



# JERSEY VILLAGE MIXED-USE / TOD PLAN

## PHASE I FEASIBILITY

OCTOBER 15, 2009

### INTRODUCTION

Pending roadway infrastructure improvements such as the Jones Road extension coupled with future commuter rail service adjacent to the study area (Figure 1, below) will transform this area from its current development pattern into a new environment. The question is; can this transformation be harnessed to take advantage of the substantial future investment in streets and rail. By taking a proactive approach and identifying the development potential for this area, the City of Jersey Village will be in a position to manage the quality of development that will ensue. Furthermore, the City will be able to create the framework to allow for a sustainable development option that will have efficient utilization of public services.

The purpose of this memorandum is to present the Project Team’s findings in accordance with the tasks associated with Phase 1 of the TOD Feasibility Study. The background, findings and recommendations are detailed in this memorandum.

*Figure 1. Study Area*





### STAKEHOLDER COMMITTEE

Meaningfully engaging the public, property owners, land developers and interested agencies is a key tenet of the Jersey Village Mixed-Use/TOD Plan. A stakeholder committee that represents a broad cross section of property owners, developers, brokers, citizens and staff members is a crucial first step. The addition of representation from county and regional authorities that have an interest in transit and land development provided perspectives that are not typically found from resources within the community. The City Council also took place in the stakeholder process in addition to the following persons on this committee:

**Table 1. Stakeholder Committee Members**

NAME	COMPANY	ADDRESS	PHONE #
Rose Hernandez <i>e-mail: rose.hernandez@cjo.hctx.net</i>	Harris County		(713) 755-4015
Patrick Porzillo <i>e-mail: patrick.porzillo@ridemetro.org</i>	METRO	1900 Main Street Houston, TX 77002	(713) 739-6021
Mike Castro <i>e-mail: mcastro@ci.jersey-village.tx.us</i>	Jersey Village	16501 Jersey Drive Jersey Village, TX 77040-1999	(713) 466-2109
Maureen Crocker <i>e-mail: maureen.crocker@gcfrd.org</i>	Gulf Coast Rail District	6922 Old Katy Road Houston, TX 77024	(713) 247-1093
Gabriel Johnson <i>e-mail: gjohns@dot.state.tx.us</i>	TxDOT-Houston	P.O. BOX 1386 Houston, TX 77251-1386	(713) 802-5031
Elvia Cardinal <i>e-mail: ecardin@dot.state.tx.us</i>	TxDOT-Houston	P.O. BOX 1386 Houston, TX 77251-1386	(713) 802-5501
Pamela Rocchi <i>e-mail: procchi@hcp4.net</i>	Harris County Precinct 4	22540 Aldine Westfield Houston, TX 77373	(281) 353-8100
Pat Waskowiak <i>e-mail: pat.waskowiak@h-gac.com</i>	H-GAC	3555 Timmons Lane Suite 120 Houston, TX 77027	(713) 993-2478



Table 1. Stakeholder Committee Members (continued)

NAME	COMPANY	ADDRESS	PHONE #
W.R. "Bill Rowden	Cy-Fair Chamber	10960 Millridge North Drive Suite 208-B Houston, TX 77070	(281) 890-3500
<i>e-mail: browden@aphomesearch.com</i>			
Erin Al-Salman	Cy-Fair Chamber	11734 Barker Cypress #105 Cypress, TX 77433	(281) 373-1390
<i>e-mail: erin@cyfairchamber.com</i>			
John Fourqurean, Ed.D.	CFISD	P.O. Box 692003 Houston, TX 77269-2003	(281) 517-2105
<i>e-mail: john.fourqurean@cfisd.net</i>			
Denise Maggart	NCI Company	10943 N Sam Houston Pkwy W Houston, TX 77064	(281) 897-7788
<i>e-mail: dmaggart@ncilp.com</i>			
Johnny Freeman	Hubco, Inc.	11714 Charles Rd Houston, TX 77041	(713) 937-1100
<i>e-mail: jfreeman@hubcoinc.net</i>			
Garfield Edmonds	Alloy & Stainless Fasteners, Inc.	11625 Charles Rd Houston, TX 77041	(713) 466-3031
<i>e-mail: gedmonds@goasf.com</i>			
Pattie Chang	VIP Management Co.	12989 Bellaire Blvd, #12B Houston, TX 77072	(281) 988-9800
<i>e-mail: pattiechang@yahoo.com</i>			
Rick Lawler		1470 Eldridge Parkway Houston, TX 77077	(713) 292-7418
<i>e-mail: rlawler105@aol.com</i>			
Keith Edwards	Caldwell Realtors	7904 N. Sam Houston Pkwy W Houston TX 77064	(281) 664-6633
<i>e-mail: kedwards@caldwellcos.com</i>			

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### **STAKEHOLDER COMMITTEE INVOLVEMENT**

The stakeholder committee was involved at several stages during the Phase 1 of the TOD Feasibility Analysis. After conducting analysis of preliminary barriers to implementation, the consultant team met with available stakeholders in an individual setting to gather pertinent project information and impressions from each agency/stakeholder before proceeding with the environmental analysis and market forecast. Stakeholder reactions from the first round of meetings were summarized and presented to staff and City Council before the issuance of Notice to Proceeds 3 and 4. Overall, the project received significant support from regional transportation stakeholders and the land owners within the immediate proximity of the Jones Road extension/Potential TOD Site.

The reactions gleaned from the individual stakeholder groups helped inform the process as the environmental analysis and market forecast aspects of Phase 1 were conducted. Based upon the needs of the study effort a second stakeholder meeting was held to review the preliminary findings of the environmental records review and to validate the preliminary assumptions contained within the market forecast. This meeting was attended by several of the regional transportation agencies as well as representatives from the major landowners within the immediate project study area. Overall, stakeholder comments suggested that the project was indeed on course with the assumptions and types of analysis proposed and that the rail station was still a viable alternative from a regional perspective.

Based upon the input received, the consultant team feels that continued interaction with the stakeholder group would provide an opportunity for more constructive dialogue during future phases of analysis. Additions to the stakeholder group might include additional representation from the resident of Jersey Village and continued participation from council members and planning and zoning board members. Details pertaining to future involvement will be finalized as a part of the outreach strategy specific for Phases 2 and 3.

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## DATA COLLECTION AND REVIEW

The consultant undertook an initial review and analysis of the Mixed-Use/TOD Area, including planned and ongoing development projects within and adjacent to the Mixed Use/TOD Area, the 290 Corridor Plan, other prior corridor planning initiatives. The following sections detail findings as they pertain to Current Land Use, Zoning, Transportation, Utilities, Environment and Market.

### CURRENT LAND USE

Parcels within the study area have numerous land uses as illustrated by the Current Land Use Map (Exhibit A). The following table defines the land uses by acreage.

*Table 2. Current Land Use*

CURRENT LAND USE	AREA (acres)
Agricultural	119.8
Commercial	405.0
Governmental	15.7
Industrial	72.6
Residential	76.1
Utilities	11.6
Vacant	73.9

Containing some important businesses, but generally underutilized, the majority of land uses in the study area could be characterized as commercial and industrial. Residential uses dominate the frontage of Fairview Street and dot the landscape throughout the study area. Vacant and agricultural property highlight key parcels for development/re-development. Governmental represents current parcels that are being used for institutional or municipal purposes; some of these may be opportunity sites for development.

### *Findings*

The current mixture of commercial, residential, governmental, industrial and vacant land uses do not represent a significant obstacle to the development of a mixed-use/TOD development. However, the current land uses and potential land uses as dictated by existing zoning do not represent a high enough density to support transit oriented development.

### *Recommendation*

Identify the highest and best use of the area through stakeholder participation in a planning process that identifies market opportunities, leverages transportation and municipal infrastructure investments with sustainable development.



### **ZONING**

The City of Jersey Village currently employs a district-based zoning mechanism. The study area lies within the *District H* which is designated Industrial (Refer to Exhibit B-Existing Zoning Map). Permitted uses within this district are broad and include a mixture of industrial, office and retail uses. The existing zoning district does not impose a height or building area limitation and follows the typical suburban-style setback regulations, which are found in subsection 14-88(b) of the City of Jersey Village Zoning Ordinance.

### ***Findings***

The current zoning district limits the ability for the area to develop in a mixed-use or transit oriented development manner in many ways, namely:

- Does not permit residential uses
- Does permit conflicting industrial uses
- Does not require public spaces
- Does not require shared parking
- Setback standard does not create a walkable frontage
- Does not require adequate public right-of-way for connected street system

Overall, the existing zoning district does not create the kind of adjacency predictability for sustained investment needed to attract mixed use/TOD type developers to the area.

### ***Recommendation***

Section 14-84 of the City of Jersey Village Zoning Ordinance allows for the City Council to amend the zoning districts at any time. The scope of the phases 2 and 3 of this study have the potential to illustrate the highest and best use for the study area and define a zoning overlay to facilitate the development by being an invitation to developers to invest in an area with assurance of adjacent development character and quality. It is our recommendation that the City of Jersey Village explore various interim development control measures in order to discourage haphazard and piecemeal development that may detract from the intended character and development patterns being sought. This will enable the preservation of opportunities for TOD development and increased quality development until later phases of this initiative are undertaken to create a master plan and a comprehensive revision of regulations necessary to implement the new master plan.

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**TRANSPORTATION**

The roadways within the study area are constructed of two lane asphalt with open drainage ditches. These right-of-ways are owned and maintained by Harris County. The County will begin construction of the Jones Road extension later this year adding the first four lane divided roadway built with concrete and storm drainage to the study area.

Direct access to the site is achieved from US 290 frontage roads. FM 529 (Spencer Rd), a six lane divided arterial, provides parallel access to the south. Currently no transit or bicycle/pedestrian access is granted to the study area. Traffic counts of major thoroughfares that impact the study area are listed in the following table.

*Table 3. Traffic Counts – Major Thoroughfares*

THOROUGHFARE	COUNTS
Jones Road	36,000 VPD
FM-529 (Spencer Rd)	43,000 VPD
US 290	140,000 VPD

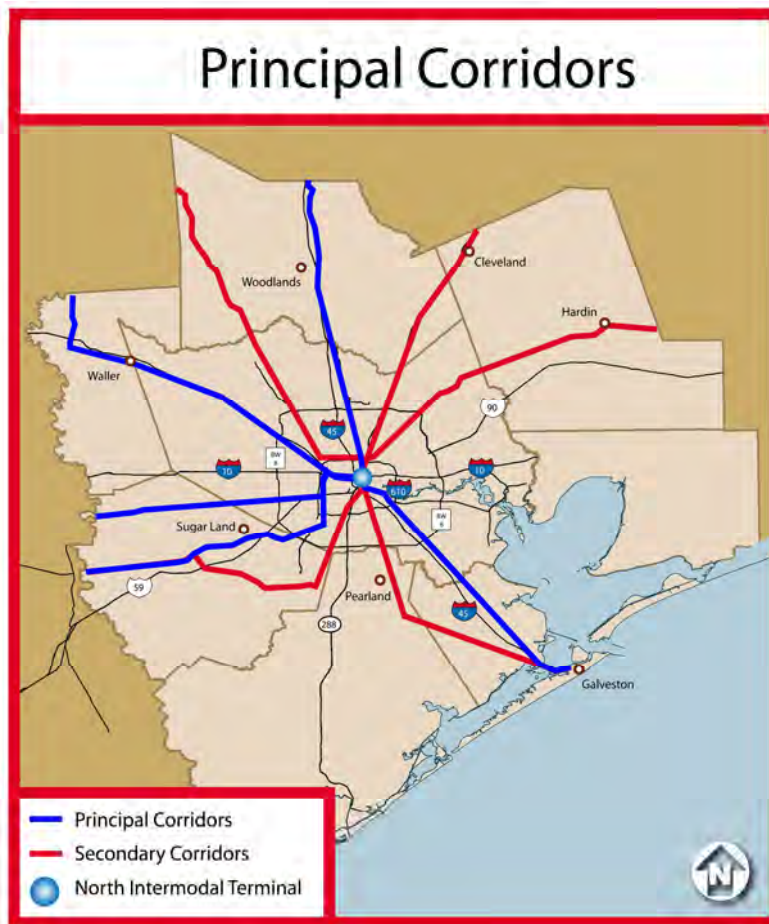
***Summary of Transportation Agency Plans that Impact Study Area***

The H-GAC Regional Commuter Rail Connectivity Study concluded that the US-290 corridor was one of the top two candidates within the region for the implementation of Long-Distance Commuter Rail, see figure 2 below. Prior to the conclusion of this Study, other studies have suggested that several modes of transit will be necessary throughout the corridor to meet the latent demand for transit. Taking that eventual solution into account, several of the region’s transportation agencies are re-examining their plans for the US-290 Corridor including Harris County, METRO, TxDOT, and the Gulf Coast Freight Rail District. These agencies are meeting on a semi-regular basis to make decisions about the rail transit options that will be developed within the corridor alongside the freeway expansion that is currently under design.

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Figure 2. Principle Commuter Rail Corridors, Courtesy H-GAC



In March of 2009, the Gulf Coast Freight Rail District was awarded \$2 million in American Recovery and Reinvestment Act funds to study and design the implementation of Long Distance Commuter Rail within the US-290 corridor. Subsequent discussions with the Gulf Coast Freight Rail District and Union Pacific Representatives suggest that at such a time when Commuter Rail is instituted within the corridor, the Track Rights would be sold to the operator of the Commuter Rail Service. The Gulf Coast Freight Rail District moved to negotiate the Advanced Planning and Preliminary Design contract during their August 2009 Board Meeting. At such a time as deemed appropriate by the Gulf Coast Freight Rail District Interim Executive Director, the City of Jersey Village has been invited to present the findings of this initial Feasibility Analysis to the Rail District's Planning Subcommittee.

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Figure 3. Intermodal Stations Defined by H-GAC Commuter Rail Study, courtesy H-GAC



METRO is currently examining opportunities for a type of Commuter Rail that would likely cover a shorter distance with station locations closer together. This service will likely be a smaller vehicle than a typical long distance commuter rail locomotive, something similar to the current LRT cars or Austin’s Leander Rail Line. Current plans for a 50-foot window of opportunity within the US-290 corridor expansion would allow for METRO to operate south of the existing Eureka Railroad Subdivision and the proposed Hempstead Managed Lanes Highway corridor. As shown in Figure 3, a station location in Jersey Village at the proposed location could be used to facilitate transfers between these two types of rail technology since the Long-Distance Rail would stop once every five to seven miles with the Beltway and Interstate 610 being logical locations for a station.

Finally, the Harris County Toll Road Authority is still examining the implementation of a managed lane facility within the Hempstead Highway Alignment of the corridor. The schedule



for this project is not known at this time as the likelihood of financial feasibility in the near term has not been established. However, the long term corridor strategies would necessitate the construction of this facility, and bearing that eventual plan in mind when designing the station location for Jersey Village will be paramount to providing access to every type of transportation facility available for the site.

### ***Findings***

The study area is at the confluence of significant roadway, highway and transit improvements. The City of Jersey Village's current development regulations and provisions for right-of-way preservation will not facilitate capture of these investments and leverage them for long term sustainability. The absence of a comprehensive plan or thoroughfare plan permits other agencies to use typical design standards for transportation improvements, thus they will not the unique character and desires of the citizens of Jersey Village.

### ***Recommendations***

Leveraging and having design and alignment influence upon these transportation improvements begins with coordination. The Mayor's recent meeting with County Officials and staff meetings with the Rail District was a great step forward in this coordination effort. The subsequent exploration of a master plan for the study area will assure that these transportation improvements meet the desires of the community and support land development opportunities.

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## **UTILITIES**

The March 2006 Annexation Inventory Plan created by Brooks & Sparks for the City of Jersey Village provides the following descriptions:

### ***Water Production and Distribution Systems***

Currently there is not a complete water distribution system in the study area. Various existing and planned lines will provide minimal service. The city does have production capacity to serve the area, but distribution systems will need to be constructed and provisions made to strengthen pressure to the area.

### ***Wastewater Collection System***

There is no existing sanitary sewer system in the study area. Currently private septic tanks on each property provide wastewater disposal. The city does have capacity within the system, but collection is not provided.

### ***Drainage***

The study area drains across land in a sheet flow pattern to the existing earthen roadside drainage ditches. There is no existing underground storm sewer system.

### ***Findings***

To fully serve the study area the Brooks & Sparks report concludes that almost \$10,000,000 worth of infrastructure improvements will be needed.

### ***Recommendations***

The Annexation Inventory Plan only considered one side of the balance sheet that a city should use to make an annexation decision, the cost element. As identified in the land use and zoning sections of this report there is ample opportunity for the study area to develop and re-develop in a manner that result in a significant boost to the property and sales tax revenues for the City. The Market Analysis conducted as a part of this Phase provides general guidance as to the amount of development that could reasonably be accommodated within the study area over the next twenty years. More details about the findings and assumptions of the Market Study can be found on Page 14 as well as the full Market Analysis Report contained in Appendix E.

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### ENVIRONMENT

The consultant team undertook an analysis of the environmental constraints that are known within the project's study area through several resources. First, the team consulted local, regional, statewide, and national databases available to conduct a high level constraints analysis. A map of the existing natural constraints, including vegetation patterns and floodplain locations is included in Exhibit C. The most prevalent natural resources in the study area include over 40 acres of mixed conifer and deciduous forest, a tributary of White Oak Bayou and various microenvironments.

Second, the consultant team surveyed existing Environmental Impact Statement data that was compiled by the Texas Department of Transportation during their analysis of the US 290 EIS process. Those maps indicated that several parcels within the study area would be either whole or partial acquisitions during corridor expansion (<http://www.my290.com/environmental/>). The information pertaining to the ultimate Right-of-Way limits for the US-290 Multi-Modal Corridor will be carried forward in any future planning efforts to ensure that appropriate buffering of uses occurs along the highway.

Finally, the consultant team requested a Phase 1 (ASTM) Environmental records review for the study area to highlight any known environmental concerns that could preclude future redevelopment. The Executive Summary, Oil and Gas Well Report, and Water Well Report can be found in Appendix D. The full details of this report have also been provided to the City of Jersey Village for future use as needed.

### *Findings*

When developing concept plans for the Study Area in Phase 2, the City will want to establish development patterns that highlight the natural amenities that currently exist, while minimizing potential negative impacts to sensitive ecosystems or species through design concepts that emphasize the character of the surrounding and meet the development needs.

The TxDOT sponsored EIS suggested that several parcels within the Study Area would be acquired in their entirety since the Right-of-Way impact is such that the buildings on the property would be impacted. Some examples include: Sparkle Sign, Phobia Haunted House, Gulf Pacific Rice Milling, and Arsham Industries Metal Recycling Center. Meanwhile, other properties that could have partial/whole acquisitions include: John Eagle Honda, Silver Eagle Distributing, and All-Safe Mini Storage. This list is not intended to be all-inclusive; however, it provides a frame of reference for the scale of the Right-of-Way that is required for the widening of the US-290 corridor.

The study team has only conducted a cursory review of the known environmental conditions within the Study area and as such no mitigation strategies or implementation steps are proposed within the scope of this section of the report. More detailed, Phase II ASTM Environmental Reviews would be required for certain properties within the study area before certain types of redevelopment could occur and these incidents are noted in the following text. This list is not intended to be all-inclusive, rather to highlight some of the known constraints that will become a factor in further planning initiatives.



In conducting the Environmental Records Review, the consultant team noticed that four incidents of toxic waste detection have been reported in the past within proximity to the study area. Each of these incidents has been noted within national and state databases and all reported indications are that proper mitigation has been completed. These sites should be considered mitigated in their current state and use, however, future development may warrant further site specific analysis (a Phase II Environmental Analysis).

Many properties within the study area generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act. Additionally five sites were previously noted to have reported releases of oil or other hazardous materials. Several leaking petroleum storage tanks were noted within proximity of the study area. Each of the eleven proximate sites have been reported as final concurrence having been issues, thereby closing the case at the State level. Finally, several of the uses within the Study Area are required to submit reports under a litany of federal and state requirements so that residents are made fully aware of any potentially hazardous situations. The sites discussed within this paragraph will be noted during further planning efforts to account for screening, buffering, and any appropriate mitigation/remediation steps.

### ***Recommendations***

Creative transitions between the highway facilities and future development will be necessary in order for the City of Jersey Village to realize the full potential of development in and around a potential commuter rail station. By planning for the successful transition from highway frontage to proposed developments through open space, buffering, and context sensitive streets, the City can help to facilitate those transition areas in an effective manner. Future development plans should also consider access to the natural assets that are present within the currently undeveloped portions of the Study Area with public easements, parks and viewsheds as well as through the implementation of a tree preservation policy where appropriate.

Sensitive areas, such as those highlighted as parcels where Toxic Waste has previously been discovered, should be examined when planning for the redevelopment of this area. The majority of the environmental constraints identified within the Study Area have been mitigated, or do not currently present a substantial concern, however, careful planning will help to ensure that future land uses are appropriately positioned within the area. Additionally, land uses near highway and utility Rights-of-Way, should be appropriately buffered and transitioned to ensure the overall health, safety, and welfare of future residents.

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MARKET

Near-Term

As the nation struggles to emerge from recession, there is no question that the Houston Region, Harris County, and Jersey Village have felt the impact. The numbers tell the story, as job growth has slowed, sales tax revenue has flattened, and development has more or less come to a halt (refer to Table 4). That having been said, the impacts in the Houston region have been less profound than in many other parts of the state and nation, and the Houston area should be well positioned to bounce back. The structure of the local economy and area demographic trends suggest more rapid growth over the next twenty years than in much of the country, and relatively low current market values, competitive labor costs, and a relatively modest overall tax burden all indicate a cost environment that is accommodating to future development and growth. When the region’s reputation for being “business friendly” is factored into the mix, the Houston area will be one of the most attractive regions for development in the nation for the foreseeable future.

Table 4. Market Indicators

YEAR	JERSEY VILLAGE		HARRIS COUNTY	
	SALES TAX REVENUE	SINGLE-FAMILY PERMITS	SINGLE-FAMILY PERMITS (000s)	UNEMPLOYMENT RATE
2001	\$2,143,668	30	19.9	4.7%
2002	\$1,726,291	54	23.0	6.1%
2003	\$1,595,846	34	26.4	6.8%
2004	\$1,759,527	5	28.0	6.3%
2005	\$1,720,542	23	32.4	5.7%
2006	\$2,371,199	38	33.0	5.1%
2007	\$2,305,197	36	23.9	4.3%
2008	\$2,466,915	14	14.8	4.8%

Longer-Term

If Jersey Village is to take maximum advantage of impending regional growth, a development orientation that reflects the changing market structure is desirable. For example, a number of trends are beginning to influence land development and urban revitalization in the United States, including:

- Demographics*, specifically smaller household sizes;
- Changes in the structure of the economy*, with a heightened emphasis on adding value through the provision of service and knowledge;
- Shifts in consumer tastes and preferences*, including a greater acceptance of owner-occupied multi-family housing and a strong desire for “authenticity” and “experience;”
- Technology*, especially as it enables decentralized work and informs consumer tastes;
- Transportation*, including congestion and rising energy costs, and
- Cultural/entertainment*, an element of society that is increasingly multi-faceted and diverse.



Underlying all of the above (which have an impact through all of society) is the desire for what has been termed *Walkable Urbanism*. According to the Brookings Institute, “since the rise of cities 8,000 years ago, humans have only wanted to walk about 1,500 feet (approximately a quarter mile) until they begin looking for an alternative means of transport: a horse, a trolley, a bicycle, a car. This distance translates into about 160 acres – about the size of a super mall, including its parking lot. It is also about the size, plus or minus 25 percent, of Lower Manhattan, downtown Albuquerque, the financial district of San Francisco, downtown Atlanta, and most other major downtowns in the country.”

What makes *Walkable Urbanism* function is not merely distance, but the experience – a pedestrian trip where one encounters a mix of sights and sounds in the context of a range of land uses and a diverse built environment. The translation is that “critical mass” occurs when visitors can find enough to do for an afternoon or an evening, residents’ daily needs are largely met within easy access, and the underlying economics justify ongoing investment. When this happens (and is sustained), a dynamic system is in place that will create enhanced economic and fiscal value.

### ***Findings***

Many of the trends outlined above can be realized in the Study Area. For example, the proposed footprint comfortably fits the size criteria for walkability, and already contains some diversity of land uses and local businesses. Perhaps just as importantly, strong action by the public sector in terms of both the regulatory environment and infrastructure planning can spur private sector interest in the area. This is a crucial element of successful revitalization, as evidence in the region and elsewhere indicates that sustainable redevelopment typically requires both public participation, in the form of both infrastructure and policies/programs, and private commitments. This public/private partnership creates a sum that is greater than the parts, in the process offering the community the maximum return on its collective investment.

Assuming the capture rates presented within the full text of the report (Appendix E), roughly 1,000 residential dwelling units and a combined 900,000 square feet of office/retail/restaurant/entertainment could be absorbed within the planning area over the next twenty years. Details about average densities and floor-to-area ratios would be finalized in latter phases of the TOD analysis including the codification of such densities within a designated zoning structure; however, the currently undeveloped areas within the City Limits south of US-290 provide ample room for the first phase of projects to occur in congruence with the implementation of the rail transit within the corridor.

### ***Recommendations***

With its emphasis on mixed-use, urbanist (including residential) land use and development, the market concept behind the revitalization of the Study Area reflects current market orientation and conditions, and is consistent with similar projects elsewhere across the nation. Meanwhile, the overall outlook for the local economy and aggregate local demand for real estate indicate sufficient demand to create enhanced incremental tax base values and attendant revenues to the community. As a result, TXP believes a mixed-use/Transit Oriented Development approach represents the most appropriate development regime for the Study Area.



### CONCLUSION

NTP #1 sought to answer whether there is an absence of barriers to general success and initial justification to engage stakeholders to continue the study and to craft an implementation framework to realize this area as a key opportunity for quality growth and economic development. A fundamental supporting question that will be answered if the initiative continues will be whether the site provides a TOD opportunity given the overall regional rail transit strategy for the 290 Corridor in the context of current and future market conditions?

In this context, the consultant team believes that no barriers to general success exist either in terms of current land uses, general environmental conditions, initial utility considerations and general market conditions locally and regionally. In addition, the team's understanding of likely stakeholders who will be interested in the initiative and would likely seek to take advantage of the opportunity could be expected to want to explore market opportunities posed by the potential implementation of the TOD in the context of the investment in Jones Road.

