

# Presentation Outline- July 24, 2008

- VII.      **Historic Preservation**
  - Historic Sites Inventory & Analysis
  - Goals & Objectives
  - Future Plan
- VIII.     **Streets & Thoroughfare System**
  - Inventory
  - Traffic Counts
  - Goals & Objectives
  - Plan & Funding Sources
- IX.       **Storm Drainage**
  - System Inventory
  - Classifications & Delineations
  - Goals & Objectives
  - Future Plan & Funding Sources

# HISTORIC PRESERVATION

## Overview of the Historical Elements of Port Isabel, Texas

A Study Conducted By:

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# HISTORIC PRESERVATION

## Inventory & Analysis

Historic preservation, as a component of economic development, is a strategy that requires time, effort and adequate financial resources. The tasks involved with this type of assessment require the expert involvement and participation of individuals with a diverse background in architecture, anthropology, history, demographic, planning, urban design and public policy.

The Director of Historical Preservation and the Historical Advisory Committee, have developed *The Design Guidelines for Historic, New Construction and All Properties within Historic Districts* which is an excellent starting point for a comprehensive assessment and environmental scan of the historic inventory of Port Isabel.

The City has passed an ordinance to create historical districts and has accepted the Guidelines for the Historic District to be used as a guide for its historic district through its Department of Historical Preservation and Historical Advisory Committee. This study recommends creation and implementation of a comprehensive historical preservation strategic plan.

# HISTORIC PRESERVATION

## Survey of Potential Landmarks

To-date there are only eight properties in Port Isabel that have a historic designation:

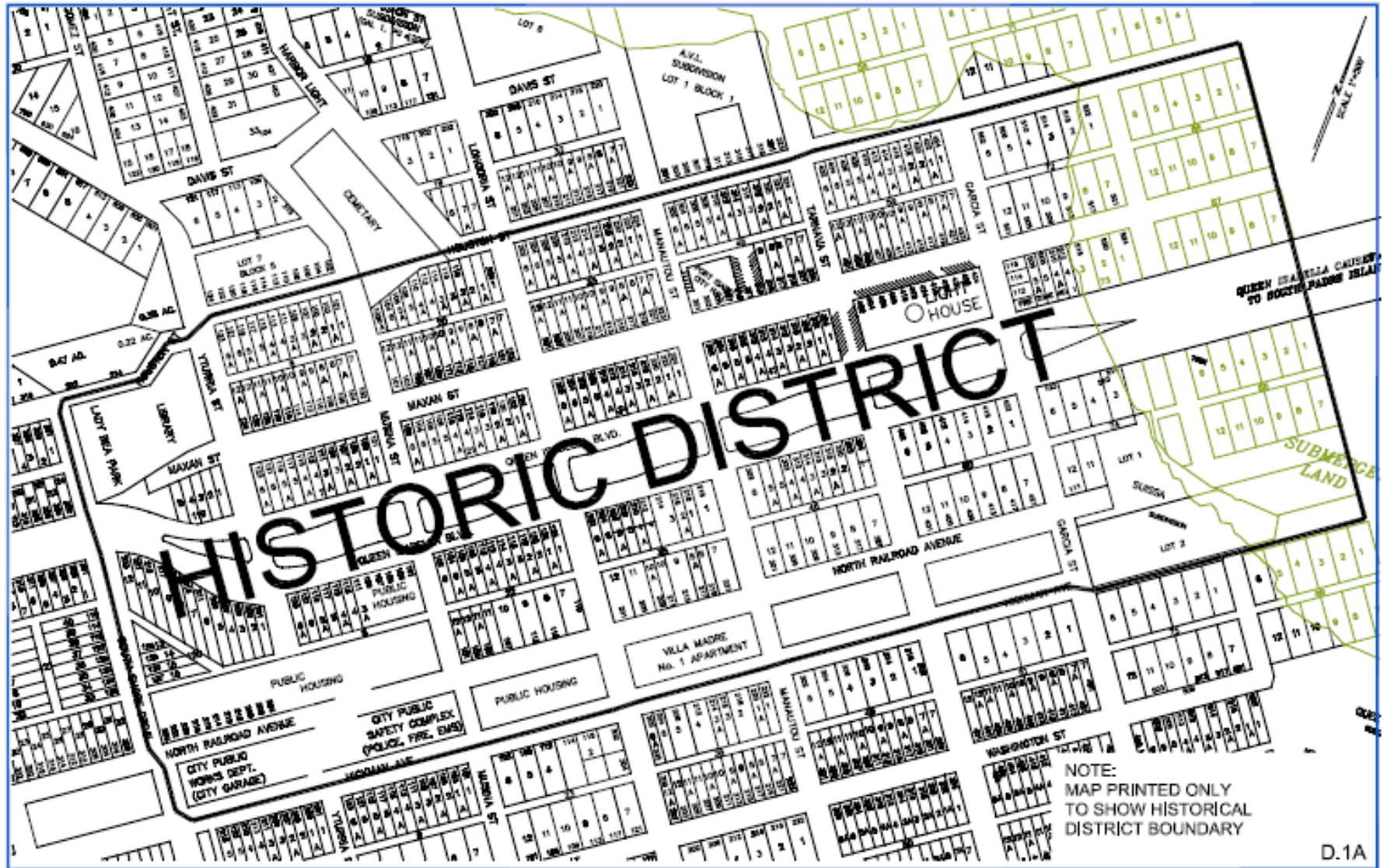
- 1.) Point Isabel Lighthouse
- 2.) Queen Isabel Inn
- 3.) Champion Building
- 4.) Port Isabel Cemetery
- 5.) Alta Vista Apartments,
- 6.) Port of Matamoros Historic Site
- 7.) Port Isabel Historical Marker
- 8.) Queen Isabella Memorial Causeway Historic Marker



However because Port Isabel can trace it's historical roots back to the early 1500's there are many other properties with "potential Historic significance" Additional properties will be discussed later in this report.

# HISTORIC PRESERVATION

## Existing Designated Historic District

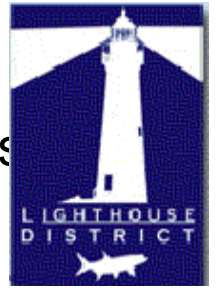


# HISTORIC PRESERVATION

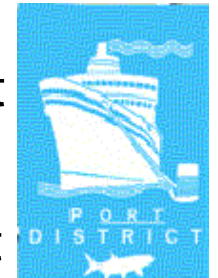
## Survey of Potential Landmarks



- The designation of the Port Isabel Merchant Districts serves as the nexus for linking certain properties in each district with historic significance to be assessed for such designation.



- The area south of Hickman Avenue, east to include Garcia and south and west to include South Shore Drive, including the west Palangana has many properties that have potential historic significance. Structural modifications could possibly be made available by using local, state and/or federal funded low-interest loans or grants or through private foundations.



- Submerged lands (Patent #333) off Houston Street, Maxan and Garcia facing east off Pirates Landing are included in the Historic District.



- Several properties on the following streets in the north and northwest sector of the City that have potential historic significance:

- » **North Shore Drive**
- » **Polk**
- » **Summit**
- » **Yturria**
- » **Gomez**



# HISTORIC PRESERVATION

## Additional Designations for Historic Significance

Additional programs for the designation of Historic significance include:

» ***The National Register of Historic Places*** a federal program administered by the Texas Historical Commission and National Park Service. Provides national recognition of a property's historical or architectural significance and denotes that it is worthy of preservation. Structures and districts are eligible for this designation if they are at least 50 years old and meet criteria. The designation imposes no restrictions on property owners, however, those receiving grants for rehabilitation must follow standards. The property receives extra consideration before any federal projects, such as highway construction, are undertaken. Owner's consent required.

» ***Recorded Texas Historic Landmarks (RTHLs)*** are judged to be historically and architecturally significant. Designation is awarded to structures at least 50 years old, worthy of preservation for architectural and historical associations. The Official Texas Historical Marker process is an integral part of the designation. Property owners planning exterior changes to these buildings must notify the THC 60 days in advance of changes to allow time for consultation. Owner consent required.

» ***State Archeological Landmarks*** are designated by the THC and receive legal protection under the Antiquities Code of Texas. Listing in the National Register is a prerequisite for State Archeological Landmark designation of a building. Designation stipulates that the property cannot be removed, altered, damaged, salvaged or excavated without a permit from the THC. This is recorded in the county deed records and conveyed with the property when sold.

» ***Historic Texas Cemetery Designations*** are issued by THC. Cemeteries or burial sites that are at least 50 years old and worthy of preservation for their historical associations can receive this designation. A special medallion and markers are available. Designation imposes no restrictions on private owners' use of the land adjacent to the cemetery but provides for the recording of the cemetery into the county deed records as a property worthy of preservation. Trustee of the land will be notified, although the owner's consent is not required for designation..

