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**ANNEXATION
ALTERNATIVES
ANALYSIS**
City of Sugar Land, Texas

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*RIMROCK
CONSULTING*

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EXECUTIVE SUMMARY

In general, the conclusions of this report reflect the City's positive experience with large, master planned developments utilizing MUD financing mechanisms. The report outlines steps that the City can take to try to ensure that future development in the ETJ follows this pattern. Changes in the real estate and lending markets, however, make such an outcome less likely than in the past, and the City needs to be prepared for other eventualities.

The major sources of leverage that the City has to influence development in the ETJ are its ability to prevent (or threaten to prevent) the formation of MUDs through annexation and its ability to provide regional water and wastewater service. In many cases, developers will be willing to negotiate with the City in order to obtain greater certainty about the regulatory environment and/or to secure regional utility service. The City can implement the results of these negotiations in the form of developer agreements, MUD consent agreements and/or utility agreements.

The highest priority recommendations of the report are summarized as follows.

- " Negotiate Developer Agreement with TxDOT
 - land use controls
 - acquisition of future municipal property needs
 - phasing of sale/development of tracts
 - provision of regional road/utility infrastructure
 - financing vehicles (e.g., MUD master district, levee district)

- " Establish Guidelines for Consent/Development Agreements
 - define issues of concern to City regarding land use, code, facility compatibility, etc.
 - review legal enforceability of developer/consent/utility agreements
 - require sound fiscal practices in MUDs, particularly related to administrative costs

- " Adopt Service Extension and Utility Rate Policies
 - identify conditions for extending water and sewer lines outside the City;
 - define City policy on developer reimbursements (if any);



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- specify policy regarding rates for outside-City wholesale and retail customers.
- "
- Revise Subdivision Requirements
- undertake comprehensive revision and update of the subdivision regulations
 - add provisions for utility oversizing or pro rata agreements
 - incorporate adequate public facility standards, particularly for off-site roads
 - update parkland dedication requirements to be consistent with park master plan



ANNEXATION ALTERNATIVES ANALYSIS CITY OF SUGAR LAND, TEXAS

SECTION 1: INTRODUCTION

James Duncan and Associates, in association with Rimrock Consulting Company, was engaged by the City of Sugar Land to evaluate various annexation alternatives facing the City, particularly in regard to land use controls and timely provision of infrastructure. For a considerable period, the community has grown through annexation of municipal utility districts (MUDs) in the City's extraterritorial jurisdiction (ETJ), with the associated assumption of MUD debt. Several recent occurrences have prompted a reconsideration of the City's past policies to ensure that future growth is of the same or better quality as past development:

- (1) The Texas Department of Transportation is in the process of designing a development plan for the very large former prison site adjacent to the City;
- (2) A master plan for Sugar Land Municipal Airport is nearing completion, which includes restrictions on adjacent land uses;
- (3) Other planned developments adjacent to the City are being proposed as new MUD developments.

A wide variety of information sources were used in the study in an attempt to incorporate the City's current regime of planning/regulatory mechanisms and to involve key decision-makers and affected parties in the identification of critical issues. Data sources reviewed are described in **Appendix A**. Key features of the City's regulatory and policy regime are summarized in **Section 2**.

The City's objectives for development in the ETJ were developed based on the review of planning documents, key interviews and consultation with City staff. These objectives form the criteria that are used to evaluate the policy alternatives. The evaluation criteria, more fully described in **Section 3**, include:



- Regional Facility Compatibility
- Land Use Controls
- Timely Provision of Infrastructure Improvements
- General Financial Effects
- Regulatory Predictability
- Level Playing Field
- Logical Development Progression (TxDOT Property)
- Promotion of Master Planned Communities
- Public Acceptance

The City is faced with a variety of annexation and utility service choices, any of which may be beneficial to the community under certain conditions. In many cases the City may be able to negotiate agreements with developers that would give developers greater regulatory predictability and possibly access to the City's regional utility facilities. In particular, there is a possibility that the City can enter into negotiations with TxDOT prior to the sale of the property regarding topics such as land use, building codes, annexation timing, financing (MUD or non-MUD), etc. Thus, the policy alternatives include both options which assume that the City has obtained such an agreement and alternatives that assume that no such agreement has been achieved. Also, the various scenarios include various types of water/wastewater service arrangements (independent utility, wholesale City service, retail City service), and various annexation approaches (annex now, annex upon development "maturity", annex defensively). The final policy alternatives, described in **Section 4**, include:

- 1) developer agreement, outside-City wholesale MUD,
- 2) developer agreement, outside-City independent utility,
- 3) no agreement, outside-City independent MUD,
- 4) no agreement, in-City retail MUD, and
- 5) no agreement, in-City development without MUDs.

The "Decision Matrix" technique for policy analysis was selected as the most appropriate to provide summary analytical results to City decision-makers. Through this approach, various alternative policy actions are defined and each is evaluated according to a selected array of criteria of importance to the community. This methodology is particularly useful when the criteria under evaluation are not quantifiable, or when there are a mix of quantified and subjective criteria. Results are displayed in a summary matrix which plots criteria against policy alternatives so that all choices can be reviewed simultaneously. The decision matrix is presented in **Section 5**, and recommended policy choices under various conditions are described in **Section 6**.



It should be noted that for all alternatives, this study assumed that certain new policies were applied across the board. The Consultants and Staff identified several actions that the City could take to improve City procedures, irrespective of which policy alternative was preferred. Thus, various general recommendations are made in **Section 7** that are assumed to be enacted for all annexation/service alternatives. In summary, these include:

- Prepare Detailed Zoning Plan for ETJ Areas
- Revise Subdivision Requirements
- Update Parkland Dedication
- Establish Standards for City Service
- Adopt Service Extension Policies and Utility Rates
- Establish Guidelines for Consent/Development Agreements
- Re-examine the Use of Impact Fees
- Secure Airport Zoning
- Establish Incentive Program for Master Planned Developments
- Study City Reimbursement Alternative to MUD Financing

The study concludes with a list of actions for the City to take in order to better regulate development in its ETJ (**Section 8**).



SECTION 2: BACKGROUND

This section summarizes background information relevant to the study.

TxDOT Master Plan. In March 1996, the Texas Department of Transportation released a master plan for approximately 6,000 acres of prison system land that TxDOT owns in the vicinity of Sugar Land. Four of the tracts, comprising about 3,700 acres, lie within the City’s ETJ. Prior to the release of the master plan, the Consultants had prepared a report summarizing City land use and facility plans for the TxDOT property (Appendix D). As can be seen from the following comparison, the land uses proposed by the TxDOT master plan are very similar to the desired land uses contained in the City’s Comprehensive Plan. The master plan includes a large (100-acre) undeveloped park area within the noise contours of the airport south of Highway 90A, and an even larger park along the Brazos River. The report recommends that TxDOT work with the City of Sugar Land to negotiate an agreement that would designate future land uses for the prison system land within its ETJ.

Table 2-1
TxDOT Land Use Comparison

Land Use	City Comprehensive Plan	TxDOT Master Plan
Single-Family Acres	2,284.8	2,118.0
Multi-Family Acres	0.0	47.0
Nonresidential Acres	971.0	347.0
Park Acres	11.2	489.8
ROW/Other Acres	437.3	695.2
Total Acres	3,704.3	3,697.0

Source: Appendix D; RUST Lichliter/Jameson, *Executive Summary of the Engineering Report/Feasibility Study for the Potential Development of Approximately 6,000 Acres of Prison System Land*, March 1996.



Development History. The City of Sugar Land was incorporated in 1959, primarily as a company town focused on Imperial Sugar and Nalco Chemical Company. Later, master planned communities, financed and served by MUDs, developed outside the City and were eventually annexed (First Colony, Sugar Creek). Currently, there are a number of other master planned communities (Greatwood) outside the city which are served as MUDs and which will ultimately become part of Sugar Land.

MUD Creation. City Code provides that in-City and ETJ MUDs shall meet certain requirements in regard to bond issuance and shall comply with City standards and specifications for water, sewer and drainage improvements. The City's dissolution policy provides that the City will not grant consent for new in-City MUDs and defines conditions for dissolution of existing in-City districts.

Annexation Management Studies. The City prepared an annexation management study in 1989 and updated it in 1995. The 1989 study examined potential annexation of several ETJ MUDs and in-City MUDs in regard to demographics and fiscal impacts and recommended a phased annexation schedule. In the 1995 study, several other areas were examined, and most were determined to have greater costs than revenues upon annexation.

Outstanding Debt. A considerable portion of the City's outstanding debt is devoted to retiring MUD debt. According to the City Budget, per capita debt almost doubled from 1989 to 1995, largely due to "the City's obligation for annexed and dissolved municipal utility districts."

Comprehensive Plan. Sugar Land's regulatory regime and administrative practices are premised by its adopted goals, objectives and strategies identified in the City's Comprehensive Plan. The overall intent of the Comprehensive Plan, in regard to suburban areas, is clearly to include them in the City's planning activities and to protect the low-density residential nature of the community -- both now and in the future. The Plan references annexation, zoning, building codes, and capital improvements planning as tools intended to be used in providing land use compatibility, service adequacy and financing of quality community growth. Thus, the City's Comprehensive Plan contemplates timely annexation of development, application of zoning and building code controls for new development, and the possible extension of the water and sewer utilities through "traditional" (i.e., non-MUD) means.

Facility Plans. The City's facility drainage master plan addresses areas within the City's current limits, while master plans for parks, roads and water/sewer address service needs within the ETJ as well as within the City, to varying degrees. To some extent, drainage improvements outside the City are funded by levee districts



or MUDs, and parks outside the City may be funded through the City's parkland dedication ordinance or through MUDs. Major thoroughfares throughout the region are potentially funded through a wide variety of state, federal, county and city funds; roadways within outside-City developments are funded at developer's expense. Water and sewer improvements have most typically been initially funded by both inside-City and suburban MUDs, with the City assuming MUD debt upon annexation.

Subdivision Ordinance. Currently, the City's Subdivision Ordinance requires that any subdivision in its ETJ conform to City subdivision regulations and design standards. Those regulations include submission and approval of transportation impact analysis involving any change to a proposed corridor in the City's Thoroughfare Plan and that all lots must be served by public utilities. Given the history of quality master planned development, the City's subdivision standards have usually been exceeded by local developers.

