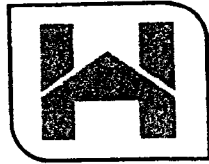


EXHIBIT 108

APPRAISERS AND CONSULTANTS



HANNOCH APPRAISAL COMPANY

11 STONEWALL DRIVE., LIVINGSTON, N.J. 07039-1821 PHONE (973) 994-0900
FAX (973) 740-0376

FRANKLIN HANNOCH, MAI, CRE
(1899-1971)

FRANKLIN HANNOCH JR., MAI, CRE
JAMES C. HANNOCH, GAA, RM, CRE

EUGENE J. REILLY JR., GAA, CTA

April 6, 1999

Mr. Cary Begun, Manager
Administrative Services
Maxus Energy Corporation
717 North Harwood Street
Dallas, Texas 75201

RE: **Chemical Land Holdings, Inc.**
80-120 Lister Avenue
Newark, NJ

Dear Mr. Begun:

In accordance with your request we submit herewith our appraisal of the above-captioned property which consists of 5.82 acres of industrial land known as Block 2438, Lots 57 and 59, on the tax maps of the City of Newark, Essex County, New Jersey. The subject property is "contaminated," and is known as the "Diamond Alkali Superfund Site." Special Limiting Conditions are contained on page 2 of the report.

After careful consideration of all factors which relate to the market value of the fee simple interest in the subject property as of March 9, 1999, we estimate its worth as follows:

Subject Property "As if Clean"	\$ 875,000
Unexpended Remedial Costs:	(\$ 18,000,000)
Subject Value "As Is"	<u>\$ -17,125,000</u>

(Negative) - \$17,125,000

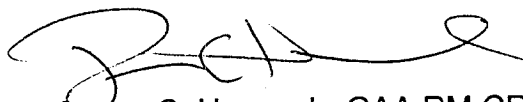
(Negative) Seventeen Million One Hundred Twenty Five Thousand Dollars

Mr. Cary Begun
April 6, 1999
Page 2

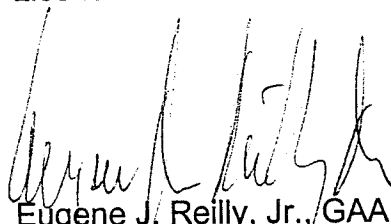
RE: Chemical Land Holdings, Inc.
80-120 Lister Avenue
Newark, New Jersey

We wish to certify that we have no present or contemplated future interest in this property and that this estimate of its worth is prepared in accordance with the Uniform Standards of Professional Appraisal Practice.

Sincerely yours,



James C. Hannoeh, GAA, RM, CRE
State Certified General
Real Estate Appraiser
License RG-01188



Eugene J. Reilly, Jr., GAA, CTA
State Certified General
Real Estate Appraiser
License RG-00304

JCH/EJR:fc

L-BEGUN.SAM

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HANNOCH APPRAISAL COMPANY

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ADDENDA

Subject Photos
Subject Aerial Photo
Overview Map
Location Map
Subject Tax Map
Subject Site Survey
Subject Zoning Map
Subject Site History
Projected Site Remedial Costs
Land Sales Location Map
Miscellaneous Market Data
Demographic Information
Appraisal Terminology
Assumptions & Limiting Conditions
Qualifications

SUMMARY OF IMPORTANT FACTS AND CONCLUSIONS

Purpose of the Appraisal

To estimate the market value of the fee simple interest in the subject property as of March 9, 1999.

Subject Description

The subject property consists of 5.82 acres of industrial land known as Block 2438, Lots 57 and 59 on the tax maps of the City of Newark. (Special Note: The subject property is contaminated and is known as the "Diamond Alkali Superfund Site". Please read the Special Limiting Conditions found on Page 2 of this report).

Valuation Date

March 9, 1999

Highest and Best Use

As If 'Clean': Industrial development.
As Is: Storage site for past and present contaminants.

Estimated Exposure Time & Marketing Time

Exposure Time: The market value(s) reported herein presumes proper exposure to the marketplace with competent marketing and brokerage services at a theoretical point in time that precedes the date of valuation, at an asking price within 10% of the reported value estimate. Marketing Time: The length of time required if the subject were to be marketed immediately subsequent to the date of valuation, assuming corresponding pricing, competent brokerage and exposure.

Exposure/Marketing Time As If 'Clean': 12 Months/12 Months
Exposure/Marketing Time As Is: The subject, as is, is unmarketable.

APPLICABLE APPROACHES AND CONCLUSIONS

Sales Comparison Approach Value Estimate \$875,000 (As If 'Clean')
Sales Comparison Approach Value Estimate -(\$17,125,000) (As Is)

Final Estimate of Market Value: (Negative) -\$17,125,000

Special Limiting Conditions

The subject property is an improved industrial site that is contaminated to such an extent that it is identified as the "Diamond Alkali Super Fund" cleanup site by the Environmental Protection Agency (EPA). Dioxin, heavy metals, 24D, 245T and other hazardous chemicals were found in 'detectable levels' at the site in 1983. Most of the contaminants left behind are residuals of products that were manufactured at the site such as the 'Agent Orange' defoliant and the 'DDT' insecticide. Activity at the site has been limited to the containment and control efforts since June 2, 1983 when Governor Thomas Kean issued Executive Order #40 which has guided site cleanup efforts ever since. Restricted access to the site (due to continuing hazardous conditions) precluded a full on-site inspection by the appraisers. The appraisers inspected the subject site from the street, and relied on aerial photos, tax maps and a site plan for further descriptive purposes.

The bulk of the subject site presently serves as a storage facility for soil and contaminants extracted from the site and surrounding environs that are mostly contained within metal drums and metal box containers, as well as mounded piles of soil. The mounds and vessels holding the contaminants have been encapsulated with coverings such as paving and/or a weighted, protective covering to eliminate off-site migration of the material. A large warehouse-type building is still present at the site and contains hazardous materials. Access to the site is restricted, and there is a guard posted twenty-four hours a day to prevent unauthorized access or trespass. The entirety of the site is enclosed by chain link fencing with barbed wire and/or razor wire skirting. Property representatives estimate that approximately \$32,000,000 has been spent in containment efforts to date, with at least another estimated \$18,000,000 in near term costs anticipated. These expenditures do not clean the site but serve only to encapsulate and monitor the contamination. It is unknown what the what the ultimate cost to clean the site would be.

The subject property, due to its substantial contamination and stigma, is unmarketable. We have nonetheless been asked to appraise the 'market value' of the fee simple interest in the subject property. Our appraised value (a negative number) is not consistent with the common definition or behaviors associated with 'market value', which presumes, among other things, that competing purchasers exist who perceive the value of the subject property to be a positive number. The negative valuation implies a dollar value that the current owner would need to pay to a 'purchaser' in addition to transference of title to the property. Such behavior is not found in the market. The typical owner response to a property that has significant negative value is abandonment. (The City of Newark has become owner of many tainted sites due to abandonment).

No standard of appraisal methodology exists for appraising similarly tainted properties. We have thus employed in this valuation a methodology that reflects our best judgment of how to recognize the encumbrance of the cleanup costs that remain to be expended by treating those costs as a 'cost to cure', applied against the value of the subject site 'as if cleaned'. The 'as if cleaned' value reported herein is a purely hypothetical value, developed for the sole purpose of constructing the appraisal methodology utilized to estimate the 'as is' value.

Legal Description & Identification Of The Property

The street address of the subject property is 80-120 Lister Avenue, in the City of Newark, Essex County, New Jersey. The site is legally described on the tax rolls of Newark as: Block 2438, Lots 57 And 59. A metes and bounds description of the subject site is provided within a site plan, provided by the client.

Title History

The last arms-length transfer of title was in excess of ten years ago. The property is owned by Chemical Land Holdings, Inc.. Use and occupancy of the site is encumbered by Executive Order #40, issued by (then) Governor Thomas Kean on June 2, 1983. (See 'Special Limiting Conditions" section found on Page 2.).

Function Of The Appraisal

This appraisal has been prepared for the sole use and benefit of Chemical Land Holdings, Inc., to be used for the function of acquiring riparian land rights along the subject's border with the Passaic River from the New Jersey Tidelands Resource Council. It has been written in accord with the Uniform Standards of Professional Appraisal Practice. Any unauthorized use of this report by any party for any other function or purpose is strictly prohibited.

Ownership Rights Appraised

Fee Simple is absolute, without limitations to any particular class of heirs or restrictions. All estates in real property are subject to, and limited by, the four powers of government: taxation, eminent domain, police power, and escheat.

Purpose of the Appraisal

The purpose of the following appraisal is to estimate the market value of the fee simple interest in the subject property.

MARKET VALUE DEFINED

"The most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller, each acting prudently, knowledgeably and assuming the price is not affected by undue stimulus. Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

1. Buyer and seller are typically motivated.
2. Both parties are well informed or well advised, and acting in what they consider their own best interest;
3. A reasonable time is allowed for exposure in the open market;
4. Payment is made in terms of cash in U.S.. dollars or in terms of financial arrangements comparable thereto; and
5. The price represents the normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale."

Source: Federal Register, vol. 55, no. 163, August 22, 1990, pages 34228 and 34229 and as promulgated by the Uniform Standards of Appraisal Practice by The Appraisal Foundation.

'As If Clean' and 'As Is' Values Defined

This appraisal will estimate the market value of the subject property "As If Clean" and "As Is".

The "As If Clean" value assumes that the property has never been contaminated. This value is hypothetical as it will never apply to the subject.

Typically, the "As Is" value deducts from the "As If Clean" conclusion all costs associated with site clean up, resulting in a valuation "As If Cleaned", a scenario that would also account for any stigma that might apply post cleanup. In the instant case, because the known costs to control (not clean) the subject are so great, this analysis has not been made.

Scope Of The Assignment

Hannoch Appraisal Company has been contracted by Maxus Energy Corporation (an affiliate of Chemical Land Holdings, Inc.) to perform an appraisal of the fee simple interest in the subject property.

James Hannoch and Eugene Reilly performed a limited physical inspection of the subject premises and collected all factual property data reported herein. The analyses, projections and conclusions reported herein were performed jointly by James Hannoch and Eugene Reilly. This appraisal report is the end product of an appraisal process (see section on Appraisal Procedures later in this report) that began with a physical inspection of the subject, at which time specific characteristics of the site were noted and recorded.

The data utilized within this report has been collected from public record, personal inspection and third party reporting systems. The market conveyances have been verified as to the arm's length nature of the transactions, and that all conditions requisite to a "market transaction" were in place at the time of sale. We have also verified that each of the sales were environmentally 'clean' at the time of sale, at least to the satisfaction of state and federal regulatory agencies.

Our study included a consideration of the regional and local economy, value trends within the real estate industry, supply and demand, site limitations, zoning regulations, highest and best use, and market data derived from various sources that was verified to be arm's length in nature by one or more parties to the transaction.

Verification of facts and the determination of market trends included a review of public records, personal interviews with the municipal tax assessor, zoning officer, planning board representative, health officer, local brokers, and/or business owners.

Environmental Considerations

The subject site is highly contaminated with numerous hazardous chemicals and heavy metals. It is listed as the "Diamond Alkali Super Fund" site by the Environmental Protection Agency. Please refer to the "Special Limiting Conditions" section found on Page 2 of this report.

Special Assumptions- "As if Clean"

The "as if clean" valuation section of this appraisal is *purely hypothetical*, and is made under the assumption that the subject property is free and clear of any environmental condition which could affect its value or marketability. It is also assumed that title to the property is marketable and free and clear of all defects. *The subject property is, in fact, unmarketable, being highly contaminated with numerous hazardous chemicals and heavy metals. Please refer to the Special Limiting Conditions section found on page 2 of this report.*

Newark

The City of Newark, which is the County Seat of Essex County, is located in the south-easterly portion of the county. It comprises a land area of 23.81 square miles. Population was estimated in 1995 at 258,751 (1990 census was 275,221). This represents a significant decline from the 1970 census level of 381,930. However, Newark continues to maintain its status as the largest municipality in New Jersey. The reduction in population is largely attributable to migration of the residents to suburban areas and a general reduction in high density residential uses.

Newark has many different and distinctive sections ranging from neighborhoods with single family detached dwellings, blighted areas with a high proportion of physically deteriorated structures, a large downtown section characterized by many high-rise office buildings, and industrial areas and port facilities as well as the highly utilized Newark International Airport. While some sections have been in decline for many years, others have seen significant new development and redevelopment.

The real property of the municipality is divided into 38,582 parcels, of which:

Property Class	# Parcels	% Valuation
Vacant	5,525	3.73%
Residential	25,908	34.74%
Farm	0	0.00%
Commercial	4,837	38.39%
Industrial	1,124	15.52%
Apartments	1,188	7.62%
Total	38,582	100.00%

Thus, the City contains 38,582 tax parcels of which industrially developed properties represent 15.52% of the gross taxable valuation, which is a significantly high percentage by comparison to other northern New Jersey communities. The municipality is characterized primarily as an urban community with a 1990 population of 275,221. The population has been fairly stable, but declining over time, according to census data, which reflects a decrease of .0244% between 1990 and 1996 estimates. Most of the resident work force (123,808 persons) commute to employment within Newark or to employment centers located within a ten mile radius, including New York City. The median household income (1989) was reported to be \$21,650, with a per capita income of \$9,424 reported for the same period.

The Downtown Section of Newark had experienced severe decline during the period between the late 1960's and the early 1980's, with migration of businesses to suburban locations. Major corporate offices for the Prudential Insurance Company, Mutual Benefit Life Insurance Company, and Public Service Electric and Gas Company, remained in Newark sustaining the city during the decline. The Gateway Complex of high-rise office buildings developed in the 1980's near and around Penn Station, has attracted many professional and general business tenants and has been the nucleus of a limited "turn around" for downtown Newark. Several of the buildings have connected walkways and supporting commercial services and, of course, benefit from the access to rail transportation.

The recently constructed, State sponsored, New Jersey Performing Arts Center, built at a cost of more than \$300,000,000 has had a very positive influence on the downtown area, and discussions continue for plans to build a new riverfront center which will include a minor league baseball park. There is also a recent proposal for an indoor sports arena and soccer stadium to be located in Downtown Newark. The noted plans for revitalization however, rely on public funds or incentives such as tax abatements. Few major construction projects have taken place in Newark in the past twenty years that were funded solely by private investors. No significant private (or public) investment has taken place in industrial markets in Newark during the same period.

South and east of the downtown area is the section referred to as "Ironbound," so named because it is generally bounded by the elevated rail and highway system. This is one of the most revitalized sections of Newark, which has residential and business communities that have experienced significant growth in recent years. The industrial sections and Port Newark are located in this area and benefit from the easy access to major highways, the pool of available employees, and proximity to markets within the metropolitan area. Port Newark is a deep water facility which has large areas devoted to standard containerization. There has been a slow but definite shift away from heavy manufacturing to light industrial warehousing and distribution uses. Many of the older and obsolete industrial structures have high vacancy factors. Demand for warehouse space has been flat.

Newark is accessible via a number of high-traffic roadways. Interstates 78 and 280 and State Highways 21 and 22 are the major connecting highways, providing east-west and north-south travel routes through to intermittent suburbs. State Routes 1 & 9, 24, the Garden State Parkway and the New Jersey Turnpike all service the general area, and provide corridors for commuter and consumer passage. The state highways are often densely developed with commercial, retail and service businesses.

A photocopy of the page from the New Jersey Data Book summarizing various demographic information for the City of Newark is shown in the addenda of this report.

Neighborhood

The subject property is accessed via Lister Avenue, opposite the intersection of Joseph Street. The subject site is located in the eastern reaches of Newark, in an area that is almost exclusively industrially developed, on the western banks of the Passaic River. While the site is accessed via Lister Avenue, it does not have direct road frontage thereon; access to the site is provided via an easement over the land of others. There is an interchange between the New Jersey Turnpike (15E), Routes 1 & 9 and Doremus Avenue one-half of one mile from the subject. The neighborhood consists primarily of industrial uses including heavy manufacturing, warehouse, trucking terminals, and light industrial manufacturing buildings. Neighboring property uses include manufacturing operations such as Benjamin Moore Paints, Sherwin-Williams Paints, Hilton-Davis Pigments, Duralac, and a number of refinery operations. Railroad siding is adjacent to or available to most of the properties in the neighborhood. There are some abandoned, dilapidated industrial buildings located within a one mile radius, and some vacant land. There are few residential uses nearby, and those that exist sporadically in the neighborhood are old (90 years +/-) frame dwellings in poor condition that reflect severe obsolescence. Our inspection revealed few vacancies within the viable industrial buildings in the immediate area.

While industrial real estate brokers in northern New Jersey are optimistic about current market conditions in the greater market area, the Newark industrial markets have been relatively static. Newark has lost over 80,000 manufacturing jobs over the past four decades, comprising 80% of those employed in that sector of the economy. Private sector employment in general dropped from 200,000 in 1968 to 110,000 in 1990, reflecting a 45% loss in private sector jobs during that period. (Supporting statistical charts made available from the Newark Economic Development Corporation are included in the addenda to this report.)

With other markets showing signs of revitalization, growth and general stabilization, the local Newark industrial market has little to show by way of any recent development of industrially zoned land, or sales of new or existing industrial buildings. The subject location offers good accessibility with nearby direct major highway access. Properties in the area are comprised mostly of older buildings that are kept in generally serviceable condition. The struggling local economy and urban influences are evidenced by the tired infrastructure, incongruent land use, rampant graffiti, razor wire and barbed-wire trimmed security fences found throughout the general area.