# HISTORIC PRESERVATION

## Classification Standards for Existing Structures

- The existing structure inventory can be ranked on a three (3) level classification. The three (3) classifications are defined as follows:
  - 1) **Standard (STD)**—no significant defects in primary, secondary, or major structural components;
  - 2) **Deteriorating (DT)**—additional repairs not normally covered during routine maintenance are needed.
  - 3) **Dilapidated (DL)**—not safe or adequate shelter that may endanger health and safety to its occupants.

The above categories closely follow the standards of the Office of Rural Community Affairs (ORCA), the Texas Department of Housing and Community Affairs (TDHCA) and the International Building Codes

Of the structures identified with potential historical significance, none meet the dilapidated criteria.

Of the twenty-eight (28) structures identified, twenty-five (25) were classified as Standard and three (3) were classified as Deteriorating, located at 206 Adams, 322 W. Madison, and 113 E. Adams

# Proposed Historic Properties

- The following pictures, includes a few of the Proposed Historic Sites and Proposed Historical Business Buildings, these are recommendations only and do not represent an opinion from either a Certified Historical Officer or a licensed Architect.



# Historic Preservation Action Plan

- Goal I. Initiate a resource development plan to acquire sufficient funds to support a comprehensive assessment of Port Isabel's historic structure to include these essential elements:
  - A. A detailed architectural assessment of all targeted properties by professional architects
  - B. A team of historians to conduct a historical assessment of each targeted property to ascertain its historic base by evaluation of historical references and documents, tracing all ownership as far back as feasible.
- Goal II. Conduct a feasibility study and impact analysis of how Port Isabel's historic preservation will affect the community physical environment.
  - This process would involve the following action items:
    - A. Conduct a qualitative assessment of how residents of properties feel about this initiative.
    - B. Conduct a cost-benefit analysis of all related costs to remodel all targeted properties and how these costs would be borne by the owners.
    - C. Use the Port Isabel Department of Historical Preservations Design Guidelines as the guiding schema for the proposed assessment.
- Goal III. Develop a sustainability plan to ensure that historic preservation of remodeled properties continues beyond an initial phase.

# Historic Preservation Action Plan

- Goal IV. Link and anchor all historic preservation planning to the overall economic strategic plan of the City.
- Goal V. Develop a budget to support historic preservation after the initial assessment as delineated in the aforementioned goals. Of concern here is the city has the fiscal wherewithal to sustain its historic preservation initiatives. Such a budget needs to be seen as having diverse revenue streams to include local taxes, funds from potential bond sources, fees and external sources such as foundation or state/federal agencies.

Assessments show that this community's economy will continue to be driven by tourism and it is imperative to maintain continuous upgrades the physical infrastructure of historic homes and other significant structures.

The established design guidelines are excellent guide to direct all aesthetic and structural conditions of those properties that are evaluated as having historic preservation merit, they should be reiterated as the guiding principles for all historic preservation within Port Isabel.

**TABLE D-1  
Historical Preservation Improvements Plan**

| YEAR       | TASK | DESCRIPTION  | ESTIMATED COST (\$1,000's) |
|------------|------|--|----------------------------|
| YEARS 1—2  | 1    | Hold Public Forums to inform public of Plan including the Historic District and Landmark Zoning Ordinance.<br>Consider contracting with consultant firm or firm and create and adopt a policy for distribution of funds to the public. | 1<br><br>30                |
|            | 2    | Sponsor Public workshops for review of Plan and Ordinances and remediation plans.  | 4                          |
|            | 3    | Budget funds for construction improvements. Establish historic housing improvement goals (2 houses per year).  | 75                         |
| YEARS 3—5  | 1    | Hold Public Forums to inform public of Plan and its progress.  | 1                          |
|            | 2    | Begin annual applications for historical housing funds to public and private channels based on community requests.   | 5                          |
|            | 3    | Provide for an average addition of 2 to 3 historical housing units   | 150                        |
| YEARS 6—10 | 1    | Hold Public Forums to inform public of Plan and progress.  | 5                          |
|            | 2    | Provide for an average addition of 2 to 3 housing units per year to the community for the remainder of the planning term.  | 150                        |
|            | 3    | Review the <i>Design Guidelines for Historic Properties</i> and make appropriate changes.  | 5                          |

# Sources of Funding

The following are potential sources of funding that have proven to be successful in program implementation:

- 1) Community Development Funds
- 2) Housing Funds Programs (TDHCA)
- 3) ORCA (Office of Rural Community Affairs)
- 4) U.S. Dept. of Agriculture, Office of Rural Development
- 5) Texas Enterprise Fund
- 6) U.S. Economic Development Administration, EDA, Dept. of Commerce
- 7) Non-Profit agencies or Private sources and Grant foundations.
  - a) *Meadows Foundation*
  - b) *HEB Foundation*
  - c) *Ford Foundation*
  - d) *Moody Foundation*
- 8) Texas Historical Commission
  - a) *Texas Preservation Trust Fund Grants*: Monies for training individuals and organizations about historic resources and preservation techniques for sites such as Archeological sites, commercial buildings, public buildings and unique historic structures.
  - b) *Heritage Tourism Grants* (THC): Government and nonprofit organizations within active Texas Heritage Trails Program regions can apply for matching grants when funds are available. Grants are used for heritage tourism-oriented projects such as interpretation, signage, publications and web sites, curriculum development, educational programs, and workshops and training. Grants are one-to-one with in-kind and/or cash matches.
  - c) *Certified Local Government Grants* (THC): Certified Local Government (CLG) grants provide funding to enable local communities to develop quality programs and fully participate in the state's preservation process. Grants require a cash or in-kind service match. Eligible grant projects include training, completing or updating surveys of historic resources, producing historic educational materials, preservation plans, National Register nominations
  - d) *The Texas Main Street Program* (THC): helps Texas cities revitalize their historic downtowns and neighborhood commercial districts by utilizing preservation and economic development strategies.

# Streets & Thoroughfare System

## Street System

- A streets network is the link within and external to a community, livelihood is critically dependant upon City streets.
- Convenient, safe and efficient access within the community and to to adjoining areas is the primary function of a street network.
- The streets network of any city operates as the arterial system of a city, providing access in varying degrees to all properties abutting the network.
- Thoroughfare and other rights-of-ways occupy a large section of the total developed area and allows for circulation between all areas within the City.
- Streets provide access to and drainage for abutting properties, open space between buildings and right-of-ways for utilities.
- The street network is a primary factor in supporting land use.
- Due to their visibility and exposure, street conditions are typically the most noticed infrastructure of a city and one which generates the most criticism.
- Due to the high cost in comparison to other infrastructure components, adequate street construction and maintenance can represent the largest single required expenditure of a city.
- Road conditions are affected by many factors such as: the drainage conditions on the pavement, and the City's ability to fund incremental improvements.

# Streets & Thoroughfare System

## Street System

- Costs for improved drainage, matching elevations to existing streets and right-of-ways acquisitions serve to increase the already costly road construction process.
- Port Isabel has provided adequate street coverage for a majority of residential areas. The City's streets are in poor to good condition.
- Most of the roadways consist of asphalt and have curb and gutters. Most of the roads have been constructed with proper right-of-way and sufficient pavement widths.
- Most of the high-use roadways have been sufficiently maintained to prevent serious deterioration.
- The City needs to create a streets maintenance department whose sole role is to provide routine maintenance of the streets.
- The most prevalent lack of maintenance appears to be grass on the streets and curbs which causes rapid deteriorating conditions to develop.
- Before beginning any road or street project, it is essential that the City have a plan in place to support the land use and growth plans. This will help ensure that streets in the existing developed areas 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 City. This should also assist in minimizing duplicative expenses and obsolescence of improvements.

# Streets & Thoroughfare System

## Street Surveys

- 1998- *Martin, Brown & Perez Engineering & Surveying* was commissioned to do a study which basically estimated cost for improvements but offered no recommendations for funding or prioritization.
- 2004- *Cruz-Hogan Consultants, Inc.* completed a street assessment study consisting only of estimated costs and methods for improvement of existing streets with no reference to financing or prioritization.
- This report includes an inventory of physical characteristics of the streets systems of record including the following:
  - 1) Classifications of existing street conditions
  - 2) Paved areas
  - 3) Right-of-way widths
  - 4) Existing curb and gutter locations

# Streets & Thoroughfare System

## Street Systems Inventory

Classifications: For the purpose of this planning study, the following classifications were used:

- 1) “**Good**” -Surface is smooth with no cracks or potholes.
  - 2) “**Fair**” -Surface has longitudinal and vertical cracks, previously sealed cracks, and/or small areas of potholes.
  - 3) “**Poor**” -Extensive patches, potholes, large unsealed cracks, loose gravel. All unimproved streets are classified here.
- Each street or road is designated as pavement, caliche, dirt, and not distinguishable.

