell potential and water capacity is low. They tend to be high is salts. These soils are unsuited for environmental plantings.

ZaB—there are loamy fine sandy soils with a 2 to 9 percent slope.

They are deep, excessively drained, undulating and gently rolling hills on uplands. Organic matter and fertility is low. Permeability is rapid, water capacity is low and runoff is slow. This soil is suited for environmental planting, but only evergreen trees and shrubs should be used.

Department of Landscape Architecture

OITE INVETORY

URBAN VEGETATION:

The urban forest is dominated by Siberian Elm. I would classify is a moderate monoculture. There are other tree species that can be found, some of these are: Ponderosa Pine, Rocky Mountain Juniper, Cottonwood, Green Ash, and Silver Poplar. The other species stated above all together make up only a faction of the total tree population. Some of the shrubs species that were identified are: Common Lilac, Siberian Peashrub, Juniper species, and others. Residential landscaping is not a prominent practice. Annual flower beds are common however. Lawns are primarily Kentucky Blue Grass. There are large areas of native upland and wet meadow prairie within town.







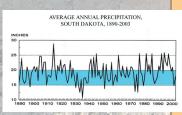


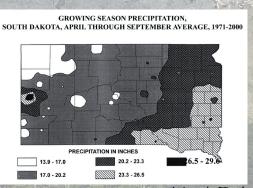


Buffalo is accustom to warm summer and very cold winters. Most of the precipitation comes in the form of rain in late spring and early summer. Snow is usually not much of an issue. When it does snow it is usually blown into drifts, so much that most of the ground is free of snow. The average temperature during the winter months is 19 degrees F and the average daily low temperature is 8 degrees. Summer temperatures are very comfortable with an average of 68 degrees and the average daily high temperature is 82 degrees. Figure 4-0 The annual precipitation is 14.71 inches, which 80 percent of this falls during the growing season. This area is also prone to extended periods of



drought.





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Figure 4-1





Figure 4-3



Figure 4-5



ECOLOGY:

Harding County is primarily a mixed grass prairie region. Some of the prominent grasses that can be on the grasslands are: Buffalograss, Sedges, Little Bluestem, Sand Dropseed, Switchgrass, and Big Bluestem. There are also a great diversity of native forbs. Sagebrush and pricklypear cactus are also species that can be found on the landscape. There are areas of coniferous forest on the various buttes. These conifer forests are dominated by Ponderosa Pine. The riparian forests are dominated by deciduous tree species. Cottonwood, Green Ash, and Boxelder are the prominent tree species. Along with the tree species, there are a many shrubs species found in these riparian forests. These different ecosystems create excellent wildlife habitat. The large game animals that can be found in the county are elk, mule deer, whitetail deer, and antelope. There are many types of game birds present, pheasant, grouse, turkey, partridge, ducks, geese, and a few prairie chickens. Some of the predator species are, coyote, red fox, mountain lion, bobcat, badger, raccoon, and skunk. Other species that are present are, prairie dogs, porcupine, beaver, muskrats, and many others. Harding County has areas of wide open prairie that is able to create conditions for wildlife diversity.

DEMOGRAPHICS:

The population of Buffalo is primarily white. The median age of this population is 43.6 years of age with 78 people 65 years old and over. The average household size is 2.16 and the average family size is 3.02. There are 243 housing units in Buffalo and 67 of these are vacant. There are 98 single-family owner-occupied homes. The median value for this type of housing is 44,300. The majority of the population has a high school degree or higher. The primary language is English.

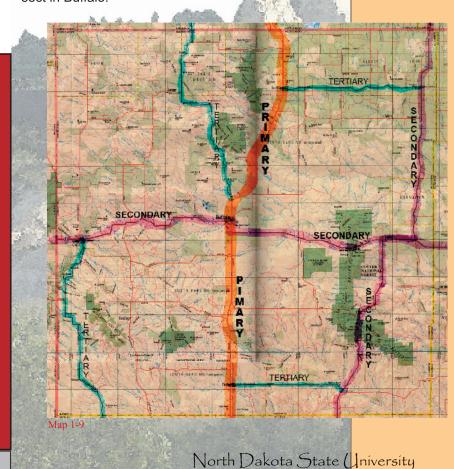
SITE INVETORY

ECONOMICS:

There are only a handful of job opportunities for the residents of Buffalo. There is 58.6 percent of the population in the labor force. Many of the jobs employed my persons that live outside of the city limits. The median household income is 21, 875, and the median family income is 37,000. There are 6 families below the poverty level and 44 individuals below the poverty level.

TRANSPORTATION LINKAGES:

Transportation is an important element to this design thesis. Many of the rural areas are served by poor roads and even trails. Buffalo has no railroads or commercial airlines. There is an airport, but with limited capabilities. All goods are transported by trucks. US Highway 85 is the primary route through the county from north to south; SD State Highway 20 is the primary route east to west. SD State Highway 79 is a secondary route north to south. Highway 85 and Highway 20 intersect in Buffalo.

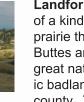


SITE INVETOR

SITE CHARACTER:

COUNTY LEVEL:

Major Elements:



Landforms: Harding County's landscape is one of a kind. This landscape is nearly an unbroken prairie that stretches as far as the eye can see. Buttes are forested with Ponderosa Pine, which is great natural habitat for wildlife. There are dynamic badlands run across that west central part of the county. The flat rolling plains of native prairie are broken by dry creek beds and perennial streams.



Ranching/Culture: Ranching is not only the way of life for the majority of the residents of the county, but it is the culture. Cattle have been grazing the grasses of the county since the late 1800's. Homesteaders tried to farm the land, but soon realized that it was only suited for raising livestock. The cowboys here still wear spurs and black hats, and herd cattle from horse back. To some people it is consider a simpler way of life, I think you have to experience it to know.



Figure 4-9



Figure 5-0

Oil Field: The northwestern part of the county has been extensively developed for oil production. Oil production has generated a lot of economic activity is the county and city. Many of these workers live in the town of Buffalo.

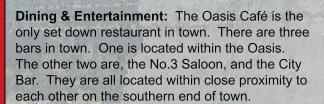
TOWN LEVEL:

Major Elements:

Court House: This public building is the reason Buffalo was established. The building is the second newest public in the town. The architecture on this building could be classified as modern as compared to its context.

School: The school is contains Kindergarten through 12th grade. It is also the only high school for the county. The school can be considered the social of the community. It is centrally located within the town.

Health Care: There are two clinics located in the town. One is located in the downtown and the other is one block north of downtown. Health care is very important for this rural community because of its geographical location and its aging population. With health care services locate within the town it brings in the rural residents into the town which helps the town's economy.