NTP #2 proposed the involvement of a stakeholder committee and interviews of key stakeholders to determine the overall viability of implementing a TOD within the Study Area. Overall support from the stakeholders, both regional agency and individual land owners, suggests that further analysis and planning is warranted before final determinations are made pertaining to the ultimate build-out of this area.

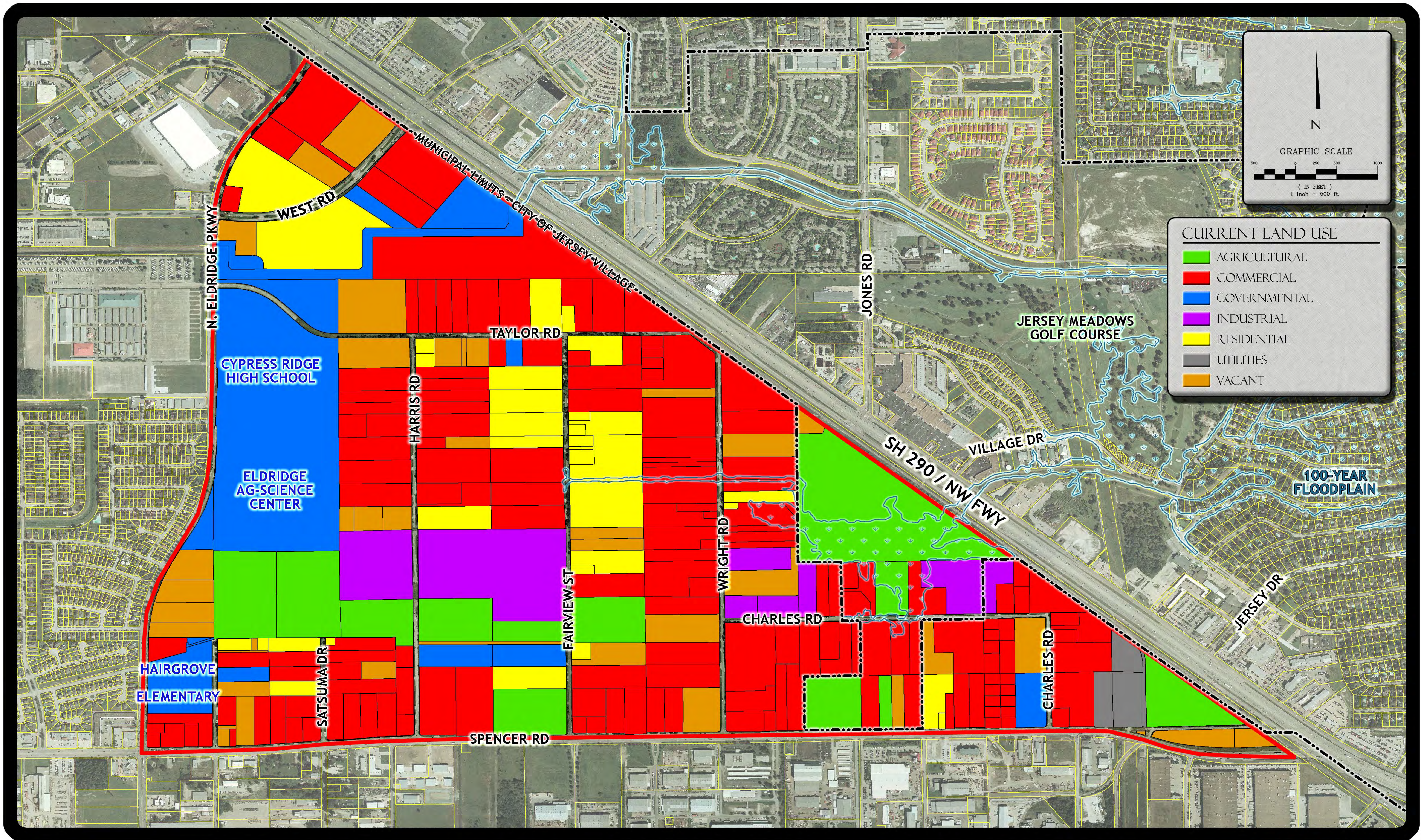
NTPs #3 and #4 analyzed known environmental constraints and market forecasts that would ultimately determine the environmental and development feasibility of the proposed concepts within the study area. The findings to date have all supported the further development and analysis of plans for a TOD style development occurring near the Jones road extension at US-290. Known environmental constraints will guide the determination of location for certain types of development, but the overall absorption of 1,000 residential dwelling units and roughly 900,000 square feet of office/commercial/retail/entertainment space can likely occur over a twenty year planning horizon.

Accordingly, based on the findings herein that have been presented to the City Council from the undertaking of initial this initial phase of feasibility analysis, the Project Team concludes that initial conditions would support an opportunity to accommodate a TOD with adjacent land use benefits, and it therefore recommends that the next phase of planning and fiscal analysis should be undertaken with the participation of stakeholders in a facilitated process.





## **APPENDIX A – CURRENT LAND USE MAP**

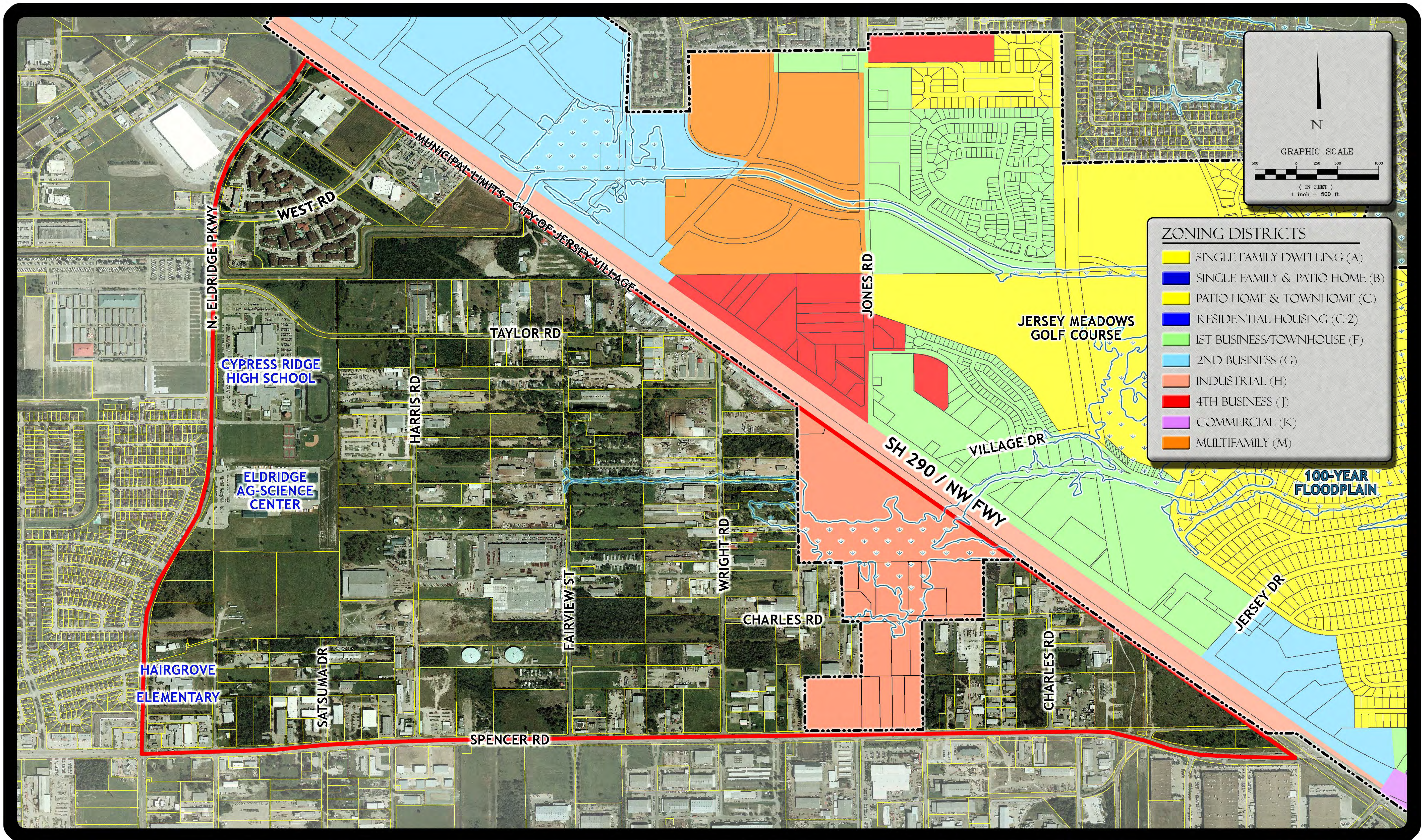


CURRENT LAND USE  
**JERSEY VILLAGE**  
 CITY OF JERSEY VILLAGE, TEXAS

APRIL 8, 2009



## **APPENDIX B – CURRENT ZONING MAP**



**ZONING DISTRICTS**

- SINGLE FAMILY DWELLING (A)
- SINGLE FAMILY & PATIO HOME (B)
- PATIO HOME & TOWNHOME (C)
- RESIDENTIAL HOUSING (C-2)
- 1ST BUSINESS/TOWNHOUSE (F)
- 2ND BUSINESS (G)
- INDUSTRIAL (H)
- 4TH BUSINESS (J)
- COMMERCIAL (K)
- MULTIFAMILY (M)

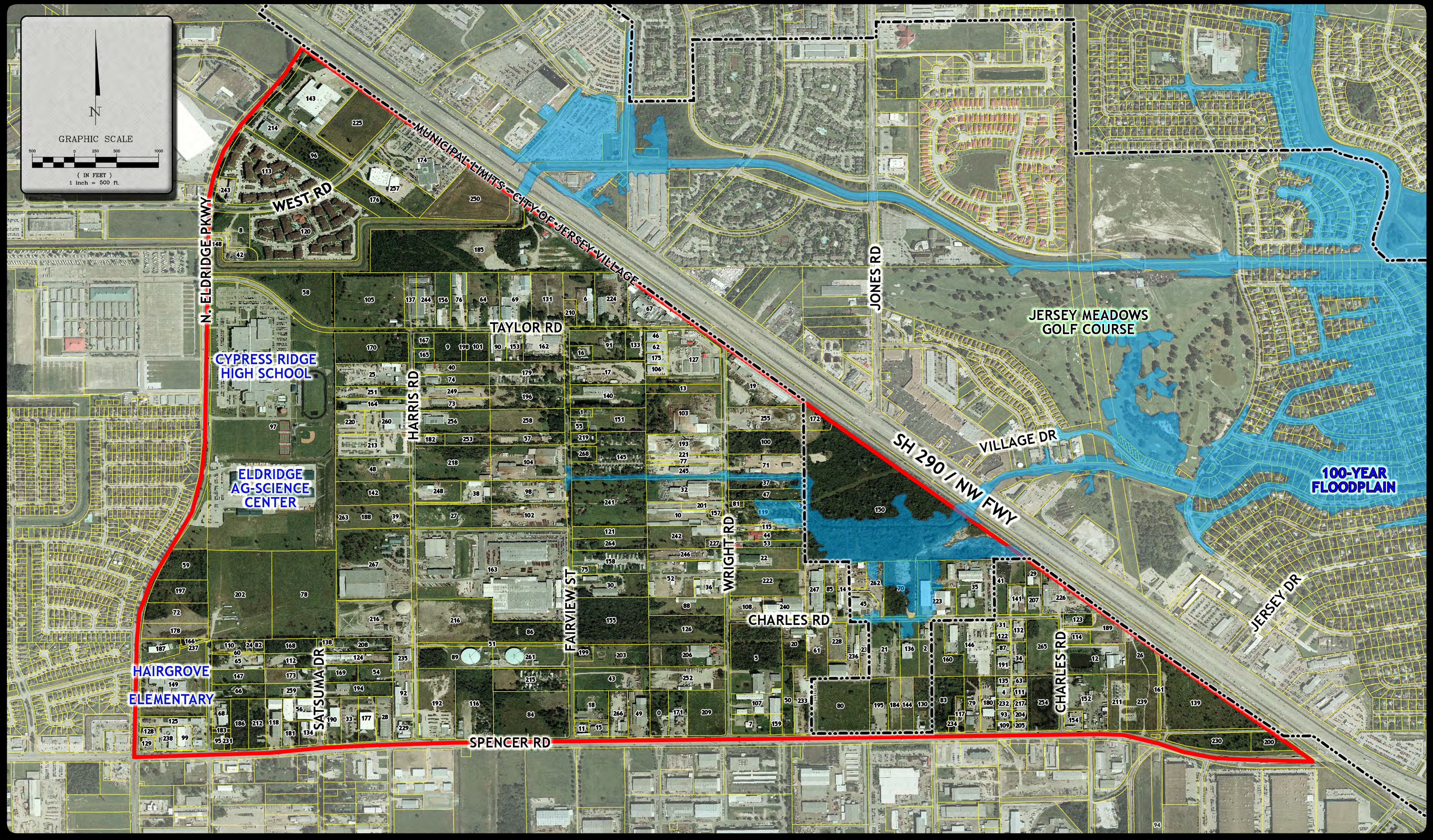
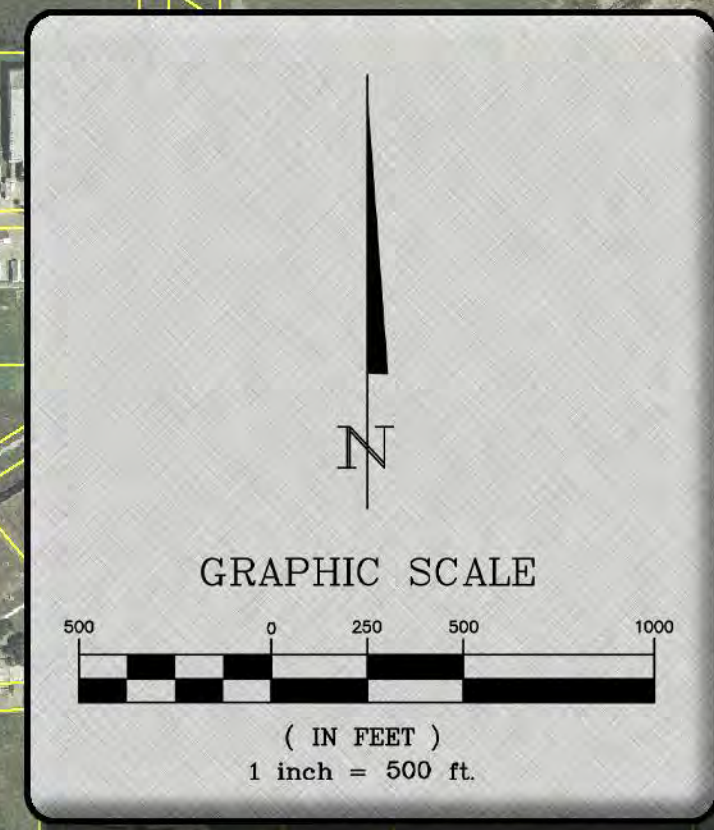
EXISTING ZONING  
**JERSEY VILLAGE**  
 CITY OF JERSEY VILLAGE, TEXAS

APRIL 8, 2009





## **APPENDIX C – NATURAL FEATURES AND CONSTRAINTS MAP**



EXISTING PARCELS & CONSTRAINTS  
**JERSEY VILLAGE**  
 CITY OF JERSEY VILLAGE, TEXAS

APRIL 8, 2009



**APPENDIX D – PHASE 1 (ASTM) ENVIRONMENTAL  
RECORDS REVIEW EXECUTIVE SUMMARY, OIL AND  
GAS WELL REPORT, AND WATER WELL REPORT**

**Jersey Village**

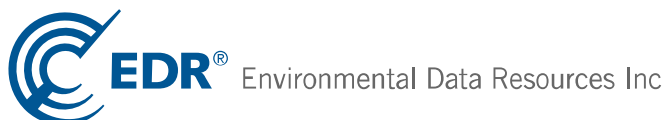
16501 Jersey Dr.

Jersey Village, TX 77041

Inquiry Number: 2552497.2s

July 29, 2009

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with any questions or comments.

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## EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-05) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

### TARGET PROPERTY INFORMATION

#### ADDRESS

16501 JERSEY DR.  
JERSEY VILLAGE, TX 77041

#### COORDINATES

Latitude (North): 29.887000 - 29° 53' 13.2"  
Longitude (West): 95.592800 - 95° 35' 34.1"  
Universal Transverse Mercator: Zone 15  
UTM X (Meters): 249599.2  
UTM Y (Meters): 3308909.0  
Elevation: 119 ft. above sea level

### USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map: 29095-H5 SATSUMA, TX  
Most Recent Revision: 1995

### AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from: 2005, 2006  
Source: USDA

### TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following records. For more information on this property see page 7 of the attached EDR Radius Map report:

<u>Site</u>	<u>Database(s)</u>	<u>EPA ID</u>
WHITE OAK BAYOU JOINT POWERS BOAR 16501 JERSEY DRIVE JERSEY VILLAGE, TX 77040	FINDS	N/A
WHITE OAK BAYOU JOINT POWERS BOAR 16501 JERSEY DRIVE JERSEY VILLAGE, TX 77040	ICIS	N/A

## EXECUTIVE SUMMARY

### DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

### STANDARD ENVIRONMENTAL RECORDS

#### ***Federal NPL site list***

NPL..... National Priority List  
Proposed NPL..... Proposed National Priority List Sites  
NPL LIENS..... Federal Superfund Liens

#### ***Federal Delisted NPL site list***

Delisted NPL..... National Priority List Deletions

#### ***Federal RCRA CORRACTS facilities list***

CORRACTS..... Corrective Action Report

#### ***Federal RCRA non-CORRACTS TSD facilities list***

RCRA-TSDF..... RCRA - Transporters, Storage and Disposal

#### ***Federal institutional controls / engineering controls registries***

US ENG CONTROLS..... Engineering Controls Sites List  
US INST CONTROL..... Sites with Institutional Controls

#### ***State- and tribal - equivalent NPL***

SHWS..... State Superfund Registry

#### ***State and tribal landfill and/or solid waste disposal site lists***

CLI..... Closed Landfill Inventory  
WasteMgt..... Commercial Hazardous & Solid Waste Management Facilities

#### ***State and tribal leaking storage tank lists***

INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land

#### ***State and tribal registered storage tank lists***

INDIAN UST..... Underground Storage Tanks on Indian Land

#### ***State and tribal voluntary cleanup sites***

INDIAN VCP..... Voluntary Cleanup Priority Listing

#### ***State and tribal Brownfields sites***

BROWNFIELDS..... Brownfields Site Assessments

# EXECUTIVE SUMMARY

## ADDITIONAL ENVIRONMENTAL RECORDS

### **Local Brownfield lists**

US BROWNFIELDS..... A Listing of Brownfields Sites

### **Local Lists of Landfill / Solid Waste Disposal Sites**

ODI..... Open Dump Inventory

DEBRIS REGION 9..... Torres Martinez Reservation Illegal Dump Site Locations

### **Local Lists of Hazardous waste / Contaminated Sites**

US CDL..... Clandestine Drug Labs

DEL SHWS..... Deleted Superfund Registry Sites

PRIORITYCLEANERS..... Dry Cleaner Remediation Program Prioritization List

### **Local Land Records**

LIENS 2..... CERCLA Lien Information

LUCIS..... Land Use Control Information System

LIENS..... Environmental Liens Listing

HIST LIENS..... Environmental Liens Listing

### **Other Ascertainable Records**

DOT OPS..... Incident and Accident Data

DOD..... Department of Defense Sites

FUDS..... Formerly Used Defense Sites

CONSENT..... Superfund (CERCLA) Consent Decrees

ROD..... Records Of Decision

UMTRA..... Uranium Mill Tailings Sites

MINES..... Mines Master Index File

TSCA..... Toxic Substances Control Act

PADS..... PCB Activity Database System

MLTS..... Material Licensing Tracking System

RADINFO..... Radiation Information Database

RAATS..... RCRA Administrative Action Tracking System

ED AQUIF..... Edwards Aquifer Permits

USD..... Municipal Settings Designations Database

RWS..... Radioactive Waste Sites

INDIAN RESERV..... Indian Reservations

SCRD DRYCLEANERS..... State Coalition for Remediation of Drycleaners Listing

## EDR PROPRIETARY RECORDS

### **EDR Proprietary Records**

Manufactured Gas Plants..... EDR Proprietary Manufactured Gas Plants

EDR Historical Auto Stations... EDR Proprietary Historic Gas Stations

EDR Historical Cleaners..... EDR Proprietary Historic Dry Cleaners

## SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

## EXECUTIVE SUMMARY

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.

Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

### STANDARD ENVIRONMENTAL RECORDS

#### ***Federal CERCLIS list***

CERCLIS: The Comprehensive Environmental Response, Compensation and Liability Information System contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

A review of the CERCLIS list, as provided by EDR, and dated 01/09/2009 has revealed that there is 1 CERCLIS site within approximately 2 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b><i>JONES ROAD GROUND WATER PLUME</i></b>		<b><i>NNE 1 - 2 (1.266 mi.)</i></b>	<b><i>373</i></b>	<b><i>1769</i></b>

#### ***Federal CERCLIS NFRAP site List***

CERC-NFRAP: Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

A review of the CERC-NFRAP list, as provided by EDR, and dated 12/03/2007 has revealed that there are 3 CERC-NFRAP sites within approximately 2 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b><i>WASTE MANAGEMENT OF HOUSTON</i></b>	<b><i>12518 FM ROAD 529 SPENC</i></b>	<b><i>S 1/4 - 1/2 (0.469 mi.)</i></b>	<b><i>169</i></b>	<b><i>957</i></b>
<b><i>ADDICKS-FAIRBANKS ROAD SAND IN</i></b>	<b><i>6415 ADDICKS-FAIRBANKS</i></b>	<b><i>SSW 1 - 2 (1.616 mi.)</i></b>	<b><i>382</i></b>	<b><i>1806</i></b>
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b><i>GROWTH SYSTEMS</i></b>	<b><i>11811 CHARLES STREET</i></b>	<b><i>ESE 1/4 - 1/2 (0.334 mi.)</i></b>	<b><i>K61</i></b>	<b><i>282</i></b>

## EXECUTIVE SUMMARY

### ***Federal RCRA generators list***

RCRA-LQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

A review of the RCRA-LQG list, as provided by EDR, and dated 11/12/2008 has revealed that there are 3 RCRA-LQG sites within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
QUEST CHEMICAL CORP	12255 FM 529 IND PK BLD	S 1/4 - 1/2 (0.451 mi.)	R141	768
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>BASF CONSTRUCTION CHEMICALS LL</b>	<b>7100 WRIGHT RD</b>	<b>SSE 1/4 - 1/2 (0.465 mi.)</b>	<b>U161</b>	<b>899</b>
<b>ALLOY &amp; STAINLESS FASTENERS</b>	<b>11625 CHARLES STREET</b>	<b>ESE 1/2 - 1 (0.529 mi.)</b>	<b>X211</b>	<b>1245</b>

RCRA-SQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

A review of the RCRA-SQG list, as provided by EDR, and dated 11/12/2008 has revealed that there are 21 RCRA-SQG sites within approximately 2 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
SERMATECH POWER SOLUTIONS	7615 FAIRVIEW STREET	NW 1/8 - 1/4 (0.148 mi.)	D13	46
<b>OCEANEERING INTERNATIONAL</b>	<b>11927 FM 529</b>	<b>S 1/2 - 1 (0.597 mi.)</b>	<b>AD231</b>	<b>1297</b>
EMMETT PROPERTIES INC	13100 WEIMAN RD	SW 1 - 2 (1.156 mi.)	371	1760
<b>LELAND STEEPLECHASE BODY SHOP</b>	<b>12700 CASTLEBRIDGE</b>	<b>NNW 1 - 2 (1.249 mi.)</b>	<b>372</b>	<b>1768</b>
<b>DRY CLEAN SUPER CENTER</b>	<b>9125 JONES ROAD</b>	<b>NNE 1 - 2 (1.331 mi.)</b>	<b>BB376</b>	<b>1778</b>
<b>MAC EQUIPMENT INC</b>	<b>13813 FM 529</b>	<b>WSW 1 - 2 (1.593 mi.)</b>	<b>381</b>	<b>1794</b>
<b>BIG THREE INDUSTRIES INC</b>	<b>12800 W LITTLE YORK</b>	<b>SSW 1 - 2 (1.688 mi.)</b>	<b>386</b>	<b>1808</b>
<b>NOV RIG SOLUTIONS WEST LITTLE</b>	<b>12950 W. LITTLE YORK</b>	<b>SSW 1 - 2 (1.746 mi.)</b>	<b>BC387</b>	<b>1810</b>
<b>NOV RIG SOLUTIONS WEST LITTLE</b>	<b>12950 W LITTLE YORK</b>	<b>SSW 1 - 2 (1.746 mi.)</b>	<b>BC388</b>	<b>1885</b>
<b>ONE TWENTYFIVE CLEAN SUPER CEN</b>	<b>6327 N ELDRIDGE</b>	<b>SSW 1 - 2 (1.790 mi.)</b>	<b>BD394</b>	<b>1903</b>
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>GRAYLOC PRODUCTS</b>	<b>11835 CHARLES RD</b>	<b>ESE 1/4 - 1/2 (0.308 mi.)</b>	<b>K56</b>	<b>260</b>
<b>FAIRVIEW GARDENS DEVELOPMENT L</b>	<b>11800 CHARLES RD</b>	<b>ESE 1/4 - 1/2 (0.342 mi.)</b>	<b>K64</b>	<b>294</b>
<b>OCEANEERING INTERVENTION ENGIN</b>	<b>11917 FM 529</b>	<b>SSE 1/4 - 1/2 (0.495 mi.)</b>	<b>U183</b>	<b>1072</b>
<b>WEATHERFORD ENTERRA</b>	<b>11909-A SPENCER RD</b>	<b>SSE 1/2 - 1 (0.508 mi.)</b>	<b>V203</b>	<b>1188</b>
<b>HYDRAULICS OF TEXAS</b>	<b>6714 NORTHWINDS DR</b>	<b>SE 1/2 - 1 (0.900 mi.)</b>	<b>AS315</b>	<b>1614</b>
CAMERON INTERNATIONAL CORPORAT	16250 PORT NORTHWEST DR	ESE 1 - 2 (1.282 mi.)	374	1774
<b>JOE MYERS MITSUBISHI</b>	<b>16484 NORTHWEST FWY</b>	<b>ESE 1 - 2 (1.402 mi.)</b>	<b>377</b>	<b>1788</b>
<b>NATIONAL OILWELL VARCO LP</b>	<b>12000 W LITTLE YORK RD</b>	<b>SSE 1 - 2 (1.435 mi.)</b>	<b>378</b>	<b>1790</b>
GEMINI CIRCUITS INC	11510 S PETROPARK DR	SSE 1 - 2 (1.753 mi.)	389	1888
<b>PII NORTH AMERICA INC</b>	<b>7105 BUSINESS PARK DR</b>	<b>ESE 1 - 2 (1.776 mi.)</b>	<b>392</b>	<b>1891</b>
<b>TOSHIBA INTERNATIONAL CORPORAT</b>	<b>13131 W LITTLE YORK RD</b>	<b>SSW 1 - 2 (1.815 mi.)</b>	<b>395</b>	<b>1905</b>

## EXECUTIVE SUMMARY

RCRA-CESQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

A review of the RCRA-CESQG list, as provided by EDR, and dated 11/12/2008 has revealed that there are 11 RCRA-CESQG sites within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
WW INDUSTRIES INC	7826 HARMS RD	WNW 1/4 - 1/2 (0.371 mi.)	73	333
<b>ALFA LAVAL THERMAL INC</b>	<b>12249 FM 529 RD STE A</b>	<b>S 1/4 - 1/2 (0.450 mi.)</b>	<b>R128</b>	<b>607</b>
<b>FAIRBANKS MORSE ENGINE</b>	<b>12253 FM 529 RD</b>	<b>S 1/4 - 1/2 (0.451 mi.)</b>	<b>R131</b>	<b>612</b>
<b>BROWN FINTUBE</b>	<b>12602 FM 529</b>	<b>SW 1/2 - 1 (0.576 mi.)</b>	<b>AC223</b>	<b>1275</b>
COATING APPLICATORS CORPORATIO	7134 SATSUMA RD	WSW 1/2 - 1 (0.603 mi.)	AE240	1378
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>NATIONAL OIL WELL</b>	<b>11919 FM 529 RD</b>	<b>SSE 1/4 - 1/2 (0.492 mi.)</b>	<b>U178</b>	<b>993</b>
OCEANEERING INTERNATIONAL	11911 FM 529	SSE 1/2 - 1 (0.505 mi.)	V195	1125
<b>WEATHERFORD INTERNATIONAL INC</b>	<b>11909 SPENCER RD</b>	<b>SSE 1/2 - 1 (0.508 mi.)</b>	<b>V199</b>	<b>1131</b>
<b>PALL CORP SOUTHWEST DIV</b>	<b>17489 VILLAGE GREEN DR</b>	<b>ENE 1/2 - 1 (0.661 mi.)</b>	<b>AG259</b>	<b>1461</b>
<b>WATER QUALITY SVC</b>	<b>17459 VILLAGE GREEN</b>	<b>ENE 1/2 - 1 (0.696 mi.)</b>	<b>AG271</b>	<b>1488</b>
<b>PINNACLE PRODUCTS INC</b>	<b>11330 CHARLES</b>	<b>ESE 1/2 - 1 (0.779 mi.)</b>	<b>AN287</b>	<b>1553</b>

### **Federal ERNS list**

ERNS: The Emergency Response Notification System records and stores information on reported releases of oil and hazardous substances. The source of this database is the U.S. EPA.

