

City of Clifton Community Development Plan

SECTION 7 - Streets

INTRODUCTION

The livelihood of a community is, to a very large extent, dependent upon convenient and efficient access to nearby major trade centers outside the city, major national travel routes and transportation terminals of national importance outside of the city. It is likewise dependent upon efficient circulation of people within the city. Local streets and roads should provide safe, reliable access to work, schools, shopping and residences. A street network, therefore, is of vital importance as it ties a community together and links it to the outside world.

The primary function of a street network is the safe and efficient movement of vehicles and people. The street network of any city operates, in effect, as the skeleton of that city, providing access in varying degrees to all properties abutting the network. Thoroughfare and other rights-of-ways occupy approximately 15% of Clifton's total developed area and allow for circulation between all areas within the city. In addition to moving traffic, streets provide: access to and drainage for abutting properties; open space between buildings; and right-of-way for various utilities. In this way, the street network is a primary factor in the determination of appropriate land use locations.

The condition of the streets in a city are, perhaps, the item most noticed and for which the city receives the most criticism. While the average citizen cannot see breaks in the wastewater lines or know that an area needs more water storage capacity, they are very aware of the condition of the roads, especially ones near their homes or ones that are in most need of work. Any street problems affect them daily, and can be very aggravating as well as potentially harmful to both themselves and their automobiles.

If adequate facilities are constructed, they can represent the largest single required expenditure of a city because problems within the street system are some of the most complex and costly to repair. The condition of the roads is affected by many factors: the quality of the original road base and pavement surface; the maintenance on the roads needed to seal cracks and prevent water from soaking into the road base; drainage conditions in the area (related to topography); and the city's ability to afford needed improvements. In order to permanently repair the roads to proper standards, many

roads must: be raised or lowered to improve drainage; have additional right-of-way purchased; have improved drainage facilities installed; or have adequate road materials used. All this involves an intensive process.

While most of the streets in Clifton are in either good or fair condition, several are in need of immediate attention. Higher priorities such as upgrading the water and sewer systems have prevented the city from making all of the necessary repairs. All of the paved roadways consist of asphalt and many have curb and gutter. Most roadways appear to have adequate pavement widths and right-of-way.

Before beginning major improvements to roadways, it is essential that the city have a street system conditions plan in place. This Street Plan will help ensure that streets in the existing developed areas of Clifton are improved in a uniform and orderly manner. It is through such a plan that completed city projects will provide maximum benefits and will become an integral part of the future city. This should assist in the elimination of duplicate expenditures and assure that possible early obsolescence of improvements can be avoided.

STREET SYSTEM INVENTORY

PRIOR STUDIES AND EXISTING DATA

There have been no previous studies conducted on the Clifton Street System.

A new inventory survey was conducted in November of 2006 to determine the present condition of all streets and to identify the street system in and around the City of Clifton. The survey included all streets within the city and rated each in terms of suitable right-of-way, pavement width, pavement conditions and pavement composition. Using these standards, streets were classified as being one of four types:

- Type A:
Asphalt surface in good condition. (Occasional high quality patches from utility repairs).
- Type B:
Asphalt surface in fair condition. (A few patches, extensive surface cracking or alligating and a few deflections in the asphalt).
- Type C:
Asphalt surface in poor condition. (Numerous patches, cracking or alligating of the surface, which indicates base failure and severe potholes).
- Type D:
Unimproved roadway consisting of dirt or gravel.

This road assessment classified roads according to traffic load. The intent was to prioritize roads for improvements according to the roads that carry the heaviest traffic. This concept was based on the idea that streets with the greatest traffic should be improved first since the money spent will affect the greatest number of people.

Streets classified as fair may have appeared to be in good shape on the surface. However, surface cracks and ragged edges along the roadway often indicate impending failure of the road base due to moisture intrusion. Consequently, these streets were classified as fair. Normal road traffic and rainwater will gradually erode the street pavement until major repair work is needed to make the street safe and usable.

This classification scheme identified streets that were nearing failure so that the city might be able to repair the street before total reconstruction was necessary and identified streets that were in immediate need of reconstruction. The longer repairs or proper maintenance are deferred, the more expensive it will be to repair a roadway to standard condition.

Furthermore, a street classified as being in good condition does not mean that no action needs to be taken. Instead, most streets classified in good condition, unless new pavement has been laid recently, are good candidates for a process known as "seal

coating." Seal coating is a temporary maintenance measure that "seals" the road pavement with a coated or unbolted rock. This protects the pavement from the adverse effects of use and weather and prolongs the life expectancy of the road surface and prevents deterioration of the road base. Preventive measures protect the road base and can save money because it costs more to repair the roadway after both the pavement and road base have begun to deteriorate.

TYPES OF STREET IMPROVEMENTS

There are several different methods of maintaining streets within a city. The appropriate choice will depend upon the condition of the roadway, the anticipated traffic load and available funds.

Generally, paving improvements utilize either a Hot-Mix Asphaltic Concrete (referred to as HMA) or Asphalt Penetration (one course or two course surface treatment). The hot-mix asphaltic concrete road surface consists of a mixture of asphalt and aggregate. This type of asphalt is prepared at an asphalt batch plant, taken to the job site, and laid by street paving contractors. The asphalt is then compacted to a depth of 1-1/2 to 2 inches on a eight to ten inch crushed limestone road base which had been specially prepared. Hot-mix asphaltic concrete is generally expensive. However, its durability and relative ease of installation makes it the required type of surface pavement in most communities.

Asphaltic penetration is generally used for road maintenance or where a community cannot afford the hot-mix asphaltic concrete. Usually, asphalt penetration is used by communities to renew the pavement where the road base is still in good shape. Asphalt penetration is applied on a roadway by spreading oil on either an exposed road base or on an existing roadway. A gravel or aggregate is spread over the oil and rolled flat. On new roads, two courses of asphaltic penetration may be used. Asphaltic penetration is considered a short- term solution for extending the life of a road until the community can afford to make the proper road improvements.

The specific types of improvements normally utilized include:

- Point Repairs: Excavation of failed pavement sections to a depth of eight inches, back-filled with eight inches of crushed limestone stabilized with 2% cement, primed and sealed with a coarse surface treatment. (Used to treat potholes and other imperfections and roadway hazards.)
- Level-up: Leveling of depressions in pavement with hot mix asphaltic concrete (HMAC) or hot mix/cold laid asphaltic concrete. (Used to even out roadway surface)
- Seal-Coat: Application of asphalt cement and covered with pre-coated aggregate at one cubic yard of aggregate per 90 square yards. Aggregate is rolled after application. (Ideally, used once every three to five years to maintain streets and forestall more costly repairs.)
- Overlay: Depending on the severity of wear, approximately one inch of surface is milled off the existing roadway. The remaining surface material is then overlaid with a minimum of 1.5 to 2 inches of hot mix asphaltic concrete (HMAC) or hot mix/cold laid asphaltic concrete, followed by a surface treatment. (Used to completely replace the surface material of a street to address pavement deterioration and extend street life.)
- Reclaim: Mill existing base and asphalt materials to a depth of six inches, add water-based emulsified asphalt to create a recycled asphalt-enhanced roadway base. A two-course surface treatment or asphalt cement is then applied and covered with pre-coated aggregate. The aggregate is rolled after each application. (Streets receiving this treatment will last 12 to 20 years, depending on the traffic load and environmental conditions.)

