FINAL GENERIC ENVIRONMENTAL IMPACT STATEMENT

FOR

LOVE CANAL AREA MASTER PLAN

APPENDICES B - Z

PREPARED FOR:

THE LOVE CANAL AREA REVITALIZATION AGENCY
9501 COLVIN BOULEVARD
NIAGARA FALLS, NY 14304

PREPARED BY:

THE SARATOGA ASSOCIATES
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GIRASOLE REPORT

EVALUATION AND CONSULTATION
BLACK CREEK VILLAGE & 93RD STREET
NORTH OF COLVIN BOULEVARD HABITABLE AREA
LOVE CANAL REVITALIZATION AREA
NIAGARA FALLS, NEW YORK
OUR FILE NO. 9-65

FOR

LOVE CANAL AREA REVITALIZATION AGENCY
9501 COLVIN BOULEVARD
NIAGARA FALLS, NEW YORK

BY

GIRASOLE APPRAISAL COMPANY
473 THIRD STREET
NIAGARA FALLS, NEW YORK 14301

ANTHONY A. GIRASOLE, MAI, SRA, APPRAISER
ANTHONY P. GIRASOLE, ASSOCIATE APPRAISER
LUIS EZQUERRO, STUDENT INTERN (LCARA)

September 12, 1989

Love Canal Area Revitalization Agency
9501 Colvin Boulevard
Niagara Falls, New York 14304

Attn: Mr. James E. Carr
Director of Planning

RE: Evaluation and Consultation
Love Canal Revitalization Area
Niagara Falls, New York
Our File No. 9-65

Dear Mr. Carr:

As requested, the undersigned have conducted the necessary investigations analysis to prepare a preliminary estimate of value for the 253 unoccupied homes located in Black Creek Village to the northerly side of Colvin Boulevard and along 93rd Street in the Love Canal Revitalization area.

The properties consist of various style homes including 206 ranch style, 18 cape cod, 25 two story and 4 split level homes. The condition of the properties ranges from fair to average with some requiring a minimal amount of rehabilitation while others require complete renovation and possibly demolition.

As requested, we have not made a complete property by property inspection but rather viewed the interior of 25 homes only to familiarize ourselves with the properties involved. Actual interior condition of all the homes will be determined by LCARA staff and City inspectors prior to the institution of the renovation program. At that time, as I understand it, a determination will be made as to whether or not individual properties will be rehabed.

Our assignment was to provide general valuation ranges of the various properties by categories shown in the report to follow. Ten categories of homes were analyzed of the four styles considered. Work involved the investigation of comparable sales in the LaSalle area of similar style homes to arrive at values on

a per square foot basis which will be applied to the square foot ranges in the various categories and an overall value range conclusion will be adopted from the information obtained.

In preparation of this report, the following items have been undertaken, considered and addressed:

- inspected 10% of the properties in question
- reviewed area and economic influences
- reviewed marketability, demand and highest and best use
- estimated market value ranges

Only the Market Data Approach, considering general value ranges has been considered in this report. Neither the Cost or the Income Approach have any validity. Comparable sales were analyzed from the LaSalle area establishing the value ranges adopted in the various categories.

The narrative report that follows sets forth the identification of the project area, the assumptions and limiting conditions, pertinent facts about the area and the subject properties, comparable data, the results of the investigations and analyses, and the reasoning leading to the conclusions set forth.

Based on the investigations and analysis conducted, value range opinions have been adopted for the various categories of properties as of September 1, 1989. This report and the opinions herein are subject to assumptions and limiting conditions set forth in the report and in the addendum of the report. Value range conclusions are as shown on the Summary of Salient Facts and Conclusions.

Respectfully submitted,

GIRASOLE APPRAISAL COMPANY

Anthony A. Girasole, MAI, SRA
President

AAG/kjs

CERTIFICATE OF APPRAISERS

The undersigned do hereby certify that, to the best of our knowledge and belief, except as otherwise stated in this appraisal report

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

2. The reported analyses, opinions and conclusions are limited only by the reported assumptions and limiting conditions, and are the unbiased professional analyses, opinions and conclusions of Anthony A. Girasole, MAI, SRA and Anthony P. Girasole.

3. 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.

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

5. The analyses, opinions and conclusions were developed, and this report has been prepared in conformity with the requirements of the Code of Professional Ethics and the Standards of Professional Practice of the American Institute of Real Estate Appraisers and the Society of Real Estate Appraisers.

6. The use of this report is subject to the requirements of the American Institute of Real Estate Appraisers and the Society of Real Estate Appraisers relating to review by its duly authorized representatives.

7. Neither all nor any part of the contents of this report (especially any conclusions as to value, the identity of the appraisers or the firm with which they are connected, or any reference to the American Institute of Real Estate Appraisers or the Society of Real Estate Appraisers, or to the MAI, RM, or SRA designations), shall be disseminated to the public through advertising media, public relations media, news media, sales media or any other public means of communication without the prior written consent and approval of the undersigned.

8. Anthony A. Girasole and Anthony P. Girasole have made a personal inspection of 10% of the properties that are the subject of this report.

CERTIFICATE OF APPRAISERS (Continued)

9. The American Institute of Real Estate Appraisers and the Society of Real Estate Appraisers conduct voluntary programs of continuing education for their designated members. Designated members who meet the minimum standards of this program are awarded periodic educational certification. The undersigned, Anthony A. Girasole, is currently certified under both of these programs.

10. The real estate which is the subject of this report was valued as of September 1, 1989.

NOTE: The appraisers acknowledge the help and assistance of Student Intern for LCARA, Luis Ezquerro in the preparation of this report.

Anthony A. Girasole, MAI, SRA
Appraiser

Anthony P. Girasole
Associate Appraiser

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SUMMARY OF SALIENT FACTS AND CONCLUSIONS

PROJECT LOCATION:	Love Canal Revitalization Area Black Creek Village & 93rd Street Niagara Falls, New York
CURRENT OWNER:	Love Canal Revitalization Agency
OWNER'S ADDRESS:	9501 Colvin Boulevard Niagara Falls, New York
PROPERTY INTEREST BEING VALUED:	Fee Simple
ZONING OF PROPERTY:	R-1G, General Residential
TYPE OF PROPERTY ANALYZED:	253 Single Family Homes
DATE OF PROPERTY VALUATION:	September 1, 1989

VALUE RANGE CONCLUSIONS:

RANCH STYLE HOMES

960SF - 1,060SF:	$45,000 to $49,000
1,061SF - 1,160SF:	$46,000 to $49,000
1,161SF - 1,454SF:	$47,000 to $58,000

CAPE COD STYLE

792SF - 992SF:	$35,000 to $42,000
1,001SF - 1,250SF:	$39,000 to $48,000
1,251SF - 1,470SF:	$47,500 to $56,500

TWO STORY HOMES

864SF - 1,200SF:	$30,000 to $38,000
1,201SF - 1,400SF:	$36,000 to $42,000
1,401SF - 2,050SF:	$50,000 to $70,000

SPLIT LEVEL HOMES

1,188SF - 1,850SF:	$47,000 to $65,000

STATEMENT OF OBJECTIVE

The objective of this report is to undertake the investigations and analyses required to reach supportable Market Value ranges for the subject properties located in what is called Black Creek Village on the northerly side of Colvin Boulevard and along 93rd Street in the Love Canal Revitalization Area. The function of the report is to establish potential values of the 253 homes in this general area.

The estimates of value as herein shown applied to the date of valuation, September 1, 1989.

PROPERTY RIGHTS APPRAISED

The values concluded herein reflect the fee simple estate of the properties involved.

DEFINITIONS OF SIGNIFICANT TERMS

MARKET VALUE - 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 each acting in what he considers his 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.

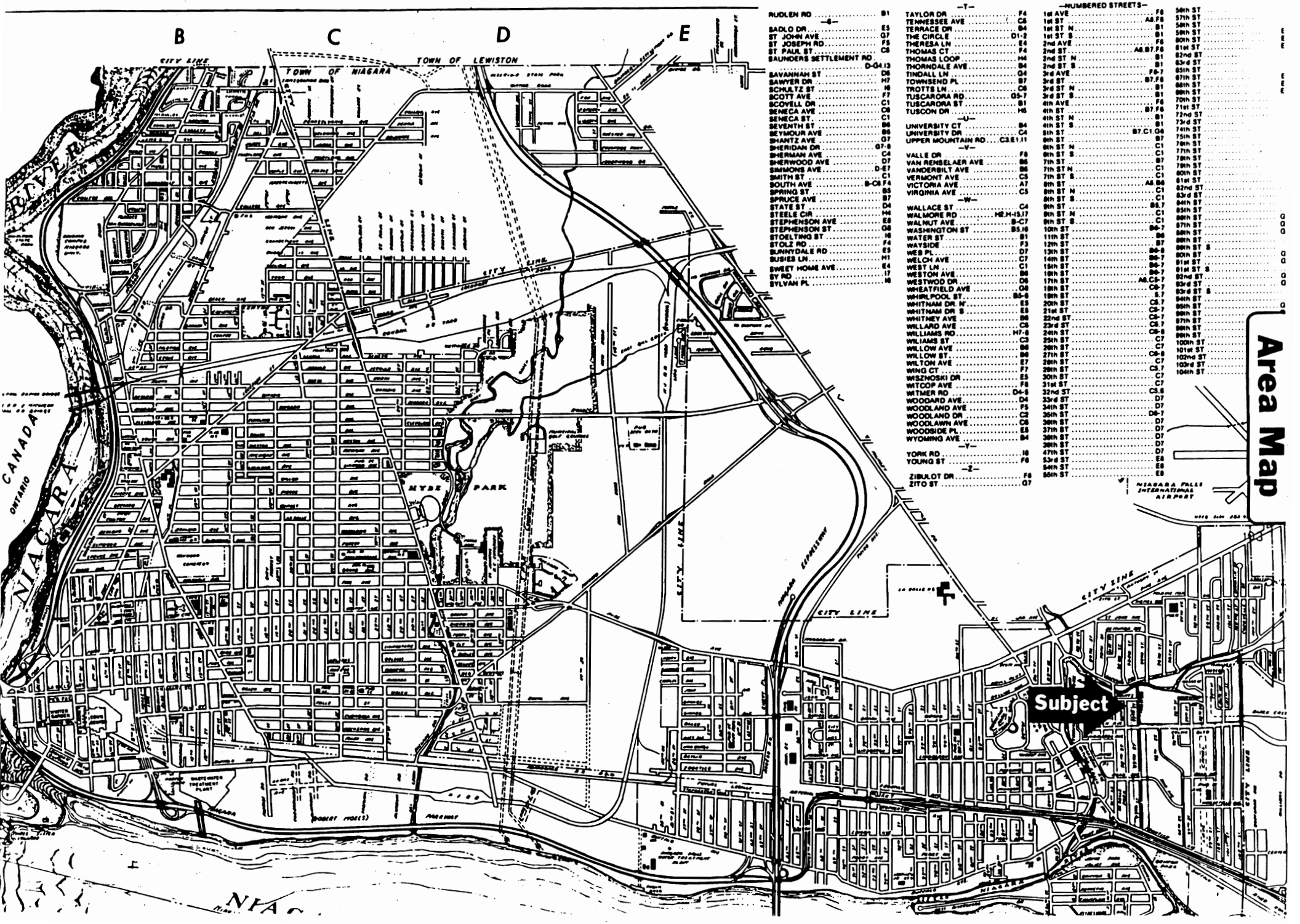
HIGHEST AND BEST USE - an appraisal term meaning the legally and physically possible use, or use that, at the time of an appraisal, is most likely to produce the greatest net return to the land and/or buildings over a given period.

FEE SIMPLE - Absolute ownership of real property; owner is entitled to the entire property with unconditional power of disposition during the owner's life, and upon his death, the property descends to the owner's designated heirs.

DEFINITIONS OF SIGNIFICANT TERMS (con't)

FEASIBILITY - An indication that a project has a reasonable likelihood of satisfying explicit objectives; analyzed by testing a selected course of action in a context of specific constraints and limited resources; in a real estate project, usually related to economic potential.

CITY OF NIAGARA FALLS, N.Y.



F			
RUDLEN RD	B1	SWEET HOME AVE	E4
—S—		SY RD	I7
SADLO DR	E5	SYLVAN PL	I6
ST JOHN AVE	G7		
ST JOSEPH RD	F5		
ST PAUL ST	C5		
SAUNDERS SETTLEMENT RD	D-G4,I3		
SAVANNAH ST	D5		
SAWYER DR	H7		
SCHULTZ ST	I6		
SCOTT AVE	F7		
SCOVELL DR	C1		
SENECA AVE	C8		
SENECA ST	C1		
SEVENTH ST	B6		
SEYMOUR AVE	B6		
SHANTZ AVE	G7		
SHERIDAN DR	G7-8		
SHERMAN AVE	C4		
SHERWOOD AVE	D7		
SIMMONS AVE	D-E7		
SMITH ST	C1		
SOUTH AVE	B-C8,F4		
SPRING ST	B5		
SPRUCE AVE	B7		
STATE ST	D4		
STEELE CIR	H4		
STEPHENSON AVE	E8		
STEPHENSON ST	G8		
STOELTING ST	I6		
STOLZ RD	F4		
SUNNYDALE RD	E5		
SUSIES LN	H1		

—T—	
TAYLOR DR	F4
TENNESSEE AVE	C5
TERRACE DR	B4
THE CIRCLE	D1-2
THERESA LN	E4
THOMAS CT	F4
THOMAS LOOP	H4
THORNDALE AVE	B4
TINDALL LN	G4
TOWNSEND PL	B7
TROTTS LN	C6
TUSCARORA RD	G5-7
TUSCARORA ST	B1
TUSCON DR	H6
—U—	
UNIVERSITY CT	B4
UNIVERSITY DR	C4
UPPER MOUNTAIN RD	C3,E1,I1
—V—	
VALLE DR	F8
VAN RENSSELAER AVE	B6
VANDERBILT AVE	B6
VERMONT AVE	C5
VICTORIA AVE	A7
VIRGINIA AVE	C5
—W—	
WALLACE ST	C4
WALMORE RD	H2,H-I5,I7
WALNUT AVE	B-C7
WASHINGTON ST	B5,I6
WATER ST	B1
WAYSIDE	F3
WEB PL	D7
WELCH AVE	C7
WEST LN	C1
WESTON AVE	B8
WESTWOOD DR	D6
WHEATFIELD AVE	G6
WHIRLPOOL ST	B5-6
WHITNAM DR. N	E5
WHITNAM DR. S	E6
WHITNEY AVE	B8
WILLARD AVE	C6
WILLIAMS RD	H7-8
WILLIAMS ST	C3
WILLOW AVE	B6
WILLOW ST	B6
WILTON AVE	E7
WING CT	F7
WISZNOSKI DR	E5
WITCOP AVE	F6
WITMER RD	D4-5
WOODARD AVE	D4
WOODLAND AVE	F5
WOODLAND DR	C2
WOODLAWN AVE	C6
WOODSIDE PL	E6
WYOMING AVE	B4
—Y—	
YORK RD	I6
YOUNG ST	F6
—Z—	
ZIBULOT DR	F6
ZITO ST	G7

G —NUMBERED STREETS—	
1st AVE	F6
1st ST	A6,F6
1st ST N	B1
1st ST S	B1
2nd AVE	F6
2nd ST	A6,B7,F6
2nd ST N	B1
2nd ST S	B1
3rd AVE	F6-7
3rd ST	B7,F6
3rd ST N	B1
3rd ST S	B1
4th AVE	F6
4th ST	B7,F6
4th ST N	B1
4th ST S	B1
5th ST	B7,C1,G6
6th ST	B7
6th ST N	C1
6th ST S	C1
7th ST	B7
7th ST N	C1
7th ST S	C1
8th ST	A6,B6
8th ST N	C1
8th ST S	C1
9th ST	B6,I7
9th ST N	C1
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10th ST	B6-7
11th ST	B6
12th ST	B7
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14th ST	B6-7
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17th ST	A6,C6-7
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25th ST	C7
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28th ST	C7
29th ST	C6,7
30th ST	C7
31st ST	C7
32nd ST	C5,8
33rd ST	D7
34th ST	D7
35th ST	D6-7
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REGION AND ECONOMIC FACTORS
NIAGARA COUNTY, NEW YORK

Niagara County is located in the northwestern portion of New York State. It is bounded on the north by Lake Ontario, on the west by the Niagara River and the Dominion of Canada, on the south by the east branch of the Niagara River and Erie County and on the east by Orleans County. Overall, the County has an approximate area of 530 square miles with an average distance north to south of 18 miles and east to west of 28 miles. The County contains a total of 12 towns and 3 major cities. The cities consist of Lockport, Niagara Falls and North Tonawanda, while the Towns include Cambria, Hartland, Lewiston, Lockport, Newfane, Niagara, Pendleton, Porter, Royalton, Somerset, Wheatfield and Wilson.

Topographically, the County is divided into the Ontario and Huron Plains which are subdivisions of the lake plains that surround each of the Great Lakes. The Ontario Plain extends from the shore of Lake Ontario south to the foot of the Niagara Escarpment southward into Erie County. The Niagara Escarpment is the only prominent physiographic feature in the County. The Escarpment is several hundred feet high in places and extends in an east to west direction for over 30 miles. Other than the Escarpment area, the land surface is fairly uniform. The Escarpment also is the drainage divide across the County. All streams on the Ontario Plain flow northward into Lake Ontario. The drainage of the Huron Plain is southward into the Niagara River and Tonawanda Creek which forms the border between Niagara and Erie Counties.

The county of Niagara's population declined from 235,720 as of the 1970 census, to 227,101 as of the 1980 census. The county experienced a further population reduction of 7,610 from 1980 to 1984 or (3.4%). As of 1984, Niagara County was 219,491. The heaviest population concentration occurs in the Cities of Niagara Falls and North Tonawanda and the Towns of Wheatfield, Niagara, Lewiston and Porter. The Cities of Niagara Falls, North Tonawanda and Lockport form a geographical triangle where there is found the bulk of the County's residential, commercial and industrial development.

Major manufacturing firms deal with transportation equipment and chemicals. Other important industrial products include aircraft and aircraft components, metal and metal fabrications, paper and paper products, plastics, processed flood, wearing apparel and wood products. Some of the prominent industrial corporations and companies include the National Biscuit Co., Occidental Chemical Corp., E.I. Dupont DeNemours & Co., Inc., Goodyear Tire and Rubber Co. Carborundum Co., Simon Saw & Steel Co., Harrison Radiator, Bell Aerosystems Co., Standard Oil of Ohio, SKW Alloys, AIRCO Carbon and Great Lakes Carbon.

Transportation facilities in the County are considered good. The Niagara Expressway (I-190) Interstate Highway, the Robert Moses State Parkway and the LaSalle Expressway serve the City of Niagara Falls surrounding towns and are limited access highways. The prime State highways include Route (62)-Niagara Falls Boulevard and Route (78)-Transit Road. The balance of the highway system is made up to numerous county and town roads. The County is served by Conrail and Amtrack. Intra-county bus service is provided principally by the Niagara Frontier Transit Authority. For air transportation, Niagara County has 12 airports with the major facility being the Niagara Falls International Airport. Water transportation in Niagara County is focused upon a 10-mile stretch of the Niagara River between North Tonawanda and Niagara Falls, and also along the route of the New York State Barge Canal, which bisects the County from west to east.

Many cultural facilities have been built in the past 10 years. There is the Niagara Falls Aquarium, the Schoelkopf Geological Museum, the Native American Center/The Turtle, and the Wintergardens. In addition, there is the Convention Center located in Downtown Niagara Falls.

There is a 172 acre park situated on the Lewiston Escarpment called Artpark, which is a major entertainment facility in the Western New York area. Activities available there include music, art, outdoor programs and theaters.

Abundant dependable electric power results from the Niagara Power Project which is owned and operated by the Power Authority of the State of New York. Gas is supplied by the National Fuel Co. and water is supplied by the County.