# Streets & Thoroughfare System

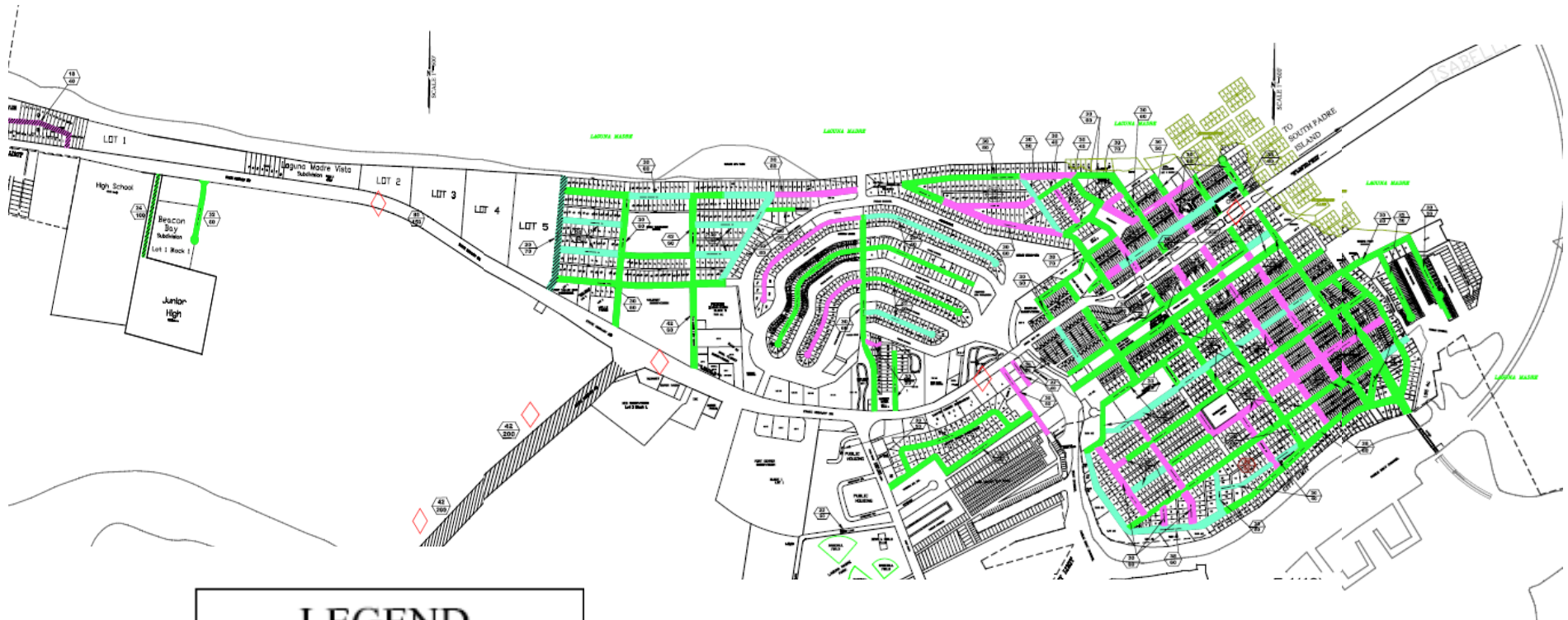
## Existing Street Information

**The following Street Conditions Map** illustrates the major characteristics of Port Isabel's Streets. They are typically described in terms of usage such as major or minor traffic use.

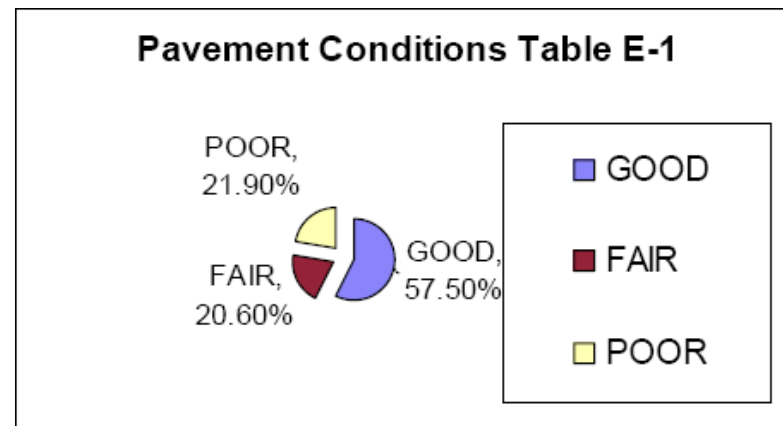
The four most common terms used for Cities the size of Port Isabel are:

- 1) Major Arterial: ROW's averaging 120 feet in width to up to 1,000 or more and are almost always multi-lane, four or more lanes (Ex. Expressway 77 or 83).
- 2) Minor Arterial: ROW's of 50 feet and are two-lane streets with an average width of 32 feet. (Ex. State Hwy 100 & 48 or Farm to Market Roads like FM 510).
- 3) Collector Street: Collect traffic from other streets and are typically wider than most other "City" streets they are many times called side streets, because few if any lots front them. They are designed to collect traffic from minor streets, both in residential areas or commercial areas and direct traffic flows outwards from those areas. These streets are generally used by all traffic generating vehicles not just a particular neighborhood. Examples of collector streets in Port Isabel are 2nd and 3rd Streets and Harbor Island Avenue.
- 4) Residential or Minor Street: The City's roadway system is comprised mainly of residential streets. Most streets are classified as residential, with a few collector streets. Residential streets are designed for a particular block or neighborhood and are laid out so as to discourage their use by fast and thru traffic. Their principle use is that of the residents of that block or neighborhood. Examples of residential streets are Michigan Street, Monroe Street, Hickman Street and Adams Street.

# Street Conditions



| LEGEND |  |
|--------|--|
|        | GOOD                                   |
|        | FAIR                                   |
|        | POOR                                   |
|        | NO CURB/GUTTER                         |
|        | APPROX. ROAD WIDTH<br>APPROX. ROAD ROW |
|        | MAJOR ARTERIAL                         |



# Streets & Thoroughfare System

## Existing Street Condition Findings

### Accident History

- Interviews with local officials show the accident rate to be fairly insignificant. Aggressive police enforcement of speed limits within the city appears to be a significant factor. The low speed with of 30 MPH used throughout the City in most residential areas in down the Central Business District can also be credited with the low rate. Speed limits are even lower in school zones.

### Traffic Control Data

- Street signage appears to be fairly comprehensive with a large majority of the streets having uniform, consistent and proper signage. City officials should however immediately conduct a City-wide comprehensive inventory of all signage and replace or repair any inadequate or defective signs since they might pose a potential threat to the safety of the citizenry.

### Parking restrictions

- A City-wide wind-shield survey basically concluded that the City has adequate parking in all residential areas and all business related activities and for all public facilities. The construction standards contained in the City's Ordinance is adequate for parking space needs as long as it is followed and enforced.

### Curb and Gutters

- Over 98% of City currently has some form of curb and gutter. All appears to be in relatively good condition, but in dire need of maintenance to remove all grass and dirt and sand. The Subdivision Ordinance requires curb & cutter on all new streets

### Truck Routes

- The City's unique physical characteristics and layout do not appear to require a designated truck route. Most heavy truck traffic is near the channel and towards the Navigation District and that through traffic going towards South Padre Island.

# Streets & Thoroughfare System

## Street Improvement Methods

Generally, paving improvements utilize either a Hot-Mix Asphalt Concrete (HMAC) or an Asphalt Penetration surface treatment (APST).

•**HMAC** road surface consists of a mixture of asphalt and aggregate. Asphalt is prepared at an asphalt batch plant and transported in a heated state to the job site. Using equipment the HMAC is laid on a pre-installed crushed limestone road base, usually eight to ten inches in depth. The asphalt is then compacted, usually to a depth of 1 ½ to 2 inches in residential areas and as deep as several inches in major highways. HMAC pavement is expensive; however, its durability and relative ease of installation makes it the surface pavement of choice for most communities.

•**APST** is generally used for road maintenance or where funding for road improvements is limited. APST is applied on a roadway by spreading oil on either an exposed road base or on an existing road surface. A gravel or aggregate is spread over the oil and rolled flat. On new roads, two courses of APST might be applied. APST provides a short-term extension of a roadway's life until funding can be obtained for complete reconstruction.