Downtown: This is the oldest section of town. The businesses in the downtown district are: a hardware store, grocery store, bank, senior center, FSA and NRCS offices, and post office. The downtown has a weak connection to the town.

Churches: There are four churches in town. They are: Grand River Lutheran, St. Anthony's Catholic Church, Congregational Church, and the Gospel Tabernacle. All of the churches were built before 1934. They are located throughout the town.



Figure 5-



Figure 5-2



Figure 5-3



Figure 5-4



Figure 5-5



Figure 5-6



North Dakota State University

Figure 5-7

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Motel: The Tipperary Lodge is the only motel in the town. It is located on the north end of town. It

Stock Yard: The Harding County Livestock Pavilion is located on the south end of Buffalo. This build displays the culture of the community. It is also an economic importance to the town. In the fall, many of calves form the local ranches are

brought here and weighed, then ship to a feedlot. This active creates a lot of social and economic

is important to the economy of Buffalo.

TOWN LEVEL:

Major Elements:

activity in the town.

of the state and region.

Figure 5-8



Figure 5-9



Figure 6-0



Rodeo Arena: Rodeo is a big sport for all ages of the community. It is also an expression of the culture. Rodeos bring people to Buffalo from all parts



Figure 6-1





Figure 6-3

Parks: There are two parks located in town. Slim Miller Park is located on the eastern part of town near the rodeo arena, football field, baseball fields and golf course. The Road Side Park is located on the south end of the town, on US Highway 85.

Museum: The museum located on US Highway 85 toward the south end of town. There is a one room school exhibit. Much of the county history is displayed here.

Rec Center: The new Rec Center is the newest addition to the town. This building was finalized in 2003. The building is an asset to the town and the community.

Golf Coarse & Baseball Fields: These recreational areas are found on the east edge of town in close relation to the rodeo arena, the football field, and Slim Miller Park. This area could be enhanced by making stronger connections between all entities.

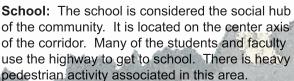
Department of Landscape Architecture

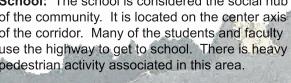
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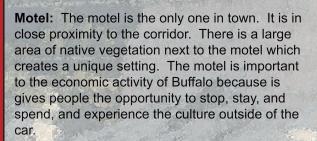
CORRIDOR LEVEL:

Major Elements:

US Highway 85: This highway is an international north/south connection. It is that primary transportation system in the county. The highway dissects the town into almost two equal haves. The view from this highway is what most people see as they pass through the town. Many of the businesses in town are located along the highway. The town and the transportation system have a relationship that dates back to the time when Buffalo was established. With the highway running through the town, it creates an opportunity to showcase the town as well as the culture of the community. Much of the social activity that occurs within the town is related to the highway as well.







Dining & Entertainment: The Café and the bars are really the only form of night entertainment in town. All of these establishments are located relatively close to each other. This creates an opportunity to exploit this relationship or to create a hierarchy of spaces.





Figure 6-5



Figure 6-6



Figure 6-7



Figure 6-8



Figure 6-9

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CORRIDOR LEVEL:



Figure 7-0



Figure 7-1

Major Elements:

Campground: There are two campgrounds and both are located on the north end of town. The campgrounds are relatively small in size with enough space for RV's, campers, and tents. The opportunity here is design and a connection to the corridor

Museum: The museum is really a nice addition to the community. However, the location of the museum is not the best for the museum. It is dominated by the bars and the café. The opportunity is to create a hierarchy of space, or new location.



Figure 7-2

Cemetery: The cemetery located on the south side of the Grand River. The opportunity here is the chance to enhance the entrances and the creation of view into and cemetery. Vistas could possible be located to the west, form within the cemetery.



Residential: Housing along the corridor influences the feeling of more a residential, rather the business district. I feel that this is an opportunity, because it is gives me a chance to play with scales and relevance to slow traffic speeds.



Park: This is the location of the old Medora-Black Hills Stagecoach transfer and located on the north back of the Grand River. The park is small, but there is an interesting picnic shelter on site. The soils on the site are an opportunity because they are of higher fertility and water is available. The context is also an opportunity, mix use.



Non-developed Spaces: These spaces can either be opportunities or constraints. Many of these spaces were created because buildings have been removed. It does give an opportunity for infill and development.

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SITE ANALYSIS:

County Level:

I believe that site analysis information is best displayed graphical. The are many factors that affects the site and they are address on the site analysis plan.

Opportunities:

- •Unbroken native landscape
- •National Forests for public recreational use
- Market culture toward heritage tourist
- •Oil and Gas development for economic development
- Dinosaur Fossil Discovers
- Location

Constraints:

- •No "tourist attraction"
- •Majority of the land is private property
- •Vehicular and Pedestrian Circulation
- Location

Town Level:

I believe that site analysis information is best displayed graphical. The are many factors that affects the site and they are address on the site analysis plan.

Opportunities:

- •Location
- Small town atmosphere
- Surrounding Landscape
- •Topography with in the town
- ·Major US highway
- •To improve outdoor recreation facilities

Constraints:

- Location
- •Community attitude towards the town, that the town is dying and there is nothing we can do about it.
- Vacant Buildings in Downtown
- No hierarchy of spaces
- Economy
- ·Aesthetics Building
- •No continuous pedestrian circulation system

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Corridor Level:

I believe that site analysis information is best displayed graphical. The are many factors that affects the site and they are address on the site analysis plan.

Opportunities:

- Major transportation system
- Historical and Culture Context
- •School
- •Dining & Entertainment Establishments
- Surrounding Landscape
- Non developed spaces
- •Runs through towns center
- •For gateway, or welcoming experience into town
- Slow traffic
- Building setbacks vary
- •Mix use, residential, business, dining, public

Constraints:

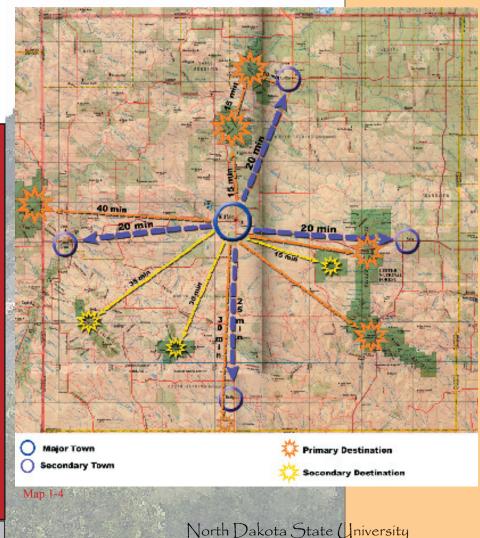
- •Pedestrian circulation in poor condition
- •Large volume of traffic at high speeds
- •Scale
- Building Aesthetics
- Street width
- Non-developed spaces