Impact Fees. The City has a water and sewer impact fee ordinance, and previously charged fees for new development. However, because almost all development occurring outside the City takes place in MUDs (which do not receive City service or pay impact fees), effectively the only new development to which impact fees applied was new development within the City limits. This seemed to be an inequitable practice to City officials, and currently the water and sewer impact fees are set at \$0.00. Since most new development occurs outside the City limits, water and wastewater impact fees as they are currently formulated have little use in Sugar Land. The City has no roadway or drainage impact fees. (In the Houston area, drainage improvements are often financed through Levee Improvement Districts, or LIDs.)

Utility Rates. The City Code sets rates for in-City utility customers. However, there is no provision for either outside-City retail or wholesale rates.



SECTION 3: EVALUATION CRITERIA

This section describes the criteria used to evaluate the annexation/service options for development within the City's ETJ.

Regional Facility Compatibility. An important objective of the City is the development and financing of an integrated regional water and wastewater system. In all areas of this study, there is the presumption that development within the City's ETJ will ultimately be within the corporate limits, and thus any facilities within those environs will ultimately become City assets that will require City-funded maintenance and operation. For that reason, the City has an interest in assuring that infrastructure and service improvements in new development can readily be integrated into the City system and meet or exceed City standards. This concern applies to water and sewer utilities, roadway systems, parks, public safety facilities and other typical governmental services. Various annexation scenarios have different implications for the City's ability to influence service reliability and consistency.

Land Use Controls. A key concern of the City is its ability to control the pattern of land uses which will ultimately exist within the corporate limits. In the past, the existence of quality master planned communities in MUDs adjacent to the City has alleviated the community's concern about land use compatibility and development density. However, the City recognizes that it must carefully consider appropriate land use and density controls in order to ensure that future development takes the same path. A related concern of the City is the ability to apply building codes to new development which will ultimately be within the City. City staff cites various problems in the past with poor construction techniques in structures previously outside the City which were subsequently annexed into the City.

Land use controls are both formal and informal. The City has subdivision powers within the City and its ETJ; however, zoning controls can only be applied within the City limits. On the other hand, informal influence over land use can be exerted through MUD consent agreements (by which the City agrees to the creation of a MUD in its ETJ under certain conditions) and developer agreements secured as a condition of development approval or utility provision.

Timely Provision of Infrastructure Improvements. New development in certain locations may impose infrastructure demands which the City is unable to accommodate in a timely fashion, thus potentially resulting in inadequate service for both existing and new residents. The primary reason for inadequate public facilities is lack of funding. Thus one of the criteria for evaluation was the ability of the City to influence the timing of



development consistent with the provision of adequate infrastructure. Specifically, one of the City's major objectives is to ensure that the major roadway system needed to serve the future development of the ETJ is constructed and funded. In addition to incorporating provisions relating to development phasing and infrastructure improvements into MUD consent agreements and developer agreements, another approach is to add adequate facility requirements to the City's subdivision regulations.

General Financial Effects. Each service and annexation alternative has financial impacts on the City. For example, in-City development without a MUD financial vehicle typically requires the developer to pay for "internal" infrastructure (local roads, water distribution and wastewater collector lines, etc.), while the annexation of a MUD with outstanding debt may result in the City assuming debt for the same type of infrastructure. Another example of differential financial impacts is the potentially different utility rate structure for residents inside the City as compared to those receiving wholesale service in the ETJ. In the past, the City has annexed MUDs under certain conditions concerning the financial health of the District. The City also has experience with in-City MUDs to contrast with non-MUD development within the City.

Regulatory Predictability. An oft-voiced concern was that regulatory change was the greatest fear among development representatives and caused the greatest potential disruption to orderly growth and development. Each of the development scenarios examined above attempts to provide some regulatory predictability while providing the City with some form of health, safety and welfare controls. Only with a defensive annexation would the regulatory environment be somewhat uncertain, and this would occur due to the inability of the City and the developer to come to agreement on the level of City control applied to a project.

Level Playing Field. Another evaluation criteria was added to the project in response to developers' (and others') concerns that local developers could not compete if they were not reimbursed for infrastructure in the same manner as occurs throughout the greater Houston area. Moreover, there was some concern expressed by various individuals that Sugar Land might not be able to compete effectively against other regional cities for future housing if development costs were increased due to the unavailability of developer reimbursements. Thus, the study examined at a cursory level the potential impact of each policy alternative on development costs related to reimbursable MUD services.

Logical Development Progression (TxDOT Property). During interviews, concerns were expressed that any action by the City that had significant potential effect on the value of the TxDOT property (such as preventing the formation of MUDs) might cause the State to withdraw the property from the market in the near future. Since the TxDOT area is immediately adjacent to the current City limits and is a logical progression of City growth, such potential effects were examined in this study.



Promotion of Master Planned Communities. During the interviews, a nearly universal desire was expressed for a continued growth of Sugar Land in the same master planned approach as the current City has developed. Those interviewed expressed the expectation that this outcome is unlikely due to the reported reluctance of major financial institutions (and development companies) to assume the risk of such long-term and large-scale development projects. Nevertheless, there may be opportunities for the City to come closer to such an approach through various types of land use controls. Thus, each policy alternative is evaluated for its potential incentives for large scale master planning.

Public Acceptance. It is difficult to gauge the general acceptability of any particular policy alternative in advance. However, there are some indications of the receptiveness of Sugar Land citizens to certain approaches of the past. So to the extent there is a track record of popular acceptance of each of the policy alternatives, those observations have been included here.



SECTION 4: ANNEXATION/SERVICE POLICY ALTERNATIVES

The City has two primary sources of leverage that it can use to attempt to maximize the achievement of its objectives for development of its ETJ. First, the City is the major regional utility provider in the area, and developers who wish to connect to the City's system will need to negotiate with the City. Second, the City has the authority to annex and to prevent the formation of MUDs within its corporate limits, and this possibility may encourage developers to negotiate with the City.

Agreements resulting from negotiations with developers could be implemented through developer agreements, MUD consent agreements and/or utility agreements. Such agreements could address a variety of issues of concern to the City, including the compatibility of facilities for eventual integration into the City systems upon annexation, the phasing of development and annexation, utility service arrangements and rates, and land use controls. It is likely that when satisfactory agreements can be reached with developers, the City would consent to the creation of MUDs in its ETJ and defer annexation until development is "mature." Utility service would be provided independently by the MUD if the City is unable to serve it, or the MUD would be a wholesale customer of City utilities utilizing the City's regional facilities.

In the event that a satisfactory agreement cannot be achieved, MUDs could be formed in the ETJ without the City's consent. Alternatively, the City could immediately annex the property, and possibly allow the formation of in-City MUDs. Finally, the City could annex defensively as needed to prevent the formation of MUDs.

Thus, the five major annexation/utility service alternatives are:

- 1) developer agreement, outside-City wholesale MUD,
- 2) developer agreement, outside-City independent utility,
- 3) no agreement, outside-City independent MUD,
- 4) no agreement, in-City retail MUD, and
- 5) no agreement, in-City development without MUDs.

Although there are other potential alternatives, these five were considered to be the most consistent with previous City experience and to be the most likely future choices. They are also the scenarios which offer the greatest predictability for the development community and most retain developer reimbursements that are widely used throughout the Houston area.



For simplicity and for greater clarity in defining City policy, each alternative is taken in its pure form, exclusive of all other alternatives. In reality, however, the City will likely use a combination of these alternatives at different times; moreover, actual development proposals have vastly more diversity than what can be presented in this study.

An innovative alternative to MUDs is an arrangement whereby the City would reimburse developers for their internal facility costs that they would normally be reimbursed from the proceeds of MUD bonds. This approach could be used as an alternative to both ETJ and in-City MUDs. Because of the untested nature of this approach, it was not formally included as an alternative. However, it is recommended that the City perform a financial analysis of the technique (see discussion in **Section 7**).

The following sections contain a detailed discussion of the evaluation of each annexation/service alternative according to the various criteria identified in the previous section. Each discussion is accompanied by a table which provides a coded summary evaluation of the alternative. Comparative results are summarized in complete decision matrix form in **Table 5-1**.

ALTERNATIVE 1: Developer Agreement; Outside-City Wholesale MUD

This alternative assumes that the City and the developer can reach a mutually satisfactory agreement, and that the City utility system has the capacity to efficiently provide regional facilities to the development. Under this approach, development would remain outside the City, but would receive City services through a wholesale customer contract with the City. The MUD would build and service all distribution/collection lines internal to the development and would handle customer accounting and billing for its retail customers. The City would provide major regional facilities, such as water and sewer treatment facilities, major pumping, storage and major trunk lines. The City would provide service only if it entered into a consent agreement with the developer of the MUD; in addition, a wholesale utility customer contract would be negotiated.

During the course of Consultant interviews, several parties discussed the possibility and desirability of negotiations between the City and TxDOT. The TxDOT property is a major portion of the City's ETJ and presents somewhat of a unique case, since the City would be negotiating with a major landowner rather than a developer. This case presents opportunities for early master planning, as well as challenges for crafting agreements that are enforceable with subsequent owner/developers. Nevertheless, most of the issues and



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considerations involved in such negotiations have general applicability to other potential developments in the ETJ.

It would be to the mutual advantage of both parties to enter into a development agreement. The City is interested in quality development in its ETJ, in areas which will soon be a part of the City. Thus, the City might be interested in a defining land uses which will occur on the TxDOT properties, ensuring that City standards are applied to construction projects, and encouraging public facilities compatible with those currently in the City. The City would also be interested in the phasing of the sale of the properties due to the need to be able to provide adequate public facilities (notably roadway networks) in a timely manner.

For its part, TxDOT should be interested in receiving the greatest return for its property. This can be achieved by creating greater predictability about the regulatory controls which will be applied to the property. Most importantly, the general consensus of the various persons interviewed was that property values would likely be considerably reduced if developers were unable to use MUD financing, or some acceptable alternative for developer reimbursements. Thus, TxDOT should be concerned about the timing of potential annexation and the City's posture on MUD creation.

Finally, developer representatives consistently stated that, although they preferred less City regulation to more regulation, their greatest concern was with regulatory uncertainty. A binding agreement between the City and TxDOT would add a considerable degree of certainty about the regulatory climate, although there would be more regulation than would occur without such an agreement. If the agreement were complete prior to TxDOT's sale of the land, each prospective buyer would have relatively predictable information regarding regulatory costs which should be considered in the development pro forma.