Zoning

The subject property is located within the I-3 Zoning District of the City of Newark. The I-3 Zone permits primarily Industrial uses. The subject site is a legally conforming site. A Newark Zoning Map is presented in the addenda to this report.

Tax Assessments

The 1999 tax rate is not yet available. The 1998 real estate tax assessments on the subject property are reflected on the tax rolls of the City of Newark as follows:

<u>Block/Lot</u>	<u>Size</u> (Acres)	<u>Land</u>	<u>Improvement</u>	<u>Total</u>
2438/57	2.28	\$49,700	\$0	\$49,700
*2438/58	1.72	\$45,000	\$0	\$45,000
2438/59	1.82	\$39,200	\$0	\$39,200

*Note: Lots 58 & 59 are now combined into a single 'Lot 59' containing 3.54 acres.

Thus, the assessed valuation in the aggregate is \$133,900. The 1998 tax rate was \$24.28 per \$100 of assessed value. The aggregate 1998 real estate taxes are \$32,510.92. The 1998 County Equalization Ratio is 16.38% which reflects a hypothetical market value (for taxation purposes) of \$815,000 (Rd) or approximately \$140,000 per acre of land area. That indicated value reflects land value only with no consideration for any remaining improvements thereon. Tax assessments by case law do not typically reflect adverse environmental conditions such as exist at the subject property.

Site Description

The subject site consists of a 5.82 acre parcel identified as Block 2438, Lots 57 And 59, located within the City of Newark, Essex County, New Jersey. Electric utilities are above ground; the paved street access is provided along Lister Avenue with site amenities such as street lighting, central water, municipal sanitary sewers, storm sewers, fire hydrants, and natural gas service available. The subject site is technically landlocked; vehicular access being provided via an easement from Lister Avenue over the lands of others (specifically over tax lot 14). The eastern boundary of the site is comprised of the banks of the Passaic River. The site is irregular in shape. Overall land area comprised is 253,519 square feet or 5.82 acres. A tax map and a site survey located in the addenda to this report best illustrates the size and configuration of the aggregate parcel. The site topography is generally level at road grade.

Site Improvements

The site is enveloped by a chain-link fence with a barbed wire and razor wire skirt. A portion of the site is improved with an old warehouse building that is scheduled to be demolished and does not contribute any positive value to the subject property. Metal containers filled with contaminated material in storage are stacked on the site, but are not considered to be improvements. Please refer to the "Special Limiting Conditions" section found on page 2 of this report.

HIGHEST AND BEST USE

"The reasonably probable and legal use of vacant land or an improved property, which is physically possible, appropriately supported, financially feasible, and that results in the highest value. The four criteria the highest and best use must meet are legal permissibility, physical possibility, financial feasibility, and maximum profitability."*

* Source: The Dictionary of Real Estate Appraisal, Third Edition, Appraisal Institute, Chicago: 1993, page 171.

"As Is"

The subject site is contaminated with hazardous chemicals and has been identified as the 'Diamond Alkali' Superfund site by Federal environmental regulators. There are no allowable uses for which it may be utilized as long as it remains contaminated (see Special Limiting Conditions section on Page 2 of this report). The site will not be decontaminated to the extent that it may be considered to be 'clean' in the foreseeable future. Thus, the highest and best use of the site, 'as is', is to serve as a storage facility that contains past contaminants from migrating off-site.

"As If Clean"

To propose a scenario of valuation whereby we consider the subject to be "clean" is *purely hypothetical*. The site is not clean and will not be cleaned in the near or foreseeable future. However, were it clean, the zoning and surrounding improvements suggest that development with a heavy industrial use would be the highest and best use.

THE APPRAISAL PROCESS

The appraisal process, by tradition, calls for three approaches to value and each approach has a number of variations. They are identified as the Cost Approach, the Income Capitalization Approach and the Sales Comparison Approach. All of the approaches cannot be utilized in every appraisal assignment, and usually one carries more weight depending on the nature of the property or the interest therein being evaluated.

The typical property is appraised in Fee Simple at its Highest and Best Use, but often the appraiser is called upon to value a specific interest such as a Leased Fee Estate, or an easement. In all instances, the appraisal process involves an orderly procedure in which the appraiser gathers, classifies, analyzes and presents data through one or all of the approaches to arrive at a value conclusion.

The Cost Approach, known also as the Summation Approach, provides for adding together the value of the land, as if vacant, and the worth of the improvements depreciated from all causes. Land is typically valued by Sales Comparison, but other methods are available if sales are not present.

Improvements can be valued through the use of a Cost Manual, by trending original cost or a variety of other techniques. Accrued depreciation usually takes the form of physical deterioration, functional obsolescence or external obsolescence.

The Income Capitalization Approach generally applies to investment type property and involves the conversion of an income stream into a capital sum or value estimate through a variety of capitalization techniques. Capitalization is a discounting process which can be done on a simple straight line basis or by one of the more sophisticated annuity methods, yield capitalization or discounted cash flow procedures.

The Sales Comparison Approach is employed to estimate the value of land, as if vacant, and entire properties as improved. Comparable sales are researched, analyzed, adjusted for differences, reduced to some common denominator and applied to the property being appraised as a value indicator.

All three approaches are basically market driven inasmuch as the supporting data that documents each is presumed to come from the marketplace. For that reason, they should fall within a narrow range which the appraiser can further analyze in reaching a final value estimate.

Appraisal Procedure and Valuation

Income Approach and Cost Approach Not Applied

The Income and Cost Approaches have not been applied in this valuation assignment. While the site is technically improved with an old warehouse structure, it is not a structure that can be occupied or utilized, and is scheduled for demolition. Thus, the improvements in place have no value, as recognized by the municipal tax assessor, who has assessments placed on the land only. As we are left with only the land component to value, we have employed the single and most applicable approach to value for land appraisal: the Sales Comparison Approach. The Income Approach may also be utilized in land valuations in some instances, where market norms include land leasing, but such is not the case in the subject neighborhood.

The Sales Comparison Approach

The Sales Comparison Approach utilizes a comparative process and analysis of sales of similar vacant properties that have sold within the subject market area. Ideally, the sales utilized are recent enough to illustrate current market behavior. The Sales Comparison Approach embraces the principle of substitution, which holds that an informed investor will not pay more than it would cost to buy a comparable (substitute) property.

We begin the sales comparison process by searching the market area for comparable land sales. Once found, we perform a physical inspection of the site, and document the physical attributes present that may be considered important within the parameters of consideration employed by buyers and sellers within the marketplace.

The corresponding data is then verified for its accuracy by contacting either parties to the transaction, their agents, and/or municipal authorities if applicable. Once satisfied that the sales transaction was representative of market oriented conditions, and that enough information is known to properly report and analyze the sales correctly, the data is presented and analyzed utilizing recognized techniques for identifying and compensating for dissimilarities between the subject property and the respective sales utilized.

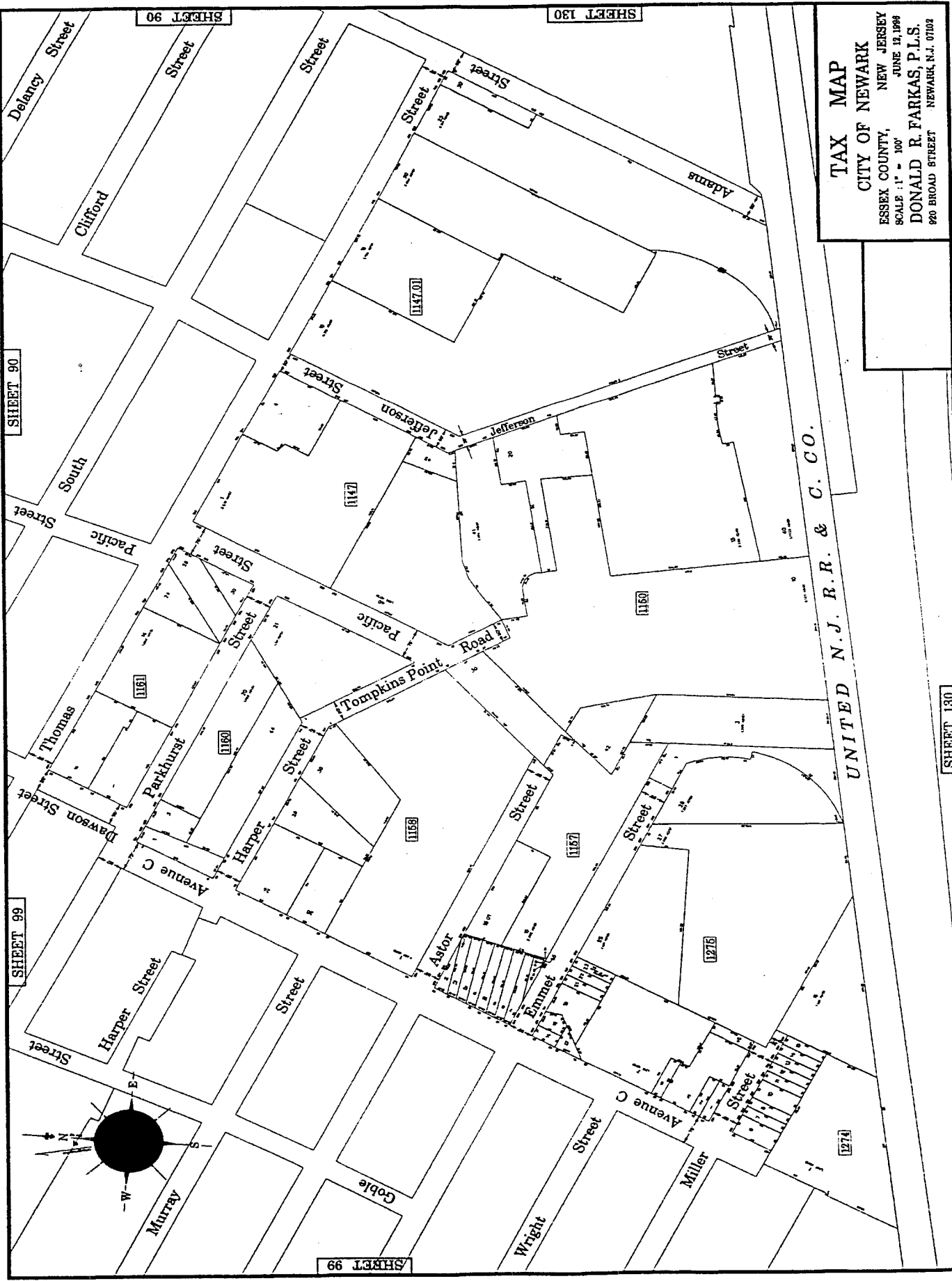


Land Sale #1

GRANTOR: EXTRA Leasing, Inc.
GRANTEE: Superior Carriers, Inc.
DATE: 4/24/97
LOCATION: 308-322 Thomas Street
Newark, N.J.
ZONING: I-3 Industrial
BLOCK/LOT: 1147/1
BOOK/PG: 5470/492
VERIFIED: Inspection, Broker, Public Record
PRICE: \$1,032,000
SIZE: 5.160 Acres
FINANCING: Cash to Seller
COMMENTS: This is a sale of an industrially zoned lot, "L" shaped, level, with frontage on both Thomas Street and Jefferson Street. Site sold vacant, without approvals in place. Site reportedly sold 'clean', no further action required. Grantee subsequently turned down on proposed development plan for tank washing operation, property is currently back on the market, offered at \$1,700,000.

Value Indicator: \$200,000 Per Acre

TAX MAP
CITY OF NEWARK
 ESSEX COUNTY, NEW JERSEY
 SCALE: 1" = 100'
 JUNE 12, 1988
DONALD R. FARKAS, P.L.S.
 920 BROAD STREET NEWARK, N.J. 07102



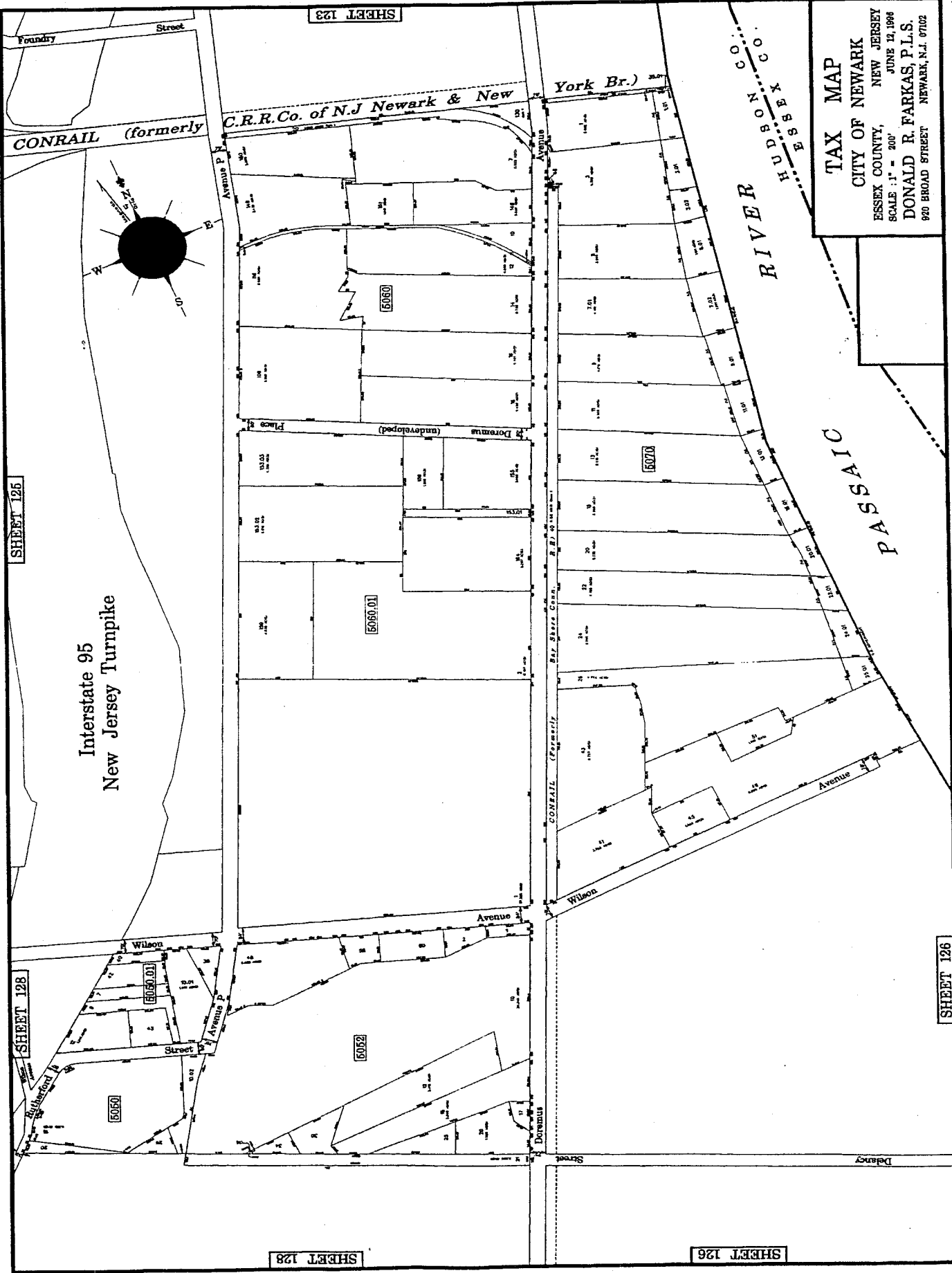


Land Sale #2

GRANTOR: Housing Authority of the City of Newark
GRANTEE: Gateway Urban Renewal Corporation
DATE: 9/27/96
LOCATION: 446-514 Avenue "P"
Newark, N.J.
ZONING: I-3 Industrial
BLOCK/LOT: 5060/59
VERIFIED: Inspection/Grantor/Public Record
PRICE: \$480,000
SIZE: 4.821 Acres
FINANCING: Cash to Seller
COMMENTS: This is a sale of an industrially zoned lot, level, mostly rectangular in shape. Site sold vacant, without approvals in place. Site subsequently developed with a truck terminal. Site sold 'clean' with no further action required.