I T E ANALYSIS

LOCATION IN RELATION TO URBAN CENTERS:

The analysis maps (maps 1-2, 1-3,1-4) are showing Buffalo's relationship to regional destinations. The reason that this type of analysis is essiental for this type of project is because it justifies there will be a varity of users interacting with the site. Map 1-2, page 34, is showing Buffalo's relationship to urban centers. As visible by looking at the map, Buffalo is on a major route that is a connection to many of these centers. Along with this, the travel times are listed. This analysis cares significants as well. There is evidence that with the long travel distances between attractions that people will be ready to stop. Map 1-3 is basically showing the same thing, only focusing on natural recreational attractions. Map 1-4 analysis is showing attractions within the county. The reason this is important is because if you want people to stop, there better be something for them do and see. Primary destinations include: Ludlow Cave, Riley's Pass, Slim Buttes Battle Field, and Capital Rock. The primary destinations are all within a half hour drive of Buffalo. Secondary destinations include the Antelope Station, Crow Buttes, and Short Pines. Harding County has alot to offer. The community just needs direction on what type of people to market their unfound treases.

LOCATION IN RELATION TO COUNTY ATTRACTIONS:



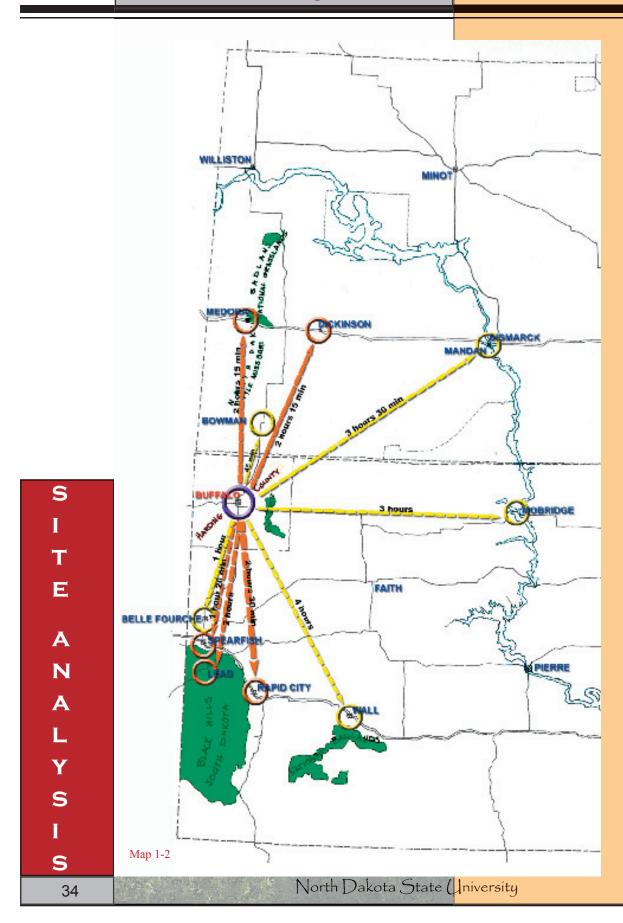
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LOCATION IN RELATION TO REGIONAL DESTINATIONS: NORTH DAKOTA SOUTH DAKOTA Department of Landscape Architecture 33



PROGRAM REQUIREMENTS:

Streetscape:

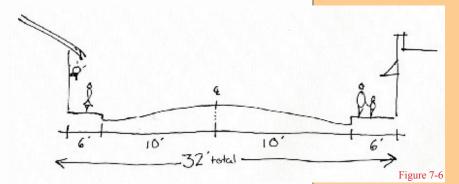
- •Sidewalks—recommend width is 60 inches, with minimum width 48 inches. Reduced Vibration Zone is intended to result in as unobstructed, smooth, and navigable path within the path, for pedes trians in wheelchairs or mobility aids.
- •Lighting—High Pressure Sodium (HPS) lamps are recommended. They provide for excellent luminous efficacy, good lumenmaintenance, long life, and very acceptable color. Mounting height is the distance from the roadway surface to the luminaire. Light source is measure in wattage. Wattage and mounting height are directly related and are selected as a combination. Refer to Table 15-5. Luminaire Type and Luminaire Spacing Location

·Retaining Wall-

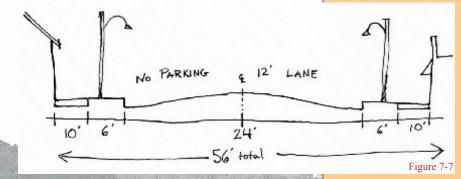
- •Benches—need to 18 inches from ground surface and no less than 5 feet long to fit two people comfortably. The seat should be 15 inches from front to back. The back of the bench should be 38 inches from top to ground surface.
- •Trash Receptacles—are recommended to be 30 inches to from ground surface to top of rim. Space requirement should be no more that 4 feet by 4 feet
- Boulevards— are recommends to be a minimum of 6 feet, in order to support plantings.
- •Trees—should be place on center in relation to maximum crown width.
- Shrubs—maximum growth rates for spread and height needs to be considered.

R P Q R I G R A M M N

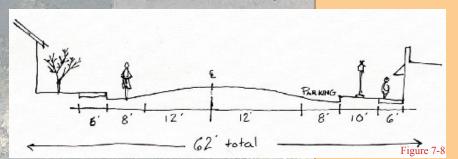
Street without Parking



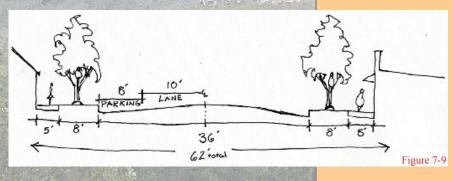
•Street with Boulevard, no Parking



•Street with Boulevards, Bike Lane and Parking



Street with Boulevards and Parking on both sids of Sreet



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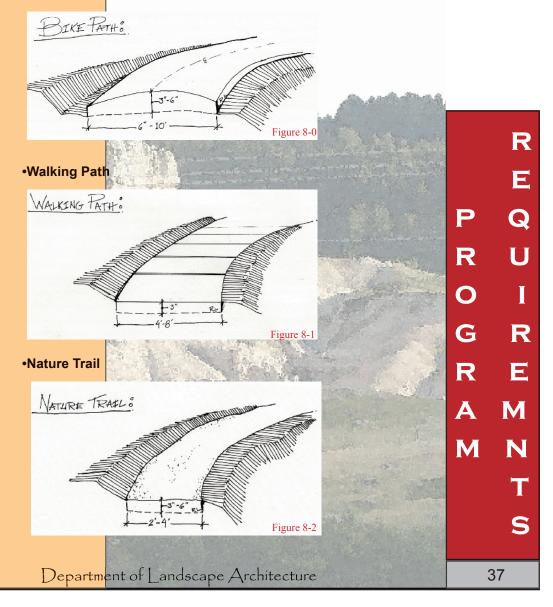
R E Q U 0 R E M M N T S

Parks:

- •Arboretum—minimum space recommended is .5 acres.
- Pocket Park—best if placed in down town spaces as infill. Spaces of 20 feet by 30 feet or less are optimum.
- •General Park—with mixed use areas, passive and active. Recommended area would be no less than 1 acre.