If the City were to enter into such an agreement with TxDOT, it is assumed that there would be no wholesale annexation of the TxDOT property, but rather property would be annexed (as it is now) when each development was considered to be "mature" enough for annexation. This maturity would be determined by City policies concerning outstanding debt, tax rates, assessed valuation, and other relevant factors.

Some concerns have been expressed that development agreements may not be legally enforceable. In addition, there is always the possibility that legislative remedies could be obtained by development interests to limit City control in the ETJ (as has occurred when Austin has utilized ETJ development controls). Nevertheless, it would seem to be highly advisable for the City to secure a development agreement with TxDOT, which could be supplemented with additional developer and utility agreements. If the TxDOT agreement should be found



to be unenforceable, the City would still have all other options available to it, including annexation and zoning.

Regional Facility Compatibility. The prospective TxDOT agreement and other developer, MUD and utility agreements should require that construction of public facilities on the property conform to City standards and that utilities would be designed subject to City approval in order that project utilities would be coordinated with City regional systems. Since the City will be providing regional utility facilities, it will be in an even better position to require internal utility facilities that are compatible with the City’s overall regional utility system.

Land Use Controls. Since this alternative assumes that the City is able to obtain a favorable development agreement with the developer defining future land uses for the property, the City will have a reasonably secure means of determining future land uses and densities, although not as good as with City zoning. Development of the property could be tied to a master plan and implemented through deed restrictions. City provision of utility service would provide the City with additional leverage to secure appropriate land uses, building standards and facility consistency. In the same manner as land use controls, building code enforcement could be included in an agreement, thus adding a mechanism to ensure that construction in the ETJ meets the standards the City will want to enforce once the project is annexed into the City.

Criteria	Value
Regional Compatibility	●
Land Use Controls	⊕
Timely Infrastructure	⊕
General Financial Effects	⊖
Regulatory Predictability	⊕
Level Playing Field	●
Logical Development	●
Master Planning	⊕
Public Acceptance	M

F Least Positive ⊖ Neutral/Positive
 ⊕ Generally Positive ● Most Positive

Timely Provision of Infrastructure Improvements. To the extent that TxDOT agrees to coordinate the timing of its sale offerings with the City, and that other developers agree to phase construction of their developments, the City can be better prepared to provide infrastructure improvements in advance of development, and in an orderly manner. Also, since the City will provide utility service, it may have some additional ability to coordinate infrastructure provision with development growth.

General Financial Effects. Financial impacts would be similar to those which occur currently: the City would assume some of the MUDs debt when the project was ripe for annexation.



Regulatory Predictability. A developer agreement should offer a high degree of regulatory predictability, since this is what the City would give the developer (as an enhancement to its property value), in addition to regional utility service, in exchange for land use and other controls. In the case of TxDOT, because the agreement would be made prior to sale of this large tract, regulations for a very large future portion of the City would be made known to all interested parties and would help provide for orderly and successful development of the area.

Level Playing Field. In regard to MUD reimbursements, this alternative would not change the current status quo. The only possible difference to developers would be that they would be subject to City standards which might increase development costs. However, this would be somewhat compensated by a greater climate of certainty surrounding development of the area.

Logical Development Progression. This approach would likely help define the value of the TxDOT property at a fairly high level. It is possible that land values would be slightly reduced due to the property being subjected to City development standards, but this might be offset by regulatory certainty attached to the property.

Promotion of Master Planned Communities. Agreement to permissible land uses would encourage development in a planned manner; however, neither this alternative nor any other alternative is likely to generate financing of large-scale, long-term developments. However, if master planned developments are otherwise viable, the TxDOT agreement or other developer agreements should not discourage such projects, provided developers have some assurance of City flexibility (built into the TxDOT agreement) in regard to land use mix responsive to market pressures. Nevertheless, the City's flexibility should not undermine the overall objectives of the City.

Public Acceptance. The acceptance of this approach should be similar to the acceptance of current policies. Generally, Sugar Land residents have responded favorably to the City assuming some portion of MUD debt upon annexation; this has been standard practice for much of the development already in the City limits.

ALTERNATIVE 2: Developer Agreement; Outside-City Independent Utility

The second alternative examined was the case where the City enters into a developer agreement but does not provide City utility service to the development. Instead, the developer and the City would enter into a consent agreement, whereby the City consents to the creation of the MUD provided the MUD agrees to certain conditions of the City (primarily related to financial concerns).



Regional Facility Compatibility. Same as Alternative 1, except that the City may have somewhat less leverage since it is not providing regional utility facilities.

Land Use Controls. Same as Alternative 1, except that the City may have somewhat less leverage since it is not providing regional utility facilities.

Timely Provision of Infrastructure Improvements. Same as Alternative 1. City may have timely notice of needed improvements through the TxDOT agreement.

General Financial Effects. Same as Alternative 1: Similar to current conditions.

Regulatory Predictability. Same as Alternative 1: Predictability is high; provided by contract.

Level Playing Field. Same as Alternative 1: Maintains developer reimbursements by MUDs; additional regulation, but also additional predictability.

Logical Development Progression. Same as Alternative 1: Encourages sale of TxDOT property.

Promotion of Master Planned Communities. Same as Alternative 1: Provides land use plan; does not discourage master planned developments.

Public Acceptance. Same as current policies: MUD reimburses developers and City assumes some MUD debt upon annexation.

Criteria	Value
Regional Compatibility	⊕
Land Use Controls	⊖
Timely Infrastructure	⊕
General Financial Effects	⊖
Regulatory Predictability	⊕
Level Playing Field	●
Logical Development	●
Master Planning	⊕
Public Acceptance	●

F Least Positive ⊖ Neutral/ Positive
 ⊕ Generally Positive ● Most Positive

ALTERNATIVE 3: No Agreement; Outside-City Independent Utility



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The second group of policy alternatives assume that the City and developer do not enter into an agreement regarding the City's development concerns, but the City nevertheless defers annexation until the development is "mature". Development controls would be similar to those currently in existence (primarily subdivision controls). This category of policy alternatives would include the same array of possible service options as are discussed above in the event a TxDOT agreement is secured:

Regional Facility Compatibility. The City would have little formal control over standards for public facilities in the development.

Land Use Controls. Without a development, MUD or utility agreement, the City would formally have only subdivision controls in the area. Moreover, the City would have little leverage over an independent utility not needing service from the City. The City's control over land use would depend almost entirely over agreements that could be secured through the consent agreement process, or through an annexation agreement.

Timely Provision of Infrastructure Improvements. With limited development controls, the City would have little control over the timing of development, and thus little over the timing of infrastructure needs.

General Financial Effects. Similar to current conditions; the City assumes some MUD debt on annexation.

Regulatory Predictability. Same as current conditions; no enhanced predictability.

Level Playing Field. Same as current conditions.

Logical Development Progression. Same as current conditions; TxDOT will enter the market based on the City's continued current practices.

Promotion of Master Planned Communities. No master plan, zoning or development plan with City input. However, the City's policy would pose no impediment to master planned communities.

Criteria	Value
Regional Compatibility	F
Land Use Controls	F
Timely Infrastructure	F
General Financial Effects	⊖
Regulatory Predictability	F
Level Playing Field	●
Logical Development	⊕
Master Planning	⊖
Public Acceptance	●

F Least Positive ⊖ Neutral/Positive
 ⊕ Generally Positive ● Most Positive



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Public Acceptance. Same as current policies.

ALTERNATIVE 4: No Agreement; In-City Retail MUD

Without a development agreement, the only secure means the City has of controlling land use and other development controls is through annexation of the property — either in whole or incrementally prior to development. Thus, this group of policy alternatives assumes that the City will preemptively annex the TxDOT property, thus securing development control over the area, but also providing a considerable degree of certainty about the development and regulatory future of the property.

If the City were to annex the property, it could still allow the use of MUDs as a financing mechanism, although there are unique opportunities and difficulties with in-City MUDs. The MUD would exist for the purpose of financing internal infrastructure of the development (and reimbursing the developer), but the MUD residents would receive retail water and sewer service directly from the City at the same retail rates as other City residents. Property owners would pay both City and MUD taxes, although the City would provide a rebate to the MUD, as it does currently with existing in-City MUDs.

Regional Facility Compatibility. City standards applicable.

Land Use Controls. Zoning and subdivision controls and building code apply.

Timely Provision of Infrastructure Improvements. Some ability to coordinate the provision of infrastructure through utility service provision.

Criteria	Value
Regional Compatibility	●
Land Use Controls	●
Timely Infrastructure	⊕
General Financial Effects	⊖
Regulatory Predictability	●
Level Playing Field	●
Logical Development	F
Master Planning	⊖
Public Acceptance	F

F Least Positive ⊖ Neutral/Positive
 ⊕ Generally Positive ● Most Positive



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General Financial Effects. Same as current conditions for in-city MUDs; City somewhat insulated from utility costs for development.

Regulatory Predictability. High; City controls.

Level Playing Field. Same as current conditions.

Logical Development Progression. May reduce land costs and may reduce area land sales.

Promotion of Master Planned Communities. Although zoning controls are in place, this does not assure a master planned approach. Because of the MUD structure and City service provision, the City may have some informal ability to influence the scope of the development and land use mixtures.

Public Acceptance. Historically, citizens in residential in-City MUDs have not been favorable to dual taxation structure. There is no assurance that in-City MUD Boards will reduce MUD taxes commensurate with City tax rebates.

ALTERNATIVE 5: No Agreement; Non-MUD Development

The final alternative is included in an attempt to provide a relatively full range of potential development scenarios. In this alternative, the City may have unsuccessfully attempted to secure a development or consent agreement with an ETJ developer and may exercise the option of annexing the property to secure development control as a defensive response. In this instance, the City would be likely to provide retail utility service without reimbursement to the developer.

Regional Facility Compatibility. City standards applicable.

Criteria	Value
Regional Compatibility	●
Land Use Controls	●
Timely Infrastructure	⊖
General Financial Effects	⊕
Regulatory Predictability	●
Level Playing Field	F
Logical Development	F
Master Planning	F
Public Acceptance	⊕

F Least Positive ⊖ Neutral/Positive
 ⊕ Generally Positive ● Most Positive



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Land Use Controls. City zoning, subdivision and building code regulations apply.