Value Indicator: \$99,564 Per Acre

TAX MAP
 CITY OF NEWARK
 ESSEX COUNTY, NEW JERSEY
 SCALE: 1" = 200'
 JUNE 12, 1998
 DONALD R. FARKAS, P.L.S.
 920 BROAD STREET
 NEWARK, N.J. 07102

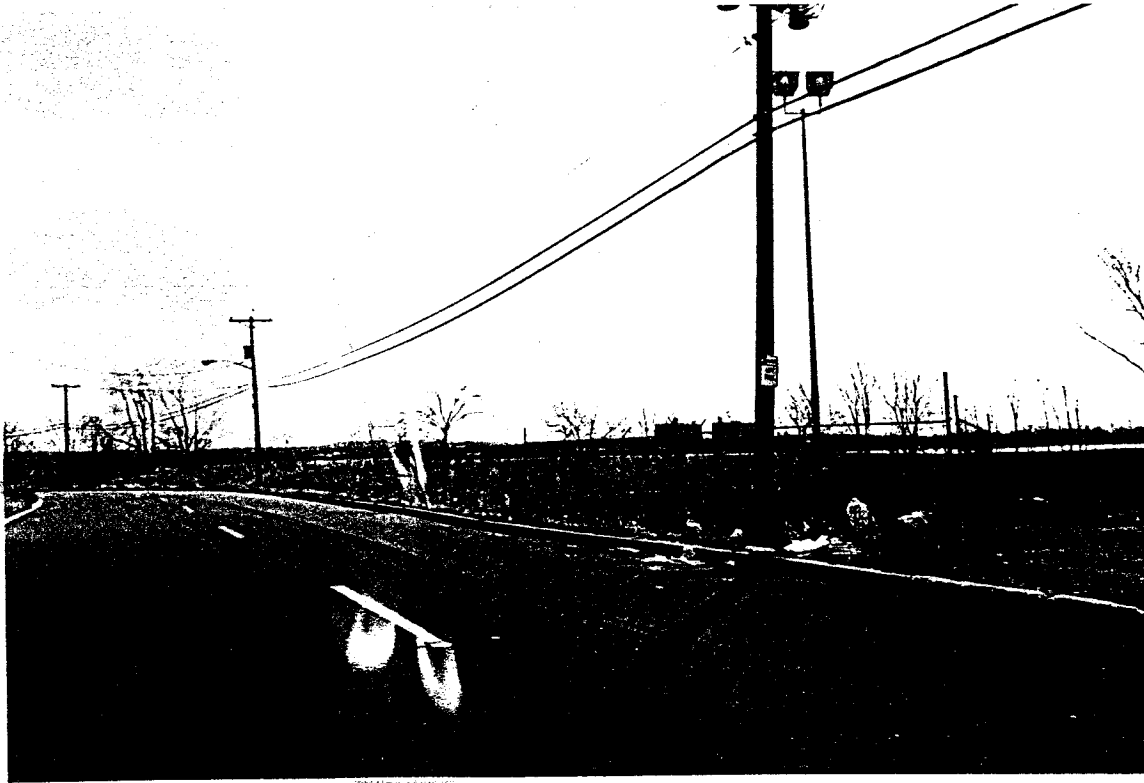




Land Sale #3

GRANTOR: Housing Authority of the City of Newark
GRANTEE: Industry Land Urban Renewal, Inc.
DATE: 2/2/95
LOCATION: 409 Wilson Avenue, Newark, NJ
ZONING: I-3
BLOCK/LOTS: 5020/69.01 & 92.02
BOOK/PAGE: 5353/99
PRICE: \$1,292,935
SIZE: 15.211 Acres
VERIFIED: Deed/Grantor/Public Record
FINANCING: Seller Financed.
COMMENTS: This is a sale of an industrially zoned lot, level, irregular in shape. Site sold vacant, without approvals in place. Site subsequently utilized for outdoor storage of containers. Site reportedly 'clean' at sale, with some environmental issues arising subsequent to sale.

Value Indicator: \$85,000 Per Acre



Land Sale #4

GRANTOR: Pride Urban Renewal Corp.
GRANTEE: City of Elizabeth
DATE: 7/3/96
LOCATION: 38-58 Slater Drive
Elizabeth, N.J.
ZONING: M-2 Medium Industrial
BLOCK/LOT: 1/789A
BOOK/PG: 4405/14
VERIFIED: Inspection/Public Record
PRICE: \$431,000
SIZE: 2.974 Acres
FINANCING: Cash to Seller
COMMENTS: This is a sale of an irregularly shaped industrial lot that is encumbered with several easements affecting about 40% of the site. Site borders on Newark Bay.

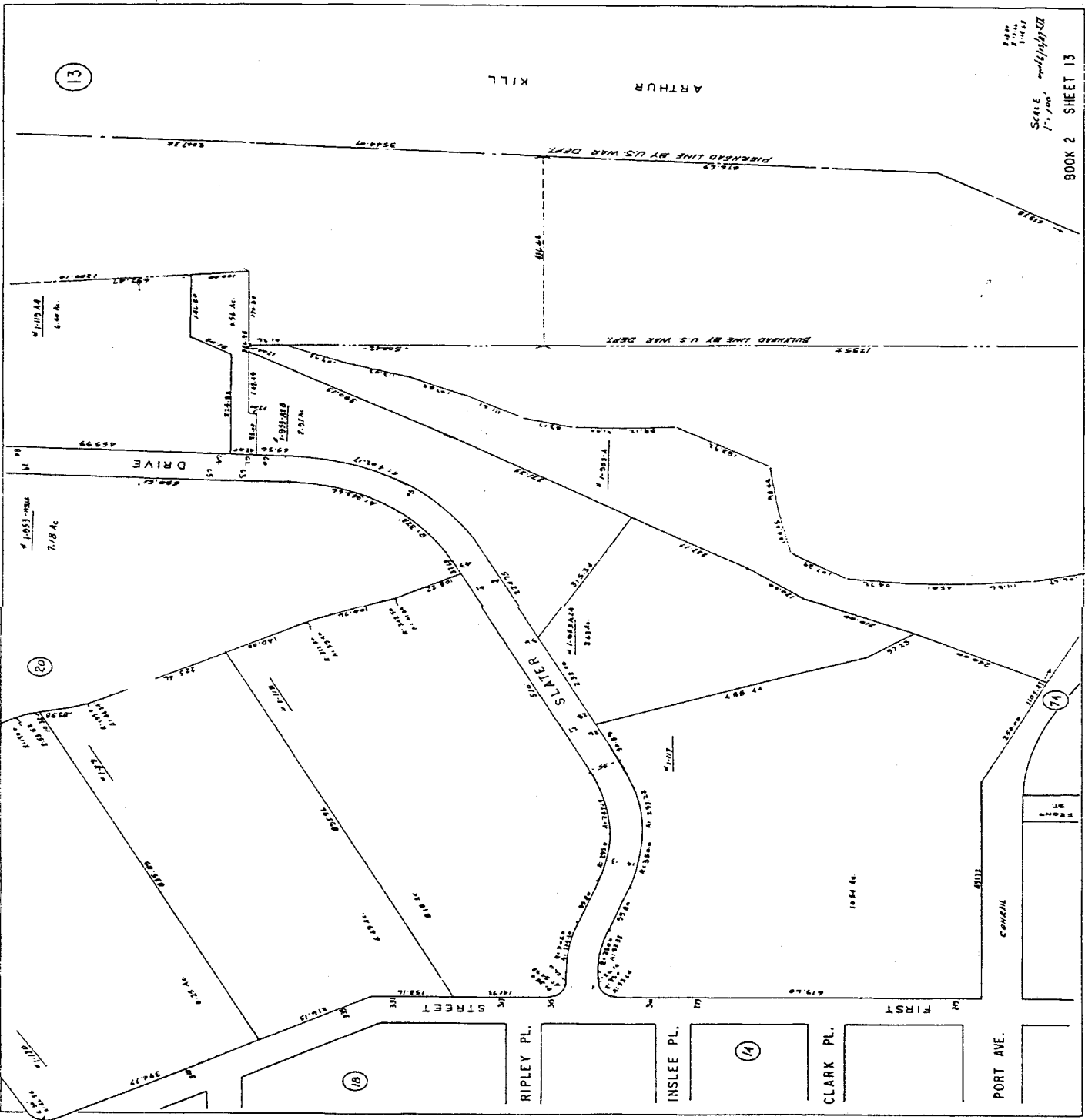
Value Indicator: \$144,923 Per Acre

SCALE 1"=100'
DATE 1-1-50
BY [signature]

BOOK 2 SHEET 13

ARTHUR KILL

(13)

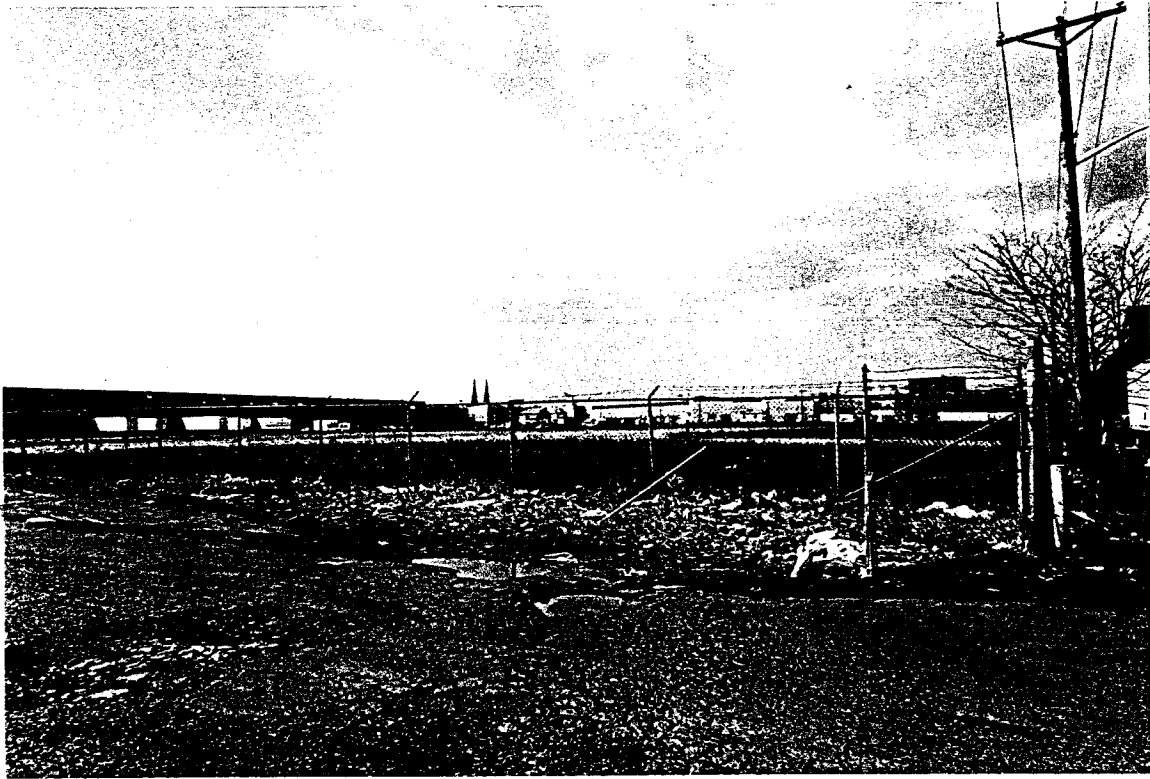


(20)

(14)

(18)

(14)



Land Sale #5

GRANTOR: S.A.J. Realty (AKA SAJ Realty Co.)
GRANTEE: Bayway Urban Renewal LLC/Co.
DATE: 4/21/97
LOCATION: 349-369 First Street
Elizabeth, N.J.
ZONING: M-2 Medium Industrial
BLOCK/LOT: 1/120
BOOK/PG: 4510/156
VERIFIED: Inspection/Public Record
PRICE: \$1,720,000
SIZE: 8.25 Acres
FINANCING: Cash to Seller
COMMENTS: This is a sale of a rectangular shaped industrial lot that was improved with a small industrial building that was demolished subsequent to sale.

Value Indicator: \$208,485 Per Acre

The preceding comparable land sales are displayed below in a grid to more easily illustrate items of difference and comparability. A detailed analysis of the adjustments made are discussed below.

SITE VALUATION DATE	03/09/99				
APPRECIATION/YR	0%				
	<u>SALE 1</u>	<u>SALE 2</u>	<u>SALE 3</u>	<u>SALE 4</u>	<u>SALE 5</u>
	THOMAS ST.	AVENUE P	WILSON AVE.	SLATER DR.	FIRST ST.
	NEWARK	NEWARK	NEWARK	ELIZABETH	ELIZABETH
SITE SIZE (ACRES)	5.16	4.82	15.21	2.97	8.25
SALE DATE	Apr-97	Sep-96	Feb-95	Jul-96	Apr-97
ESTATE CONVEYED	FEE	FEE	FEE	FEE	FEE
SALE PRICE	\$1,032,000	\$480,000	\$1,292,935	\$431,000	\$1,720,000
SALE PRICE/ACRE	\$200,000	\$99,564	\$85,000	\$144,923	\$208,485
TIME ADJUSTMENT	\$0	\$0	\$0	\$0	\$0
SALE \$ AFTER TIME	\$1,032,000	\$480,000	\$1,292,935	\$431,000	\$1,720,000
ADJUSTMENTS:					
LOCATION	-10%	0%	0%	-5%	-5%
FRONTAGE	-10%	-5%	0%	-5%	-10%
TOPOGRAPHY	0%	10%	10%	0%	0%
PUBLIC SALE	0%	25%	25%	0%	0%
SIZE	0%	0%	20%	-10%	0%
CONFIGURATION	-5%	0%	0%	20%	-10%
	-----	-----	-----	-----	-----
NET ADJ (AFTER TIME)	-25%	30%	55%	0%	-25%
ADJ'D SALE PRICE	\$774,000	\$624,000	\$2,004,049	\$431,000	\$1,290,000
ADJ'D SALE \$/ACRE	\$150,000.00	\$129,433.73	\$131,749.98	\$144,922.66	\$156,363.64

Comparability

Each of the land sales shown are considered to be comparable to the subject and good indicators of value. The sales utilized represent the best available sales of vacant industrial land found in our study. Our study of land sales considered property transfers recorded in the public record. Each of the sales utilized have been verified as arm's length transactions.

Each of the sales utilized are good indicators of market value, however adjustments must be made to each to account for differences in the terms of sale (i.e., cash equivalency), market conditions (i.e., time), and physical differences such as location and size. After giving consideration to all of these variables, it was found that adjustments were only necessary for the following items:

Time

The sales utilized have been transacted at a point in time that is fairly recent and within the parameters of a stabilized economic environment and modest growth trends. Thus, the sales utilized have not been adjusted for time.

Location

Comparable Sale #1 has a superior location in a Newark neighborhood with greater accessibility and overall appeal. Comparable Sales #4 and #5 are both located in Elizabeth, with a superior overall appeal. Each of the sales has been adjusted downward accordingly.

Configuration

Comparable Sale #4 has an inferior configuration with an awkward shape that inhibits maximum utility. The subject site is irregular, but less so than Sale #4. Sales #1 and #5 had more favorable configurations and were adjusted downward.

Topography

Sales # 2 and #3 have been adjusted to reflect some below grade (and possibly wet) topography.

Public Sale

Sales # 2 and #3 have been adjusted to reflect non-market motivations. These properties were sold by the City with the motivation of putting this land back into private ownership towards the greater goal of putting ratables back onto the tax rolls and assisting local job growth at the same time.

Road Frontage

The subject has no road frontage, and is accessible only via an easement over the lands of others. Each of the sales had direct road frontage and have been adjusted downward.

Size

Sales #3 and #4 have been adjusted to reflect the inverse relationship between price and size.

General Market Observations

The sales that have been utilized in our study reflect the most recent activity for 'clean' industrial sites in the Newark industrial market area. It is important to note that 'clean' is a relevant term in this industrial market area. All of the parties we spoke with in the verification process (regulatory bodies, grantors, grantees, etc.) conceded that these sites were 'as clean as you can get' for Newark industrial land, accepting the fact that by absolute standards, virtually all of the land in older industrial areas (such as Newark) has been affected by one type of contamination or another. Even sites that have never been developed can be found to have problems due to off-site migration of contamination from neighboring properties, from the victimization of illegal dumping, or from contaminants found in historical fill materials.

It is also important to note that the sales shown reflect only a select few of the dozens of land transactions that we found in the course of our study. Still, there were very few industrial land sales that have taken place in recent history whereby the grantee has subsequently built (or planned to build) an industrial building. By way of example, industrially zoned land near the Newark Airport is decidedly under a much different influence than the industrial land found along Lister Avenue, and sales there were subsequently developed for non-industrial uses such as parking lots or hotels. There is no such 'dual' or 'alternative' use available to sites located in the subject neighborhood, which is too far from the airport to be influenced by it and too densely improved with existing heavy manufacturing uses to feasibly permit any other use but industrial. Thus, we narrowed our sales search to industrial land that was sold for *subsequent industrial development* and not sales that may have been influenced by alternative development factors.

All of the sales are a little older than is preferred, however, no data exists that would suggest a significant change in value has occurred over time. All of the land sales presented are reflective of the most recent available data, and are considered to reflect current indicators. The absence of more recent sales data is, in itself, market data. It reflects on the absence of demand for industrial development in the Newark market area as manufacturing sector jobs leave the northeast economy and the market expresses a distinct preference for warehouse locations in suburban areas.

The sales comparison results in a wide range of value indicators, as do the unadjusted indicators. It is important to note that there was no consistency exhibited in any of the vacant land segments that we studied. The indicators are as sporadic and as wide as their timing and the distance (in time) between them. We conclude from the disparity in market indicators and the absence of recent sales transactions that there is not a consistent market for industrial land in the subject marketplace, and that if the subject site were vacant, clean and available for sale there may be an extended marketing period to achieve a sale.