Curb and gutter is recommended for all streets, as stated by the city's subdivision ordinance. In addition to improving the appearance of the area, curbs and gutters help alleviate the problem of moisture seeping through the pavement and into the road base. Extensive deterioration of the road base often leads to a condition termed "alligating" which is the cracking of the pavement as a response to the road base failure.

A very effective and economical method of base preparation on existing streets is Pulver-Mix (Street Reclamation) which scarifies existing pavements, existing base and some sub-base to form a uniform mix to a depth of 6"- 8".

Reinforced concrete is usually the most expensive method of street construction and typically consists of 6" – 8" of reinforced concrete. While this pavement has a high initial cost, it is often the most cost effective due to low maintenance. High axle loads often require concrete to be placed in and near intersections to eliminate asphalt creep associated with stop and go truck traffic.

STREET SYSTEM ANALYSIS

GENERAL STREET STATISTICS

Within the city, traffic control primarily consists of stop signs. Four stoplights exist in the system at the following intersections:

- ❑ 4-way stop – State Highway 6 and Farm to Market 3220.
- ❑ 4-way stop – State Highway 6 and Farm to Market 219
- ❑ 1-way stop – State Highway 6 and W. 15th Street
- ❑ 2-way stop – Farm to Market 219 and Hillside Drive

STREET CONFIGURATION

The streets in Clifton function as either arterial, collector or local streets. An arterial street is a primary traffic carrier, usually providing access between cities with traffic volumes in excess of 1,000 vehicles per day. Parking on these streets is generally not permitted. State Highway 6, Farm to Market 219 and Farm to Market 3220 presently function as the only arterials in the city.

Collector streets collect traffic from residential areas for distribution to arterial streets. Parking is generally permitted on these streets. Traffic volumes typically range from 100 to 1,000 per day. The major collector streets in the city, which provide access to the businesses and schools in Clifton are; W. 11th Street, W. 13th Street, W. 15th Street, S. Avenue J, S. Avenue Q, N. Avenue Q. W. 3rd Street, Pecan Street, Hackberry Street, Avenue D, Avenue E, and Avenue F.

The remaining streets in Clifton function as local streets, which generally provide access to adjacent property. Through traffic is normally discouraged and on-street parking is normally permitted. Traffic volumes are normally less than 200 vehicles per day.

The geometric configuration of the city's street system is adequate to meet all current vehicle circulation demands.

TRAFFIC COUNTS

Traffic counts help city, county, and state transportation officials determine traffic patterns and changes in road usage and can help determine the increases in traffic volume and movement through the area. By monitoring the traffic counts, the city and state can plan for growth and expansion of the local roads before the increased traffic begins to rapidly deteriorate the roadways and cause traffic congestion. Traffic counts on roadways show usage over a 24-hour period, establishing demand and providing information to plan future improvements.

The most recent (2004) traffic flow counts for major roadways in Clifton were obtained the Texas Department of Transportation (TXDOT) and have been illustrated in Figure 7.1.

UTILITY EVALUATION:

Evaluation of the condition of the utilities within a street is extremely important in assessing the type and cost of street repair anticipated. Consequently, accumulated data from the city's 2006 Sanitary Sewer and Water Plans, including electronic maps, was utilized to assist with the preparation of this study. It is anticipated that some streets

may require major water and sewer repair which would consist of replacing the main in the street and reconnecting it to pipes which cross and reattaching new services and lines to customers along the street.

DRAINAGE

The topography of the city slopes from southwest to northeast. Storm water generally drains to the Bosque River, which borders the city on the east. Many of the streets are utilized as conduits for storm water drainage. Generally, the street system was constructed with an adequate drainage system to remove storm water runoff. The major problems appear to be

- In the northeastern portion of the city – During periods of heavy rain, two (2) low water crossings overflow, requiring some minor road closures. Two (2) bridges will need to be constructed to resolve this problem.
- Along Riverside Drive – When the Bosque river overflows, portions of the road must be closed. Because the area is in a 100-year flood plain, some flooding is to be expected.

EXISTING ROADWAY REPAIR/MAINTENANCE

Clifton currently budgets approximately \$180,000 each year for maintaining the street system, all of which comes from the General Fund. These funds are used for general repairs and/or resurfacing. In 2007, however, council allocated an additional \$500,000 for repaving.

ROADWAY CHARACTERISTICS

Data was collected for all streets in Clifton in November 2006. The results of the survey, graphically depicted in Figure 7.1 and detailed in Appendix 7.1, indicate:

- The majority of streets are in good or fair condition;
- Some intersections have no traffic controls;
- There are a few sections of unpaved roadway;
- Several streets are in need of immediate attention;
- Many streets are experiencing alligatoring or fatigue cracking and longitudinal or transverse cracking;
- Utility line repairs appear on several sections of roadway;
- There is a lack of a drainage system (curb and gutter) along some street sections;
- Potholes and patches exist in several areas of the street system;
- Grass has encroached some sections of roadway;
- Access to some of the ground water storage tanks needs to be addressed;
- Pre-mature weather damage has affected some roadways;
- There is a small underground drainage system along State Highway 6 and Farm to Market 219;
- Some intersections have little or no street identification signage;
- Most streets have sufficient rights-of-ways but some have inadequate pavement widths;
- Some streets are dead-ended; and
- Many streets within the city have never been fully opened.

DEFICIENCIES

The results of the data from the above street survey combined with data obtained from the City of Clifton were utilized to identify deficiencies in need of remedial action. These are ranked below, according to priority of need:

1) Street Paving:

While the majority of the streets in the city are paved and in fair to good condition, many are in need of attention. Some require asphalt overlay, while others need total reconstruction. There are also a few sections of roadway which have never been paved.

2) Seal Coating:

Several of the streets in the city need to be sealed to prolong their life until re-paving can be accomplished. Potholes and cracked pavement appear on many of the city streets. (No seal-coat program exists). Other sections have recently been paved and need to be sealed to maximize their lives.

3) Traffic Controls:

A few intersections within the city have no traffic controls established. This configuration could pose a traffic hazard.