The mineral resources of Niagara County, which is typical of the remainder of Western New York, are of non-metallic nature. Mineral production is limited to crushed stone and sand gravel operations. Forest resources consist of approximately 26,300 acres.

Agriculture in the County still plays a role in the area economy. Some of the products ranking high in production include apples, pears, peaches, cherries and grapes. Also important is vegetable production and dairy farming.

For recreation, the County offers 10 State Parks which provide such facilities as trailer sites, overnight camping areas, picnic areas, swimming and fishing areas, golf courses and a number of boat launching and docking facilities. The best known scenic

attraction in Niagara County is the world's most famous cataract - Niagara Falls. The Falls attracts millions of visitors each year.

The governing authority in Niagara County is vested in the Niagara County Legislature, which is composed of 19 members, each elected to 2 year terms.

Other elected county officials include County Judge and Surrogate, Sheriff, County Clerk, District Attorney, Treasurer and Commissioner of Public Welfare. Appointed officials are the County Attorney and Commissioner of Jurors, also Public Defender.

A 27.5 mile long transportation corridor, known as the Danielewicz Rail Corridor, provides coal to the Somerset Generating Station.

The County of Niagara has a temperate climate.

AREA AND ECONOMIC FACTORS
NIAGARA FALLS, NEW YORK

Niagara Falls is located on the Niagara Peninsula, lying between Lake Erie and Lake Ontario. The City is approximately 23 miles down river from Lake Erie and 14 miles south of Lake Ontario. The Niagara River connecting the two lakes has an elevation differential of 190' at the American Falls, a source of tremendous amounts of electrical power.

Historically, Niagara Falls, settled in 1800, was incorporated as a Village in 1848 and in 1892 united with Suspension Bridge Village to incorporate as a city. Electrical development began in 1895 and at the present time, with its most recent power project development, provides a generous supply of electrical power with low rates sufficient to attract industry to the area. Power development from the Falls supplies not only the many local plants but is widely distributed throughout the State and region. Some of the industries taking advantage of this natural resource are aircraft, metal goods, chemicals, abrasives, cereals and paper. Niagara Falls is considered one of the electro-chemical and electro-metallurgical centers of the United States.

Population in Niagara Falls dropped from 85,615 in 1970 to 71,344 in 1980, the big share of which is attributed to the withdrawal of the industry, employment decline in many local industrial firms, as well as numerous property takings by condemnation or appropriation. The most recent population count for the County is 219,491 or a decrease of 16,229 persons since 1970.

The City has a total area of approximately 16.8 square miles. It is known as one of the scenic wonders of the world and yearly attracts approximately 5,000,000 tourists. Recent new thruways and interstate highway routes have made Niagara Falls more convenient and accessible to tourists. The Niagara Frontier Park Commission controls the park areas near the Falls itself, which includes Goat Island and other small islands in the river, along with Prospect Park and its observation tower. The Schoelkopf Museum is one of the most interesting in the country, and an Aquarium, unique in that it uses man-made salt water, opened to the public several years ago. Another fine attraction is the Power Vista along the Robert Moses Parkway, which gives the visitor a graphic view of the process of converting water power to electrical energy. Niagara County serves as a Port of Entry to Canada by way of three bridges crossing the Niagara Gorge.

The City is serviced by several railroads, including Con-Rail and Canadian National. Railroad relocation began in Niagara Falls in the Fall of 1958; tracks were removed and the project is complete, leaving no railroad crossing at street grade but being replaced by

railroad viaducts, bridges and modern facilities. The City is serviced by the Municipal Airport, located on its eastern extremity on the north side of Niagara Falls Boulevard.

Niagara Falls is governed by a strong mayor form of government, with a City Council of seven.

Residential sections of the city of regulated by zoning ordinances and prospective homeowners normally find it easy to finance and build homes which are reasonably priced. Traditionally, local banks offer financing for both new and existing homes without difficulty with interest rates closely following the National trend and the Buffalo market.

There are 87 churches in Niagara Falls, representing 40 denominations. The education system rates among the finest in the State, having 30 public schools, including 3 senior high schools, 4 junior high schools, and 23 elementary schools. There are 15 parochial schools (including 1 high school), and one business school. Higher education facilities include Niagara County Community College and nearby Niagara University, a Catholic co-educational school founded in 1856.

A negative past development which has hampered growth of the City is the "Love Canal" situation on the east end along the Town of Wheatfield border. In the early 1940's Hooker Chemical Company purchased a property known as the "Love Canal" for use as a chemical dump site. Thereafter in the 1950's, the City of Niagara Falls through the Board of Education, purchased this now filled in and capped dump site for $1. The acquisition by the City was prompted because of the lack of land within the corporate city limits for development. The conveyance to the City from Hooker specifically referenced the situation.

The City proceeded to build a school known as the 99th Street School and installed several streets from 97th Street through 102nd Street and from Colvin Boulevard to Frontier Avenue. The land was sold to developers who built homes in this area and the balance of the school tract on 99th Street through to Colvin Boulevard was used as a ball diamond and play area for children.

In the early 1970's, the area at the south end of the "Love Canal" was purchased by the Department of Transportation for the construction of the LaSalle Arterial Highway. Later in that decade residents in the area began to notice odors in their basements, children coming home with chemicals on their clothing and obnoxious odors emitting from this covered over landfill. Public

sentiment swelled to the late 1970's with the area being declared a disaster area by the President. Federal, state and local aid was furnished to acquire the properties in the area between Colvin Boulevard on the north, Frontier on the south and 97th through 99th Streets. The entire area between 93rd Street and 102nd Street and from Frontier to Cayuga Creek on the north was also included in 1980. To this date, approximately 700 properties have been acquired by New York State. A redevelopment authority has been established including officials from the City of Niagara Falls and the Town of Wheatfield. It is planned that this area and its existing homes will be rehabilitated and the homes resold, now that the "Love Canal" dump site has stabilized. Millions of dollars have been invested by the Federal and State Government to again cover over the dump site and install monitoring wells to check the migration of the leachate from the canal site.

Obviously, property values in the immediate area have been affected to the point where properties within the first and second rings have lost their market value today since no purchaser is willing to live in the area. These homes have been removed. Also, areas on the periphery area have also sustained a loss in market value. The property owners in the area have, in some cases, relocated within the city. However, others have moved out of the city into the Town of Wheatfield, Town of Lewiston and other towns in the city. Also, evidenced by the drop in tourism in 1979 after national publicity concerning "Love Canal", the visitor and convention business has also suffered. However, through the 1980's to present, there have been increases in tourist traffic and revenues prompted by the rebuilding of downtown Niagara Falls.

With the advent of the rebuilding of downtown Niagara Falls, it was felt that as a tourist and convention center employment loss in industry would be offset. With the opening of new hotels in the downtown area, plus other development such as the Niagara Splash water park, Falls Street Station, Falls Street Faire, Radison Hotel and the Pointe Hotel, the future of downtown looks much better.

Since the construction of the New York State Thruway over Grand Island and its connecting links the Niagara Expressway and the Robert Moses Parkway, which run along the Niagara River to the Falls and then through the Niagara Section to Lewiston and Fort Niagara, there has been logical shifts in the motel and tourist accommodations from the Niagara Falls Boulevard area to the downtown area overlooking the Falls.

The growth of the Falls, both commercially and residentially, was steady up until 1960, when the area was affected by some industrial withdrawals which took place when a number of leading chemical manufacturing plants closed their doors or reduced their staffs. Then in 1961, a sharp break in residential prices occurred upon the withdrawal of power project personnel from the Niagara Falls area. Prices leveled off at the low point but edged up sharply beginning in the Spring of 1968, occasioned by the increased demand created mostly by appropriations for highway purposes coupled with little new construction since 1962. Further, since 1968, the commercial climate has improved resulting in new construction in parts of the downtown area of Niagara Falls, along Pine Avenue near Military Road in the LaSalle area and along Military Road near the intersection of Packard Road, known as 6 corners. Here shopping areas have been constructed in conjunction with large nationally known discount stores. The "Outlet Mall" is internationally known and draws visitors from many countries.

The industrial decline of the Falls has stabilized and the job loss has been offset to a great extent by increased tourism and jobs in that sector. The entire downtown area is virtually redeveloped with all of the older buildings demolished and new modern buildings and roadways constructed. With the Convention Center as the hub, new motels and tourist oriented services have been built, are under construction or in the planning and negotiation stages. Ultimately, the City should be one of the more attractive tourist meccas in the Country.

NEIGHBORHOOD AND LOCATION DATA

The "Love Canal Area" is generally bounded by the City Line and 102nd Street on the east, the LaSalle Expressway on the south, Cayuga Drive on the north and 93rd Street on the west. The entire area is made up of three different residential zones including the north side of Colvin which is zoned R-1, one family homes; the south side of Colvin from 96th Street to the City Line is zoned R-1A, one family residential and the area from 93rd Street to 96th Street, south and north of Colvin including the area of 95th Street School is zoned R-1G, general residential (all three single family residential zones will be described later in this report).

Prior to the late 1970's, early 1980's, the subject area was a very substantial residential location with two public schools, many homes built to the north and south sides of Colvin Boulevard. The one exception to the residential zoning was a small parcel on the south side of Colvin at 93rd Street which was zoned for commercial purposes. Also, there was a City housing complex located along 93rd Street near Read Avenue known as Griffon Manor Housing Project. Originally built during the second World War as temporary housing the project was rebuilt in the 1970's for low income people as well as elderly.

Development occurred in this area in the 1950's, 60's and 70's when home builders from the area purchased land, created subdivisions and built homes. Also in 1953, the Niagara Falls Board of Education purchased from Hooker Chemical Corporation the closed chemical landfill now known as Love Canal. The site of the landfill was originally designated as a canal that would create electric power on the upper Niagara River. Construction was started by a man named Love in the late 1800's. The project went bankrupt and the land was acquired by Hooker Chemical Corporation and used as a landfill in the 40's and early 50's. Records from Hooker Chemical Corp. indicate that 21,800 tons of company waste were dumped in the area prior to the land being sold by Hooker to the Niagara Falls Board of Education in 1953. Worth noting is the fact that Hooker did not willingly deed the land but acted only after the Board of Education had threatened condemnation to acquire the property. It is also worth noting that besides the Hooker wastes that have been dumped into the canal, other agencies including the Army disposed of toxic chemical wastes there during and after World War II. The City of Niagara Falls also regularly unloaded its municipal refuse into this Hooker owned 3,200' long section of canal.

In 1952, the 99th Street School site was approved, 1953 the Board of Education accepted the deed from Hooker for the Love Canal area, 1954 it was noted by an architect working on behalf of the school board that construction was disturbing chemicals in the

area. Later on in 1957, the Board of Education sold a portion of the love canal property to home developers; later that year the City began construction of sanitary sewers in the area. In 1960 the City constructed storm sewers through this location as well. In 1962 the Board sold the southerly portion of the Love Canal property and in 1968 the construction of the LaSalle Expressway was accomplished at the southern end of the property.

Thereafter beginning in 1978, a Gazette reporter named Michael Brown began reporting love canal problems in the Niagara Gazette. By 1980 the area had been declared a national emergency and homes were acquired in the effected areas.

Homes to the north and south sides of Colvin Boulevard had been acquired and the multi-family housing area has been razed leaving the entire area with vacant deteriorated homes. Many buildings have been demolished as of this writing. There are home owners who refused to sell. Their properties are interspersed throughout the entire Love Canal area. Specifically north of Colvin Boulevard in Black Creek Village there are several holdouts where property owners have remained in their properties and have maintained their buildings while around them homes owned by the Agency continue to deteriorate.

At the present time, a very detailed master plan of the entire area has been proposed to the Agency as drawn up by the consultants, Saratoga Associates of Saratoga Springs, New York. Portions of the property are slated for resettlement including the northerly side of Colvin and homes along 93rd Street. Other areas are proposed for either open space or potential commercial development.

Prior to the problem at Love Canal, the neighborhood was a viable residential neighborhood with two schools. It was close to various amenities including several churches which were located in the immediate area. Generally speaking, the location was very viable from a residential viewpoint.

As of September 1, 1989, the situation in the area has improved somewhat in the nine years that have passed since the properties were acquired. Since then, public sentiment has softened somewhat and it now appears that plans to resettle Black Creek Village area and the area along 93rd Street are a real possibility. The homes to the south of Colvin would be more difficult to market and therefore are not being considered in this analysis. The two schools in the area are no longer operating. The 99th Street School has been removed and the 93th Street School, although still standing, is not utilized by the Board of Education.

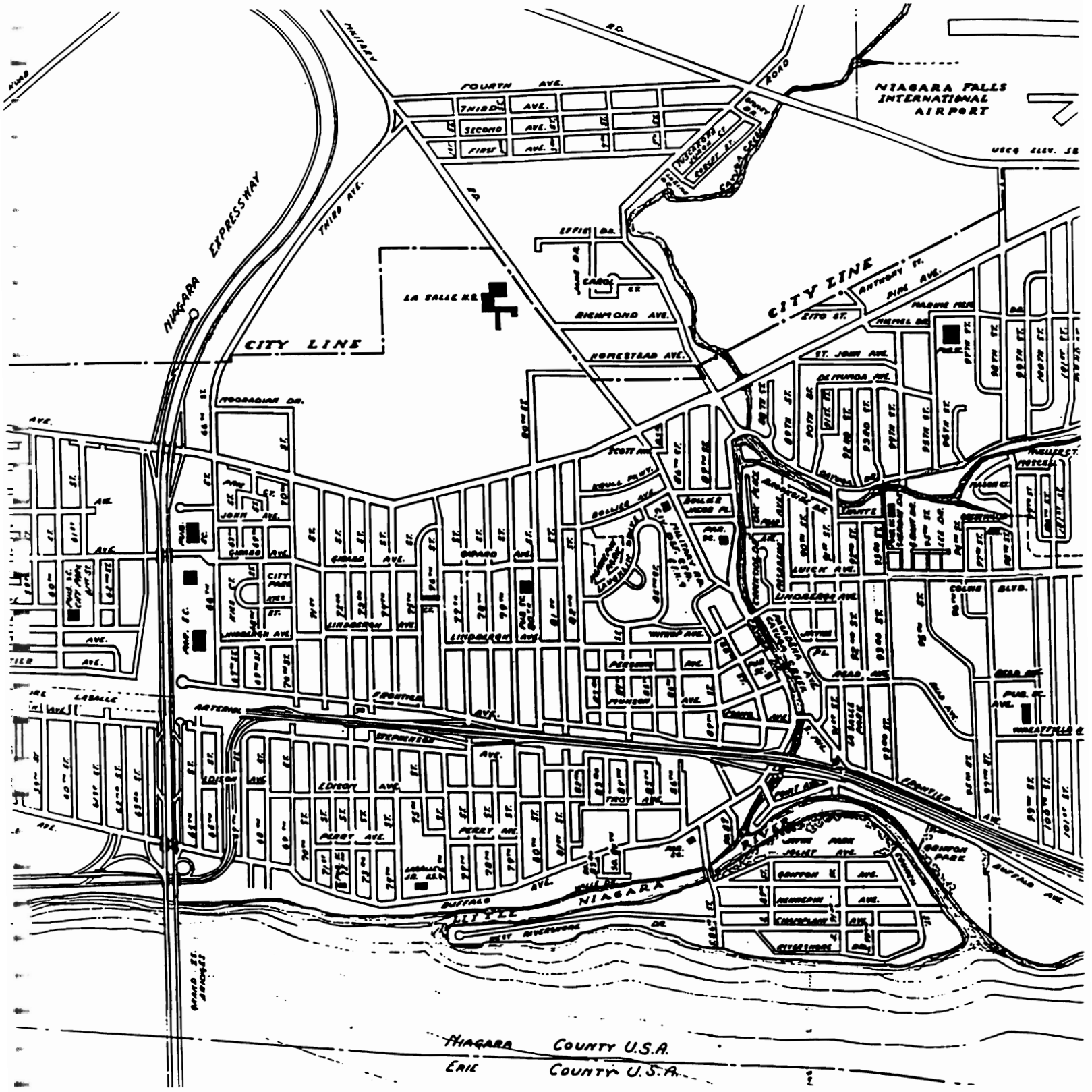
NEIGHBORHOOD AND LOCATION DATA (con't)

To create a viable residential neighborhood in the Black Creek Village area will require a good deal of public relation by the Agency. Homes that are worth saving should be rehabilitated and homes beyond repair, demolished. In the future there may be a potential for development on the vacant land created. Streets will have to be maintained, sewer and water lines will have to be repaired, trees will have to be maintained and generally the entire area will have to be cleaned up to make it more attractive. At the present time there is an ongoing project to clean Cayuga Creek which is the northerly boundary of the area. As of September 1, 1989 this effort is approximately 60% complete. The entire creek bed is being cleaned out with the contaminated soils removed to the Occidental plant on Buffalo Avenue. These soils will later be incinerated. New stone is being installed in the bed of the creek and the entire area will be re-landscaped to the former elevations.

The City has very little land available to be developed for residential purposes and in recent years most development has occurred in adjoining towns such as Wheatfield, Niagara, Lewiston and Porter. The Town of Wheatfield, adjacent on the east, has experienced the most growth of single family residential development. The Summit Park Mall, located on Williams Road just east of subject area, has provided much of the impetus for development nearby. The Mall is located on the east side of Williams Road and has approximately 800,000SF of stores. There is adjacent periphery development including offices, movie theaters and commercial space. To the east of the Mall is considerable apartment development and then single family residential. This entire Wheatfield area has a positive impact on the subject location.

If resettled, subject location could provide good economical housing for middle income families as most of the homes in the area are excellent starter homes of modest size which will be sold at moderate prices.

SUBJECT NEIGHBORHOOD MAP



OWNERSHIP AND RECENT HISTORY OF PROPERTY

The properties in the project area are mostly owned by the Love Canal Area Revitalization Agency. The properties were acquired beginning in 1980 when the area was declared a national emergency by then President Jimmy Carter. Previously, in August of 1978, New York State declared the Love Canal Area a health hazard, 99th Street School was closed and 255 families were evacuated.

An individual sales history of the 253 properties involved has not been conducted.

ZONING OF THE NEIGHBORHOOD

The neighborhood north of Colvin known as Black Creek Village is zoned R-1, one family residential according to the zoning regulations of the City of Niagara Falls. Lot size requirements in this area are 60' minimum width and 6,000 SF of land area, 30% coverage of the lot is the maximum allowed for any buildings.

District uses allowed include one family dwellings, elementary or high schools, churches or other places of worship, public or semi-public buildings, offices of physicians, dentists, architects, engineers, license cosmetologists and other similar professional persons when conducted in a dwelling owned by the inhabitants thereof. Also allowed are customary home occupations.

The area along 93rd Street is zoned R-1G, general residential and the same lot requirements as in R-1 are applicable with 60' frontage and 6,000 SF of land area with no more than 30% of the lot developed with building. Uses permitted include all those in R-1 as well as planned residential development including dwellings of any type as specified in Section 1335.503 and subject to the conditions as noted therein. The following uses are permitted subject to the obtaining of a special permit for each such use as provided in Section 1317.03 and in conformity with the standards in Chapter 1345.

A.) college, universities, seminaries and convents including fraternal, paternity and sorority houses and customary indoor and outdoor recreation facilities in conjunction with any of the aforesaid uses.

B) golf clubs, country clubs and other membership clubs not operated primarily for profit.

C) hospitals

ZONING OF THE NEIGHBORHOOD (con't)

The difference between R-1 and R-1G is that the R-1G is a little more liberal zoning regulation allowing planned residential development and some other uses subject to certain regulations.

The use of the area for single family homes is certainly allowed by the zoning regulations.

SITE DATA

LAND

The subject neighborhood described as Black Creek Village is located to the north side of Colvin Boulevard extending to Bergholtz Creek on the north, the City line on the east and 93rd Street on the west. The neighborhood along 93rd Street encompasses the west side of 93rd Street along its entire length from Frontier Avenue to Cayuga Drive.