Timely Provision of Infrastructure Improvements. Some ability to coordinate infrastructure, but perhaps less than with negotiation leverage with MUD.

General Financial Effects. City would not reimburse developer for internals, thus there might be a favorable cost impact on the City. However, the City would be forced to provide services that it might not be prepared to fund at the time of the forced annexation.

Regulatory Predictability. High; City controls.

Level Playing Field. The developer may be at a competitive disadvantage due to the lack of reimbursements from MUD bonds. However, this occurs because negotiations between the developer and the City have been unsuccessful to the extent of provoking a forced annexation.

Logical Development Progression. Since the forced annexation would take place after the sale of the land, this would have no impact on land costs, except for the developer with whom the City has not been able to reach agreement.

Promotion of Master Planned Communities. Although zoning controls are in place, this does not assure a master planned approach. The City will have little informal ability to influence the scope of the development and land use mixtures.

Public Acceptance. Same as current conditions, except that there will be somewhat less public cost for infrastructure internals.



SECTION 5: DECISION MATRIX SUMMARY AND CONCLUSIONS

Table 5-1 is a decision matrix that summarizes the evaluation of each annexation/service alternative according to the identified criteria. Several conclusions can be derived from this table:

- In terms of land use and building controls, the most secure position for the City is to annex the property and impose zoning and other controls. However, the combination of TxDOT agreement provisions and other developer/consent/utility agreements might provide comparable compliance with City land use/building code goals.
- In regards to providing a high level of regulatory predictability, either a binding TxDOT agreement or zoning could be employed. In fact, it is possible that a development agreement could provide greater predictability, since zoning can be changed unilaterally by the City and a development agreement could only be altered by mutual agreement.
- All the alternatives presented would have approximately the same fiscal impact on the City (in regard to financing water and sewer infrastructure costs), except for the Alternative 5, where annexation would be used defensively to prevent formation of a MUD.
- All four MUD alternatives presented should keep the development "playing field" level, in regard to providing developers in the area with reimbursements for internal utility lines as occurs currently. In Alternative 4 (in-City MUD), developers might receive somewhat of an advantage if annexation reduces land values and developers keep their reimbursements. However, if land values are reduced by too much, land may be kept off the market.
- Several City objectives are better addressed by other mechanisms than annexation and service decisions. Adequacy of public infrastructure may best be secured by subdivision requirements, clear definition of City standards, and carefully designed policies for infrastructure financing (impact fees, developer contributions or interim financing, etc.). Airport concerns can be resolved by use of airport zoning, although other mechanisms (TxDOT and developer agreements) should be consistent with airport zoning. Master planned developments should be encouraged through an integrated program of incentives, which may include decisions about annexation and service provision in concert with many other inducements.



- Most of the alternatives presented would not be likely to provoke an adverse public reaction, except for in-City MUDs, which have a local history of creating perceptual problems due to dual taxation.

TABLE 5-1
DECISION MATRIX SUMMARY OF ANNEXATION/SERVICE ALTERNATIVES

Evaluation Criteria	Developer Agreement		No Agreement		
	Whlsale ETJ MUD	Indep ETJ Utility	Indep ETJ Utility	In-City Retail MUD	In-City Non-MUD
Regional Facility Compatibility	●	⊕	F	●	●
Land Use Controls	⊕	⊖	F	●	●
Timely Provision of Infrastructure	⊕	⊕	F	⊕	⊖
General Financial Effects	⊖	⊖	⊖	⊖	⊕
Regulatory Predictability	⊕	⊕	F	●	●
Level Playing Field	●	●	●	●	F
Logical Development (TxDOT)	●	●	⊕	F	F
Master Planning	⊕	⊕	⊖	⊖	F
Public Acceptance	M	●	●	F	⊕

F Least Positive ⊖ Neutral/Slightly Positive ⊕ Generally Positive ● Most Positive



SECTION 6: RECOMMENDED DEVELOPMENT OPTIONS UNDER VARIOUS CONDITIONS

The City should retain its ability to use any of the alternatives presented under various development circumstances. However, the following general recommendations are made, although the City should remain flexible to respond to the unique characteristics of each development proposal.

TxDOT Agreement. In general, citizens, the development community and TxDOT would all be well served by the City entering into a binding development agreement with TxDOT prior to the sale of the land. This would afford the greatest overall benefits, regardless of whether service were to be provided independently or through retail or wholesale service from the City. This agreement would address reasonable concerns of the City about the nature and quality of future development in its prospective territory, provide a considerable degree of predictability for developers and enhance property values for TxDOT. In contrast, moving into the future without a TxDOT agreement will leave the future considerably less defined for all parties, whereas annexing the property would add definition to the future but might make the TxDOT land less marketable. It is recommended that the City negotiate an agreement with TxDOT prior to the property being placed on the market. Specific elements to be negotiated with TxDOT should include: future land uses; acquisition of future municipal property needs; the size of tracts to be sold and possible provisions to bind subsequent owners to develop the tracts in a master planned manner; and the provision for an integrated approach to construction and funding of major infrastructure improvements, possibly including MUD master districts and large levee districts.

Independent Utility. It was the consensus of the interviewees that it is in the best long term interests of the City to provide regional utilities in its ETJ, especially in regard to wastewater treatment. Thus, in general, the City should encourage connection of new development to its utility systems. However, as discussed below in **Section 7**, the City should develop service extension policies to guide its decisions in service provision. Generally, development that is significantly removed from the City and cannot be served in the near term by City utilities should be allowed to form an independent MUD in the ETJ, provided that the consent agreement requires that all facilities conform to City standards and are consistent with the City's long-term utility master plans.

Wholesale ETJ MUD. The City has little experience in providing wholesale service to ETJ MUDs. However, in the interest of developing an integrated regional utility system, the City should carefully consider encouraging wholesale ETJ MUDs in the future wherever new development can be efficiently served by the



City. This will also give the City additional informal leverage in securing cooperation from new development in regard to other issues of concern to the City (such as building codes, land use, etc.).

Annex Now vs. Annex at Maturity. In general, there is little to be gained from the City annexing the TxDOT property now as opposed to waiting for the developments to become mature for annexation (the current City policy), especially if the City is successful in securing a development agreement with TxDOT.

In-City MUD. In-City MUDs would give the City the opportunity to exert greater land use control, but likely at the expense of public acceptance (due to the dual tax structure), while annexation would have the potential of somewhat lowering land values. There was no compelling evidence that annexing the TxDOT property and allowing in-City MUDs in that area would address the City's overall concerns as well as various other alternatives.

Synopsis. In summary, the following policies should be adopted by the City:

- The City should attempt to enter into a development agreement with TxDOT prior to the sale of the property.
- Independent ETJ utilities should be allowed consistent with prospective City guidelines on utility extensions; i.e., independent utilities should be allowed where the City cannot efficiently provide service in a timely manner, provided the development agrees to comply with City standards and utility master plan.
- Wholesale ETJ MUDs should be encouraged consistent with prospective City guidelines on utility extensions -- wherever the City can efficiently provide regional utility service.
- Retail outside-City service with City reimbursement to developers should be encouraged if a feasibility study indicates that it is in the City's best overall interest to do so (in lieu of utility financing through ETJ MUDs).
- Annexation should continue to occur when a development is "mature", unless the City is unsuccessful in obtaining cooperation from a developer in addressing legitimate concerns of the community. As a last resort, the City should be prepared to preemptively annex properties



where development is planned to occur in a manner adverse to City interests. In such adverse situations, no developer reimbursements should be allowed.



SECTION 7: RECOMMENDATIONS FOR GENERAL POLICY ENHANCEMENTS

During the course of the study, it became apparent that, irrespective of the City's posture on annexation and service provision, it would benefit from various policy enhancements generally. The sections below describe the Consultant's recommendations for such changes. Each of the annexation/service alternatives discussed above assumes that these policy changes are in effect.

Prepare Detailed Zoning Plan for ETJ Areas. In anticipation of annexation of future ETJ areas, the City and other interested parties would benefit from the City's definition of prospective zoning for ETJ areas. This would assist in land use definition in a potential TxDOT agreement, and would serve notice to future developers of the type of land uses the City would favor prior to entering a MUD consent agreement or a utility service contract. It would also assist the City in planning for its long-term future facility needs when these areas are brought into the City limits.

Prepare Fire Service Plan for ETJ Areas. The City should develop a comprehensive plan element dealing with the extension of City fire protection service to areas of its ETJ that are most likely to be annexed.

Revise Subdivision Requirements. The City's existing subdivision regulations appear to have some inadequacies that may present problems if future development does not occur in master planned communities as it has in the past. For example, the regulations have no provisions for utility oversizing or pro rata agreements. A comprehensive revision and update of the subdivision regulations is recommended. Also, there is some question about the legality of current perimeter road exactions and this issue should be examined.

As part of this process, the City may wish to consider incorporating adequate public facility standards into the subdivision regulations. Adequate public facility provisions require that adequate off-site facilities are in place or will be in place by the time the development impact occurs. Adequate public facility provisions require that the impact each development will place on the system (i.e., roads, water, waste water, schools, emergency services, etc.) be measured in order to determine whether existing capacity is available to serve the new development.

For example, an adequate public facility ordinance for roads could require that the road system in the development connect to segments of the public road system with adequate capacity to handle the projected traffic flow, both on an average basis and at peak hours. Typically, a developer is required to submit a traffic



impact analysis (TIA) that identifies any improvement needed to maintain the adopted LOS with the addition of traffic from the project and from other approved developments on the affected roadways. If the City determines that the offsite roadway network serving the development is not adequate, then the City has three options: (1) disapprove the plat; (2) require that final platting of the property be phased to coordinate the timing of development with the City's provision of adequate capacity for the roadway; (3) approve the plat if the developer voluntarily agrees to construct the necessary off-site roadway facilities. An example adequate public facility ordinance for roads is shown in Appendix C.

Adequate public facility provisions specifically prohibit development unless facilities are present to support it and can ensure that the impact of new development does not cause extreme reductions in service for existing residents. These provisions also encourage growth near existing facilities thereby reducing the City's cost to provide services.

Update Parkland Dedication. According to City staff and the City's park consultant, the current ordinance inadequately provides funds for neighborhood parks and provides no funding for larger parklands. The City's parkland dedication ordinance needs to be reviewed for adequacy in providing community and regional parks as well as neighborhood parks. As large ETJ areas are developed, appropriate park land should be identified and set aside for this purpose, and the funds to develop these lands should be accumulated.