Paths:

•Bike Path



Campground:

- •RV's—individual RV spaces need to no less than 14 feet wide and no less that 60 feet in length.
- •Campers—it is recommended that 7 acres will fit 15 campers with room for tents
- •Tents—225 square feet will supply adequate room for individual tent

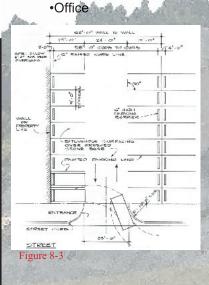
Structures:

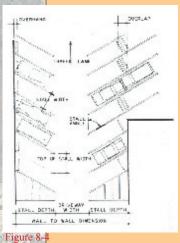
- Picnic Shelter—recommended square footage is 225.
- •Play equipment—should be a minimum of 70 square feet per child, to 21 square feet per family on the average basis of 0.3 preschool per family. A minimum enclosed area of approximately 2,000 square feet will serve about 30 preschool children

Parking:



Eating Establishment





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North Dakota State University

- Preserving the Past by Enhancing the Future

Works Cited:

Case Study: Oxbrigde Home Zone: Description. 11/10/2004.

http//www.publicartonline.org.uk/case/Oxbridge/description.html

Artist: Les Bicknell (and project team composed of a community worker, landscape

architects, engineer, and council planners)

Project Title: Oxbridge Home Zone

Location: Oxford and Cambridge Roads, Lowestoft, Suffolk, UK 2002—2004

Budget: 750,000 euro?

Overview Cited in the Article:

Oxford Road and Cambridge Road (names which came to be combined as 'Oxbrigde' in the course of this project) are adjacent streets of late Victorian properties in North Lowestoft. There are no play spaces in the streets or nearby. Half on the residents are either under 15 or over 60 years of age—two age groups considered to be particularly vulnerable to traffic accidents. The primary intention of the Oxbridge Home Zones project was to re-design the parking layout in the streets, and to slow down traffic moving along them. As the result of a process of extensive consultation with residents, visual artist Les Bicknell (a member of the professional project team) designed a number of the new physical features proposed for the roadway of Oxford and Cambridge Streets, in such a way that they would amount to more than simply functional traffic calming measures. Potentially these physical modifications to the streets would additionally regenerate a positive community spirit, enabling residents to socialize, relax and play more easily together. Now, several 'pinch points crossing spaces' serve to slow traffic by reducing flow to a single lane. These areas feature groups of sculptural granite bollards, and series of intersecting concentric circles of colored tiles and cobbles. Roundels in the centers of these tiled circles feature poetic constellations of words and names, referring to aspects of the history of the street. At points between these areas, lines of white granite setts, inlaid into the dark tarmac road surface, meander playfully like environmental drawings, blurring the conventional distinction between road and pavement.

My Thoughts on the Article:

Note: At this time I am unable to find plans and drawings of this project. There are many aspects of this project that I really liked. One was the way they approach the design problem. The project team had a intimate relationship with the community from that start of the project to completion. Another was the way they looked at the streetscape, one statement said, "the intention clearly was not to originate a series of discrete art works to be sited within the streetscape, but to produce what brief refers to as "creative options" for changing the "streetscape", improving both day-to-day safety of the pedestrians, and community cohesiveness." I feel that many of these types of projects usually can the opposite affect on communities. Many time on side of town wants the project, but the other side does not, building a wall in the middle of the street rather than bare in cohesiveness. I would really like to have the type of community cohe siveness that they were able to accomplish show through in my design. They used informative flyers and questionnaires to get the community involved in the design process. This is something the I would like to incorporate into my design development. Lastly this project also brought in the history of the place to make the design more powerful. I hope to portray the history of Buffalo and Harding County in a similar faction through design elements.

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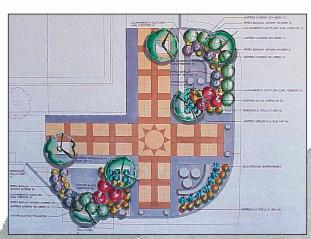






C A S E

> S T U D T Y





Above: Detail of sunburst pattern at intersection of walkways. Concrete colors were selected to blend with existing walls and surrounding building color schemes.

Left: Conceptual plan of the paving and planting design. The new paving was designed to fit into the existing downtown infrastructure. ≺

C A S E

> S T U D



The renovated "nodes" provided a good place for situating the newly commissioned Presidential Statues. A

n 2000, the City of Rapid City, South Dakota hired Wyss Associates, Inc. to redesign its pedestrian nodes within Rapid City's Historical Commercial District. The existing pedestrian nodes were in disrepair and had not been updated for over twenty years. Wyss Associates, Inc. developed several concepts using a variety of materials such as pre-cast concrete pavers, fired clay pavers, and colored concrete.

The selected paving design provides a contemporary solution that blends into the historic architectural fabric of the historic commercial district. The paving design incorporates two colors of integrally colored concrete with a sunburst pattern feature at the intersection of the walkways. Darker colored bands transect light colored panels to create an interesting pattern that compliments the surrounding character of the downtown area.

A new irrigation system and new plant material was also designed for the planting areas at the intersections. The new plant material was chosen to provide year round interest providing a pleasing arrangement of color, texture, and form.

Perennials and ornamental grasses were also included to create a blend of interesting texture and color.

Landscape Architecture

North Dakota State University

Above: Concept for installing planting islands in existing city parking lots to improve aesthetics.

Right: Design concepts for welcome signs at the entrances into town.



Above: Trees, shrubs, and wildflowers are planned for this entrance gateway.

108 Sherman St.

City

Deadwood

City Hall

Founded 1876



Neighborho
Founded 1878

Deadwo

Above: Banner concepts for wayfinding devices. A









he entire City of Deadwood is a designated as a National Historic Landmark. The town is rich with western history and folklore. Several hundred thousand tourists visit the town each year to explore the town's history, visit the graves of western legends Wild Bill Hickok and Calamity Jane, and gamble.

In 2001, Wyss Associates, Inc. was hired to develop a master plan for Deadwood's many entrance gateways. Over the next several months, Wyss Associates developed design concepts for entrance signs, streetscape treatments, way finding devices, and landscape enhancement.