A review of the ERNS list, as provided by EDR, and dated 12/31/2008 has revealed that there are 5 ERNS sites within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
17738 HEMPSTEAD HIGHWAY	17738 HEMPSTEAD HIGHWAY	NE 1/4 - 1/2 (0.468 mi.)	167	957
7127 SATSUMA ST.	7127 SATSUMA ST.	WSW 1/2 - 1 (0.603 mi.)	AE241	1384
7043-C SATSUMA ST.	7043-C SATSUMA ST.	SW 1/2 - 1 (0.673 mi.)	AH262	1471
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
11502 CHARLES	11502 CHARLES	ESE 1/2 - 1 (0.647 mi.)	AF250	1435
11500 CHARLES ST.	11500 CHARLES ST.	ESE 1/2 - 1 (0.649 mi.)	AF252	1440

### **State and tribal landfill and/or solid waste disposal site lists**

SWF/LF: The Solid Waste Facilities/Landfill Sites records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. The data come from the Texas Commission on Environmental Quality's permitted Solid Waste Facilities list.

A review of the SWF/LF list, as provided by EDR, and dated 05/12/2009 has revealed that there is 1

## EXECUTIVE SUMMARY

SWF/LF site within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
WRIGHT ROAD MULCH LLC	7800 1/2 WRIGHT RD	NE 1/4 - 1/2 (0.271 mi.)	I47	233

### **State and tribal leaking storage tank lists**

LPST: The Leaking Petroleum Storage Tank Incident Reports contain an inventory of reported leaking petroleum storage tank incidents. The data come from the Texas Commission on Environmental Quality's Leaking Petroleum Storage Tank Database.

A review of the LPST list, as provided by EDR, and dated 04/01/2009 has revealed that there are 11 LPST sites within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
MIDWEST METALLIC Status Code: FINAL CONCURRENCE ISSUED, CASE CLOSED	7301 FAIRVIEW	SSW 1/8 - 1/4 (0.165 mi.)	E18	54
FORMER SHELL Status Code: FINAL CONCURRENCE ISSUED, CASE CLOSED	17504 HWY 290	ENE 1/2 - 1 (0.519 mi.)	W209	1240
BROWN FINTUBE Status Code: FINAL CONCURRENCE ISSUED, CASE CLOSED	12518 FM 529	SSW 1/2 - 1 (0.534 mi.)	Y213	1254
THOMAS CHARLIE OLDS Status Code: FINAL CONCURRENCE ISSUED, CASE CLOSED	12500 CASTLEBRIDGE	N 1/2 - 1 (0.921 mi.)	AV325	1628

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>MISSION COATING DIV CEILCOTE</b> Status Code: FINAL CONCURRENCE ISSUED, CASE CLOSED	<b>7100 WRIGHT RD</b>	<b>SSE 1/4 - 1/2 (0.465 mi.)</b>	<b>U165</b>	<b>943</b>
TRITON TOOL Status Code: FINAL CONCURRENCE ISSUED, CASE CLOSED	11917 FM 529	SSE 1/4 - 1/2 (0.495 mi.)	U185	1095
<b>CHARLES RD SOC</b> Status Code: FINAL CONCURRENCE ISSUED, CASE CLOSED	<b>11515 CHARLES RD</b>	<b>ESE 1/2 - 1 (0.636 mi.)</b>	<b>AF247</b>	<b>1399</b>
<b>NATIONAL STEEL PRODUCTS</b> Status Code: FINAL CONCURRENCE ISSUED, CASE CLOSED	<b>11919 SPENCER RD</b>	<b>SSE 1/2 - 1 (0.646 mi.)</b>	<b>248</b>	<b>1402</b>
STOP NO GO 2623 Status Code: FINAL CONCURRENCE ISSUED, CASE CLOSED	17342 HEMPSTEAD HWY	E 1/2 - 1 (0.674 mi.)	AI269	1483
<b>US RENTALS</b> Status Code: FINAL CONCURRENCE ISSUED, CASE CLOSED	<b>17138 HIGHWAY 290</b>	<b>E 1/2 - 1 (0.965 mi.)</b>	<b>354</b>	<b>1696</b>
GIFFORD HILL AND CO Status Code: FINAL CONCURRENCE ISSUED, CASE CLOSED	11201 FM 529	ESE 1/2 - 1 (0.981 mi.)	AY362	1712

### **State and tribal registered storage tank lists**

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the Texas Commission on Environmental Quality's Petroleum Storage Tank Database.

A review of the UST list, as provided by EDR, and dated 05/01/2009 has revealed that there are 31 UST



## EXECUTIVE SUMMARY

sites within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
BLASCHKE TRUCKING	7531 FAIRVIEW	W 0 - 1/8 (0.056 mi.)	B3	8
MID-WEST AM DIV AM BUILDINGS	7301 FAIRVIEW	SSW 1/8 - 1/4 (0.165 mi.)	E22	96
JERSEY VILLAGE PLANT	7207 FAIRVIEW	SSW 1/4 - 1/2 (0.272 mi.)	J51	247
WRIGHT RD CONCRETE PLANT	7824 WRIGHT	NE 1/4 - 1/2 (0.289 mi.)	I54	253
FABMARK INC	7938 WRIGHT RD	NNE 1/4 - 1/2 (0.389 mi.)	75	339
CIRCLE S CHEVRON	12222 FM 529	S 1/4 - 1/2 (0.447 mi.)	R98	473
CITY OF JERSEY VILLAGE MAINT G	12424 TAYLOR RD	NNW 1/4 - 1/2 (0.459 mi.)	S150	868
SHELL RETAIL FACILITY	17504 NORTHWEST FWY	ENE 1/2 - 1 (0.518 mi.)	W207	1232
BAS-TEX	12518 FM 529	SSW 1/2 - 1 (0.534 mi.)	Y212	1246
BROWN FINTUBE	12602 FM 529 RD	SW 1/2 - 1 (0.576 mi.)	AC224	1284
SELCO	12999 FM 529	WSW 1/2 - 1 (0.895 mi.)	AT312	1610
E G ALFORD COMPANY	13011 FM 529 RD	WSW 1/2 - 1 (0.907 mi.)	AT317	1616
LOT 18	12500 CASTLEBRIDGE	N 1/2 - 1 (0.921 mi.)	AV326	1629
529 MARKET	13051 FM 529 RD	WSW 1/2 - 1 (0.940 mi.)	AT331	1639
FUEL DEPOT 10	13050 FM 529 RD	WSW 1/2 - 1 (0.957 mi.)	AZ342	1664
<b><u>Lower Elevation</u></b>	<b><u>Address</u></b>	<b><u>Direction / Distance</u></b>	<b><u>Map ID</u></b>	<b><u>Page</u></b>
<b><i>JERSEY VILLAGE PLANT 1</i></b>	<b><i>7641 WRIGHT RD</i></b>	<b><i>ENE 1/8 - 1/4 (0.180 mi.)</i></b>	<b><i>F25</i></b>	<b><i>139</i></b>
PIONEER CONCRETE	7641 WRIGHT RD	ENE 1/8 - 1/4 (0.180 mi.)	F27	144
GROUPS MGMT SERVICE INC	11811 CHARLES ST	ESE 1/4 - 1/2 (0.334 mi.)	K60	279
ANDERSON TRUCKING SERVICE	7119 WRIGHT RD	SSE 1/4 - 1/2 (0.386 mi.)	M74	335
HUBCO INC	11714 CHARLES	ESE 1/4 - 1/2 (0.450 mi.)	P123	575
<b><i>MISSION COATING DIV CEILCOTE</i></b>	<b><i>7100 WRIGHT RD</i></b>	<b><i>SSE 1/4 - 1/2 (0.465 mi.)</i></b>	<b><i>U165</i></b>	<b><i>943</i></b>
DRAVO BASIC MATERIALS MELENDY	11913 FM 529	SSE 1/2 - 1 (0.502 mi.)	U193	1110
OERLIKON WELDING INDUSTRIES	11903 FM 529 RD	SSE 1/2 - 1 (0.519 mi.)	V208	1237
EXXON RS 69395	17438 NORTHWEST FWY	ENE 1/2 - 1 (0.602 mi.)	AA235	1351
<b><i>CHARLES RD SOC</i></b>	<b><i>11515 CHARLES RD</i></b>	<b><i>ESE 1/2 - 1 (0.636 mi.)</i></b>	<b><i>AF247</i></b>	<b><i>1399</i></b>
<b><i>NATIONAL STEEL PRODUCTS</i></b>	<b><i>11919 SPENCER RD</i></b>	<b><i>SSE 1/2 - 1 (0.646 mi.)</i></b>	<b><i>248</i></b>	<b><i>1402</i></b>
SUPER K FOOD STORE	17342 NORTHWEST FWY	E 1/2 - 1 (0.674 mi.)	AI268	1475
CHARLES CONOCO	11250 FM 529 RD	ESE 1/2 - 1 (0.956 mi.)	AY338	1656
<b><i>US RENTALS</i></b>	<b><i>17138 HIGHWAY 290</i></b>	<b><i>E 1/2 - 1 (0.965 mi.)</i></b>	<b><i>354</i></b>	<b><i>1696</i></b>
HCP PRESS PIPE HOUSTON	11201 FM 529 RD	ESE 1/2 - 1 (0.981 mi.)	AY365	1714
PERFECTION MATERIALS COMPANY	11155 FM 529	ESE 1/2 - 1 (0.995 mi.)	AY369	1756

AST: The Aboveground Storage Tank database contains registered ASTs. The data come from the Texas Commission on Environmental Quality's Petroleum Storage Tank Database.

A review of the AST list, as provided by EDR, and dated 05/01/2009 has revealed that there are 18 AST sites within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
JERSEY VILLAGE PLANT	7207 FAIRVIEW	SSW 1/4 - 1/2 (0.272 mi.)	J52	249
DM TRUCK REPAIR RENTE CO	12243-C FM 529	S 1/4 - 1/2 (0.449 mi.)	R117	553
COLTEC INDUSTRIES	12253 FM 529 RD	S 1/4 - 1/2 (0.451 mi.)	R133	618
ELDRIDGE TRANSPORTATION CENTER	7600 N ELDRIDGE PKWY	W 1/2 - 1 (0.769 mi.)	AL280	1535
ADAMS LAWN & PLANT	6902 SATSUMA	SW 1/2 - 1 (0.795 mi.)	291	1568
SOUTH BAY GUNITE	7130 MAYARD RD	WSW 1/2 - 1 (0.799 mi.)	AO292	1570
LOT 18	12500 CASTLEBRIDGE	N 1/2 - 1 (0.921 mi.)	AV327	1634
HONDA OF HOUSTON	12655 WEST RD	NNW 1/2 - 1 (0.922 mi.)	328	1636
<b><u>Lower Elevation</u></b>	<b><u>Address</u></b>	<b><u>Direction / Distance</u></b>	<b><u>Map ID</u></b>	<b><u>Page</u></b>
<b><i>JERSEY VILLAGE PLANT 1</i></b>	<b><i>7641 WRIGHT RD</i></b>	<b><i>ENE 1/8 - 1/4 (0.180 mi.)</i></b>	<b><i>F25</i></b>	<b><i>139</i></b>

## EXECUTIVE SUMMARY

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>SUTTON COATING SERVICES INC</b>	<b>7700 WRIGHT RD</b>	<b>ENE 1/8 - 1/4 (0.201 mi.)</b>	<b>F39</b>	<b>216</b>
LONGHORN STEEL	11919 FM 529	SSE 1/4 - 1/2 (0.492 mi.)	U176	986
<b>TRITON TOOL &amp; SUPPLY INC</b>	<b>11917 SPENCER RD</b>	<b>SSE 1/4 - 1/2 (0.495 mi.)</b>	<b>U180</b>	<b>1023</b>
CENTURY ASPHALT MATERIALS	11913 FM 529	SSE 1/2 - 1 (0.502 mi.)	U190	1103
<b>REDLAND STONE PRODUCTS</b>	<b>11913 FM 529 RD</b>	<b>SSE 1/2 - 1 (0.502 mi.)</b>	<b>U194</b>	<b>1112</b>
TRITON TOOL & SUPPLY	11917 SPENCER RD	SE 1/2 - 1 (0.582 mi.)	AB228	1290
DORSETT BROTHERS CONCRETE SUPP	11206 FM 529	ESE 1/2 - 1 (0.978 mi.)	AY356	1702
HCP PRESS PIPE HOUSTON	11201 FM 529 RD	ESE 1/2 - 1 (0.981 mi.)	AY360	1706
HANSON PIPE AND PRODUCTS	11201 FM 529	ESE 1/2 - 1 (0.981 mi.)	AY361	1709

### **State and tribal institutional control / engineering control registries**

AUL: Sites that have institutional controls.

A review of the AUL list, as provided by EDR, and dated 04/29/2009 has revealed that there is 1 AUL site within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>NCI BUILDING SYSTEMS LP</b>	<b>7301 FAIRVIEW</b>	<b>SSW 1/8 - 1/4 (0.165 mi.)</b>	<b>E21</b>	<b>71</b>

### **State and tribal voluntary cleanup sites**

VCP: Voluntary Cleanup Program Sites.

A review of the VCP list, as provided by EDR, and dated 04/21/2009 has revealed that there are 3 VCP sites within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>NCI BUILDING SYSTEMS LP</b>	<b>7301 FAIRVIEW</b>	<b>SSW 1/8 - 1/4 (0.165 mi.)</b>	<b>E21</b>	<b>71</b>
<b>QUEST CHEMICAL CORPORATION</b>	<b>12255 FM 529</b>	<b>S 1/4 - 1/2 (0.451 mi.)</b>	<b>R146</b>	<b>802</b>

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
GRAYLOC PRODUCTS	11835 CHARLES STREET	ESE 1/4 - 1/2 (0.308 mi.)	K58	263

### **ADDITIONAL ENVIRONMENTAL RECORDS**

#### **Records of Emergency Release Reports**

HMIRS: The Hazardous Materials Incident Report System contains hazardous material spill incidents reported to the Department of Transportation. The source of this database is the U.S. EPA.

A review of the HMIRS list, as provided by EDR, and dated 03/31/2009 has revealed that there are 5 HMIRS sites within approximately 1 mile of the target property.

## EXECUTIVE SUMMARY

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
Not reported	12255 FM 529	S 1/4 - 1/2 (0.451 mi.)	R136	629
Not reported	12255 FM 529	S 1/4 - 1/2 (0.451 mi.)	R137	629
Not reported	12255 FM 529	S 1/4 - 1/2 (0.451 mi.)	R140	768
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
Not reported	7100 WRIGHT ROAD	SSE 1/4 - 1/2 (0.465 mi.)	U160	899
Not reported	7100 WRIGHT ROAD	SSE 1/4 - 1/2 (0.465 mi.)	U164	943

SPILLS: The Spills Database comes from the Texas Commission on Environmental Quality.

A review of the SPILLS list, as provided by EDR, and dated 06/25/2009 has revealed that there are 12 SPILLS sites within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>NCI BUILDING SYSTEMS</b> Incident Status: Closed	<b>7301 FAIRVIEW</b>	<b>SSW 1/8 - 1/4 (0.165 mi.)</b>	<b>E19</b>	<b>54</b>
12226 TAYLOR STREET, HOUSTON	12226 TAYLOR STREET, HO	N 1/4 - 1/2 (0.412 mi.)	N82	418
<b>HORIZON DIRECTIONAL SYSTEMS</b>	<b>12233 FM 529</b>	<b>S 1/4 - 1/2 (0.448 mi.)</b>	<b>R110</b>	<b>517</b>
<b>SOUTHDOWN THERMAL DYNAMICS</b>	<b>12235 FM 529</b>	<b>S 1/4 - 1/2 (0.448 mi.)</b>	<b>R111</b>	<b>523</b>
<b>QUEST CHEMICAL CORPORATION</b>	<b>12255 FM 529</b>	<b>S 1/4 - 1/2 (0.451 mi.)</b>	<b>R146</b>	<b>802</b>
AT BONANZA MARBLE AT 7043 SASU	AT BONANZA MARBLE AT 70	SW 1/2 - 1 (0.674 mi.)	AH266	1474
FM 529 AND MAYARD ST., HOUSTON	FM 529 / MAYARD ST., HO	WSW 1/2 - 1 (0.895 mi.)	AT311	1609
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>SUTTON COATING SERVICES INC</b>	<b>7700 WRIGHT RD</b>	<b>ENE 1/8 - 1/4 (0.201 mi.)</b>	<b>F39</b>	<b>216</b>
DITCH ON N SIDE OF BAYPORT RD.	DITCH ON N SIDE OF BAYP	ESE 1/4 - 1/2 (0.450 mi.)	P124	577
11714 CHARLES ST. HOUSTON TX.	11714 CHARLES ST. HOUST	ESE 1/4 - 1/2 (0.450 mi.)	P125	578
<b>WEATHERFORD ENTERRA SPENCER RO</b>	<b>11909 SPENCER ROAD</b>	<b>SSE 1/2 - 1 (0.508 mi.)</b>	<b>V202</b>	<b>1136</b>
RAYFORD SAWDUST RD. (ADJACENT	RAYFORD SAWDUST RD. (AD	ESE 1/2 - 1 (0.996 mi.)	AY370	1759

### Other Ascertainable Records

RCRA-NonGen: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA-NonGen list, as provided by EDR, and dated 11/12/2008 has revealed that there are 35 RCRA-NonGen sites within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>NCI BUILDING SYSTEMS LP</b>	<b>7301 FAIRVIEW</b>	<b>SSW 1/8 - 1/4 (0.152 mi.)</b>	<b>E14</b>	<b>49</b>
<b>GRANT PRIDECO HARMS ROAD FACIL</b>	<b>7755 HARMS RD</b>	<b>W 1/4 - 1/2 (0.361 mi.)</b>	<b>L72</b>	<b>331</b>
<b>TOROMONT PROCESS SYSTEMS</b>	<b>12227-D FM 529</b>	<b>S 1/4 - 1/2 (0.447 mi.)</b>	<b>R102</b>	<b>493</b>
<b>HORIZON DIRECTIONAL SYSTEMS IN</b>	<b>12233 FM 529</b>	<b>S 1/4 - 1/2 (0.448 mi.)</b>	<b>R108</b>	<b>511</b>
<b>BFI THERMAL DYNAMICS</b>	<b>12235 FM 529 RM 101</b>	<b>S 1/4 - 1/2 (0.448 mi.)</b>	<b>R112</b>	<b>530</b>
<b>SOUTHDOWN THERMAL DYNAMICS</b>	<b>12235 FM 529</b>	<b>S 1/4 - 1/2 (0.448 mi.)</b>	<b>R113</b>	<b>536</b>
<b>MOHR RESEARCH ENGINEERING</b>	<b>12237 FM 529</b>	<b>S 1/4 - 1/2 (0.449 mi.)</b>	<b>R114</b>	<b>537</b>

## EXECUTIVE SUMMARY

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>CHEYENNE SERVICES</b>	12243-A FM 529	S 1/4 - 1/2 (0.450 mi.)	R118	555
<b>BLACK MAX DOWNHOLE TOOLS</b>	12245-H FM 529	S 1/4 - 1/2 (0.450 mi.)	R119	557
<b>TYCO VALVES &amp; CONTROLS INC</b>	12247-C FM 529	S 1/4 - 1/2 (0.450 mi.)	R121	563
<b>QUEST PACKAGING INC</b>	12255 FM 529 NORTHWOODS	S 1/4 - 1/2 (0.451 mi.)	R147	826
<b>TEXAS TREE TRANS</b>	12431 TAYLOR RD	NNW 1/4 - 1/2 (0.461 mi.)	S155	879
<b>WASTE MANAGEMENT OF HOUSTON</b>	12518 FM ROAD 529 SPENC	S 1/4 - 1/2 (0.469 mi.)	169	957
<b>BONANZA INDUSTRIES INC (DBA BO</b>	7043-C SATSUMA	SW 1/2 - 1 (0.673 mi.)	AH263	1471
<b>FLUID MECHANICS VALVE COMPANY</b>	12803 FM 529	SW 1/2 - 1 (0.713 mi.)	AJ273	1497
ATLANTIC INDUSTRIAL SERVICES I	11953 FM 529 ROAD	S 1/2 - 1 (0.766 mi.)	AK278	1527
SCS MACHINE & FABRICATING INC	6847 SIGNAT	SSW 1/2 - 1 (0.777 mi.)	AM284	1546
<b>TECHALLOY COMPANY INC</b>	7080 MAYARD ROAD	WSW 1/2 - 1 (0.829 mi.)	298	1580
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
CHAMPION COATINGS INC	7403 WRIGHT AVE	ESE 1/8 - 1/4 (0.187 mi.)	G38	213
<b>SUTTON COATING SERVICES INC</b>	7700 WRIGHT RD	ENE 1/8 - 1/4 (0.201 mi.)	F39	216
VETCO GRAY	11800 CHARLES ST	ESE 1/4 - 1/2 (0.342 mi.)	K63	293
<b>INDUSTRIAL CHEMICAL AND SCIENT</b>	11722 CHARLES STREET	ESE 1/4 - 1/2 (0.433 mi.)	P90	433
<b>MARINE &amp; MAINLAND</b>	11981-A FM 529	SSE 1/4 - 1/2 (0.463 mi.)	T159	897
<b>LONGHORN STEEL AND FLAMECUTTIN</b>	11921 FM 529	SSE 1/4 - 1/2 (0.489 mi.)	U175	983
<b>TRITON TOOL &amp; SUPPLY INC</b>	11917 SPENCER RD	SSE 1/4 - 1/2 (0.495 mi.)	U180	1023
<b>TESORO GAS MARKETING DIGAS CYP</b>	17311 N FWY	E 1/2 - 1 (0.558 mi.)	Z216	1258
<b>NATIONAL STEEL PRODUCTS CO</b>	11919 SPENCER ROAD	SE 1/2 - 1 (0.580 mi.)	AB227	1288
<b>YORK INTNTL CORPORATION</b>	11935-A FM 529	SE 1/2 - 1 (0.589 mi.)	AB229	1292
<b>EXXON MOBIL CORPORATION</b>	17438 HWY 290 & JONES R	ENE 1/2 - 1 (0.602 mi.)	AA233	1345
<b>GUARDSMAN PRODUCTS INC</b>	11502 CHARLES	ESE 1/2 - 1 (0.647 mi.)	AF249	1425
<b>DRESSER-RAND POWER TURBO PRODU</b>	11500 CHARLES RD	ESE 1/2 - 1 (0.649 mi.)	AF255	1448
<b>AMERICAN WHOLESALE THERMOGRAPH</b>	17477 VILLAGE GREEN DR	ENE 1/2 - 1 (0.661 mi.)	AG257	1454
<b>ATLAS BOLT</b>	6722 NORTHWINDS	SE 1/2 - 1 (0.891 mi.)	AS307	1596
<b>NORTHWEST DRIVE TRAIN SERVICE</b>	11320 FM 529 RD BLDG A	ESE 1/2 - 1 (0.918 mi.)	AU322	1621
<b>CBI NA-CON INC</b>	11234 FM 529	ESE 1/2 - 1 (0.964 mi.)	AY353	1694

TRIS: The Toxic Chemical Release Inventory System identifies facilities that release toxic chemicals to the air, water, and land in reportable quantities under SARA Title III, Section 313. The source of this database is the U.S. EPA.