The topography of the area is generally level. Bergholtz Creek is along the northerly boundary line and a tributary, Black Creek, runs through the area in a generally southeast to northwest direction connecting to Bergholtz Creek near the 93th Street School.

FLOOD ZONE DATA

According to the Federal Emergency Management Agency flood map, Community Panel No. 360506-0003B with an effective date of March 16, 1983, denotes that a portion of the property as being in Zone C which are defined as areas of minimal flood risk, not requiring flood insurance. These include the areas along 93rd Street and extending to include 97th Street and portions of Greenwald Avenue. It should be noted that to the rear of Greenwald Avenue, to the end of 93rd Street there is a A5 zone which calls for areas of 100 year flood with base flood elevations and flood hazard factors determined. In addition, there is a swath of land extending along the north side of Colvin to include much of 98th Street and Mason Court in Zone B which are listed as areas between the limits of the 100 year flood and 500 year plain. These again are areas that do not require flood insurance. The rear of the property along Mason Court is in the zone A, requiring flood insurance, however it would be the appraisers opinion that many of the buildings are along the road and not in the A zone. The balance of the project area including portions of 98th Street, virtually all of 99th Street, 100th and 101st Street as well as Moschel and Mueller Courts are in Zone A5 requiring flood insurance.

CONTAMINATION ASSUMPTION

As noted previously in this report, areas to the south of Colvin were used for chemical landfill in the 40's and 50's and resulted in the Love Canal situation we have today. The appraisers are not geologists and not qualified to comment any potential present or future health hazards related to living in this location. With the clean up work in progress along Cayuga Creek and Black Creek in the project area, along with cleaning of the sewers in the neighborhood and since the original landfill was south of the

CONTAMINATION ASSUMPTION (con't)

subject neighborhood, it may be possible that the area is clean from any chemical contaminants.

To have any market value at all, the appraisers must make the assumption that the subject sites are not contaminated with hazardous wastes and that further, the valuation ranges as later shown in this report, are based on the assumption that the properties are free from any potential environmental liens.

A significant amount of engineering studies have been made regarding the subject locale and volumes of studies produced by various State and Federal agencies. Based on these studies, the New York State Department of Health has made the determination that this area is re-habitable. The appraisers will leave such decisions to individuals more knowledgeable in these matters.

DESCRIPTIONS OF HOMES IN THE AREA

As shown on the accompanying subject inventory, there are 253 single family homes in the neighborhood in Black Creek Village and along 93rd Street. Of those, 206 are ranch style, 18 are cape cod or 1.5 story homes, 25 are two story and 4 are split level.

The ranch style homes range anywhere from 960 SF of living area to 1,450 SF of living. Cape Cod style homes include some under 1,000 SF with the majority ranging 1,250 to 1,470 SF. Two story homes have several under 1,200 SF but the majority from 1,201 to 2,050 SF. Split level homes include one under 1,500 SF and three over 1,500 SF.

Since their acquisition by the State of New York and the Love Canal Area Revitalization Agency in the early 1980's, the subject properties have received very little maintenance except what is absolutely necessary and are considered to be fair to poor condition depending on individual buildings. The appraisers viewed 10% of the structures and found some could be rehabed with very little cosmetic work while others would require extensive renovation and potentially still others require demolition. A determination of the condition and the future of the homes in questions will be made by the Love Canal Agency as well as the City of Niagara Falls Building Department. This appraiser has not made any attempt to quantify the repairs required to the homes and inspections were made only to familiarize the appraisers with the properties involved.

LOVE CANAL AREA

SUBJECT INVENTORY
AS OF SEPTEMBER 1, 1989

RANCHES	205		
CAPES	18		
TWO STORY	25		
SPLIT	4		
RAISED RANCH	1	TOTAL	253

CATEGORY BREAKDOWN

RANCHES

960 SF TO 1060 SF	130		
1061 SF TO 1,160 SF	47		
1,161 SF TO 1,454 SF	29		
SUB TOTAL		206	

CAPES

UNDER 1,000 SF	2		
1,001 SF TO 1,250 SF	6		
1,251 SF TO 1,470 SF	10		
SUB TOTAL		18	

TWO STORY

UNDER 1,200 SF	3		
1,201 SF TO 1,400 SF	10		
1,400 SF TO 2,050 SF	12		
SUB TOTAL		25	

SPLIT LEVELS

UNDER 1,500 SF	1		
OVER 1,500 SF	3		
SUB TOTAL		4	
		TOTAL	253

INVENTORY OF HOMES BY STREET

ADDRESS		STYLE	SITE	EXTERIOR	AGE	GLA	T/B/B	BSMNT	REC ROOM	GARAGE	PORCHES PATIOS	WBPL	OTHER
502	93RD STREET	RANCH	66X124	FRAME	36	992	5 3 1	FULL	YES	1 CAR	COVERED	NO	
520	93RD STREET	1.5 STY	44X132	FRAME	49	792	6 3 1	FULL	NO	FRONT	NO		
530	93RD STREET	1.5 STY	44X132	FRAME	29	1,220	5 3 1	FULL	NO	NONE	FRONT	NO	
534	93RD STREET	1.5 STY	44X132	FRAME	36	1,200	5 2 1	FULL	YES	1 CAR	COVERED	NO	
538	93RD STREET	RANCH	44X132	FRAME	32	992	5 3 1	FULL	YES	1 CAR	COVERED	NO	
542	93RD STREET	RANCH	44X132	FRAME	39	960	5 3 1	FULL	NO	NONE	STOOP	NO	
612	93RD STREET	RANCH	44X132	FRAME	35	955	5 3 1	FULL	NONE	NONE	UNCOVERED	NO	
616	93RD STREET	RANCH	44X132	FRAME	31	992	5 3 1	FULL	YES	1 CAR	COVERED	NO	
628	93RD STREET	1.5 STY	44X132	FRAME	59	1,139	5 3 1	FULL	NO	1 CAR	FRONT	NO	
636	93RD STREET	RANCH	44X124	FRAME	25	1,008	5 3 1	FULL	YES	1 CAR	FRONT	NO	
652	93RD STREET	2 STY	66X132	FRAME	66	1,342	7 3 1	FULL	YES	2 CAR	ENC.COVERED	NO	
664	93RD STREET	RANCH	44X124	ALUM	39	919	5 3 1	FULL	YES	1 CAR	FRONT	NO	
708	93RD STREET	RANCH	45X124	FRAME	39	1,135	6 4 1	FULL	NO	NONE	FRONT/PATIO	NO	
712	93RD STREET	1.5 STY	35X124	FRAME	59	1,068	5 3 1	FULL	NO	NONE	PORCH	NO	
728	93RD STREET	2 STY	41X132	VINYL	39	1,201	6 3 1	FULL	NO	1 CAR	FRONT	NO	
730	93RD STREET	RANCH	44X144	CLPBD	39	974	5 3 1	FULL	YES	NONE	OPEN	YES	
732	93RD STREET	RANCH	44X132	ALUM	39	954	5 3 1	FULL	NO	NONE	COV.PORCH	NO	
736	93RD STREET	RANCH	44X132	ALUM	34	972	5 3 1	FULL	NO	NONE	OPEN	NO	
742	93RD STREET	RANCH	44X132	ALUM	37	954	5 3 1	FULL	YES	NONE	COV/UNCOV	NO	
746	93RD STREET	RANCH	44X132	FRAME	37	973	5 3 1	FULL	NO	1 CAR	FRONT	NO	PATIO
750	93RD STREET	RANCH	44X132	ALUM	36	954	5 3 1	FULL	YES	1 CAR	FRONT	NO	
802	93RD STREET	1 STY	44X132	FRAME	34	955	5 3 1	FULL	NO	1 CAR	FRONT	NO	
806	93RD STREET	RANCH	44X132	FRAME	39	973	5 3 1	FULL	YES	1 CAR	FRONT	NO	
810	93RD STREET	RANCH	44X132	FRAME	40	992	5 3 1	FULL	NO	NO	FRONT PORCH	NO	
820	93RD STREET	RANCH	44X132	ALUM.	36	960	5 3 1	FULL	YES	1 CAR	PORCH	NO	
824	93RD STREET	RANCH	45X132	CEDAR	37	990	5 2 1	FULL	NO	1 CAR	FRONT	NO	

INVENTORY OF HOMES BY STREET

ADDRESS		STYLE	SITE	EXTERIOR	AGE	GLA	T/B/B	BSMNT	REC ROOM	GARAGE	PORCHES PATIOS	WBPL	OTHER
828	93RD STREET	RANCH	44X132	FRAME	32	940	5 3 1	FULL	YES	NONE	PORCH	NO	
832	93RD STREET	RANCH	44X132	FRAME	37	944	5 3 1	FULL	NO	1 CAR	FRONT	NO	
836	93RD STREET	RANCH	44X132	FRAME	36	940	5 3 1	FULL	NO	NONE	PORCH	NO	
842	93RD STREET	RANCH	43X132	ALUM.	36	977	5 3 1	FULL	YES	NONE	FRONT	NO	
908	93RD STREET	1.5 STY	60X132	ALUM	38	1,470	6 3 1	FULL	NO	1 CAR	PATIO	NO	
912	93RD STREET	2 STY	66X132	ALUM.	34	1,202	6 3 1	FULL	YES	1 CAR	STOOP	NO	WOOD BURNING STOVE
918	93RD STREET	2 STY	44X132	ALUM.	39	1,212	6 3 1	FULL	NO	1 CAR	FRONT	NO	
924	93RD STREET	2 STY	44X132	ALUM	39	1,056		FULL	NO	1 CAR	PORCH	NO	
940	93RD STREET	2 STY	44X132	FRAME	39	1,080	6 3 1	FULL	NO	1.5	FRONT & REAR	NO	
1006	93RD STREET	RANCH	40X132	BRICK	37	946		FULL	NO	1 CAR	PORCH	NO	
1010	93RD STREET	RANCH	40X132	FRAME	34	992	5 3 1	FULL	YES	NONE	PORCH	NO	
1014	93RD STREET	RANCH	40X132	FRAME	36	980	5 3 1	FULL	YES	1 CAR	COVERED	NO	
1018	93RD STREET	1.5 STY	40X132	ALUM	34	1,278	6 4 1	FULL	YES	1 CAR	COV.PORCH	NO	
1022	93RD STREET	RANCH	40X132	ASB	39	980	5 3 1	FULL	NO	1 CAR	FRONT	NO	
1026	93RD STREET	RANCH	40X132	ALUM	37	980	5 3 1	FULL	NO	1 CAR	FRONT	NO	
1030	93RD STREET	1.5 STY	40X132	ALUM	38	992	5 3 1	FULL	NO	1 CAR	COVERED	NO	
1034	93RD STREET	1.5 STY	40X132	FRAME	37	1,296	7 5 1	FULL	NO	NO	OPEN	NO	TV ANTENNA
1038	93RD STREET	RANCH	40X132	ALUM	39	992	5 3 1	FULL	NO	NO	NO	NO	
1056	93RD STREET	RANCH	40X132	FRAME	34	1,008	5 3 1	FULL	YES	NO	FRONT	NO	
1060	93RD STREET	RANCH	40X132	FRAME	34	960	5 3 1	FULL	YES	2 CAR	FRONT	NO	
1102	93RD STREET	RANCH	53X117	FRAME	30	1,040	5 3 1	FULL	NO	1 CAR	PORCH	NO	
1108	93RD STREET	RANCH	46X117	FRAME	34	1,040	5 3 1.5	FULL	YES	1 CAR	PORCH	YES	
1116	93RD STREET	RANCH	46X117	FRAME	26	1,197	5 3 1	FULL	NO	1 CAR	STOOP	NO	
1130	93RD STREET	RANCH	46X117	BRICK	34	1,007	4 2 1	FULL	YES	2 CAR	FRONT	NO	

INVENTORY OF HOMES BY STREET

ADDRESS		STYLE	SITE	EXTERIOR	AGE	GLA	T/B/B			BSMNT	REC ROOM	GARAGE	PORCHES PATIOS	WBPL	OTHER
1004	96TH STREET	RANCH	46X116	FRAME	34	1040	5	3	1	FULL	YES	1 CAR	PATIO	NO	
1010	96TH STREET	RANCH	60X116	BRICK	32	1,092	5	3	1	FULL	NO	1 CAR	PORCH/PATIO	NO	
1021	96TH STREET	RANCH	60X120	BRICK	29	1,050	5	3	1	FULL	NO	1 CAR	FRONT	NO	
1022	96TH STREET	RANCH	60X117	ALUM	33	1,370	5	3	1	FULL	NO	NONE	STOOP	NO	
1033	96TH STREET	RANCH	60X119	BRICK	30	1,100	5	3	1	FULL	YES	1 CAR	PORCH	NO	
1039	96TH STREET	2 STY	60X119	FRAME	31	1,840	9	5	1.5	FULL	NO	1 CAR	NO	NO	
1040	96TH STREET	2 STY	60X116	FRAME	18	864	4	3	1	FULL	NO	NONE	NO	NO	
1045	96TH STREET	RANCH	60X119	BRICK	27	1,232	5	3	1	FULL	NO	1 CAR	PORCH	NO	
1046	96TH STREET	RANCH	60X116	FRAME	29	960	5	3	1	FULL	NO	NO	NO	NO	
1050	96TH STREET	RANCH	60X117	BRICK	30	1,050	5	3	1	FULL	NO	1.5 C	FRONT	NO	
1058	96TH STREET	1.5 STY	93X105	FRAME	29	1,280	5	3	1	FULL	NO	1.5 C	PORCH		
1064	96TH STREET	RANCH	48X92	BRICK	35	1,429	5	2	1	FULL	NO	2 CAR	STOOP	NO	

INVENTORY OF HOMES BY STREET

ADDRESS		STYLE	SITE	EXTERIOR	AGE	GLA	T/B/B	BSMNT	REC ROOM	GARAGE	PORCHES PATIOS	WBPL	OTHER
1001	97T H STREET	RANCH	81X120	FRAME	34	1,008	5 3 1	FULL	NO	OPEN	NO	NO	
1015	97T H STREET	RANCH	60X141	FRAME	34	1,020	5 3 1	FULL	YES	2 CAR	FRONT	NO	
1021	97T H STREET	RANCH	60X140	FRAME	34	984	5 3 1	FULL	NO	1 CAR	STOOP	NO	
1027	97T H STREET	RANCH	60X141	FRAME	43	1,008	5 3 1	FULL	NO	NONE	STOOP	NO	
1032	97T H STREET	2 STY	60X120	ALUM	29	1,800	8 5 2.5	FULL	YES	2 CAR	PORCH	YES	
1033	97T H STREET	RANCH	60X141	FRAME	34	1,020	5 2 1	FULL	NO	NONE	STOOP	NO	

INVENTORY OF HOMES BY STREET

ADDRESS		STYLE	SITE	EXTERIOR	AGE	GLA	T/B/B	BSMNT	REC ROOM	GARAGE	PORCHES PATIOS	WBPL	OTHER
1003	98TH STREET	RANCH	90X43	FRAME	36	1,044	5 3 1	FULL	NO	1 CAR	STOOP	NO	
1004	98TH STREET	RANCH	81X113	FRAME	34	1,008	5 3 1	FULL	NO	1 CAR	STOOP	NO	
1011	98TH STREET	RANCH	60X113	FRAME	32	992	5 3 1	FULL	NO	2 CAR	ENTRANCE	NO	
1014	98TH STREET	RANCH	60X141	FRAME	34	980	5 3 1	FULL	YES	1.5 C	FRONT	NO	
1017	98TH STREET	RANCH	60X116	FRAME	31	1,006	5 3 1	FULL	YES	NONE	STOOP	NO	
1020	98TH STREET	RANCH	60X141	FRAME	35	1,041	5 3 1	FULL	YES	NONE	STOOP	NO	
1023	98TH STREET	RANCH	70X117	FRAME	36	1,008	5 2 1	FULL	NO	NONE	STOOP	NO	
1026	98TH STREET	RANCH	60X141	FRAME	35	1018	5 3 1	FULL	NO	NONE	FRONT	NO	SUN DECK
1031	98TH STREET	RANCH	68X116	FRAME	34	960	4 2 1	FULL	NO	1 CAR	STOOP	NO	
1032	98TH STREET	RANCH	60X141	VINYL	35	692	5 3 1	FULL	NO	NONE	FRONT	NO	
1037	98TH STREET	RANCH	66X116	FRAME	29	960	5 3 1	FULL	NO	1 CAR	NO	NO	
1040	98TH STREET	RANCH	100X90	FRAME	35	1,041	5 3 1	FULL	YES	CPORT	STOOP	NO	
1045	98TH STREET	RANCH	70X116	FRAME	30	1,211	6 3 1	FULL	NO	1.5 C	STOOP	NO	
1051	98TH STREET	RANCH	75X116	BRICK	30	1,161	5 3 1	FULL	YES	1.5 C	STOOP/PATIO	NO	
1071	98TH STREET	RANCH	60X116	FRAME	33	1,026	5 2 1	FULL	YES	1.5 C	STOOP	NO	
1076	98TH STREET	RANCH	169X108	FRAME	36	1,144	4 2 1	FULL	YES	2 CAR	FRONT	YES	
1079	98TH STREET	RANCH	70X116	FRAME	33	1,032	5 3 1	FULL	YES	1 CAR	STOOP	NO	
1085	98TH STREET	RANCH	70X116	FRAME	32	977	5 3 1	FULL	YES	1.5 C	STOOP	NO	
1088	98TH STREET	RANCH	120X106	FRAME	34	1,009	5 3 1	FULL	NO	1 CAR	FRONT	NO	
1089	98TH STREET	RANCH	70X116	FRAME	34	1,020	5 3 1	FULL	NO	1 CAR	STOOP	NO	
1092	98TH STREET	RANCH	88X110	FRAME	33	1,140	5 3 1	FULL	YES	1.5 C	STOOP	NO	
1093	98TH STREET	RANCH	70X116	FRAME	33	1,008	5 3 1	FULL	NO	1 CAR	STOOP	NO	
1096	98TH STREET	RANCH	80X100	FRAME	34	1,190	6 4 1	FULL	YES	1 CAR	FRONT	NO	
1097	98TH STREET	RANCH	70X116	FRAME	31	1,032	6 3 1	FULL	NO	1 CAR	STOOP	YES	
1104	98TH STREET	RANCH	80X100	FRAME	34	1000	5 3 1	FULL	YES	1 CAR	PORCH	NO	
1105	98TH STREET	RANCH	65X100	FRAME	34	1,395	6 3 1	FULL	NO	1 CAR	PATIO	YES	

INVENTORY OF HOMES BY STREET

ADDRESS		STYLE	SITE	EXTERIOR	AGE	GLA	T/B/B	BSMNT	REC ROOM	GARAGE	PORCHES PATIOS	WBPL	OTHER
1110	98T H STREET	RANCH	111X114	FRAME	34	1,050	5 3 1	FULL	YES	1 CAR	STOOP/PATIO	YES	
1111	98T H STREET	RANCH	65X113	FRAME	19	1096	5 3 1	FULL	NO	1 CAR	STOOP	NO	
1117	98T H STREET	RANCH	90X150	FRAME	32	1,364	5 3 1	FULL	YES	1 CAR	FRONT	YES	