The completed master plan contained numerous recommendations about improvements in the gateway corridors. Wyss Associates is currently designing several gateway projects to help improve the visitor's first impression when arriving in Deadwood.

Landscape Architecture

CASE STUDTY

Works Cited:

Lotus international 117. Quarterly Architectural Review. 2003. Green Infill. Hood Design. Pages 124-127.

Firm: Hood Design—Walter Hood, with Alma DuSolier, Grace Lee, Sarah

Raube, and Annie Tenant

Project Title: Green Infill

Location: Richmond, California 2000—2001

Overview Cited in the Article:

The masterplan for North Richmond utilizes the existing public landscape and natural resources to enhance the neighborhood's identity and growth. A unique social history and physical character distinguishes North Richmond within the City of Richmond. Community member have been active in the plan's and development. Urban landscape typologies of streets, parks, plazas, fields, wilderness, gardens and yards are articulated and manipulated to create hybrid multi-functional spaces within the public realm. The plan comprehensively addresses an area of three square miles and incorporated a new town center, develops a street hierarchy through bedestrian and public transportation oriented streets, and identifies economic opportunities and potential urban infill. Sit specific gateways, bike trails, tree plantings, lighting, signage, and other public amenities merge their adjacent landscapes to enhance public space.

My Thoughts on the Article:

This case study did not have a lot of text to explain design methodology, but a short overview has included with the plans and is cited above. The project has many of the same elements associated with it that I am interested incorporating into my design. It focused on gateways, bike trails, tree plantings, lighting, signage, new town center, street hierarchy through pedestrian and public transportation oriented streets. Public transportation is none existent in Buffalo, but I like the attention that is given to pedestrian circulation. The graphic circulation diagrams seem to be great supporting information that takes pressure off text explanations. My highest point of interest is in the streetscape design that uses "alternating bulb-outs to create a pedestrian right of way and slowing traffic. A major issue if my site is the speed of the traffic. Also, there is not a continuous sidewalk along the street, forcing pedestrian to walk on the street edge. Their graphic presentation of the site gave me some good ideas as well.

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Works Cited:

http://www.asla.org/meetings/awards/awds01/blueridge.html. 12/7/2004

Firm: Publics Works Project, 1933

Project Title: Blue Rigde Parkway

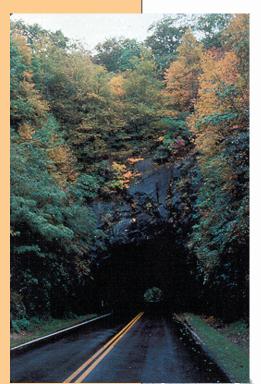
Location: Virginia and North Carolina

Overview cited in the Article.

With advent of the Great Depression and the popularity of the automobile, and an economic emergency for the struggling Appalachia region, all came together on the time line to initiate the concept of the Blue Ridge Parkway. The purpose of this project was to provide a 469-mile scenic route for pleasure driving between Shenandoah National Park and the Great Smoky Moutains National Park, to provide recreational opportunities en route, to provide employment in the economically depressed southern Appalachian region, and to provide economic value to the areas through which it passed. On December 26, 1933 planning and landscape design efforts began. The construction of the parkway was started in various locations to provide employment where economic strange was the worst. This project was a source of work for many families in this region until the onset of World War II. At this time the project was neary two-third complete, however, the rest of the project took many years to finish because funding ran out. The last section of the project to be completed was the Linn Cove Viaduct. The construction of this part of the project was the most sensitive, both environmentally and construction wise. Working together, landscape architects and engineers were able to sensitively place this "most complicated segmental bridge ever built" into the delicate environment of Grandfather Mountain.

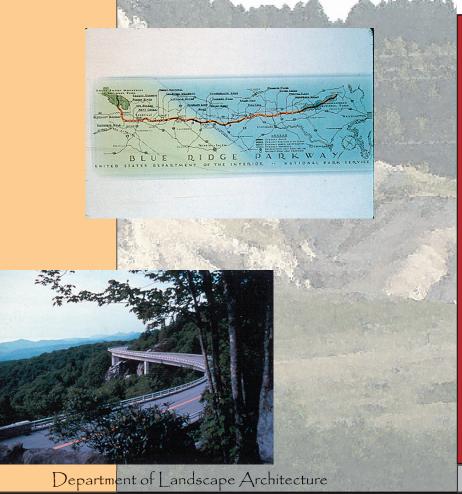
The Landscape Architect planned and designed the Blue Ridge Parkway so that it would lie lightly on the land. It has been sensitively fit into the natural setting and appears to belong to the surrounding landscape. The public can see that with the use of sensitive planning and design, use of natural materials, and special attention to detail, the landscape architect can improve the quality of life for man and at the same time preserve that natural landscape. To meet this challenge, a large staff of landscape architects was assigned the daily tasks of planning and designed all aspects of the parkway. Every bridge, sign, guardrail, picnic table, trail, parking dverlook, and building - every item that the Park Service was to place on teh parkway - required numerous drafts, revisions, reviews, approvals, and close supervision during construction. Their responsibility was to ensure that everything would blend, mold together, and merge with the existing features to fulfill the prescribed objective of establishing a "museum of managed countryside".

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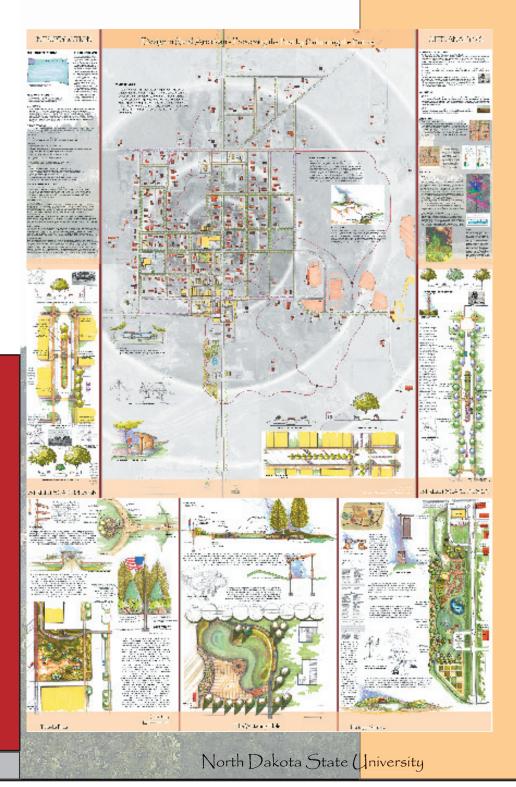
My Thoughts on the Article:

I really liked the role of the Landscape Archite on this project. The Landscae Architect had the role of making many different construction project, over many years mold into a continues design element. One aspect of the project that i found to be intreging was the attention to detail. They design every aspect, down to the picnic tables, so that the hole design would mold together as one unit. The project was a 469 mile stretch of road, not an easy task. I believe that small details like this is what made this project truely successful. This is something that I would like to accomplish in my design.