The adjusted sales reflect a value range between a low of \$129,433 and a high of \$156,363 per acre of land area. Based on the sales presented and the stated analysis, it has been estimated that a reasonable unit value for the subject property, assuming it to be 'clean' and unencumbered by regulatory concern for past or present contamination, is \$150,000 per acre of land area. This results in the following value estimate:

$$5.82 \text{ Acres} \times \$150,000 = \$873,000, \text{ say, } \mathbf{\$875,000 \text{ (Rd.)}}$$

Value Estimate "As Is"

Above and on the preceding pages, we have developed a hypothetical value for the subject property "as if clean". The subject site is not clean however, and the costs associated with site remediation need to be deducted to reflect the financial burden that encumbers ownership of this site. In the addenda to this report, there is a schedule of near term site remediation components and remedial construction accompanied by projected costs. These costs serve only to encapsulate and monitor the subject. It is unknown what the actual expense of clean up would be. As noted earlier in this report, we will apply the *unexpended* remediation costs (there has been an estimated \$32,000,000 +/- spent to date) against the estimated value 'as if clean' to arrive at an estimate of the subject property 'as is', thus:

Subject Property "As If Clean":	\$ 875,000
Unexpended Remedial Costs:	<u>(\$18,000,000)</u>
Subject Value "As Is":	(\$17,125,000)

Less Than (Negative) -\$17,125,000
(Negative) Seventeen Million One Hundred Twenty Five Thousand Dollars

CERTIFICATION

We certify that to the best of our knowledge and belief:

The statements of fact contained in this report are true and correct.

The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions, and are our personal, unbiased professional analyses, opinions, and conclusions.

We have no present or prospective interest in the property that is the subject of this report, and we have no personal interest or bias with respect to the parties involved.

Our compensation is not contingent on any action or event resulting from the analyses, opinions, or conclusions in, or at the use of, this report.

Our analyses, opinions, and conclusions were developed, in conformity with the Uniform Standards of Professional Appraisal Practice (USPAP) as promulgated by the Appraisal Foundation.

The Appraisal Institute conducts voluntary programs of continuing education for their designated members. Designated members who meet the minimum standards of this program are awarded periodic education recertification. James Hannoeh is certified under this program.

That we are in compliance with the Competency Provision in the USPAP as adopted in FIRREA 1989, and have sufficient education, and experience to perform the appraisal of the subject property.

ADDENDA

HANNOCH APPRAISAL COMPANY



SUBJECT PROPERTY AT REAR



SUBJECT PROPERTY - SECURITY BUILDING

HANNOCH APPRAISAL COMPANY



LISTER AVENUE FACING WEST

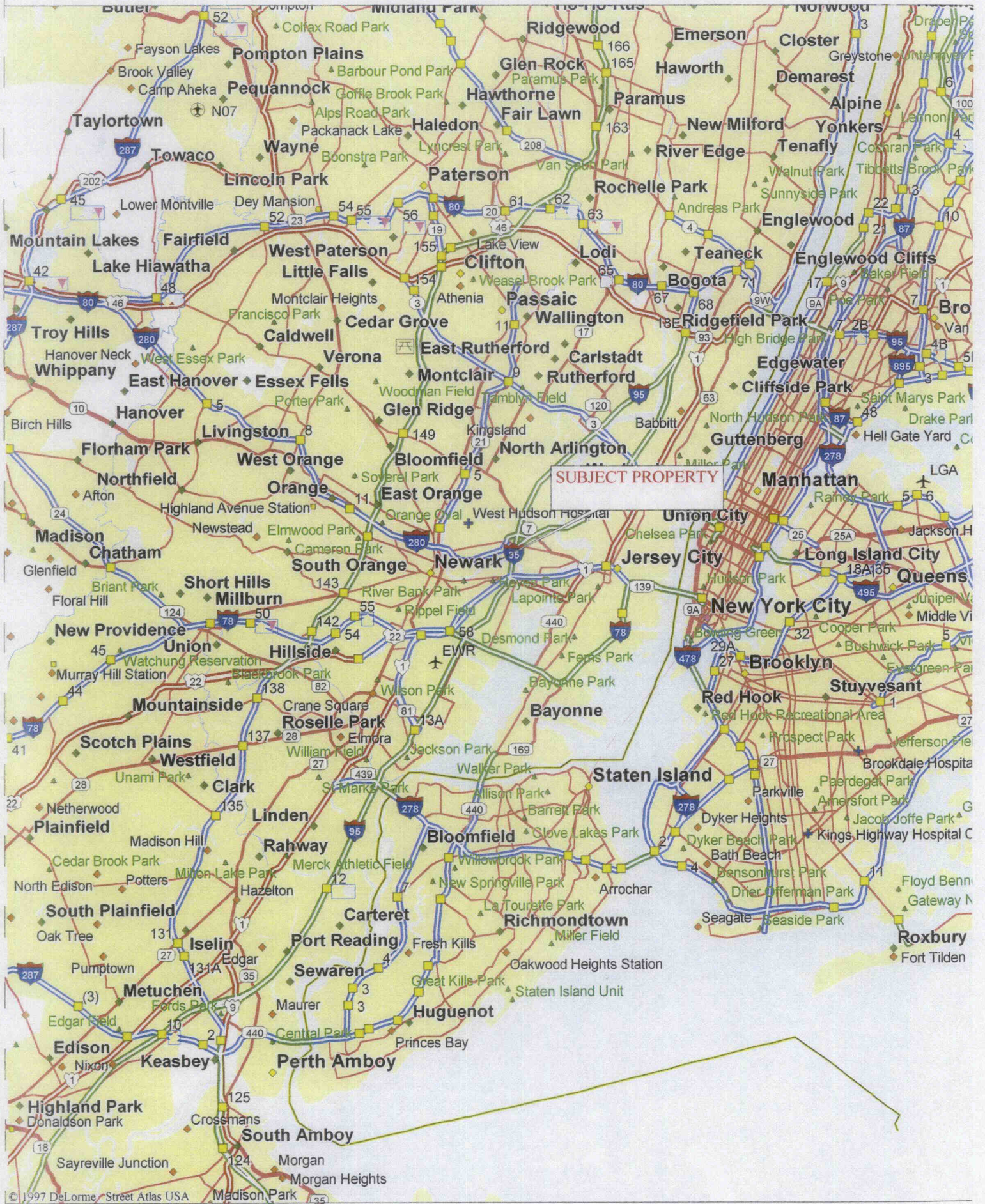


LISTER AVENUE FACING EAST

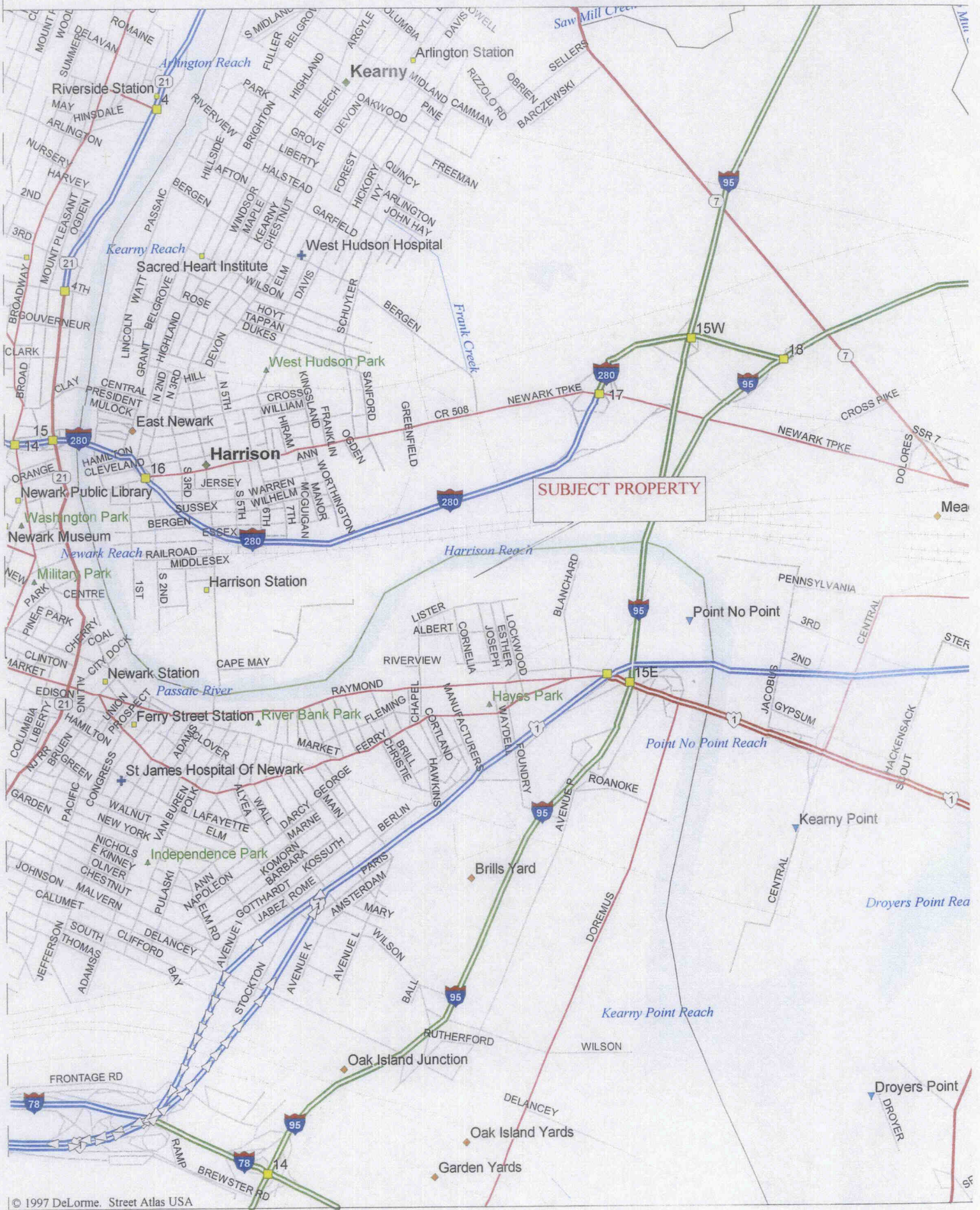
HANNOCH APPRAISAL COMPANY



OVERVIEW MAP



LOCATION MAP



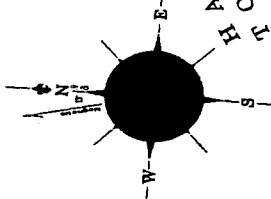
© 1997 DeLorme. Street Atlas USA

KEARNY
TOWNSHIP

HUDSON COUNTY
ESSEX COUNTY

PASSAIC RIVER

HARRISON



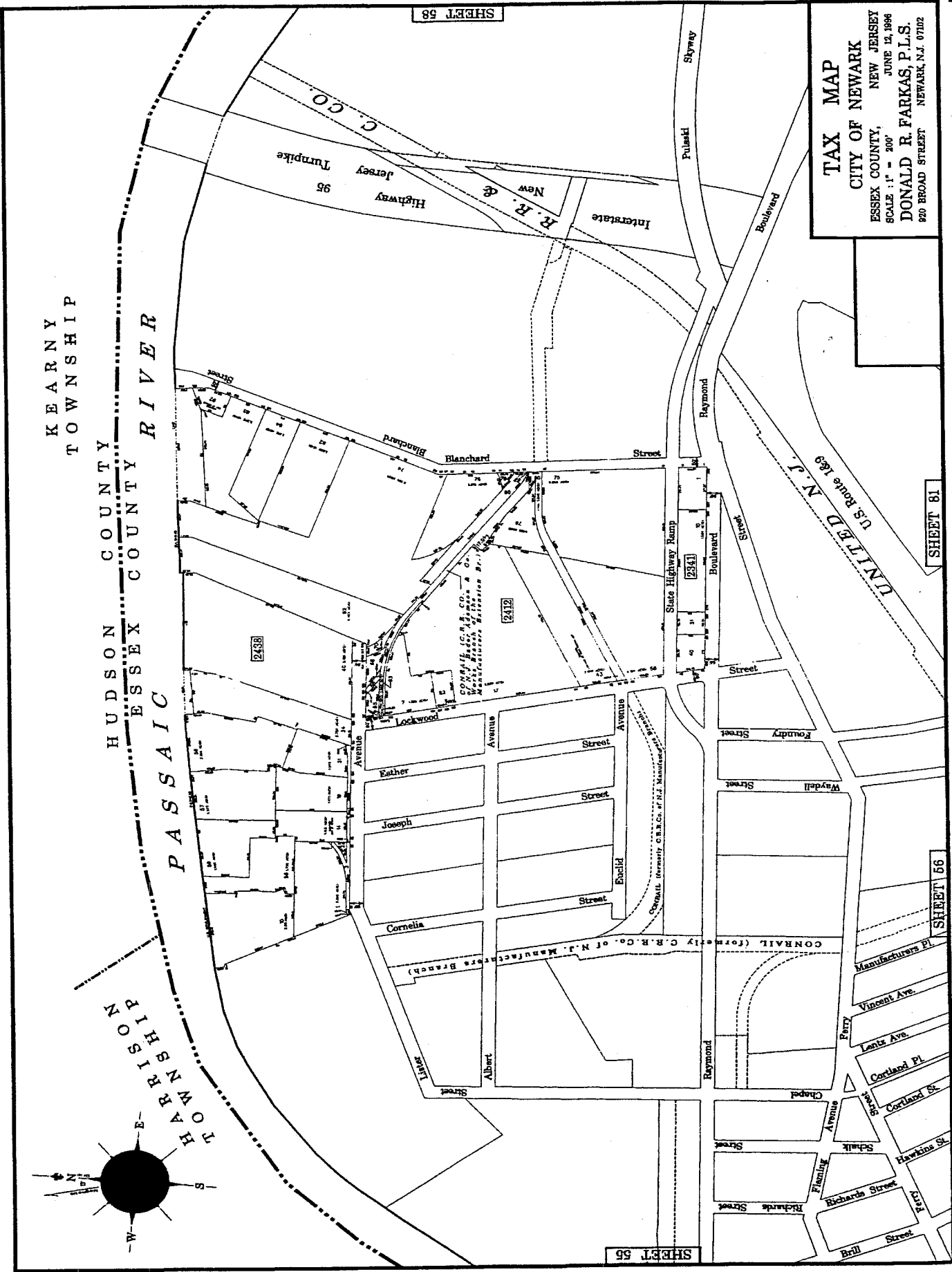
SHEET 58

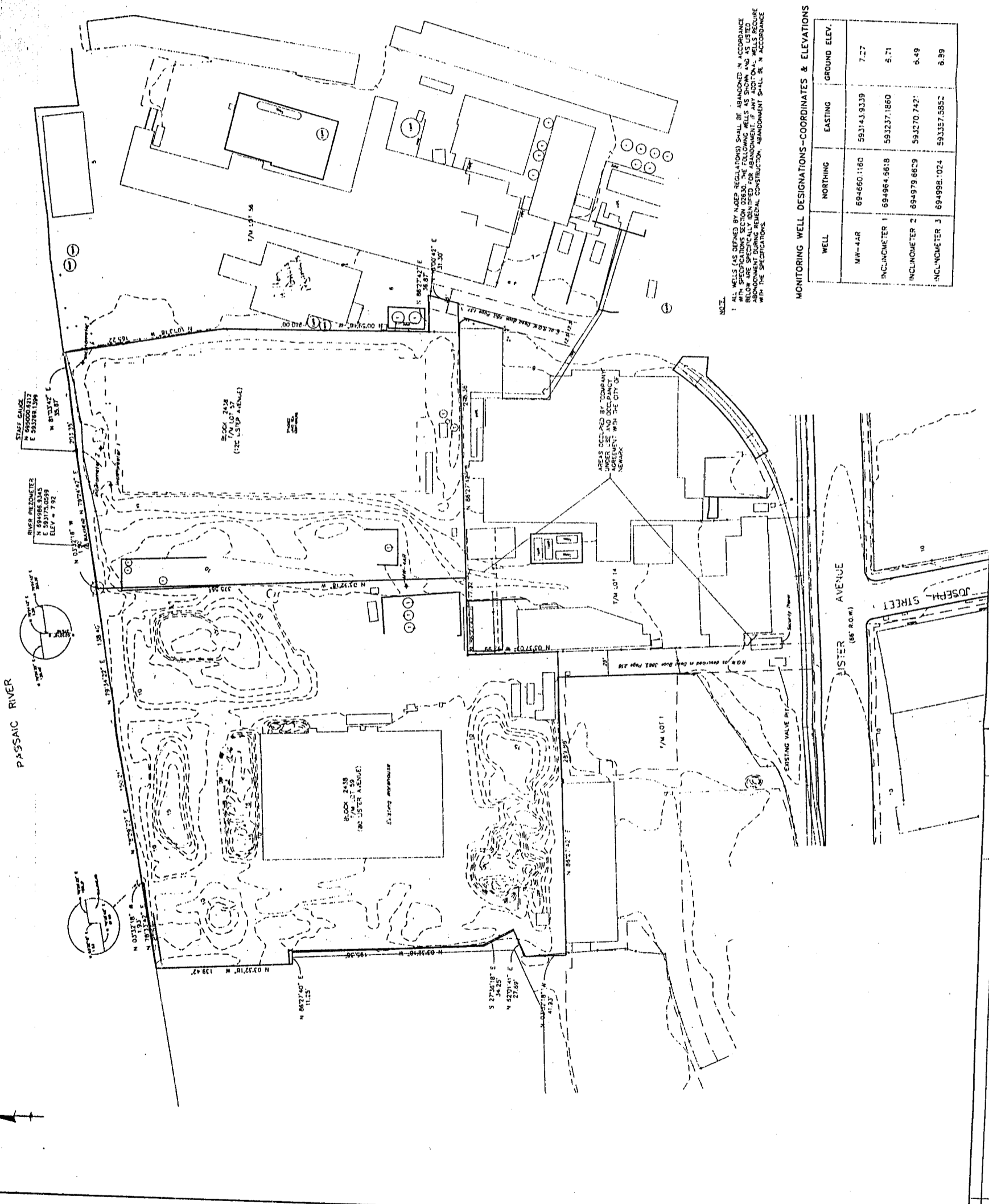
SHEET 56

SHEET 81

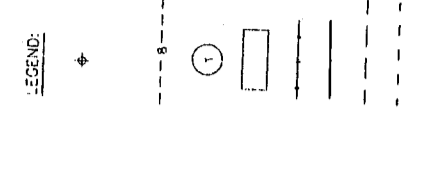
SHEET 86

TAX MAP
CITY OF NEWARK
 ESSEX COUNTY, NEW JERSEY
 SCALE: 1" = 300'
 JUNE 12, 1986
DONALD R. FARKAS, P.L.S.
 920 BROAD STREET NEWARK, N.J. 07102