Specific types of improvements normally utilized include:

1. Point Repairs: Used to treat potholes and other imperfections and roadway hazards. Excavation of failed pavement sections to a depth of up to eight inches, back-filled with about eight inches of crushed limestone, stabilized with 2% cement, primed and sealed with a coarse surface treatment.
2. Level-up: Leveling of depressions in pavement with HMAC or hot mix/cold laid asphalt concrete.
3. Seal-Coat: Typically used once every three to five years to maintain streets and forestall more costly repairs. Application of asphalt cements and covered with pre-coated aggregate at one cubic yard of aggregate per 90 square yards. Aggregate is rolled after application.
4. Overlay: Used to completely replace the surface material of a street to address pavement deterioration and extend street life. Depending on the severity of wear, a portion of the existing surface is milled off, typically one inch. The remaining surface material is then overlaid with a minimum of 1 ½ to 2 inches of HMAC or hot mix/cold laid asphalt concrete, followed by a surface treatment.
5. Reclaim: Used for applications where a 10 to 20 year life is desired. 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 & Thoroughfare System

## Traffic Count Information

Traffic volumes identify existing travel patterns and assist in determining the road system's ability to serve the community needs. A tool available for identification of flows and demands is the traffic count history maintained by the Texas Department of Transportation (TxDOT).

| City of Port Isabel Traffic Counts              |                              |
|---|------------------------------|
| Traffic Count Location                          | Annual Average Daily Traffic |
| Hwy. 100 approaching Hwy. 48 (west to east)     | 17,900                       |
| Hwy. 48 approaching Hwy. 100 (south to north)   | 6,700                        |
| Hwy. 100 approaching Port Road (west to east)   | 27,000                       |
| Hwy. 100 approaching South Shore (west to east) | 22,000                       |
| Hwy. 100. approaching Garcia (west to east)     | 18,900                       |
| Hwy. 100 approaching Garcia (east to west)      | 22,000                       |

| SPI Causeway Monthly Traffic Counts |           |           |
|-------------------------------------|-----------|-----------|
| MONTH                               | Eastbound | Westbound |
| January 2004                        | 291,480   | 289,215   |
| February 2004                       | 244,118   | 243,313   |
| March 2004                          | 353,531   | 353,446   |
| April 2004                          | 313,906   | 312,565   |
| May 2004                            | 342,911   | 344,335   |
| June 2004                           | 395,658   | 398,375   |
| July 2004                           | 603,624   | 505,953   |
| August 2004                         | 349,125   | 357,444   |
| September 2004                      | 277,095   | 276,127   |
| October 2004                        | 273,008   | 270,623   |

| SPI Causeway Daily Traffic Counts |           |           |
|-----------------------------------|-----------|-----------|
| MONTH                             | Eastbound | Westbound |
| January 2004                      | 9,403     | 9,330     |
| February 2004                     | 11,098    | 11,060    |
| March 2004                        | 13,597    | 13,594    |
| April 2004                        | 10,824    | 10,778    |
| May 2004                          | 11,062    | 11,108    |
| June 2004                         | 13,222    | 13,279    |
| July 2004                         | 16,246    | 16,321    |
| August 2004                       | 11,638    | 11,915    |
| September 2004                    | 9,237     | 9,171     |
| October 2004                      | 9,100     | 9,021     |

# Streets & Thoroughfare System

## Street Systems Analysis

The existing grid-type street system configuration used by the City provides adequate control and capacity to handle traffic flow patterns. However, road system maintenance and improvements require a more methodical approach. The following is a list of deficiencies or problems and a ranking associated with each.

### **Ranking   Problem**

- 1)     Street Paving: While a majority of the streets are paved and are in fair to good condition, creeping deterioration and increased road use are an influencing factor. However, lack of adequate maintenance appears to be the main reason for this problem.
  - 2)     Base failures and seal coating: Many of the streets are starting to show failures and the need for seal coating. The increased frequency of potholes and surface cracks are evidence of this need.
  - 3)     Unclear drain ditches: Although drainage capacity is not considered to be a significant issue, the few open ditches that do exist along non-curbed and curbed streets show vegetation overgrowth that could hamper proper drainage and are therefore in need of clearing.
  - 4)     Right-of-way acquisition: Most of the streets currently enjoy sufficient right-of-way for any anticipated growth, however, some streets, such as those located in the “fingers area” were originally poorly planned and because of the physical characteristics, little or nothing can be done. However, for future subdivisions, adequate road right-of-ways should be allowed to prevent the need for future acquisition.
- Addressing the deficiencies above will resolve or eliminate the primary roadway problems anticipated during the planning period. It is important to note that the two state highways in the City, particularly Hwy. 100 will require extensive maintenance because of its high use.

# Streets & Thoroughfare System

## Street System Goals

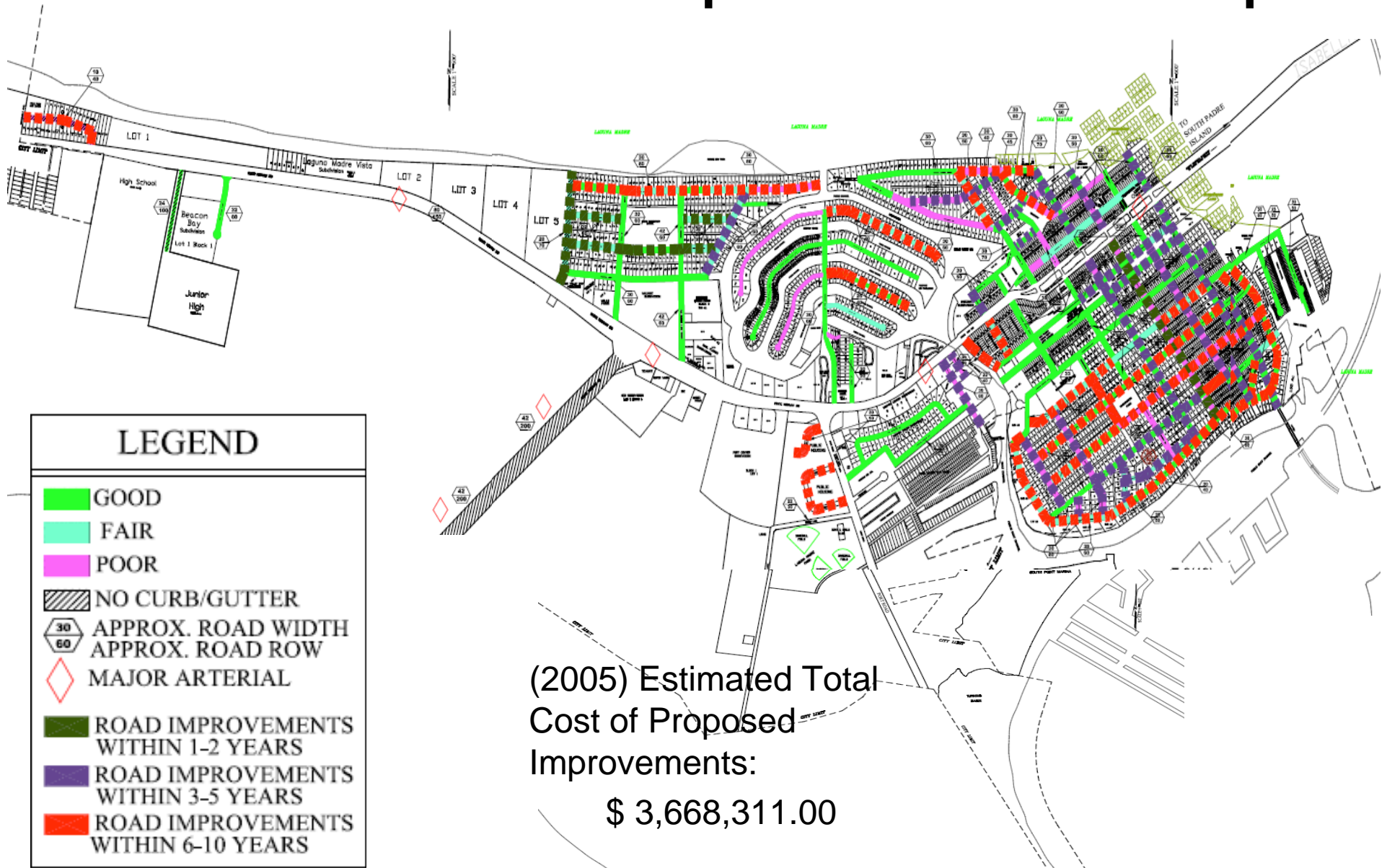
- **GOAL 1: Develop Traffic Circulation.**
  - 1) Develop and adopt a Traffic Circulation Plan (TCP) for future major and minor traffic arteries and subdivision integration. By designating the location of future thoroughfares in conjunction with zoning/future land uses, the City can ensure sufficient right-of-way designation in future developments. The TCP can serve as a resource to developers in the purchase and platting of properties.
  - 2) Review the existing Subdivision Ordinance requirements pertaining to street construction for adequacy. Also, ensure the enforcement of the Ordinance. The Ordinance should call for consistent quality and design throughout the City. Design details such as minimum pavement widths, parking, minimum right-of-ways, construction of curb and gutter, and cul-de-sac diameters should be established in the ordinance.
  