S T U D T

FINAL PRESENTATION BOARDS

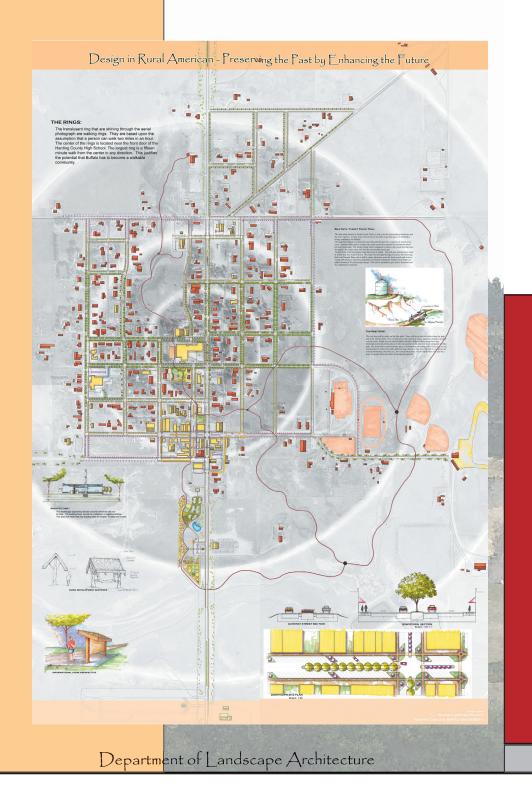


PRESENTATION

46

B O A R D S

MASTER PLAN BREAK OUT



INTRODUCTION AND SITE ANALYSIS

CHOOSING THE SITE:

INTRODUCTION

SITE ORIENTATION:



MISSION STATEMENT:

WHAT IS SMALL TOWN LIFE:

HISTORICAL:

SITE ANALYSIS

HISTORICAL CONTINUED:

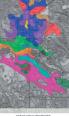








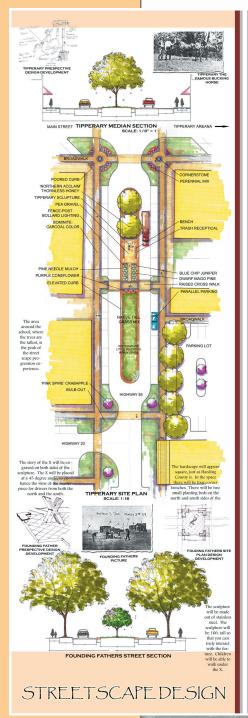


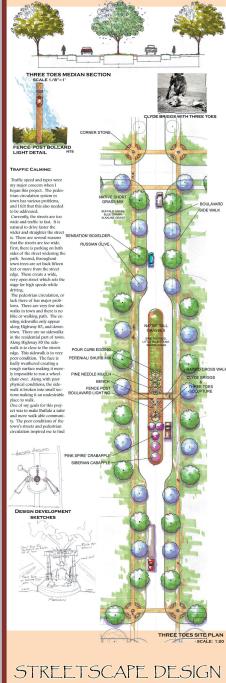




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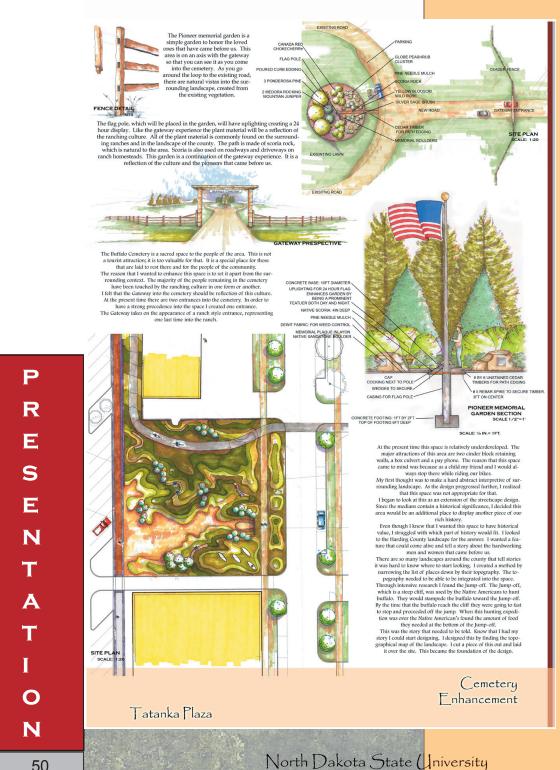
STREETSCAPE DESIGN





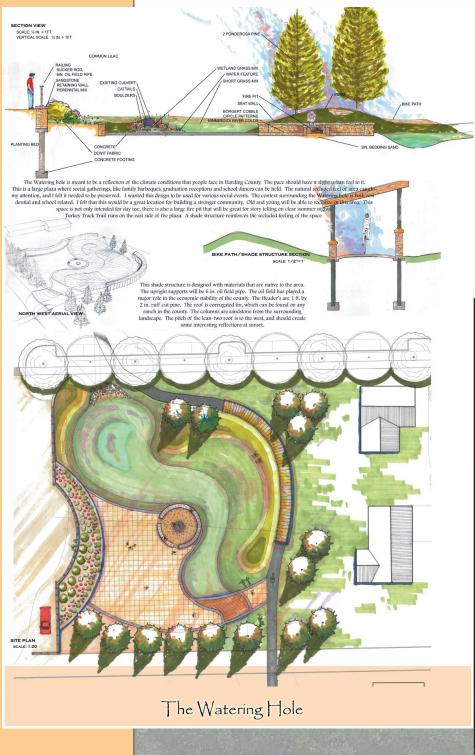
B O A R D S

CEMETERY ENHANCEMENT



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COMMUNITY GATHERING SPACE



B O A R D S

ORIGINS MEMORIAL & XERISCAPE GARDENS



PRESENTATIO

N

STATEMENT OF INTENT:

Third Revision

Randy Lyons Landscape Architecture 9/23/04

Site Location: Buffalo, South Dakota

Many small towns in the Midwest are becoming a piece of American history, rather than active urban communities. Their populations are mostly composed of senior citizens, and the young people are moving to active urban centers. Many of these towns have lost their hospitals and clinics. With dwindling populations, schools are being consolidated, which has caused economic and social voids in these small towns. On a smaller scale, yet very important, the aesthetics of these towns have begun to decline due to economic and population struggles. The site I have chose for my design thesis is one of these vanishing towns—Buffalo, South Dakota, which is also my home town.