4) Street Signage:

While street signs were recorded at most intersections in the city, some had faded signs while others had no signage at all. This poses a traffic circulation hazard and makes it difficult for emergency care providers as well as utility service providers to find the necessary locations by way of street signs.

5) Drainage:

The city does not pay for curb and gutter construction, rather, they require benefiting residents to pay. Consequently, there are many sections of roadway which do not contain curb and gutter. This contributes to premature street deterioration and allows storm water to enter some residential yards.

6) Dead-end Streets:

Some streets in the city dead-end at undeveloped properties or unopened streets. This adversely affects vehicular circulation. As development occurs adjacent to these streets, either the roadway should be extended or a cul-de-sac provided. This could be addressed through the subdivision process.

7) Closed Streets:

Streets, which have previously been platted but never opened, exist in a few areas of the city. These should be abandoned and re-platted at a later date when new development plans are submitted to the city. Necessary streets in the area can then be developed in a comprehensive manner. The platting of new streets could be done during the subdivision process.

If the deficiencies outlined above are addressed, the primary roadway problems will be eliminated. The remaining streets in the city which are State Highways, County and Farm to Market Roads, will continue to operate effectively within their design and function classification.

STATE IMPROVEMENTS

The Texas Department of Transportation (TXDOT) controls several roadways within the city and, consequently, is responsible for ensuring the adequacy and the quality of each. At the time of this study, there were no projects planned in Clifton:

PLAN AND RECOMMENDATIONS

PURPOSE

The purpose of the Street Plan is to assist the city in appropriating public funds in a manner which maximizes benefit. The plan identifies those street improvements, which are needed in order to provide an efficient transportation system in the city. Standards for street rights-of-way and paving widths can be set forth by way of a subdivision ordinance. These standards may change from time to time as Clifton develops.

GOALS AND OBJECTIVES

The following goals have been established by the city for the development of a viable street system:

GOAL 1: DEVELOP A PLAN FOR FUTURE TRAFFIC CIRCULATION.

OBJECTIVE 1.1:

As necessary, extend the paved streets to developed areas of the city.

OBJECTIVE 1.2:

Document the enforcement of the city's subdivision ordinance, which requires developers of residential subdivisions to construct streets according to specifications. Since the city assumes responsibility of maintenance of the streets upon completion, it is in the city's best interest to ensure consistency of quality and design throughout the city. Details such as minimum right-of-way and pavement widths, construction of curb and gutter, and cul-de-sac diameters are set by the city and are essential for consistency and quality of the future city.

In addition, the ordinance will require that the developer consult the city's thoroughfare plan to coordinate the developer's plans with the proposed routes for future roads in the city, providing the city with needed right-of-way. This is important, as it affords the city access to the property for road construction at a later date. If development occurs in

areas that are intended to be the route of a road, then the city could be faced with the problems and cost of purchasing the land and destroying any buildings.

OBJECTIVE 1.3:

By the end of 2007, develop and adopt a thoroughfare plan for future major and minor arterials. By designating the location of future thoroughfares in conjunction with zoning/future land uses, the city can require that developers dedicate right-of-way through proposed developments. When purchasing or platting property, developers can refer to the plan to clearly understand what is required. During review of plats and plans for all types of development, the city must carefully ensure that proper right-of-way locations and widths are dedicated.

GOAL 2: CONTINUE TO MAINTAIN THE CITY'S EXISTING ROAD SYSTEM.

OBJECTIVE 2.1:

Street maintenance should be a continuing program. All streets to be paved should be widened to at least 20 feet and should be chip-sealed within one year after paving. Likewise, all intersections needing attention should be addressed. Roadways, which encounter unusually heavy vehicles such as garbage trucks, should be constructed to properly handle the loads placed upon them.

OBJECTIVE 2.2:

By the end of 2009, complete all projects recommended in the first five years of this plan.

OBJECTIVE 2.3:

Before the end of 2011, initiate a seal-coating program. This would include annually appropriating funds to seal-coat selected sections of roadway based upon condition and traffic load.

OBJECTIVE 2.4:

Ensure the longevity of re-paved streets by sealing within one year after re-paving and again at six years. This will prolong the life of asphalt roads, which will minimize the need for costly repairs.

OBJECTIVE 2.5:

Consider initiating a grass maintenance program. Here, a one (1) foot “kill zone” is established and kept clean through the periodic application of some type of herbicide spray. This program must be done on all streets without curb and gutter at least twice during the growing season.

OBJECTIVE 2.6:

A drainage system consisting of curbs and gutters is the ultimate drainage solution for localized drainage. The city should continue to install curb and gutter as finances allow. Since curbs and gutters do not exist in all areas of the street system, adequate bar ditches and culverts need to be provided to eliminate the potential for premature street surface erosion and flooding.

OBJECTIVE 2.7:

By the end of 2011, consider initiating an “Adopt a Street” program. Such a program may reap benefits beyond keeping a particular street clean. As individuals become involved in cleaning up litter, they often become more aware of the necessity of not littering themselves.

GOAL 3: IMPROVE STREETS TO ACCEPTABLE CONDITION AND PROVIDE PROPER ROAD CONSTRUCTION AND SIGNAGE

OBJECTIVE 3.1:

By the end of the year 2007, begin investigating alternative sources for funds to perform improvements. Since there are no grant funds available for road improvements, the city should establish a fund with an annual allocation for the purpose of making street and/or drainage improvements (this fund should be separate from a seal-coat fund). After

several years, the fund will be able to finance projects, which have been identified and prioritized in this Street Plan. Since the City of Clifton is capable of incurring additional debt, the issuance of bonds to pay for the needed repairs should be considered.

OBJECTIVE 3.2:

Throughout the planning period, increase transportation access and safe, convenient movement of motor vehicles, bicycles and pedestrians by: re-paving streets in need; ensuring streets being used as collectors stay at a full collector pavement width (40 feet); and providing lighting and signage to assure high levels of public safety and awareness, particularly around schools and highway access points.

OBJECTIVE 3.3:

Throughout the planning period, monitor state and county maintenance programs that affect arterials and collectors in Clifton for upcoming maintenance programs and funding assistance by incorporating maintenance of State Highways, Farm to Market Roads, Interstate Highways, U.S. Highways and all other county roads into future State Transportation Improvements Plans (TIP) and County rehab/reconstruction projects.

OBJECTIVE 3.4:

By the end of the planning period, ensure appropriate traffic control devices are installed at all intersections in the city. The city should first study their sign ordinances and then verify that each intersection for which traffic control signs are authorized has been properly signed and the signs are in reasonably good condition. It should be noted that each traffic control sign must have an ordinance authorizing the erection of such traffic controls. The police department could be assigned the responsibility of canvassing the city to document the presence and condition of the signs at each intersection. With this information in hand, the city will be in a position to confirm that authorization exists for each control device, and to establish priorities and embark on a replacement or refurbishing program.