INVENTORY OF HOMES BY STREET

ADDRESS		STYLE	SITE	EXTERIOR	AGE	GLA	T/B/B			BSMNT	REC ROOM	GARAGE	PORCHES PATIOS	WBPL	OTHER
1026	99TH STREET	2 STY	38X160	FRAME	33	1,666	8	4	1.5	FULL	NO	1 CAR	STOOP	NO	
1030	99TH STREET	RANCH	50X140	FRAME	34	1,040	5	3	1	FULL	NO	1 CAR	PORCH	NO	
1033	99TH STREET	RANCH	65X113	FRAME	34	1,040	5	3	1	FULL	NO	1 CAR	PORCH	NO	
1034	99TH STREET	RANCH	50X122	VINYL	34	1,454	7	4	1	FULL	YES	NONE	FRONT	YES	
1039	99TH STREET	RANCH	60X113	FRAME	34	992	5	3	1	FULL	NO	1 CAR	NO	NO	
1040	99TH STREET	RANCH	60X120	VINYL	32	1,053	5	3	1	FULL	YES	1.5 C	FRONT	NO	POOL
1043	99TH STREET	RANCH	60X113	FRAME	33	994	6	2	1	FULL	NO	NONE	FRONT	NO	
1044	99TH STREET	RANCH	60X118	FRAME	34	1,040	5	3	1	FULL	NO	NONE	STOOP	NO	
1046	99TH STREET	RANCH	60X118	FRAME	32	1,130	6	3	1	FULL	YES	NONE	FRONT	NO	
1047	99TH STREET	RANCH	60X114	FRAME	33	1,064	5	2	1	FULL	NO	1 CAR	FRONT	NO	
1051	99TH STREET	RANCH	60X114	FRAME	34	1,053	5	3	1	FULL	YES	NONE	NO	NO	POOL
1056	99TH STREET	RANCH	60X119	FRAME	33	1,048	5	3	1	FULL	NO	2 CAR	STOOP	NO	
1059	99TH STREET	RANCH	60X115	FRAME	34	972	5	3	1	FULL	YES	NONE	PORCH/PATIO	NO	
1060	99TH STREET	RANCH	60X119	ALUM	33	1,130	6	3	1	FULL	YES	1 CAR	PORCH	NO	
1063	99TH STREET	RANCH	60X115	FRAME	31	960	5	3	1	FULL	YES	1.5 C	STOOP	NO	
1064	99TH STREET	RANCH	60X120	ALUM	32	1,066	5	3	1	FULL	YES	2 CAR	PORCH	NO	
1067	99TH STREET	RANCH	60X115	FRAME	34	1,060	5	3	1	FULL	YES	NONE	PORCH	NO	BATH IN BSMT
1071	99TH STREET	RANCH	60X116	FRAME	34	960	5	3	1	FULL	YES	NO	FRONT	NO	
1072	99TH STREET	RANCH	60X120	FRAME	32	1,066	6	3	1	FULL	NO	1.5 C	STOOP	NO	
1075	99TH STREET	RANCH	60X116	FRAME	33	1,422	6	3	1	FULL	YES	NONE	PORCH	NO	WALL A/C
1076	99TH STREET	RANCH	60X120	FRAME	32	1,046	6	3	1	FULL	YES	1.5 C	PORCH	NO	
1079	99TH STREET	RANCH	60X116	VINYL	32	1,040	5	2	1	FULL	YES	1.5 C	PATIO	NO	WALL A/C
1080	99TH STREET	RANCH	60X121	FRAME	34	1,094	5	3	1	FULL	NO	NONE	PORCH	NO	
1083	99TH STREET	RANCH	60X117	FRAME	33	1,060	5	3	1	FULL	YES	2 CAR	PORCH	NO	WD BURNING STOVE
1084	99TH STREET	RANCH	60X120	FRAME	32	1,046	6	3	1	FULL	NO	1.5 C	STOOP	NO	
1087	99TH STREET	RANCH	65X117	ALUM	34	1,040	5	3	1	FULL	NO	1 CAR	PORCH	NO	

INVENTORY OF HOMES BY STREET

ADDRESS	STYLE	SITE	EXTERIOR	AGE	GLA	T/B/B	BSMNT	REC ROOM	GARAGE	PORCHES PATIOS	WBPL	OTHER
1090 99T H STREET	RANCH	120X70	FRAME	32	1,042	5 3 1	FULL	YES	2 CAR	STOOP	NO	

INVENTORY OF HOMES BY STREET

ADDRESS		STYLE	SITE	EXTERIOR	AGE	GLA	T/B/B	BSMNT	REC ROOM	GARAGE	PORCHES PATIOS	WBPL	OTHER
1007	100TH STREET	RANCH	66X110	VINYL	32	1,073	5 3 1	FULL	NO	NONE	FRONT	NO	
1015	100TH STREET	RANCH	60X111	FRAME	32	1,040	5 3 1	FULL	NO	1 CAR	PORCH	NO	CARPORT
1033	100TH STREET	RANCH	65X111	FRAME	34	1,073	5 3 1	FULL	NO	2 CAR	STOOP	NO	
1034	100TH STREET	RANCH	65X111	VINYL	34	992	5 3 1	FULL	YES	NONE	STOOP	NO	SUN PORCH
1039	100TH STREET	2 STY	60X111	ALUM	34	1,696	7 4 1	FULL	NO	1 CAR	NONE	YES	FLORIDA ROOM
1040	100TH STREET	RANCH	60X111	FRAME	39	960	5 3 1	FULL	NO	1 CAR	PORCH	NO	
1043	100TH STREET	RANCH	60X111	FRAME	34	960	5 3 1	FULL	NO	1.5 C	STOOP	NO	
1044	100TH STREET	RANCH	60X111	ALUM	34	960	5 3 1.5	FULL	YES	1 CAR	PORCH	NO	
1047	100TH STREET	RANCH	60X111	FRAME	34	1,040	5 3 1	FULL	NO	2 CAR	STOOP	NO	
1048	100TH STREET	RANCH	60X111	FRAME	34	960	6 3 1	FULL	NO	2 CAR	STOOP	NO	
1051	100TH STREET	RANCH	60X111	FRAME	34	1,200	5 3 1	FULL	YES	NONE	FRONT	NO	
1052	100TH STREET	RANCH	60X111	ALUM	34	992	5 3 1	FULL	NO	NONE	PORCH	NO	
1055	100TH STREET	RANCH	60X111	FRAME	34	992	5 3 1	FULL	NO	2 CAR	PORCH	NO	
1056	100TH STREET	RANCH	60X111	FRAME	34	1,073	5 3 1	FULL	NO	NONE	PORCH	NO	
1059	100TH STREET	RANCH	60X111	FRAME	34	992	5 3 1	FULL	NO	NONE	FRONT	NO	
1060	100TH STREET	RANCH	60X111	FRAME	34	992	5 3 1	FULL	NO	1 CAR	PORCH	NO	
1063	100TH STREET	1.5 STY	60X111	FRAME	34	1,421	4 2 1	FULL	NO	NONE	NONE	NO	
1064	100TH STREET	RANCH	60X111	ALUM	34	1,073	5 3 1	FULL	YES	1 CAR	PORCH	NO	
1067	100TH STREET	RANCH	60X111	FRAME	34	1,086	5 3 1	FULL	NO	1.5 C	FRONT	YES	
1068	100TH STREET	RANCH	60X111	FRAME	33	972	5 3 1	FULL	YES	2 CAR	PORCH/PATIO	NO	
1071	100TH STREET	2 STY	60X111	FRAME	34	1,300	6 3 1	FULL	YES	1 CAR	FRONT	NO	
1072	100TH STREET	RANCH	60X111	FRAME	33	992	5 3 1	FULL	NO	1.5 C	PORCH/PATIO	NO	
1075	100TH STREET	RANCH	60X111	FRAME	34	1,046	5 3 1	FULL	NO	2 CAR	FRONT	NO	
1076	100TH STREET	RANCH	60X111	FRAME	34	1,040	5 3 1	FULL	NO	2 CAR	PATIO COVERED	NO	
1079	100TH STREET	RANCH	60X111	FRAME	25	1,073	5 3 1	FULL	YES	2 CAR	FRONT	NO	POOL
1080	100TH STREET	RANCH	60X111	FRAME	33	966	5 3 1	FULL	NO	2 CAR	STOOP	NO	

INVENTORY OF HOMES BY STREET

ADDRESS		STYLE	SITE	EXTERIOR	AGE	GLA	T/B/B	BSMNT	REC ROOM	GARAGE	PORCHES PATIOS	WBPL	OTHER
1083	100 TH STREET	RANCH	60X111	FRAME	34	1,040	5 3 1	FULL	YES	NONE	PATIO	YES	
1084	100 TH STREET	RANCH	60X111	FRAME	34	1,073	5 3 1	FULL	YES	2 CAR	PATIO	NO	
1087	100 TH STREET	RANCH	60X111	FRAME	34	1,040	5 3 1	FULL	NO	2 CAR	PORCH	NO	
1090	100 TH STREET	RANCH	67X111	FRAME	34	1,040	5 3 1	FULL	YES	1.5 C	FRONT	NO	
1091	100 TH STREET	2 STY	60X111	VINYL	31	1,373	6 3 1	FULL	YES	2 CAR	STOOP	NO	
1095	100 TH STREET	RANCH	75X111	FRAME	33	1,073	5 3 1	FULL	NO	1 CAR	FRONT	NO	
1099	100 TH STREET	RANCH	75X111	FRAME	33	1,040	5 3 1	FULL	YES	1.5 C	NONE	NO	A/C, WD BRNG STOVE

INVENTORY OF HOMES BY STREET

ADDRESS	STREET	STYLE	SITE	EXTERIOR	AGE	GLA	T	B	B	BSMNT	REC ROOM	GARAGE	PORCHES PATIOS	WBPL	OTHER
1037	101ST STREET	RANCH	60X101	VINYL	34	1,107	5	3	1	FULL	YES	1 CAR	FRONT	NO	
1038	101ST STREET	RANCH	60X106	BRICK	29	1,027	6	3	1	FULL	NO	1 CAR	NONE	NO	FLORIDA ROOM
1041	101ST STREET	2 STY	60X106	FRAME	34	1,677	7	4	1	FULL	YES	1 CAR	NONE	YES	
1042	101ST STREET	1.5 STY	60X106	FRAME	34	1,356	5	3	1	FULL	NO	NONE	STOOP	NO	POOL
1045	101ST STREET	RANCH	60X106	FRAME	34	1,004	5	3	1	FULL	YES	2 CAR	STOOP	NO	
1046	101ST STREET	RANCH	60X106	FRAME	34	960	5	3	1	FULL	YES	1 CAR	PORCH	NO	
1049	101ST STREET	1.5 STY	60X106	FRAME	34	1,245	5	3	1	FULL	NO	NONE	STOOP	NO	
1050	101ST STREET	RANCH	60X106	FRAME	34	1,439	6	3	1	FULL	YES	NONE	NONE	YES	FLORIDA ROOM
1053	101ST STREET	2 STY	60X106	FRAME	33	1,325	6	3	1	FULL	YES	1 CAR	FRONT	NO	
1057	101ST STREET	RANCH	60X106	VINYL	33	1,086	5	3	1	FULL	YES	1 CAR	FRONT	NO	
1058	101ST STREET	RANCH	60X106	FRAME	33	1,075	6	3	1	FULL	NO	1 CAR	FRONT	NO	
1061	101ST STREET	RANCH	60X106	FRAME	35	1,040	5	3	1	FULL	NO	CPORT	PORCH	NO	
1062	101ST STREET	RANCH	60X106	FRAME	32	992	5	3	1	FULL	NO	1 CAR	PORCH/PATIO	NO	
1065	101ST STREET	2 STY	60X106	FRAME	32	1,795	7	3	1.5	FULL	NO	NONE	STOOP	YES	
1066	101ST STREET	RANCH	60X106	VINYL	34	1,073	5	3	1	FULL	YES	1 CAR	PORCH	NO	
1069	101ST STREET	1.5 STY	60X106	FRAME	33	1,301	5	2	1.5	FULL	NO	NONE	FRONT	NO	
1070	101ST STREET	1.5 STY	60X106	VINYL	33	1,385	5	3	1	FULL	NO	2 CAR	COVERED PORCH	NO	
1073	101ST STREET	2 STY	60X111	FRAME	34	1,625	7	3	1	FULL	YES	NONE	FRONT	NO	
1074	101ST STREET	RANCH	60X102	FRAME	34	1,040	5	3	1	FULL	NO	NONE	FRONT	YES	BATH IN BASEMENT
1077	101ST STREET	1.5 STY	60X106	FRAME	33	1,287	5	3	1	FULL	YES	1.5 C	FRONT	NO	
1078	101ST STREET	RANCH	60X106	FRAME	35	1,040	5	3	1	FULL	NO	1 CAR	PORCH	NO	
1081	101ST STREET	RANCH	60X106	FRAME	34	1,073	5	3	1	FULL	YES	1 CAR	FRONT/COVERED	NO	
1082	101ST STREET	RANCH	60X106	VINYL	34	1,073	5	3	1	FULL	NO	1 CAR	PORCH	NO	
1085	101ST STREET	RANCH	60X106	FRAME	33	1,040	5	3	1	FULL	NO	NONE	NO	NO	
1086	101ST STREET	RANCH	60X106	VINYL	34	960	5	3	1	FULL	NO	1 CAR	NO	YES	
1089	101ST STREET	RANCH	60X106	FRAME	35	1,040	5	3	1	FULL	NO	CPORT	STOOP	NO	

INVENTORY OF HOMES BY STREET

ADDRESS		STYLE	SITE	EXTERIOR	AGE	GLA	T/B/B	BSMNT	REC ROOM	GARAGE	PORCHES PATIOS	WBPL	OTHER
1090	101 ST STREET	RANCH	60X106	FRAME	33	1,073	5 3 1	FULL	NO	1.5 C	PORCH	NO	
1093	101 ST STREET	RANCH	60X106	ALUM	34	1,040	5 3 1	FULL	NO	NONE	STOOP	NO	
1094	101 ST STREET	RANCH	75X106	FRAME	33	1,073	5 3 1	FULL	NO	2 CAR	FRONT	NO	
1097	101 ST STREET	RANCH	50X106	FRAME	31	1,073	5 3 1	FULL	NO	NONE	STOOP	NO	FENCING
1098	101 ST STREET	RANCH	75X106	FRAME	34	1,073	5 3 1	FULL	YES	NONE	PATIO	NO	

INVENTORY OF HOMES BY STREET

ADDRESS		STYLE	SITE	EXTERIOR	AGE	GLA	T/B/B	BSMNT	REC ROOM	GARAGE	PORCHES PATIOS	WBPL	OTHER
9903	BLACK CREEK	RANCH	75X125	BRICK	34	960	5 3 1	FULL	NO	1 CAR	STOOP	NO	
9909	BLACK CREEK	2 STY	73X120	VINYL	34	1,274	6 2 1	FULL	NO	1 CAR	STOOP	NO	
9917	BLACK CREEK	RANCH	73X120	FRAME	34	1,073	5 3 1	FULL	NO	NONE	STOOP	NO	
10015	BLACK CREEK	1.5 STY	69X107	FRAME	33	1,211	5 3 2	FULL	NO	NONE	NONE	YES	
10021	BLACK CREEK	1.5 STY	57X137	FRAME	34	1,315	5 3 1	FULL	NO	NONE	NONE	NO	
10027	BLACK CREEK	2 STY	50X140	VINYL	32	1,700	7 3 2	FULL	YES	2 CAR	STOOP	YES	

INVENTORY OF HOMES BY STREET

ADDRESS		STYLE	SITE	EXTERIOR	AGE	GLA	T/B/B	BSMNT	REC ROOM	GARAGE	PORCHES PATIOS	WBPL	OTHER
9712	COL VIN BOULEVARD	RANCH	80X118	FRAME	34	1,008	5 3 1	FULL	NO	1 CAR	STOOP	NO	
9814	COL VIN BOULEVARD	RANCH	60X182	FRAME	34	910	5 3 1	FULL	NO	NONE	STOOP	NO	
9820	COL VIN BOULEVARD	RANCH	74X115	FRAME	34	972	5 3 1	FULL	NO	NONE	STOOP	NO	
9826	COL VIN BOULEVARD	RANCH	60X134	VINYL	34	1,150	6 3 1	FULL	NO	1 CAR	PORCH	NO	POOL
9906	COL VIN BOULEVARD	RANCH	74X128	FRAME	34	960	5 3 1	FULL	NO	1 CAR	STOOP	NO	
9914	COL VIN BOULEVARD	RANCH	74X122	FRAME	34	1,044	5 3 1	FULL	NO	2 CAR	STOOP	NO	
9920	COL VIN BOULEVARD	RANCH	74X116	FRAME	34	960	5 3 1	FULL	NO	NONE	STOOP	NO	
10002	COL VIN BOULEVARD	RANCH	55X103	FRAME	34	1,040	5 3 1	FULL	NONE	1.5 C	PORCH	NO	
10004	COL VIN BOULEVARD	RANCH	68X111	FRAME	34	1,073	5 3 1	FULL	NONE	NONE	PORCH	NO	
10010	COL VIN BOULEVARD	RANCH	68X111	FRAME	34	1,056	5 3 1	FULL	NO	NONE	STOOP/PORCH	NO	
10016	COL VIN BOULEVARD	RANCH	68X111	FRAME	39	1,068	5 3 1	FULL	NO	CPORT	PORCH	NO	
10022	COL VIN BOULEVARD	RANCH	69X111	FRAME	33	1,073	5 3 1	FULL	YES	NONE	FRONT	NO	

INVENTORY OF HOMES BY STREET

ADDRESS		STYLE	SITE	EXTERIOR	AGE	GLA	T/B/B	BSMNT	REC ROOM	GARAGE	PORCHES PATIOS	WBPL	OTHER
1056	GRE ENWALD COURT	RANCH	99X129	FRAME	29	990	5 3 1	FULL	YES	1.5 C	PORCH	NO	
9602	GRE ENWALD COURT	RANCH	70X150	ALUM	33	1,098	4 2 1	FULL	YES	1.5 C	FRONT	NO	
9605	GRE ENWALD COURT	RANCH	60X100	BRICK	27	1,071	5 3 1	FULL	YES	1.5 C	PORCH	NO	
9609	GRE ENWALD COURT	RANCH	60X100	BRICK	29	1,071	5 3 1	FULL	NO	1.5 C	PATIO	NO	
9613	GRE ENWALD COURT	RANCH	60X100	FRAME	25	816	5 2 1	FULL	NO	1 CAR	STOOP	NO	
9614	GRE ENWALD COURT	RANCH	60X140	BRICK	29	1,274	6 3 1	FULL	NO	1 CAR	PORCH	NO	
9620	GRE ENWALD COURT	RANCH	60X140	BRICK	27	1,068	5 3 1	FULL	NO	1.5 C	PORCH	NO	
9705	GRE ENWALD COURT	RANCH	111X128	BRICK	33	1,320	5 3 1	FULL	NO	NONE	PORCH	NO	
9713	GRE ENWALD COURT	RANCH	90X114	BRICK	31	1,230	6 3 1	FULL	YES	2 CAR	PATIO	NO	
9714	GRE ENWALD COURT	RANCH	120X134	BRICK	29	1,635	6 3 1.5	FULL	YES	2 CAR	FRONT	YES	

