

## **CHAPTER 12: Transportation and Circulation**

Buffalo's transportation system has played an important role in the development of the city and will continue to influence the location and intensity of land uses. The capacity of the city's transportation system affects not only the quality of life for residents, but also the ability of Buffalo to attract and retain businesses and industry and maintain its role as the trade and service center of Johnson County. This chapter outlines the development opportunities and limitations presented by Buffalo's transportation resources.

The Transportation chapter presents a long-range transportation plan which attempts to anticipate the traffic needs of the city when developed to 2025 levels. Such long range planning for transportation is required to ensure that adequate road rights-of-way are secured as development occurs. The plan is therefore of necessity only conceptual in nature and should be refined on a regular basis as more detailed information regarding development patterns and transportation demands become available.

The road network is the most extensive part of Buffalo's transportation system. This chapter discusses various aspects of the city's street system.

### **Existing Road Network**

The present road and street system in Buffalo consists of Interstate, state and city streets and roads. Interstates I-25 and I-90 meet at Buffalo. There are two Buffalo exits on I-90, two on I-25. Buffalo is one of only two cities in Wyoming (Cheyenne being the other) where two Interstate highways meet. This is an advantage in connecting Buffalo to other areas of the state and nation.

The location of I-25, while providing convenient access to Buffalo, creates a barrier to the expansion of Buffalo. There are however several underpasses which allow local roads under I-25. These are at King Street, Hart Street, Stockyard Drive and at the I-25 Business Loop that runs in front of the new high school. The underpasses at Hart Street, Stockyard Road and I-25 Business Loop underpasses are wide enough to accommodate three lanes of traffic. The King Street underpass is narrower with turning approaches making it difficult to accommodate two lanes.

Major traffic patterns in Buffalo are monitored by WyDOT (the Wyoming Department of Transportation). WyDOT conducts traffic counts on the highways and major streets in and around Buffalo. The results of the latest published traffic counts (2005) are shown in the 2005 Traffic Volumes Map. According to the WyDOT traffic counts, the most heavily traveled streets in Buffalo are Hart Street, North Main Street and the east end of Fort Street.

Over the past 10 years, there have been significant changes in traffic patterns. The Change in Traffic Volumes 1995-2005 Map shows the percent increase in traffic volumes on major streets and roads over the period 1995 to 2005. The road segments with the

most increase in traffic include I-90 north of Buffalo, US 16 East, and WY 197 south of town. It is also notable that traffic counts on South Main Street through downtown are reported to have declined. This may be significant in terms of the commercial viability of the downtown area. A decrease in downtown traffic may indicate that the downtown is losing business traffic to other areas

## 2005 Traffic Volumes

## Change in Traffic Volumes 1995-2005

## **Traffic Problems**

There is little empirical data on traffic congestion in Buffalo. WyDOT does not routinely study traffic patterns and congestion in cities of fewer than 5,000 people.

The opinion survey conducted as part of this plan asked a number of questions about traffic in Buffalo. Among the survey results are the following:

- ▶ 53 percent of Buffalo voters felt traffic congestion is not a problem in Buffalo while 36 percent felt it is a problem.
- ▶ 59 percent felt traffic congestion is getting worse while 30 percent felt it was not.
- ▶ 80 percent agreed that traffic congestion is a problem only at isolated locations and certain times and is not a problem throughout Buffalo.

The most commonly mentioned locations where traffic congestion is a problem at least part of the time are:

- ▶ The intersection of North Main Street and Fort Street, particularly for traffic heading north on Main and turning west on Fort.
- ▶ The intersection of the Bypass Road and Hart Street.
- ▶ The DeSmet Avenue and Klondike Drive intersections on Fort Street; and
- ▶ The Hart Street and North Main Street intersection.

For 2009, WyDOT is planning an improvement project to Hart Street that will add a third lane to the Hart Street underpass and improve the intersection with the Bypass Road. WyDOT is also planning to add a turn arrow to the traffic signal at North Main Street and Fort Street to help prevent turning traffic from backing up on North Main.

## **Road Maintenance and Construction**

Highways, roads and streets in Buffalo are maintained by several different agencies. WyDOT maintains the interstates, the federal highway (US 16) and the state highway (WYO 196) known locally as Old Highway 87. WyDOT maintains these roads for their entire lengths, both inside and outside the city limits.

Johnson County maintains a number of area roads outside the city limits but near Buffalo; these include the North and South Bypass Road, Cemetery Road, French Creek Road, Klondike Road, Stockyard Road, and Upper Clear Creek Road.