- **GOAL 2: Continue to Maintain Existing Streets**
  - 1) Develop a perpetual street maintenance schedule which includes street cleaning, minor pot-hole repairs and curb and gutter vegetation overgrowth elimination.
  - 2) Develop and implement a perpetual seal-coating program and ensure all collector streets are addressed first.
  - 3) Ensure the longevity of re-paved streets by analyzing the need for sealing within one year after re-paving and again at about five years.
  
- **GOAL 3: Improve Sub-Standard Streets**
  - 1) Begin to 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 width minimum (40 feet); integrating any trails, sidewalks and bikeways currently existing or planned and providing for lighting and signage to assure high levels of public safety and awareness particularly around schools and highway access points.
  - 2) Investigating sources for funding improvement projects. The City should maintain or establish a fund with an annual allocation for the purpose of making street and/or drainage improvements.
  - 3) Plans for street remediation and/or reconstruction should consider the design requirements for drainage ditches to hold additional capacity required from the street or road improvements.

# Streets & Thoroughfare System

## Street System Objectives

| Street Improvement Plan |      |   |
|-------------------------|------|---|
| YEAR                    | TASK | DESCRIPTION   |
| YEARS 1-2               | 1    | Hold Public Forums to inform public of Plan.  |
|                         | 2    | Adopt a Traffic Circulation Plan.   |
|                         | 3    | Improve one main collector street & establish a street maintenance program.         |
| YEARS 3-5               | 1    | Hold Public Forums to inform Public of Plan and its progress.                       |
|                         | 2    | Establish an improvement plan for collector street.                                 |
|                         | 3    | Improve one main collector and update seal-coat program.                            |
| YEARS 6-10              | 1    | Hold Public Forums to inform public of Plan and its progress.                       |
|                         | 2    | Design and implement a street signage strategy and expand collector street repairs. |
|                         | 3    | Improve one main collector street and update seal coat program.                     |

# Future Street Improvement Map



# Streets & Thoroughfare System

## **POSSIBLE FUNDING SOURCES:**

- Since funding will be constraint on the development of the Plan, all avenues of funding should be researched. Possible sources for funding the above improvement are as follows:
  - 1) General Fund
  - 2) General Obligation Bonds
  - 3) Special Subdivision Fees
  - 4) Grants—Office of Rural Community Affairs ORCA, EDA, TxDOT
  - 5) Low Interest Loans
  - 6) Street Assessment Programs
- It should be noted that grants are often structured to have a local contribution component or are limited in their application to specific components of community improvement projects. Since timing is a critical factor, it is unlikely that funding will be entirely available through multitude grants but will instead most likely require a local contribution in order to be effective for project funding. A common mistake by many administrators is the failure to recognize that most state and federal grant programs are subject to stringent rules and regulations and therefore are not very flexible in terms of changes or modifications. Another factor usually also forgotten is that most state and grant funds take much longer to administer than projects funded with local funds.

# Streets & Thoroughfare System

## Thoroughfare System

As mentioned in the streets section of this study, a streets network is the link within and external to a community, a city's livelihood is critically dependent upon its streets. Convenient, safe and efficient access within the community as well as to adjoining areas is the primary function of a street network, major thoroughfares are included.

*Thoroughfare:* a road, street, or the like, that leads at each end into another street; a major road or highway; a passage or way through.

Thoroughfares and other rights-of-ways occupy a large section of the total developed area and allow for circulation between all areas within the City. In addition to moving traffic, these thoroughfares provide access to and drainage for abutting properties, open space between buildings and right-of-ways for utilities. The street network including these major thoroughfares are therefore primary factors in supporting land use.

Both major thoroughfares in the City, State Hwy. 48 and Hwy. 100 are maintained by the State of Texas. With the exception of drainage, and land acquisition, the state usually provides most if not all construction and maintenance on these roads. Both of these roadways consist of asphalt and adequate drainage. Hwy. 100 has curbs and gutter from where it enters the City near Laguna Heights in the west to the Causeway.

# Streets & Thoroughfare System

## Thoroughfare System Inventory

### Classifications

For the purpose of this planning study, the following classifications were used:

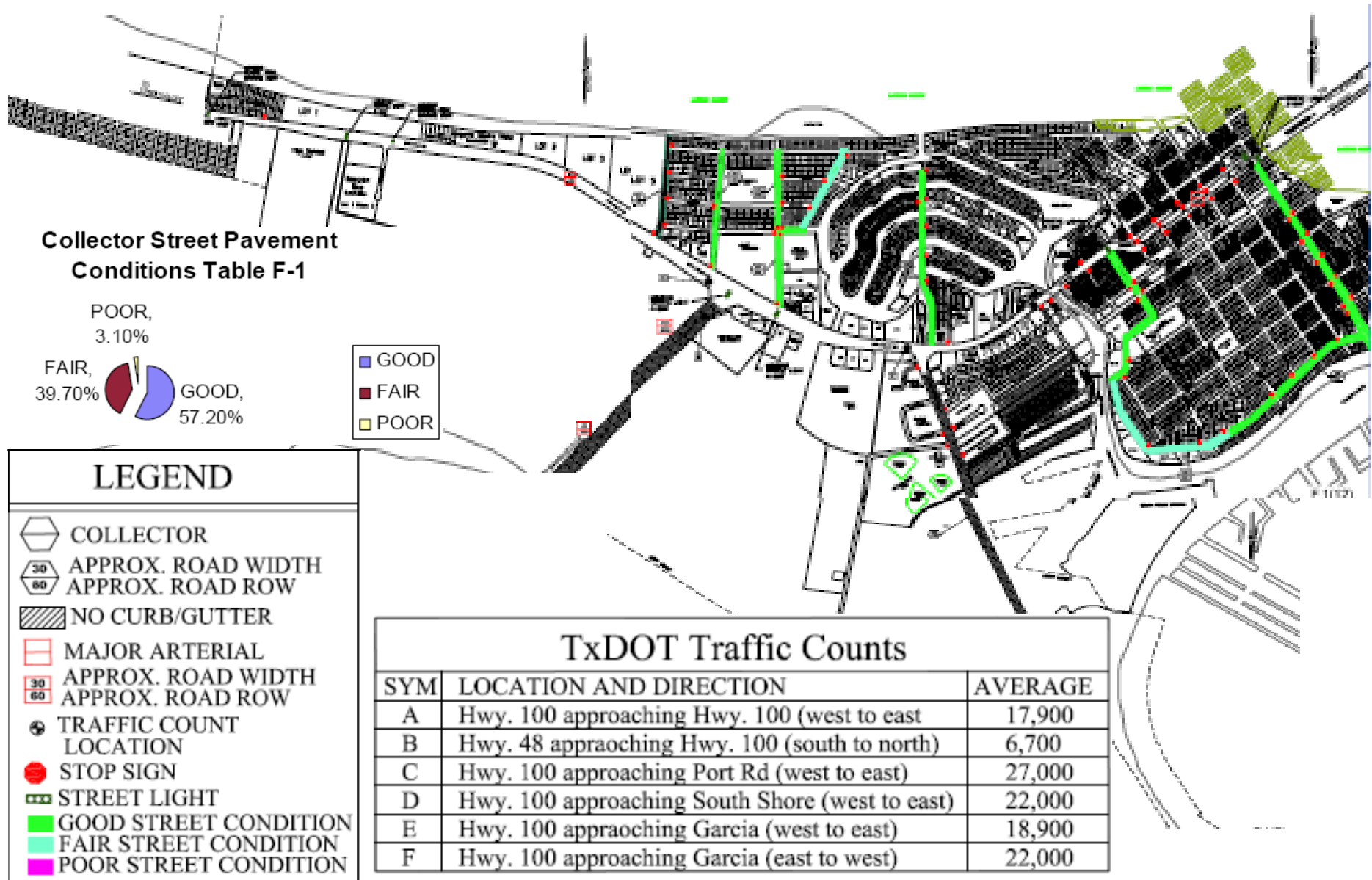
- 1) “**Good**” -Surface is smooth with no cracks or potholes.
- 2) “**Fair**” -Surface has longitudinal and vertical cracks, previously sealed cracks, and/or small areas of potholes.
- 3) “**Poor**” -Extensive patches, potholes, large unsealed cracks, loose gravel. All unimproved streets are classified here.