INVENTORY OF HOMES BY STREET

ADDRESS		STYLE	SITE	EXTERIOR	AGE	GLA	T/B/B			BSMNT	REC ROOM	GARAGE	PORCHES PATIOS	WBPL	OTHER
8	MASON COURT	RANCH	74X140	BRICK	29	1,201	5	3	1	FULL	YES	1.5 C	FRONT	NO	
11	MASON COURT	2 STY	69X120	FRAME	29	1,658	7	3	1	FULL	NO	1 CAR	STOOP	YES	
15	MASON COURT	RANCH	73X116	FRAME	30	1,116	5	3	1	FULL	YES	1.5 C	FRONT	YES	
16	MASON COURT	2 STY	78X171	ALUM	32	1,961	8	4	1.5	FULL	YES	1.5 C	STOOP	YES	
19	MASON COURT	RANCH	63X115	FRAME	29	1,140	5	3	1	FULL	YES	1 CAR	STOOP	NO	
23	MASON COURT	RANCH	113X114	FRAME	30	1,140	5	3	1	FULL	YES	1 CAR	NONE	YES	
26	MASON COURT	RANCH	108X91	BRICK	24	1,283	5	3	1	FULL	YES	1.5 C	FRONT	YES	
37	MASON COURT	2 STY	60X158	FRAME	17	1,732	7	3	1.5	FULL	NO	2 CAR	FRONT	YES	
41	MASON COURT	RANCH	60X162	BRICK	34	1,524	6	3	1.5	FULL	YES	2 CAR	PORCH/PATIO	YES	
52	MASON COURT	RANCH	60X100	FRAME	31	950	6	3	2	FULL	YES	1 CAR	PORCH	NO	
53	MASON COURT	RANCH	60X138	ALUM	15	1,478	6	3	2	NO	NO	1 CAR	STOOP	NO	
56	MASON COURT	RANCH	78X110	BRICK	31	1,297	6	3	1	FULL	YES	1 CAR	STOOP	NO	
57	MASON COURT	RANCH	55X143	BRICK	30	1,288	6	3	1	FULL	NO	1 CAR	FRONT	YES	
61	MASON COURT	SPLIT	72X145	ALUM	10	1,632	7	3	1.5	NO	NO	2 CAR	COVERED PORCH	YES	
64	MASON COURT	RANCH	100X119	BRICK	29	1,234	5	3	1.5	FULL	YES	1 CAR	PORCH	NO	
69	MASON COURT	SPLIT	79X147	VINYL	19	1,850	6	3	1.5	FULL	NO	2 CAR	PATIO	NO	
72	MASON COURT	RANCH	80X136	FRAME	29	1,134	5	3	2	FULL	NO	1 CAR	STOOP	NO	
73	MASON COURT	SPLIT	60X155	FRAME	14	1,188	6	3	1	FULL	NO	NO	SUN PORCH	NO	
77	MASON COURT	RANCH	60X158	ALUM	14	1,008	5	3	1	FULL	NO	1 CAR	ENTRY	NO	
80	MASON COURT	RANCH	104X172	FRAME	17	1,092	5	3	1	FULL	YES	1.5 C	STOOP	NO	
81	MASON COURT	SPLIT	60X153	ALUM	14	1,500	7	4	1	FULL	NO	1 CAR	PATIO	NO	
85	MASON COURT	RANCH	133X128	FRAME	38	1,374	5	2	1	FULL	NO	1 CAR	PORCH	YES	

INVENTORY OF HOMES BY STREET

ADDRESS		STYLE	SITE	EXTERIOR	AGE	GLA	T/B/B	BSMNT	REC ROOM	GARAGE	PORCHES PATIOS	WBPL	OTHER
9804	MOSICHEL COURT	RANCH	85X96	FRAME	32	1,218	6 3 1	FULL	YES	1 CAR	STOOP	NO	
9810	MOSICHEL COURT	RANCH	66X120	FRAME	33	1,200	5 3 1	FULL	NO	1 CAR	STOOP	NO	
9818	MOSICHEL COURT	RANCH	66X120	FRAME	33	1,042	5 3 1	FULL	NO	1 CAR	STOOP	NO	BATH IN BASEMENT
9824	MOSICHEL COURT	RANCH	66X120	FRAME	33	1,048	5 3 1	FULL	NO	1 CAR	PORCH	NO	
9832	MOSICHEL COURT	2 STY	115X280	BRICK	14	2,050	9 4 1.5	FULL	NO	2 CAR	NONE	YES	FLORIDA ROOM
9904	MOSICHEL COURT	RANCH	60X100	FRAME	32	1,040	5 3 1	FULL	NO	1.5 C	STOOP	NO	
9910	MOSICHEL COURT	RANCH	60X100	FRAME	31	1,053	5 3 1	FULL	NO	NONE	PATIO	NO	
9912	MOSICHEL COURT	RANCH	118X300	FRAME	23	1,272	5 3 1	FULL	NO	NONE	STOOP	YES	
9916	MOSICHEL COURT	RANCH	46X100	FRAME	31	1,153	5 3 1	FULL	YES	CPORT	NONE	NO	
9920	MOSICHEL COURT	RANCH	45X100	FRAME	31	1,073	5 3 1	FULL	YES	NONE	PORCH	NO	

INVENTORY OF HOMES BY STREET

ADDRESS		STYLE	SITE	EXTERIOR	AGE	GLA	T/B/B	BSMNT	REC ROOM	GARAGE	PORCHES PATIOS	WBPL	OTHER
10010	MUELLER COURT	RANCH	60X145	FRAME	34	1,040	5 3 1	FULL	YES	1.5 C	FRONT	NO	
10016	MUELLER COURT	RANCH	60X140	ALUM	33	1,107	5.5 3 1	FULL	NO	1 CAR	NO	NO	POOL
10022	MUELLER COURT	RANCH	50X90	VINYL	34	1,040	5 3 1	FULL	NO	1 CAR	NO	NO	
10036	MUELLER COURT	2 STY	50X114	FRAME	29	1,248	6 3 1	FULL	NO	1.5 C	NO	YES	
10114	MUELLER COURT	2 STY	94X85	FRAME	32	1,248	6 3 1	FULL	NO	2 CAR	STOOP	NO	

HIGHEST AND BEST USE

The highest and best use of the property may be defined as "that reasonable and probable use that will support the highest present value, as defined, as of the effective date of appraisal.

Alternatively, that use, from among reasonable, probable, legal and alternative uses found to be physically possible, appropriately supported, financially feasible and which results in the highest land value.

The definition immediately above applies specifically to the highest and best use of land. It is to be recognized that in many cases where a site has existing improvements on it, the highest and best use may very well be determined to be different from the existing use. The existing use will continue, however, unless and until land value in its highest and best use exceeds the total value of the property in its existing use.

Implied within these definitions is recognition of the contribution of that specific use to community environment or to community development goals in addition to wealth maximization of individual property owners. Also implied is that the determination of highest and best use results from the appraiser's judgment and analytical skill, i.e., that the use determined from analysis represents an opinion, not a fact to the found. In appraisal practice, the concept of highest and best use represents the premise upon which value is based. In the context of most probable selling price (market value) another appropriate term to reflect highest and best use would be most probable use.....".*

In the analysis of highest and best use with respect to the definition of market value, the appraiser must consider the following factors.

1. Possible use - what uses of the property in question are physically possible.

2. Permissible use (legal) - what uses are permitted on the property in question when considering private and public restrictions, i.e. deed exclusions, zoning (police power).

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* The American Institute of Real Estate Appraisers, the Society of Real Estate Appraisers, Real Estate Appraisal Terminology, 1st Printing, p. 107.

HIGHEST AND BEST USE (Cont'd)

3. Feasible use - which possible and permissible uses exhibit a profitable demand for such use, which is not speculative or conjectural, and which would produce the highest net return, for the longest period of time to the property in question.

POSSIBLE USES

The subject properties are single family homes and are only adaptable or usable when renovated for single family purposes.

PERMISSIBLE USE

According to the zoning, the area is zoned R-1 and a portion R-1G with certain exceptions based on municipal type uses including schools and churches, etc. Because of the zoning in the area only the existing single family housing would be a permissable use except that some of the vacant land could possibly be developed for public purposes such as churches or similar facilities. The appraiser has no way of knowing what possible deed restrictions or public restrictions that may be imposed when the properties are conveyed because of the unique character or the area.

FEASIBLE USE

Undoubtedly, because of the type of improvements involved with the land being developed with single family homes, the most feasible use would be for the continued use as a residential neighborhood.

ANALYSIS

Based upon the appraisers knowledge of the area, single family dwellings would be the highest and best use of the neighborhood providing that there is no residual effect from the contaminated area located to the south of Colvin Boulevard or from along Black Creek or Bergholtz Creek which run through the area. Providing the area receives a clean bill of health from all State and Federal agencies and people are allowed to resettle the area, the highest and best use would be as a single family neighborhood.

VALUATION PROCESS

APPROACHES TO VALUE

The work effort involved three phases including Phase I which entailed a review of appraisal reports and other data available at the LCARA office to assemble a complete list of properties by different categories. A staff appraiser and student intern reviewed appraisals made by the New York State Department of Transportation covering the subject properties as well as the City Assessor's records to determine a complete inventory of the properties in question. An exterior inspection of all the homes was made and an interior review of 25 properties was conducted. Information gathered included the address of the property, style, lot size, exterior type, age, gross living area, room count, basement, rec room, garage and porches. The information base which has been developed will be used as a part of the LCARA data file on the properties in question.

After the physical data of subject properties was ascertained, comparable sales of similar style homes including ranches, cape cods, two stories and split levels in the LaSalle area were investigated. Additional data for sales included date of sale, sale price and sale price per square foot including land.

The second step of the analysis involved determining the various categories of the subject properties to be analyzed. As shown on the subject inventory as of September 1, 1989, there are 206 ranch style houses in the area, of which 130 have less 1,060 SF. In addition, 47 have 1,061 to 1,160 SF and 29 have 1,161 to 1,450 SF. Of the 18 cape cod style homes; 2 have under 1,000 SF, 6 have 1,001 to 1,250 SF and 10 have 1,252 to 1,470 SF. The two story homes include three under 1,200 SF, ten from 1,201 to 1,400 SF and 12 from 1,401 to 2,050 SF. There is a total of 25 two story homes. Split level homes include one under 1,500 SF and three over 1,501 SF for a total of four homes. Overall, there are 253 properties in the study area.

The ten categories of homes based on the four styles were determined by this appraiser's knowledge of the general market and what the size breakdown should be. Many of the homes in the area would be considered to be starter homes for younger couples or possible retirement homes for older people while a few are large enough to accommodate good size family groups.

VALUE RANGE CONCLUSIONS

Based upon the categories as previously determined, an analysis of the various style homes, depending on size, was made. Thus comparing the subject properties on an overall basis to sales in the general LaSalle area. 78 sales were investigated including 27 ranches, 27 capes, 22 two story homes and 4 split levels.

On the following pages are sales data and value conclusions of the various style properties:

AVERAGE SALE PRICE PER SQUARE FOOT ANALYSIS

As shown on the accompanying charts, the average sale price per square foot area including land in the LaSalle area for ranch type homes, ranges from $40.69/SF to $43.19/SF. Cape Cod style homes range $36.19/SF average to $47.69/SF average. Two story homes are something less averaging $30.30/SF to $35.89/SF. These averages are slightly below other towns in the surrounding region including the Town of Wheatfield where average sale prices are in a range of approximately $50/SF and more because of the number of new homes being sold in that town. This is also true for Lewiston and Porter which are approximately $50/SF as well. The numbers of new homes that are being sold at higher prices obviously increase the average.

RANCH STYLE SALES

ADDRESS		STYLE	SITE	EXTERIOR	AGE	GLA	T/B/B			BSMNT	REC ROOM	GARAGE	PORCHES PATIOS	WBPL	OTHER	DATE	PRICE	$/SF
1631	100TH ST	RANCH	60X103	ALUM	14	768	5	3	1	FULL	NO	1 CAR	STOOP	NO		1/88	31,356	40.82
1532	100TH ST	RANCH	60X102	ALUM	17	792	5	3	1	FULL	YES	2 CAR	STOOP	NO		1/89	51,000	64.39
1022	92ND ST	RANCH	40X132	FRAME	37	912	5	3	1	FULL	NO	1 CAR	STOOP	NO		12/89	25,900	28.39
1632	98TH ST	RANCH	70X120	FRAME	31	936	5	3	2	FULL	YES	1 CAR	PORCH	NO		11/88	47,000	50.21
1223	90TH ST	RANCH	48X115	ALUM	36	960	5	3	1	FULL	YES	2 CAR	STOOP	NO		9/88	28,500	29.68
1280	90TH ST	RANCH	58X92	FRAME	19	960	5	3	1	FULL	YES	1 CAR	PORCH	NO		9/88	52,900	55.10
1013	91ST ST	RANCH	38X132	FRAME	35	960	5	3	1	FULL	NO	2 CAR	PORCH	NO		10/88	46,000	47.91
1265	92ND ST	RANCH	56X111	FRAME	35	960	5	3	1	FULL	YES	1 CAR	PORCH	NO		10/88	51,900	54.06
826	90TH ST	RANCH	50X134	FRAME	39	990	5	2	1	FULL	YES	1 CAR	PORCH	NO		2/89	44,500	44.94
1638	100TH ST	RANCH	60X103	ALUM	14	995	6	4	1	FULL	NO	2 CAR	PORCH	NO	POOL	5/88	47,700	47.93
1121	90TH ST	RANCH	60X125	ALUM	35	1,000	5	3	1	FULL	NO	1 CAR	STOOP	NO		5/88	24,900	24.9
923	88TH ST	RANCH	40X125	FRAME	34	1,008	5	3	1	FULL	NO	1 CAR	PORCH	NO		6/88	45,000	44.64
926	92ND ST	RANCH	40X132	ALUM	34	1,040	5	3	1	FULL	NO	NONE	PORCH	NO		2/88	36,600	35.19
60	DEURO DRIVE	RANCH	60X110	FRAME	22	1,040	5	3	1	FULL	YES	NONE	STOOP	NO		5/88	38,000	36.53
1278	95TH ST	RANCH	50X187	FRAME	17	1,092	5	3	1	FULL	YES	NONE	PORCH	NO		3/89	40,000	36.63
1138	90TH ST	RANCH	40X125	BRICK	33	1,118	5	3	1.5	FULL	NO	NONE	PORCH	NO		12/88	55,000	49.19
1249	88TH ST	RANCH	50X150	ALUM	33	1,140	5	3	1	FULL	NO	2 CAR	PORCH	NO		4/88	45,900	40.26
1309	99TH ST	RANCH	60X114	ALUM	23	1,176	6	3	1	FULL	NO	1 CAR	PORCH	YES		2/89	40,000	34.01
1383	99TH ST	RANCH	60X114	ALUM	21	1,176	5	3	1	FULL	NO	1 CAR	PORCH	NO		2/88	46,000	39.11
1395	101ST ST	RANCH	60X100	FRAME	24	1,176	6	3	1	FULL	NO	1 CAR	STOOP	NO		11/88	49,900	42.43
1410	101ST ST	RANCH	63X96	FRAME	24	1,176	6	3	1.5	FULL	YES	NONE	STOOP	NO		6/88	58,900	50.08
1393	102ND ST	RANCH	64X97	ALUM	18	1,296	5	3	1	NO	NO	2 CAR	STOOP	NO		10/88	58,000	44.75
646	PASADENA AVE	RANCH	57X227	ALUM	28	1,316	6	3	1	PART	NO	2 CAR	STOOP	NO		2/88	59,900	45.51

RANCH STYLE SALES

ADDRESS		STYLE	SITE	EXTERIOR	AGE	GLA	T/B/B	BSMNT	REC ROOM	GARAGE	PORCHES PATIOS	WBPL	OTHER	DATE	PRICE	$/SF
1503	10 1ST ST	RANCH	80X100	ALUM	12	1,543	7 3 2	NO	NO	1 CAR	STOOP	NO		11/88	68,900	44.65
1032	CREEKSIDE DR	RANCH	93X230	FRAME	51	1,588	6 3 1.5	PART	NO	1 CAR	PORCH	YES		1/88	55,000	34.63
1545	10 1ST ST	RANCH	70X100	ALUM	14	1,656	6 4 1	NO	NO	NONE	STOOP	NO		7/88	56,000	33.81
10406	MARIINE MEM.	RANCH	60X114	ALUM	2	1,918	6 3 1	FULL	NO	1 CAR	STOOP	NO		7/88	72,650	37.87

1.5 STORY/CAPE SALES

ADDRESS		STYLE	SITE	EXTERIOR	AGE	GLA	T	B	B	BSMNT	REC ROOM	GARAGE	PORCHES PATIOS	WBPL	OTHER	DATE	PRICE	$/SF
217	77TH STREET	1.5 STY	30X108	FRAME	64	690	5	2	1	FULL	NO	1 CAR	PORCH	NO		6/89	18,250	26.44
330	75TH STREET	1.5 STY	50X122	FRAME	42	700	5	3	1	FULL	NO	2 CAR	PORCH	NO		11/88	25,500	36.42
1002	92ND ST	1.5 STY	40X132	ALUM	37	728	4	2	1	FULL	YES	2 CAR	PORCH	NO	ATTC UNF	1/88	47,000	64.56
202	70TH ST	1.5 STY	30X106	FRAME	54	748	5	2	1	FULL	NO	1 CAR	PORCH	NO		7/89	34,000	45.45
246	77TH STREET	1.5 STY	30X108	FRAME	60	756	7	2	1	FULL	NO	2 CAR	PORCH	NO		10/88	30,000	39.68
513	72 ND STREET	1.5 STY	60X112	FRAME	69	760	5	2	1	FULL	NO	NONE	PORCH	NO		8/88	20,000	26.31
447	79TH STREET	1.5 STY	40X130	FRAME	77	800	5	2	1	FULL	NO	NONE	PORCH	NO		10/88	20,000	25
209	65TH STREET	1.5 STY	40X120	FRAME	67	950	5	2	1	FULL	NO	1 CAR	PORCH	NO		8/89	35,000	36.84
1238	88TH ST	1.5 STY	50X165	ALUM	45	1,008	6	3	1	FULL	NO	1 CAR	PORCH	NO		2/88	45,000	44.64
1287	89TH ST	1.5 STY	50X135	FRAME	39	1,080	5	2	1	FULL	NO	1 CAR	PORCH	NO		11/88	39,500	36.57
1532	97TH ST	1.5 STY	60X120	FRAME	33	1,092	5	3	1	FULL	NO	1 CAR	STOOP	NO		4/88	34,900	31.95
1432	98TH ST	1.5 STY	60X120	FRAME	36	1,092	5	3	1	FULL	NO	NONE	PORCH	NO		8/88	45,000	41.20
1538	98TH ST	1.5 STY	60X120	ALUM	34	1,092	5	3	1	FULL	NO	1 CAR	PORCH	NO		1/89	46,000	42.12
9017	BROOKSIDE AVE	1.5 STY	45X120	FRAME	38	1,120	4	2	2	FULL	NO	NONE	PORCH	YES	ATTC UNF	8/88	45,000	40.17
1018	92ND ST	1.5 STY	40X132	ALUM	48	1,140	4	2	1	FULL	YES	1 CAR	STOOP	YES		10/88	28,000	24.56
1273	88TH ST	1.5 STY	50X150	FRAME	42	1,152	6	4	1	FULL	NO	1 CAR	STOOP	NO		9/88	43,000	37.32
802	90TH ST	1.5 STY	50X110	FRAME	41	1,152	5	2	1	FULL	YES	1 CAR	PORCH	NO		1/88	26,300	22.82
803	90TH ST	1.5 STY	50X131	FRAME	32	1,152	5	2	1	FULL	NO	1 CAR	PORCH	NO		9/88	36,000	31.25
1026	92ND ST	1.5 STY	40X132	ALUM	37	1,170	5	3	1	FULL	NO	1 CAR	PORCH	NO		1/88	28,900	24.70
1288	93RD ST	1.5 STY	57X117	ALUM	35	1,170	5	2	1	FULL	NO	1 CAR	PORCH	NO		11/88	50,250	42.94
801	PASADENA AVE	1.5 STY	80X100	FRAME	51	1,192	6	3	1.5	FULL	NO	1 CAR	STOOP	YES		11/88	49,900	41.86
1601	98TH ST	1.5 STY	60X120	FRAME	37	1,224	7	5	1	FULL	YES	1 CAR	STOOP	NO		3/88	54,500	44.52
932	90TH ST	1.5 STY	54X134	FRAME	39	1,342	5	2	1	FULL	NO	2 CAR	PORCH	YES	ATTC UNF	12/88	65,000	48.43

1.5 STORY/CAPE SALES

ADDRESS		STYLE	SITE	EXTERIOR	AGE	GLA	T/B/B			BSMNT	REC ROOM	GARAGE	PORCHES PATIOS	WBPL	OTHER	DATE	PRICE	$/SF
1247	90TH ST	1.5 STY	60X122	FRAME	37	1,368	6	3	2	FULL	YES	1 CAR	PORCH	NO		4/88	55,000	40.20
926	91 ST ST	1.5 STY	50X123	FRAME	48	1,368	6	2	1	FULL	NO	1 CAR	PORCH	YES		2/88	36,000	26.31
1223	88TH ST	1.5 STY	55X133	ALUM	47	1,390	6	3	1.5	FULL	YES	NONE	PORCH	NO		1/89	54,000	38.84
928	90TH ST	1.5 STY	50X134	FRAME	36	1,543	6	4	2	FULL	YES	1 CAR	PORCH	NO		6/88	53,500	34.67