A review of the TRIS list, as provided by EDR, and dated 12/31/2007 has revealed that there are 7 TRIS sites within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>NCI BUILDING SYSTEMS LP</b>	7301 FAIRVIEW	SSW 1/8 - 1/4 (0.165 mi.)	E21	71
QUEST CHEMICAL CORP	12255 FM 529	S 1/4 - 1/2 (0.451 mi.)	R138	629
KOCH HEAT TRANSFER CO LP	12602 FM 529	SW 1/2 - 1 (0.576 mi.)	AC220	1269
<b>BONANZA INDUSTRIES INC (DBA BO</b>	7043-C SATSUMA	SW 1/2 - 1 (0.673 mi.)	AH263	1471
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>CHAMPION COATINGS</b>	7403 WRIGHT RD	ESE 1/8 - 1/4 (0.187 mi.)	G34	155
<b>BASF CONSTRUCTION CHEMICALS LL</b>	7100 WRIGHT RD	SSE 1/4 - 1/2 (0.465 mi.)	U163	908
HANSON PIPE & PRODUCTS INC JER	11201 FM 529	ESE 1/2 - 1 (0.981 mi.)	AY363	1712

## EXECUTIVE SUMMARY

FTTS: FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act) over the previous five years. To maintain currency, EDR contacts the Agency on a quarterly basis.

A review of the FTTS list, as provided by EDR, and dated 04/09/2009 has revealed that there are 4 FTTS sites within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>QUEST</i>	<i>12255 FM 529</i>	<i>S 1/4 - 1/2 (0.451 mi.)</i>	<i>R143</i>	<i>782</i>
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>INDUSTRIAL CHEMICAL &amp; SCIENTIF</i>	<i>11722 CHARLES ST</i>	<i>ESE 1/4 - 1/2 (0.433 mi.)</i>	<i>P87</i>	<i>424</i>
<i>INDUSTRIAL CHEMICAL &amp; SCIENTIF</i>	<i>11722 CHARLES ST</i>	<i>ESE 1/4 - 1/2 (0.433 mi.)</i>	<i>P88</i>	<i>424</i>
<i>IRELAND ALLOYS</i>	<i>11300 FM 529</i>	<i>ESE 1/2 - 1 (0.927 mi.)</i>	<i>AU329</i>	<i>1638</i>

HIST FTTS: A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

A review of the HIST FTTS list, as provided by EDR, and dated 10/19/2006 has revealed that there are 4 HIST FTTS sites within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>QUEST</i>	<i>12255 FM 529</i>	<i>S 1/4 - 1/2 (0.451 mi.)</i>	<i>R143</i>	<i>782</i>
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>INDUSTRIAL CHEMICAL &amp; SCIENTIF</i>	<i>11722 CHARLES ST</i>	<i>ESE 1/4 - 1/2 (0.433 mi.)</i>	<i>P87</i>	<i>424</i>
<i>INDUSTRIAL CHEMICAL &amp; SCIENTIF</i>	<i>11722 CHARLES ST</i>	<i>ESE 1/4 - 1/2 (0.433 mi.)</i>	<i>P88</i>	<i>424</i>
<i>IRELAND ALLOYS</i>	<i>11300 FM 529</i>	<i>ESE 1/2 - 1 (0.927 mi.)</i>	<i>AU329</i>	<i>1638</i>

SSTS: Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

A review of the SSTS list, as provided by EDR, and dated 12/31/2006 has revealed that there are 5 SSTS sites within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>QUEST CHEMICAL CORP</i>	<i>12255 FM 529</i>	<i>S 1/4 - 1/2 (0.451 mi.)</i>	<i>R139</i>	<i>630</i>
<i>QUEST CHEMICAL CORP</i>	<i>12255 FM 529 NORTH WOOD</i>	<i>SSW 1/2 - 1 (0.760 mi.)</i>	<i>275</i>	<i>1503</i>
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>PREMIER MEDICAL TECHNOLOGY INC</i>	<i>7705 WRIGHT RD</i>	<i>ENE 1/8 - 1/4 (0.204 mi.)</i>	<i>40</i>	<i>226</i>
<i>INDUSTRIAL CHEMICAL &amp; SCIENTIF</i>	<i>11722 CHARLES ST</i>	<i>ESE 1/4 - 1/2 (0.433 mi.)</i>	<i>P86</i>	<i>422</i>
<i>PINNACLE PRODUCTS, INC.</i>	<i>11330 CHARLES RD</i>	<i>ESE 1/2 - 1 (0.779 mi.)</i>	<i>AN286</i>	<i>1553</i>

## EXECUTIVE SUMMARY

ICIS: The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

A review of the ICIS list, as provided by EDR, and dated 03/20/2009 has revealed that there are 9 ICIS sites within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
SERMATECH INTERNATIONAL INC	7615 FAIRVIEW ST	WNW 0 - 1/8 (0.064 mi.)	C6	12
QUEST CHEMICAL CORP	12255 FM 529	S 1/4 - 1/2 (0.451 mi.)	R144	783
KOCH HEAT TRANSFER COMPANY	12602 FM 529	SW 1/2 - 1 (0.576 mi.)	AC225	1287
OCEANEERING INTERNATIONAL	11927 FM 529	S 1/2 - 1 (0.597 mi.)	AD230	1295
MAYDE CREEK MUD WASTEWATER TRE	6919 MAYARD	SW 1/2 - 1 (0.947 mi.)	AW334	1645
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
PIONEER CONCRETE OF TEXAS INC	7641 WRIGHT RD	ENE 1/8 - 1/4 (0.180 mi.)	F26	143
INDUSTRIAL CHEMICAL & SCIENTIF	11722 CHARLES ST.	ESE 1/4 - 1/2 (0.433 mi.)	P85	419
PINNACLE PRODUCTS	11330 CHARLES ROAD	ESE 1/2 - 1 (0.779 mi.)	AN288	1562
HANSON PIPE & PRODUCTS INC JE	11201 FM 529	ESE 1/2 - 1 (0.981 mi.)	AY364	1712

FINDS: The Facility Index System contains both facility information and "pointers" to other sources of information that contain more detail. These include: RCRIS; Permit Compliance System (PCS); Aerometric Information Retrieval System (AIRS); FATES (FIFRA [Federal Insecticide Fungicide Rodenticide Act] and TSCA Enforcement System, FTTS [FIFRA/TSCA Tracking System]; CERCLIS; DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes); Federal Underground Injection Control (FURS); Federal Reporting Data System (FRDS); Surface Impoundments (SIA); TSCA Chemicals in Commerce Information System (CICS); PADS; RCRA-J (medical waste transporters/disposers); TRIS; and TSCA. The source of this database is the U.S. EPA/NTIS.

A review of the FINDS list, as provided by EDR, and dated 04/28/2009 has revealed that there are 147 FINDS sites within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
NORTHWEST CROSSING	7607 FAIRVIEW ST	WNW 0 - 1/8 (0.061 mi.)	B4	11
TASCON INDUSTRIES, INC.	7607 FAIRVIEW RD	WNW 0 - 1/8 (0.061 mi.)	B5	12
7410 FAIRVIEW	7410 FAIRVIEW ST	WSW 0 - 1/8 (0.064 mi.)	7	13
GRAEME REED - SUBURBAN MOBILE	7622 FAIRVIEW ST	WNW 0 - 1/8 (0.068 mi.)	C8	13
SUBURBAN MOBILE HOME PARK 2	7638 FAIRVIEW ST	NW 0 - 1/8 (0.077 mi.)	C9	14
SERMATECH POWER SOLUTIONS SURF	7615 FAIRVIEW ST	NW 1/8 - 1/4 (0.148 mi.)	D11	28
<b>NCI BUILDING SYSTEMS LP</b>	<b>7301 FAIRVIEW</b>	<b>SSW 1/8 - 1/4 (0.152 mi.)</b>	<b>E14</b>	<b>49</b>
NCI BUILDING SYSTEMS	7301 FAIRVIEW STREET	SSW 1/8 - 1/4 (0.152 mi.)	E17	53
TERRO ENTERPRISES FAIRVIEW BUS	7826 FAIRVIEW ST	NNW 1/8 - 1/4 (0.242 mi.)	H41	227
FAIRVIEW GARDENS MHP	7835 FAIRVIEW ST	NNW 1/8 - 1/4 (0.250 mi.)	H42	227
WRIGHT ROAD MULCH	7800 1/2 WRIGHT RD	NE 1/4 - 1/2 (0.270 mi.)	I45	232
TOPS ORGANIC LLC DBA COPPERFIE	7800 1/2 WRIGHT RD	NE 1/4 - 1/2 (0.270 mi.)	I46	233
JERSEY VILLAGE PLANT	7207 FAIRVIEW	SSW 1/4 - 1/2 (0.272 mi.)	J53	253
NORTHWOODS MOBILE HOME PARK	7119 FAIRVIEW ST	S 1/4 - 1/2 (0.349 mi.)	70	322
<b>GRANT PRIDECO HARMS ROAD FACIL</b>	<b>7755 HARMS RD</b>	<b>W 1/4 - 1/2 (0.361 mi.)</b>	<b>L72</b>	<b>331</b>
INDUSTRIAL PIPING SPECIALISTS	7755 HARMS RD	WNW 1/4 - 1/2 (0.408 mi.)	79	412
HONING	12226 TAYLOR RD	N 1/4 - 1/2 (0.411 mi.)	N81	417
GULF RICE MILLING	12010 TAYLOR RD	NNE 1/4 - 1/2 (0.423 mi.)	O84	419
WW INDUSTRIES INC	7826 HARMS RD	NW 1/4 - 1/2 (0.441 mi.)	91	435
TEXAS DEVELOPMENT NORWOODS MAN	12121 FM 529 RD	S 1/4 - 1/2 (0.445 mi.)	Q93	467
JETT WELD	12118 FM 529 RD	S 1/4 - 1/2 (0.445 mi.)	Q94	468
NORTHWOODS INDUSTRIAL PARK WES	12220 FM 529 RD	S 1/4 - 1/2 (0.447 mi.)	R95	468

## EXECUTIVE SUMMARY

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
CIRCLE S FOOD STORE	12222 FM 529 RD	S 1/4 - 1/2 (0.447 mi.)	R97	473
PRECISION POWERED PRODUCTS	12227 FM 529 RD	S 1/4 - 1/2 (0.447 mi.)	R101	493
<b>TOROMONT PROCESS SYSTEMS</b>	<b>12227-D FM 529</b>	<b>S 1/4 - 1/2 (0.447 mi.)</b>	<b>R102</b>	<b>493</b>
NORTHWOODS INDUSTRIAL PARK	12231 1/2 FM 529	S 1/4 - 1/2 (0.448 mi.)	R105	503
<b>HORIZON DIRECTIONAL SYSTEMS INC</b>	<b>12233 FM 529</b>	<b>S 1/4 - 1/2 (0.448 mi.)</b>	<b>R108</b>	<b>511</b>
KUBCO DECANter SVCS	12231 FM 529 RD	S 1/4 - 1/2 (0.448 mi.)	R109	516
<b>BFI THERMAL DYNAMICS</b>	<b>12235 FM 529 RM 101</b>	<b>S 1/4 - 1/2 (0.448 mi.)</b>	<b>R112</b>	<b>530</b>
<b>SOUTHDOWN THERMAL DYNAMICS</b>	<b>12235 FM 529</b>	<b>S 1/4 - 1/2 (0.448 mi.)</b>	<b>R113</b>	<b>536</b>
<b>MOHR RESEARCH ENGINEERING</b>	<b>12237 FM 529</b>	<b>S 1/4 - 1/2 (0.449 mi.)</b>	<b>R114</b>	<b>537</b>
FIBERSPAR HOUSTON SITE	12239 FM 529 RD	S 1/4 - 1/2 (0.449 mi.)	R115	552
CHEYENNE SERVICES	12243 FM 529 RD	S 1/4 - 1/2 (0.449 mi.)	R116	553
<b>CHEYENNE SERVICES</b>	<b>12243-A FM 529</b>	<b>S 1/4 - 1/2 (0.450 mi.)</b>	<b>R118</b>	<b>555</b>
<b>BLACK MAX DOWNHOLE TOOLS</b>	<b>12245-H FM 529</b>	<b>S 1/4 - 1/2 (0.450 mi.)</b>	<b>R119</b>	<b>557</b>
H & B TAYLOR ROAD BUSINESS PAR	12400 TAYLOR RD	NNW 1/4 - 1/2 (0.450 mi.)	S120	563
<b>TYCO VALVES &amp; CONTROLS INC</b>	<b>12247-C FM 529</b>	<b>S 1/4 - 1/2 (0.450 mi.)</b>	<b>R121</b>	<b>563</b>
<b>ALFA LAVAL THERMAL INC</b>	<b>12249 FM 529 RD STE A</b>	<b>S 1/4 - 1/2 (0.450 mi.)</b>	<b>R128</b>	<b>607</b>
RADOIL	12251 FM 529 RD	S 1/4 - 1/2 (0.451 mi.)	R130	612
<b>FAIRBANKS MORSE ENGINE</b>	<b>12253 FM 529 RD</b>	<b>S 1/4 - 1/2 (0.451 mi.)</b>	<b>R131</b>	<b>612</b>
CAMERON IRON WORKS ENVIRONMENT	12253 FM 529 RD	S 1/4 - 1/2 (0.451 mi.)	R132	618
<b>QUEST PACKAGING INC</b>	<b>12255 FM 529 NORTHWOODS</b>	<b>S 1/4 - 1/2 (0.451 mi.)</b>	<b>R147</b>	<b>826</b>
FLUOROCARBON PRB DIVISION	12257 FM 529 RD	S 1/4 - 1/2 (0.452 mi.)	R148	864
<b>TEXAS TREE TRANS</b>	<b>12431 TAYLOR RD</b>	<b>NNW 1/4 - 1/2 (0.461 mi.)</b>	<b>S155</b>	<b>879</b>
<b>WASTE MANAGEMENT OF HOUSTON</b>	<b>12518 FM ROAD 529 SPENC</b>	<b>S 1/4 - 1/2 (0.469 mi.)</b>	<b>169</b>	<b>957</b>
DOW MACHINE	12530 TAYLOR ROAD	NW 1/2 - 1 (0.507 mi.)	196	1127
SATSUMA PARK VILLA MOBILE HOME	12718 1/2 TREICHEL RD	WSW 1/2 - 1 (0.543 mi.)	214	1254
KOCH HEAT TRANSFER COMPANY	12602 FM 529	SW 1/2 - 1 (0.576 mi.)	AC221	1269
<b>BROWN FINTUBE</b>	<b>12602 FM 529</b>	<b>SW 1/2 - 1 (0.576 mi.)</b>	<b>AC223</b>	<b>1275</b>
HITEMCO SOUTHWEST	7134 SATSUMA DR	WSW 1/2 - 1 (0.603 mi.)	AE239	1377
FOX METALS AND ALLOYS	12660 FM 529 RD	SW 1/2 - 1 (0.612 mi.)	AC243	1390
<b>BONANZA INDUSTRIES INC (DBA BO</b>	<b>7043-C SATSUMA</b>	<b>SW 1/2 - 1 (0.673 mi.)</b>	<b>AH263</b>	<b>1471</b>
BONANZA MARBLE	7043 SATSUMA DR	SW 1/2 - 1 (0.673 mi.)	AH264	1473
MATTYS PATTYS	7042 SATSUMA DR	SW 1/2 - 1 (0.673 mi.)	AH265	1473
<b>FLUID MECHANICS VALVE COMPANY</b>	<b>12803 FM 529</b>	<b>SW 1/2 - 1 (0.713 mi.)</b>	<b>AJ273</b>	<b>1497</b>
ATLANTIC INDUSTRIAL SERVICES H	11953 FM 529 ROAD	S 1/2 - 1 (0.766 mi.)	AK277	1527
CYPRESS-FAIRBANKS ISD	7600 N ELDRIDGE PKWY	W 1/2 - 1 (0.769 mi.)	AL282	1545
SCS MACHINE & FABRICATING INC	6847 SIGNAT	SSW 1/2 - 1 (0.777 mi.)	AM283	1545
SOUTH BAY GUNITE INC	7130 MAYARD RD	WSW 1/2 - 1 (0.799 mi.)	AO293	1572
<b>TECHALLOY COMPANY INC</b>	<b>7080 MAYARD ROAD</b>	<b>WSW 1/2 - 1 (0.829 mi.)</b>	<b>298</b>	<b>1580</b>
CYPRESS RIDGE HIGH SCHOOL	7900 N ELDRIDGE PKWY	WNW 1/2 - 1 (0.850 mi.)	AQ303	1595
GURDWARA NANAKSA TEMPLE	6834 SATSUMA DR	SW 1/2 - 1 (0.862 mi.)	AR306	1596
EMPIRE COATINGS	6802 SATSUMA DR	SW 1/2 - 1 (0.894 mi.)	AR310	1608
HINES POTTERY	6747 SIGNAT DR	SSW 1/2 - 1 (0.895 mi.)	313	1613
TRADERS VILLAGE HOUSTON	7979 N ELDRIDGE PKWY	WNW 1/2 - 1 (0.899 mi.)	314	1614
529 MARKET	13051 FM 529 RD	WSW 1/2 - 1 (0.940 mi.)	AT332	1645
MAYDE CREEK MUD WASTEWATER TRE	6919 MAYARD	SW 1/2 - 1 (0.946 mi.)	AW333	1645
HARRIS COUNTY MUD NO. 130 WWTP	0.5MI S OF USHWY 290 &	NW 1/2 - 1 (0.952 mi.)	AX335	1646
HARRIS COUNTY MUD 130 WASTEWAT	8150 NORTH ELDRIDGE PAR	NW 1/2 - 1 (0.952 mi.)	AX336	1646
MEDWASTE TECHNOLOGIES CORPORAT	6903 MAYARD RD	SW 1/2 - 1 (0.957 mi.)	AW340	1663
STOP N GO 2645	13050 FM 529 RD	WSW 1/2 - 1 (0.957 mi.)	AZ341	1664
BEST PORTABLE TOILETS	6738 SATSUMA DR	SW 1/2 - 1 (0.961 mi.)	BA344	1670
HAIRGROVE EL	7120 N ELDRIDGE PKWY	WSW 1/2 - 1 (0.971 mi.)	355	1701
VINSON CORROSION CONTROL	6720 SATSUMA DR	SSW 1/2 - 1 (0.981 mi.)	BA359	1706
<b>Lower Elevation</b>	<b>Address</b>	<b>Direction / Distance</b>	<b>Map ID</b>	<b>Page</b>
PIONEER CONCRETE OF TEXAS INC	7641 WRIGHT RD	ENE 1/8 - 1/4 (0.180 mi.)	F28	146

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Lower Elevation	Address	Direction / Distance	Map ID	Page
JERSEY VILLAGE PLANT 1	7641 WRIGHT ROAD	ENE 1/8 - 1/4 (0.180 mi.)	F29	147
CHAMPION COATINGS	7403 WRIGHT ROAD	ESE 1/8 - 1/4 (0.187 mi.)	G35	201
<b>SUTTON COATING SERVICES INC</b>	<b>7700 WRIGHT RD</b>	<b>ENE 1/8 - 1/4 (0.201 mi.)</b>	<b>F39</b>	<b>216</b>
COILING TECHNOLOGIES	7777 WRIGHT RD	NE 1/4 - 1/2 (0.251 mi.)	I43	227
<b>GRAYLOC PRODUCTS</b>	<b>11835 CHARLES RD</b>	<b>ESE 1/4 - 1/2 (0.308 mi.)</b>	<b>K56</b>	<b>260</b>
<b>FAIRVIEW GARDENS DEVELOPMENT L</b>	<b>11800 CHARLES RD</b>	<b>ESE 1/4 - 1/2 (0.342 mi.)</b>	<b>K64</b>	<b>294</b>
VETCO GRAY	11800 CHARLES ST	ESE 1/4 - 1/2 (0.342 mi.)	K66	321
COOPER ENERGY SERVICES WWTP	11800 CHARLES ST;1.0M W	ESE 1/4 - 1/2 (0.343 mi.)	K67	321
CAMERON INTERNATIONAL CHARLES	11625 CHARLES RD	ESE 1/4 - 1/2 (0.345 mi.)	K68	322
FAIRVIEW GARDENS DEVELOPMENTS	11800 CHARLES RD	ESE 1/4 - 1/2 (0.345 mi.)	K69	322
SKW-MBT OPERATIONS	7100 WRIGHT RD	SSE 1/4 - 1/2 (0.401 mi.)	M77	345
<b>INDUSTRIAL CHEMICAL AND SCIENT</b>	<b>11722 CHARLES STREET</b>	<b>ESE 1/4 - 1/2 (0.433 mi.)</b>	<b>P90</b>	<b>433</b>
HUBCO INC	11714 CHARLES RD	ESE 1/4 - 1/2 (0.450 mi.)	P122	574
PATHFINDER ENERGY SERVICES	11997 FM 529 RD	SSE 1/4 - 1/2 (0.460 mi.)	T151	871
PERRLESS PUMP	11995 FM 529 RD	SSE 1/4 - 1/2 (0.460 mi.)	T153	879
ELMAR NATIONAL OILWELL VARCO	11993 FM 529 RD	SSE 1/4 - 1/2 (0.461 mi.)	T154	879
GENERON SYSTEMS	11985 FM 529 RD	SSE 1/4 - 1/2 (0.462 mi.)	T156	885
<b>MARINE &amp; MAINLAND</b>	<b>11981-A FM 529</b>	<b>SSE 1/4 - 1/2 (0.463 mi.)</b>	<b>T159</b>	<b>897</b>
<b>BASF CONSTRUCTION CHEMICALS LL</b>	<b>7100 WRIGHT RD</b>	<b>SSE 1/4 - 1/2 (0.465 mi.)</b>	<b>U161</b>	<b>899</b>
ARC DESIGNS	11961 FM 529 RD	SSE 1/4 - 1/2 (0.468 mi.)	T166	957
LOGAN INDUSTRIES INTERNATIONAL	11957 FM 529 RD	SSE 1/4 - 1/2 (0.469 mi.)	T168	957
HOUSTON CENTRAL FAB FACILITY	11947 FM 529 RD	SSE 1/4 - 1/2 (0.471 mi.)	T170	959
<b>LONGHORN STEEL AND FLAMECUTTIN</b>	<b>11921 FM 529</b>	<b>SSE 1/4 - 1/2 (0.489 mi.)</b>	<b>U175</b>	<b>983</b>
<b>NATIONAL OIL WELL</b>	<b>11919 FM 529 RD</b>	<b>SSE 1/4 - 1/2 (0.492 mi.)</b>	<b>U178</b>	<b>993</b>
NORTHWOODS INDUSTRIAL PARK EAS	11919 FM 529 RD	SSE 1/4 - 1/2 (0.492 mi.)	U179	1022
<b>TRITON TOOL &amp; SUPPLY INC</b>	<b>11917 SPENCER RD</b>	<b>SSE 1/4 - 1/2 (0.495 mi.)</b>	<b>U180</b>	<b>1023</b>
OCEANEERING INTERNATIONAL	11917 FM 529 RD	SSE 1/4 - 1/2 (0.495 mi.)	U181	1040
<b>OCEANEERING INTERVENTION ENGIN</b>	<b>11917 FM 529</b>	<b>SSE 1/4 - 1/2 (0.495 mi.)</b>	<b>U183</b>	<b>1072</b>
OCEANEERING INTERVENTION ENGIN	11915 FM 529 RD	SSE 1/4 - 1/2 (0.498 mi.)	U186	1095
CENTURY MELENDY ASPHALT PLANT	11913 FM 529	SSE 1/2 - 1 (0.501 mi.)	U187	1096
WEATHERFORD ENTERRA	11909A SPENCER RD	SSE 1/2 - 1 (0.508 mi.)	V197	1127
<b>WEATHERFORD INTERNATIONAL INC</b>	<b>11909 SPENCER RD</b>	<b>SSE 1/2 - 1 (0.508 mi.)</b>	<b>V199</b>	<b>1131</b>
WEATHERFORD US LP	11909 SPENCER RD	SSE 1/2 - 1 (0.508 mi.)	V200	1135
COASTAL FLANGE	11906 FM 529 RD	SSE 1/2 - 1 (0.512 mi.)	V205	1228
<b>ALLOY &amp; STAINLESS FASTENERS</b>	<b>11625 CHARLES STREET</b>	<b>ESE 1/2 - 1 (0.529 mi.)</b>	<b>X211</b>	<b>1245</b>
<b>TESORO GAS MARKETING DIGAS CYP</b>	<b>17311 N FWY</b>	<b>E 1/2 - 1 (0.558 mi.)</b>	<b>Z216</b>	<b>1258</b>
D-CLEANERS	17486 NORTHWEST FWY	ENE 1/2 - 1 (0.559 mi.)	AA218	1261
<b>NATIONAL STEEL PRODUCTS CO</b>	<b>11919 SPENCER ROAD</b>	<b>SE 1/2 - 1 (0.580 mi.)</b>	<b>AB227</b>	<b>1288</b>
<b>YORK INTNTL CORPORATION</b>	<b>11935-A FM 529</b>	<b>SE 1/2 - 1 (0.589 mi.)</b>	<b>AB229</b>	<b>1292</b>
JONES ROAD EXXON 69395	17438 NORTHWEST FWY	ENE 1/2 - 1 (0.598 mi.)	Z232	1345
<b>EXXON MOBIL CORPORATION</b>	<b>17438 HWY 290 &amp; JONES R</b>	<b>ENE 1/2 - 1 (0.602 mi.)</b>	<b>AA233</b>	<b>1345</b>
AT&T CHARLES ROAD	11515 CHARLES RD	ESE 1/2 - 1 (0.636 mi.)	AF246	1399
<b>GUARDSMAN PRODUCTS INC</b>	<b>11502 CHARLES</b>	<b>ESE 1/2 - 1 (0.647 mi.)</b>	<b>AF249</b>	<b>1425</b>
W INDUSTRIES	11500 CHARLES RD	ESE 1/2 - 1 (0.649 mi.)	AF253	1440
<b>DRESSER-RAND POWER TURBO PRODU</b>	<b>11500 CHARLES RD</b>	<b>ESE 1/2 - 1 (0.649 mi.)</b>	<b>AF255</b>	<b>1448</b>
<b>AMERICAN WHOLESALE THERMOGRAPH</b>	<b>17477 VILLAGE GREEN DR</b>	<b>ENE 1/2 - 1 (0.661 mi.)</b>	<b>AG257</b>	<b>1454</b>
<b>PALL CORP SOUTHWEST DIV</b>	<b>17489 VILLAGE GREEN DR</b>	<b>ENE 1/2 - 1 (0.661 mi.)</b>	<b>AG259</b>	<b>1461</b>
SUPER K FOOD STORE	17342 NORTHWEST FWY	E 1/2 - 1 (0.674 mi.)	AI267	1475
<b>WATER QUALITY SVC</b>	<b>17459 VILLAGE GREEN</b>	<b>ENE 1/2 - 1 (0.696 mi.)</b>	<b>AG271</b>	<b>1488</b>
PINNACLE PRODUCTS	11330 CHARLES ROAD	ESE 1/2 - 1 (0.779 mi.)	AN290	1567
ARSHAM METAL INDUSTRIES	11280 CHARLES RD	ESE 1/2 - 1 (0.803 mi.)	AN296	1580
NORTHWINDS BUSINESS PARK	6800 NORTHWINDS DR	SE 1/2 - 1 (0.811 mi.)	297	1580
ATLANTIC INDUSTRIAL SERVICES	11453 FM 529 RD	ESE 1/2 - 1 (0.831 mi.)	AP300	1592
BROOKSIDE EQUIPMENT SALES	11431 FM 529 RD	ESE 1/2 - 1 (0.854 mi.)	AP304	1595
<b>ATLAS BOLT</b>	<b>6722 NORTHWINDS</b>	<b>SE 1/2 - 1 (0.891 mi.)</b>	<b>AS307</b>	<b>1596</b>
<b>HYDRAULICS OF TEXAS</b>	<b>6714 NORTHWINDS DR</b>	<b>SE 1/2 - 1 (0.900 mi.)</b>	<b>AS315</b>	<b>1614</b>