- NOTES:**
- BASE MAP ON THIS DRAWING IS ADAPTED FROM A DRAWING ENTITLED "TOPOGRAPHIC SURVEY FOR TAX MAP LOTS AND BLOCKS 2438 AND 2439, PARCELS 2438 AND 2439, COUNTY OF NEW JERSEY, PREPARED BY FRENCH & PARIBELLO ASSOCIATES, INC., ECKENFELDER, INC. THE ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF SAME.
 - THE SURVEY DATA FOR THIS DRAWING WAS PROVIDED BY FRENCH & PARIBELLO ASSOCIATES, INC. AND FRENCH & PARIBELLO ASSOCIATES, INC. ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF SAME.
 - LOCATIONS AND ELEVATIONS OF MONITORING WELLS, INCLINOMETERS, OTHER EXISTING STRUCTURES, AND OTHER PHYSICAL FEATURES ARE TAKEN FROM THE BASE DRAWING REFERENCED ABOVE.
 - ELEVATIONS REFER TO NGVD (1929) MEAN SEA LEVEL UNLESS OTHERWISE NOTED.
 - FOR DETAILS REGARDING THE AREAS COVERED BY LICENSING AGREEMENTS, REFER TO THE USE AND OCCUPANCY AGREEMENT BETWEEN THE CITY OF NEWARK AND CRITICAL LAND HOLDINGS, INC.
 - ACCESS TO THE SITE IS LIMITED TO THE EXISTING RIGHTS OF WAY AND THE EXISTING ALLEYS.
 - ALL WORK IS TO BE PERFORMED ON AND WITHIN THE BOUNDARIES OF THE SITE UNLESS OTHERWISE NOTED IN THE CONTRACT DOCUMENTS OR THIS DRAWING. THE CONTRACTOR SHALL VERIFY THE PROPERTY SURVEY DATA HEREON BEFORE COMMENCING WORK. THE CONTRACTOR SHALL VERIFY THE PROPERTY SURVEY DATA HEREON BEFORE COMMENCING WORK. THE CONTRACTOR SHALL VERIFY THE PROPERTY SURVEY DATA HEREON BEFORE COMMENCING WORK. THE CONTRACTOR SHALL VERIFY THE PROPERTY SURVEY DATA HEREON BEFORE COMMENCING WORK.
 - CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES AND UNDERGROUND CONDUITS AT THE START OF CONSTRUCTION.
 - FOR APPROXIMATE LOCATIONS OF IDENTIFIED UNDERGROUND CONDUITS, SEE DRAWING 9527-001A.
 - LIMITS OF EXISTING CONCRETE SLABS, INDICATED ON THIS OR OTHER DRAWINGS, SHALL BE VERIFIED BY THE CONTRACTOR BEFORE ANY DEMOLITION, EXCAVATION, OR OTHER WORK IS UNDERTAKEN. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION AND DEPTH OF ALL EXISTING UTILITIES AND UNDERGROUND CONDUITS AT THE TIME OF BID PREPARATION AND TO FACTOR ALL THEN CURRENT SURFACE AND SUBSURFACE CONDITIONS INTO THE BID.
 - BLOCK 2438 7/4 LOT 59 (1:41:50 LISTED AVE.) REPRESENTS THE LIMITS OF THE EXCLUSION ZONE.
 - DUO TO SITE ACTIVITIES OCCURRING IN THE TIME PERIOD FOLLOWING THE INCORPORATION OF THE SURVEY DATA SHOWN HEREON, THE FEATURES SHOWN HEREON MAY NOT REFLECT THE ACTUAL SURFACE CONDITIONS. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL EXISTING UTILITIES AND UNDERGROUND CONDUITS AT THE TIME OF BID PREPARATION AND TO FACTOR ALL THEN CURRENT SURFACE AND SUBSURFACE CONDITIONS INTO THE BID.



NOTE:

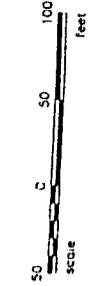
1. ALL WELLS (AS DEFINED BY NADP REGULATIONS) SHALL BE INSTALLED IN ACCORDANCE WITH SPECIFICATIONS SECTION 02630. THE FOLLOWING WELLS AS SHOWN AND LOCATIONS ARE FOR ABANDONMENT DURING REDEMPTION. CONSTRUCTION ABANDONMENT SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS.

MONITORING WELL DESIGNATIONS-COORDINATES & ELEVATIONS

WELL	NORTHING	EASTING	GROUND ELEV.
MW-4AR	694660.180	593143.9339	7.27
INCLINOMETER	694964.5618	593237.1860	5.71
INCLINOMETER 2	694979.6629	593270.7421	6.49
INCLINOMETER J	694998.1024	593357.5852	6.99

SCHEDULE OF ADJOINING PROPERTIES

BLOCK No.	LOT No.	OWNER (N/F)	ADDRESS
2438	1	THE SHERWIN WILLIAMS CO.	C/O TAX DEPARTMENT P.O. BOX 6027 CLEVELAND, OH 44101
2438	14	CITY OF NEWARK	84 LISTER AVENUE NEWARK, NJ 07102
2438	19 & 31	LISTER PROPERTIES	100 LISTER AVENUE NEWARK, NJ 07102
2438	56	MILTON DAVIS CHEMICAL CO.	2235 LANSDOWN FARM ROAD CINCINNATI, OH 45237



ECKENFELDER INC.
Nashville, Tennessee
Madison, New Jersey

Diamond Alkali Superfund Site
80/120 Lister Avenue
Newark, New Jersey

FINAL REMEDIAL DESIGN DRAWINGS
EXISTING SITE CONDITIONS

80/120 LISTER AVENUE NEWARK, NEW JERSEY

REVISIONS:

REV.	DATE	DESCRIPTION OF REVISION
1	01/25/99	UPDATED BASED ON MR-WORK PLAN ACTIVITIES
2	01/20/99	ADDED EXISTING VALVE ON CALLOUT

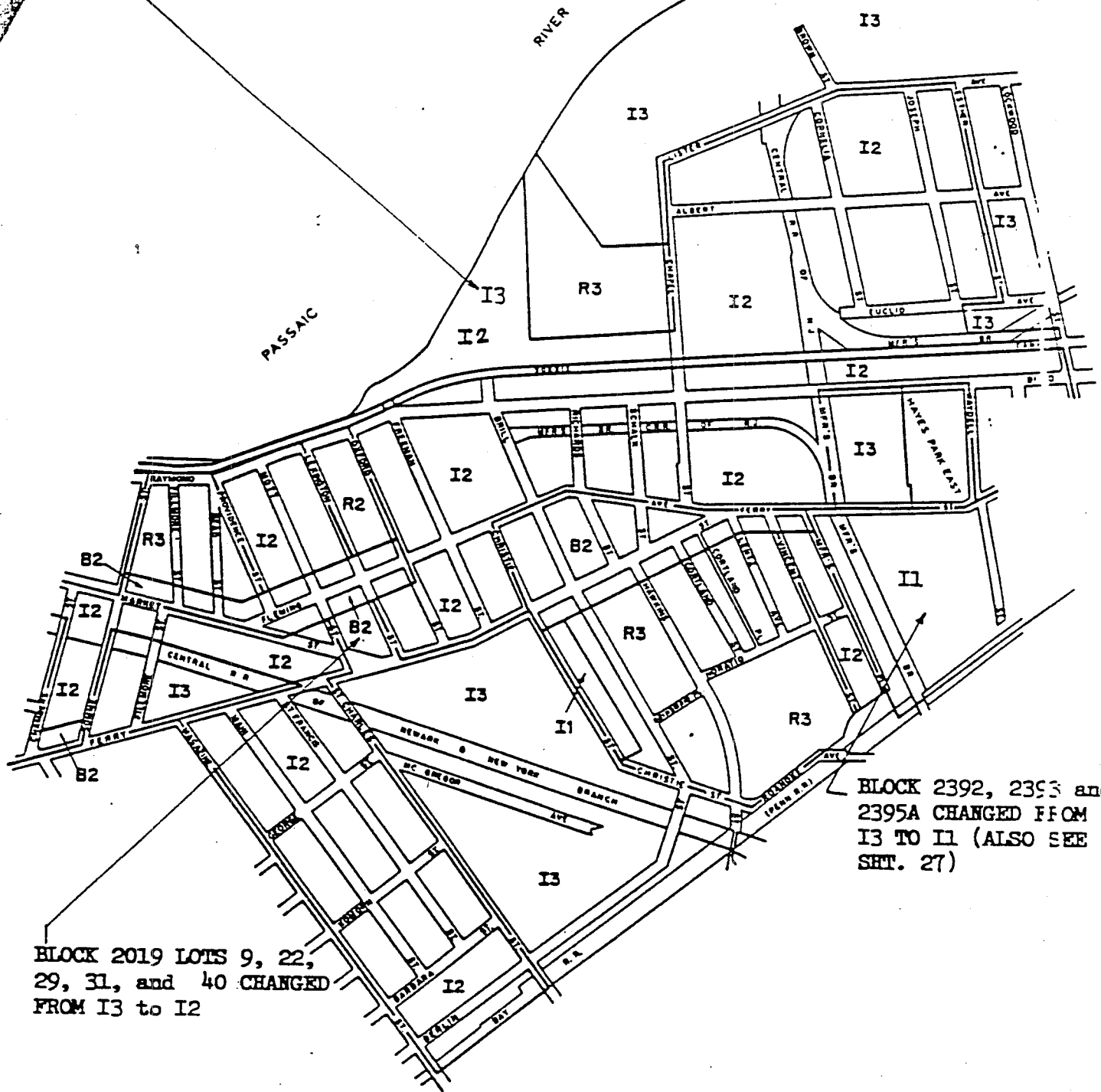
DATE: 1/25/99

PROJECT MANAGER: J.R.C.

DATE: 7/96

9527-001

BLOCK 2407, 2461, 2473, 2462 LOTS 1, 9, 12, 21, 22, 27, 30, ONLY
 BLOCK 2442 LOTS 2, 3 ONLY CHANGED FROM I2 TO I3



BLOCK 2019 LOTS 9, 22,
 29, 31, and 40 CHANGED
 FROM I3 to I2

BLOCK 2392, 2393 and
 2395A CHANGED FROM
 I3 TO I1 (ALSO SEE
 SHT. 27)

Revised: May 1988

ZONING DISTRICT MAP CITY OF NEWARK, N.J.



REVISIONS - DATE

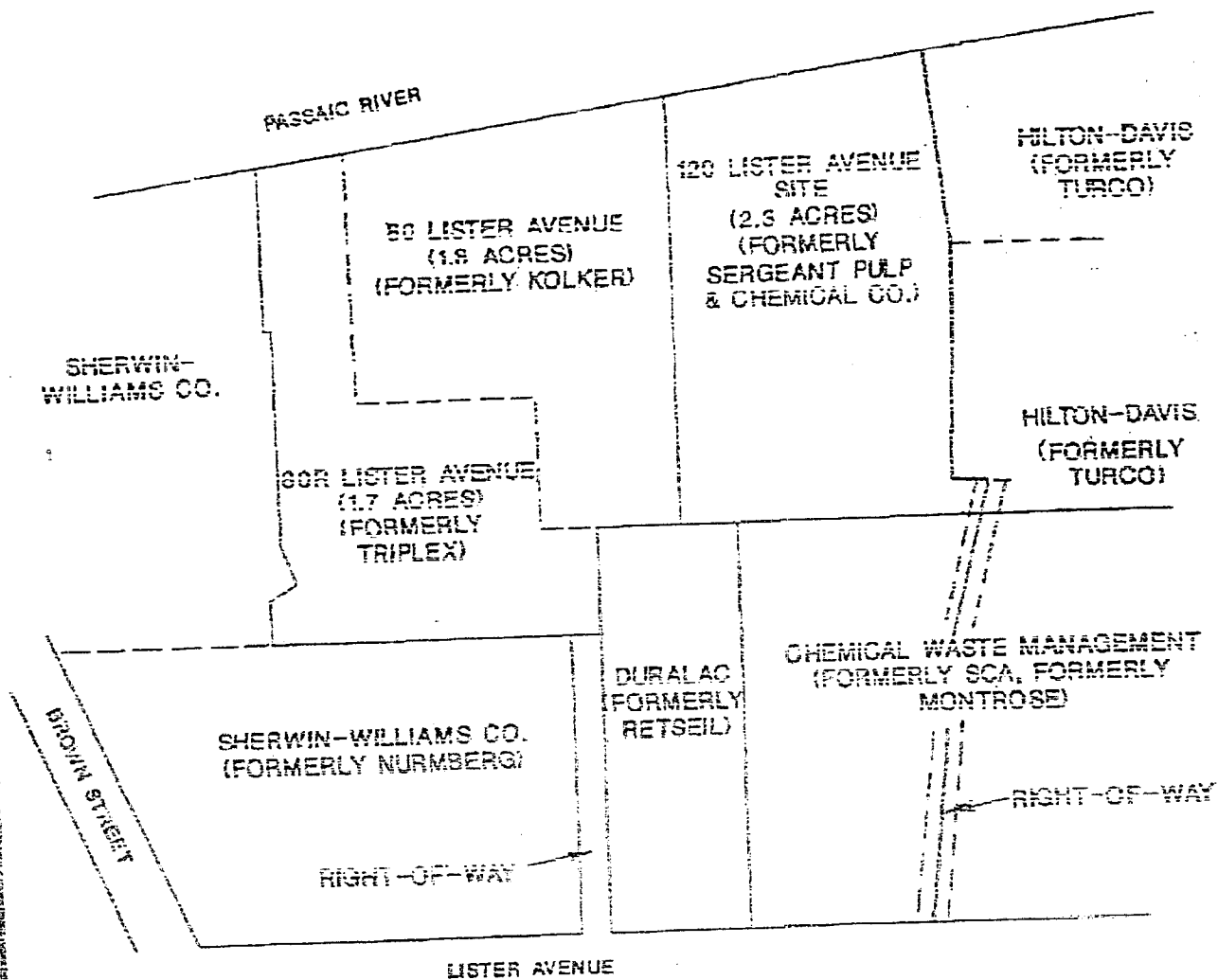
0 400 800 1200 1600

SHT. NO.

17

OF 27

Subject Site History



0 100 200
SCALE IN FEET

JOB No. : 22538G
Prepared by: M.J.V.
Date: 11/27/90

PLOT PLAN FOR 80-120 LISTER AVE. SITE AND ADJACENT PROPERTIES

2.0

SITE DESCRIPTION

2.1 SITE LOCATION

The Site is located in the Ironbound section of Newark, New Jersey as shown on Figure 1-1. The Site occupies approximately 5.8 acres on the north side of Lister Avenue and is bounded on the north by the Passaic River, on the east by the Hilton-Davis (Thomasett Colors) property, on the southeast by the Duralac Company and Chemical Waste Management (formerly SCA Chemical Services Company) properties and on the southwest and west by Sherwin-Williams Company property. Vehicular access to the Site is from the south via a common right-of-way shared with Duralac and from the southeast corner through the Chemical Waste Management facility. The Site and the adjacent properties are shown on Figure 1-2.

2.2 SITE HISTORY

The Site was originally tidal marsh and riparian land beside the Passaic River estuary. Industrial development on the Site is reported to date from the 1870's. Drawings from 1914, revised in 1922, show the Site to be part of the American Agricultural Chemical Company (Lister Works), which extended for some distance along the Passaic River and included other nearby industrial sites.

It was during the period of ownership by American Agricultural Chemical Company that the Site and the surrounding area reached its present configuration. The south shore of the Passaic River was filled to form the northernmost 30 percent of the property (Figure 2-1). All of the remainder of the Site is also underlain by fill materials (granular soils) reportedly placed to raise the previous marshland. Several buildings were located on the Site, including the Lister Works power plant, which remains today as the chemical manufacturing building.

When American Agricultural Chemical Company ceased operations, the property was subdivided and sold largely along the lines that form the present property boundaries. Current and previous ownership of each of the parcels is indicated on Figure 1-2.

2.2.1 80 Lister Avenue

A 1.8-acre parcel (the northeast portion of 80 Lister Avenue) was acquired by the Kolker Chemical Works, Inc. (Kolker), which by the mid-1940s, was operating an agricultural chemicals plant on the Site. This was the beginning of the manufacturing operations that are related to the current conditions at the Site. A chart portraying ownership, products, and important site events from this period to the present is shown in Figure 2-2.