TWO STORY SALES

ADDRESS	STYLE	SITE	EXTERIOR	AGE	GLA	T/B/B	BSMNT	REC ROOM	GARAGE	PORCHES PATIOS	WBPL	OTHER	DATE	PRICE	$/SF
8610 BOLLIER AVE	2 STY	80X120	ALUM	51	1000	5 3 1	FULL	NO	1 CAR	PORCH	NO		7/89	35,500	35.5
700 81ST STREET	2 STY	50X116	FRAME	47	1040	5 2 1	FULL	NO	1 CAR	PORCH	NO		8/89	35,000	33.65
1027 91 ST ST	2 STY	80X132	ALUM	61	1,144	6 3 1	FULL	NO	1 CAR	STOOP	NO		4/88	28,000	24.47
8836 POINT AVE	2 STY	60X195	FRAME	65	1200	6 3 1	FULL	NO	1 CAR	PORCH	NO		10/88	34,000	28.33
655 92ND ST	2 STY	44X132	FRAME	54	1,248	5 3 1	FULL	NO	1 CAR	PORCH	NO		6/88	30,500	24.43
8608 MUNSON AVE	2 STY	45X118	FRAME	51	1248	7 3 1	FULL	NO	1 CAR	PORCH	YES		7/88	49,100	39.34
1017 87TH STREET	2 STY	99X132	FRAME	80	1332	5 3 1	FULL	NO	2 CAR	PORCH	NO		10/88	43,000	32.28
729 91 ST ST	2 STY	40X132	FRAME	59	1,344	6 3 1	FULL	YES	NONE	PORCH	NO		6/88	40,000	29.76
9013 S. MILITARY RD	2 STY	48X135	FRAME	69	1400	6 3 1	FULL	NOP	NO	PORCH	NO		7/89	36,000	25.71
10207 CAYUGA DRIVE	2 STY	88X175	FRAME	69	1500	6 3 1	FULL	NO	1 CAR	PORCH	YES		7/89	30,000	20
9372 NIEMEL DR	2 STY	70X120	STUCCO	12	1,512	6 3 2	FULL	NO	2 CAR	STOOP	YES		3/88	62,000	41.00
8718 MUNSON AVE	2 STY	70X188	FRAME	65	1584	6 4 1	FULL	NO	2 CAR	PORCH	NO		7/89	56,900	35.92
1201 86TH STREET	2 STY	40X120	FRAME	49	1600	6 3 1.5	FULL	YES	1 CAR	PORCH	NO		11/89	41,500	25.93
922 90TH ST	2 STY	50X134	FRAME	37	1,616	6 4 1.5	FULL	NO	1 CAR	PORCH	YES		12/88	58,000	35.89
9211 ST. JOHN PKWY	2 STY	50X141	ALUM	3	1,672	7 3 1.5	FULL	NO	1 CAR	STOOP	YES		8/88	74,000	44.25
636 CAYUGA DRIVE	2 STY	50X150	ALUM	69	1700	8 4 2	FULL	NO	NO	P[ORCH	YES		7/89	35,000	20.58
8610 PERSHING AVE	2 STY	45X142	FRAME	80	1716	6 3 1	FULL	NO	2 CAR	PORCH	YES		7/89	56,900	33.15
8836 PEAR AVE	2 STY	35X130	FRAME	80	1732	6 3 1	FULL	NO	2 CAR	PORCH	NO		10/88	43,000	24.82
1025 PASADENA AVE	2 STY	75X134	BRICK	50	1,836	9 5 2	FULL	YES	2 CAR	PORCH	2		3/88	63,500	34.58
1151 OAK ST	2 STY	104X233	ALUM	90	2,118	7 4 1.5	FULL	NO	1 CAR	PORCH	YES		8/88	63,000	29.74

SPLIT LEVEL SALES

ADDRESS	STYLE	SITE	EXTERIOR	AGE	GLA	T/B/B	BSMNT	REC ROOM	GARAGE	PORCHES PATIOS	WBPL	OTHER	DATE	PRICE	$/SF
1327 102N D STREET	SPLIT	64X97	ALUM	19	864	5 2 1	PART	NO	1 CAR	PORCH	NO		8/89	59,000	68.28
1647 100T H STREET	SPLIT	60X103	ALUM	16	1336	6 3 1	PART	NO	1 CAR	PORCH	YES		5/89	56,900	42.58
1373 9[illegible]TH ST	SPLIT	60X114	ALUM	20	1,440	7 3 1.5	PART	YES	1 CAR	PORCH	YES		9/88	53,500	37.15
9261 ST J[illegible]HN PKWY	SPLIT	50X141	FRAME	7	1524	6 3 1.5	PART	NO	1 CAR	PORCH	YES		7/89	78,500	51.50

LASALLE AREA

SALES INFORMATION RECAP

STYLE/SIZE RANCH	NO OF SALES	VALUE RANGE	AVG P/SF	MEDIAN PRICE/SF
Under 1,060 SF	14	24.90-64.39	$43.19	$50.98
1,061 SF to 1,160SF	3	36.63-49.19	$42.03	$40.26
Over 1,161 SF	10	33.82-50.09	$40.69	$40.13
	27			
CAPES (1.5 STY)				
Under 1,000 SF-2 BR	8	25.00-64.56	$37.59	$42.56
1,001 SF to 1,250 SF	14	22.82-44.64	$36.19	$41.20
Over 1,251 SF	5	26.32-48.44	$37.69	$38.84
	27			
TWO STORY				
Under 1,200 SF	4	24.48-35.50	$30.49	$30.99
1,299 SF to 1,400 SF	5	24.44-39.34	$30.30	$29.76
Over 1,400 SF	11	20.00-44.25	$31.44	$33.15
	20			
SPLIT LEVEL				
Under 1,599 SF	4	37.15-68.28	$49.88	$39.86
TOTAL SALES	78			

Updated to 9/10/89

LOVE CANAL AREA

VALUE CONCLUSIONS

RANCH STYLE HOMES

SIZE	AVERAGE RANGE	MEDIAN RANGE	VALUE	VALUE RANGE CONCLUSION
960 SF	$43.19		$41,462	
1,060 SF	$43.19		$45,781	$45,000
				to
960 SF		$50.98	$48,941	$49,000
1,060 SF		$50.98	$54,039	
1,061 SF	$42.03		$44,593	
1,160 SF	$42.03		$48,754	$46,000
				to
1,061 SF		$40.26	$42,675	$49,000
1,160 SF		$40.26	$46,701	
1,161 SF	$40.69		$47,241	
1,454 SF	$40.69		$59,163	$47,000
				to
1,161 SF		$40.13	$46,568	$58,000
1,454 SF		$40.13	$58,300	

Updated to 9/10/89

LOVE CANAL AREA

VALUE CONCLUSIONS

CAPE STYLE HOMES

SIZE	AVERAGE RANGE	MEDIAN RANGE	VALUE	VALUE RANGE CONCLUSION
792 SF	$37.59		$29,771	
992 SF	$37.59		$37,289	$35,000
				to
792 SF		$42.56	$33,708	$42,000
992 SF		$42.56	$42,220	
1,001 SF	$36.19		$36,226	
1,250 SF	$36.19		$45,238	$39,000
				to
1,001 SF		$41.20	$41,241	$48,000
1,250 SF		$41.20	$51,500	
1,251 SF	$37.69		$47,150	
1,470 SF	$37.69		$55,404	$47,500
				to
1251 SF		$38.84	$48,588	$56,500
1,470 SF		$38.84	$57,095	

Updated to 9/10/89

LOVE CANAL AREA

VALUE CONCLUSIONS

TWO STORY HOMES

SIZE	AVERAGE RANGE	MEDIAN RANGE	VALUE	VALUE RANGE CONCLUSION
864 SF	$30.49		$26,343	
1,200 SF	$30.49		$36,588	$30,000
				to
864 SF		$30.99	$26,775	$38,000
1,200 SF		$30.99	$37,188	
1,201 SF	$30.30		$36,390	
1,400 SF	$30.30		$42,420	$36,000
				to
1,201 SF		$29.26	$35,141	$42,000
1,400 SF		$29.26	$41,664	
1,401 SF	$35.89		$50,282	
2,050 SF	$35.89		$73,575	$50,000
				to
1,401 SF		$33.15	$46,443	$70,000
2,050 SF		$33.15	$67,958	

SPLIT LEVEL HOMES

1,632 SF	$39.86		$65,051	
1,850 SF	$39.86		$73,741	$47,000
1,188 SF	$39.86		$47,354	to
1,500 SF	$39.86		$59,790	$65,000

Updated to 9/10/89

ABSORBTION ANALYSIS

To estimate the potential absorption rate of the 253 homes located in the subject neighborhood, the appraiser has considered information as obtained from the Niagara Falls City Assessor's office, the Niagara Falls Area Board of Realtors and various Town Building Inspection offices as well as discussions with leading realtors and City and Town officials.

In the subject neighborhood, there are 253 homes that are potentially available for resale. However, that number is subject to change depending on the actual condition of homes to be determined at a later date. Some of the properties require cosmetic repairs while others need extensive renovation. Still other properties are beyond repair and must be demolished. It is the consensus of knowledgeable people in the area that to put 250 plus or minus homes on the market at one time would be disastrous, not only from a marketing viewpoint in the Love Canal Revitalization Plan but also it would have a negative effect on the real estate market in the LaSalle area and in the entire City of Niagara Falls.

The market in the City is relatively small by comparison to other towns since not as many properties change hands. Also, it must be considered that population of the entire area has diminished since 1980. Current population estimates indicate that the entire County of Niagara has approximately 216,900 persons in 1988 as opposed to the 227,350 noted in the 1980 census. The nearby Erie County has also shown a loss in population in that as of July 1, 1988 the population is estimated at 958,700 as opposed to the 1,015,472 as shown in the 1980 census. Overall, the two county area is down 5.5% since 1980. Population trends in the City are also down since as of the 1980 census Niagara Falls showed 71,344 people which is estimated currently to be in the neighborhood of 65,000 persons. This downward trend is expected to continue somewhat in that the estimate for 1995, according to a recent Gazette article would be 63,400 or an 11.2% decrease from the 1980 census figure. Obviously, the current trend in population has an effect on the marketing of real estate in the area.

RESIDENTIAL BUILDING PERMIT ANALYSIS

A review of building permits in the immediate area shows that the City of Niagara Falls has very few new single family homes being built. Only two permits were noted in 1989. As shown on the accompanying building permit analysis, other towns such as Wheatfield, with 138 permits to date in 1989, are much more attractive areas than the City is to build homes. This is partially caused because of a lack of land to be built on in the City. The Town of Lewiston is next in order of building permits

for 1989 to date, having 42 while the Town of Porter has 11 and the Town of Niagara has 5 building permits. It should be noted that in the City the trend is generally down from 1986 while such places as Wheatfield show a tremendous increase in the number of building permits going from 77 in 1986 for the entire year to 121 in 1988. The Town of Niagara is pretty stable at around 12-13 building permits annually. The Town of Porter had 16 in 1986, 22 in 1987 and a high of 30 in 1988. With 11 in 1989 to date, there would be no possible way that they would have as many as last year.

RESIDENTIAL BUILDING PERMIT ANALYSIS

CITY OF NIAGARA FALLS AND NEARBY TOWNS

LOCATION	1986	1987	1988	1989
Niagara Falls	11	3	5	2
Wheatfield	77	75	121	138
Lewiston	27	48	72	42
Tn Niagara	12	13	13	5
Tn Porter	16	22	30	11

RECAP OF DATA FROM NIAGARA FALLS AREA BOARD OF REALTORS

Multiple listing data obtained from the Niagara Falls Area Board of Realtors shows that in 1986, there were 390 sales through the system which increased to 885 in 1987 and 911 in 1988. For six months of 1989 there have been 487 sales which is approximately 1/2 of what last years total was and based on the market, around 900 should be the number for this year. The LaSalle area has had an increase in the number of sales as well. In 1986 there were 74 sales in the entire LaSalle area according to the multiple listing data which increased to 187 sales in 1987 and to a high of 189 in 1988. For six months in 1989, there have been 83 sales and potentially, last years total could be reached provided there is a brisk last half. At the same time that there have been more sales through the total multiple listing system and in the LaSalle area, sales have occurred on a faster basis with fewer average days on the market. As an example, in the overall multiple listing system in 1986 the average days on the market was 114 which decreased to 80 days in 1988 and about the same through six months of 1989. For the LaSalle area, the decrease is more dramatic. In 1986 the average days on the market was 108 which was reduced to 86 days average in 1987, 68 days average in 1988 and for six months of 1989 the average days on the market is 61.

Overall average sale prices of homes through the multiple listing system increased over the four period as well. In the total ML system, the 1986 average sale price through the ML system was $46,017 which increased to $49,273 in 1987. There was also a dramatic increase to 1988 where the average sale price was $52,737. For 1989 through the end of June, the average sale price was $51,844. From 1986 to 1987 there was a 7% increase in sale prices. The 7% was also shown between 1987 and 1988 and since the year is not over for 1989, an analysis can not be made for any increase in the last year. For the LaSalle area, the average sale price for 1986 was $35,805 which was increased to $38,600 in 1987. This represents an approximate 8% increase. For 1988 the sale prices had increased to $42,304 average which represents a 9.5% increase over 1987. The 1989 average sale price is similar to that of 1988.

It is obvious that thru this whole period as shown on the attached multiple listing data recapitulation, the numbers of homes in the upper price ranges increased since in the previous years, more homes in LaSalle were sold in the $30,000-$40,000 range than any other category. Recent ML data shows several sales in the higher brackets.

ABSORBTION ANALYSIS (con't)

RECAP OF DATA FROM NIAGARA FALLS AREA BOARD OF REALTORS

Discussions with Mrs. Phyllis Argy-Fester, President of the Niagara Falls Area Board of Realtors, reveals that in her opinion there is a shortage of homes in the LaSalle area on the market for sale. According to Mrs. Fester, 20-25 more homes per year could be accommodated without disturbing the market in LaSalle. A staged program was discussed whereby 5-7 homes would be on the market at any one time with a similar number being rehabed and therefore a current supply of homes coming on the market as others are sold. Homes should be priced according to the market and not above or below, so again not to disturb the current market in LaSalle and the rest of the City. It would appear, according to Mrs. Fester that the immediate area of 90th Street to Pasadena Avenue, Frontier to Cayuga Drive, would be the area most effected by the homes in the Love Canal area being put on the market. This influence would also carry over to other homes in the entire LaSalle neighborhood.

Realtor marketing would be important according to Mrs. Fester and she would suggest a system similar to FHA and VA be adopted whereby listings in the Love Canal area could be noted in the current multiple listing book and that all brokers be invited to sell the homes on a first come, first serve basis. It is possible that more homes could be sold in this manner because of cooperation with the realtors as opposed to if the Love Canal area revitalization Agency embarks on a sales program itself in competition to the realtors. This would have negative effects on the marketing program. A lock box system could be adopted where all vacant homes available for sale would have a lock box on the door which would allow entry if a realtor or realtor-associate wanted to show the property.

Discussions with other realtors including Mr. Samuel Talarico of Stefik Associates and John DiPofi of Town Crier, also indicate that a realtor assisted marketing program would be the best way to sell the properties and that a staged sell-off would be more desirable. Both agreed that 5-7 homes on the market at any one time would be the optimum without causing ill effects to the balance of the real estate market. Mr. Talarico stated that to put more homes on the market would lower the overall average sale prices of other homes in the area as well as creating a situation where homes would not sell as fast. It must be recognized that 250 homes represents nearly 30% of the annual sales through the entire ML system. That same 250 homes would represent a year and a half of sales in the LaSalle neighborhood.

ABSORBTION ANALYSIS (con't)

RECAP OF DATA FROM NIAGARA FALLS AREA BOARD OF REALTORS

Other comparisons of market absorption can be made by reviewing subdivisions in the areas that have been developed in the last few years. One subdivision located off Creek Road in the Town of Lewiston, owned by Leo P. Giusiana, with 200 lots has taken over 10 years to sell off. The average is approximately 15 lots per year. A second subdivision in the Town of Lewiston owned by James & Samuel Talarico, located at the end of 8th Street and Park Drive, there have been approximately 10 homes sold per year in this subdivision. A comparison of the subject in that it would be considered one subdivision area, market absorbtion would be at a slow pace, approximately 20 per year as the maximum recommended amount of sales.

ANALYSIS OF GREATER BUFFALO BOARD OF REALTORS MULTIPLE LISTING DATA

The Town of Amherst in Erie County is a very quick selling location with homes on the market an average of 52 days. Also, the ratio of listing price to sale price is 97.2% and the average sale price is $124,100. This contrasts sharply with the City of Niagara Falls which has a sale price average of $36,300 and a 96% ratio of sale price to listing price. Days on the market however are similar at 49 days. The Town of Wheatfield, Lewiston and Porter would be in what is known as Niagara West in the Buffalo multiple listing which has an average sale price OF $70,200, an average ratio of listing price to sale price of 95%, days on the market was 45. Based on these statistics, it would be reasonable to assume that homes may sell for approximately 95% of the asking price and would take 50-60 days to sell under normal circumstances provided they are marketed in a staged program.

