

# **NORTH LOGAN GENERAL PLAN**

## **ELEMENT IV:**

### **INFRASTRUCTURE**

#### **Contains:**

- 4.1 - EDUCATION & LIFESPAN LEARNING
- 4.2 - COMMERCIAL & ECONOMIC DEVELOPMENT
- 4.3 - UTILITIES
- 4.4 - PUBLIC SAFETY
- 4.5 - DRAINAGE & FLOODPLAINS

## **IV - INFRASTRUCTURE ELEMENT**

### **4.1 - EDUCATION AND LIFESPAN LEARNING**

4.1.1 - Not only will the population increase, but if current trends continue, the composition of the population will also change in the next decade. As the population grows, it will include a larger percentage of school age children. In 1966 there were 285 school age children in North Logan. By 1990 this figure had risen to 620. If school district projections are accurate there will be 886 school age children in the City by the year 2000. This growth in school age children will naturally require more schools and other educational facilities which must be considered in future land use planning.

### **4.2 - COMMERCIAL AND ECONOMIC DEVELOPMENT**

#### **4.2.1 - PURPOSE**

4.2.1.1 - The purpose of planning for commercial growth is to ensure well designed attractive development in appropriate locations of the city. This General Plan is established to guide decisions and set standards in the fulfillment of this goal.

#### **4.2.2 - GUIDELINES**

4.2.2.1 - Commercial regulations and standards should reflect community values and include input and participation from both corporate and residential citizens.

4.2.2.2 - Commercial development should be limited to less than 20% of the city's total geographic area.

4.2.2.3 - Commercial planning regulations and ordinances should seek and exploit the local advantages of the city for commercial development but also reflect the life style and quality of life desired by the citizens of North Logan.

4.2.2.4 - To strengthen the local tax base, commercial development should be promoted. This can be accomplished by establishing a workable public/private partnership. Specifically, commercial development can be encouraged by providing well planned and attractive commercial land sites.

4.2.3 - To implement appropriate guidelines the master plan establishes:

4.2.3.1 - restrictions on "strip" commercial areas and encourages compact commercial areas.

4.2.3.2 - design standards for commercial development, e.g., function, safety construction, parking, access, landscape.

4.2.3.3 - restrictions on size, type, etc., of commercial development so it does not unfavorably impact residential development.

4.2.3.4 - standards for capital improvements such as curb, gutter, parking, landscaping,

lighting, and utility lines for commercial development.

4.2.3.5 - ordinances for the regulation of advertising and signage in commercial area.

4.2.3.6 - traffic control patterns and access requirements for commercial areas,

4.2.4 - The city should seek to develop and maintain a practical mix of commercial and agricultural businesses, and not attempt to emulate any other urban area. Rather, North Logan should strive to maintain its 'small city' environment and develop a unique commercial area well suited to promote a 'close knit' community. This will establish North Logan as a progressive, well planned city in the future.

4.2.5 - The city must establish street, sign, lighting, set-back and other necessary streetscape standards. These ordinances should consider traffic flow, the character of the city, natural topography, safety, and function.

4.2.6 - North Logan should strive to promote a positive environment for commercial growth by maintaining close cooperation with other city, state, federal, and private economic development agencies.

4.2.7 - It is generally difficult for small cities in Cache Valley to enhance revenues. Development and impact fees are important methods of funding improvements in infrastructure in growth areas. But, the major source of revenue for small cities is sales and property taxes. Logan City is the dominant commercial center of Cache Valley. However, North Logan is developing a significant commercial sector and has an excellent opportunity to improve its own financial base through a well designed land use plan that will encourage the development of a quality commercial area.

4.2.8 - The natural expansion of the metropolitan Logan commercial sector is north along Highway 91. The improvement and widening of 1400 North Street, and the development of the shopping mall in this area has provided a traffic flow system which will support commercial development. Easy access to shopping centers and other businesses will also attract residential development. It is critical that North Logan take advantage of this growth pattern and continue to encourage commercial development within the two west quadrants. This can be accomplished with appropriate zoning ordinances to encourage commercial development.

4.2.9 - Studies show that few neighborhood markets or shopping plazas are successful. Usually shopping patterns support business along major highways and streets. With the exception of 2500 North Street, a major traffic artery will probably not develop. This situation should be considered in future land use planning for this area.

4.2.10 - Continued encouragement of economic development west of Highway 91 and north of 2500 North Street will increase the economic resources of North Logan. The area could provide considerable employment with many of the resulting employees living in the residential areas of North Logan.

4.2.11 - North Logan should also encourage the continued expansion of the existing Research Park located in the Southwest quadrant by expanding the commercial and manufacturing zones in the area. The southwest quadrant should contain a well planned

mix of commercial and light manufacturing zones.

4.2.12 - The Research Park area could contain approximately 130 acres. If the park expands to a moderate employment density of twenty employees per acre, it could support a labor force of 2600 employees. It is likely that many of these employees would choose to live in North Logan.

4.2.13 - The city should sponsor a street beautification demonstration project on one or two blocks in the downtown area to demonstrate the positive visual effects accomplished through street improvement. The project should include the necessary curb, gutter and sidewalk improvements, in addition to, decorative street lights, public benches and trees, as needed. The project could possibly also include placing utility lines underground. City officials would work with the neighborhood residents to select project areas where beautification would be advantageous.

#### 4.3 - UTILITIES -Power, Gas, Water, Sewer, Communications

4.3.1 - It is the goal of North Logan City to encourage the wise use of our water resources. Increased demand is anticipated on culinary water as residential and commercial land uses increase. The City should encourage conservation and xeriscaping. Water rights should remain with the land. Secondary water systems should be considered to provide for outside irrigation for lawns, landscaping, gardens, open spaces, etc.