### Existing Street Conditions Findings

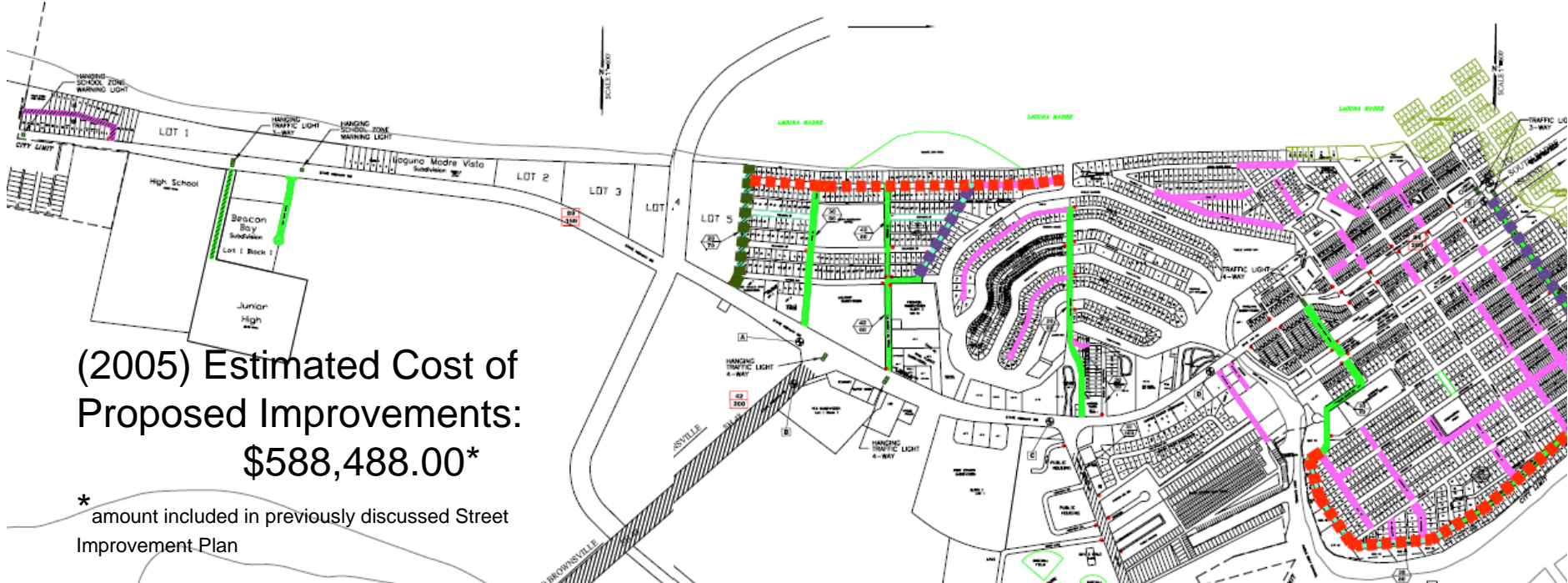
As mentioned in other sections of this Study a significant find during the study was that most streets in the City are in relatively good condition despite the fact that they appear to be poorly maintained. Compared to other City’s of similar size in the Valley, the collector streets conditions are above average. All City collector streets are constructed with an asphalt base except about 100 feet of Garcia Street from Hwy. 100 to Maxan, which are made of concrete.

| Condition | Estimated Linear feet | Percent of Total |
|-----------|-----------------------|------------------|
| GOOD      | 21,600                | 57.2             |
| FAIR      | 15,025                | 39.7             |
| POOR      | 1,200                 | 3.1              |
| Total     | 37,825                | 100%             |

# Thoroughfare System Maps



# Future Thoroughfare Improvement Map



(2005) Estimated Cost of Proposed Improvements: **\$588,488.00\***

\* amount included in previously discussed Street Improvement Plan

| LEGEND |                                     |  |                                     |
|--------|-------------------------------------|--|-------------------------------------|
|        | ROAD IMPROVEMENTS WITHIN 1-2 YEARS  |  | COLLECTOR                           |
|        | ROAD IMPROVEMENTS WITHIN 3-5 YEARS  |  | APPROX. ROAD WIDTH APPROX. ROAD ROW |
|        | ROAD IMPROVEMENTS WITHIN 6-10 YEARS |  | NO CURB/GUTTER                      |
|        | MAJOR ARTERIAL                      |  | APPROX. ROAD WIDTH APPROX. ROAD ROW |
|        | STOP SIGN                           |  | STOP SIGN                           |
|        | STREET LIGHT                        |  | GOOD STREET CONDITION               |
|        | FAIR STREET CONDITION               |  | POOR STREET CONDITION               |

# Streets & Thoroughfare System

## Thoroughfare System Goals

The key objective of the Street Plan is to support the growth projected in this Plan and to ensure a long-lived healthy transportation system for the City. Maintenance of the current grid pattern will continue to allow for a smooth flow of traffic and easily integrate with expected growth patterns. One future objective is to upgrade the FAIR and POOR streets to a GOOD status. Because upgrades to the main arteries of the City should be the top priority, funding constraints will result in new streets being built as a component of new subdivisions or as a limited extreme special needs.

The following sections list the street systems goals established for use in this Plan:

### GOAL 1: Develop Traffic Circulation.

- 1) Develop and adopt a Traffic Circulation Plan (TCP) for future major and minor traffic arteries and subdivision integration. By designating the location of future thoroughfares in conjunction with zoning/future land uses, the City can ensure sufficient right-of-way designation in future developments. The TCP can serve as a resource to developers in the purchase and platting of properties.
- 2) Review the existing subdivision ordinance requirements pertaining to street construction for adequacy. Also, ensure the enforcement of the Ordinance. The Ordinance should call for consistent quality and design throughout the City. Design details such as minimum pavement widths, parking, minimum right-out-ways, construction of curb and gutter, and cult-de-sac diameters should be established in the ordinance.

### GOAL 2: Continue to Maintain Existing Streets

- 1) Develop a perpetual street maintenance schedule which includes street cleaning, minor pot-hole repairs and curb and gutter vegetation overgrowth elimination.
- 2) Develop and implement a perpetual seal-coating program and ensure all collector streets are addressed first.
- 3) Ensure the longevity of re-paved streets by analyzing the need for sealing within one year after re-paving and again at about five years.

### GOAL3: Improve Sub-Standard Streets

- 1) Begin to 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 width minimum (40 feet); integrating any trails, sidewalks and bikeways currently existing or planned and providing for lighting and signage to assure high levels of public safety and awareness particularly around schools and highway access points.
- 2) Investigating sources for funding improvement projects. The City should maintain or establish a fund with an annual allocation for the purpose of making street and/or drainage improvements.
- 3) Plans for street remediation and/or reconstruction should consider the design requirements for drainage ditches to hold additional capacity required from the street or road improvements.

# Streets & Thoroughfare System

## Thoroughfare System

The improvements proposed here are based on the current street analysis. Special attention is given to improvements that are most in need or will provide the most widespread benefit for the community. High priority projects including highly traveled roadways in poor conditions or of insufficient capacity should be considered as soon as the City is able to finance the repairs. Typically street and road repairs with the greatest traffic flow should be improved first since this will benefit a larger number of people and will also most likely boost economic development.

| Street Improvement Plan |      |   |
|-------------------------|------|---|
| YEAR                    | TASK | DESCRIPTION   |
| YEARS 1-2               | 1    | Hold Public Forums to inform public of Plan.  |
|                         | 2    | Adopt a Traffic Circulation Plan & contract study for by-way from Port Road to Hwy. 48. |
|                         | 3    | Improve one main collector street & establish a street maintenance program.             |
| YEARS 3-5               | 1    | Hold Public Forums to inform Public of Plan and its progress.                           |
|                         | 2    | Establish an improvement plan for collector street.                                     |
|                         | 3    | Improve one main collector and update seal-coat program.                                |
| YEARS 6-10              | 1    | Hold Public Forums to inform public of Plan and its progress.                           |
|                         | 2    | Design and implement a street signage strategy and expand collector street repairs.     |
|                         | 3    | Improve one main collector street and update seal coat program.                         |

# Streets & Thoroughfare System

## **POSSIBLE FUNDING SOURCES:**

Since funding will be constraint on the development of the Plan, all avenues of funding should be researched. Possible sources for funding the above improvement are as follows:

- 1) General Fund
- 2) General Obligation Bonds
- 3) Special Subdivision Fees
- 4) Grants—Office of Rural Community Affairs ORCA, EDA, TxDOT
- 5) Low Interest Loans
- 6) Street Assessment Programs

It should be noted that grants are often structured to have a local contribution component or are limited in their application to specific components of community improvement projects. Since timing is a critical factor, it is unlikely that funding will be entirely available through multitude grants but will instead most likely require a local contribution in order to be effective for project funding.