NIAGARA FALLS AREA BOARD OF REALTORS

MLS DATA RECAPITULATION

TOTAL RESIDENTIAL SALES - ALL AREA

	1986	1987	1988	1989 (6 MO)
# SALES	390	885	911	487
AVG PRICE	$46,017	$49,273	$52,737	$51,844
AVG DAYS/MARKET	114	105	80	84
UNDER $30/M	112	239	201	143
$30-$40	94	175	181	86
$40-$50	55	141	148	65
$50-$60	41	82	90	51
$60-$70	27	94	101	42
$70-$80	22	42	66	29
$80-$90	12	28	37	22
$90-$100	9	23	18	15
$100-$120	7	17	23	10
$120-$140	6	15	23	6
$140-$160	1	5	12	8
OVER $160/M	4	14	11	10

LASALLE AREA SALES

	1986	1987	1988	1989 (6 MO)
# SALES	74	187	189	83
AVG PRICE	$35,805	$38,600	$42,304	$42,469
AVG DAYS/MARKET	108	86	68	61
UNDER $30/M	24	49	35	16
$30-$40	28	58	49	20
$40-$50	11	47	64	25
$50-$60	7	19	17	11
$60-$70	3	13	16	8
$70-$80	1	0	5	2
$80-$90	0	0	2	1
$90-$100	0	1	0	0
$100-$120	0	0	0	0
$120-$140	0	0	0	0
$140-$160	0	0	0	0
OVER $160/M	0	0	1	0

STATISTICS 1989

NIAGARA FALLS AREA BOARD OF REALTORS
RESIDENTIAL SALES ANALYSIS

	TOTAL	AVERAGE PRICE	AVERAGE DAYS	UNDER 30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100-120	120-140	140-160	OVER 160
RESIDENTIAL SALES BY AREA															
C 6 -NF NORTH END	1	27000	125	1	0	0	0	0	0	0	0	0	0	0	0
H 5 -NF LASALLE	2	51250	41	0	1	0	0	1	0	0	0	0	0	0	0
K 15 LEWISTON, TWN	1	183000	210	0	0	0	0	0	0	0	0	0	0	0	1
-NF DEVEAUX	31	49105	98	10	3	7	2	4	2	0	1	1	0	1	0
-NF EAST SIDE	7	22357	105	6	0	0	1	0	0	0	0	0	0	0	0
-NF HIGHLAND	3	25500	47	3	0	0	0	0	0	0	0	0	0	0	0
-NF HYDE PARK	75	38232	66	15	34	15	8	1	1	1	0	0	0	0	0
-NF LASALLE	83	42469	61	16	20	25	11	8	2	1	0	0	0	0	0
-NF NORTH END	57	24883	118	42	10	4	1	0	0	0	0	0	0	0	0
-NF SOUTH END	58	29168	105	39	10	5	2	1	0	0	0	0	0	1	0
CAMBRIA, TWN OF	3	74333	40	0	0	1	0	1	0	0	0	1	0	0	0
GRAND ISLAND	10	118710	37	0	0	0	1	3	1	0	1	1	0	0	3
LEWISTON, TWN OF	50	99481	90	0	1	0	7	7	9	3	7	3	3	5	5
LEWISTON, VILL. OF	14	82128	102	0	0	0	1	3	5	2	0	2	0	1	0
LOCKPORT	2	62450	64	0	0	1	0	0	1	0	0	0	0	0	0
LOCKPORT, TWN OF	1	94500	183	0	0	0	0	0	0	0	1	0	0	0	0
N. TONAWANDA	8	77900	51	0	0	1	1	0	2	1	3	0	0	0	0
NIAGRA, TOWN OF	38	52236	68	8	5	3	6	7	4	4	1	0	0	0	0
PORTER, TWN OF	18	71916	120	2	2	0	4	3	0	2	1	1	3	0	0
TONAWANDA	1	78900	31	0	0	0	0	0	1	0	0	0	0	0	0
WHEATFIELD, TWN OF	9	63222	66	1	0	1	3	0	1	3	0	0	0	0	0
WILLIAMSVILLE	1	57500	12	0	0	0	1	0	0	0	0	0	0	0	0
WILSON, TOWN OF	1	85000	176	0	0	0	0	0	0	1	0	0	0	0	0
WILSON, VILLAGE OF	2	58000	108	0	0	1	0	1	0	0	0	0	0	0	0
YOUNGSTOWN, VILL OF	11	101400	60	0	0	1	2	2	0	4	0	1	0	0	1
RES TOTAL	487	51844	84	143	86	65	51	42	29	22	15	10	6	8	10
COMM / IND TOTAL	11	14545	185	2	1	0	0	1	0	0	3	0	1	2	1
LAND TOTAL	26	17677	187	20	2	1	2	0	1	0	0	0	0	0	0
GOVT/FHA/VA TOTAL															
OTHER TOTAL	3	118833	137	0	0	0	1	0	0	0	0	0	0	1	1
TOTAL SALES	527	49761	91	165	89	66	54	43	30	22	18	10	7	11	12

	JAN TO MAR 89 NO.	DOLLARS	
LISTINGS	833	67657025	
SALES BROKER	231	10397625	43.8%
SALES CO-BROKE	296	16663120	56.2%
SALES TOTAL	527	27060745	
ACTIVE LISTINGS	489	44282250	
SALES / LISTING RATIO (PRICE)	93.7%		

STATISTICS 1988

	TOTAL	AVERAGE PRICE	AVERAGE DAYS	UNDER 30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100-120	120-140	140-160	OVER 160
			SALES ANALYSIS												
RESIDENTAIL															
DEVEAUX	48	47439	77	7	15	4	8	9	4			1			
NORTH END	43	26569	102	29	9	3		2							
HYDE PARK	87	36282	89	29	34	14	7	3							
SOUTH END, EAST END	72	33747	99	33	23	10	2		1	1	1		1		
LA SALLE	121	40477	70	28	29	38	11	11	3	1					
TOWN OF WHEATFIELD	12	57450	38	2		3	2	1	3			1			
TOWN OF NIAGARA	23	55991	80	4	4	1	2	5	1	4	2				
TOWN OF LEWISTON	73	85575	84	1	1	5	10	10	14	8	4	5	6	7	2
VILLAGE OF LEWISTON	20	68517	88	1	1		3	7	5	1		1	1		
TOWN OF PORTER	41	75290	100	6	4	4	2	6	4	2	2	5	4		2
VILLAGE OF YOUNGSTOWN	13	66550	60			4	2	3	2			1	1		
TOWN OF WILSON	9	37988	60	3	2	1	2	1							
TOWN OF CAMBRIA	5	62260	81			2	1			1	1				
GRAND ISLAND	12	74833	28			1	3	2	1	3	1		1		
BAL. NIAGARA COUNTY	16	68450	85		1	1	2	4	4	2	2				
ERIE COUNTY	4	98000	74					1	1				2		
OUTSIDE NIAGARA	2	119750	220	1											1
TOTAL SALES RES.	601	51128	83	144	123	91	57	65	43	23	13	14	16	7	5
OTHER															
COMMERCIAL/IND	23	71563	141	4	1	3	3	4	1	2		1		1	3
VACANT LAND	37	17533	165	34			1		1						1
TOTAL SALES OTHER	60	38245	156	38	1	3	4	4	2	2		1		1	4
TOTAL SALES	661	49959	89	182	124	94	61	69	45	25	13	15	16	8	9

1988

STATISTICS

NIAGARA FALLS AREA BOARD OF REALTORS
RESIDENTIAL SALES ANALYSIS

	TOTAL	AVERAGE PRICE	AVERAGE DAYS	UNDER 30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100-120	120-140	140-160	OVER 160
RESIDENTIAL SALES BY AREA															
-NF DEVEAUX	26	62042	83	2	5	4	5	7	2	0	0	0	0	0	1
-NF EAST END	2	30450	176	1	1	0	0	0	0	0	0	0	0	0	0
-NF HIGHLAND	1	19100	162	1	0	0	0	0	0	0	0	0	0	0	0
-NF HYDE PARK	46	35089	102	19	16	6	4	0	0	1	0	0	0	0	0
-NF LASALLE	68	45555	62	7	20	26	6	5	2	1	0	0	0	0	1
-NF NORTH END	18	23522	129	14	3	1	0	0	0	0	0	0	0	0	0
-NF SOUTH END	22	32059	61	10	4	8	0	0	0	0	0	0	0	0	0
CAMBRIA, TWN OF	2	43500	242	0	1	0	1	0	0	0	0	0	0	0	0
ERIE COUNTY	1	24000	352	1	0	0	0	0	0	0	0	0	0	0	0
GRAND ISLAND	9	110422	43	0	0	0	1	2	1	2	0	0	0	1	2
LEWISTON, TWN OF	43	84458	58	0	1	6	4	7	6	5	3	3	3	3	2
LEWISTON, VILL. OF	15	62056	81	0	1	0	5	5	4	0	0	0	0	0	0
LOCKPORT	4	60500	33	0	0	1	1	1	1	0	0	0	0	0	0
N. TONAWANDA	3	75666	28	0	0	0	0	1	1	0	1	0	0	0	0
NIAGARA, TOWN OF	6	61883	91	0	0	0	3	3	0	0	0	0	0	0	0
NIAGRA COUNTY	6	41900	96	1	3	0	1	0	1	0	0	0	0	0	0
PORTER, TWN OF	21	86328	84	0	3	2	0	2	1	5	1	3	3	1	0
RANSOMVILLE	1	73000	11	0	0	0	0	0	1	0	0	0	0	0	0
WHEATFIELD, TWN OF	1	115000	49	0	0	0	0	0	0	0	0	1	0	0	0
WILSON, VILLAGE OF	3	43633	14	1	0	1	0	1	0	0	0	0	0	0	0
YOUNGSTOWN, VILL OF	12	74262	61	0	0	2	2	2	3	0	0	2	1	0	0
RES TOTAL	310	55857	78	57	58	57	33	36	23	14	5	9	7	5	6
COMM / IND TOTAL	198	5065	100	49	17	22	19	27	19	13	5	9	8	5	5
LAND TOTAL	315	52913	92	78	53	54	29	32	21	15	5	9	8	5	6
FARM TOTAL															
OTHER TOTAL	172	64894	0	33	12	18	19	26	19	13	5	9	8	5	5
TOTAL SALES	995	46380	89	217	140	151	100	121	82	55	20	36	31	20	22

1987

STATISTICS

NIAGARA FALLS AREA BOARD OF REALTORS INC — JAN 11, 1988

SALES ANALYSIS

	TOTAL	AVERAGE PRICE	AVERAGE DAYS	UNDER 30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100-120	120-140	140-160	OVER 160
RESIDENTAIL															
DEVEAUX	51	48605	145	14	9	6	7	9	3		1		1	1	
HIGHLAND	2	13500	240	2											
NORTH END	74	25213	139	51	16	5		1	1						
HYDE PARK	112	33012	123	46	38	21	5	1	1						
SOUTH END, EAST END	95	28898	119	53	28	7	5	2							
LA SALLE	187	38600	86	49	58	47	19	13			1				
TOWN OF WHEATFIELD	28	73669	71	1	1	3	4	9	2	2	2	2			2
TOWN OF NIAGARA	36	47944	89	8	6	5	6	6	3	1	1				
TOWN OF LEWISTON	126	85331	101	3	6	13	10	26	16	9	12	9	10	4	8
VILLAGE OF LEWISTON	28	58707	67		1	7	6	10	2	2					
TOWN OF PORTER	51	74229	127	3	5	8	9	7	3	5	3	2	2		4
VILLAGE OF YOUNGSTOWN	35	58854	98	2	3	6	9	5	5	2	3				
TOWN OF WILSON	21	49326	83	5	4	5	1		1	3		2			
TOWN OF CAMBRIA	3	77166	63				2						1		
GRAND ISLAND	6	75150	57			2	1		1			2			
BAL. NIAGARA COUNTY	25	58684	59	2		6	7	2	4	4					
ERIE COUNTY	3	62500	63				1	2							
OUTSIDE NIAGARA	2	93000	51					1					1		
TOTAL SALES RES.	885	49273	105	239	175	141	92	94	42	28	23	17	15	5	14
OTHER															
COMMERCIAL/IND	42	56036	147	7	9	7	6	5	3		2		1		2
VACANT LAND	25	14084	204	21	2	1		1							
TOTAL SALES OTHER	67	40382	169	28	11	8	6	6	3		2		1		2
TOTAL SALES	952	48647	110	267	186	149	98	100	45	28	25	17	16	5	16

1986

STATISTICS

	TOTAL	SALES ANALYSIS AVERAGE PRICE	AVERAGE DAYS	UNDER 30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100-120	120-140	140-160	OVER 160		
RESIDENTAIL																	
DEVEAUX	30	43843	113	6	12	6		3	1	1					1		
NORTH END	27	25422	127	17	6	3	1										
HYDE PARK	66	34246	120	26	25	11	3							1			
SOUTH END, EAST END	40	28465	134	28	7	2	2							1			
LA SALLE	74	35805	108	24	28	11	7	3	1								
TOWN OF WHEATFIELD	7	46914	109	2	1		2	1	1								
TOWN OF NIAGARA	16	46737	85	5	3	1	2	3	1					1			
TOWN OF LEWISTON	49	74571	116		2	7	7	7	9	6	7	2				2	
VILLAGE OF LEWISTON	13	76407	99		1	3	3	3	1							2	
TOWN OF PORTER	27	61435	114	2	4	6	4	1	2	4	1	2	1				
VILLAGE OF YOUNGSTOWN	17	56711	90	1	2	3	5	3	1			1	1				
TOWN OF WILSON	6	44166	139	1	2		2		1								
TOWN OF CAMBRIA	5	55580	91			1	2	2									
GRAND ISLAND	7	82571	102					1	3	1	1	1					
BAL. NIAGARA COUNTY	5	61860	106		1	1	1		1			1					
OUTSIDE NIAGARA	1	120000	181											1			
TOTAL SALES RES.	390	46017	114	112	94	55	41	27	22	12	9	7	6	1	4		
OTHER																	
COMMERCIAL/IND	28	56142	133	8	6	2	2	1	4	1	1	1	1		1		
VACANT LAND	12	22625	140	9	1	1						1					
TOTAL SALES OTHER	40	46087	135	17	7	3	2	1	4	1	1	2	1		1		
TOTAL SALES	430	46023	116	129	101	58	43	28	26	13	10	9	7	1	5		

MORTGAGE RATE ANALYSIS

Mortgage interest rates according to local lenders are at a range of 10% interest rate for 30 years with 4.25 points and 9.75% with 3.25 points for a 15 year mortgage. Spectrum Mortgage Corp. is similar with the 30 year mortgage rate being 10%, points being 3.25, 15 year mortgage being 10% and points being 2.5. For government rates: FHA rate is 10% with 2.75 points, 30 year mortgage; VA rate 9.5% with 4.5 points for a 30 year mortgage. As long as rates stay in the 9.75-10% range for a conventional, slightly lower at 9.75% for FHA and VA; properties will continue to be marketable and money still available.

MARKETING CONCLUSION

According to realtors and other knowledgeable people in the area, there appears to be a shortage of homes for sale in the LaSalle neighborhood. Approximately 20 homes per year to a high of 25 could be absorbed without adverse impact to the surrounding LaSalle market. Homes such as those in the subject area are saleable from the viewpoint of being starter homes for younger couples or retirement homes for older people. Also there are other properties in the neighborhood that could be sold to families and offer decent affordable living. In today's real estate market, to find homes in the $40,000-$60,000 price range is difficult and this is the market nitch that the homes in the subject area would would fill. 25 homes would represent approximately 15% of the sales that occurred last year through the ML system, this is a significant number.

According to the information analyzed, it would appear that approximately 60 days would be the average marketing time based on ML statistics. Too many homes were on the market at one time and the average days on the market would increase significantly. A review of the ML data also reveals that for the price range of $40-$50,000, 64 homes were sold in 1988 and from $50-$60,000 price range, 17 homes were sold, $60-$70,000, 16 homes were sold. These are not significant numbers and would be impacted considerably by 20-25 homes being put on the market each year.

Values would have to be updated yearly to reflect current market conditions and seasonal market changes should also be accounted for. Spring time and Fall are generally busy times in the local real estate market and sales activity should be timed to coincide with these periods.

STATEMENT OF BASIC ASSUMPTIONS
AND LIMITING CONDITIONS

FOR THE PURPOSE OF THIS APPRAISAL, IT IS ASSUMED:

1. That the legal description furnished is correct.
2. That the title to the property is merchantable.
3. That the property is free and clear of all liens.
4. That there are no encumbrances or defects of title.

THE APPRAISAL IS MADE SUBJECT TO THE FOLLOWING LIMITING CONDITIONS:

1. No responsibility is assumed for matters of a legal nature.

2. Unless otherwise stated in this report, no responsibility is assumed for subsurface soil conditions; soil conditions are presumed stable and free of any natural or man-made contaminants.

3. Unless otherwise stated in this report, the existence of hazardous material, which may or may not be present on the property, was not observed by the appraiser. The appraiser has no knowledge of the existence of such materials on or in the property. The appraiser, however, is not qualified to detect such substances. The presence of substances such as asbestos, urea-formaldehyde foam insulation, or other potentially hazardous materials may affect the value of the property. The value estimate is predicated on the assumption that there is no such material on or in the property that would cause a loss in value. No responsibility is assumed for any such conditions, or for any expertise or engineering knowledge required to discover them. The client is urged to retain an expert in this field, if desired.

4. Information, estimates, and opinions furnished to the appraiser and contained in the report were obtained from sources considered reliable and believed to be true and correct. However, no responsibility for accuracy of such items furnished the appraiser can be assumed by the appraiser.

5. No engineering survey of the property was made, and the appraiser assumed no responsibility in this connection. The sketches in this report are approximate only, included to assist the reader in visualizing the property.

STATEMENT OF BASIC ASSUMPTIONS
AND LIMITING CONDITIONS (Cont'd)

6. This appraisal was made for the purpose stated and should not be used for any other purpose.

7. The values assigned to the land and improvements and their value in relation to each other and should not be used separately.

8. The appraiser is not required to give testimony or attendance in Court of any hearing unless arrangements have been made in advance of the acceptance of the appraisal assignment and the fees are based upon this knowledge by the Appraiser. If this knowledge is not known at the time of employment, then negotiations must be made with Appraiser at the time the knowledge becomes known or the Appraiser may decline to testify and permission to use the appraisal for any purpose may be withdrawn.

9. In instances of new construction, additions, rehabilitations and remodeling of improvements, we assume compliance with state and local building codes respect to design and construction materials.

APPRAISAL QUALIFICATIONS OF ANTHONY A. GIRASOLE, MAI, SRA

EDUCATION

LaSalle High School, Niagara Falls, NY	-	1953
Attended University of Georgia	-	1957
Attended University of Buffalo	-	1959

TECHNICAL TRAINING

Courses	Sponsoring Institutions
Agent's Prop. & Casualty Ins.	University of Buffalo - 1962
Real Estate Appraisal	Niagara Co. Comm.College-1966
Real Estate Appraisal I	A.I.R.E.A.* Univ. of Connecticut 1966
Real Estate Appraisal II	A.I.R.E.A. Univ. of Georgia 1967
Real Estate Appraisal III	A.I.R.E.A. Univ. of Connecticut 1967
Real Estate Appraisal IV	A.I.R.E.A. Univ. of Connecticut 1967
Principles of Income and Property Appraisal Course 201	S.R.E.A.** Arizona State Univ., 1979
S.R.A.-101 and R-2 Exams	S.R.E.A. Buffalo, New York 1979
Understanding Real Estate Financing	New York State Association of Realtors, Ithaca College 1983
Standard of Professional Practice	American Institute of Real Estate Appraisers, Syracuse, New York 1984

In accordance with AIREA & SREA standards, at least 60 hours of classroom credit are undertaken at various seminars, courses and other educational meetings per three year period. Currently certified thru 9/89.

* A.I.R.E.A. - American Institute of Real Estate Appraisers
** S.R.E.A. - Society of Real Estate Appraisers

LICENSE

Licensed Real Estate Broker, State of New York (Since 1962)
Licensed Real Estate Broker, Commonwealth of Pennsylvania

PRESENT OCCUPATION

Devotes 100% of time to real estate appraising; is President of Girasole Appraisal Company and Niagara Realty Associates, Ltd.; active in real estate valuation, investment analysis, and managing own investment properties.

PRIOR EXPERIENCE

Prior experience since 1959 includes real estate sales, management and financing for self and others. Actively appraising since 1962, experience includes mass projects for eminent domain purposes as well as all types of residential, commercial, industrial and special purposes properties. Related experience includes appraisal for mortgage purposes, condemnation, tax certiori, insurance purposes, estate tax matters, employee relocation and re-use and marketability studies.