Buffalo is the county seat of Harding County. About half of the city population is 50 years of age and over. The primary source of employment in the town is the school system. The economic base of the community is the ranching families that live in Harding County. Buffalo is the largest town in the county, which makes it the social and economic center for the community. My roots in Harding County will help me to understand the cultural and political aspects of this project.

The primary focus of this Design Thesis will be on the aesthetics of the U.S. Highway 85 corridor. Highway 85 is the major artery that runs through the center of town from north to south. It runs from Canada to Mexico and is a major route for tourist on their way to the Black Hills. My underlying premise for this project is to show how design can contribute to the preservation of small town life. Some of the design elements that I intend to touch on are: important pedestrian and important pedestrian and to make connections between the town and the surrounding landscape.

The client base of this project is a unique group of individuals. This group includes the residents of Buffalo, the rural population of Harding County, the people that pass through the town, and the people that someday might call Buffalo home. All these entities as a whole, creates a community. The client for the project is the community.

I plan on looking to case studies to guide me in the analysis process and making design decision. I have started working with community members to obtain maps, photographs, historical, and other information. Also, I have an outside contact that I feel might play an important role in gathering resources.

I am interested in rural development and, community and city planning. I have had the privilege to be part of two design charettes in small towns. I was inspired by the results of those charettes. So, I want the take the opportunity to take a more in-depth look at design in rural America. As I stated I have a personal stake in this project. I plan to raise my family on our ranch near Buffalo, as did my parents and my wife's parents. I would like to be a part in preserving the past of small town American, by enhancing its future.

APPENDIX

Design in Rural America—Preserving the Past by Enhancing the Future

A. LOCATION

The site is the small town of Buffalo, South Dakota. Buffalo is located in the center of Harding County. It is located in the northwest corner of the state, approximately 30 miles from Montana and 30 miles from North Dakota. The two nearest major trade centers are Belle Fourche, South Dakota and Bowman, North Dakota. Belle Fourche is 70 miles south, and Bowman is 45 miles to the north. The site specific location is US Highway 85 corridor that runs north and south through the center of town.

B. USER-CLIENT DESCRIPTION

The User—Client base for this design thesis is the community that makes up the town of Buffalo. This is a dynamic group of unique individuals. I consider four distinct groups:

• The residents of Buffalo—this group will be most affected by the design by their daily activities, social interactions, and recreational movements.

• The rural population of Harding County—Buffalo is the social hub of the county, and much of the rural community is active in clubs, organizations and is employed here. The rural community is a key element.

• The people that travel through Buffalo—these are the people that I would like most to influence. There are hundreds of travels that pass right through Buffalo each day. The goal is, with design, the town will be able to persuade some of these types of people to stop and enjoy a piece of small town Buffalo.

• The residents of Buffalo in the Future—through sustainable design elements, hopeful Buffalo can continue to evolve by attracting new resident to be part of it dynamic community.

C. MAJOR PROJECT ELEMENTS

The primary element of this design thesis is to focus on the visual appearance of the US Highway 85 corridor. This highway is a route that runs form Canada to Mexico. It is also a major route for tourist on their way to the Black Hills. In response to this, the design will include gateway experience and streetscape development. At this time, design elements found within this corridor experience will include:

- Gateway signage
- · Streetscape development
- · Sustainable materials
- · Small Campground development
- Pedestrian circulation system
- · Pocket Park design
- Visitor Center
- Corner Hierarchy at important intersecting nodes
- Arboritum
- · Cemetery enhancement

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North Dakota State University

D. SITE INFORMATION

Buffalo is the county seat, and the principal town in the county. It has a population of 380. Along with this, the remainder of the county is sparsely settled. As the principal town, it is in the position of being the social and economic hub of the county. The site selected for this project is the main artery of through traffic and it is relationships between this stretch of highway and its changing context through town.

Regional Information:

The primary enterprise of Harding County is ranching. About 88 percent of the county is rangeland, and 12 percent is used as farmland. This area is a typical mixed-short grass prairie region. The terrain is also of an importance, with 5 major montane ranges, this creates opportunities in timber sales and recreation. The landscape is ever old and was not affected by the last glacial event. Some of the prominent features of this landscape are; rolling plains, deep draws, badlands, and buttes that rise above the surrounding country-side.

History:

Harding County was established at its present state in February 1909. In 1881 the county was named after J.A. Harding, which was a speaker of the Dakota Territory House. Buffalo was established in 1908 by Frank and Ray Gilbert, and Frank Van Horn, which were local cattle men. William Fried, a banker, supplied the money for them to purchase 40 acres from John Oines. The first buildings that were erected were the Grand River Store and the Van Horn Hotel. The first café was in a sheep wagon, which was ran by Ben Hartzel.

Demographics:

The population of Buffalo is primarily white. The median age of this population is 43.6 years of age with 78 people 65 years old and over. The average household size is 2.16 and the average family size is 3.02. There are 243 housing units in Buffalo and 67 of these are vacant. There are 98 single-family owner-occupied homes. The median value for this type of housing is 44,300. The majority of the population has a high school degree or higher. The primary language is English.

Economics:

There are only a handful of job opportunities for the residents of Buffalo. There is 58.6 percent of the population in the labor force. Many of the jobs employed my persons that live outside of the city limits. The median household income is 21, 875, and the median family income is 37,000. There are 6 families below the poverty level and 44 individuals below the poverty level.

A P E N D I X

General Climate Information:

Buffalo is accustom to warm summer and very cold winters. Most of the precipitation comes in the form of rain in late spring and early summer. Snow is usually not much of an issue. When it does snow it is usually blown into drifts, so much that most of the ground is free of snow. The average temperature during the winter months is 19 degrees F and the average daily low temperature is 8 degrees. Summer temperatures are very comfortable with an average of 68 degrees and the average daily high temperature is 82 degrees. The annual precipitation is 14.71 inches, which 80 percent of this falls during the growing season. This area is also prone to extended periods of drought.

Environmental Aspects:

There is considerable relief of topography from one end of the site of the other. The general topography of Buffalo is that of a rolling plain. The soils on site are partially a result of alluvium deposits from the Grand River that runs through the south end of town. These soils are deep, somewhat excessively drained to well drained, nearly level, sandy and loamy soils on flood plains. There are also moderately deep and shallow, well drained, gently sloping to very steep, loamy soils on uplands. Vegetation can be hard to establish due to low precipitation and well drained shallow soils. Open winter can also take a toll on vegetation.

Transportation Linkages:

Transportation is an important element to this design thesis. Many of the rural areas are served by poor roads and even trails. Buffalo has no railroads or commercial airlines. There is an airport, but with limited capabilities. All goods are transported by trucks. US Highway 85 is the primary route through the county from north to south; SD State Highway 20 is the primary route east to west. SD State Highway 79 is a secondary route north to south. Highway 85 and Highway 20 intersect in Buffalo.