OBJECTIVE 3.5:

As necessary, street signs should be added, repaired, or replaced to prevent the potential for vehicle accidents. Street signs should be installed at all intersections to assist with emergency response and general navigation within the city. Street intersections in the city having no form of name identification will require new street signage. Additionally, street signs in poor condition should be repaired or replaced. The cost for each sign is approximately \$100, which includes the cost of the sign and installation. The anticipated source of funding for street condition improvements should be from the local general fund or from economic development sales tax funds. This cost could be significantly reduced if appropriate street signs were constructed in high school shop classes and installed by local civic groups on a volunteer basis. The city should install approximately 10 signs per year until all intersections have received signage. Highest priority should be given to the arterial and collector streets.

GOAL 4: IMPROVE CURRENT TRAFFIC CIRCULATION

OBJECTIVE 4.1:

Some platted, but unopened streets exist in the city. Before the end of the planning period, the city should consider formally abandoning these streets, and, if necessary, re-plat as these areas develop.

OBJECTIVE 4.2:

A few streets within the city are dead-ended. This limits circulation and could affect emergency access. As development occurs adjacent to these streets, either the roadway should be extended or a cul-de-sac be provided.

OBJECTIVE 4.3:

All streets with substandard widths should be widened. This could be accomplished through subdivision platting and process and by the adoption of a thoroughfare plan. The subdivision ordinance would ensure that future street construction recognized desired standards for both right-of-way and pavement width. The thoroughfare plan would recognize primary streets in the city as being important to circulation and enable

the city to acquire additional right-of-way as adjacent development or platting occurred. Gradually, substandard streets could be improved to ensure adequate circulation. This would be an ongoing process.

RECOMMENDATIONS

The most important consideration when developing a plan for street rehabilitation is to ensure that all plans for roadway construction also include plans for drainage improvements. In Clifton, as in most small towns, roadways serve as a major route of storm water removal from the city. Any future plans for road reconstruction must consider the size and slope needs for drainage ditches or the potential construction of curb and gutter as part of an underground storm sewer system. Any program for street improvements without drainage improvements would be futile because of the potential damage to either system from improper design and installation.

The city should also adopt specific street section designs based on the classification of the roadway. Different rights-of-way widths, pavement widths, base thicknesses, curb and gutter and sidewalks, are required for roadways that are expected to serve differing levels of traffic. For example, a four-lane roadway with a center turn lane that is expected to provide access to a major subdivision could require 100 feet of right-of-way while a residential road might require only 50 feet of right-of-way. This is especially useful when enforcing street quality standards and minimums for residential subdivision developments.

To prepare for future development, the city should also consider which roadways would serve the city best as collector or arterial streets. As new residential development begins within the city limits and the extraterritorial jurisdiction, the city can require as a condition of plat acceptance that the developer dedicate right-of-way to the city to construct future roadways that will serve the city and new development. By pre-determining which routes would best serve as thoroughfares in the future, the city can ensure that no development takes place in the ideal location or within the right-of-way needed for the expected size of road.

If several years lapse before projects are undertaken, a new assessment may be necessary to ensure that data is current. Weather, increased traffic due to growth, new commercial and industrial development and changes in city maintenance practices can change the recommendations made in this report. Ideally, street maintenance and repair plans should be reviewed annually to adjust for cost and changes in the road conditions.

Proposed improvements were based on the street analysis, focusing on the improvements that are most in need or will benefit the most people. High priority projects including highly traveled roadways in poor condition or first-time paving should be considered as soon as the city is able to finance the repairs. Typically, roads with the greatest traffic should be improved first since a larger number of people will benefit from the limited tax dollars available. This excludes the state and county roads since they are maintained by the respective entity. For this plan, improvements are phased over a five-year span, though some projects may take longer or shorter than the given time. Phasing of improvements is designed to help minimize the financial impact on the community, while still realizing the need to make necessary improvements.

PLAN

YEAR 1 – 5

Projects for the next five years are detailed along with the estimated cost of each project. Figure 7.2 illustrates the locations of all recommended improvements to the street system.

Phase I (2007 – 2008)

Repave the following street section:

<u>Location</u>	<u>From</u>	<u>To</u>
N. Avenue F	Maple Street	north to end

Cost: \$15,000

Phase II (2007 – 2008)

Repave the following street section:

<u>Location</u>	<u>From</u>	<u>To</u>
W. 13 th Street	Hillside Drive	Sunset Avenue

Cost: \$10,000

Phase III (2008 – 2010)

Extend W. 17th Street to new subdivision approximately 1,300 feet west of S. Avenue Q.

Cost: \$25,000

Phase IV (2007 – 2009)

Improve access to ground water storage site north of Ridgeview Street. Options include:

1. Reconstructing existing access road
2. Acquiring right-of-way to construct a new road in a different location.

Cost: \$50,000

YEAR 6 - 20

By year ten (10), the city will need to extend White Street to a new subdivision to the west and ensure all intersections have appropriate traffic controls and signage.

For the remainder of the planning period: roadways in fair to good condition should be seal-coated; roadways in poor condition should be reconstructed; all unpaved roads should be paved; additional curb and gutter should be provided throughout the city; the abandoning of unopened streets should be considered; and all dead end streets should have cul-de-sacs. Priority of all projects should be given to roadways serving as collector streets.

It should be noted that while overlay is a viable solution for repairing damaged roadways, it is most effective when done on streets with properly constructed bases. If, for example, a street improperly constructed to handle heavy vehicles is overlaid, it can be expected that continued traffic of this type will accelerate premature roadway damage. Therefore, it is recommended that before overlay is initiated, proper base construction be ensured. This way, maintenance costs will be reduced and the longevity of the roadway will be ensured.

POSSIBLE FINANCIAL SOURCES:

The city should aggressively pursue these, and any other funding sources, available to assist in providing necessary street improvements.

- ✓ City General Fund
- ✓ General Obligation Bonds
- ✓ City Street/Drainage Fund
- ✓ Special Fees/User Fees

ADDITIONAL FINANCIAL SOURCES

- ✓ Grants through the Office of Rural Community Affairs/Texas Community Development Program can be used to re-pave and repair streets. However, while streets are eligible, it is unlikely that a street project alone would be funded. Therefore, it might be possible to incorporate some street work into another, more fundable activity such as water line or sewer line construction where streets must be torn up to bury line.
- ✓ Individuals who are required to perform community service can often be utilized to do some of the required labor. Often times, this can be accomplished by participating with local governmental units such as the county judicial system.
- ✓ The Texas Department of Transportation has a program designed to maintain and improve U.S. Highways, State Highways and Farm to Market Roads within the city limits.