The City of Buffalo maintains all other public streets within the city limits. The City also has the responsibility of setting street construction standards for new subdivisions within the city as well as for those within one-mile of the city.

Standards for subdivision streets are contained in Chapter 21 of the Buffalo Town Code. The code requires new subdivision streets to be paved with “oil mat” or concrete. The curb to curb width of the street ranges from 34 to 48 feet.

These are wide streets and they have some advantages including ability to handle relatively high traffic volumes at fairly high speeds and plenty of space for parking. Wide streets have significant disadvantages including: higher construction cost (which can get passed on to lot buyers), higher maintenance costs, less land in private ownership, and encouraging speeding in residential areas. Subdivision streets can be narrower without sacrificing their function as local streets. Recommended widths range from 22 to 36 feet depending on the anticipated traffic volume.

### **Existing Transportation Plans**

The 1975 Buffalo Comprehensive Plan is the only transportation plan that exists for Buffalo. The plan envisioned a number of new major roads. Chief among those is a western bypass running from Old Highway 87 near Airport Road, then swinging west to follow the route of Upper French Creek Road, then down to US 16 West near the city water treatment plant, then across Clear Creek and over to Old Highway 87 again south of Twin Lakes.

The 1975 plan also included a number of smaller “thoroughfares” which were to connect the western bypass to the “interior” of the city. These major connectors were to include Upper Clear Creek Road, Klondike Road and a southward extension of Burritt Avenue in southern areas. French Creek Road and North Main Street were to be the principal connections in north.

I-25 was intended to be a continuation of the bypass, forming an outer loop completely surrounding the city. This was called the “circumferential loop” in the plan. The 1975 plan intended that as land is subdivided for development, street rights-of-way would be secured in suitable locations in accordance with the plan. Practically none of the circumferential loop plan has come into being since it was originally proposed 32 years ago. This is no doubt partially due to the extraordinary expense that would be involved in building so much new road.

### **Future Transportation Plan**

A new transportation plan is a necessary part of planning for the growth and development of Buffalo. Presently, much of the older parts of Buffalo have the traditional grid system street layout. The grid system, with its short blocks and straight streets, has the advantage of dispersing traffic rather than concentrating it at a few locations.

In contrast is a newer street system design based on a branching layout that typically includes many cul-de-sac streets that empty on to major “collector” roads. Roads in the newer system tend to have larger blocks, curving streets, and fewer interconnections.

The advantages of the newer system include keeping traffic out of neighborhoods. The newer system, by not using a rigid grid, allows the design of developments to go around or avoid important natural areas or features like steep slopes. However, the newer road

system concentrates traffic on major streets and intersections, giving traffic fewer route choices and concentrating the adverse impacts of traffic.

For future transportation planning in Buffalo, it is best to strive for a balance between the two types of street layouts. That balance can be struck by having major through-streets located no further than one-half mile apart.

The new transportation plan presented here is premised on the following:

- ▶ All land planned for future urban land use should be within one-half mile of a major through-street. Keeping major new through-streets this closely spaced gives the new areas many of the traffic advantages of the traditional street grid system.
- ▶ The plan should be adequate to accommodate future growth that is anticipated during the planning period ending in 2025.
- ▶ The plan should be achievable with respect to the City’s administrative and financial capabilities.
- ▶ The plan should seek to meet the transportation needs of new developments without promoting unnecessary outward expansion of the city or a sprawling growth pattern.

The new transportation plan is depicted on the Future Roads and Land Use Map. The map shows the general location of proposed new routes. The map locations are conceptual and are not intended to be the exact route of future through-streets. The following table provides additional information concerning each route shown on the Future Roads and Land Use Map.

<b>ROUTE</b>	<b>ROUTE PURPOSE</b>	<b>LENGTH (MILES)</b>	<b>STATUS COMPARED TO 1975 PLAN</b>
A	Connects US 16 East to existing street in Buffalo Commerce Center Addition	0.5	New route proposal
B	Connects to exiting street in Buffalo Commerce Addition to future street segments #3 and #4.	0.2	Similar route in 1975 plan
C	Connects US 16 East to planned mixed use and industrial areas; Provides main street access to these areas; Completes the loop from east to west sides of Buffalo Commerce Park Addition.	0.4	Similar route in 1975 Plan
D	Provides minor access via King Street underpass; Underpass should be enlarged if street is to accommodate a significant	0.5	Similar route in 1975 Plan