## EXECUTIVE SUMMARY

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
VERSABAR HOUSTON	11349 FM 529 RD	ESE 1/2 - 1 (0.903 mi.)	AU316	1616
ENERGY CRANE	6707 NORTHWINDS DR	SE 1/2 - 1 (0.909 mi.)	AS318	1620
11333 FM 529 ROAD	11333 FM 529 RD	ESE 1/2 - 1 (0.913 mi.)	AU320	1621
ADMIRAL SERVICES	11333 FM 529	ESE 1/2 - 1 (0.913 mi.)	AU321	1621
<b>NORTHWEST DRIVE TRAIN SERVICE</b>	<b>11320 FM 529 RD BLDG A</b>	<b>ESE 1/2 - 1 (0.918 mi.)</b>	<b>AU322</b>	<b>1621</b>
WEST VILLAGE INDUSTRIAL PARK	11320 FM 529 RD	ESE 1/2 - 1 (0.921 mi.)	AU324	1628
ELG IRELAND ALLOYS	11300 FM 529 RD	ESE 1/2 - 1 (0.932 mi.)	AU330	1639
CHARLES CONOCO	11250 FM 529 RD	ESE 1/2 - 1 (0.956 mi.)	AY339	1663
ARSHAM METAL INDUSTRIES	11242 FM 529 RD	ESE 1/2 - 1 (0.960 mi.)	AY343	1670
NW HOUSTON TERMINAL	11236 FM 529	ESE 1/2 - 1 (0.963 mi.)	AY345	1670
HOUSTON FM 529 FACILITY	11235 FM 529 RD	ESE 1/2 - 1 (0.964 mi.)	AY350	1688
BULK TERMINAL	11235 FM 529 RD	ESE 1/2 - 1 (0.964 mi.)	AY352	1693
<b>CBI NA-CON INC</b>	<b>11234 FM 529</b>	<b>ESE 1/2 - 1 (0.964 mi.)</b>	<b>AY353</b>	<b>1694</b>
DORSETT BROTHERS CONCRETE SUPP	11206 FM 529	ESE 1/2 - 1 (0.978 mi.)	AY357	1704
HANSON PIPE PRODUCTS JERSEY VI	11201 FM 529	ESE 1/2 - 1 (0.981 mi.)	AY366	1718
ADVANCE AUTO PARTS 6478	8650 JONES RD	NNE 1/2 - 1 (0.984 mi.)	368	1755

IOP: Contains information on all sites that are in the IOP. An IOP is an innocent owner or operator whose property is contaminated as a result of a release or migration of contaminants from a source or sources not located on the property, and they did not cause or contribute to the source or sources of contamination.

A review of the IOP list, as provided by EDR, and dated 04/21/2009 has revealed that there are 3 IOP sites within approximately 1 mile of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
BROOKSIDE EQUIPMENT SALES	11431 FM 529	ESE 1/2 - 1 (0.854 mi.)	AP305	1595
GENERAL STORAGE SYSTEMS	11333 FM 529	ESE 1/2 - 1 (0.913 mi.)	AU319	1620
HOUSTON SOLVENTS AND CHEMICALS	11235 FM 529	ESE 1/2 - 1 (0.964 mi.)	AY347	1681

DRYCLEANERS: Drycleaner Registration Database Listing.

A review of the DRYCLEANERS list, as provided by EDR, and dated 04/16/2009 has revealed that there are 11 DRYCLEANERS sites within approximately 2 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
DRY CLEAN SUPER CENTER 8309	9125 JONES RD	NNE 1 - 2 (1.331 mi.)	BB375	1778
TROPIK CLEANERS	11300 WEST RD STE P	N 1 - 2 (1.493 mi.)	379	1793
VILLAGE CLEANERS	9437 JONES RD	NNE 1 - 2 (1.550 mi.)	380	1794
MINKS DRY CLEAN	10980 WEST RD STE A	NNE 1 - 2 (1.630 mi.)	383	1806
PILGRIM CLEANERS 100	9591 JONES RD	NNE 1 - 2 (1.761 mi.)	390	1890
VOGUE CLEANERS	6340 N ELDRIDGE PKWY	SSW 1 - 2 (1.762 mi.)	BD391	1891
<b>1.25 DRY CLEAN SUPER CENTER</b>	<b>6327 N ELDRIDGE PKWY</b>	<b>SSW 1 - 2 (1.790 mi.)</b>	<b>BD393</b>	<b>1898</b>

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
D-CLEANERS	17486 NORTHWEST FWY	ENE 1/2 - 1 (0.559 mi.)	AA217	1260
<b>FINE CLEANERS</b>	<b>11111 W LITTLE YORK RD</b>	<b>SE 1 - 2 (1.677 mi.)</b>	<b>384</b>	<b>1807</b>
BEST CLEANERS	10850 WEST RD STE 102	NNE 1 - 2 (1.684 mi.)	385	1808
DRY CLEAN MART	9720 JONES RD STE 110	NNE 1 - 2 (1.902 mi.)	396	1911

## EXECUTIVE SUMMARY

ENF: Administrative Orders issued to Municipal Solid Waste, Petroleum Storage Tank and Multi-Media Sites

A review of the ENF list, as provided by EDR, and dated 06/09/2009 has revealed that there are 18 ENF sites within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>NCI BUILDING SYSTEMS</b>	<b>7301 FAIRVIEW</b>	<b>SSW 1/8 - 1/4 (0.165 mi.)</b>	<b>E19</b>	<b>54</b>
KUBCO DECANTER SVCS	12231 FM 529, HOUSTON,	S 1/4 - 1/2 (0.448 mi.)	R106	504
ALFA LAVAL SERVICE & REPAIR	12249 FM 529 RD, STE A,	S 1/4 - 1/2 (0.450 mi.)	R129	611
FAIRBANKS MORSE ENGINE	12253 FM 529 RD, HOUSTO	S 1/4 - 1/2 (0.451 mi.)	R134	621
BROWN FINTUBE	12602 FM 529, HOUSTON,	SW 1/2 - 1 (0.576 mi.)	AC226	1288
HITEMCO SOUTHWEST	7134 SATSUMA DR, HOUSTO	WSW 1/2 - 1 (0.603 mi.)	AE237	1371
<b>Lower Elevation</b>	<b>Address</b>	<b>Direction / Distance</b>	<b>Map ID</b>	<b>Page</b>
<b>JERSEY VILLAGE PLANT #2001</b>	<b>7641 WRIGHT ROAD</b>	<b>ENE 1/8 - 1/4 (0.180 mi.)</b>	<b>F24</b>	<b>116</b>
CHAMPION COATINGS	7403 WRIGHT RD, HOUSTON	ESE 1/8 - 1/4 (0.187 mi.)	G37	213
GRAYLOC PRODUCTS	11835 CHARLES RD, HOUST	ESE 1/4 - 1/2 (0.308 mi.)	K57	262
COOPER CAMERON CORP	11800 CHARLES RD, HOUST	ESE 1/4 - 1/2 (0.342 mi.)	K62	283
SKW-MBT OPERATIONS	7100 WRIGHT RD, HOUSTON	SSE 1/4 - 1/2 (0.401 mi.)	M76	344
OCEANEERING INTERNATIONAL	11927 FM 529, HOUSTON,	SSE 1/4 - 1/2 (0.480 mi.)	U172	976
LONGHORN STEEL AND FLAMECUTTIN	11921 FM 529, HOUSTON,	SSE 1/4 - 1/2 (0.489 mi.)	U174	981
OCEANEERING INTERNATIONAL	11917 FM 529, HOUSTON,	SSE 1/4 - 1/2 (0.495 mi.)	U184	1078
CAMPBELL CONCRETE & MATERIALS	11913 FM 529 RD, HOUSTO	SSE 1/2 - 1 (0.502 mi.)	U189	1102
WEATHERFORD US LP	11909 SPENCER ROAD, HOU	SSE 1/2 - 1 (0.508 mi.)	V204	1203
ARSHAM METAL INDUSTRIES	11280 CHARLES RD	ESE 1/2 - 1 (0.803 mi.)	AN295	1579
BARRY PLUMBING COMPANY	11200 CHARLES RD	ESE 1/2 - 1 (0.841 mi.)	301	1592

Ind. Haz Waste: The Industrial and Hazardous Waste Database contains summary reports by waste handlers, generators and shippers in Texas.

A review of the Ind. Haz Waste list, as provided by EDR, and dated 12/31/2007 has revealed that there are 70 Ind. Haz Waste sites within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
SERMATECH DYNAMIC	7615 FAIRVIEW ST	NW 1/8 - 1/4 (0.148 mi.)	D10	14
<b>NCI BUILDING SYSTEMS LP</b>	<b>7301 FAIRVIEW</b>	<b>SSW 1/8 - 1/4 (0.165 mi.)</b>	<b>E21</b>	<b>71</b>
GRANT PRIDECO HARMS ROAD FACIL	7755 HARMS RD	W 1/4 - 1/2 (0.361 mi.)	L71	322
HONING INC	12226 TAYLOR STREET	N 1/4 - 1/2 (0.411 mi.)	N80	413
FAIRBANKS MORSE ENGINE	12253 FM 529 RD	S 1/4 - 1/2 (0.444 mi.)	Q92	436
ALLEN STUART	12101 FM 529 RD	S 1/4 - 1/2 (0.447 mi.)	Q96	468
TOROMONT	12227-D FM 529	S 1/4 - 1/2 (0.447 mi.)	R100	489
DMI	12227-A FM 529	S 1/4 - 1/2 (0.447 mi.)	R103	494
FAB CORP HOUSTON TEXAS	12227B FM 529	S 1/4 - 1/2 (0.448 mi.)	R104	499
KUBCO DECANTER SVCS	12231 FM 529	S 1/4 - 1/2 (0.448 mi.)	R107	505
<b>HORIZON DIRECTIONAL SYSTEMS</b>	<b>12233 FM 529</b>	<b>S 1/4 - 1/2 (0.448 mi.)</b>	<b>R110</b>	<b>517</b>
<b>SOUTHDOWN THERMAL DYNAMICS</b>	<b>12235 FM 529</b>	<b>S 1/4 - 1/2 (0.448 mi.)</b>	<b>R111</b>	<b>523</b>
<b>BFI THERMAL DYNAMICS</b>	<b>12235 FM 529 RM 101</b>	<b>S 1/4 - 1/2 (0.448 mi.)</b>	<b>R112</b>	<b>530</b>
<b>MOHR RESEARCH ENGINEERING</b>	<b>12237 FM 529</b>	<b>S 1/4 - 1/2 (0.449 mi.)</b>	<b>R114</b>	<b>537</b>
<b>BLACK MAX DOWNHOLE TOOLS</b>	<b>12245-H FM 529</b>	<b>S 1/4 - 1/2 (0.450 mi.)</b>	<b>R119</b>	<b>557</b>
<b>TYCO VALVES &amp; CONTROLS INC</b>	<b>12247-C FM 529</b>	<b>S 1/4 - 1/2 (0.450 mi.)</b>	<b>R121</b>	<b>563</b>
HANOVER MAINTTECH	12249 FM 529	S 1/4 - 1/2 (0.450 mi.)	R126	579
ALFA LAVAL SERVICE & REPAIR	12249 FM 529 RD STE A	S 1/4 - 1/2 (0.450 mi.)	R127	587
CAMERON IRON WORKS ENVIRONMENT	12253 FM 529 RD	S 1/4 - 1/2 (0.451 mi.)	R135	622
QUEST PACKAGING INC 12255 FM 5	12255 FM 529 RD	S 1/4 - 1/2 (0.451 mi.)	R145	798

## EXECUTIVE SUMMARY

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>QUEST PACKAGING INC</b>	<b>12255 FM 529 NORTHWOODS</b>	<b>S 1/4 - 1/2 (0.451 mi.)</b>	<b>R147</b>	<b>826</b>
THE FLUOROCARBON COMPANY	12257 FM 529 RD.	S 1/4 - 1/2 (0.452 mi.)	R149	864
ELECTROPOLISH SERVICE	12233 FM 529	S 1/4 - 1/2 (0.460 mi.)	Q152	871
<b>TEXAS TREE TRANS</b>	<b>12431 TAYLOR RD</b>	<b>NNW 1/4 - 1/2 (0.461 mi.)</b>	<b>S155</b>	<b>879</b>
<b>BROWN FINTUBE</b>	<b>12602 FM 529</b>	<b>SW 1/2 - 1 (0.576 mi.)</b>	<b>AC223</b>	<b>1275</b>
<b>OCEANEERING INTERNATIONAL</b>	<b>11927 FM 529</b>	<b>S 1/2 - 1 (0.597 mi.)</b>	<b>AD231</b>	<b>1297</b>
HITEMCO SOUTHWEST	7134 SATSUMA DR	WSW 1/2 - 1 (0.603 mi.)	AE236	1359
HOMA BAY SCREEN PRINT INTL	7111 SATSUMA DR	WSW 1/2 - 1 (0.614 mi.)	AE245	1395
BONANZA MARBLE HOUSTON	7045 SATSUMA	SW 1/2 - 1 (0.671 mi.)	AH260	1463
FLUID MECHANICS VALVE	12803 FM 529	SW 1/2 - 1 (0.713 mi.)	AJ272	1490
HY TECH MFG	12811 FM 529	SW 1/2 - 1 (0.720 mi.)	AJ274	1499
SCS MACHINE & FABRICATING	6847 SIGNAT	SSW 1/2 - 1 (0.778 mi.)	AM285	1548
<b>TECHALLOY COMPANY INC</b>	<b>7080 MAYARD ROAD</b>	<b>WSW 1/2 - 1 (0.829 mi.)</b>	<b>298</b>	<b>1580</b>
<b>EMPIRE COATINGS INC</b>	<b>6802 SATSUMA DR</b>	<b>SW 1/2 - 1 (0.894 mi.)</b>	<b>AR309</b>	<b>1603</b>
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
ARCTIC MACHINE	7411 WRIGHT RD	ESE 1/8 - 1/4 (0.184 mi.)	G31	149
CHAMPION COATINGS	7403 WRIGHT RD	ESE 1/8 - 1/4 (0.187 mi.)	G36	202
<b>SUTTON COATING SERVICES INC</b>	<b>7700 WRIGHT RD</b>	<b>ENE 1/8 - 1/4 (0.201 mi.)</b>	<b>F39</b>	<b>216</b>
FISHER INDUSTRIES	7227 WRIGHT	SE 1/4 - 1/2 (0.307 mi.)	55	256
GRAYLOC PRODUCTS	11835 CHARLES RD	ESE 1/4 - 1/2 (0.308 mi.)	K59	264
FAIRVIEW GARDENS DEVELOPMENTS	11800 CHARLES RD	ESE 1/4 - 1/2 (0.342 mi.)	K65	297
INDUSTRIAL CHEMICAL AND SCIENT	11722 CHARLES RD	ESE 1/4 - 1/2 (0.433 mi.)	P89	425
GENERON SYSTEMS INC	11985 FM 529	SSE 1/4 - 1/2 (0.462 mi.)	T157	885
MARINE & MAINLAND	11981 FM 529 STE A	SSE 1/4 - 1/2 (0.463 mi.)	T158	893
<b>BASF CONSTRUCTION CHEMICALS LL</b>	<b>7100 WRIGHT RD</b>	<b>SSE 1/4 - 1/2 (0.465 mi.)</b>	<b>U163</b>	<b>908</b>
APPLIED SYSTEMS	11935-A FM 529	SSE 1/4 - 1/2 (0.475 mi.)	T171	960
LONGHORN STEEL AND FLAMECUTTIN	11921 FM 529	SSE 1/4 - 1/2 (0.489 mi.)	U173	977
NATIONAL OILWELL	11919 FM 529	SSE 1/4 - 1/2 (0.492 mi.)	U177	988
<b>NATIONAL OIL WELL</b>	<b>11919 FM 529 RD</b>	<b>SSE 1/4 - 1/2 (0.492 mi.)</b>	<b>U178</b>	<b>993</b>
<b>TRITON TOOL &amp; SUPPLY INC</b>	<b>11917 SPENCER RD</b>	<b>SSE 1/4 - 1/2 (0.495 mi.)</b>	<b>U180</b>	<b>1023</b>
OCEANEERING INTERVENTION ENGIN	11917 FM 529	SSE 1/4 - 1/2 (0.495 mi.)	U182	1040
<b>REDLAND STONE PRODUCTS</b>	<b>11913 FM 529 RD</b>	<b>SSE 1/2 - 1 (0.502 mi.)</b>	<b>U194</b>	<b>1112</b>
<b>WEATHERFORD ENTERRA SPENCER RO</b>	<b>11909 SPENCER ROAD</b>	<b>SSE 1/2 - 1 (0.508 mi.)</b>	<b>V202</b>	<b>1136</b>
<b>WEATHERFORD ENTERRA</b>	<b>11909-A SPENCER RD</b>	<b>SSE 1/2 - 1 (0.508 mi.)</b>	<b>V203</b>	<b>1188</b>
ALLOY & STAINLESS FASTENERS	11625 CHARLES RD	ESE 1/2 - 1 (0.529 mi.)	X210	1240
TESORO GAS MARKETING DIGAS CYP	17311 NORTHWEST FREEWAY	E 1/2 - 1 (0.558 mi.)	Z215	1254
L B FOSTER	11929 SPENCER RD	SE 1/2 - 1 (0.574 mi.)	AB219	1261
JONES ROAD EXXON 69395	17438 HIGHWAY 290 / J	ENE 1/2 - 1 (0.602 mi.)	AA234	1347
<b>NATIONAL STEEL PRODUCTS</b>	<b>11919 SPENCER RD</b>	<b>SSE 1/2 - 1 (0.646 mi.)</b>	<b>248</b>	<b>1402</b>
<b>GUARDSMAN PRODUCTS INC</b>	<b>11502 CHARLES</b>	<b>ESE 1/2 - 1 (0.647 mi.)</b>	<b>AF249</b>	<b>1425</b>
PATHFINDER ENERGY SERVICES 529	11997 FM 529 C	SE 1/2 - 1 (0.648 mi.)	251	1435
DRESSER-RAND POWER TURBO PRODU	11500 CHARLES RD	ESE 1/2 - 1 (0.649 mi.)	AF254	1440
Not reported		ENE 1/2 - 1 (0.661 mi.)	AG256	1450
AMERICAN WHOLESALE THERMOGRAPH	17477 VILLAGE GREEN DR	ENE 1/2 - 1 (0.661 mi.)	AG258	1456
WATER QUALITY SERVICES	17459 VILLAGE GREEN DR	ENE 1/2 - 1 (0.696 mi.)	AG270	1483
<b>PINNACLE PRODUCTS INC</b>	<b>11330 CHARLES</b>	<b>ESE 1/2 - 1 (0.779 mi.)</b>	<b>AN287</b>	<b>1553</b>
BATTELLE MEMORIAL INSTITUTE HO	11330 CHARLES DR	ESE 1/2 - 1 (0.779 mi.)	AN289	1563
ATLANTIC INDUSTRIAL SERIVCES	11453 FM 529 RD	ESE 1/2 - 1 (0.831 mi.)	AP299	1587
ATLAS BOLT HOUSTON TX	6722 NORTHWINDS	SE 1/2 - 1 (0.891 mi.)	AS308	1598
NORTHWEST DRIVE TRAIN SERVICE	11320 FM 529 RD BLDG A	ESE 1/2 - 1 (0.918 mi.)	AU323	1623
CBI NA-CON	11234 FM 529	ESE 1/2 - 1 (0.964 mi.)	AY349	1683

## EXECUTIVE SUMMARY

AIRS: The database lists by company, along with their actual emissions, the Texas Commission on Environmental Quality's air accounts that emit EPA criteria pollutants.

A review of the AIRS list, as provided by EDR, and dated 07/23/2008 has revealed that there are 20 AIRS sites within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
NCI BUILDING	7301 FAIRVIEW ST	SSW 1/8 - 1/4 (0.152 mi.)	E15	52
NCI BUILDING SYSTEMS L	7301 FAIRVIEW ST,HOUSTO	SSW 1/8 - 1/4 (0.152 mi.)	E16	53
NCI BUILDING SYSTEMS L P	7301 FAIRVIEW DRIVE	SSW 1/8 - 1/4 (0.165 mi.)	E20	71
HALE MILLS CONSTRUCTION	7800 WRIGHT ROAD	NE 1/4 - 1/2 (0.271 mi.)	I48	233
BROWN RICE MILL	12010 TAYLOR RD	NNE 1/4 - 1/2 (0.423 mi.)	O83	419
NATIONAL OIL WELL	12225 FM 529	S 1/4 - 1/2 (0.447 mi.)	R99	488
<b>QUEST CHEMICAL CORPORATION</b>	<b>12255 FM 529</b>	<b>S 1/4 - 1/2 (0.451 mi.)</b>	<b>R146</b>	<b>802</b>
<b>KOCH HEAT TRANSFER COMPANY, LP</b>	<b>12602 FM 529</b>	<b>SW 1/2 - 1 (0.576 mi.)</b>	<b>AC222</b>	<b>1269</b>
BONANZA MARBLE COMPANY	7043C SATSUMA DR	SW 1/2 - 1 (0.673 mi.)	AH261	1470
<b>EMPIRE COATINGS INC</b>	<b>6802 SATSUMA DR</b>	<b>SW 1/2 - 1 (0.894 mi.)</b>	<b>AR309</b>	<b>1603</b>
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>JERSEY VILLAGE PLANT #2001</b>	<b>7641 WRIGHT ROAD</b>	<b>ENE 1/8 - 1/4 (0.180 mi.)</b>	<b>F24</b>	<b>116</b>
CHAMPION COATINGS	7403 WRIGHT RD,HOUSTON	ESE 1/8 - 1/4 (0.187 mi.)	G32	153
CHAMPION COATINGS INC	7403 WRIGHT ROAD	ESE 1/8 - 1/4 (0.187 mi.)	G33	154
<b>CHAMPION COATINGS</b>	<b>7403 WRIGHT RD</b>	<b>ESE 1/8 - 1/4 (0.187 mi.)</b>	<b>G34</b>	<b>155</b>
SKW-MBT OPERATIONS INC	7100 WRIGHT ROAD	SSE 1/4 - 1/2 (0.465 mi.)	U162	908
MELENDY OPERATIONS	11913 FM 529 RD	SSE 1/2 - 1 (0.502 mi.)	U191	1105
BLAST CLEANING & PAINTING	11909 SPENCER ROAD (F.M	SSE 1/2 - 1 (0.508 mi.)	V201	1135
<b>MARTIN MARIETTA MATERIALS, SOU</b>	<b>11913 FM 529</b>	<b>SE 1/2 - 1 (0.605 mi.)</b>	<b>AB242</b>	<b>1384</b>
UNIVAR USA INC	11235 FM 529 RD,HOUSTON	ESE 1/2 - 1 (0.964 mi.)	AY348	1682
<b>CHEMCENTRAL SOUTHWEST L.P.</b>	<b>11235 FM 529</b>	<b>ESE 1/2 - 1 (0.964 mi.)</b>	<b>AY351</b>	<b>1689</b>

TIER 2: A listing of facilities which store or manufacture hazardous materials and submit a chemical inventory report.