Kolker was an early producer of both dichlorodiphenyltrichloroethane (DDT) and the phenoxy herbicides. It is believed that DDT production was underway before the end of World War II and that herbicide production started by 1948. In addition to DDT and the phenoxy herbicides, other products made on the Site included hexachlorobenzene (HCB) and Ovx (a miticide). Table 2-1 lists the raw materials and finished products during the time that Kolker and Diamond Shamrock Chemicals Company (under previous names) operated the plant (1940's-1969). Other chemicals may have been produced prior to 1960 but records of their production were destroyed during the explosion and fire of the manufacturing building in 1960.

Ownership by Kolker ceased in March 1951 when the Kolker property was acquired by Diamond Alkali Company (later Diamond Shamrock Corporation and Diamond Shamrock Chemicals Company) (Diamond). Between March 1951 and August 1969, Diamond Alkali and Diamond Shamrock manufactured 2,4-D, 2,4,5-T and 2,4,5-Trichlorophenol at the Site. Dioxin (2,3,7,8-Tetrachlorodibenzo-p-dioxin) was a by-product of the manufacturing process. Manufacture of several other products was either transferred to other locations or discontinued, leaving the phenoxy herbicides as the only products of the plant (Figure 2-2).

The original process for manufacturing sodium 2,4,5-trichlorophenate (NaTCP) from 1,2,4,5-tetrachlorobenzene (T₄CB) hydrolysis began early in 1951. This was the process

which formed Dioxin. Until 1954 the process was filtered with the use of a substantial amount of filter aid to remove insoluble salts and probably Dioxin, tetrachlorobenzene (T₄CB), and trichloroanisole (TCA). A process modification in 1954 replaced the filtration step with steam distillation to recover T₄CB and TCA which were initially stored until recycling commenced. Recycling of recovered organics began in 1956.

An explosion occurred in the NaTCP unit during February 1960. After the explosion, the new material feed sequence to the reactor was changed to better control reaction temperatures. Diamond began to add molten T₄CB first with gradual additions of a caustic (NaOH) and methanol (CH₃OH) mixture which was mixed prior to loading into the reactor.

In 1967, a combined product purification step using dilution-filtration and carbon adsorption was incorporated. This process continued until production ended in 1969.

In 1967, filters and carbon absorption were added after the steam distillation step to remove salts and Dioxin. A summary of process changes by Diamond is presented in Table 2-2. The resultant changes in production capacity during this period are summarized in Table 2-3.

A change in the handling of process effluent occurred in 1956 with the installation of an industrial sewer connecting to the Passaic Valley Sewerage Commission (PVSC) Lister Avenue line. Following installation of that connection, the plant process wastes were discharged through the PVSC treatment plant.

The 1960 explosion destroyed the large five-story building in which the NaTCP unit and several other plant processes had been located. Following the explosion, a decision was made to limit future production to the phenoxy herbicides, ending output of ICB and the benzene sulfonyl chloride derivatives. The layout of the plant facilities prior to the explosion is shown in Figure 2-3.

A larger site was required for rebuilding the plant on the scale desired, so an adjacent 1.7-acre parcel (the south and west portion of the present 80 Lister Avenue site) was leased in April 1960 from the Triplex Oil and Refining Company (later Walter Ray

Holding Company). This site, which had been used for reclaiming oil, had several buildings and large tanks which were razed to permit installation of a new laboratory and office building, a maintenance shop/warehouse building, and a tank farm for flammable raw materials along the west side of the property.

Following demolition of the remains of the damaged building, a new process building devoted to the manufacture of sodium trichlorophenol (NaTCP), 2,4-dichlorophenol (2,4-DCP), monochloroacetic acid (MCA), and by-product hydrochloric acid (HCl) was erected along the river. Following this construction, the manufacture of the intermediates was carried out in the new building and the old, but undamaged, chemical manufacturing building produced 2,4-D; 2,4,5-T; and their esters and amines. The layout of the plant, as reconstructed and in its approximate present configuration, is shown in Figure 2-4.

The new buildings and structures were built on piles driven through the fill and silt layers into the glaciofluvial sands. The initial design proposed to use the existing piles of the demolished building. However, field inspection indicated that the piles had deteriorated excessively and new treated wooden piles were driven. The foundation types for the other older buildings are not known; however it is likely that they also consist of wooden piles. The date when the existing bulkhead was constructed is unknown. Existing drawings show that the bulkhead was anchored with tie back rods connected to anchor piles. At the time of construction of the new process building, the bulkhead was reinforced with new piles and tie back rods.

The process building and other facilities remained largely unchanged until the end of operations by Diamond in August, 1969.

Subsequent operation of the plant was intermittent as shown on Figure 2-2 and ownership changed several times. In March, 1971, Chemicaland purchased the 1.8 acre site and improvements and leased the 1.7 acre site (formerly Triplex) from Walter Ray Holding Company. Chemicaland produced benzyl alcohol, 2,4-D and limited amounts of specialty chemicals on an intermittent basis from March, 1971 to February, 1977. During this period, unused process equipment was salvaged for temporary repair of failed equipment. A second 2,4-D reactor was installed in May 1976.

In November, 1976, while they were considering the acquisition of Chemicaland, Occidental Chemical Company assumed control of the management of the plant and continued to manage it until February, 1977. When Occidental declined to complete the purchase of the plant, Chemicaland was unable to resume operations and the plant was shut down by Occidental on February 19, 1977.

The plant remained idle until 1981. The ownership changed in 1980 when William Leckie (the successor to Walter Ray Holding Company) purchased the 1.8 acres owned by Chemicaland.

Leckie sold the 80 Lister Avenue site to Marisol in March, 1981. Clearing and salvaging of equipment remaining on the 80 Lister Avenue site was initiated in the period between March 1981 and June 1983. The product left in the equipment when the plant was shut down on February 24, 1977 was removed and placed in 55-gallon drums which remain on Site today. These drums are currently stored in the warehouse.

In May 1983, results of samples taken in April 1983 by the United States Environmental Protection Agency (USEPA) showed detectable levels of Dioxin on the Site and the New Jersey Department of Environmental Protection (NJDEP) moved to control access to the property. On June 2, 1983, New Jersey Governor Kean issued Executive Order No. 40 which has guided Site control and cleanup activities since that date.

In September, 1983, Diamond Shamrock Corporation adopted a new corporate structure. A new stock holding company was formed under the name "Diamond Shamrock Corporation." The former Diamond Shamrock Corporation changed its name to Diamond Shamrock Chemicals Company, and became a subsidiary of the new Diamond Shamrock Corporation. Diamond Shamrock Chemicals Company acquired the plant and property at 80 Lister Avenue from Marisol, Inc. on January 27, 1986.

On September 4, 1986, Diamond Shamrock Corporation sold Diamond Shamrock Chemicals Company to Oxy-Diamond Alkali Corporation, a wholly-owned indirect subsidiary of Occidental Petroleum Corporation. Diamond Shamrock Chemicals Company was then renamed Occidental Electrochemicals Corporation. Title to the Site had previously been transferred by way of an intraholding company transaction to

Diamond Shamrock Chemical Land Holdings, Inc., a wholly-owned indirect subsidiary of the new Diamond Shamrock Corporation. Effective November 30, 1987, Occidental Electrochemicals Corporation was merged into Occidental Chemical Corporation, a wholly-owned indirect subsidiary of Occidental Petroleum Corporation. On December 4, 1987, the name of Diamond Shamrock Chemical Land Holdings, Inc. was changed to Chemical Land Holdings, Inc. Chemical Land Holdings, Inc. is the current holder of title to the Site. The name of the new Diamond Shamrock Corporation was changed to Maxus Energy Corporation.

2.2.3 120 Lister Avenue

Several manufacturing facilities used the 120 Lister Avenue address, therefore the area corresponding to this address is larger than the "120 Lister Avenue site" considered in the Consent Decree and in this report. Manufacturers using a facility with a 120 Lister Avenue address included Montrose Chemical Company, Inc., Sergeant Pulp and Chemical Company, Turco Products, Inc., Thomason Colors, Inc., Hilton-Davis, SCA and Chemical Waste Management. The locations of the properties of these manufacturers are shown on Figure 1-2. The property shown on Figure 1-2 as being owned by Sergeant Pulp and Chemical Company is the site that is included in this remedial action. This site is referred to in this report as 120 Lister Avenue.

Sergeant Pulp and Chemical Company owned the 120 Lister Avenue property during the period Diamond owned the 80 Lister Avenue property. Several major structures, including a warehouse, a cement block building, and a tile building (Figure 2-4) were located on the property. The site was used by Sergeant to store, repackage, and distribute a variety of small-lot-quantity organic and inorganic chemicals.

In November 1963, Diamond leased a portion of the site for use as a parking lot from Sergeant. The approximate location of the parking lot is shown on Figure 2-4. The lease was terminated when Diamond ceased production operations on the 80 Lister Avenue site in 1969.

In the early 1980's, the 120 Lister Avenue site was used by SCA Corporation for the storage of vehicles and equipment required to support the hazardous waste treatment and storage operations on its adjacent property.

In June 1983, results of samples taken by the USEPA showed positive levels of Dioxin on the site and the NJDEP moved to control access to the property.

Diamond Shamrock Chemicals Company acquired the property from Sergeant Pulp and Chemical Company to assist with cleanup operations. Title to the site was subsequently transferred to Diamond Shamrock Chemical Land Holdings, Inc. which changed its name to Chemical Land Holdings, Inc. in December 1987.

2.2.3 History Following EPA's 1983 Investigation

Following the investigation conducted by the EPA in May 1983 confirming the presence of Dioxin within the Site boundaries, the Site was evacuated and secured. Diamond Shamrock (at the direction of the NJDEP and EPA) took initial measures to control access to the property and to restrict possible Dioxin-containing material from leaving the property. The principal measures were:

- A fence was installed around the 80-120 Lister Avenue property, including the side adjoining the Passaic River.
- A 24-hour security guard was placed at the only gate providing access to the property. The duty of the guard is to control entry onto the premises and restrict it to authorized personnel.
- The entire 80 Lister Avenue site, excluding areas covered by buildings and equipment, was covered by a permeable geotextile fabric (Amoco No. 2002 polypropylene stabilization fabric or equivalent). This fabric was weighted down by concrete blocks or other materials to prevent movement by wind.

Unexpended Site Remediation Costs

Diamond Alkali Superfund Site
Remedial Construction – Key Components of Remedy

Floodwall Barrier – The floodwall barrier will include a 600-foot long steel reinforced concrete wall with deep steel piling supports. The floodwall barrier will be built along the riverbank, just outside the existing timber bulkhead. It will support the material at the site and restrict horizontal flow of groundwater between the site and the river.

Slurry Wall Barrier – The slurry wall barrier will be a 1,450-foot long cement-clay subsurface barrier constructed along the landlocked perimeter of the site. The slurry wall barrier will restrict horizontal groundwater flow between the site and the surrounding properties.

Demolition – Demolition will include demolition of the remaining warehouse and the three aboveground storage tanks. Existing porous construction debris will be contained on the Site by construction of the site cap.

Stabilization of Drum Contents – The contents of the remaining drums will be stabilized using portland cement, cement kiln dust and sorbents. The stabilized materials will remain on the Site and will be contained by construction of the site cap.

Shipping Container Contents – The contents of 932 shipping containers will be contained on the Site by construction of the site cap.

Recycling of Non-porous Steel – Steel from the warehouse, aboveground storage tanks and shipping containers that can be cleaned and is acceptable to a recycling facility will be cleaned using high-pressure water and cleaning solution. Steel that meets the EPA cleanup criteria will be sized and shipped off-site to an approved recycling facility.

Site Cap Barrier – The site cap barrier will cover approximately 5.8 acres, will be three feet thick, and has five distinct components. The five components, from the bottom up, are the gas venting layer, the low permeability layer, the storm water drainage layer, the top protective layer and the surface layer. The cap will minimize percolation of storm water into the site and prevent erosion of materials placed at the site.

Groundwater Recovery and Treatment System – The groundwater recovery system will consist of twelve wells constructed inside the slurry wall and the floodwall barriers. Removal of water from the area within the barriers will prevent horizontal movement of groundwater outward from the Site. The recovered groundwater will be treated to remove dioxin and other organic and inorganic compounds.

Construction Safety – Previous construction activities have been successfully performed on-site and were demonstrated to be protective of public health and the environment. These same safety practices and procedures will be used in the remedial construction activities.

Diamond Alkali Superfund Site
Remedial Construction - Cost Summary

Component	Estimated Cost (000)
Floodwall Barrier	\$ 4,500
Slurry Wall Barrier	500
Demolition	800
Stabilization of Drum Contents	500
Shipping Container Contents	800
Recycling of Non-porous Steel	800
Site Cap Barrier	3,000
Groundwater Recovery and Treatment System	2,500
Construction Safety	1,500
Engineering, Management and Maintenance	3,100
Total	\$ 18,000

LAND SALES LOCATION MAP

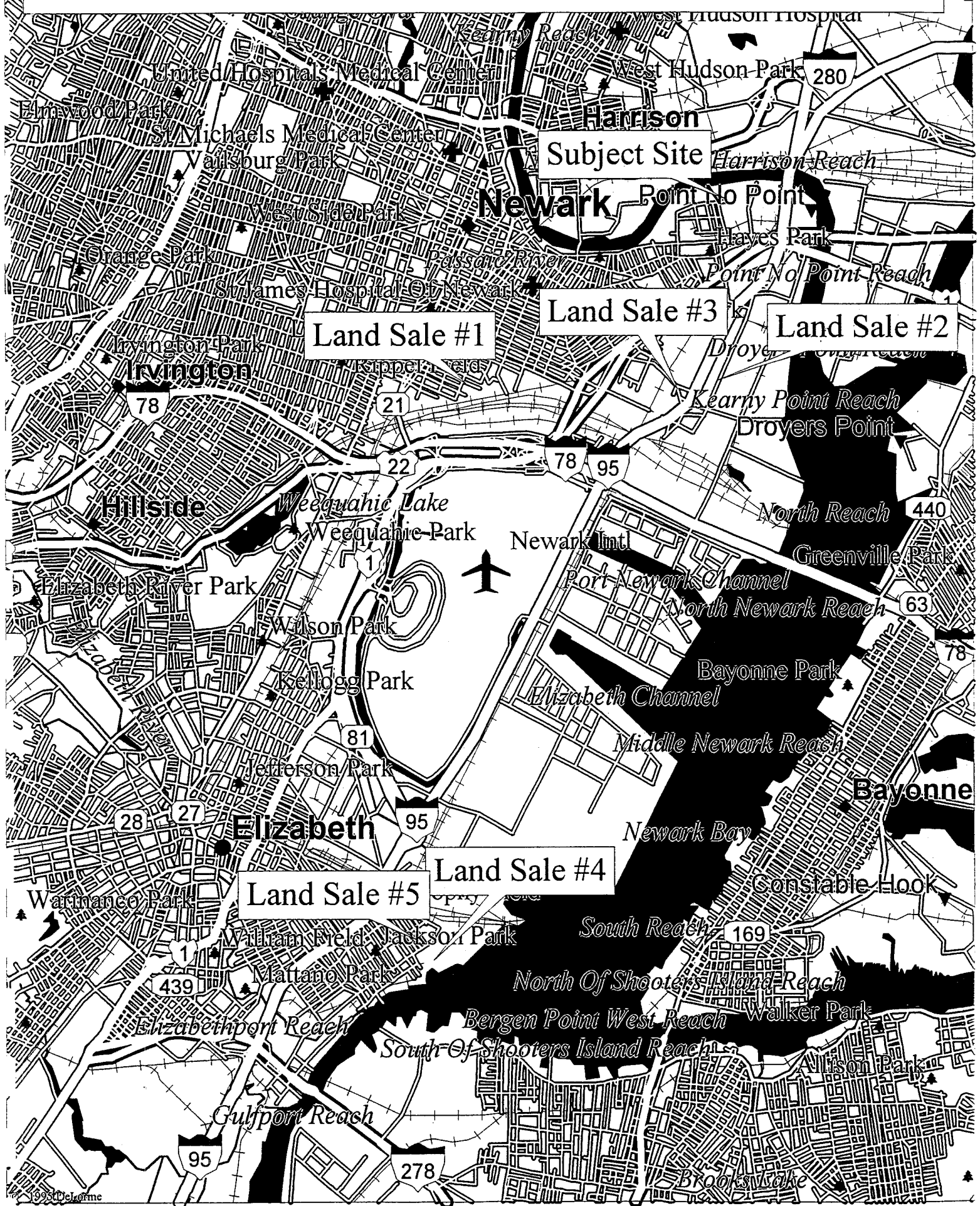
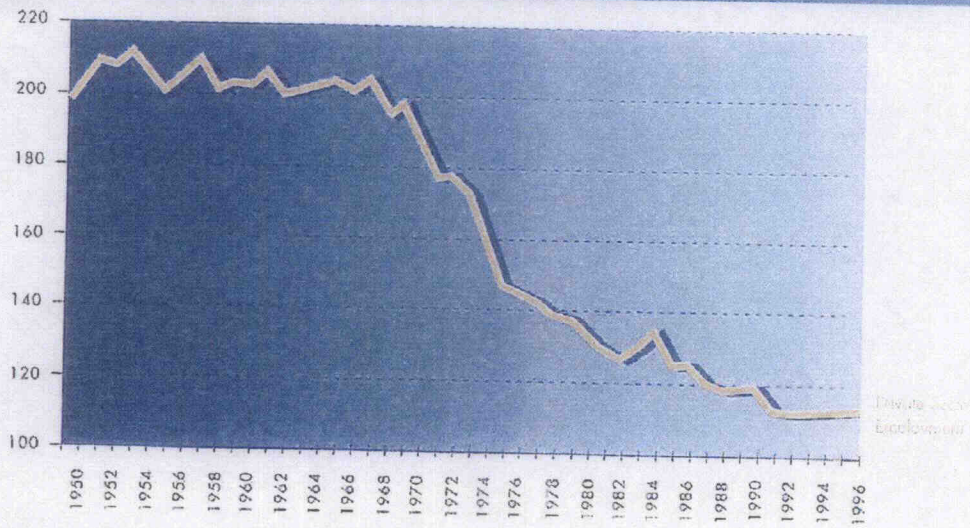


FIGURE 2

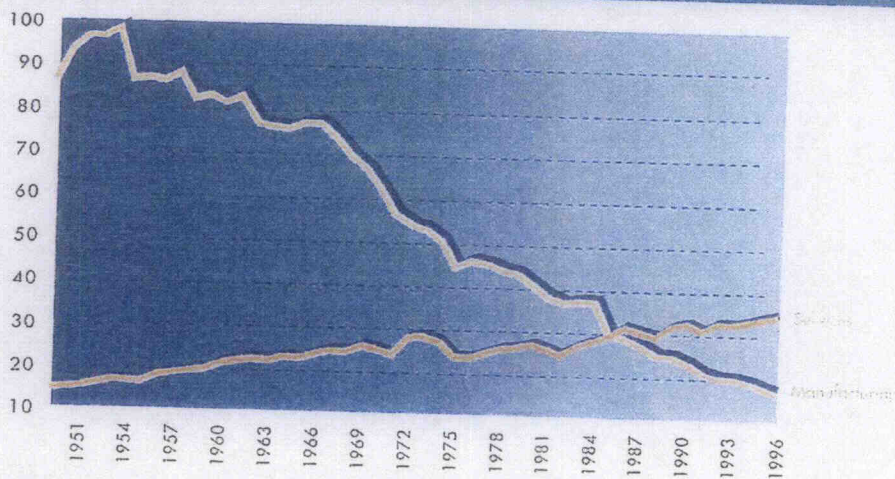
Newark Private Sector Employment 1949-1996 (in thousands)



Source: Based on private sector covered employment data from the N. J. Department of Labor.