- ✓ Texas Department of Transportation (TXDOT) also has a landscaping cost sharing program through which the department will provide landscaping materials up to 50% of the project cost. The city's contribution may be in-kind in the form of installation of materials. The city must provide the design plan for approval by the department over and above the city's in-kind contribution. Finally, the city must commit to maintaining the landscaping improvements.
- ✓ Loans from the Texas Department of Agriculture. These low interest loans can be utilized in place of bank loans and the issuing of bonds.

APPENDIX 7.1
CITY OF CLIFTON
STREET SYSTEM INVENTORY

<u>NAME</u>	<u>SECTION</u>	<u>WIDTH</u>	<u>RIGHT-OF-WAY</u>	<u>CURB & GUTTER</u>	<u>CONDITION</u>
Alfa Place	all	30	60	Yes	Poor-Gravel
Bishop Street	all	16	30	No	Good Asphalt
Center Street	all	20	55	Yes	Good Asphalt
College Hill Drive	all	30	30	No	Good Asphalt
E. 19th Street	State Hwy. 6 to Ave. F	30	60	No	Fair-Asphalt
E. 7th Street	E. approx. 300' from Ave. E	50	70	Partial	Good Asphalt
E. 7th Street	300' E. of Ave. A to wastewater treatment plant	18	70	Partial	Fair-Asphalt
E. 9th Street	all	50	70	No	Fair-Asphalt
Elm Street	all	16	60	Yes	Fair-Asphalt
Farm to Market 219 / W. 5th Street	all	48	80	Partial	Good Asphalt
Farm to Market 3220	all	35	80	No	Good Asphalt
Hackberry Street	Ave. R to Ave. Q	22	50	Yes	Fair-Asphalt
Hackberry Street	Ave. Q to Ave. J	40	80	Partial	Fair-Asphalt
Hackberry Street	Ave. J to Ave. H	50	80	Yes	Fair-Asphalt
Hackberry Street	Ave. H to State Hwy. 6	40	80	No	Fair-Asphalt
Hackberry Street	State Hwy. 6 to Ave. F	30	80	No	Fair-Asphalt
Hackberry Street	Ave. F to Ave. D	24	80	Partial	Fair-Asphalt
Hackberry Street	Ave. D, E to end	18	80	No	Poor-Asphalt
Hillside Drive	5th St. to 9th St.	48	60	Partial	Good Asphalt
Hillside Drive	9th St., S to end	24	40	Partial	Good Asphalt
Julie Street	all	40	50	Yes	Good Asphalt
Key Avenue	all	22	60	No	Good Asphalt
Knoll Drive	all		40	No	Poor-Gravel
Krueger Street	17th St., S to end	30	50	Yes	Good Asphalt
Krueger Street	17th St., to 13th St.	30	50	Yes	Fair-Asphalt
Live Oak Street	Ave. M to Ave. J	24	80	Partial	Good Asphalt
Live Oak Street	State Hwy. 6 to Ave. D	24	80	Partial	Good Asphalt
Live Oak Street	Ave. D, E to end		80	No	Poor-Gravel
Maple Street	Ave. Q to Ave. N	30	80	Partial	Good Asphalt
Maple Street	State Hwy. 6 to Ave. F	22	80	No	Good Asphalt
Mary Boulevard	Ave. R to Ave. Q	22	80	Yes	Fair-Asphalt
Mary Boulevard	Ave. Q to Ave. R	42	80	Yes	Fair-Asphalt
Mary Boulevard	Ave. O to Ave. H	42	80	Partial	Good Asphalt
Mary Boulevard	Ave. H to State Hwy. 6	22	80	No	Good Asphalt
Mary Boulevard	State Hwy. 6 to Ave. F	22	80	No	Fair-Asphalt

<u>NAME</u>	<u>SECTION</u>	<u>WIDTH</u>	<u>RIGHT-OF-WAY</u>	<u>CURB & GUTTER</u>	<u>CONDITION</u>
Mimosa Street	all	24	50	Partial	Fair-Asphalt
Moore Street	all	18	30	No	Poor-Asphalt
Myrtle	all	48	85	Yes	Good Asphalt
N Avenue A	5th St. to 3rd St.	50	95	Partial	Fair-Asphalt
N. Avenue A	Moore St. to Riverside Dr.	18	30	No	Fair-Asphalt
N. Avenue A	Moore St., N to end	18	30	No	Poor-Asphalt
N. Avenue B	all	50	95	No	Fair-Asphalt
N. Avenue B	all	38	60	Yes	Good Asphalt
N. Avenue C	5th St. to 3rd St.	40	50	Yes	Poor-Asphalt
N. Avenue C	Live Oak to Pecan		50	No	Poor-Gravel
N. Avenue D	3rd St. to Live Oak	66	80	Yes	Good Asphalt
N. Avenue D	Live Oak N. to end	50	80	Yes	Fair-Asphalt
N. Avenue D	5th St. to 3rd St.	70	80	Yes	Good Asphalt
N. Avenue E	3rd St. to Live Oak	30	80	Partial	Good Asphalt
N. Avenue E	Live Oak to Hackberry	24	80	Partial	Good Asphalt
N. Avenue E	5th St. to 3rd St.	50	80	Yes	Good Asphalt
N. Avenue F	3rd St., N to end	24	80	Partial	Good Asphalt
N. Avenue F	5th St. to 3rd St.	50	80	Yes	Good Asphalt
N. Avenue H	5th St. to 3rd St.	40	75	Yes	Poor-Asphalt
N. Avenue H	3rd St. to Live Oak	30	50	Yes	Poor-Asphalt
N. Avenue H	Live Oak to Pecan St.	20	50	Yes	Fair-Asphalt
N. Avenue H	Pecan St. to Hackberry	16	50	No	Poor-Asphalt
N. Avenue H	Hackberry to Mary	30	50	Yes	Good Asphalt
N. Avenue H	Mary to Maple	22	80	No	Good Asphalt
N. Avenue H	Maple to Bishop	18	20	No	Poor-Asphalt
N. Avenue I	5th St. to 3rd St.	26	45	Yes	Good Asphalt
N. Avenue I	3rd St. to Pecan St.	30	60	Yes	Poor-Asphalt
N. Avenue I	Pecan St. to Mary	30	60	Yes	Good Asphalt
N. Avenue I	Mary, N to end	26	60	No	Good Asphalt
N. Avenue J	5th St. to 3rd St.	30	50	Yes	Good Asphalt
N. Avenue J	3rd St. to Live Oak	30	60	Yes	Fair-Asphalt
N. Avenue J	Live Oak, N to end	40	60	Yes	Good Asphalt
N. Avenue K	5th St. to 3rd St.	20	85	Yes	Good Asphalt
N. Avenue K	Live Oak to Pecan	18	30	No	Poor-Asphalt
N. Avenue K	Pecan, N to end	38	30	Yes	Good Asphalt
N. Avenue L	5th St. to 3rd St.	18	40	Yes	Good Asphalt
N. Avenue L	Live Oak to Mary	38	60	Yes	Good Asphalt
N. Avenue M	5th St. to 3rd St.	38	60	No	Good Asphalt
N. Avenue M	3rd St. to Live Oak	30	60	Partial	Good Asphalt
N. Avenue M	Live Oak to Pecan	18	60	Yes	Good Asphalt
N. Avenue M	Pecan to Mary	30	60	Yes	Good Asphalt
N. Avenue N	5th St., N to Park	14	60	Partial	Poor-Asphalt
N. Avenue N	Pecan to Hackberry	38	60	Yes	Good Asphalt
N. Avenue N	Mary to Maple	38	60	Yes	Good Asphalt
N. Avenue O	Mary to Maple	38	60	Yes	Good Asphalt