A review of the TIER 2 list, as provided by EDR, and dated 12/31/2007 has revealed that there are 29 TIER 2 sites within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
SERMATECH DYNAMIC	7615 FAIRVIEW	NW 1/8 - 1/4 (0.148 mi.)	D12	29
NCI BUILDING SYSTEMS - FAIRVIE	7301 FAIRVIEW	SSW 1/8 - 1/4 (0.165 mi.)	E23	99
457 FAIRVIEW	7800 1/2 WRIGHT RD	NE 1/4 - 1/2 (0.270 mi.)	I44	227
457 FAIRVIEW	7800 1 2 WRIGHT RD	NE 1/4 - 1/2 (0.272 mi.)	I49	234
COH PWE WP GROUNDWATER JERSEY	7207 FAIRVIEW	SSW 1/4 - 1/2 (0.272 mi.)	J50	236
QUEST CHEMICAL CORPORATION	12255 FM 529	S 1/4 - 1/2 (0.451 mi.)	R142	779
<b>QUEST CHEMICAL CORPORATION</b>	<b>12255 FM 529</b>	<b>S 1/4 - 1/2 (0.451 mi.)</b>	<b>R146</b>	<b>802</b>
<b>KOCH HEAT TRANSFER COMPANY, LP</b>	<b>12602 FM 529</b>	<b>SW 1/2 - 1 (0.576 mi.)</b>	<b>AC222</b>	<b>1269</b>
HITEMCO SOUTHWEST - SATSUMA	7134 SATSUMA	WSW 1/2 - 1 (0.603 mi.)	AE238	1375
FOX METALS & ALLOYS	12660 FM 529	SW 1/2 - 1 (0.612 mi.)	AC244	1390
ATLANTIC INDUSTRIAL SERVICES -	11953 FM 529	S 1/2 - 1 (0.766 mi.)	AK276	1516
ELDRIDGE TRANSPORTATION CENTER	7600 N. ELDRIDGE	W 1/2 - 1 (0.769 mi.)	AL281	1538
CROWN CASTLE USA 815639 PAZ	6825 SIGNAT	SSW 1/2 - 1 (0.802 mi.)	AM294	1572
ELDRIDGE TRANSPORTATION CENTER	7900 N. ELDRIDGE	WNW 1/2 - 1 (0.850 mi.)	AQ302	1593
HARRIS COUNTY MUD NO. 130 WATE	8150 N. ELDRIDGE	NW 1/2 - 1 (0.952 mi.)	AX337	1646
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>JERSEY VILLAGE PLANT #2001</b>	<b>7641 WRIGHT ROAD</b>	<b>ENE 1/8 - 1/4 (0.180 mi.)</b>	<b>F24</b>	<b>116</b>

## EXECUTIVE SUMMARY

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
JERSEY VILLAGE PLANT #2001	7641 WRIGHT ROAD	ENE 1/8 - 1/4 (0.180 mi.)	F30	147
<b>CHAMPION COATINGS</b>	<b>7403 WRIGHT RD</b>	<b>ESE 1/8 - 1/4 (0.187 mi.)</b>	<b>G34</b>	<b>155</b>
DEGUSSA CONSTRUCTION CHEMICALS	7100 WRIGHT ROAD	SSE 1/4 - 1/2 (0.401 mi.)	M78	345
Not reported	11913-A FM 529	SSE 1/2 - 1 (0.502 mi.)	U188	1096
"MARTIN MARIETTA MATERIALS SOU	11913 FM 529	SSE 1/2 - 1 (0.502 mi.)	U192	1106
"WEATHERFORD U.S., L.P."	11909 SPENCER RD.	SSE 1/2 - 1 (0.508 mi.)	V198	1127
COH PWE WP GROUNDWATER JERSEY	11905 SPENCER ROAD	SSE 1/2 - 1 (0.515 mi.)	V206	1229
<b>MARTIN MARIETTA MATERIALS, SOU</b>	<b>11913 FM 529</b>	<b>SE 1/2 - 1 (0.605 mi.)</b>	<b>AB242</b>	<b>1384</b>
DUPLICATE - WATER PLANT # 2	16601 VILLAGE DR.	ENE 1/2 - 1 (0.769 mi.)	279	1528
CHEMICAL LIME CO. - NORTHWEST	11236 FM 529	ESE 1/2 - 1 (0.963 mi.)	AY346	1671
<b>CHEMCENTRAL SOUTHWEST L.P.</b>	<b>11235 FM 529</b>	<b>ESE 1/2 - 1 (0.964 mi.)</b>	<b>AY351</b>	<b>1689</b>
DORSETT BROS. CONCRETE - PLANT	11206 FM 529	ESE 1/2 - 1 (0.978 mi.)	AY358	1704
"HANSON PIPE & PRODUCTS, INC."	11201 FM 529	ESE 1/2 - 1 (0.981 mi.)	AY367	1718

## EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped:

<u>Site Name</u>	<u>Database(s)</u>
COH PWE WP GROUNDWATER JERSEY VILL	TIER 2
COH PWE WP GROUNDWATER JERSEY VILL	TIER 2
CYPRESS FAIRBANKS H S	FINDS, FTTS, HIST FTTS
DRYCLEAN PLANET 5	DRYCLEANERS
VIP CLEANERS	DRYCLEANERS
NORTHGLEN SUBDIVISION	CERCLIS, FINDS
DELROCK OIL REFINERY	CERCLIS
P L HALL LANDFILL	SWF/LF
DOSS RICHARD P- COUNTY	SWF/LF
CITY OF GALENA PARK LANDFILL	SWF/LF
CITY OF JACINTO CITY LANDFILL	SWF/LF
ADDICKS FAIRBANKS LANDFILL	SWF/LF
FAIRBANKS LANDFILL	SWF/LF
CABELL MARCO CHRYSLER PLYMOUTH	LPST
VILLAGE CLEANERS	RCRA-CESQG
CROSSBEND VILLAGE	FINDS
MOORPARK VILLAGE WWTP	FINDS
LA FITNESS JERSEY VILLAGE	FINDS
LAKES OF JERSEY VILLAGE	FINDS
GATEWAY LAND DEVELOPMENT CROSSBEND	FINDS
STATEHOOD HOLDINGS LAKES OF JERSEY	FINDS
CITY OF JERSEY VILLAGE	ENF
YORKTOWN ESTATES (TXR10SX54)	ICIS

**Jersey Village**

16501 Jersey Village  
Jersey Village, TX 77041

Inquiry Number: 2552497.6  
August 3, 2009

# The EDR TX Oil and Gas Well Report

## Environmental Data Resources, Inc. Oil and Gas Well Review

EDR reviewed available records made public by the state of Texas at the Texas Railroad Commission (TRC) and obtained information about oil and gas wells within the standard Area of Review (AOR-1/2 mile). EDR researched the oil and gas wells identified on county base maps at the Texas Railroad Commission and transferred the approximate oil and gas well locations onto a map for the client's review.

EDR cannot guarantee the accuracy of the information provided by state agencies. This review is intended to provide the user with a "working approximation" of reported oil and gas well locations and their associated data. Data provided in this report may include the following:

- Owner/Operator
- Total Depth (recorded in feet)
- Date Drilled
- Date Plugged
- API Number
- Well Type (Oil, Gas, Salt, Dry)

Please call EDR Nationwide Customer Service at  
1-800-352-0050 (8am-8pm ET)  
with questions or comments about your report.  
*Thank you for your business!*

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**EDR OIL/GAS REVIEW**

**Site Name: Jersey Village**

**Inquiry #: 2552497.6**

**Site Address: 16501 Jersey Dr.**

**City: Jersey Village**

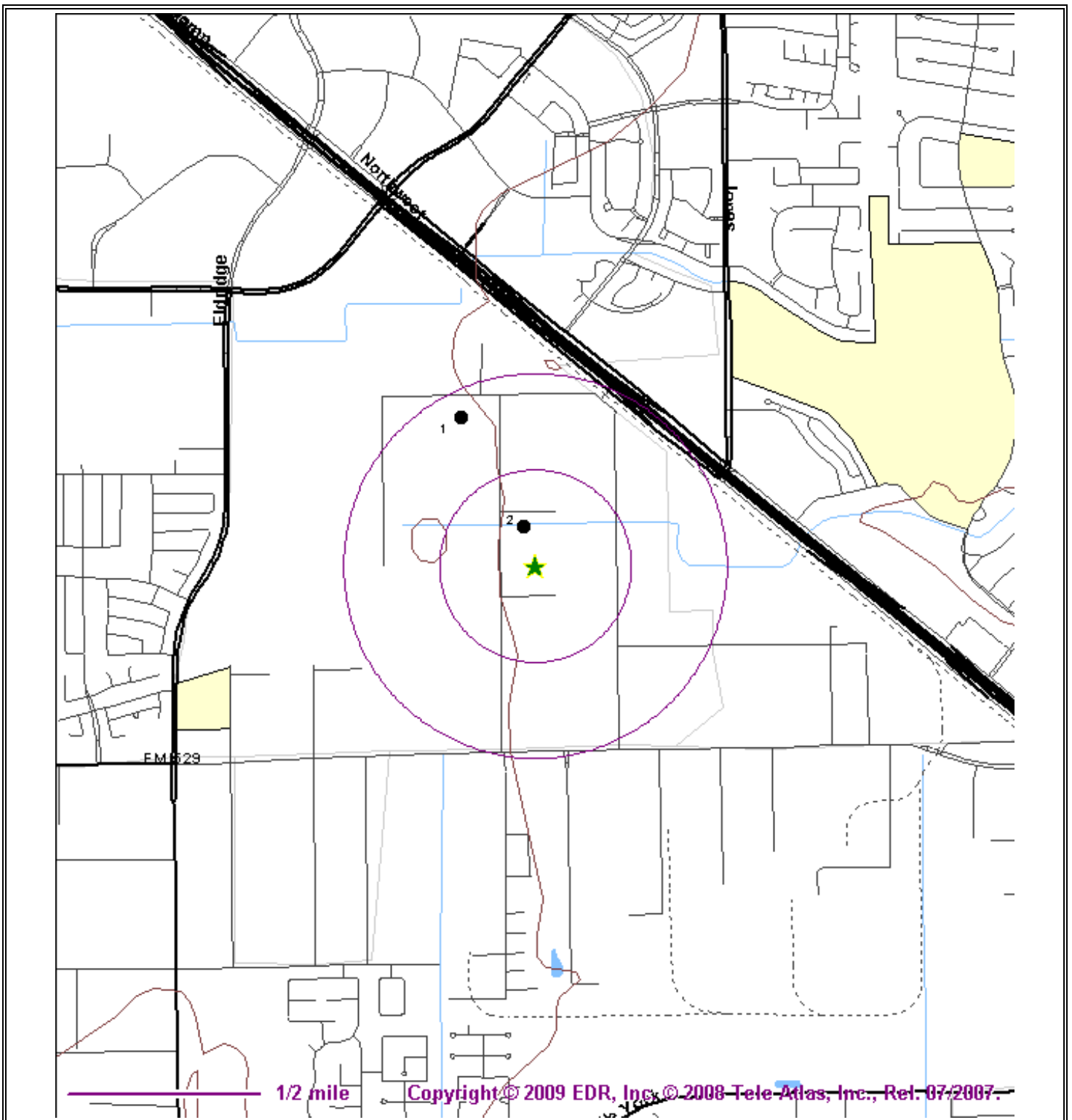
**State: TX**

**Zip: 77041**

<b>Well #</b>	<b>Owner/ Operator</b>	<b>Total Depth</b>	<b>Date Drilled</b>	<b>Date Plugged</b>	<b>API#</b>	<b>Type</b>
1	MOSBACHER ENERGY COMPANY 29.8924/-95.5963	14373	10/15/1968	8/21/1997	201-08012	PLUGGED GAS
2	EOG RESOURCES 29.8885/-95.5934	12000	NA	NA	201-32618	PERMITTED LOCATION

NO ADDITIONAL WELLS WITHIN 1/2 MILE RADIUS WERE IDENTIFIED ON THE TEXAS RAILROAD COMMISSION HARRIS COUNTY "OLD" AND "RETIRED" MICROFICHE MAPS.

Source: Texas Railroad Commission



APPROXIMATE LOCATIONS ONLY

**OIL/GAS WELL LOCATION MAP**  
**WELLS WITHIN 1/2 MILE RADIUS**  
 JERSEY VILLAGE  
 16501 JERSEY DRIVE  
 JERSEY VILLAGE, TX 77041  
 HARRIS COUNTY  
**USGS 7.5 MINUTE QUADRANGLE**  
 SATSUMA



*ENVIRONMENTAL DATA RESOURCES*  
 440 WHEELERS FARMS ROAD  
 MILFORD, CT 06461  
 800-352-0050 FAX: 800-231-6802

**Jersey Village**

16501 Jersey Village  
Jersey Village, TX 77041

Inquiry Number: 2552497.7  
August 3, 2009

# The EDR TX Water Well Report

# **Environmental Data Resources, Inc.**

## **Water Well Review Report**

EDR reviewed available records made public by the state of Texas at the Texas Water Development Board (TWDB) and the Texas Commission Environmental Quality (TCEQ) and obtained information identifying the approximate location of public and private water wells within the requested Area of Review (AOR). EDR researched the located and plotted water wells identified on county highway maps or USGS 7.5 minute topographic maps at the TWDB. EDR transferred the approximate water well locations onto a map for the client's review.

EDR cannot guarantee the accuracy of the information provided by state agencies. This review is intended to provide the user with a "working approximation" of reported well locations. The following are guidelines used to review available driller logs for water wells associated with client site information within the AOR.

- Identify Located Wells within the AOR according to the TWDB maps.
- Identify Plotted Wells within the AOR according to the TWDB maps.
- Identify Partially Numbered Wells within the AOR according to the TCEQ files containing records submitted by the well driller.
- Identify Unnumbered Wells within the AOR according to the TCEQ files containing records submitted by the well driller.

### **Description of Terms**

#### **Standard Area of Review-(AOR):**

Standard area of review is a 1/2 mile radius around client specified target property.

#### **Located Water Well:**

Well locations that have been field checked by a TWDB or USGS staff member, spotted on a USGS 7.5' Topographical or county highway map, assigned a unique identification number, and filed at the TWDB.

#### **Plotted Water Well:**

Approximate well locations spotted on county highway maps by the TWDB staff members according to information submitted on the driller's log. The accuracy of the location for these wells is dependent on the driller. The state assigned unique identification numbers to these wells, but in high-density areas, a single identification number may represent multiple well locations. The TWDB eliminated this plotting activity in June 1986.

#### **Partially Numbered Water Well:**

Water well locations established to within a 2.5 minute topographic quadrangle and identified by the TCEQ according to maps submitted with the driller's log. Each water well was assigned a State ID number by the TCEQ. **Note:** This method for recording water well locations was procedure from 1986 to 1991.

#### **Unnumbered Water Well:**

Well locations identified on the driller's logs and corresponding driller's maps maintained by the TCEQ records. **Note:** The TCEQ implemented this procedure in 1991.

***Thank you for your business.***  
Please contact EDR at 1-800-352-0050  
with any questions or comments.

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**Environmental Data Resources, Inc.**

**Water Well Review**

**Site Name: Jersey Village**

**Inquiry: 2552497.7**

**Site Address: 16501 Jersey Dr.**

**City: Jersey Village**

**State: TX**

**Zip: 77041**

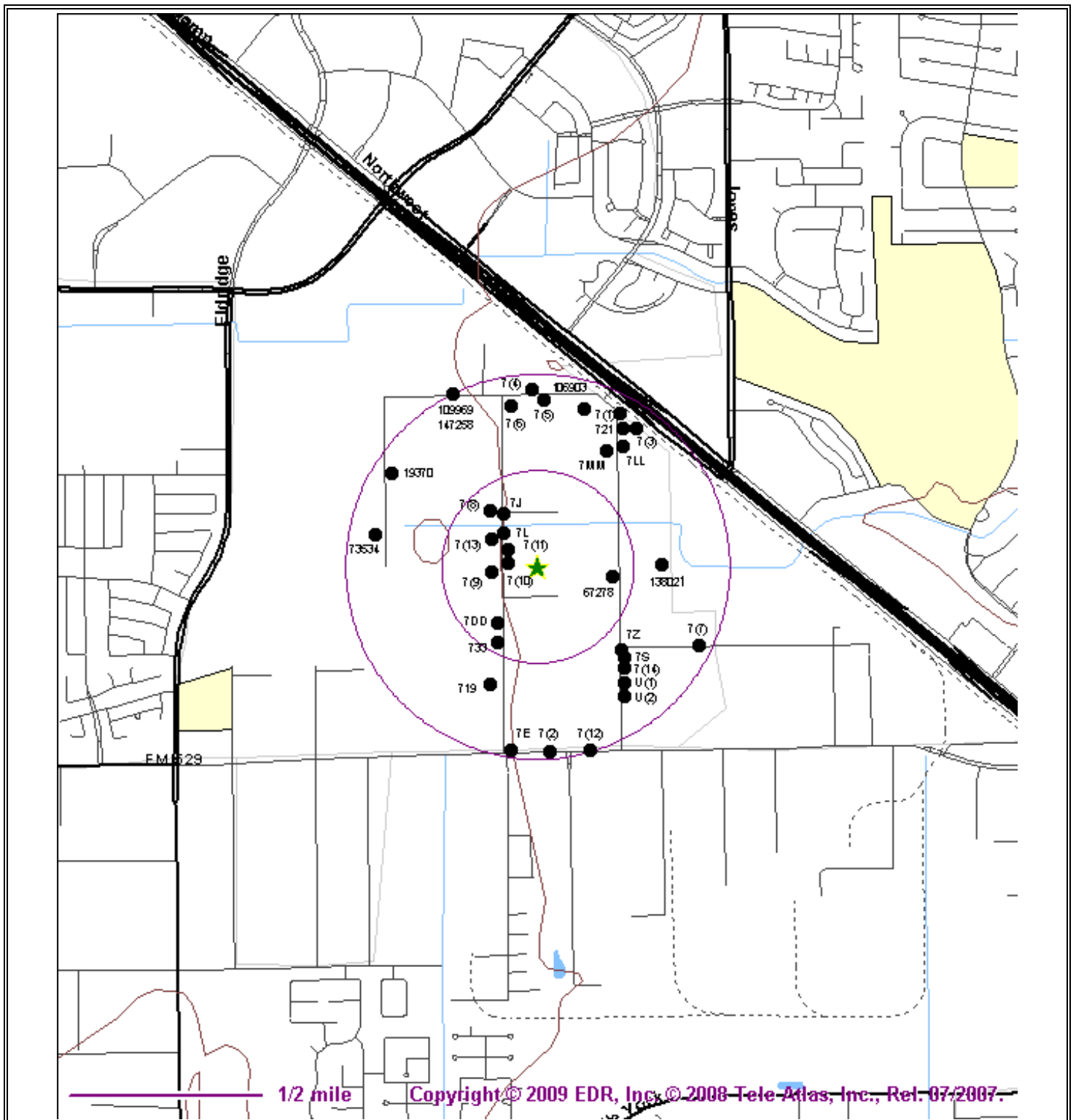
<b>WELL CLASSIFICATION</b>	<b>NUMBER IDENTIFIED WITHIN AOR</b>
LOCATED	10
PLOTTED	8
PARTIALLY NUMBERED	14
<u>UNNUMBERED</u>	<u>2</u>
TOTAL NUMBER IDENTIFIED	34

LOCATED WELLS: STATE GRID #65-04-719, 721, 733, TDLR#S 109969, 147258, 106903, 19370, 73534, 67278, 138021

PLOTTED WELLS: STATE GRID #65-04-7E, 7J, 7L, 7S, 7Z, 7DD, 7LL, 7MM

PARTIALLY NUMBERED WELLS: STATE GRID #65-04-7(1), 7(2), 7(3), 7(4), 7(5), 7(6), 7(7), 7(8), 7(9), 7(10), 7(11), 7(12), 7(13), 7(14)

UNNUMBERED WELLS: U(1), U(2)



APPROXIMATE LOCATIONS ONLY

**WATER WELL LOCATION MAP**  
**WELLS WITHIN 1/2 MILE RADIUS**  
 JERSEY VILLAGE  
 16501 JERSEY DRIVE  
 HOUSTON, TX 77041  
 HARRIS COUNTY  
**USGS 7.5 MINUTE QUADRANGLE**  
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## **APPENDIX E – MARKET FORECAST REPORT**



# Preliminary Market Feasibility Analysis for Jersey Village Transit-Oriented Development

**Prepared for Kimley-Horn and Gateway Planning Group**

Fall 2009



PRESENTED BY 



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## Introduction

The City of Jersey Village is contemplating an ambitious effort to plan the future of the a possible transit-oriented development. As part of that effort, TXP has been tasked with conducting a market feasibility study to determine overall demand projections for the Study Area outlined in Figure One below. The analysis is broken into the following areas of discussion:

1. Market environment, including the macro situation, overall economic and demographic forecasts, and projections of specific real estate demand
2. Review of both development orientation and impact of transit
3. TXP projections for absorption
4. Conclusions

Figure 1: Study Area



Source: Kimley-Horn

## The Market Environment

### Near-Term

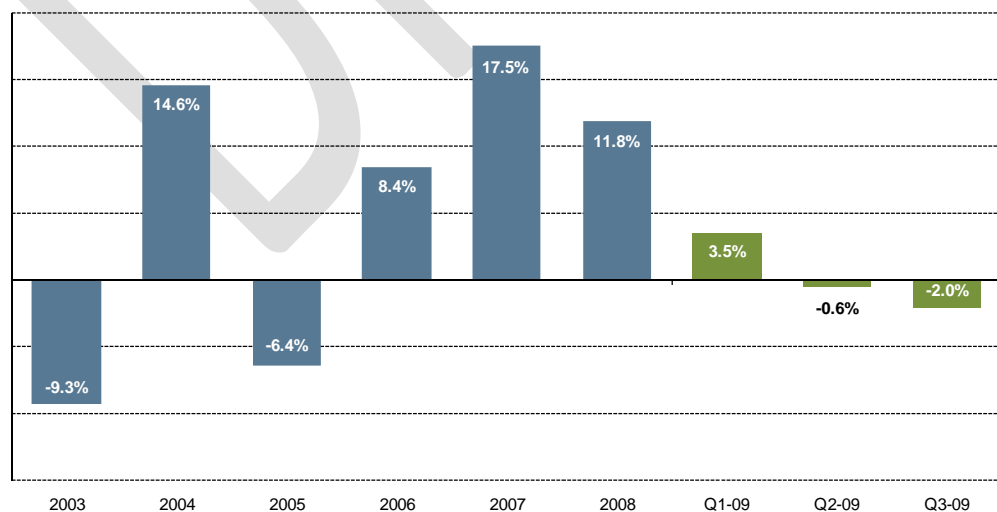
As the nation struggles to emerge from recession, there is no question that the Houston area and Jersey Village have felt the impact. The numbers tell the story, as job growth has slowed, sales tax revenue is stagnant, and development has more or less come to a halt. That having been said, the impacts in the Houston-Galveston region have been less profound than elsewhere, and the area should be well-positioned to bounce back. Factors that will contribute to the resurgence, aside from recovery of the national economy, include continued in-migration and overall population growth and well-diversified regional economy with a strong presence in energy, transportation, and technology. In addition, relatively low current market values, competitive labor costs, and a comparatively modest overall tax burden all indicate a cost environment that accommodates to future development and growth.

**Table 1: Recent Jersey Village Indicators**

	A. Sales Tax	B. Population	C. County Unemp.	D. Single-Family Permits
2000	\$1,043,667	6,891	4.3%	28
2001	\$1,583,450	6,965	4.7%	30
2002	\$1,190,363	7,202	6.1%	54
2003	\$1,079,950	7,262	6.8%	34
2004	\$1,237,765	7,240	6.3%	5
2005	\$1,158,688	7,193	5.7%	23
2006	\$1,256,407	7,278	5.1%	38
2007	\$1,476,802	7,252	4.3%	36
2008	\$1,651,649	7,279	4.8%	14

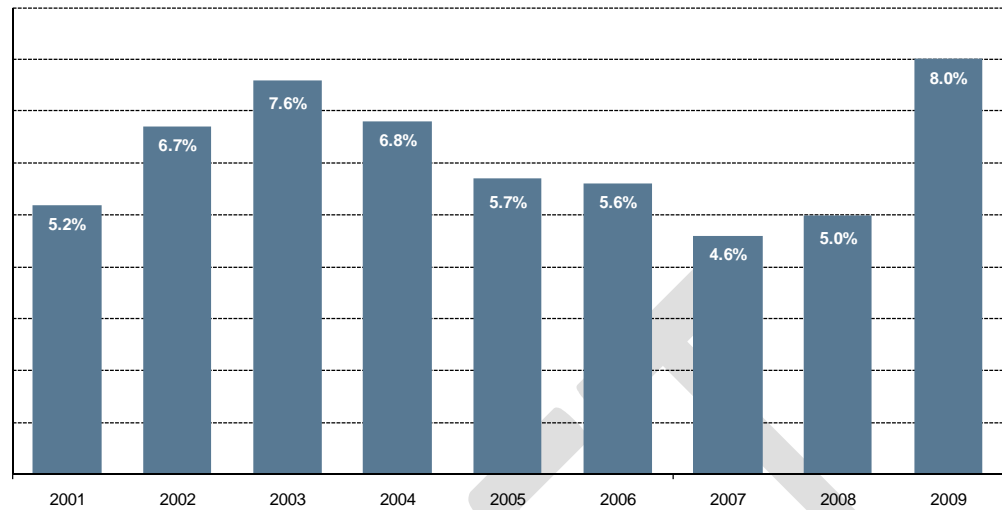
Sources: A. Texas State Comptroller's Office; B. Census Bureau; C. Bureau of Labor Statistics; D. Census Bureau

**Figure 2: Recent Jersey Village Sales Tax Revenue Growth**



Sources: Texas State Comptroller's Office; TXP

**Figure 3: June Harris County Unemployment Rates**



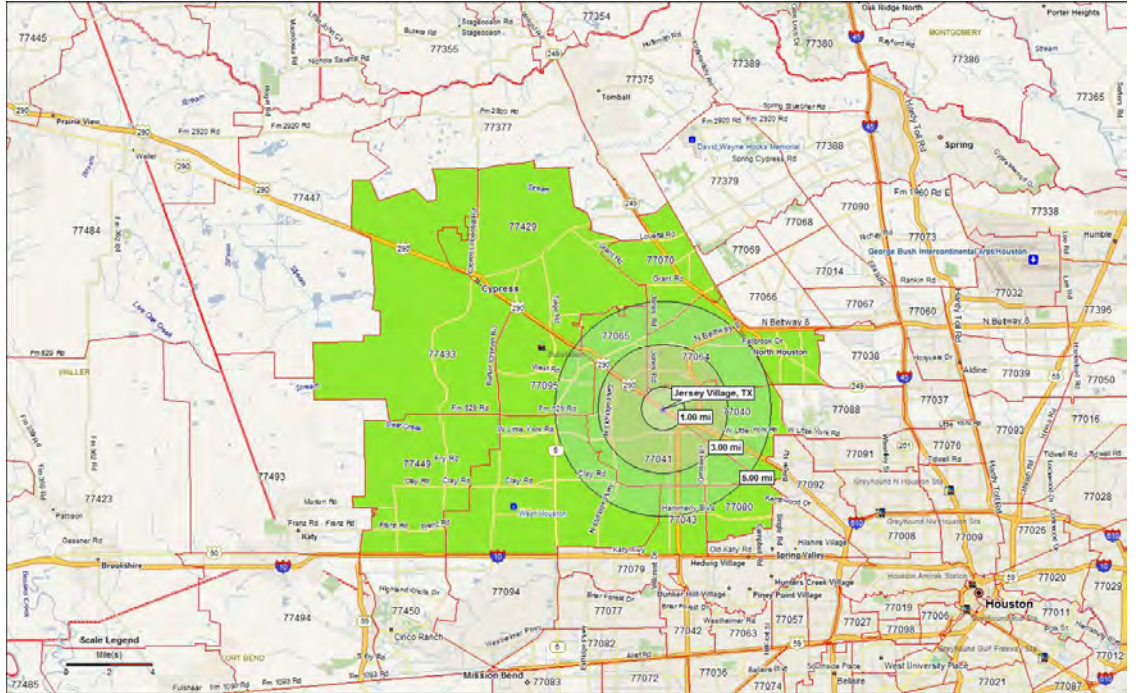
Sources: Bureau of Labor Statistics; TXP

## Market Area Real Estate Demand

### Specific Assumptions

- Base data was derived from a number of sources, including County Business Patterns, the Texas Comptroller's Office, the Bureau of Labor Statistics, the Census Bureau, and the Texas Real Estate Research Center.
- Market area population projections were based on the 3.0 Migration Scenario from the Texas State Data Center (2000-07), updated to reflect base data through 2008 for the county and local cities and 2007 data for the ZIP Codes in the Study Area. The estimate of the number of people per household comes from the Census Bureau, and is very gradually reduced over time in line with both historical patterns and anticipated demographic trends.
- Employment forecasts were developed using 2007 base data for the ZIP Codes referenced in the map and table that follows. Base data derived from County Business Patterns by sector is included as well. A twenty-year time planning horizon was assumed.
- A blended American Planning Association (APA) ratio of 650 sq. ft./employee was used to estimate aggregate new development required for retail/restaurant/entertainment. Similarly, an adjusted APA ratio of 250 sq. ft./employee was used to estimate aggregate new development required to meet office/commercial demand.