Establish Standards for City Service. The City should review current policy documents to ensure that appropriate standards have been identified for City services and facilities. If the City is successful in obtaining cooperation from future developments in adopting City standards, those standards must be well-defined and consistent with City goals. Moreover, if the City intends to consider the adequacy of public services in its approval of subdivision applications, standards must be clearly set out and the Staff must be able to fairly assess what impact a prospective development will have on off-site roadway capacity, regional utilities, etc. in the subdivision review process.

Adopt Service Extension Policies and Utility Rates. The City needs to define its policies in regard to extension of City utility service outside the City limits. Specifically, the City needs to identify the conditions under which it will extend water and sewer outside the City either to retail or wholesale customers; specify a policy regarding monthly rates; define City policy on developer reimbursements (if any), etc. These policies must be carefully crafted to support the City's overall goals. For example, the City may only want to extend service to areas contiguous to the City, to developments which conform with the City's desired land uses for



an area, etc. Potential developer reimbursements may be designed to encourage larger master planned developments or conformance to other City objective.

Utility rates must be fairly determined (i.e., they must be based on cost of service); however, the City currently has no mechanism to determine cost for outside-City retail utilities (which may be higher or lower than for inside-City customers for various reasons) or for wholesale service to MUDs (which would likely be lower than retail costs). For the purposes of uniformity in rate approaches and legal defensibility, an outside-City rate policy should be established.

Establish Guidelines for Consent / Development Agreements. The City has the opportunity to secure cooperation from future developments in regard to various issues of concern to the City -- primarily land use, building code standards, and public facility compatibility and adequacy -- through contracts. Some of these concerns may be included in MUD consent agreements, although there are various legal opinions on the enforceability of such provisions. The City should investigate its legal options and examine the practices of other communities in securing cooperation through the consent agreement process.

Irrespective of any consent agreement provisions regarding land use, etc., the City is fully within its rights to require sound fiscal practices in the MUDs, since the City will be assuming MUD debt at a future date. City staff should recommend revisions to City Code regarding the financial requirements in MUD agreements in order to lower administrative costs.

In addition to consent agreements, the City has leverage, through utility service contracts, to secure such agreements in exchange for provision of utility service and other considerations. The City needs to clearly define the concerns it wants to see addressed through development agreements, and routinely attempt to protect the interests of the City in regard to areas which are planned for future annexation.

Re-examine the Use of Impact Fees. Currently, the City has set water and wastewater impact fees at \$0.00, but it still has an impact fee program in place. Although the earlier impact fees were suspended because they seemed inconsistent with other City practices, the City may wish to re-visit the concept of impact fees, both for water and sewer, and for roadways. For example, if the City takes the position of encouraging ETJ MUDs to become wholesale customers of the City, it may want to establish impact fees for those developments to fund regional infrastructure. (Utility service contracts must have provisions for collecting wholesale customer impact fees.) This approach would also be appropriate for development outside the City which receives retail service from the City. However, the City should take care to devise a consistent policy. For



example, if the City agrees to provide a development with retail service and to provide developer reimbursements in lieu of MUD reimbursements, the City should either not refund the developer for the impact fee portion of the developer's cost (and only reimburse for internal lines), or it should not impose an impact fee; otherwise, the City would, in effect, ultimately reimburse itself.

In the area of roadways, the City should carefully consider the cost of future road improvements in developing an annexation policy. There are various possible alternatives for addressing the cost of roadway improvements. First, the City can annex a property and charge roadway impact fees to offset the public cost of upgrading roadways. The City is precluded by law from charging roadway impact fees outside the City limits. Yet ETJ development clearly has a potential impact on City roadways and future road capacities. Thus, the only way to use impact fees to fund roadway improvements is to annex the property.

Alternatively, the City should investigate the legality of entering into developer agreements through which developers pay for needed off-site road improvements in order to address the need for adequate public facilities. Another alternative is that the developer may enter into an agreement to upgrade roadways in the near term (in order to be able to develop a property prior to the time at which the City was financially prepared to provide services), with future reimbursement from the City according to the City's CIP timetable. All of these alternatives should be considered in determining the appropriate annexation decision for a property and, more generally, whether the City should have a roadway impact fee program.

Secure Airport Zoning. The likelihood that the TxDOT property will be sold and developed increases the need for land use controls in the vicinity of the airport to ensure public safety and land use compatibility. While the City could annex and zone the area surrounding the airport, or attempt to impose land use controls thru developer or MUD consent agreements, the City also has the option of imposing airport zoning regulations, pursuant to Texas Code Chapter 241, Airport Zoning Act. The Act allows cities to control land uses and heights within an area 1½ miles from the centerline of a runway and five miles from each end of the paved surface of a runway. The adoption of airport zoning would allow the City to protect the area adjacent to the Sugar Land Municipal Airport without annexing additional property or relying on a developer or MUD consent agreement.

In addition to airport zoning, the City could amend its subdivision regulations to require dedication of aviation easements consistent with the Airport Master Plan. This could help protect the City from lawsuits related to noise or hazards associated with development in the vicinity of the airport.



Establish Incentive Program for Master Planned Developments. A recurring theme in many of the interviews that were conducted in the course of this study was that citizens would like to replicate the success and form of past master planned developments in the City's future growth. Market forces and financing policies will largely determine the viability of such large scale development. However, the City can encourage master planned projects through its own policies. It would be prudent for the City to consult with development representatives and other interested parties to determine what the City can do, within the parameters of its overall goals, to provide incentives for large scale developments. These incentives might include infrastructure support, streamlined approvals, developer reimbursement programs or other inducements to make large scale development less risky and to lower developer financing costs.

Study City Reimbursement Alternative to MUD Financing. When development occurs in a MUD, the developers are reimbursed for the cost of internal utility lines from the proceeds of MUD bonds after 90 percent of the internal infrastructure has been completed. A possible alternative to this practice would be for the City to reimburse the developer, thus avoiding the need to create a MUD. This is a non-traditional approach that could reduce the overhead costs involved in MUD creation and administration, allow the City greater financial and development control, and still provide local developers with the same type of financial advantage as that experienced by developers in competitive areas (and provided to developers of earlier development in Sugar Land). The reduction in administrative and financing costs associated with MUD financing might compensate for the additional costs incurred with the City assuming the entirety of the reimbursement debt (instead of a portion of the reimbursement debt, as occurs now).

There are several issues that should be carefully investigated before the City makes a decision about the advisability of this approach. First, the City should conduct a feasibility study that examines the likely fiscal impacts of this technique as compared to current practices. In addition to fiscal concerns, the City should also identify other objectives which might be achieved by moving to City reimbursements, such as a reduction in the number of governmental entities surrounding the City, increased control over infrastructure provision (and thus growth rate), or other considerations. Finally, the City should review all pertinent information and make an informed decision about the relative advantage of taking this new direction. If the fiscal impacts are positive or neutral, the City should establish a trial program. If the fiscal impacts are slightly negative, this still might be a viable approach in certain circumstances -- for example, to encourage a master planned development.

Clearly, the City would only agree to such an arrangement if it had an acceptable service and development contract with the developer. Also, such an approach may require some public education efforts, since this would be a deviation from past practice. Moreover, City reimbursements to developers might prove unpopular



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if they had the effect of imposing more cost on the City than would occur under current practices of assuming MUD debt upon annexation.

Explore Limited Purpose Annexation. Texas legislation that provides the authority for a municipality to annex an area for the limited purposes of planning and zoning is limited to home-rule municipalities with populations in excess of 225,000. While not authorized under current legislation, the City may want to explore the possibility of proposing legislation that will provide smaller communities with this authority.



SECTION 8: ACTION PLAN

The following recommended actions would put the City in a better position to manage growth and development within the ETJ:

- " Negotiate Developer Agreement with TxDOT
 - land use controls
 - acquisition of future municipal property needs
 - phasing of sale/development of tracts
 - provision of regional road/utility infrastructure
 - financing vehicles (e.g., MUD master district, levee district)

- " Establish Guidelines for Consent/Development Agreements
 - define issues of concern to City regarding land use, building code, facility compatibility, etc.
 - review legal enforceability of developer/consent/utility agreements
 - require sound fiscal practices in MUDs, particularly related to administrative costs

- " Prepare Detailed Zoning Plan for ETJ Areas
 - better define desired land uses for potential TxDOT agreement
 - serve notice to future developers of land uses the City favors prior to entering negotiations
 - assist the City in planning for its long-term future facility needs.

- " Prepare Fire Service Plan for ETJ Areas
 - assist the City in planning for its long-term future facility needs.

- " Revise Subdivision Requirements
 - undertake comprehensive revision and update of the subdivision regulations
 - add provisions for utility oversizing or pro rata agreements
 - incorporate adequate public facility standards, particularly for off-site roads
 - update parkland dedication requirements to be consistent with park master plan

- " Establish Standards for City Service
 - identify appropriate standards for City services and facilities.
 - standards must be well-defined and consistent with City goals.



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- standards must allow quantitative impact assessment for adequate public facility requirements
- " Adopt Service Extension and Utility Rate Policies
- identify conditions for extending water and sewer lines outside the City;
 - define City policy on developer reimbursements (if any);
 - specify policy regarding rates for outside-City wholesale and retail customers.
- " Re-examine the Use of Impact Fees
- water and wastewater impact fees for wholesale customers to fund regional infrastructure
 - water and wastewater impact fees for retail customers
 - road impact fees (inside City only by law)
 - investigate legality of requiring developers to pay for needed off-site road improvements
- " Secure Airport Zoning
- state law allows City to control land uses and heights in 3 by 10 mile area around airport
 - dedication of aviation easements could be required at subdivision to limit City liability
- " Establish Incentive Program for Master Planned Developments
- consult with development representatives on appropriate incentives
 - could include infrastructure support, streamlined approvals, developer reimbursements, etc.
- " Study City Reimbursement Alternative to MUD Financing
- City could reimburse developers for internal facilities to avoid MUD
 - lower "soft costs" could compensate for earlier assumption of MUD debt
 - conduct a feasibility study that examines the likely fiscal impacts
 - only agree in context of acceptable service and development contract
 - deviation from past practice may require public education effort
- " Explore Limited Purpose Annexation



Appendix A DATA SOURCES

A wide variety of information sources were used in the study in an attempt to incorporate the City's current regime of planning/regulatory mechanisms and to involve key decision-makers and affected parties in the identification of critical issues.