<u>NAME</u>	<u>SECTION</u>	<u>WIDTH</u>	<u>RIGHT-OF-WAY</u>	<u>CURB & GUTTER</u>	<u>CONDITION</u>
N. Avenue P	5th St. to 3rd St.	30	60	Yes	Good Asphalt
N. Avenue P	3rd St. to Park	30	60	Partial	Fair-Asphalt
N. Avenue P	Pecan to Hackberry	34	60	Yes	Good Asphalt
N. Avenue P	Hackberry to Mary	22	60	Yes	Good Asphalt
N. Avenue P	Mary to Maple	40	60	Yes	Good Asphalt
N. Avenue Q	5th St. to 3rd St.	30	60	Yes	Good Asphalt
N. Avenue Q	3rd St. to Walnut	38	60	Partial	Good Asphalt
N. Avenue Q	3rd St. to Maple	38	60	Partial	Good Asphalt
N. Avenue Q	Maple to FM 3220	22	60	Partial	Good Asphalt
N. Avenue R	5th St. to 3rd St.	30	60	Yes	Good Asphalt
N. Avenue R	3rd St. to Walnut	38	60	Yes	Good Asphalt
N. Avenue R	Walnut to Hackberry	38	50	Yes	Good Asphalt
N. Avenue R	Hackberry, N to end	38	50	Yes	Fair-Asphalt
N. Avenue S	5th St. to 3rd St.	28	60	Yes	Good Asphalt
N. Avenue S	3rd St. to Walnut	38	60	Yes	Good Asphalt
N. Avenue T	all	38	60	Yes	Good Asphalt
N. Avenue U	all	38	60	Yes	Fair-Asphalt
N. Avenue W	all	38	60	Yes	Good Asphalt
N. Avenue X	all	38	60	Yes	Good Asphalt
N. Avenue Y	all	38	60	Yes	Good Asphalt
N. Avenue Z	all	38	65	Yes	Good Asphalt
N. Mountainview Road	all	28	50	Yes	Good Asphalt
Oak Ridge	all	38	60	Yes	Good Asphalt
Oakcrest Street	all	38	60	Yes	Good Asphalt
Olsen Boulevard	all	26	60	No	Good Asphalt
Park Street	Ave. Q to White St.	38	60	Yes	Good Asphalt
Park Street	Ave. Q to Ave. P	33	60	Yes	Good Asphalt
Park Street	Ave. P to Ave. O	18	60	Partial	Good Asphalt
Park Street	Ave. O to Ave. N	26	60	No	Fair-Asphalt
Pecan Street	Ave. Q to State Hwy 6	48	80	Yes	Fair-Asphalt
Pecan Street	State Hwy 6 to Ave. F	24	80	No	Fair-Asphalt
Pecan Street	Ave. F to Ave. E	50	80	Yes	Good Asphalt
Pecan Street	Ave. E to Ave. C	50	80	Partial	Fair-Asphalt
Ridgeview Street	all	30	60	Yes	Good Asphalt
Riverside Drive	Ave. B to Moore St.	20	60	No	Good Asphalt
Riverside Drive	Moore St. to railroad	20	60	No	Good Asphalt
S Avenue A	9th St. to 5th St.	50	95	Partial	Fair-Asphalt
S. Avenue A	11th St. to 9th St.	50	95	No	Poor-Asphalt
S. Avenue C	all	50	50	Yes	Poor-Asphalt
S. Avenue D	15th St. to 13th St.	20	80	No	Poor-Asphalt
S. Avenue D	13th St. to 11th St.	24	80	No	Poor-Asphalt
S. Avenue D	11th St. to 7th St.	40	80	Partial	Good Asphalt
S. Avenue D	7th St. to 5th St.	70	80	Yes	Good Asphalt
S. Avenue E	17th St. to 13th St.	40	80	Yes	Fair-Asphalt