4.3.2 - Generate and pass an ordinance which will provide for impact fees on developments to not only pay for utility delivery to the area, but to also provide revenue to upgrade the impacted infrastructure with roads, parks, and water outside of the development boundaries.

#### 4.4 - PUBLIC SAFETY -Police, Fire, Medical, Emergency

4.4.1 - North Logan lies along the Wasatch fault, This fault is a concern for people living in Northern Utah. All cities, including North Logan, should strive to educate and share a contingency plan which provides food and water for household members for a minimum of one week. The City should augment private plans by developing emergency procedures for water, utility, communications and traffic flow systems, thus minimizing disruption and danger in case of an emergency.

#### **4.5 - DRAINAGE AND FLOODPLAINS**

4.5.1 - Damages to farmland and property due to inundation and erosion caused by flooding have always plagued the valley. In areas designated as drainage corridors and the Federal Emergency Management Agency (FEMA) floodplain, construction of homes and other buildings should be discouraged. All development projects within flood plain areas should be reviewed and commented on by the Flood Plain Administrator. For location of potential hazard areas see map

4.5.2 - Because low density development is projected for the newly annexed land (Area Four-the northeast quad), the resulting open areas should be used for runoff and storm drainage holding sites to minimize flooding. The existing canal system should be used to collect storm drainage and natural runoff water from appropriate areas and channel it to

predetermined holding basins. With the development of spillways, the existing canal system could serve as a storm drainage which would limit the city and residents liability for flood damage.

4.5.3 - Maintain natural drainage areas.

4.5.4 - Develop flood control plans in each of the four major areas including projected 50/100 year flood water amounts.

4.5.5 - Require developers to generate drainage plans, which will provide for flood control features and implement erosion control measures.

4.5.6 - Major detention/retention basins in the mouth of green Canyon (in the area shown in the Parks and recreation Plan as community parks) will be required to handle a hundred year flood. These basins should be designed to double as community parks. During a flood, water spillage from the basins would be clean and free of mud, debris and sediment, after passing through an upper basin. The lower basin would control the flow. It is estimated that 900 cubic feet per second (cfs) could issue from the watershed area in Green Canyon during a 100 year flood, and 750 cfs for a 50 year flood. These figures are based on the Utah Department of Transportation (UDOT) Large Area Method of Hydrology Analysis, using a determined watershed acreage of 8500 acres. Figure IV-5-1 shows the major drainage systems affecting North Logan City and surrounding area.

4.5.7 - Other watershed areas are not as large as Green canyon; therefore it is anticipated that if the natural drainage areas are adequately protected, flood protection basins will not be needed. The storm water would simply flow as it always has. However, the drainage plans will need to be submitted by the developers' engineer. This, in turn, will be reviewed as development plans are submitted to the City. The plan will also include the whole drainage area, and canal company agreements to accept storm water. The storm water run-off will increase as the land usage shifts from agricultural to residential. Estimated amounts of water must be determined as each development is proposed. Proper storm water management anticipates changes in the quantity, quality of the run-off, and safeguards to handle these changes to protect the health, safety, and welfare of the public.

4.5.8 - Two solutions are shown (see figure 11-2-1) to deal with the design of lots around major drainages. The solution on the right side of the drainage shows a roadway with lots on only one side and the parkway on the other side. This solution will be most expensive to develop but will give the parkway visual exposure to everyone. This solution also offers greater access to the parkway by the public. The solution on the left side of the drainage, which shows lots which back onto the parkway with public access through a pathway, coming from the cul-de sac, could contain the following:

- \* pedestrian/jogging trails.
- \* equestrian trails.
- \* bike paths.
- \* native landscape on slopes.
- \* exercise courses.

4.5.9 - Other parkways should be developed by developers as individual parcels are built around smaller drainages. The City may eventually take over ownership and maintenance, but initial development costs should be by the land developer,

4.5.10 - The (mouth of Green Canyon) site has topographic relief which can provide interest and a natural appearance to park facilities, The final design of the storm water basin should consider all potential for future use of the basins as recreational sites.

4.5.11 - Initial division of the land is primarily based on slope and drainage realities. There appear to be four major drainage areas and several smaller ones in the annexed area. The major drainage areas are to be protected by the master plan as development occurs. It is recommended that the City and the Planning Commission exercise their rights to protect both major drainage and minor drainage areas when they review any development plans. These natural features will play an important role in the prevention of flooding, erosion, and further degradation of the environment,

As the planning began through public meetings and additional analysis, it became obvious that these drainage areas could also double as parks, parkways, flood detention/retention basins, pathways, access-ways, wildlife roadway crossings, bike trails, and a host of other recreation facilities. Care must be taken, however to properly site these various activities so that one is not in competition with another.

4.5.12 - Neighborhood parks should also serve as holding ponds for excess storm runoff water. Therefore, they should be placed in strategic locations and be harmonious with the topography of the area,

4.5.13 - The City should develop a storm drainage system as the plan (emergency procedures) describes. This is critical because the conventional storm drainage system, based on channeling runoff water to the Bear River is not cost effective. City officials should negotiate with the involved canal companies to provide the necessary agreements to implement this system.

4.5.14 - Storm drainage in the southeast quadrant areas, where most of the available land is developed, is generally collected through the street system and drained by natural slope to the lower areas. Much of this drainage is absorbed by the available open space in the area. The development of this quadrant is more critical than most other areas in the city because of potential high volume run-off. However, small neighborhood parks or holding areas could be developed in the remaining open areas so that the drainage system would function much like the drainage systems in the other quadrant areas.

4.5.15 - In some areas, where the ground level is high and runoff water collects above ground, e.g., along 2200 North Street, the existing system of underground culverts must be continued. The excess water could be drained through open ditch irrigation systems. These systems would be covered in increments as funds for this purpose became available.