City Documents

City documents reviewed for this study included the following, among others:

- City of Sugar Land Comprehensive Plan 1993-2030 (October 1993)
- City of Sugar Land City Limits, ETJ and MUD Map (June 2, 1995)
- Annual Budget for the City of Sugar Land 1995-1996 (Adopted September 5, 1995)
- City of Sugar Land General Fund Summary Schedule of Revenues and Expenditures, FY1986-87 through FY1994-95
- City of Sugar Land 1993-1998 Capital Improvement Program (Updated December 1993)
- City of Sugar Land Master Drainage Plan (June 1990)
- City of Sugar Land Park Master Plan (April 1990)
- City of Sugar Land Thoroughfare Plan (December 1994)
- City of Sugar Land Water & Wastewater Master Plan (June 1995)
- City of Sugar Land Impact Fee Update (May 1993)
- City of Sugar Land Impact Fee Update (draft) (August 1994)
- City of Sugar Land Ordinance No. 835 (impact fees) (May 1993)
- City of Sugar Land Ordinance No 923 (impact fees) (February 1995)
- City of Sugar Land Code, Sections 26-1 through 26-16 (Creation of Water or Sewer Districts Within City's Extraterritorial Jurisdiction)
- City of Sugar Land Code, Sections 26-31 through 26-35 (Water and Sewer Rates and Charges)
- City of Sugar Land Code, Chapter 22, Subdivision Regulations
- MUD Annexation Memorandum from Joe Morris to David Neely (January 26, 1996)
- City of Sugar Land Annexation Management Study (June 1989)
- City of Sugar Land Annexation Management Study (July 1995 Update)



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Key Interviews

Interviews were conducted with key community leaders and affected parties, including elected representatives, City staff, developers and their representatives and consultants who represent either the City or local developers. The interviews took place between February 28 and March 1, 1996. Participants included:

Elected Officials

Honorable Lee Duggan, Mayor
Brian Gaston, City Council Member
Dean Hrbacek, City Council Member
Clyde Jacks, City Council Member
Manuel Reyes, City Council Member
Bill Tallus, City Council Member
Mary Von Tungeln, City Council Member

Planning and Zoning Commission

Ed McMahon
Leo Meerman

City Staff

David Neely, City Manager
Allen Bogard, Assistant City Manager
Joe Morris, City Attorney
Susan Barnett, Deputy City Manager / Director of Finance Administration
Richard Morton, Parks Department

Greater Fort Bend County Economic Development Council

Herb Appel, President

Developer Representatives

Jimmy Pappas, Markborough (New Territory)
Les Newton, President, Sugarland Properties, Inc.
Jeff Anderson, Project Manager, Monarch Developments of Texas, Inc.

Consultants

Jeanne McDonald, Vinson & Elkins
Tony Boyd, P.E., Vice President, Lockwood Andrews & Newnam, Inc.
Paul Lippke, P.E.
Lynne Humphries, Vinson & Elkins
John Parry
Sheila Condon, President, Clark Condon Associates



Other Data Sources

The following other data sources were also reviewed:

- Texas Department of Transportation, Houston District, Engineering Report/Feasibility Study for the Potential Development of Approximately 6,000 Acres of Prison System Land
- Sienna Plantation Joint Development Agreement (Draft, November 13, 1995)
- Joint Development Agreement by and among the City of Sugar Land, Texas; Frost Family I Ltd.; and Monarch Developments of Texas, Inc. (Draft, January 24, 1996)
- Petition for Consent to the Creation of a Municipal Utility District [Fort Bend County MUD #113] (January 19, 1996)
- Contract for Financing and Operation of Regional Waste Collection, Treatment and Disposal Facilities and Regional Water Supply and Delivery Facilities [Fort Bend County MUD #113] (Draft, February 6, 1996)
- City of Austin Requirements for Water District Review: Preapplication for Consent to Creation of, or Annexation to a Water District; Application for Consent to Creation of, or Annexation to a Water District; Bond Issuance; Administrative Review of Land Plan Revision; and Out-of-District Service Amendment to Consent Agreement.

Appendix B
SUMMARY OF COMPREHENSIVE PLAN POLICIES
RELATED TO ANNEXATION AND UTILITY SERVICE IN ETJ AREAS

GOAL	OBJECTIVE	STRATEGY
<p>I. LAND USE: Achieve balanced and orderly growth and use of land that will preserve and enhance the quality of the physical environment; provide an adequate tax base to support existing and future development and protect and enhance the quality of Sugar Land's neighborhoods and the community as a whole.</p>	<p>Stabilize property values through zoning that limits or prohibits the development of incompatible land uses or structures that would negatively impact adjoining properties.</p> <p>Retain the suburban low density character of the city by limiting the concentration of apartments and higher density residential uses in order to promote a sense of community and to ensure the conservation of open spaces.</p> <p>Provide adequate lands for a full range of commercial uses and employment opportunities that are best suited to serve neighborhood, city and regional markets through advance planning and zoning.</p>	<p>All component plans should include the lands within the ETJ of the city. . . .</p> <p>Community planning should not end at the border of the city. . . .</p> <p>Master planning for subdivision and large areas should provide for continuation and linkages of open spaces, recreational facilities, and alternative transportation routes. . . .</p> <p>Continue to annex territory which either is, or will in the future, benefit from the services, both public and private, which exist as a result of the actions of the city.</p> <p>Continue to annex Municipal Utility Districts in accordance with prudent fiscal planning and the long term interests of the city.</p> <p>Implement design and construction standards for growth within the ETJ through better coordination with Fort Bend County.</p> <p>Continue to enforce and strengthen as necessary the city's development standards, building codes and provisions for landscaping, signage and materials for home construction in order to main to increase the values and protect the integrity of neighborhoods.</p>
<p>II. TRANSPORTATION AND MOBILITY: Maximize the overall transportation system to provide the greatest mobility for the citizens and economy of the city.</p>	<p>Plan for future thoroughfares in sparsely developed areas by identifying high priority corridors and then ensuring ultimate rights of way are acquired as development occurs.</p>	
<p>III. FLOOD AND DRAINAGE Plan, construct, and manage a comprehensive flood protection and drainage system to optimize the harmonious use of land, balancing the need for environmental protection and urban development for the benefit of all the citizens of the City of Sugar Land.</p>	<p>Include the areas within the ETJ when the city undertakes updating of the master Drainage Plan and determine the full flood potential and drainage characteristics of the Brazos River in order to achieve a complete picture for its relationship to land usage.</p> <p>Develop a suburban waterways design plan that blends together a balanced mix of flood plain preservation and flood control structures that are aesthetically pleasing and environmentally sound and within the constraints of the ordinance required for participation in the National Flood Insurance Program of the Federal Emergency Management Agency.</p> <p>Develop linear parks to connect neighborhoods with community parks and regional open spaces. Utilize the rich resource of waterways within the city and ETJ and incorporate hike and bike trails along linear parks.</p>	<p>Investigate how counties and cities can best participate in a comprehensive program to implement the [Brazos River Environmental Plan] through management of the river throughout all its reaches and to maximize its economic and environmental potential.</p>

Appendix B
SUMMARY OF COMPREHENSIVE PLAN POLICIES
RELATED TO ANNEXATION AND UTILITY SERVICE IN ETJ AREAS

GOAL	OBJECTIVE	STRATEGY
<p>IV. WATER UTILITIES Provide adequate water and wastewater utilities to support the needs of residents and businesses in the City of Sugar Land.</p>	<p>Ensure that high quality utility service is available to support the existing and future needs of the city.</p> <p>Consider evaluating the traditional means of extending water and sewer service within the city limits. A planned service approach toward extension of utilities, streets, and other public services may include assessments for development as part of annexation of vacant lands. . . .</p> <p>Conduct advance planning to incorporate Municipal Utility Districts (MUDs) into the city's system, particularly in relation to the ultimate development and use of the Texas Department of Transportation's property.</p>	<p>Prepare and periodically update a Comprehensive Public Utility Plan that includes the city, the MUDs within its jurisdiction and the ETJ. The Plan should be closely coordinated with the long range plan to convert to a surface water supply and with the long range Annexation Plan and related policies.</p> <p>Upgrade and regionalize MUDs as required in accordance with the city's advance planning policies and requirements for service provision and management.</p>
<p>V. AIRPORT DEVELOPMENT Develop Sugar Land Municipal Airport in accordance with the Airport Master Plan and protect the airport from incompatible land use.</p>	<p>Protect the airport from incompatible land uses and encroachment and maximize its future economic benefit to the city.</p>	<p>Integrate the Airport Master Plan into the planning and zoning process to provide information and review of any impact airport operations and development may have on local planning and zoning matters. . . .</p>
<p>VI. CAPITAL IMPROVEMENTS Provide adequate capital improvements to support the needs of the residents and businesses in the city.</p>	<p>Continue City Council policy to give top priority to correcting deficiencies in the infrastructure serving existing development and existing population.</p> <p>Time capital improvements to serve new development so that they will coincide with the new development, which should be in accordance with the Land Use Plan.</p>	<p>Have developers and the city work together in order to provide for the magnitude of improvements that are contained in the component plans. . . .</p> <p>While the city is limited in the funds that can be expended in the ETJ, a continual process of planning capital improvements can have an effect on the areas outside the city limits. Grants-in-aid can be sponsored and endorsed when appropriate and planning staff can be very helpful and influential in helping individual developers and other public agencies identify and obtain outside funding.</p>
<p>IX. ANNEXATION Expand the corporate limits of the city in a prudent manner while considering the long and short term impacts.</p>	<p>Annexation areas in the extraterritorial jurisdiction into the city in a timely manner.</p> <p>Provide for efficient extension of public services in a timely manner.</p> <p>Annex areas to provide controls for land use compatibility and code enforcement.</p>	<p>Analyze potential areas for annexation and prepare appropriate fiscal information for citizens and City Council on a yearly basis.</p> <p>Continue to monitor and review Municipal Utility Districts that are within the city limits for dissolution.</p> <p>Coordinate with developers, Home Owner Associations, Municipal Utility Districts and Levy Improvements Districts to focus on the overall goals of the city.</p> <p>Prioritize areas for annexation in accordance with the Annexation Management Study.</p>



Appendix C SAMPLE ADEQUATE PUBLIC FACILITIES ORDINANCE

Section XX Adequacy of Offsite Roadway Network Required

- A. Prior to plat approval, the City shall determine whether the roadway network serving the development to be platted has adequate capacity to accommodate existing traffic, traffic reasonably anticipated from the development and traffic reasonably anticipated from other developments approved or to be approved within a reasonable period of time.