<u>NAME</u>	<u>SECTION</u>	<u>WIDTH</u>	<u>RIGHT-OF-WAY</u>	<u>CURB & GUTTER</u>	<u>CONDITION</u>
S. Avenue E	13th St. to 11th St.	50	80	Yes	Fair-Asphalt
S. Avenue E	11th St. to 5th St.	50	80	Yes	Good Asphalt
S. Avenue F	19th St. to 17th St.	30	60	No	Good Asphalt
S. Avenue F	17th St. to 11th St.	30	80	Yes	Good Asphalt
S. Avenue F	11th St. to 5th St.	50	80	Yes	Good Asphalt
S. Avenue H	23rd St. to 19th St.	24	50	Partial	Fair-Asphalt
S. Avenue H	19th St. to 15th St.	45	50	Yes	Poor-Asphalt
S. Avenue H	15th St., N. to school	45	50	Yes	Good Asphalt
S. Avenue H	11th St. to 5th St.	40	75	Yes	Good Asphalt
S. Avenue I	all	26	45	Yes	Good Asphalt
S. Avenue I	23rd St. to 17th St.	30	60	Yes	Fair-Asphalt
S. Avenue I	17th St. to 13th St.	30	60	Yes	Poor-Asphalt
S. Avenue J	23rd St. to Julie	30	50	Yes	Poor-Asphalt
S. Avenue J	21st to 15th St.	30	50	Yes	Fair-Asphalt
S. Avenue J	15th St. to 7th St.	40	50	Yes	Good Asphalt
S. Avenue J	7th St. to 5th St.	30	50	Yes	Good Asphalt
S. Avenue K	23rd St. to 17th St.	40	60	Yes	Good Asphalt
S. Avenue K	17th St. to 15th St.	40	60	Yes	Fair-Asphalt
S. Avenue K	15th St. to 13th St.	40	60	Yes	Poor-Asphalt
S. Avenue K	13th St. to 11th St.	30	70	Yes	Fair-Asphalt
S. Avenue K	11th St. to 9th St.	30	90	Partial	Good Asphalt
S. Avenue K	9th St. to 7th St.	40	90	Yes	Fair-Asphalt
S. Avenue L	23rd St. to 17th St.	40	60	Yes	Good Asphalt
S. Avenue L	17th St. to 15th St.	40	60	Yes	Poor-Asphalt
S. Avenue L	15th St. to 13th St.	40	40	Yes	Fair-Asphalt
S. Avenue L	13th St. to 11th St.	18	40	Yes	Fair-Asphalt
S. Avenue L	11th St. to 9th St.		40	Partial	Poor-Gravel
S. Avenue L	7th St. to 5th St.	18	40	No	Poor-Asphalt
S. Avenue M	23rd St. to 17th St.	40	60	Yes	Good Asphalt
S. Avenue M	17th St. to 15th St.	40	60	Yes	Fair-Asphalt
S. Avenue M	15th St. to 13th St.		60	Yes	Poor-Gravel
S. Avenue M	11th St. to 9th St.	20	60	Partial	Poor-Asphalt
S. Avenue M	9th St. to 5th St.	30	60	Partial	Fair-Asphalt
S. Avenue N	23rd St. to 19th St.	40	60	Yes	Good Asphalt
S. Avenue N	19th St. to 15th St.	40	60	Yes	Fair-Asphalt
S. Avenue N	15th St. to 13th St.	40	60	Yes	Good Asphalt
S. Avenue N	13th St. to 9th St.	20	60	Partial	Poor-Asphalt
S. Avenue N	9th St. to 5th St.	30	60	Partial	Fair-Asphalt
S. Avenue O	21st St. to 15th St.	30	60	Yes	Good Asphalt
S. Avenue O	15th St. to 11th St.	40	60	Yes	Fair-Asphalt
S. Avenue O	11th St. to 9th St.	30	60	Partial	Poor-Asphalt
S. Avenue O	9th St. to 5th St.	30	60	Yes	Fair-Asphalt
S. Avenue O	5th St. to Park	38	60	Yes	Fair-Asphalt
S. Avenue O	Park to Hackberry	38	60	Yes	Good Asphalt
S. Avenue O	5th St., S to city limits	30	50	Partial	Good Asphalt
S. Avenue P	21st St. to 15th St.	40	60	Yes	Good Asphalt
S. Avenue P	15th St. to 13th St.	40	60	Yes	Fair-Asphalt
S. Avenue P	13th St. to 11th St.	30	60	Yes	Good Asphalt
S. Avenue P	11th St. to 9th St.	40	60	Yes	Fair-Asphalt
S. Avenue P	9th St. to 5th St.	30	60	Partial	Good Asphalt
S. Avenue T	all	48	60	Partial	Good Asphalt











<u>NAME</u>	<u>SECTION</u>	<u>WIDTH</u>	<u>RIGHT-OF-WAY</u>	<u>CURB & GUTTER</u>	<u>CONDITION</u>
S. Mountainview Road	all	24	50	Yes	Fair-Asphalt
State Hwy. 6 / N. Avenue G	all	38	80	Partial	Good Asphalt
State Hwy. 6 / S. Avenue G	F.M. 219 to W. 21st St.	38	80	Yes	Good Asphalt
State Hwy. 6 / S. Avenue G	W. 21st St., S. to city limits	40	100	Partial	Good Asphalt
Sunset Avenue	all	24	40	Yes	Good Asphalt
W. 11th Street	Ave. O to Ave J	52	70	Yes	Good Asphalt
W. 11th Street	Ave. J to Ave H	30	60	Yes	Good Asphalt
W. 11th Street	Ave H to State Hwy. 6	30	80	Partial	Good Asphalt
W. 11th Street	State Hwy. 6 to Ave. F	30	80	No	Poor-Asphalt
W. 11th Street	Ave. F E. to end	20	80	No	Fair-Asphalt
W. 13th Street	Hillside to Sunset	18	50	No	Poor-Asphalt
W. 13th Street	Sunset to Ave. K	48	80	No	Fair-Asphalt
W. 13th Street	Ave. K to Ave. I	20	80	Partial	Fair-Asphalt
W. 13th Street	State Hwy. 6 to Ave. E	30	60	Yes	Fair-Asphalt
W. 13th Street	Ave. E to Ave D	30	60	No	Poor-Gravel
W. 15th Street	all	40	60	Yes	Good Asphalt
W. 15th Street	State Hwy. 6 to Ave. F	30	60	Yes	Poor-Asphalt
W. 15th Street	Ave. F to Ave D	30	60	Partial	Fair-Asphalt
W. 17th Street	all	45	60	Yes	Good Asphalt
W. 19th Street	all	40	60	Yes	Good Asphalt
W. 21st Street	Ave. O to Ave. M	30	80	Yes	Good Asphalt
W. 21st Street	Ave. M to Ave. L	40	80	Yes	Fair-Asphalt
W. 21st Street	Ave. L to Ave. K	40	80	Yes	Poor-Asphalt
W. 21st Street	State Hwy. 6 to Ave. K	36	70	Yes	Fair-Asphalt
W. 23rd Street	all	20	60	Partial	Fair-Asphalt
W. 3rd Street	Ave. V to Ave. R	38	60	Yes	Good Asphalt
W. 3rd Street	Ave. R to Ave. M	38	60	Yes	Fair-Asphalt
W. 3rd Street	Ave. M to Ave. J	40	70	Yes	Good Asphalt
W. 3rd Street	Ave. J to Ave. E	57	70	Yes	Good Asphalt
W. 3rd Street	Ave. E to Ave. D	50	70	Yes	Good Asphalt
W. 3rd Street	Ave. D to railroad	50	70	Partial	Fair-Asphalt
W. 3rd Street	railroad to Ave. A	18	70	No	Fair-Asphalt
W. 3rd Street	all	28	60	Yes	Good Asphalt
W. 7th Street	Ave. P to Ave. O	30	90	Yes	Fair-Asphalt
W. 7th Street	Ave. O to Ave. N	36	90	Partial	Fair-Asphalt
W. 7th Street	Ave. N to Ave. M	36	90	Partial	Poor-Asphalt
W. 7th Street	Ave. m to Ave. J	20	90	Partial	Poor-Asphalt
W. 7th Street	Ave. J to Ave. I	40	90	Yes	Fair-Asphalt
W. 7th Street	State Hwy. 6 to Ave. D	50	80	Partial	Good Asphalt
W. 7th Street	Ave. D to Ave. C		80	No	Poor-Gravel
W. 9th Street	Hillside to Ave. O	50	60	Yes	Fair-Asphalt
W. 9th Street	Ave. O to Ave. P	30	60	Partial	Good Asphalt
W. 9th Street	Ave. P to Ave. N	30	60	Partial	Fair-Asphalt