**Figure 4: Market Area**



Source: TXP

**Table 2: Baseline Market Area Detailed Employment: 2007, by ZIP Code**

	Total Jobs	Office-Related Jobs	Retail/Rest./Ent. Jobs	Other Sectors
77040	44,880	20,288	5,284	19,308
77041	50,726	12,722	2,075	35,929
77043	20,316	7,875	2,292	10,149
77064	19,344	7,330	3,083	8,931
77065	12,623	4,605	6,302	1,716
77070	25,337	11,581	9,619	4,137
77080	7,948	2,862	1,376	3,710
77084	25,764	12,948	6,187	6,629
77086	6,168	1,021	990	4,157
77095	12,225	4,830	3,788	3,607
77429	12,178	4,184	4,256	3,738
77433	2,775	1,273	919	583
77449	8,071	3,673	3,772	626
<b>TOTAL</b>	<b>248,355</b>	<b>95,192</b>	<b>49,943</b>	<b>103,220</b>

Source: TXP

**Table 3: Projected Market Area Population, Households, & Employment**

	Population	Households	Office-Related Jobs	Retail/Rest./Ent. Jobs
2010	625,086	204,093	92,582	48,950
2011	637,588	208,913	93,598	49,657
2012	650,340	212,587	94,855	50,485
2013	663,347	217,929	96,129	51,327
2014	676,614	223,404	97,420	52,183
2015	690,146	229,018	98,729	53,053
2016	702,569	234,772	99,989	53,905
2017	715,215	240,671	101,265	54,771
2018	728,089	246,234	102,557	55,651
2019	741,194	251,926	103,866	56,545
2020	754,536	257,749	105,191	57,453
2021	766,608	263,707	106,471	58,345
2022	778,874	269,803	107,766	59,251
2023	791,336	275,497	109,077	60,171
2024	803,997	281,312	110,403	61,105
2025	816,861	287,249	111,746	62,054
2026	828,297	293,311	113,039	62,984
2027	839,894	299,502	114,346	63,928
2028	851,652	305,221	115,669	64,886
2029	863,575	311,049	117,007	65,858
2030	875,665	316,989	118,360	66,845

**Source: TXP****Table 4: Projected Market Area Overall Real Estate Demand**

	Housing Units	Office-Related Sq Ft.	Retail/Rest./Ent. Sq. Ft.
2010	4,900	-116,309	0
2011	3,795	254,015	459,748
2012	2,625	314,310	538,144
2013	4,273	318,532	547,116
2014	4,380	322,811	556,238
2015	4,491	327,147	565,512
2016	4,603	314,964	553,991
2017	4,719	318,983	562,891
2018	4,354	323,054	571,934
2019	4,454	327,176	581,122
2020	4,557	331,351	590,458
2021	4,663	319,879	579,777
2022	4,771	323,770	588,778
2023	4,339	327,709	597,919
2024	4,430	331,695	607,202
2025	4,524	335,729	616,629
2026	4,619	323,135	604,421
2027	4,717	326,873	613,478
2028	4,214	330,654	622,671
2029	4,295	334,478	632,002
2030	4,377	338,347	641,472

**Source: TXP**

## Buildout Scenarios & Market Demand

The following table details the share of total market demand represented by each scenario. A general rule-of-thumb is to assume that no individual development can capture more than 5% of total market demand within a community; for a sub-region (such as Jersey Village) 1-2% is more likely to be appropriate for housing, while commercial located proximate to this type of existing and potential transportation capacity could easily absorb 5% of the market.

**Table 5: Total Market Area Demand for Real Estate – Alternative Scenarios**

	1%	2%	3%	4%	5%
Total Housing Units	924	1,848	2,772	3,696	4,620
Total Commercial Sq Ft.	179,598	359,196	538,794	718,392	897,990
Retail/Rest/Entertainment	63,283	126,566	189,849	253,132	316,415
Office	116,315	232,630	348,945	465,260	581,575

## Development Orientation

If Jersey Village is to capture the projections outlined above, a development orientation that reflects a changing market structure is desirable. For example, a number of trends are beginning to influence land development and urban revitalization in the United States, including:

- *Demographics*, specifically smaller household sizes;
- *Changes in the structure of the economy*, with a heightened emphasis on adding value through the provision of service and knowledge;
- *Shifts in consumer tastes and preferences*, including a greater acceptance of owner-occupied multi-family housing and a strong desire for “authenticity” and “experience;”
- *Technology*, especially as it enables decentralized work and informs consumer tastes;
- *Transportation*, including congestion and rising energy costs, and
- *Cultural/entertainment*, an element of society that is increasingly multi-faceted and diverse.

Underlying all of the above (which have an impact through all of society) is the desire for what has been termed *Walkable Urbanism*. According to the Brookings Institute, “since the rise of cities 8,000 years ago, humans have only wanted to walk about 1,500 feet (approximately a quarter mile) until they begin looking for an alternative means of transport: a horse, a trolley, a bicycle, a car. This distance translates into about 160 acres – about the size of a super mall, including its parking lot. It is also about the size, +/- 25 percent, of Lower Manhattan, Downtown Albuquerque, the financial district of



San Francisco, Town Center Atlanta, and most other major Town Centers in the country.”

What makes walkable urbanism function is not merely distance, but the experience – a pedestrian trip where one encounters a mix of sights and sounds in the context of a range of land uses and a diverse built environment. The translation is that “critical mass” occurs when visitors can find enough to do for an afternoon or an evening, residents’ daily needs are largely met within easy access, and the underlying economics justify ongoing investment. When this happens (and is sustained), a dynamic system is in place that will create enhanced economic and fiscal value.

In this context, it is unlikely that this approach will allow Jersey Village to capture a disproportionate share of regional growth. However, failure to implement policies, procedures, and investment decisions related to infrastructure along these lines puts the community in danger of losing some of its “fair-share” to adjacent areas. If that happens, these forecasts are at risk.

## The Value of Transit

Over the past decade, it has become clear that the presence of transit can increase property values and result in valuable development opportunities. Clearly, the value of transit is not limited to increased property values. Transit has the potential to offer a multitude of environmental, social, and fiscal benefits, summarized in the table below:

**Table 6: Benefits of Transit**

Environmental Benefits	Social Benefits
Reduced traffic congestion	Improved social cohesion through community interaction
Reduced fuel consumption	Improved fitness and health as a result of increased walking and biking
Better air quality	Reduced traffic accidents
Reduced sprawl	Improved transportation options, particularly for non-drivers
Conservation of open space	Reduced consumer transportation costs
Fiscal Benefits	Expanded labor market shed for employers
Reduced road and parking facility costs	Improved access to job opportunities for workers
Economic development benefits through agglomeration efficiencies/productivity	Neighborhood revitalization
Increased property values/tax revenues	<b>Source: “Capturing the Value;” (see Appendix 2)</b>

To attempt to quantify the benefits listed above for any transit system or single transit station presents many challenges. Some of these benefits accrue to society as a whole, some to private interests alone, and several accrue to both the private and the public sectors. Furthermore, because many of these benefits are intersecting or are otherwise hard to disaggregate - such as the relationship between reduced sprawl and open space conservation - it can be very difficult to avoid double counting. As a result, the analytical focus typically is on measuring value through yields on property, i.e. real estate prices.

### Yields on Property as a Measure of Value

Throughout the U.S., evidence from the research literature has demonstrated that access to transit increases the value of nearby property. The results of studies in range of communities across the U.S. are summarized in the table below. Fifteen of these studies reported that properties that were located near a transit station experienced a premium effect in terms of obtaining a higher value than comparable properties without transit access. The studies listed below and in Appendix 2 also confirm that increased value has been realized for both commercial and residential properties.

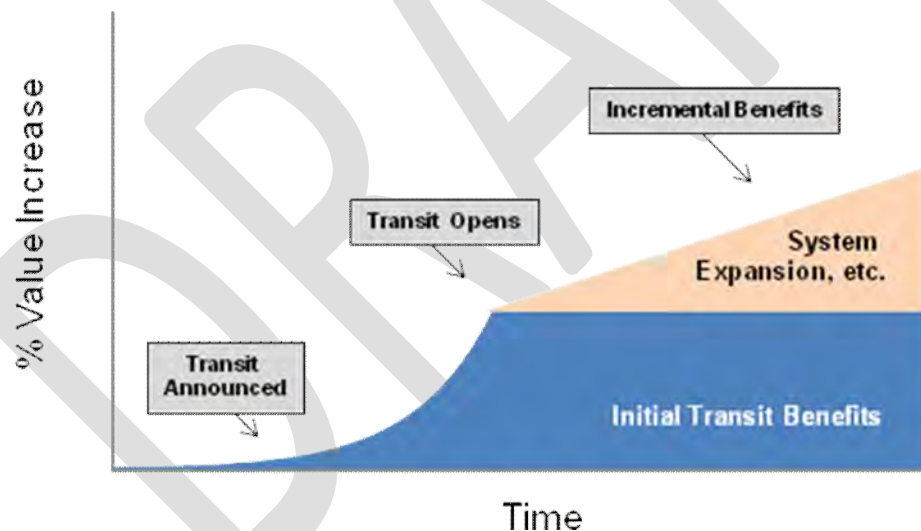
**Table 7: Summary of Estimated Property Value Premium**

Range of Estimates		Location/Analysis
<b>Single-Family Residential</b>		
Low	+2% within 200 ft of station	San Diego Trolley - 1992
High	+32% within 100 ft of station	St. Louis Metrolink Light Rail - 2004
<b>Condominium</b>		
+2 to +18% within 2,640 ft of station		San Diego Trolley - 2001
<b>Apartment</b>		
Low	zero to +4% within 2,640 ft of station	San Diego Trolley - 1992
High	+45% within 1,320 ft of station	Valley Transportation Authority - 2004
<b>Office</b>		
Low	+9% within 300 ft of station	Washington Metrorail - 1981
High	+120% within 1,320 ft of station	Valley Transportation Authority - 2004
<b>Retail</b>		
Low	+1% within 500 ft of station	Bay Area Rapid Transit - 1978
High	+167% within 200 ft of station	San Diego Trolley - 2004
<b>Source: "Capturing the Value" (see Appendix 2)</b>		

## The Transit Premium

Figure 5 presents a hypothetical example that illustrates how property values might increase over time as a result of new transit service.<sup>1</sup> This “transit premium” is the estimated amount a property owner near a new transit station could expect to realize that is attributable to presence of transit. The impact of transit is expected to begin when public discussion of a new transit system begins, or when a new transit project is first announced. Over time, property values will continue to rise as it becomes more likely that the transit will be built, and the opening of transit grows nearer. As the plans solidify, the project receives funding, construction begins and the commencement of service grows closer, the value continues to increase. On the day the transit opens, most of the value inherent in the increased accessibility provided by transit is realized. There might also be the potential for additional growth in property values, particularly if the transit system is continuing to expand, or if other factors increase the desirability of locating near the transit station, such as rising gas prices, increased auto traffic, or station area access improvements.<sup>2</sup>

**Figure 5: The Value Curve in Theory**



Source: Spectrum Economics, TXP

<sup>1</sup> Note that this is a stylized example, and actual property value impacts would tend to fluctuate over time depending on expectations about future transit service and the value conferred to surrounding properties.

<sup>2</sup> Planning efforts and policy changes such as station area planning, zoning modifications and new developer incentives could significantly impact the shape of this curve. However, for the sake of simplicity, these impacts are not reflected in the chart.

Property values can be separated into two components: land value and structure value. The “transit premium” is really a land value premium, because the benefit of transit is primarily a function of the location of the property. The structure value is the value of any building or other improvement on the property, typically estimated as the amount that it would cost to replace the building. The other component of property value is the land value, which reflects not only the value based on the nature of the soil and terrain (e.g., mineral rights or agricultural potential), but also the benefits that accrue to a location based on its surroundings (e.g., the benefit of being in an appealing neighborhood, on a hill with a fantastic view, or near transit). One way to understand this is to consider the fact that the “replacement cost” of a building will be about the same anywhere within a region, but the value of the property will depend on where it is located. This variation in property values is attributable to differences in land values, not in building values. The introduction of new transit service impacts land values by changing the desirability of a property’s location. In some cases the increase in value reflects an immediate benefit due to proximity to transit, such as when an office property can achieve higher rents due to its location near a new transit stop. In other cases the value reflects the expectation of future value; for instance, while a property with an auto-oriented use such as a gas station may not benefit directly from new transit service, the land value might increase to reflect the potential for redevelopment of the property to a more intensive use in the future.

## Conclusion

The potential development of the Study Area anchored by a future Transit Oriented Development (TOD) shows promise to capture a significant share of Northwest Harris County’s future growth. Based on an assumption of capturing 1% of the residential and 5% of the commercial regional demand, Jersey Village can expect to see the development over the next twenty years of just under 1,000 housing units and approximately 900,000 square feet of commercial space in the Study Area. This “footprint” is roughly comparable to the City Centre project in process near I-10 and Beltway 8, which will include 650 residences, 950,000 square feet of commercial space, and a 245-room hotel on a total of 37 acres. While the details inevitably will be different (the TOD, for example, likely puts a greater emphasis on residential), the order of magnitude is similar.

It is important to note, meanwhile, that the success of the effort is not dependent on rail transit – while rail transit will have a positive impact on buildout values and density, careful planning and appropriate regulatory and infrastructure decisions are the key elements to the project’s overall success. At the same time, the design and intensity of actual development is dependent on multiple factors that can impact the amount of

land that would be appropriate for transit-oriented development associated with the rail station and access to the future managed lanes for the 290 expansion. Those factors include but are not limited to:

- the type of commercial and residential development that occurs initially, and the proportion of urban residential versus lower density residential over time;
- development phasing;
- structured parking capacity over time;
- the potential for a hotel and related entertainment; and
- the level of public participation in infrastructure necessary to achieve higher intensity development.

Accordingly, the decision to annex and the level of annexation should be considered in terms of the intensity and design character of the development, which is not necessarily simply a factor of regional market potential. The relationship of design, intensity and likely need for annexation could be explored in more particular detail through the second phase of this initiative during the detailed planning process.

## Appendix E-1 – The Benefits of Urbanist Development

Urbanism (also referred to as “new urbanism”) is a dynamic urban design movement that is seen as part of a broader trend toward the restoration of community and concern for a more sustainable environment. Charles Bohl, in his seminal book *Place Making*, defines urbanism as an innovative design concept that applies “the best urban design practices from the ‘traditional urbanism’ found in historic town centers and main streets, while pragmatically adapting them to modern lifestyles, business practices, and technologies.” Urbanism has been characterized by New York Times architecture critic Herbert Muschamp as the “most important phenomenon to emerge in American architecture in the post-Cold War era.”

Underlying new urban development ideals is a belief that the physical design of many communities and regions is seriously impairing quality of life, contributing to traffic congestion, environmental degradation, and a lost sense of community. Todd Bressi writes,

...the New Urbanism is not a romantic movement; it reflects a deeper agenda. The planning and design approaches...revive principles about building communities that have been virtually ignored for half a century: public spaces like streets, squares, and parks should be a setting for the conduct of daily life; a neighborhood should accommodate diverse types of people and activities; it should be possible to get to work, accomplish everyday tasks (like buying fresh food or taking a child to day care) and travel to surrounding communities without using a car.

Bressi continues by stating that urbanists pay close attention to architecture – particularly to where a building sits on the lot, its mass, and exterior details, arguing that only certain types of buildings can create the range of public and private spaces that successful communities require. He notes that “the primary purpose of design rules is to force greater attention to detail, thereby invigorating urban and suburban architecture and imparting a greater level of civility to the streetscape.”

### Key Factors of New Urban Developments

A common characteristic of conventional real estate development is the presence of formula-driven designs that follow a set script, regardless of the place where the project is built. As Charles Bohl has noted, “while the real estate industry has become very good at building these projects, the projects themselves are not very good at building communities.” Urbanism, on the other hand, is about reforming the design of the built environment. It revives the lost art of “place-making” and creates

environments that are distinctly different from the standard product types. Bressi contends that:

Buildings should not be conceived as objects isolated from their surroundings; they should contribute to the spatial definitions of streets, parks, greens, yards, and other open spaces. The New Urbanists draw upon a range of design traditions for inspiration. Their ideas about the relationships between planning and architecture reach back to the City Beautiful and Town Planning movements, which in turn reach back to Renaissance and Classical cities.

Some of the key factors of this approach to project development are outlined below.

### **Providing a Sense of Community**

Thinking about public space in new ways that encourages sociability among residents and creates a sense of community is a key component of new urban design. Numerous studies have pointed to Americans' growing dissatisfaction with the feeling of "separateness" that comes from living and working in traditional suburbs and have identified a "quest for community" that is felt across society.

Sociologist Ray Oldenburg has described this phenomenon by naming the various places that humans live and interact. The home is the "first place," the workplace is the "second place," and community gathering places outside of home or work such as town squares, village greens, cafes, or taverns are identified as "third places." Oldenburg maintains that "third places" are what is absent in suburban neighborhood development and they are the missing ingredient that people in those areas are searching for today.

New urban developments fulfill this need and, if properly designed, have become magnets for residents and visitors alike. As Bohl notes,

...today's town center projects typically revolve around a central plaza or park that establishes a public atmosphere and provides an ideal setting for the cafes, taverns, and bistros celebrated by Oldenburg. In fact, it is the space between buildings – the public realm of plazas, greens, squares, and walkable streets – that enables a town center or a main street to act as the third place for nearby neighborhoods and communities.

### **Creating a “Place Identity”**

Physical places that promote sociability have become critical for building strong communities and creating a unique sense of “place.” Booth, Leonard & Pawlukiewicz from the Urban Land Institute note that place making is the essence of real estate development, and “establishing a live-work-shop environment with a sense of place is a community need as well as an aspiration.” Places that are desirable appeal to all the senses - sight, sound, smell, taste, and touch. Rather than relying on formulaic real estate products, new urban developments are a rich mix of local activities, aesthetic design, quality, and price.

As noted on Smart Growth Online, new urban developments are designed to:

...create interesting, unique communities which reflect the values and cultures of the people who reside there, and foster the types of physical environments which support a more cohesive community fabric. Smart growth promotes development which uses natural and man-made boundaries and landmarks to create a sense of defined neighborhoods, towns, and regions. It encourages the construction and preservation of buildings which prove to be assets to a community over time, not only because of the services provided within, but because of the unique contribution they make on the outside to the look and feel of a city.

Whereas many conventional developments, such as shopping malls or retail strip centers, are focused exclusively on trade, Bohl notes that new urban market and town squares are designed to be not only “consumer space,” but are clearly recognized and experienced as “public space,” with a civic character that transcends the commercial activities that take place there.

### **Providing a Mix of Land Uses**

A critical component of achieving better places to live is an integration of mixed land uses. Mixed uses create a critical mass and a sense of place by affording the community a wider range of goods, services, and experiences at one location, thereby increasing connectivity and choice. By putting uses in close proximity to one another, alternatives to driving, such as walking or biking, become viable.

Providing a mix of land uses generally refers to offering residential, retail, and office space within close proximity to one another. Booth, et al. note the economic synergy that happens from mixed uses in a new urban development:



Office uses feed retail operations by supplying customers for stores and restaurants both during the day and after work. Retail uses within walking distance of employment or residences – restaurants, bookstores, clothing stores, gift shops, and coffee bars – reinforce amenities that allow and encourage employees and residents to go out to lunch or run errands without relying on their cars. The addition of theaters, museums, art galleries, libraries, post offices, and town halls that are properly integrated...attracts significant pedestrian traffic, which supports a range of other uses.

### Creating Walkable Neighborhoods

At the heart of new urban design is the concept of walkable neighborhoods; walkable communities are desirable places to live, work, learn, worship, and play. These neighborhoods respect the human scale by providing pedestrian-friendly spaces that ensure that users feel at home and can navigate easily by foot within an area. As Bohl notes, “the way that streets and pathways weave through the town center, connecting its buildings and public spaces, can provide pedestrians with a sense of discovery and delight that is seldom experienced in the suburban landscape, and that is essential to the town center experience.”

Creating a sense of enclosure on a street is important in honoring the human scale and helping to define an area. It is thus crucial to pay attention to the proportion between the height of the buildings and the amount of open space; ideally, new urban designs achieve a tight 1:1 relationship and thus are much easier for pedestrians to navigate. By contrast, Bohl notes that:

Streets in suburban areas are typically many times wider than the heights of the buildings that line them, often reaching ratios of 1:6 and more. Such wide streets prevent any sense of spatial enclosure from being achieved and are more difficult for pedestrians to cross.

Henton & Welsh, discussing the vital role of well educated, technically savvy young people in the growth of the new economy, note that these workers are attracted to places that have a lively mix of activity that need not be accessed by car. As one young worker told the Wall Street Journal, “It’s a lot more fun to be in a locale where you can go for a walk and have a nice dinner, or shop and take in a sports game, than it is to be isolated in some sprawling suburban office park where a little truck comes by at lunch and sells microwave burritos.” Providing pedestrian-friendly activities thus give new urban communities an edge in attracting and retaining workers and residents.

In addition to creating a more walkable environment, good urban design can also incorporate “traffic calming” changes to streets and sidewalks to make them safer, more attractive, and more livable to both pedestrians and bicyclists alike. Researcher Emily Drennen conducted a 2003 study of the economic effects of traffic calming measures on twenty-seven small businesses in the Mission District of San Francisco. Merchants were interviewed about how the Valencia Street bicycle lanes had impacted their businesses. Four and a half years after the bike lanes were built, the vast majority of the business owners expressed support for the bike lanes. Respondents generally felt that the bike lanes had made the street more attractive and had a generally positive impact on their business and/or sales.

### Preserving Open Space

Greenspace or “open space” is broadly referred to in new urban design to mean natural areas both in and surrounding developments that provide important community space, habitat for plants and animals, recreational opportunities, places of natural beauty, and critical environmental areas (e.g., wetlands).

Increasing numbers of people are concerned about the natural environment and value access to open space in both their private life and in their workspace. A healthy environment, rather than viewed as an added bonus, is now seen as one of an area’s prime economic assets. Fortunately, the divide that existed in the past between developers and environmentalists is gradually being eroded as both sides realize the interconnection and interdependence of a development’s preservation of the natural environment and its economic viability.

New urban developments are designed to protect and preserve open spaces, thereby providing environmental quality and health benefits that are significant. According to Smart Growth Online,

Open space protects animal and plant habitat, places of natural beauty, and working lands.... Additionally, preservation of open space benefits the environment by combating air pollution, attenuating noise, controlling wind, providing erosion control, and moderating temperatures. Open space also protects surface and ground water resources by filtering trash, debris, and chemical pollutants before they enter a water system.

In addition to environmental benefits, the preservation of open spaces can give a region a competitive economic edge. Open spaces can offer an amenity that a region may not currently possess in abundance, enabling the region to retain the people that currently

live and work there by giving them a disincentive to relocate. Open spaces can also help a region compete with other communities in attracting businesses and residents, as well as enabling it to compete for tourist dollars. And, research has shown that oftentimes it makes good economic sense to preserve a parcel of land rather than develop it; a number of recent studies show that parks and open space development in many instances increases residential property values and the property tax base of communities.

### **Economic Development and Public Sector Benefits**

Urbanism in many ways reflects the changing nature of the American economy and in turn the values of the American people. New urban developments provide numerous benefits to residents in the form of a higher quality of life, better places to live, work, and play, higher and more stable property values, and a healthier lifestyle with more walking and better access to the natural environment. Businesses and municipalities also benefit from urbanism; the economic development and public sector benefits of new urban communities will be discussed below.

### **Economic Development Benefits**

According to Henton & Welsh, quality of life has become a community's most valuable asset in the new economy. As Smart Growth Online reports, "recent trends in the global economy – industrial clustering and specialization, diversification of the workforce, reintegration of work and home – are placing a premium upon community character and quality of life."

New economy companies are attracted to new urban communities for a variety of reasons. Companies realize their workers want to work and live in areas that offer a vibrant social life, environmental amenities, and a reasonable commute. Talent is attracted to sociable communities – places with destinations, public and civic spaces, plenty of open spaces – where they can come together with colleagues or friends either through planned or chance encounters. In addition, as business is increasingly being conducted outside the boardroom – in restaurants, health clubs, and other public spaces – access to places where people can come together, converse, network, and share ideas is paramount. Muro and Puentes note that:

Regional economic performance is enhanced when areas are developed with community benefits and the promotion of vital urban centers in mind. Studies show that productivity and overall economic performance may be improved to the extent compact, mixed-use development fosters dense labor markets, vibrant urban centers, efficient transportation systems, and a high "quality-of-place."

Richard Florida, who has written extensively about the new knowledge economy, notes that knowledge workers like to mix fun with work, to be close to stimulations from colleagues, in close proximity to outside activity and recreation, and live and work in places convenient to services and recreation. He goes on to say:

In this milieu, talent is scarce. Everybody is competing for the best people, and if you don't have quality of life and quality of place, you won't get talented people. Skilled talent calls the shots in where and how they want to work.