FIGURE 3

Manufacturing and Service Sector Employment in Newark 1949-1996 (in thousands)



Source: Based on private sector covered employment data from the N. J. Department of Labor.

Demographics & Socio-Economic Characteristics

(1990 U.S. Census, except as noted)

POPULATION	
1970*	381,930
1980*	329,248
1990	275,221
1996 estimate*	268,510
Persons per sq. mi.	11,558.1
SEX	
Male	131,584
Female	143,637
RACE & HISPANIC ORIGIN	
Race	
White	78,771
Black	160,885
American Indian	649
Asian/Pacific Islander	3,281
Other	31,635
Hispanic origin	71,761
AGE	
Under 5 years	22,118
5-17 years	56,375
18-64 years	171,181
65 and over	25,547
Median age	29.6 years
EDUCATIONAL ATTAINMENT	
0-8 years of school	35,589
High school graduates	44,593
College graduates & beyond	13,844
INCOME & POVERTY	
Per capita income, 1989	\$9,424
Median household income, 1989	\$21,650
Median family income, 1989	\$25,816
Persons in poverty, 1989	70,702
HOUSEHOLDS	
Total households	91,552
With persons under 18	39,011
With persons over 65	20,113
Receiving public aid	20,206
Receiving social security	22,262
Family households	62,641
Persons per family	3.55
LABOR & EMPLOYMENT	
Total civilian labor force	123,808
Employed persons 16 years and over by occupation:	
Mgrs. & professionals	14,922
Technicians, sales, & admin. support	32,306
Service occupations	18,926
Farming, fishing, & forestry	600
Precision production, craft, & repair	10,880
Operators, fabricators, & laborers	27,919
Self-employed persons	2,667

Public Library

Newark Public Library
PO Box 630, 5 Washington St.
Newark 07101-0630

Telephone201-733-7800
Director Dr. Alex Boyd
Number of books, 19961,440,815

*US Bureau of the Census

Government Officials

LOCAL OFFICIALS, 1998
Mayor Sharpe James
Adm./Mgr. Glenn Grant
Clerk Robert P. Marasco
Treas./MFO..... Ronald Jean
Engineer Howard Lazarus
Attorney Michelle Hollar-Gregory
Assessor Evelyn Laccitiello
Bldg. Officer Alvin L. Zach

Housing & Construction

REAL PROPERTY VALUATION, 1996		
Class	# Parcels	% Valuation
Vacant	5,525	3.73
Residential	25,908	34.74
Farm	0	0.00
Commercial	4,837	38.39
Industrial	1,124	15.52
Apartments	1,188	7.62
Total	38,582	

NEW PRIVATELY OWNED HOUSING UNITS AUTHORIZED BY BUILDING PERMIT		
	Single Family	Total
1994	101	284
1995	28	208
1996	151	314

HOUSING UNITS (1990 U.S. Census)	
Total	102,473
Single family units	9,909
Owner occupied units	21,115
Renter occupied units	70,437
Units built before 1950	52,142
Median value, single family home	\$110,000
Median rent	\$385

Municipal Services

POLICE
Chief Joseph Santiago
Number of employees, 1996 1,396
Crime rate (per 1,000), 1996 134.1
Vlnt. crm. rate (per 1,000), 1996 ... 34.3

FIRE
Chief(s) Stanley Kossup

WATER & SEWER (1990 U.S. Census)
Number of housing units using:
Public water system 102,258
Wells and other water 215
Public sewer system 100,539
Septic and other sewer 1,934

General Information

Address 920 Broad Street
07102
Telephone 201-733-6400
Land area 23.81 square miles
Water area 2.17 square miles
Type City
Form of government MC '50

School System

Superintendent Beverly Hall
Address 2 Cedar Street
Newark 07102-3015
Telephone 201-733-7333
Grade plans PK, PK-3, PK-4, PK-5, PK-6, PK-8, PK-K, K-1, K-3, K-4, K-5, K-6, K-8, 1-8, 3-8, 4-8, 5, 5-8, 6-8, 7-12, 9-12
Enrollment, 1996-97 44,427
Students per teacher, 1996-97 11.6
Cost per pupil, 1996-97 \$9,700
Median teacher salary, 1996-97 \$59,576
Average SAT scores, senior class of 1997
Verbal 390
Math 405
Distribution of high school graduates,
Total, 1997 607
4-year college/university 506
2-year college 367
Other post secondary school 199
Military 83
Full-time employment 244

Municipal Finance

REVENUES, 1993
Total \$526,861,848.56
Property Tax 171,031,501.28
Taxes from public util. 24,237,084.00
State Aid 83,325,035.40
Federal Aid 22,558,180.00

EXPENDITURES, 1993
Total \$562,838,646.89
Municipal functions 369,091,978.34
General government ... 109,953,398.88
Municipal courts 3,570,334.00
Public safety 117,208,663.50
Public works 61,162,888.29
Health & welfare 31,973,139.00
Recreation & conserv. ... 4,091,353.67
Libraries 8,573,608.00
Capital Improvements 750,000.00
Debt Service - Principal ... 17,566,100.00
Debt Service - Interest ... 10,809,991.00
Total Tax Levy per Capita 806.96
Percent Tax Levy Collected 80.99%

DEBT, 1993
Total Debt Issued and Outstanding, \$218,576,685.64
Debt Service per Capita \$108.44
Moody's Rating AAA

Taxes

	1995	1996	1997
General Tax Rate per \$100	21.610	22.85	23.85
Net Valuation Taxable	\$968,007,400	\$907,947,800	\$861,940,800
State Equalized Value	5,377,433,675	5,372,238,244	5,104,416,983
County Equalization Ratio	17.00	17.58	16.38

Demographics & Socio-Economic Characteristics

(1990 U.S. Census, except as noted)

POPULATION	
1970*	932,526
1980*	850,451
1990	778,206
1996 estimate*	755,089
Persons per sq. mi.	6,163.55
SEX	
Male	367,894
Female	410,312
RACE & HISPANIC ORIGIN	
Race	
White	398,024
Black	316,262
American Indian	1,639
Asian/Pacific Islander	21,191
Other	41,090
Hispanic origin	97,777
AGE	
Under 5 years	54,671
5-17 years	133,966
18-64 years	491,248
65 and over	98,321
Median age	33.4 years
EDUCATIONAL ATTAINMENT	
0-8 years of school	61,631
High school graduates	140,507
College graduates & beyond	121,557
INCOME & POVERTY	
Per capita income, 1989	\$17,574
Median household income, 1989	\$34,518
Median family income, 1989	\$42,150
Persons in poverty, 1989	108,940
HOUSEHOLDS	
Total households	278,752
With persons under 18	100,382
With persons over 65	72,759
Receiving public aid	31,889
Receiving social security	75,030
Family households	191,363
Persons per family	3.32
LABOR AND EMPLOYMENT	
Total civilian labor force	399,871
Employed persons 16 years and over	
by occupation:	
Mgrs. & professionals	102,755
Technicians, sales, & admin. support	126,077
Service occupations	48,352
Farming, fishing, & forestry	1,985
Precision production, craft, & repair	30,312
Operators, fabricators, & laborers	55,032
Self-employed persons	16,949

Education

County Superintendent of schools Mary Louise Malyska
 Address 155 Fairview Ave
 Cedar Grove 07009
 Telephone 973-857-5700
 Number of school districts 22

*US Bureau of the Census

County Services

POLICE	
Sheriff	Armando Fontoura
Number of officers, 1996	
Sheriff's dept.	415
County/park police	42
Crime rate (per 1,000), 1996	84.0
Vlnt. crm. rate (per 1,000), 1996	17.7
WATER & SEWER (1990 U.S. Census)	
Number of housing units using:	
Public water system	297,240
Wells and other water	1,470
Public sewer system	295,367
Septic and other sewer	3,343

Housing & Construction

REAL PROPERTY VALUATION, 1996			
Class	# Parcels	% Valuation	
Vacant	9,969	1.27	
Residential	144,429	72.98	
Farm	45	0.02	
Commercial	11,398	15.56	
Industrial	2,281	6.47	
Apartments	2,634	3.71	
Total	170,756		

NEW PRIVATELY OWNED HOUSING UNITS AUTHORIZED BY BUILDING PERMIT			
	Single Family	Total	
1994	408	611	
1995	325	699	
1996	283	539	

HOUSING UNITS (1990 U.S. Census)	
Total	298,710
Single family units	99,385
Owner occupied units	126,313
Renter occupied units	152,439
Units built before 1950	155,820
Median value,	
single family home	\$196,100
Median rent	\$461

County Finance

Revenues		1991	1992	1993
Total		\$483,134,485.80	\$459,123,785.36	\$474,639,271.49
Property Tax		230,498,553.53	245,206,411.00	252,526,769.39
State Aid		125,265,414.17	105,256,666.81	120,178,648.38
Federal Aid		6,237,809.36	5,323,703.00	6,210,038.00
Expenditures		1991	1992	1993
Total		\$487,748,654.42	\$457,582,968.50	\$456,038,958.47
County Functions		399,433,559.03	430,557,358.00	389,637,260.36
Capital Improvements		800,000.00	450,000.00	0
Debt Service - Principal		22,137,000.00	20,592,000.00	34,942,299.89
Debt Service - Interest		28,810,027.69	32,167,008.18	31,459,398.47
Total Tax Levy per Capita		296.19	316.00	327.78

Taxes

	1995	1996	1997
General Tax Rate per \$100	0.732	0.747	0.734
Net Valuation Taxable	\$17,401,376,733	\$17,220,776,246	\$17,097,274,341
State Equalized Value	36,396,789,157	36,443,518,346	36,163,059,749
State Equalization Ratio	47.61	47.06	47.10

General Information

Address Hall of Records
 Room 247, Newark 07102
 Telephone 973-621-5000
 Land area 126.26 square miles
 Water area 3.30 square miles
 Class First
 Number of municipalities 22

Government

Form CEP (OCCL 1972)
 Number of Freeholders 9
COUNTY OFFICIALS, 1998
 Co. Exec. James Treffinger
 Adm./Mgr. Vincent DiMauro
 Clerk Patrick McNally
 Treasurer Lisa Gomez-Rivera

County Library

Address No County Library
 Telephone
 Director N/A
 Number of books, 1996 N/A

Debt

Total Issued and Outstanding,
 1993 \$592,905,807.00
 Debt Service per Capita,
 1993 \$86.19
 Moody's Rating BAA1

APPRAISAL TERMINOLOGY

Appraisal -	An analysis, opinion, or conclusion relating to the nature, quality, value, or utility of specified interests in, or aspects of, identified real estate. (Code of Professional Ethics of the Appraisal Institute). In this usage, appraisal covers a variety of assignments, including valuation, consulting, and review. The act or process of estimating value; an estimate of value. (USPAP, 1992 edition).
Band of Investment -	A technique in which the capitalization rates attributable to components of a capital investment are weighted and combined to derive a weighted-average rate attributable to the total investment.
Basis Point -	One one-hundredth of one percentage point; used to express changes in interest rates and in the yields of stocks and bonds, which must be expressed in fractions of a percent.
Built-up Rate -	An overall capitalization rate or discount rate that represents the combination of a safe, or risk-free, rate and rates that reflect nonliquidity, management, and risk.
Capitalization Rate (R) -	Any rate used to convert income into value.
Cash Equivalent -	A price expressed in terms of cash, as distinguished from a price expressed totally or partly in terms of the face amounts of notes or other securities that cannot be sold at their face amounts.
Contract Rent -	The actual rental income specified in lease.
Debt Coverage Ratio(DCR)	The ratio of net operating income to annual debt service ($DCR = NOI/Im$); measures the ability of a property to meet its debt service out of net operating income.
Direct Capitalization -	A method used to convert an estimate of a single year's income expectancy into an indication of value in one direct step, either by dividing the income estimate by an appropriate rate or by multiplying the income estimate by an appropriate factor.
Discounted Cash Flow -	The procedure in which a discount rate is applied to a set of projected income streams and a reversion. The analyst specifies the quantity, variability, timing, and duration of the income streams as well as the quantity and timing of the reversion and discounts each to its present value at a specified yield rate. DCF analysis can be applied with any yield capitalization technique and may be performed on either a lease-by-lease or aggregate basis.
Discount Rate -	A yield rate used to convert future payments or receipts into present value.
Easement -	An interest in real property that conveys use, but not ownership, of a portion of an owner's property. Access or right-of-way easements may be acquired by private parties or public utilities. Governments dedicate conservation, open space, and preservation easements.
Effective Age -	The age indicated by the condition and utility of a structure.
Effective Rent -	The rental rate net of financial concessions such as periods of no rent during the lease term; may be calculated on a discounted basis, reflecting the time value of money, or on a simple, straight-line basis.
Entrepreneurial Profit -	A market-derived figure that represents the amount an entrepreneur expects to receive for his or her contribution to a project; the difference between the total cost of a property (cost of development) and its market value (property value after completion), which represents the entrepreneur's compensation for the risk and expertise associated with development. In the cost approach, expected profit is reflected as entrepreneurial profit.
Equity Capitalization Rate(Re)	An income rate that reflects the relationship between a single year's pre-tax cash flow expectancy and the equity investment; used to convert pre-tax cash flow(equity dividend) into an equity value indication; also called the 'cash on cash rate, cash flow rate, or equity dividend rate'. ($Re = \text{pre-tax cash flow} / \text{equity invested}$).
Equity Yield Rate (Ye) -	A rate of return on equity capital as distinguished from the rate of return on debt capital (the interest rate); the equity investor's internal rate of return. The equity yield rate considers the effect of debt financing on the cash flow to the equity investor.
External Obsolescence -	An element of accrued depreciation; a defect, usually incurable, caused by negative influences outside a site and generally incurable on the part of the owner, landlord, or tenant.
Fee Simple Estate -	Absolute ownership unencumbered by any other interest or estate, subject only to the limitations imposed by the governmental powers of taxation, eminent domain, police power, and escheat.