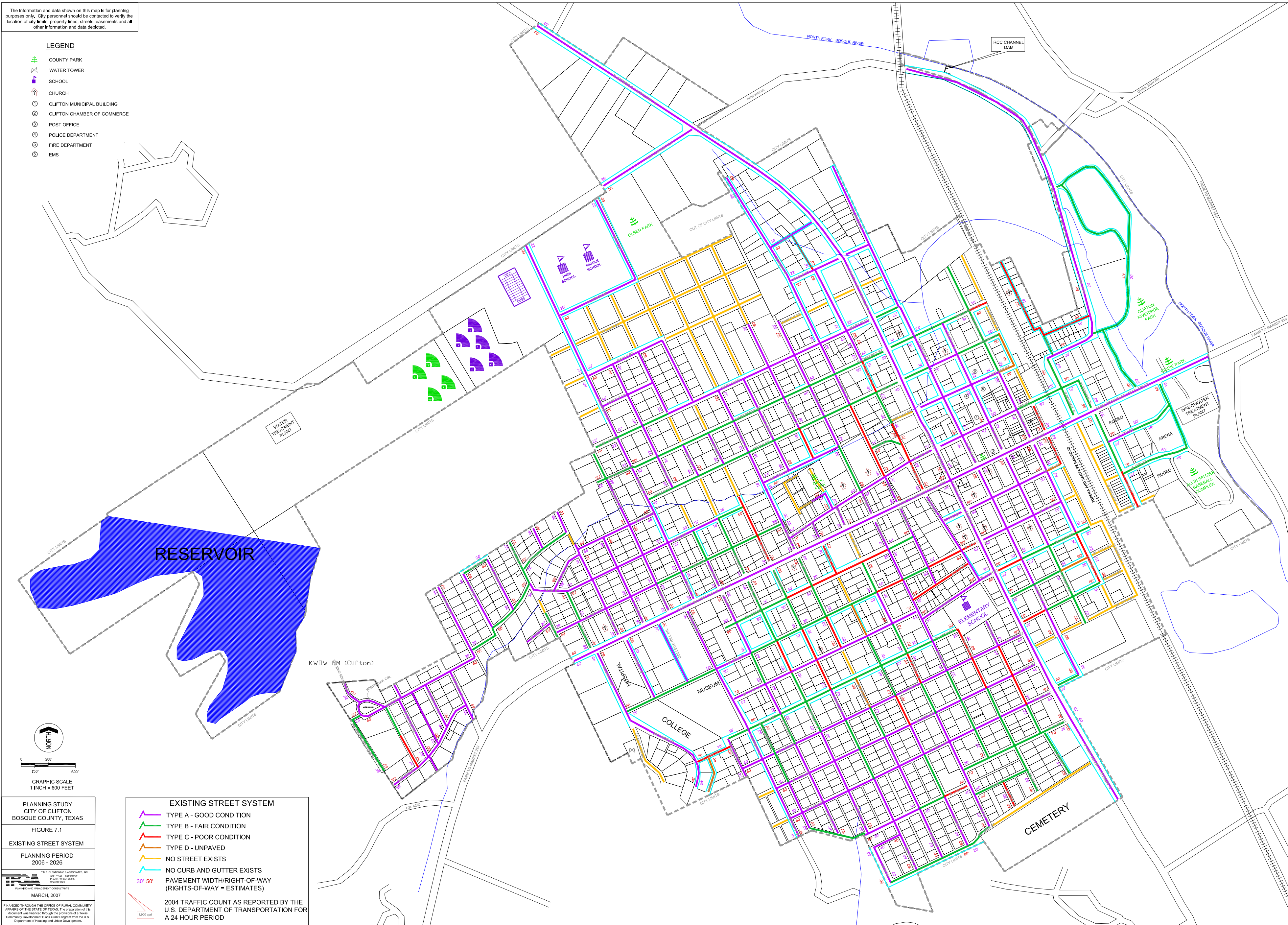
<u>NAME</u>	<u>SECTION</u>	<u>WIDTH</u>	<u>RIGHT-OF-WAY</u>	<u>CURB & GUTTER</u>	<u>CONDITION</u>
W. 9th Street	Ave. N to Ave. K	30	60	Partial	Fair-Asphalt
W. 9th Street	Ave. K to Ave. J	50	60	Yes	Poor-Asphalt
W. 9th Street	Ave. J to Ave. I	50	60	Yes	Fair-Asphalt
W. 9th Street	Ave. I to Ave. H	40	60	Yes	Poor-Asphalt
W. 9th Street	Ave. H to State Hwy. 6	40	80	Yes	Poor-Asphalt
W. 9th Street	State Hwy. 6 to Ave. D	50	80	Yes	Good Asphalt
Walnut Street	all	38	60	Yes	Good Asphalt
White Street	N. Mountain Oak Dr. to S. Mountain Oak Dr.	28	50	Yes	Fair-Asphalt
White Street	N. Mountain Oak Dr. to Ave. Y	28	60	Yes	Good Asphalt
White Street	Ave. Y to Ave. T	28	60	Yes	Fair-Asphalt

* Width and Right-of-Way measured in feet and are estimations.








The information and data shown on this map is for planning purposes only. City personnel should be contacted to verify the location of city limits, property lines, streets, easements and all other information and data depicted.


LEGEND


-  COUNTY PARK
-  WATER TOWER
-  SCHOOL
-  CHURCH
-  CLIFTON MUNICIPAL BUILDING
-  CLIFTON CHAMBER OF COMMERCE
-  POST OFFICE
-  POLICE DEPARTMENT
-  FIRE DEPARTMENT
-  EMS



EXISTING STREET SYSTEM

-  TYPE A - GOOD CONDITION
-  TYPE B - FAIR CONDITION
-  TYPE C - POOR CONDITION
-  TYPE D - UNPAVED
-  NO STREET EXISTS
-  NO CURB AND GUTTER EXISTS
-  PAVEMENT WIDTH/RIGHT-OF-WAY (RIGHTS-OF-WAY = ESTIMATES)

 30' 50'

 1,000+

2004 TRAFFIC COUNT AS REPORTED BY THE U.S. DEPARTMENT OF TRANSPORTATION FOR A 24 HOUR PERIOD

PLANNING STUDY
CITY OF CLIFTON
BOSQUE COUNTY, TEXAS

FIGURE 7.1
EXISTING STREET SYSTEM

PLANNING PERIOD
2006 - 2026

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MARCH, 2007

FINANCED THROUGH THE OFFICE OF RURAL COMMUNITY AFFAIRS OF THE STATE OF TEXAS. The preparation of this document was financed through the provision of a Texas Community Development Block Grant Program from the U.S. Department of Housing and Urban Development.