	traffic volumes.		
E	Connects French Creek Road to North Main Street.	0.1	New route proposal
F	Connects French Creek Road to North Main Street.	0.1	New route proposal
G	Connects French Creek Road to Fort Street.	1.0	Similar route in 1975 Plan
H	Connects Fort Street to Klondike Road	1.0	Same route in 1975 Plan
I	Connects Klondike Road to Old Highway 87 south of Buffalo	1.2	New route proposal
J	Hamilton Street extension to connect to South Bypass	0.3	New route proposal
K	Extends I-25 Business Loop to connect with planned road segments #12 and #13	0.4	Similar route in 1975 Plan
L	Connects I-25 Business Loop to Stockyard Road.	0.6	Similar route in 1975 Plan
M	Provides access to planned residential area	0.4	New route proposal
<b>TOTAL</b>		<b>6.8</b>	

### **Transportation Recommendations**

Buffalo's present and future transportation system would benefit by acting on the following additional recommendations:

- ▶ Prioritize street system improvements and include them in a Capital Improvements Program. Capital improvements are city projects such as major construction projects, land purchases or expensive equipment purchases of a non-recurring nature. A capital improvements program is a schedule of all such projects to be carried out. The schedule prioritizes the projects, includes cost estimates for each project and identifies the funding sources. Usually, the schedule includes projects for five years into the future.
- ▶ Have developers provide off-site street improvements including pro-rata share contributions for future street improvements in appropriate city development regulations. City development regulations should require that developers fund improvements to existing streets leading to their developments when the development creates the need for the improvements.
- ▶ Revise city development regulations to include updated public road standards. The City's development regulations are out-of-date with regard to road standards. As part of revising these regulations, the City should strive to keep new streets as narrow as possible.



- ▶ Use cluster development and sound barriers to mitigate I-25 traffic noise in future residential areas near the Interstate. Cluster development uses smaller lots and building setbacks to concentrate homes and lots on portions of the development site. This allows areas within the development to remain undeveloped and be used for recreation or open-space. This reserved land is public or owned by all the homeowners in the development. In the case of developments near I-25, this technique can be used to create a noise buffer space between housing and the Interstate. The use of highway noise barriers should also be considered where they would improve the livability of housing sites.
- ▶ Allow reverse lotting in new subdivisions. For residential developments along major roads, reverse lotting can mitigate noise and traffic impacts. Reverse lotting is where lots that are along the major road back up to the major road and the fronts of the lots face a smaller street inside the development and area accessed from the smaller street. Often reverse lotting includes a landscaped buffer area and/or solid fencing between the homes and the major street. City regulations should allow this type of lot layout.
- ▶ Use traffic calming techniques on existing streets whenever possible and especially when new development might increase traffic volumes in existing residential areas. Traffic calming is a set of techniques which serve to reduce the speed and aggressiveness of traffic. These techniques include lane narrowing, on-street parking, sidewalk extensions into the street, street surface variations (different paving materials for protected areas), traffic circles and street markings. Traffic calming is often used on existing streets but can also be designed into new streets.

### **Pathways – Trail Plan**

Chapter 8, Community Resources, gives a description of the Clear Creek Trail System. Briefly, the pedestrian and bicycle trail system extends about four miles west of Buffalo and allows trail users to access parks, open space, and ball fields. The Northwest Greenbelt is an 18.6 acre open space in the northwest part of town that is a partially reclaimed landfill.

The trail system is well used and stands out as a special feature of Buffalo, serving as an attraction for residents and visitors alike. In order to build on the success of the trail system, the City is in the process of developing a trails master plan. This is critical to the timely expansion of existing trails and for the designation of future routes. By having the proposed routes identified as soon as possible, landowners will be made aware of the City's plans to develop new paths. Steps necessary to develop future paths will include the need to acquire easements from willing donors or sellers, as well as requiring developers to add paths and trails as part of their proposed developments.

During the November open house, an aerial map was available for the public to mark where they believed new trails and paths should be located. Comments and locations raised at the open house are:

- ▶ Obtain hiking/biking right of way along French Creek Rd.
- ▶ Take a serious look at the river-walk possibilities along Clear Creek in the City core.
- ▶ Use road rights of way for paths along portions of Klondike Rd., S. Bypass Rd., N. Main, Rock Creek Rd., and Johnson Creek Rd.
- ▶ Develop paths on ridge tops west of Buffalo and along the creek east of Buffalo.
- ▶ Create a trail that begins at the terminus of Veteran's Lane and heads west to the ponds.
- ▶ Develop off-road paths and trails south of the City.