- B. Adequate capacity of the roadway network shall be determined in the following manner:
 - 1. For developments which are located within a road benefit area, as defined in the Impact Fees Chapter of the City Code, the roadway network shall be deemed adequate if there is sufficient capacity on each existing link of the network, or on each existing link and each link proposed in the City's Impact Fee Roadway Improvements Plan within the road benefit area.

 - 2. For developments which are located outside of a road benefit area, the roadway network shall be deemed adequate only if each existing link of the network has sufficient capacity, using assumptions for traffic generation based on the City's density or intensity standards for rural areas.

 - 3. The City shall establish guidelines by resolution, for determining capacity standards to roadway links, the extent of the network which is to be evaluated for offsite adequacy, and such other standards and procedures as may be necessary to meet the intent of this section.

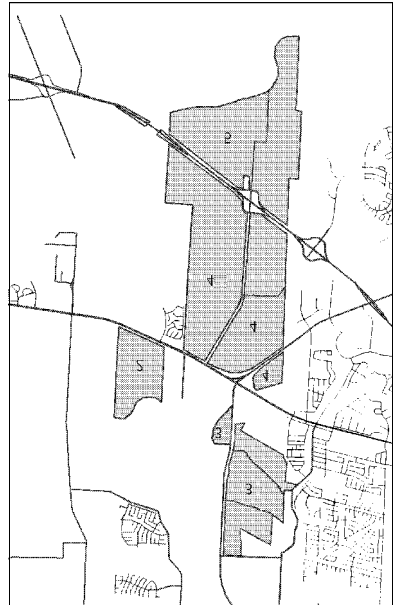
- C. For any property submitted for platting that meets the criteria contained in the Traffic Study Procedures, the City may require that the owner provide, at his own expense, an analysis of the adequacy of the roadway network to serve the development. The analysis shall be made in accordance with the guidelines referenced in Section XX B.3.



COMPANY

- D. In the event that the City determines that the offsite roadway network serving development to be platted is not adequate, the City may do any of the following: (1) disapprove the plat; (2) require that final platting of the property be phased to coordinate the timing of development with the provision of adequate capacity for the roadway as programmed in the City's Roadway Improvements Plan; (3) require the developer, in lieu of denial or phasing of the plat, to construct such offsite roadway facilities so as to provide adequate capacity for the roadway network pursuant to contract, subject to offsets against applicable roadway facilities impact fees or participation and reimbursement by the City.

Appendix D
TxDOT PROPERTY STUDY



TxDOT
Property
Study

Sugar
Land,
Texas

TxDOT Property Study

Introduction

The Texas Department of Transportation (TxDOT) recently acquired approximately 6,000 acres of land west of the City of Sugar Land. The land was previously part of the State prison farm system. TxDOT is currently preparing a master plan as part of an effort to sell the property.

With the exception of two tracts to the northwest, the remaining 3,700 acres lies within the extraterritorial jurisdiction (ETJ) of the City of Sugar Land. The change of the ownership of this property from the State to private hands will have significant implications for land development patterns and infrastructure needs in the area.

The purpose of this report is to provide an overview of the development potential of the property, including the timing of development. In addition, the report provides a summary of the major capital improvements that will be necessary to provide public services to new development in the area.

Description of the Property

The TxDOT property within the City's ETJ consists of four major tracts, which have been numbered 2 through 5 to be consistent with the preliminary analysis for the master plan prepared for TxDOT by RUST Lichliter/Jameson (Tracts 1 and 6 are outside the City's ETJ). The location of the property is depicted in *Figure 1*.

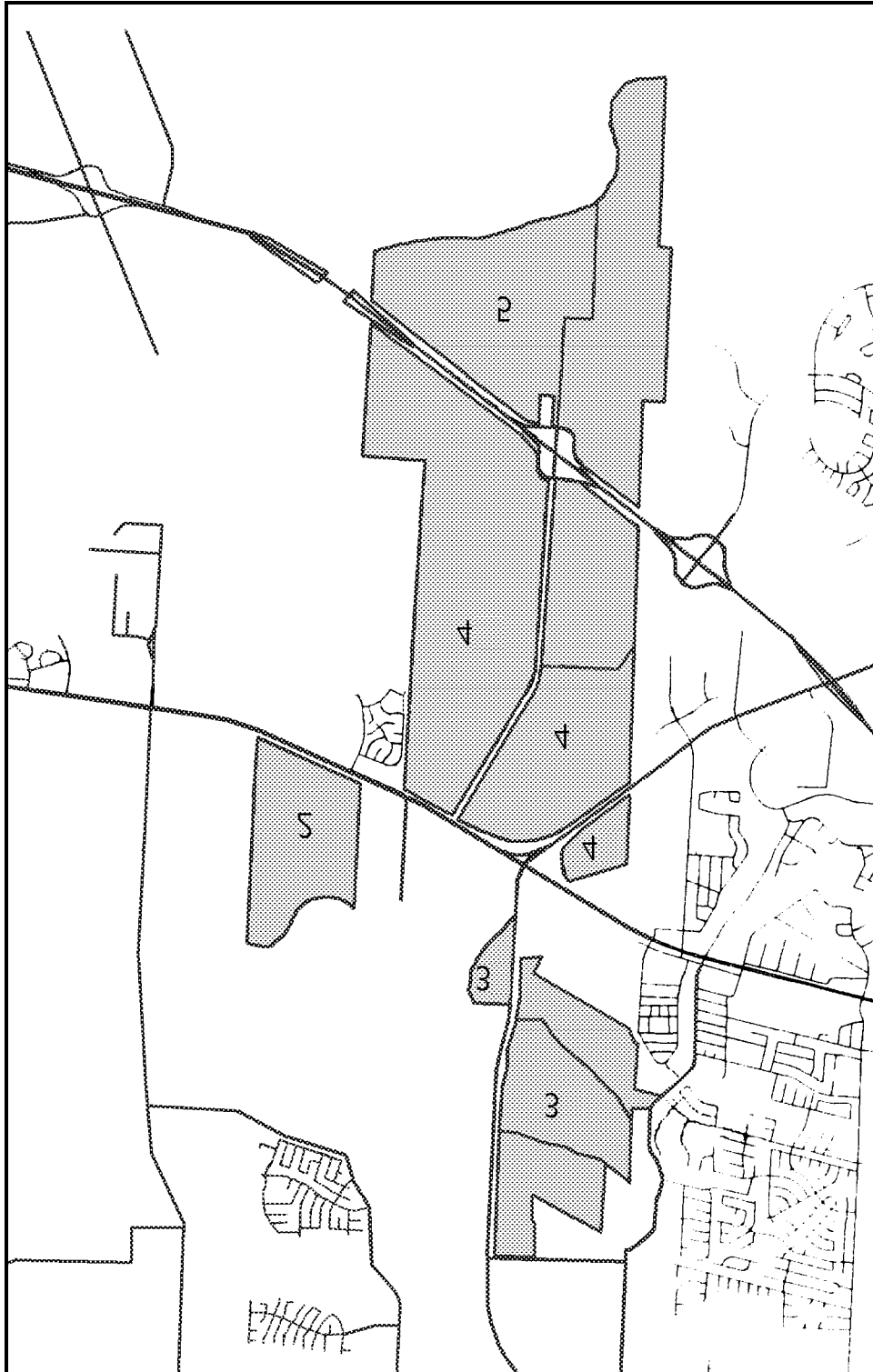
Tract 2 consists of 312 acres located north of US 90 approximately one mile west of the Sugar Land city limits. This tract is west of the developed part of the prison farm that remains under the control of the State Department of Corrections.

Tract 3 consists of 600.9 acres of land. Most of this land lies between the existing city limits and Highway 6, immediately east of Sugar Land Municipal Airport and south of Gannoway Lake. Tract 3 also includes a small parcel west of SH 6 and south of the airport.

Tract 4 consists of 1,697.8 acres of land. With the exception of parcel at the southeast corner of the intersection of SH 6 and US 90, the bulk of Tract 4 is located south of SH 6/US 90 and north of US 59.

Tract 5 consists of 1,093.6 acres located south of US 59 and extending south to the Brazos River. About 40 percent of this tract is within the floodplain of the river and is unlikely to be developed.

Figure 1
TxDOT PROPERTY TRACTS



Development Potential and Timing

The future development of the TxDOT property will be determined by a combination of market forces, development constraints, the timing and location of major public improvements, and regulatory controls. Given recent development trends, the market for both residential and nonresidential development in the Sugar Land area is currently strong. There are few major development constraints outside of areas adjacent to the airport and the river.

The public improvement that would appear to be critical to development of a large part of the property (e.g., most of Tracts 4 and 5) is the proposed SH 6 Bypass that would connect US 90 just west of the US 90/SH 6 intersection to SH 6 east of the SH 6/US 59 intersection. This TxDOT project is stalled due to environmental issues, but is scheduled for completion in October 2000.

The pattern and mix of land uses will depend partly on market forces and partly on whether the City exercises land use controls. Land use controls could be imposed by annexing and zoning or through agreements with developers to consent to the creation of municipal utility districts (MUDs) or to provide water or wastewater service. Another possibility is that the master plan being prepared by TxDOT would result in the regulation of land uses through a system of private deed restrictions.

The only official guide to the desired land use patterns for the TxDOT property is the City of Sugar Land's *Comprehensive Plan*. While the City currently has no authority to enforce compliance with the land uses specified in the Plan's future land use map on property in the ETJ, it does have the option of annexing the land and regulating the land uses through zoning. These desired land use patterns could also be implemented indirectly through the State's master planning process in the form of private deed restrictions, or through developer agreements using a similar mechanism.

While the *Comprehensive Plan* does not address the intensity of development or the projected build-out of the TxDOT property, such assumptions were made in preparing the City's *Water and Wastewater Master Plan*, which was completed in June of 1995. The appendices to the *Water and Wastewater Master Plan* contain detailed land use assumptions by very small geographic parcels. These assumptions include not only zoning but also projected development intensity, build-out schedules and water and wastewater demand units (equivalent single-family connections). In general, the zoning categories assumed in the *Water and Wastewater Master Plan* are consistent with the future land use map from the *Comprehensive Plan*.