Companies must locate in such locales to attract and retain quality employees. In discussing how the state of Wisconsin can successfully integrate into the new economy, commentators noted that:

A higher level of diversity in urban environments can be achieved through the creative design of our built environments and through the emphasis we place on innovative small businesses and attractions. New Urbanism ideals also help create diversity by emphasizing mixed-use developments and attractive architectural styles. Finding new uses for historic buildings also provides a mixture of old and new charm to urban environments. Local governments can also encourage small business startups of ethnic restaurants and unique shops to increase diversity in their region.

In essence, the private sector in the new economy equates competitive advantage with the ability of being where the action is, and to them, the action is in new urban communities.

### **Public Sector Benefits**

#### *Tax Base Enhancement*

In order to properly assess the fiscal benefits of new urban developments to the public sector, it is important to understand how these developments operate financially and how they are different from traditional suburban developments. According to Christopher Leinberger in a paper for *The Brookings Institution*, the investment cycle for many income-oriented conventional developments peaks around year seven. When comparing new urban and conventional developments on a short-term basis, therefore, conventional developments often project better cash flows as evaluated by internal rates of return. New income peaks can be achieved in subsequent years, but this often requires a major investment of additional capital. If a suburban development is no longer "cutting-edge," i.e. maintaining its viability, the influx of capital does not occur, and the development begins to decline. This has become a common occurrence in

suburbia, and has created a “throwaway built environment” that has largely contributed to urban sprawl. The area formerly known as the “Miracle Mile” in 1980’s Atlanta is an example of such a decline; it is now filled with over 15 dead or dying strip malls because the market has moved farther out and developers are not inclined to reinvest in it.

New urban developments, on the other hand, generally create and sustain value in excess of conventional developments, though their short-term performance may not be as attractive. This can be due, in part, to the quality (and thus cost) of architecture and construction intrinsic to new urban design, the amount of open space provided in the overall development, or the higher cost of financing. However, what may be lost in the short-term is made up for in the mid- and long-term. Leinberger notes that:

The major reason progressive development seems to yield higher mid- and long-term returns and has a longer life is the pedestrian nature of its design. In stark contrast to conventional development with its car-dominated character, progressive developments create special places that are rather rare in this country.

The desirable nature of new urban developments, including the mix of land uses and physical context, translates into increased property values in the shorter run; in the longer run, Muro and Puentes note that these developments

...may enhance regions’ tax bases, create wealth through housing appreciation, and boost property tax collections. In that sense, smart growth may well create substantial value by enhancing the real estate market.

Increased real estate values in turn can make a tremendous difference in the overall value of the local tax base, and it is possible to develop some indication of the impact of a new urban development approach through evaluation of residential values. Researchers at George Washington University developed estimates of the incremental gain per unit attributable to traditional neighborhood design at the Kentlands, a new urban project in Maryland. The researchers estimated the price that homeowners were willing to pay for houses in Kentlands and comparable homes in surrounding traditional subdivisions. Based on their analysis, housing units in the new urban development commanded an 11.7 percent market premium, all other factors held constant. This premium existed in both new and resale markets.

### *Cost of Service Reduction*

Muro and Puentes reviewed the best academic empirical literature on fiscal effects of growth and development for the Brookings Institution and reported that overall, the cost of providing public infrastructure and delivering services can be reduced through thoughtful design and planning. The logic is straightforward; compact, less sprawling development patterns can reduce the capital and operations costs governments incur from new growth. The authors identify two related ways urban form can decrease costs:

- Economies of scale – because the marginal cost of serving additional population decreases as more residents cluster within a small geographic area. Also referred to as “density efficiencies.”
- Economies of geographic scope – because the marginal cost of serving each additional person decrease as each person locates more closely to existing major public facilities.

Muro and Puentes report that over the year 1999-2000 states and localities nationwide spent nearly \$140 billion on capital outlays for infrastructure shaped by development patterns such as elementary and secondary schools, highways, sewer lines, solid waste management, and utility systems. More than \$200 billion was spent on recurring expenditures to provide such services such as highway maintenance, police and fire protection, trash collection, and utility service. The authors note that:

Considering that these outlays represent almost 20 percent of the \$1.7 trillion states and localities spent during 1999-2000, realizing even modest percentage savings from smart growth could save taxpayers billions. Such savings grow only more attractive in light of economic stagnation, weakening federal support for states and cities, and the twin challenges many states face with shrinking revenue bases and increasing mandatory spending.

Several studies reported by the authors predict that rational use of more compact development patterns from 2000 to 2025 promise the following sorts of savings for governments nationwide: 11 percent, or \$110 billion, from 25-year road-building costs; 6 percent, or \$12.6 billion, from 25-year water and sewer costs; and roughly 3 percent, or \$4 billion, for annual operations and service delivery.

## Appendix E-2 – The Value of Transit

*Note: This report is a shortened version of the meta-analysis entitled “Capturing the Value of Transit” prepared for the United States Department of Transportation and published in November 2008 by the Center for Transit-Oriented Development.*

### Introduction

There is a growing awareness in the United States that public transit offers numerous economic, social, and environmental benefits, and the perceived value of these benefits is, to a certain extent, reflected in increased property values near transit stations. Americans are increasingly prioritizing the advantages provided by neighborhoods near transit, including economic savings to households, reduced carbon emissions, healthier lifestyles, fewer traffic accidents, and reduced suburban sprawl. At the same time, demographic and cultural changes are resulting in a growing interest in cities and urban lifestyles, which means that there is increased demand for the kind of neighborhoods that are most likely to be served by transit. These trends are only reinforced by recent spikes in oil and gas prices. Numerous studies have measured and documented a value “premium” for properties near transit, and many agencies and individuals are interested in tapping into this value.

It is no wonder that transit agencies are intrigued by value capture. Rising construction costs and competition for scarce federal dollars make it increasingly difficult to fund new transit systems and or system expansions. Value capture is seen as a way to pay for capital projects as well as a potential source of income for paying ongoing operating costs. However, transit agencies are not the only ones hoping to capitalize on the value created by transit. Local jurisdictions hope to tap into rising property values to encourage transit-oriented development (TOD) and help pay for neighborhood improvements such as local infrastructure, improved pedestrian linkages, and affordable housing. Meanwhile, property owners and developers see transit as a highly desirable amenity that has the potential to increase the value of surrounding properties and create lucrative development opportunities.

As various stakeholders attempt to capture the value created by transit, however, they are meeting with difficulties in measuring the extent of the potential value and finding the best ways to capture it. This paper attempts to address some of these challenges by:

- Summarizing the findings of previous studies that measure the impact of transit on nearby property values;

- Providing a detailed discussion of the role of property owners and developers in value capture strategies;
- Offering examples of tools currently used by transit agencies to capture the value of transit to help defray capital costs; and
- Providing a framework for thinking about what kinds of value capture strategies are possible in a given situation.

### Measuring Value

Numerous studies have evaluated the impact of transit on surrounding real estate, and found that transit can generate a significant amount of value for nearby property owners. This section provides a summary of literature on the topic, beginning with some context about the history of transit in the US and other factors that have influenced interest in the topic of value capture over time.

### Historical Context

The idea of using transportation to open up new land for development, thereby increasing its value, is hardly new: after all, this was the basic motivation behind most of the privately developed streetcar systems in the early 20th century, which were built for the express purpose of maximizing the value of surrounding real estate. The rich history of the street-railway companies that operated in U.S. cities from the late 19th century to the mid-20th century has been documented by Scott Bernstein in *Street Smart: Streetcars and Cities in the Twenty-First Century*, along with an overview of the innovative financing mechanisms that they employed.<sup>3</sup>

Beginning in the late 1970s, a new wave of transit was built in the US, to provide rail transit in growing metropolitan areas that previously did not have urban rail systems, such as Washington DC, San Francisco and Atlanta.<sup>4</sup> These systems were built with the purpose of relieving congestion, and were funded entirely by the public sector. In contrast with the systems built before World War II, the new systems were built with the expectation that most transit riders would reach the station by car, and as a result there were few attempts to integrate new stations with surrounding land uses.<sup>5</sup>

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<sup>3</sup> Bernstein, Scott. "How Streetcars Helped Build American Cities," in *Street Smart: Streetcars and Cities in the Twenty-First Century*, eds. Gloria Ohland and Shelly Poticha, (Reconnecting America, 2006).

<sup>4</sup> Schneider, Joachim. *Public Private Partnerships for Urban Rail Transit*, Deutscher Universitäts-Verlag/GWV Fachverlage GmbH, Wiesbaden, 2004, pg. 40.

<sup>5</sup> Belzer, Dena and Gerald Autler, *Transit Oriented Development: Moving from Rhetoric to Reality*, discussion paper prepared for the Brookings Institution and the Great American Station Foundation, June 2002.



The concept of value capture as a means to fund or recover the cost of public infrastructure investments became the subject of increased interest during this same period, particularly after the publication of *Windfalls For Wipeouts: Land Value Capture and Compensation* (Hagman and Misczynski, 1978). In this extensive study of the impact of public policy on land values, Hagman and Misczynski examined how windfalls to property owners that result from public infrastructure investment could be captured by cities (or other public agencies) through taxes or fees that are tied to the increase in land value.<sup>6</sup>

Another major wave of new transit was built beginning in the 1980's, consisting mainly of new light rail systems, most in existing freight rail corridors and on abandoned freight right-of-ways. Examples include San Diego (1981), Portland (1986), Los Angeles (1990), St. Louis (1993), Denver (1994), and Dallas (1996).<sup>7</sup> This period also saw growing interest in transit-oriented development (TOD) as a way to promote sustainable, transit-supportive land use patterns near transit. Transit agencies such as the Bay Area Rapid Transit District (BART) and Washington Metropolitan Area Transportation Authority (WMATA) began to look for ways to promote the right kind of development near existing transit stations.

During the 1990's and 2000's the transit boom has continued. Cities such as Portland, Seattle, Little Rock, Tacoma, Tampa and Memphis are building new streetcar systems. And beginning in 2003, a new generation of transit systems are being planned, and in some cases financed, on a more extensive scale. While most of the previous wave of transit was planned one segment or corridor at a time, systems such as Denver, Houston and Salt Lake City are being planned and implemented at the system level. As these systems are planned and built, transit agencies are exploring new financing methods such as public private partnerships, and questions are arising about how these value capture strategies might be implemented on a broader scale.

## Defining Value

Clearly, the value of transit is not limited to increased property values. Transit has the potential to offer a multitude of environmental, social, and fiscal benefits. To attempt to quantify the benefits listed above for any transit system or single transit station

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<sup>6</sup> Hagman, Donald and Dean Misczynski. *Windfall for Wipeouts: Land Value Capture and Compensation*, (American Society of Planning Officials, 1978).

<sup>7</sup> Schneider, p. 40.

presents many challenges. Some of these benefits accrue to society as a whole, some to private interests alone, and several accrue to both the private and the public sectors. Furthermore, because many of these benefits are intersecting or are otherwise hard to disaggregate - such as the relationship between reduced sprawl and open space conservation - it can be very difficult to avoid double counting.

In spite of these challenges, many academic studies have attempted to quantify the benefits of transit in dollar terms. Depending on the researcher's area of interest, they have taken a different approach to the question of how to measure value, and not all of the studies relate specifically to real estate. For example, a 1986 value capture study of heavy rail examined the commute cost savings in annual dollars for households within two miles of the Lindenwold Station in southern New Jersey (Allen, 1987).<sup>8</sup> Another study concluded that the total benefits of reduced wait times as a result of transit in the New York metropolitan area equaled \$3.7 billion per year (Anas, 1993).<sup>9</sup> Dunphy's study of residential prices in Southern California concluded that buyers would have to add 15 to 30 minutes to a daily commute in order to reduce a home purchase price by \$10 to \$15 per square foot (Dunphy, 1998).<sup>10</sup>

Looking at the benefits of mobility, reduced congestion, and higher property values for the U.S. overall, Lewis concluded that for each \$1 invested in transit services, the public realizes \$5 in cash savings (Lewis, 1999).<sup>11</sup> In Portland, the IBI Group determined that there has been \$1.9 billion in property development in the vicinity of the Portland Metropolitan Express system (Hack, 2002).<sup>12</sup> A study by the University of North Texas, which also focused on total investment like IBI Group's study in Portland, found that between 1999 and 2007, \$4.26 billion in development projects along rail lines were attributable to the presence of DART (Dallas Area Rapid Transit).<sup>13</sup>

As this list of studies implies, there is no standard measure of value for transit. Nonetheless, the majority of value capture researchers have selected the yield on

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<sup>8</sup> Allen, W. et al. "Value Capture in Transit: The Case of the Lindenwold High Speed Line," *Journal of the Transportation Research Forum*, Vol. 28, no. 1, 1987.

<sup>9</sup> Anas, A. et al. "Land Values and Transit Access: Modeling the Relationship in the New York Metropolitan Area, An Implementation Handbook, U.S. Federal Transit Administration, 1993.

<sup>10</sup> Dunphy, R. "The Cost of Being Close," ULI Working Paper 660, Urban Land Institute, October 1998.

<sup>11</sup> Lewis, D. et al. *Policy and Planning as Public Choice: Mass Transit in the United States*, 1999.

<sup>12</sup> Hack, J. "Regeneration and Spatial Development: A Review of Research and Current Practices," IBI Group, 2002.

<sup>13</sup> Clower, Terry L. et al. *Assessment of the Potential Fiscal Impacts of Existing and Proposed Transit-Oriented Development in the Dallas Rapid Transit Service Area*, Center for Economic Development and Research, University of North Texas, November 2007.

property as the measure of value on which to focus. One reason for this is because in theory, most of the benefits of transit will be reflected in land value differences. Another reason is because an assessment on the incremental yield on property is a potential source of revenue that can be harnessed by the public sector to fund transit infrastructure or related improvements.

## **Yields on Property as a Measure of Value**

Throughout the U.S., evidence from the research literature has demonstrated that access to transit increases the value of nearby property. Data in Tables 2.2 and 2.3 show a summary of studies from the San Francisco Bay Area, San Diego, Portland, Sacramento, Chicago, St. Louis, Washington, D.C., Atlanta, and Dallas. Fifteen of these studies reported that properties that were located near a transit station experienced a premium effect in terms of obtaining a higher value than comparable properties without transit access. The studies listed in the attached tables also confirm that increased value has been realized for both commercial and residential properties.

While in most cases the impact of transit is estimated to be positive, the extent of the transit premium ranges widely. For condominiums, the premium ranged from two percent to 18 percent in San Diego (2001), while for rental apartments the range was zero to four percent in San Diego (2001) to 45 percent in Santa Clara County (2002). In terms of commercial property, the summary table shows that the value premium for office uses ranged from nine percent in Town Center Washington, D.C. (1981) to 120 percent in Town Center San Jose (2002). Value premiums for retail property ranged from one percent in near Walnut Creek's BART station (1978) to 167 percent in San Diego (1992).

**Table A2.2: Transit Investment Impacts on Residential Real Estate Values**

Variable/Location	Premium Effect	Transit Type	Year	Source
<b>Single-family home sales price:</b>				
San Francisco Bay Area BART System	+17% w/in 500 ft of station	Rapid Transit	1979	Blaney-Dyett Associates/David M. Donbeschi & Co., Inc. "Land Use and Urban Development Impacts of BART." San Francisco Metropolitan Transportation Commission, 1979.
San Diego San Diego Trolley System	+2% w/in 200 ft of station	Light Rail	1992	VH Rainbow Appraisal Service, "Analysis of the Impact of Light Rail Transit on Real Estate Values," San Diego Metropolitan Transit Development Board, 1992.
Portland MAX Light Rail System	+10.6% w/in 1,500 ft of station	Light Rail	1993	Al-Mosaid, M. et al. "Light Rail Transit Stations and Property Values: A Hedonic Price Approach," <i>Transportation Research Record</i> , 1400:90-94, 1993.
Sacramento Sacramento Light Rail System	+6.2% w/in 900 ft of station	Light Rail	1995	Landis, J. et al. "Rail Transit Investments, Real Estate Values, and Land Use Change: A Comparative Analysis of Five California Rail Systems," Institute of Urban and Regional Development, UC Berkeley, 1995.
Santa Clara County VTA Light Rail	+10.8% w/in 900 ft of station	Light Rail	1995	Landis, J. et al. "Rail Transit Investments, Real Estate Values, and Land Use Change: A Comparative Analysis of Five California Rail Systems," Institute of Urban and Regional Development, UC Berkeley, 1995.
Chicago METRA Commuter Rail System	+20% w/in 1,000 ft of station	Commuter Rail	1997	Given, A. "The Effect of CTA and METRA Stations on Residential Property Values," Regional Transportation Authority, 1997.
St. Louis Metrolink Light Rail System	+32% w/in 100 ft	Light Rail	2004	Garrett, T. "Light Rail Transit in America: Policy Issues and Prospects for Economic Development," Federal Reserve Bank of St. Louis, 2004.
<b>Condominium sales price:</b>				
San Diego San Diego Trolley System	+2% to 18% w/in 2,640 ft of station	Light Rail	2001	Cervero, R. et al. "Land Value Impacts of Rail Transit Services in San Diego County," Urban Land Institute, 2002.
<b>Apartment rental rate:</b>				
San Francisco Bay Area BART System	+5% w/in 1,320 ft of station	Rapid Transit	1991	Bernick, M. et al. "A Study of Housing Built Near Rail Transit Stations: Northern California," Institute of Urban and Regional Development, UC Berkeley, 1991.
San Diego San Diego Trolley System	+0% to 4% w/in 2,640 ft of station	Light Rail	2001	Cervero, R. et al. "Land Value Impacts of Rail Transit Services in San Diego County," Urban Land Institute, 2002.
Santa Clara County VTA Light Rail	+45% w/in 1,320 ft of station	Light Rail	2002	Cervero, R. "Benefits of Proximity to Rail on Housing Markets: Experiences in Santa Clara County," <i>Journal of Public Transportation</i> , Vol. 5, No. 1, 2002.

Sources: Cambridge Systematics Inc. et al., *Economic Impact Analysis of Transit Investments*, Transportation Research Board, 1998; PriceWaterhouseCoopers, *Review of Property Value Impacts of Rapid Transit Stations, Richmond/Airport-Vancouver Rapid Transit Project*, April 2001; Smith, J. et al., *Financing Transit Systems Through Value Capture*, Victoria Transport Policy Institute, September 2006.

**Table A2.3: Transit Investment Impacts on Residential Real Estate Values**

Variable/Location	Premium Effect	Transit Type	Year	Source
<b>Office</b>				
Washington, D.C. Metrorail System Downtown Washington Station	+9% w/in 300 ft of station	Rapid Transit	1981	Rybeck, W. "Transit-Induced Land Values," <i>Economic Development Commentary</i> , 16-20, October 1981.
Washington, D.C. Metrorail System Silver Spring Station	+14% w/in 300 ft of station	Rapid Transit	1981	Rybeck, W. "Transit-Induced Land Values," <i>Economic Development Commentary</i> , 16-20, October 1981.
Washington, D.C. Metrorail System	+12.3% to 19.6% w/in 300 ft of station	Rapid Transit	1993	Cervero, R. et al. "Assessing the Impacts of Urban Rail Transit on Local Real Estate Markets Using Quasi-Experimental Comparisons," <i>Transportation Research</i> , 27A, 1:13-22, 1993.
Atlanta MARTA System	+11% to 15.1% w/in 300 ft of station	Rapid Transit	1993	Cervero, R. et al. "Assessing the Impacts of Urban Rail Transit on Local Real Estate Markets Using Quasi-Experimental Comparisons," <i>Transportation Research</i> , 27A, 1:13-22, 1993.
San Francisco Bay Area BART System - East Bay Stations	No premium effect w/in 2,640 ft of station	Rapid Transit	1995	Landis, J. et al. "Rail Transit Investments, Real Estate Values, and Land Use Changes: A Comparative Analysis of Five California Rail Systems," Institute of Urban and Regional Development, UC Berkeley, 1995.
Dallas DART Station Areas	+10% w/in 1,320 ft of station	Light Rail	1999	Weinstein, B. et al. "The Initial Economic Impacts of the DART/LRT System," Center for Economic Development and Research, University of North Texas, 1999.
Santa Clara County VTA Light Rail	+15% w/in 2,640 ft of station for commercial	Light Rail	2001	Weinberger, R. "Commercial Rents and Transportation Improvements: Case of Santa Clara County's Light Rail," Lincoln Institute of Land Policy, 2001.
Santa Clara County VTA Light Rail - Downtown San Jose Stations	+120% w/in 1,320 ft of station for commercial land in a business district	Light Rail	2002	Cervero, R. et al. "Transit's Value Added: Effects of Light Commercial Rail Services on Commercial Land Values," Presented at TRB Annual Meeting, 2002.
<b>Retail</b>				
San Francisco Bay Area BART System	+1% w/in 500 ft of station	Rapid Transit	1978	Folke, C. "Study of BART's Effects on Property Prices and Rents," Urban Mass Transportation Administration, U.S. Department of Transportation, 1978.
San Diego San Diego Trolley System	+167% w/in 200 ft of station	Light Rail	1992	VNI Rainbow Appraisal Service. "Analysis of the Impact of Light Rail Transit on Real Estate Values," San Diego Metropolitan Transit Development Board, 1992.
San Francisco Bay Area BART System - East Bay Stations	No premium effect w/in 2,640 ft of station	Rapid Transit	1995	Landis, J. et al. "Rail Transit Investments, Real Estate Values, and Land Use Change: A Comparative Analysis of Five California Rail Systems," Institute of Urban and Regional Development, UC Berkeley, 1995.
Dallas DART Station Areas	+30% w/in 1,320 ft of	Light Rail	1999	Weinstein, B. et al. "The Initial Economic Impacts of the DART/LRT System," Center for Economic Development and Research, University of North Texas, 1999.

Sources: Cambridge Systematics Inc. et al., *Economic Impact Analysis of Transit Investments*, Transportation Research Board, 1998; PriceWaterhouseCoopers, *Review of Property Value Impacts at Rapid Transit Stations, Richmond/Airport - Vancouver Rapid Transit Project*, April 2001; Smith, J. et al., *Financing Transit Systems Through Value Capture*, Victoria Transport Policy Institute, September 2006.

Tables 2.2 and 2.3 also show that not every study of transit and property values has found a positive correlation. For example, a 1995 study by John Landis found that values for single family homes within 900 feet of light rail stations in Santa Clara County was 10.8 percent lower than comparable homes located farther from light rail stations.

The same study found that there was no value premium for office and retail property located within one-half mile of BART stations in the East Bay.<sup>14</sup>

There are several possible explanations for these negative findings. For example, real estate market data in the Landis study were collected during the recession years of the early 1990s and reflect the depressed single-family home prices and sluggish commercial property activity of that period. With regional unemployment rates above 6.5 percent for much of the early 1990s, the level of traffic congestion was reduced to the point that the real estate market placed minimal value on adjacency to transit. In addition to the negative influence of regional economic trends, the lack of property value premiums found in the Landis study may also be attributable to the fact that at the time the single family home sales data were collected, many of the VTA light rail stations had only recently opened and therefore not enough time had passed to allow the benefits of accessibility to be capitalized into the value of nearby properties.

While there is no consensus in the literature on a definitive capitalization impact that is attributable to transit, the majority of the studies cited above indicate that, despite differences in geographic location, economic circumstances, and local real estate market conditions, the presence of transit produced a measurable impact on surrounding property values.

### **Conditions for Optimizing Transit's Value Premium**

One major factor that influences the extent to which transit has a positive impact on surrounding properties is the system's regional connectivity and frequency of service. The primary benefit of being located near transit is the access it offers to places in the community or region. The more extensive the transit system, the more benefits there will be to surrounding properties. While people take transit for a variety of reasons and to many types of destinations, recent national survey data indicate that 59 percent of trips are work-related, 11 percent are school-related, nine percent are shopping and dining-related, and seven percent are socially-related.<sup>15</sup> This proportion is very high compared to auto travel, of which work-related trips represent only 18 percent.<sup>16</sup> Since much of the value of transit is directly related to the ability to use transit for commute trips, transit systems that do a good job in linking workers to employment centers have

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<sup>14</sup> Landis, J. et al. "Rail Transit Investments, Real Estate Values, and Land Use Change: A Comparative Analysis of Five California Rail Systems," Institute of Urban and Regional Development, UC Berkeley, 1995.

<sup>15</sup> *A Profile of Public Transportation Passenger Demographics and Travel Characteristics Reported in On-Board Surveys*. American Public Transportation Association, 2007.

<sup>16</sup> Pisarski, Allan E., *Commuting in America III: the Third National Report on Commuting Patterns and Trends*, Transportation Research Board (TCRP Report 110), 2006.

better potential to generate higher land values. Better accessibility is also a function of more frequent transit service, and as a result the frequency of service has a positive impact on property values.

In a 2004 study of transit-oriented development (TOD) in the U.S., U.C. Berkeley planning professor Robert Cervero points out that there are at least three other factors that influence the amount of value that can be created for TOD:<sup>17</sup>

- *Good economy and healthy real estate market conditions.* Good general economic conditions as well as a healthy local real estate market are essential ingredients to value creation because transit alone cannot provide enough of a magnet to attract development.<sup>18</sup> What transit can do is to focus a portion of existing market demand at a particular location in order to leverage accessibility. Therefore, in healthy real estate markets that are experiencing strong demand, there will be a greater potential for property value appreciation near transit.
- *Supportive public policy.* The property value premium that transit generates cannot be realized unless there are supportive public policies in place that are targeted toward leveraging transit's added value through measures such as density bonuses, reduced parking requirements, and incentives for TOD. Good planning and supportive policies can help to maximize the overall value of property within a station area. Reduced parking requirements for office or residential development near transit can be particularly effective in supporting value creation from the standpoint of a developer's bottom line. Not only is parking very expensive to build, but reducing parking requirements can also leave room for more revenue-generating uses.
- *Traffic congestion.* Because it provides potential demand for TOD, as well as a built-in market for ridership, the existence of severe traffic congestion is another key element for value creation. When a region's residents and workforce population experience the daily traffic delays, automobile accidents, and excessive fuel consumption that characterize a congested road network, driving can become a less appealing option. A high level of congestion tends to encourage the political will of a region's voters and elected officials to support transit and TOD. In addition, rising gas prices and increasing concern about the environment will likely mean that transit will become an even more appealing option over time.

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<sup>17</sup> R. Cervero et al., Report 102, Transit Cooperative Research Program, 2004.

<sup>18</sup> Belzer, D. et al. *Transit-Oriented Development: Moving from Rhetoric to Reality*, The Brookings Institution Center on Urban and Metropolitan Policy and The Great American Station Foundation, 2002.