A common mistake by many administrators is the failure to recognize that most state and federal grant programs are subject to stringent rules and regulations and therefore are not very flexible in terms of changes or modifications. Another factor usually also forgotten is that most state and grant funds take much longer to administer than projects funded with local funds because of a maze of bureaucratic rules, regulations and policies.

# Storm Drainage

- The ability to quickly remove rainwater from populated areas is another vital characteristic of a property developed community.
- This characteristic is paramount in minimizing property damage from flooding during periods of intense rainfall.
- The expedient evacuation of storm water also prevents adverse health consequences caused by infestation of mosquitoes and other insects.
- Residents of developed areas have come to expect protection from high water through a community drainage system.
- The addition of street and road improvements, new subdivision developments and new home construction in older areas of town all directly affect surface storm drainage immediately adjacent to homes and/or business structures.
- Storm drainage systems typically include inlets, storm sewers, culverts, bridges, concrete lined channels, natural drainage channels, overflow swales, creeks, rivers, retention ponds and detention ponds.
- Drainage in the City is provided by a network of underground storm sewers and open drain ditches. The topography of City is essentially flat and level terrain therefore drainage must be controlled through careful elevation adjustments.
- Considering the proximity to the coast, flooding is not a major problem in the City. However, localized flooding has been experienced due to disruptions in drainage flow caused by obstructions of culverts and drainage ditches.

# Storm Drainage

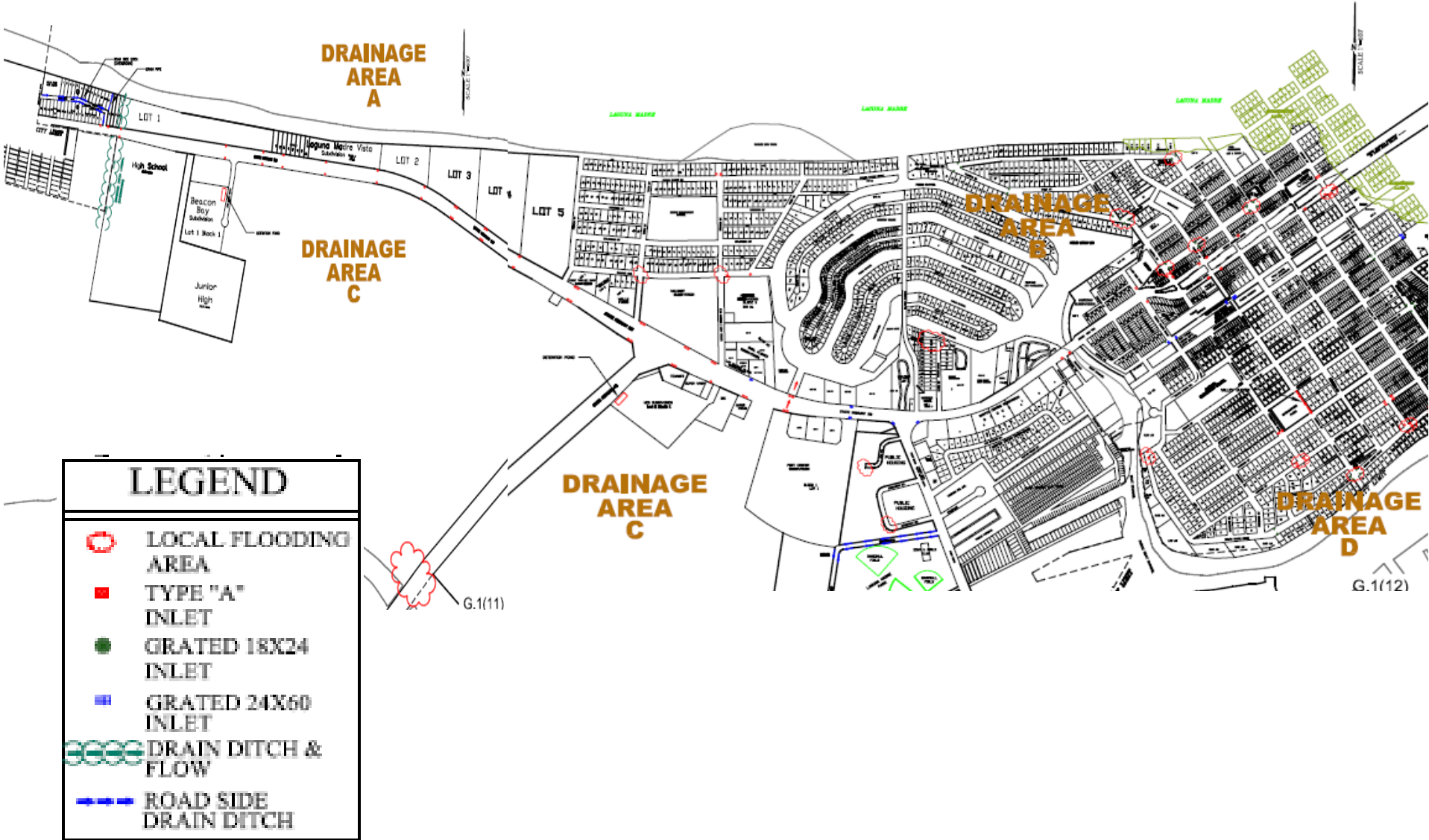
The intent of the Storm Drainage System Study is to review all available information on storm drainage in the City, make an analysis of the existing system, establish a database to be used to prepare a plan, and make recommendations with a cost estimate of improvements to the existing system.

No storm drainage studies have been prepared for the City of Port Isabel. It does not appear that an extreme storm drainage study is necessary, but an analysis of the physical storm infrastructures is. This report does not attempt to arrive at engineering conclusion on the adequacy of the existing system.

This table addresses the drainage system inventory that is currently in place in the City. This includes major drain ditches and the City's curbed and guttered streets, which consist of underground pipelines with box inlets, as well as the side ditches and culvert systems that are areas not yet served by curb and gutter.

| Storm Sewer Inventory |                           |  |
|-----------------------|---------------------------|--|
| Planning Zone No.     | Location from City Center | Inventory  |
| A                     | Northwest                 | <ol style="list-style-type: none"> <li>1. Drainage ditch immediately west of High School draining into the bay.</li> <li>2. <u>  28  </u> Type "A" drainage inlets.</li> <li>3. <u>    0  </u> Grated inlets. 18"x 24"</li> <li>4. <u>    2  </u> Grated Inlets 24" x 60"</li> </ol>                         |
| B                     | Northeast                 | <ol style="list-style-type: none"> <li>1. No drain ditches exist except for a few shallow bar ditches running parallel to some streets.</li> <li>2. <u>  11  </u> Type "A" drainage inlets.</li> <li>3. <u>  19  </u> Grated inlets. 18"x 24"</li> <li>4. <u>    0  </u> Grated Inlets 24" x 60"</li> </ol>  |
| C                     | Southwest                 | <ol style="list-style-type: none"> <li>1. No drain ditches exist except for a few shallow bar ditches running parallel to some streets.</li> <li>2. <u>  23  </u> Type "A" drainage inlets.</li> <li>3. <u>    0  </u> Grated inlets. 18"x 24"</li> <li>4. <u>    3  </u> Grated Inlets 24" x 60"</li> </ol> |
| D                     | Southeast                 | <ol style="list-style-type: none"> <li>1. No drain ditches exist except for a few shallow bar ditches running parallel to some streets.</li> <li>2. <u>  25  </u> Type "A" drainage inlets.</li> <li>3. <u>  23  </u> Grated inlets. 18"x 24"</li> <li>4. <u>    7  </u> Grated Inlets 24" x 60"</li> </ol>  |