Consequently, the *Water and Wastewater Master Plan* provides the best available data on land use patterns, development intensity and development timing for the TxDOT property. In addition, since the proposed schedule of major water and wastewater capital improvements contained in the *Master Plan* will be critical to providing the infrastructure to serve new development, consistency with the *Master Plan*'s land use assumptions is a reasonable criteria to use in evaluating development proposals.

City staff provided a detailed breakdown of the acreage of each of the four tracts by land use category from the future land use map, and these acreages were used as control totals to make minor adjustments to the acreages from the *Master Plan*. The only major deviation from the land use

assumptions of the *Water and Wastewater Master Plan* and the *Comprehensive Plan* is that Tract 2 is assumed to develop as research/industrial instead of institutional. It is likely that the *Comprehensive Plan* assumed this tract would stay part of the prison farm.

Developed Acres

The land use assumptions contained in the master plan include existing (1993) conditions, and projections for development in 1998, 2003, 2013 and build-out conditions. Since there is currently no development and little is likely by 1998, the projections were interpolated to yield 10-year (2005), 20-year (2015) projections. The projections indicate that the property will be about 10 percent developed over the next ten years, and about 25 percent developed over the next 20 years, as summarized in *Table 1*.

Table 1
TxDOT Property Buildout Schedule, Acres

Land Use	1995	2005	2015	Ultimate
Single-Family	0.0	218.8	591.4	2,284.8
Retail/Entertainment	0.0	15.2	36.3	77.6
Office/Services	0.0	25.4	67.7	374.4
Research/Ind	0.0	24.3	121.8	519.0
Total Developed	0.0	283.7	817.2	3,255.8
% Developed	0%	9%	25%	100%
Parks				11.2
Floodplain/Open				437.3
Total				3,704.3

Dwelling Units and Nonresidential Square Footage

In addition to land uses, the master plan provides assumptions on residential density. The master plan assumes 3.0 units per acre for single-family for the TxDOT property. This is considerably lower than the 5.0 units per acre referred to in the City's *Comprehensive Plan*, but presumably reflects the recent trend toward lower density housing development, as referred to in the master plan. According to the master plan assumptions, the TxDOT property will ultimately contain 6,855 single-family units, as shown in *Table 2*.

The *Water and Wastewater Master Plan* also provides assumptions on nonresidential development intensity, but only in the form of equivalent single-family connections (ESFC) per nonresidential acre. In our experience, typical floor-area ratios (FARs) are 0.20 for retail and 0.30 for office and industrial uses. Using these FARs, the TxDOT property would buildout at about 12 million square feet of nonresidential development, as shown in *Table 2*.

Table 2

TxDOT Property Buildout Schedule, Dwelling Units and Square Feet

Land Use	1995	2005	2015	Ultimate
Single-Family Units	0	657	1,775	6,855
Retail/Entertainment Sq. Ft.	0	132,597	316,420	676,051
Office/Services Sq. Ft.	0	331,404	884,181	4,892,659
Research/Industrial Sq. Ft.	0	317,552	1,591,682	6,782,292
Total Nonresidential Sq. Ft.	0	781,553	2,792,283	12,351,002

Water and Wastewater Demand

As noted above, the *Water and Wastewater Master Plan* projects nonresidential development intensity in terms of water and wastewater demand units, in the form of equivalent single-family connections (ESFC) per nonresidential acre. The assumptions used are 12.0 ESFC per acre for commercial uses, 4.0 ESFC per acre for office uses, and 5.4 ESFC per acre for industrial uses. The ultimate projected water and wastewater demand from nonresidential development of the TxDOT property would exceed that for residential uses, as shown in *Table 3*.

**Table 3
 TxDOT Property Buildout Schedule, Equivalent Single-Family Connections**

Land Use	1998	2003	2013	Ultimate
Single-Family	0	657	1,775	6,854
Retail/Entertainment	0	61	145	310
Office/Services	0	304	811	4,493
Research/Ind	0	131	657	2,803
Total Nonresidential	0	496	1,613	7,606
Total	0	1,153	3,388	14,460

Capital Improvement Needs

The major types of public infrastructure improvements that would be required to accommodate development of the TxDOT property are regional water, wastewater and transportation facilities. The City's master facility plans were examined to identify those projects that would be most critical to serving development in this area to the west of the existing city limits. As summarized in *Table 4*, the cost of major regional water and wastewater facilities and the local cost of major roadway improvements to the area total about \$57 million in current dollars. It should be noted that these improvements would be able to serve development of other properties besides the TxDOT property, although the TxDOT property is the largest developable property in the area.

**Table 4
 Planned Improvements Serving the TxDOT Property**

Facility Type	Local Cost
Water	\$12,346,500
Wastewater	\$25,899,250
Transportation	\$18,684,000
Total	\$56,929,750

Water and Wastewater

The City's *Water and Wastewater Master Plan* contains a schedule of capital improvements for the next twenty years (1993-2013) as well as ultimate conditions. Unit costs (in 1993 dollars) for water and wastewater system components were developed from estimates used in previous reports, City of Sugar Land costs for recent water and sewer projects and City of Houston bid tabs.

The planned water lines that would serve the TxDOT property are summarized in *Table 5*. The total cost of the planned line improvements would be about \$12.3 million.

Table 5
Planned Water Lines Serving the TxDOT Property

Item No.	Size (inches)	Length (feet)	Cost/foot	Cost
3	12	7,800	\$60	\$895,500
12	20	6,000	\$95	\$570,000
	16	4,000	\$75	\$300,000
13	30	4,800	\$145	\$696,000
	36	1,200	\$185	\$222,000
	24	2,400	\$115	\$276,000
	16	6,500	\$75	\$487,500
16	30	14,400	\$145	\$2,088,000
17	42	6,700	\$225	\$1,507,500
18	42	10,800	\$225	\$2,430,000
21	24	12,600	\$115	\$1,449,000
24	20	15,000	\$95	\$1,425,000
Total Cost of Improvements				\$12,346,500

The major planned wastewater improvements that would serve the TxDOT property include the Southwest Wastewater Treatment Plant and the Southwest Trunk Sewer. While these facilities would be built in stages, the ultimate cost of the improvements (in 1993 dollars) would be about \$25.9 million, as summarized in *Table 6*.

**Table 6
Planned Wastewater Improvements Serving the TxDOT Property**

Item No.	Description	Type	Quantity	Unit Cost	Cost
13	Purchase SW WWTP site		10 AC	\$15,000	\$150,000
14	Southwest Trunk Sewer	18" gravity	3200 LF	\$45	\$144,000
		24" gravity	10,550 LF	\$75	\$791,250
	plus manholes		34 EA	\$2,500	\$85,000
15	Hwy 6 L.S.	600 gpm	1 LS	\$100,000	\$100,000
	plus force main	8" force	4,500 LF	\$22	\$99,000
17	Interim pkg plant - SW WWTP		0.5 MGD	\$2,000,000	\$1,000,000
20	Southwest Trunk Sewer	66" gravity	5,600 LF	\$500	\$2,800,000
	plus manholes		14 EA	\$2,500	\$35,000
21	SW WWTP		2.0 MGD	\$2,000,000	\$4,000,000
22	Southwest Trunk Sewer	36" gravity	3,750 LF	\$150	\$562,500
		42" gravity	3,750 LF	\$250	\$937,500
		48" gravity	3,750 LF	\$300	\$1,125,000
	plus manholes		28 EA	\$2,500	\$70,000
27	Expand SW WWTP		2.0 MGD	\$2,000,000	\$4,000,000
40	Expand SW WWTP		5.0 MGD	\$2,000,000	\$10,000,000
Total Cost of Improvements					\$25,899,250

Roadways

The City's *Thoroughfare Plan*, adopted in December of 1994, includes a number of major road improvement projects that would provide access to the TxDOT property. The most important of these projects is the proposed SH 6 Bypass, which would provide major road access to Tracts 4 and 5 of the TxDOT property. While this project is currently stalled due to environmental impact questions regarding bottomland hardwood loss, segregation of habitat, flooding/hydrology impacts and complications of crossing the Exxon sour gas well field, it is scheduled for completion in October, 2000. The estimated cost of the SH 6 Bypass is \$61 million, of which the City's share would be about \$12.2 million.

Another project that would improve circulation in the area is the proposed grade-separated interchange at the intersection of US 90 and SH 6. Of the total cost of \$8.5 million, the City's share would be about \$1.7 million.

The proposed Burney-Brooks realignment would create the first north-south roadway east of SH 6 and provide improved access to Tract 3. The road will provide access to Kempner High School

and the airport, and decrease travel demand on Main and Burney, particularly through residential areas along those roadways. The City planned to request funding for the improvement in the 1995 *Transportation Improvements Plan*. The City's share of this \$4 million project would be about \$2.7 million.

Finally, the planned extension of Jess Pirtle Road through Tract 3 of the TxDOT property would also provide improved access. As with the Burney-Brooks realignment, this project is needed to provide improved access to existing development, but would also benefit the TxDOT property. This \$2 million project would be funded entirely by the City.

The total cost of the planned improvements that would provide direct benefit to the TxDOT property is estimated to be \$75.6 million, of which the City's share would be about \$18.7 million. The projects and costs are summarized in *Table 7*.

Table 7
Planned Roadway Improvements Serving the TxDOT Property

Project	Type	Begin/End	Length (feet)	Total Cost	Local Share
SH 6 Bypass	44' Road	US 90-US 59	13,000	\$15,000,000	\$3,000,000
	44' Road	US 59-SH 6	40,500	\$46,000,000	\$9,200,000
SH 6/US 90	Grade Sep.	US 90/SR 6	NA	\$8,529,000	\$1,706,000
Jess Pirtle Blvd	4-Lane Blvd.	Burney Road-SH 6	5,000	\$2,050,000	\$2,050,000
Brooks Street	44' Road	Camellia-US 90	4,000	\$1,640,000	\$328,000
Burney Road	44' Road	Jess Pirtle-US 90	5,500	\$2,400,000	\$2,400,000
Total Cost of Improvements				\$75,619,000	\$18,684,000