E. PROJECT EMPHASIS

The emphasis of this design thesis will be handle at to different scales, macro and micro. At the macro scale, I plan to look at creating a broad beautification plan for the town as a whole. Elements that are being considered at this time are a complete pedestrian circulation system, and possibly an interconnected parks system. As I scale down the focus, the downtown comes into view. I wish to look at making a stronger connection to downtown with the rest of the town. As I move into the emphasis area of the project, I will focus on the US Highway 85 corridor. At the micro scale, I want to focus on are; gateway experiences into the town, streetscape development along the corridor and a sustainable design by paying close attention to materials.

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F. PLAN FOR PROCEEDING

Definition of Research Direction:

The areas that I feel I need to research before I can successfully begin to solve the design problem are:

- The creation of the gateway experience
- The issues involving streetscape development
- What makes a design sustainable in comparison to those that are not
- The use of natural materials

Once I have insight into these areas I feel I will be ready to accomplish a successful design.

Design Methodology:

The design methods that are to be used are case studies to guide my design decisions for the corridor design. Interviews with members of the city council, planning and zoning committee, and county commissioners will enlighten me to the view of the community on the perception of where the towns social and economics are headed. Research of sustainable designs will strengthen my understanding of what "sustainable" means in the sense of design.

Documentation of the Design Problem:

The documentation of this project will take on various forms. A sketckbook will be utilized by recording the design process throughout the next phases of the project. Research and hard facts will organized in a binder. Together, this information will ultimately be utilized in the production of the final book explaining all areas of the project. The final documentation of the project will be through the graphic design boards and the formal presentation of the material.

G. SCHEDULE OF WORK

Fall Semester 2004

Week 1:	(Oct. 4 - 8	
	7 October	Thesis Proposal due (2 copies)
	7 October	Student critics preference slips due
Resea	rch	
Week 2:	(Oct. 11 -	15)
	14 Octobe	r Faculty return performance slips to
	2.6	main office
Resea	rch	
Possik	ole site visi	
Week 3:	(Oct. 18 - :	22)
	21 Octobe	r Primary and Secondary announced
Resea	rch	

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APPENDIX 2

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Week14: (Jan. 3 - 7) Christmas Break Research / Build generic model to use with design **Spring Semester** 2005 Week 15: (Jan. 10 - 14) Classes Begin 11 January Conceptual and Schematic Drawings with weekly review (Jan. 17 - 21) Week 16: 17 January Martin Luther King, Jr. Holiday Conceptual and Schematic Drawings with weekly review (Jan. 24 - 28) President's Day Holiday 21 January Conceptual and Schematic Drawings with weekly review (Jan. 31 – Feb. 4) Conceptual and Schematic Drawings with weekly review (Feb. 7 - 11) Design Development with weekly review (Feb. 14 - 18) Design Development with weekly review (Feb. 21 - 25) Design Development with weekly review Week 22: (Feb. 28 – Mar. 4) Design Development with weekly review Week 23: 7 - 11 March Mid-semester Thesis Reviews Design Development (Mar. 14 - 18) Week 24: *Spring Break **Design Development / Begin Composing Final Presentation** (Mar. 21 - 25) Week 25: *25 - 28 March Easter Vacation Work on Final Presentation Material (Mar. 28 – Apr. 1) Work on Final Presentation Material with review (Apr. 4 - 8) Week 27: Work on Final Presentation Material

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H. PREVIOUS DESIGN EXPERIENCE

Second Year

Fall: Tim Kennedy Spring: Dennis Colliton

The ideal Landscape Camp Wilderness Amphitheatre
Precedents Study Devils Lake Open Space

Six Pack Design & Park Development
Plains Art Museum Terrace NDSU Fountain Plaza

Third Year

Fall: Joshua Walter Spring: Tim Kennedy

Parking Lot Design
Sheyenne National Grasslands
Pool Perspective Drawing
Camp Cormoront Presentation

Campground Design Drawings

Upper Landing Housing

Development

Masonry Competition—NDSU

Fourth Year

Fall: Joshua Walter, Mark Barnhouse, & Cindy Urness Urban Design Studio—Fargo Downtown Revitalization

Spring: Angela Hansen

Broadway Square Competition

Design Chartte

Fort Totten—Historic Preservation

Stone Quarry Competition

Fifth Year

Fall: Joshua Walter

Fergus Falls Riverwalk—Stream Restoration Alabama Nature Preserve Competition

I. Bibliography / Resources

Periodicals

Articles will be researched in architecture and landscape architecture magazines in relation to gateway experiences, streetscape development, and sustainable design.

Interviews

Lyons, Larry. Historical Past of Buffalo. Buffalo, South Dakota: 2004

More interviews be included, after additional site visits.

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Fact Sheet – American FactFinder. (n.d.) Retrieved September 30, 2004 from http://www.factfinder.cenus.gov

Other internet sources researched will be on the subject matter of DOT involvement in streetscape development, sustainable landscape architecture, and designing gateway experiences.

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INTERVIEW WITH BUFFALO TOWN BOARD:

October-22-2004

The meeting started out with me introducing the project and some of my thoughts on rural development and proceeded with looking at the proposal. At this point the floor was open to discussion. These are the notes from the meeting.

- -Liked the natural appearance of architecture and design.
- -Pam Ginsbach was going to put signs on the outside of town.
- -Art class was going to paint T-Rex sign.
- -People traveling through town do not stop as often as they used to.

 -Town board believes is would be good to get that back.
- -Like visual element ideas.
- -New cemetery fence to connect gateway.-Wally Stephens was going to do something.
- -Roadside Park, some work is supposed to be done.
- -Billboard sign outside of town for museum.
- -Parking stripes on main street.
- -Interested in arboretum idea
- -Small towns can look good and not turn into Spearfish, or any other urban center.
- -Liked ideas, but brought up the issue that it is hard to get everyone excited.
- -Really liked the idea of bike/walking path.
- -One idea was Go-Kart track—shows that there is a nee<mark>d for recreation activi-</mark>
- -Sidewalk would be nice to have run all the way through town on Highway 85.
- -Discussion on Industry: Prison, Assisted Living, Natural Gas, Credit Card Services.
- -Liked idea of marketing the people, and not so much the town for industry.

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Just a few last words. Well, thanks to all my studio class mates for helping me get to where I am today, I think we got here together. Thanks to Josh and Catherine for all the help on this project and for pushing me to find a great design solution. And most of all, thanks to my wife for putting up with my all nighters, for weeks on end, chew bottles and coffee stained counters. Thanks again to everyone that has guided me though this process.

Randy Lyons.

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