# Storm Drainage Area Map



# Storm Drainage

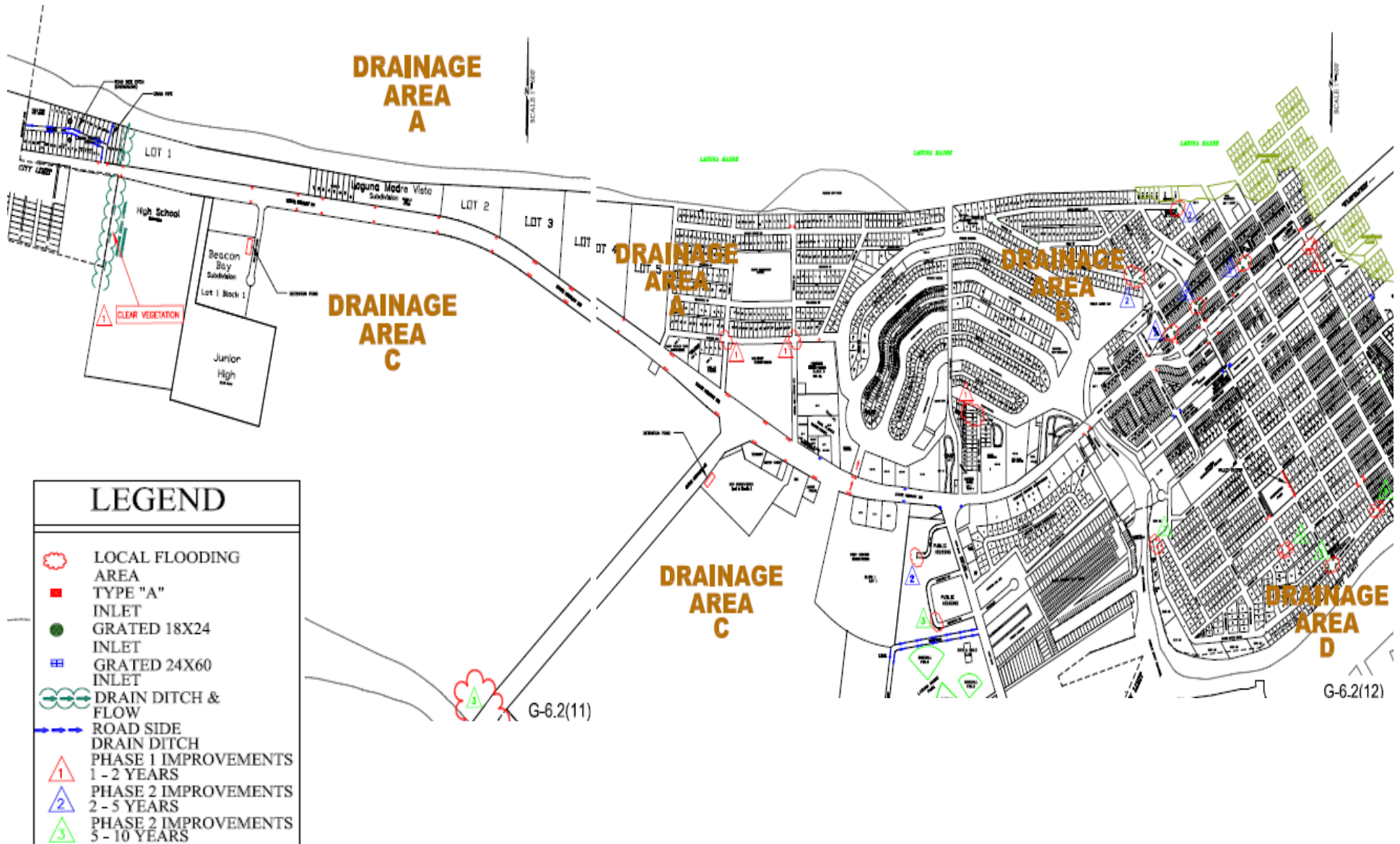
## Storm Drain Analysis

The analysis presented is based on observations and on the information obtained through interviews with staff, local residents, and other professionals. Problems identified, and recommendations of improvements are also a direct result of these contacts. The City has taken several steps to decrease the possibility of flooding and the resulting damage by putting in place additional drainage capacity during its street improvements program. The following are identified problems listed in rank of priority.

| <u>RANKING</u> | <u>PROBLEM</u>   |
|----------------|--|
| 1              | City's physical location and proximity to coast.                   |
| 2              | Lack of adequate planning during the initial development the City, |
| 3              | Inferior sizing of storm drainage lines.                           |
| 4              | Insufficient financial resources for addressing drainage problems, |
| 5              | Lack of storm drainage maintenance department, resulting in,       |
| 6              | Poor maintenance of the existing system.                           |

Analysis of the existing drainage system indicates present drainage structures and natural drainage conditions are poor. The pipelines and ditches do not appear to meet the design criteria to provide satisfactory drainage, such possibly causing surface flooding in the lower areas. Some areas do not appear to have drainage pipelines at all. Some areas have pipes that are too small in diameter to carry the runoff.

# Future Storm Drainage Map



| LEGEND |                                   |
|--------|-----------------------------------|
|        | LOCAL FLOODING AREA               |
|        | TYPE "A" INLET                    |
|        | GRATED 18X24 INLET                |
|        | GRATED 24X60 INLET                |
|        | DRAIN DITCH & FLOW                |
|        | ROAD SIDE DRAIN DITCH             |
|        | PHASE 1 IMPROVEMENTS 1 - 2 YEARS  |
|        | PHASE 2 IMPROVEMENTS 2 - 5 YEARS  |
|        | PHASE 2 IMPROVEMENTS 5 - 10 YEARS |

# Storm Drainage

**Areas that have experienced flooding and might require possible improvements are identified below:**

## Planning Area A:

- a) Intersection of Illinois Street and 2nd Street
- b) Intersection of Illinois Street and 3rd Street

## Planning Area B:

- a) At the end (north part) of Basin Street
- b) East end of North Shore at Longoria Street
- c) Yturria at Gomez & Davis
- d) Gomez at Dairy Queen on Hwy. 100
- e) Maxan at Yturria
- f) Maxan at Musina
- g) Maxan at Manautou

## Planning Area C:

- a) South Shore at Leal Street
- b) Monroe at intersection with Yturria
- c) Musina at South Shore Drive
- d) Manautou at South Shore Drive
- e) Tarnava at South Shore Drive at Garcia
- f) East Garcia at intersection with Hwy. 100 (at the Cone)

## Planning Area D:

- a) At the west end of Ash (Housing Project)
- b) At the southwest end of Hockaday Drive

# Storm Drainage

## **STORM DRAINAGE GOALS AND OBJECTIVES**

With the intention of maintaining a proven drainage system in optimum performance levels, the City has identified a list of goals and objectives. They are listed below:

### **GOAL 1: Create a Storm Drainage Department**

- 1) Create a storm drainage department as a stand-alone department or as a sub-department of existing Public Works Department.
- 2) Budget sufficient funds for the adequate administration and provide sufficient funds for a maintenance program.

### **GOAL 2: Operate the City's Storm Drainage System in an Efficient Manner**

- 1) Develop a documented ditch and lateral inspection plan and use it to maintain and/or report maintenance requests to the Drainage Department. Include logging of all complaints and observations of drainage system operations.
- 2) Develop and implement ordinances for the inclusion of drainage systems in any new development.

### **GOAL 3: Provide Consistent Storm Water Collection and Drainage**

- 1) Add curb and gutter to all streets which are currently devoid of them.
- 2) Implement a formal storm drainage system flow model for use in evaluating the impact of new developments and of Plan implementation.

### **GOAL 4: Provide Sufficient Collection and Discharge Capacity**

- 1) Implement a comprehensive master plan storm drainage program and construct oversize drainage lines in anticipation of projected growth needs.
- 2) Implement a formal storm drainage system flow model for use in evaluating the impact of new development and of Plan implementation.

# Storm Drainage System Plan & Funding Sources

| Storm Drainage System Plan |      |  |                             |
|----------------------------|------|--|-----------------------------|
| YEAR                       | TASK | DESCRIPTION  | COST EST.<br>(in \$1,000's) |
| YEARS 1-2                  | 1    | Hold Public Forums to inform Public of Plan and plan funding sources. Create Drainage Department within the City's Public Works Department and prepare drainage maintenance schedule. Immediate clean all grates and inlets. | 20                          |
|                            | 2    | Investigate and analysis areas of potential flooding by commissioning an engineering drainage study and creating a storm drainage department.  | 75                          |
|                            | 3    | Prioritize and schedule proposed storm drainage improvements in three phases, 1) Immediate threat 2) Secondary threats & 3) long-term and future improvements.   | 5                           |
| YEARS 3-5                  | 1    | Hold Public Forums to inform Public of Plan and its progress.  | 1                           |
|                            | 2    | Start construction improvements on Phase I.  | 500                         |
|                            | 3    | Finalize construction plans for Phase 2.   | 50                          |
| YEARS 6-10                 | 1    | Hold Public Forums to inform public of Plan and its progress.  | 1                           |
|                            | 2    | Start construction improvements on Phase 2.  | 500                         |
|                            | 3    | Finalize plans for Phase 3.  | 50                          |

## FUNDING SOURCES

The funding may be through grants/or loans:

- 1) Office of Rural Community Affairs (ORCA)
- 2) Federal Emergency Management Agency (FEMA)
- 3) Texas Water Development Board (TWDB)
- 4) Economically Distressed Assistance Program (EDAP)
- 5) Texas Commission on Environmental Quality (TCEQ)