HANNOCH APPRAISAL COMPANY

APPRAISAL TERMINOLOGY

Floor Area Ratio (FAR) -	The relationship between the above-ground floor area of a building, as described by the building code, and the area of the plot on which it stands; in planning and zoning, often expressed as a decimal, e.g., a ratio of 2.0 indicates that the permissible floor area of a building is twice the total land area.
Functional Obsolescence-	An element of accrued depreciation resulting from deficiencies or superadequacies in the structure.
Gross Lease -	A lease in which the landlord receives stipulated rent and is obligated to pay all or most of the property's operating expenses and real estate taxes.
Internal Rate of Return(IRR)-	The annualized yield rate or rate of return on capital that is generated or capable of being generated within an investment or portfolio over a period of ownership. The IRR is the rate of discount that makes the net present value of the investment equal to zero. The IRR discounts all returns from the investment, including returns from its termination, to equal the original capital outlay. This rate is similar to the equity yield rate. As a measure of investment performance, the IRR is the rate of discount that produces a profitability after income taxes, i.e., the after-tax equity yield rate.
Leased Fee Estate -	An ownership interest held by a landlord with the rights of use and occupancy conveyed by lease to others. The rights of the lessor (the leased fee owner) and the leased fee are specified by contract terms contained within the lease.
Leasehold Estate -	The interest held by the lessee (the tenant or renter) through a lease conveying the rights of use and occupancy for a stated term under certain conditions.
Mortgage Constant(Rm)-	The capitalization rate for debt; the ratio of the annual debt service to the principal amount of the mortgage load. A mortgage constant may be calculated on the basis of the initial mortgage amount or the outstanding mortgage amount; $(Rm = \text{debt service} / \text{mortgage principal})$.
Net Lease -	A lease in which the tenant pays all property operating expenses in addition to the stipulated rent.
Net Operating Income(NOI)	The actual or anticipated net income that remains after all operating expenses are deducted from effective gross income, but before mortgage debt service and book depreciation are deducted; may be calculated before or after deducting replacement reserves.
Overall Capitalization Rate(Ro)	An income rate for a total real property interest that reflects the relationship between a single year's net operating income expectancy and the total property price or value; used to convert net operating income into an indication of overall property value $(Ro = Io / Vo)$.
Potential Gross Income(PGI)	The total income attributable to real property at full occupancy before vacancy and operating expenses are deducted.
Replacement Cost -	The estimated cost to construct, at current prices as of the effective appraisal date, a building with utility equivalent to the building being appraised, using modern materials and current standards, design, and layout.
Reproduction Cost -	The estimated cost to construct, at current prices as of the effective date of the appraisal, an exact duplicate or replica of the building being appraised, using the same material, construction standards, design, layout, and quality of workmanship and embodying all the deficiencies, superadequacies, and obsolescence of the subject building.
Reversion -	A lump-sum benefit that an investor receives or expects to receive at the termination of an investment.
Terminal Capitalization Rate-	The rate used to convert income, e.g., NOI, cash flow, into an indication of the anticipated value of the subject real property at the end of the holding period. The terminal capitalization rate is used to estimate the resale value of the property.
Yield Capitalization -	The capitalization method used to convert future benefits into present value by discounting each future benefit at an appropriate yield rate or by developing an overall rate that explicitly reflects the investment's income pattern, value change, and yield rate.
Yield Rate (Y) -	A rate of return on capital, usually expressed as a compound annual percentage rate. A yield rate considers all expected property benefits, including the proceeds from sale at the termination of the investment. Yield rates include the interest rate, discount rate, internal rate of return (IRR), overall yield rate (Yo) , and equity yield rate (Ye) .

HANNOCH APPRAISAL COMPANY

ASSUMPTIONS & LIMITING CONDITIONS

Unless specifically excepted in the body of this report, the estimate of value and other opinions expressed herein are made expressly subject to the following assumptions and limiting conditions:

1. No responsibility is assumed for the legal description or for matters including legal or title consideration. Title to the property is assumed to be good and marketable unless otherwise stated.
2. The property is appraised free and clear of any or all liens or encumbrances unless otherwise stated.
3. Responsible ownership and competent property management are assumed.
4. The information furnished by others is believed to be reliable. However, no warranty is given for its accuracy.
5. All engineering is assumed to be correct. The plot plans and illustrative material in this report are included only to assist the reader in visualizing the property.
6. It is assumed that there are no hidden or unapparent conditions of the property, subsoil, or structures that render it more or less valuable. No responsibility is assumed for such conditions or for arranging for engineering studies that may be required to discover them. In addition, no opinion is hereby expressed as to the structural condition of any improvements on the land and no legal responsibility is assumed for structural weaknesses or mechanical failures of such improvements, whether apparent or hidden.
7. It is assumed that there is full compliance with all applicable federal, state, and local environmental regulations and laws unless noncompliance is stated, defined, and considered in the appraisal report, and that, if applicable, the property covered in this report satisfies the conditions required for a "negative declaration" under the Environmental Clean-up Responsibility Act.
8. It is assumed that all applicable zoning and use regulations and restrictions have been complied with, unless a nonconformity has been stated, defined, and considered in the report.
9. It is assumed that all required licenses, certificates of occupancy, consents, or other legislative or administrative authority from any local, state, or national government or private entity or organization have been or can be obtained or renewed for any use on which the value estimated contained in this report is based.
10. It is assumed that the utilization of the land and improvements is within the boundaries or property described and that there is no encroachment or trespass unless noted in the report.
11. This appraisal does not consider conditions relating to surface or subsurface waters including water table, flood plain, rights of the State in riparian lands and drainage and any rights of any governmental body to control or restrict the use of the property by reason thereof, and the valuation as found is exclusive of the foregoing factors.

HANNOCH APPRAISAL COMPANY

12. The distribution, if any, of the total valuation in this report between land and improvements applies only under the stated program of utilization. The separate allocations for land and buildings must not be used in conjunction with any other appraisal and are invalid if so used.
13. Possession of this report, or a copy thereof, does not carry with it the right of publication. It may not be used for any purpose by any person other than the party to whom it is addressed without the written consent of the appraiser, and in any event only with proper written qualification and only in its entirety.
14. The appraiser herein by reason of this appraisal is not required to give further consultation, testimony, or be in attendance in court with reference to the property in question unless arrangements have been previously made.
15. Neither all nor any part of the contents of this report (especially any conclusions as to value, the identity of the appraiser, or the firm with which the appraiser is connected) shall be disseminated to the public through advertising, public relations, news, sales, or other media without the prior written consent and approval of the appraiser.
16. Unless otherwise stated in the appraisal, compliance with the requirements of the Americans With Disabilities Act of 1990 (ADA) has not been considered in arriving at the opinion of value stated in the appraisal. Failure to comply with the requirements of the ADA may negatively affect the value of the property. The appraiser recommends that an expert in this field be employed.

HANNOCH APPRAISAL COMPANY

HANNOCH APPRAISAL COMPANY
APPRAISERS, REALTORS, CONSULTANTS AND COUNSELORS
Since 1921

QUALIFICATIONS

JAMES C. HANNOCH, CRE, GAA, RM
SCGREAL(License RG-01188)

EDUCATION

Stockton State College
B.S. Business Administration
Major Course of Study-Real Estate
Minor Course of Study-Computer Science

The Appraisal Institute
Basic Appraisal Principles
Single Family Residential Appraisal
Capitalization Theory & Techniques - Parts 1,2,3
Case Studies in Real Estate Valuation
Report Writing and Valuation Analysis
Standards of Professional Practice

Professional Affiliations

New Jersey State Certified General Real Estate Appraiser
The Appraisal Institute - Residential Member
The Appraisal Institute - MAI Candidate
National Association of Realtors (Appraisal Section) - General Member
American Society of Real Estate Counselors
New Jersey Association of Realtors
New Jersey Real Estate Salesman's License

HANNOCH APPRAISAL COMPANY

HANNOCH APPRAISAL COMPANY
APPRAISERS, REALTORS, CONSULTANTS AND COUNSELORS
Since 1921

QUALIFICATIONS
EUGENE J. REILLY JR., GAA, CTA
SCGREA (License RG-304)

EDUCATION
Rutgers University
Thomas Edison State College

The Appraisal Institute

Course 1A1:	Principles of Real Property Appraisal
Course 1A2:	Basic Valuation Procedures
Course 1B-A:	Capitalization Theory and Techniques "A"
Course 1B-B:	Capitalization Theory and Techniques "B"
Course 2-1:	Case Studies in Real Property Valuation
Course 2-2:	Report Writing and Valuation Analysis
Course SPP:	Standards of Professional Appraisal Practice A & B

Professional Affiliations

Member:	Appraisal Section, National Association of Realtors
1997 Chairman:	Appraisal Section, New Jersey Association of Realtors
Member:	Morris County, New Jersey & National Assoc. of Realtor
Affiliate Member:	New Jersey and Morris County Tax Assessors Association
Associate Member:	Appraisal Institute
Qualified Expert Witness:	Various Jurisdictions

Licenses and Designations Held

SCGREA:	State Certified General Real Estate Appraiser #RG 304: State of New Jersey
GAA:	General Accredited Appraiser, Certificate #205, Appraisal Section, NAR
CTA:	Certified Tax Assessor: State of New Jersey, Division of Taxation
GRI:	Graduate Realtor Institute, National Association of Realtors
	Licensed Real Estate Broker: State of New Jersey

HANNOCH APPRAISAL COMPANY

Clients Served and Major Assignments

United States of America

Army Corps of Engineers
Department of Defense
Department of Interior
Department of Justice
Department of Treasury
Federal Deposit Insurance Corporation
Federal Housing Admin.
General Services Admin.
Postal Service
Resolution Trust Corp.
Small Business Admin.
Veterans Administration

Counties

County of Atlantic
County of Essex
County of Hunterdon
County of Middlesex
County of Morris
County of Warren

Municipalities

Borough of Caldwell
Borough of Edgewater
Borough of Lodi
Borough of Paramus
Borough of Peapack & Gladstone
Borough of Roseland
Borough of Tenafly
City of Asbury Park
City of Atlantic City
City of Clifton
City of East Orange
City of Hackensack
City of Newark
City of Orange
City of Passaic
City of Paterson
City of Plainfield
City of Summit
Town of Morristown
Town of Newton
Township of Bloomfield
Township of Cedar Grove
Township of Chatham
Township of Essex Fells
Township of Franklin
Township of Glen Ridge
Township of Irvington
Township of Livingston
Township of Maplewood
Township of Millburn
Township of Montclair
Township of Moorestown
Township of Morris
Township of Stillwater
Township of Teaneck
Township of Verona
Township of Washington
Township of West Caldwell
Township of West Milford
Township of West Orange
Village of Ridgewood
Village of South Orange

State of New Jersey

College of Medicine and Dentistry
Department of Community Affairs
Department of Conservation and Economic
Development
Department of Environmental Protection & Energy
Department of Motor Vehicles
Department of Transportation
N.J. Highway Authority
N.J. Turnpike Authority
N.J. Water Supply Commission
Port Authority of N.Y. & N.J.

Financial Institutions

Anchor Savings Bank
Bankers Trust
Bank of Nova Scotia
Berkeley Federal Savings & Loan
Broadway Bank
Carteret Savings Bank
Chase Manhattan Bank
Cho Heung Bank of New York
Citibank
Chatham Savings & Loan
Community National Bank
Dime Savings Bank
Empire Savings Bank
First Fidelity Bank
Hudson United Bank
Hudson City Savings Bank
Irving Savings & Loan
Korea Commercial Bank
Midland Bank & Trust
Midlantic National Bank
National Community Bank
National State Bank
National Westminster Bank
Pilgrim State Bank
Princeton Mortgage
Provident Savings Bank
Somerset Trust Co.
Sovereign Savings
State BAnk of South Orange
Summit Trust Company
The Money Store
United Jersey Bank
Valley National Bank
Watchung Hills Bank for Savings

Insurance Companies

Berkshire Life Insurance Co.
Connecticut Mutual Life
Equitable Life Assurance Society of America
Franklin Life Insurance Co.
Great American Insurance Co.
Hanover Insurance Group
Hospital Plan of N.J.
John Hancock Mutual Life Insurance Co.
Kemper Insurance Co.
Metropolitan Life Insurance Co.
Mutual Benefit Life Insurance Co.
Phoenix Mutual Life Insurance Co.
Presbyterian Ministers Fund
Prudential Insurance Company
State Farm Life Insurance Co.
State Mutual Life Assurance Co.
Sun Life Assurance Co.
Teacher's Insurance & Annuity Association of America
The Continental Group Inc.

HANNOCH APPRAISAL COMPANY

Shopping Centers

Bergen Mall
Cherry Hill Mall
Echelon Mall
Essex Green Shopping Center
Fashion Center
Garden State Plaza
Livingston Mall
Monmouth Mall
Morrestown Mall
Princeton Shopping Center
Prudential Mall
Rockaway Town Square Mall
Willowbrook Mall

Hotels and Clubs

Arcola County Club
Bally's Park Place Hotel & Casino
Baltusrol Golf Club
Caesar's Boardwalk Regency
Crestmont Country Club
Englewood Golf Club
Essex Fells Country Club
Glen Ridge Country Club
Governor Morris Motor Inn
Greenbrook Country Club
Harrah's Atlantic City
Knoll County Club
Mountain Ridge Country Club
Orchard Hills Country Club
Resorts International Hotel & Casino
Rumson Country Club
Sands Hotel & Casino
The Claridge Hotel & Casino
Tropicana Hotel & Casino

General Clients

Allen B. Dumont Laboratories, Inc.
Allied Chemical Corp.
Amerace Corporation
American Aluminum Co.
American Association of University Professors
American Cyanamid Corp.
American Express
American Federation of Musicians
American Red Cross
American Smelting and Refining Co
Anheuser-Busch, Inc.
A T & T Longlines
Automatic Data Processing Corp.
Bellemead Corporation
Bendix Corporation
Beth Israel Medical Center
Bethlehem Steel Corp.
Bowling Corp. of America
Boy Scouts of America
Cabot, Cabot & Forbes
Cali Associates
Celanese Corp. of America
Central Jersey Industries
Ciba Pharmaceutical Corp.
Congoleum Naim, Inc.
Continental Can Co.
Continental Grain Co.
Continental Paper Co.
Control Data Corporation
Corn Products Company
Corporate Property Investors
DKM Properties Corp.
Dragoco Inc.

Eastman Kodak
E.I. DuPont DeNemours & Co.
Elastic Stop Nut Corporation
Elizabethtown Water Company
Emerson Television & Radio Co.
Englehard Corporation
E.R. Squibb & Sons
Essex County College
Estate of Geraldine Rockefeller Dodge
Estate of George Merck
Federal Paperboard Company
First Methodist Church
Ford Motor Company
Foster Wheeler Energy Corp.
Fuji Photo Film U.S.A., Inc.
F.W. Woolworth
General Electric Company
General Foods Corporation
General Motors
Grand Union Company
Hercules, Inc.
Hoffman LaRoche
Hyatt-Clark Industries, Inc.
International Business Machines
Interchemical Corporation
International Flavors & Fragrances
International Trade Zone
International House of Pancakes
Interstate Container Company
I.T.T. Bell & Gossett Company
JMB Corporation
Kean College of New Jersey
Kenwood Corporation
K-Mart Corporation
Kimberly-Clark Corporation
King's Supermarkets
Lily Tulp Company
Litton Industries
Lockheed Aircraft Corp.
Maiden Lane Auto Parks
Marcal Paper Company
McCroly Corporation
McDonalds Corporation
Merrill-Lynch
Metropolitan Land Ltd.
Minnesota Mining & Manufacturing Co.
Mitsui & Company
Monsanto Chemical Company
Morristown Memorial Hospital
Mountainside Hospital
National Biscuit Company
Newark Museum
New Jersey Bell Telephone Company
N.J. Center for Performing Arts
New York University
N.L. Industries
Ohaus Scale Company
Okonite Company
Overlook Hospital
Perdue Foods, Inc.
Pittsburg Plate Glass
Pirelli Cable Corporation
Princeton Municipal Improvements, Inc.
Presbyterian Synod of New Jersey
Psychiatric Institutes of America
Public Service Electric & Gas Co.
Radburn Associates
Radio Corporation of America
Renault, Inc.
Restaurant Associates
Rite-Aid Corporation
Rockefeller Center Development Corp.
Ronson Corporation
Royal Worcester Porcelain
Rutgers University

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Rouse Company
SJP Corporation
Sperry-Univac
St. Barnabas Medical Center
Sterling Forest Corporation
Supermarkets General Corp.
Sussmor Corporation
Temple B'nai Jeshurun
Trans America
Transcontinental Pipeline Company
Trustees of Boston University
Tuscan Dairy Farms
Union Carbide Corporation
Uniroyal
Upsala College
Wallace & Tiernan-Div. Pennwalt Corp.
Warner-Lambert
Waterloo Foundation for the Arts
Westinghouse Corporation
Yardley of London

Law Firms

Blau & Blau
Brach, Eichler, Rosenberg, Silver, Bernstein, Hammer
& Gladstone
Budd, Larner, Gross, Rosenbaum, Greenberg & Sade
Carpenter, Bennett & Morrissey
Clapp & Eisenberg
Cole, Schotz, Bernstein, Meisel & Forman
Conley & Haushalter
Crummy, DelDeo, Dolan, Griffinger & Vecchione
Cullen & Dykman
Giordano, Halleran & Ciesla
Greenbaum, Rowe, Smith, Ravin & Davis
Hannoch, Weisman
Helling, Lindeman, Goldstein & Siegal
Lasser, Hochman, Marcus, Guryan & Kuskin
Lowenstein, Sandler, Kohl, Fisher & Boylan
Lum, Hoens, Conant, Danzis & Klienberg
McCarter & English
McDermott, Will & Emery
McKirdy & Riskin
O'Donnell, Kennedy, Vespole, Peichta & Trifolius
Pitney, Hardin, Kipp & Szuch
Ravin, Sarasohn, Cook, Baumgarten, Fisch & Baime
Riker, Danzig, Scherer, Hyland & Perretti
Rosenblum, Rosenblum & Zipp
Sills, Cummis, Zuckerman, Radin, Tischman, Epstein
& Gross
Skoloff & Wolfe
Stryker, Tams & Dill
Waldor, Sondak, Berkeley & Brogan
Wilentz, Goldman & Spitzer

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