MEMBER OF THE FOLLOWING

Professional Organization

Member - American Institute of Real Estate Appraisers (MAI) - Cert. #5605 (Past President 1987) - N.Y.S. Chapter #30
Senior Residential Member, Society of Real Estate Appraisers (SRA) Chapter #88
Niagara Falls Area Board of Realtors (Past President 1969) Director 1988-1990 - Realtor of the Year 1985
Greater Buffalo Board of Realtors - Director 1983-85, Chairman Program Committee 1983, Legislative 1984-85
New York State Association of Real Estate Boards (Past Chairman Human Rights Committee, 1970) Convention Chairman 1982
New York State Society of Real Estate Appraisers (Past President 1981)
National Association of Real Estate Boards
New York State Assessors Association
Niagara County Assessors Association
American Arbitration Association
Mortgage Bankers Association
International Right of Way Association

CLIENTS APPRAISED FOR

Airco Division of Air Reduction Company
Anchor Savings Bank
Arredondo & Co.
Bank of New York
Bell Aerospace
Benderson Development Co.
Bethlehem Steel Co.
Browning-Ferris Industries (BFI)
Buffalo Sewer Authority
Chase Manhattan Bank
Chemical Bank
Conax Corp.
Conneaut Lake Park, Inc.
Darien Lake Park
Dreamland Park, Inc.
East River Savings Bank
Empbanque
Empire of America
Equitable Life Assurance Society
Executrans
Exxon
Fantasy Island
Girard Bank of Philadelphia
Goldome
Holiday Twin Rinks, Inc.
Homequity
Hooker Chemical Corp.
Key Bank
Kimberly Clark Corp.
Kodak
Kraftco Co.
H. J. Ludington
Lenders Service, Inc.
Magnano Bros., Inc.
Manufacturers & Traders Trust Co. (M&T Bank)
Marine Midland Bank of Western New York
Massachusetts Mutual Life Insurance Company
Merrill Lynch Relocation
Metropolitan Savings Bank
Mobil Oil Corp.
Moore Business Forms
Niagara County Savings Bank
Niagara Frontier Bank of N.Y.
Niagara Mohawk Power
Niagara Savings & Loan Association
Northern Capital

CLIENTS APPRAISED FOR* (Continued)

Norstar Bank, N.A.
Olin Mathieson Chemical Corp.
Permanent Savings Bank
Penn Central Railroad
Presbyterian Homes of Western New York
Prudential Insurance Company
Relocation Realty
Republic National Bank of Dallas
Rochester Automobile Club
Rockford Management
Salvation Army
Scovill Manufacturing
Shell Oil Co.
Sibley Corp.
Stauffer Chemical Corp.
Sun Oil Company
Texaco
Travelers Relocation
Troy Savings Bank
Uniland Development Company
Union Carbide Chemical
Uniroyal
Univac
Upjohn Company
Utica Savings Bank
Warren General Hospital
Western Electric Company
Western Savings Bank

*List does not include various attorneys and private individuals

QUALIFIED AS

Fee Consultant For:

Federal Government
- U.S. Army Corps of Engineers
- U.S. Dept. of Agriculture
- Federal Aviation Administration
- Federal Housing Administration
- General Services Administration (GSA)
- Veterans Administration

State of New York
- Dept. of Transportation
Dept. of Mental Hygiene
Dept. of Health
Dept. of Environmental Conservation
Genesee State Parks Commission

QUALIFIED AS (Continued)

State of New York - New York State Power Authority
New York State Facilities Dev.
Urban Development Corp.
New York State Parks & Recreation

Fee Consultant For:

Town of Amherst
City of Binghamton
City of Buffalo
Town of Cheektowaga
County Chemung
City of Elmira
County of Erie
Village of Elmira Heights
Town of Grand Island
Town of Lewiston
Lew Port School District
Town of Massena
County of Niagara
City of Niagara Falls
Niagara Falls Housing Auth.
Town of Niagara
Town of Porter
City of Rochester
Town of Porter
Town of Tonawanda
Town of Wheatfield

Various Urban Renewal Agencies Including:

City of Batavia
City of Buffalo
City of Corning
City of Elmira
City of Jamestown
City of Lackawanna
City of Lockport
City of Newark
City of Niagara Falls
City of Rochester
City of Salamanca
City of Tonawanda

F.N.M.A. Approved Appraiser #1108834, Level II
F.N.M.A. Review Appraiser
F.H.A. Review Appraiser

APPRAISAL TESTIMONY

Qualified as Witness Before

New York State Court of Claims
New York State Supreme Court
Niagara County Surrogate Court
Various Commissions of Appeal
U.S. Bankruptcy Court
Erie County Surrogate Court

APPRAISAL QUALIFICATIONS OF ANTHONY P. GIRASOLE

EDUCATION

Graduate of LaSalle High School - 1979

State University of New York @ Delhi
Major in Business Administration
Courses in: Economics, Psychology, Accounting, Sales/Marketing and Basic Computer Programming

APPRAISAL EDUCATION

American Institute of Real Estate Appraisers (AIREA)

1987 - Real Estate Appraisal Principals
1988 - Standards of Processional Practice, Maitland, FL.

Society of Real Estate Appraisers

1982 - Course 101, An Introduction to Appraisal Real Property S.U.N.Y. at Buffalo

International Association of Assessing Officers (I.A.A.O.)

1987 - Course 1 - Fundamentals of Real Estate Appraising Sarasota, Florida
1987 - Course 2 - Income Approach to Valuation, Tampa, FL
1987 - Course 201 - The Appraisal of Land, Sarasota, FL

PROFESSIONAL AFFILIATIONS

- American Institute of Real Estate Appraisers, Candidate for RM designation
- Licensed Real Estate Broker, State of Florida

PROFESSIONAL RELATED EXPERIENCE

6/88 - Present	Associate Appraiser Girasole Appraisal Company Niagara Falls, New York
1/87 - 6/88	Residential Appraiser Orange County Property Appraiser's Office Orlando, Florida
1/86 - 1/87	Property Manager Winter Park Village Apartments (265 units) Winter Park, Florida

5/84 - 12/85 Property Manager
Various Apartment Complexes (200-275 units)
Johnstown American Companies
Orlando, Florida

CLIENTS APPRAISED FOR

Norstar Bank
Goldome Realty Credit Corp.
Northern Capital
Sibley Corporation
GMAC Finance
Mr. Paul Ried, Esq.
Mr. Richard Southard, Esq.
Fireman's Fund Mortgage Corp.
Rivkim, Radler, Dunne & Bayh
Mr. Richard Massaro
Shearson-Lehman
Niagara Falls Housing Authority
Chemical Mortgage Co.
Lender's Services
Orange County (FL)
Travelers Relocation
Mr. Robert Monti
Mr. James Ingham
Niagara County
J. P. Holdings
Future Funding
Continental Abstract
The Permanent Savings Bank
Chemical Mortgage

APPENDIX C:

TOWN OF WHEATFIELD ZONING

1.3 R-1 RESIDENTIAL DISTRICT

A. Permitted Principal Uses
As permitted in the R-R District.

B. Permitted Accessory Uses
As permitted in the R-R District.

C. Uses Permitted upon Issuance of a Special Permit
As permitted in the R-R District.

D. Minimum Lot Sizes
1. Area - twelve thousand (12,000) square feet.
2. Width
   a. Interior lots - eighty (80) feet.
   b. Corner lots - one hundred (100) feet.
3. Cluster provisions in Art. III, Sec. 4.

E. Minimum Yards
1. Front - fifty (50) feet, except as provided under Art. III, Sec. 2.3.
2. Side - ten (10) feet each.
3. Rear - thirty (30) feet.

F. Buildings
1. Principal
   a. Maximum height
      (1) dwellings - thirty-five (35) feet.
      (2) other - forty (40) feet.
   b. Minimum floor area per dwelling unit
      (1) one-story - nine hundred (900) square feet.
      (2) two-story - one thousand (1,000) square feet.
2. Accessory
   a. Maximum height - twelve (12) feet.
   b. Yards and setbacks as regulated under Art. III, Sec. 2.1.
3. Lot coverage
   Maximum lot coverage by all buildings - thirty percent (30%).

G. Buffers, Landscaping
(Reserved)

H. Site Plan Review
As set forth under the provisions of Art. III, Sec. 11.

1.4 R-2 RESIDENTIAL DISTRICT

A. Permitted Principal Uses
1. As permitted in the R-1 District.
2. Two-family dwellings.

G. Buffers, Landscaping

A buffer of not less than twenty (2Ø) feet in width shall be reserved where an R-C District abuts any R-1, R-2, or R-3 District. Such a buffer zone shall be landscaped and maintained by the owner.

H. Site Plan Review

As set forth under the provisions of Art. III, Sec. 11.

1.7 C-1 COMMERCIAL DISTRICT

A. Permitted Principal Uses

1. As permitted and regulated in the R-C District.
2. Retail sales within a completely enclosed building.
3. Personal service shops, e.g. barber shops, beauty salons, shoe repair.
4. Laundromats, dry cleaning, laundry pick-up stations.
5. Restaurants.
6. Hotels, motels.
7. Banks, drive-in banks.
8. Boat or marine sales and service.
9. Drive-in restaurants.
10. Laundry or dry cleaning facilities.
11. Theaters, assembly halls, bowling alleys.
12. Custom shops, including electrical, heating, plumbing or woodworking shops.
13. Building materials supply, including incidental millwork.
14. Machine or tool sales, rental, or service.
15. Job and newspaper printing.
16. Shopping centers or plazas.
17. Assembly of previously prepared materials where not more than five (5) persons are engaged in such assembly at any one time.
18. Nurseries, greenhouses.
19. Mobile home courts.
20. Golf driving ranges.

B. Permitted Accessory Uses

1. As permitted and regulated in the R-C District.
2. Other customary uses normally associated with the principal uses.

C. Uses Permitted upon Issuance of a Special Permit

1. As permitted in the R-C District.
2. Car washes.
3. Drive-in theaters.
4. Gasoline service stations.
5. Collision shops.
6. Adult entertainment establishments.

7. Commercial storage buildings.
8. New or used motor vehicle sales and service.
9. Kennels.

D. Minimum Lot Sizes

1. Dwellings - as regulated in the R-3 District.
2. Other - as required to provide a site adequate for the principal and accessory buildings, all required off-street parking, loading and stacking, landscaping, yards and open spaces.

E. Minimum Yards

1. Dwellings - as regulated in the R-3 District.
2. Other
   a. Front - forty (4Ø) feet except as provided under Art. III, Sec. 2.3.
   b. Side, rear - ten (1Ø) feet each except where abutting a residential District, in which case such side or rear yard shall be thirty (3Ø) feet.

F. Buildings

1. Principal
   a. Maximum height
      (1) dwellings - thirty-five (35) feet.
      (2) other - forty (4Ø) feet.
   b. Minimum floor area per dwelling unit
      As regulated in the R-3 District.
2. Accessory
   a. Maximum height - thirty (3Ø) feet.
   b. Yards and setbacks as regulated under Art. III, Sec. 2.1.
3. Lot coverage
   As use, yard, parking and landscaping requirements permit.

G. Buffers, Landscaping

A buffer of not less than twenty (2Ø) feet in width shall be reserved where a C-1 District abuts any R-1, R-2, or R-3 District. Such a buffer zone shall be landscaped and maintained by the owner.

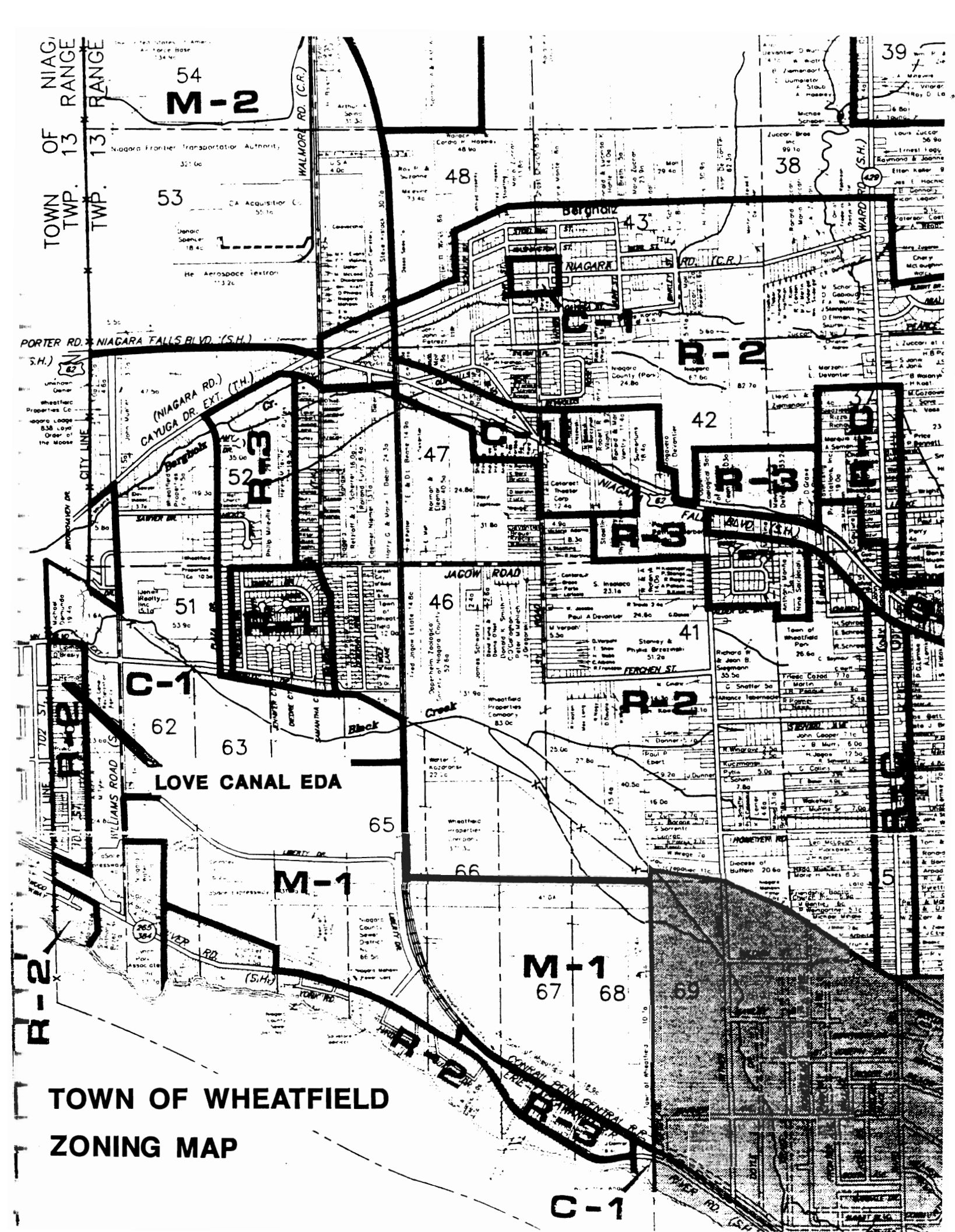
H. Site Plan Review

As set forth under the provisions of Art. III, Sec. 11.

1.8 M-1 INDUSTRIAL DISTRICT

A. Permitted Principal Uses

1. As permitted and regulated in the C-1 District, except for dwellings; provided however that existing dwellings may be altered and enlarged, except that the number of dwelling units may not be increased.
2. Warehouses.
3. Truck terminals.


TOWN OF WHEATFIELD
ZONING MAP
LOVE CANAL EDA
M-2
M-1
R-1
R-2
R-3
C-1
NIAGARA FALLS BLVD. (S.H.)
PORTER RD. (S.H.)
WALMORE RD. (C.R.)
NIAGARA RD. (C.R.)
CAYUGA DR. EXT. (T.H.)
JAGOW ROAD
FERGHEN ST.
WILLIAMS ROAD
RIVER RD. (S.H.)
TOWN RD.
CONRAIL PENN CENTRAL R.R.
Bergholz
Black Creek
CITY LINE
TOWN OF WHEATFIELD
TWP. 13 RANGE 13
NIAG. RANGE

APPENDIX D:

CITY OF NIAGARA FALLS ZONING

RESIDENCE DISTRICTS

R-1 ONE FAMILY RESIDENTIAL DISTRICTS

DISTRICT USES

1. One-family dwellings, but not to exceed one dwelling on any one lot.
2. Elementary and high schools, but not including dancing academies or trade or vocational schools conducted for gain.
3. Churches and other places of worship, including parish houses, rectories, convents in connection with schools.
4. Public and semi-public buildings and uses, but not including materials and equipment yards, cemeteries, crematories or mausoleums, hospitals or penal institutions.
5. Offices of physicians, dentists, architects, engineers, licensed cosmetologists and similar professional persons, when conducted in dwellings by the inhabitants thereof.
6. Customary home occupations
7. Accessory buildings and accessory uses.
8. Automobile parking as provided in Section 1335.01.
9. Signs as provided in Section 1335.02.

MINIMUM SIZE OF LOT

THE REGULATIONS SET FORTH UNDER THIS HEADING ARE SUBJECT TO THE PROVISIONS OF SECTION 1335.06.

AREA	WIDTH
6,000 Square Feet	60 Feet

RESIDENCE DISTRICTS-R-1

MAXIMUM COVERAGE OF LOT BY ALL BUILDINGS

USE	PERCENTAGE
FOR ANY DWELLING	30%
FOR ANY OTHER USE	50%

MAXIMUM HEIGHT OF BUILDING

IN STORIES	IN FEET
2½	35

MINIMUM YARD DIMENSIONS

The Regulations set forth under this Heading are subject to the provisions of Section 1335.06 with respect to side yards on existing lots in certain situations and to the provisions of section 1335.07 with respect to accessory buildings.

FRONT	EACH SIDE YARD	REAR
30 feet	1/6 the width of the lot to a maximum required width equal either to: (a) ½ the height of the building or (b) 15 feet, whichever is less; provided that, on any lot with a permitted width of 45 feet or less (See section 1335.06) the width of each side yard need not exceed 1/8 the width of the lot. (c) 30 foot lot, 3 foot side setback.	20 feet

RESIDENCE DISTRICTS R-1

MINIMUM OFF-STREET PARKING SPACE

The regulations set forth under this heading are subject to the Provisions of Section 1335.08.

FOR	EXCEPT AS OTHERWISE PROVIDED BELOW, ONE PARKING SPACE FOR EACH
DWELLING	ONE DWELLING
SCHOOL	2 STAFF MEMBERS
PUBLIC & SEMI PUBLIC BUILDINGS	400 SQUARE FEET OF GROSS FLOOR AREA

MINIMUM LOADING ZONE SPACE

None Required

RESIDENCE DISTRICTS

R-1-A ONE FAMILY RESIDENTIAL DISTRICTS

DISTRICT USES

1. One-family dwellings, but not to exceed one dwelling on any one lot.
2. Elementary and high schools, but not including dancing academies or trade or vocational schools conducted for gain.
3. Churches, and other places of worship, including parish houses, rectories, convents in connection with schools.
4. Public and semi-public buildings and uses, but not including materials and equipment yards, cemeteries, crematories or mausoleums, hospitals or penal institutions.
5. Offices of physicians, dentists, architects, engineers, licensed cosmetologists and similar professional persons, when conducted in dwellings by the inhabitants thereof.
6. Customary home occupations.
7. Accessory buildings and accessory uses.
8. Automobile parking as provided in Section 1335.01.
9. Signs as provided in Section 1335.02.

MINIMUM SIZE OF LOT

The regulations set forth under this Heading are subject to the Provisions of Section 1335.06.

AREA	WIDTH
5000 SQUARE FEET	45 FEET

RESIDENCE DISTRICTS R-1-A

MAXIMUM COVERAGE OF LOT BY ALL BUILDINGS

USE	PERCENTAGE
FOR ANY DWELLING	30%
FOR ANY OTHER USE	50%

MAXIMUM HEIGHT OF BUILDING

IN STORIES	IN FEET
2½	35

MINIMUM YARD DIMENSIONS

The Regulations set forth under this Heading are subject to the provisions of Section 1335.06 with respect to side yards on existing lots in certain situations and to the provisions of section 1335.07 with respect to accessory buildings.

FRONT	EACH SIDE YARD	REAR
25 FEET	1/6 the width of the lot to a maximum required width equal either to: (a) ½ the height of the building or (b) 15 feet, whichever is less, provided that on any lot with a permitted width of 45 feet or less (See Section 1335.06) the width of each side yard need not exceed 1/8 the width of the lot. (c) 30 Foot Lot. 3 Foot side setback	20 FEET

RESIDENCE DISTRICTS R-1-A

MINIMUM OFF-STREET PARKING SPACE

The Regulations set forth under this Heading are subject to the Provisions of Section 1335.08

FOR	EXCEPT AS OTHERWISE PROVIDED BELOW, ONE PARKING SPACE FOR EACH
DWELLING	ONE DWELLING
SCHOOL	2 STAFF MEMBERS
PUBLIC & SEMI-PUBLIC BUILDINGS	400 SQUARE FEET OF GROSS FLOOR AREA

MINIMUM LOADING ZONE SPACE

None Required

RESIDENCE DISTRICTS

R-1-G -- R-1 GENERAL RESIDENTIAL

DISTRICT USES

1. All uses permitted in R-1 districts, as permitted therein.

2. Planned residential development, including dwellings of any type... as specified in Section 1335.03 and subject to the conditions set forth therein.

3. The following uses, subject to the obtaining of a special permit for each such use, as provided in Section 1317.03, and in conformity with the standards set forth in Chapter 1345.
   (a) Universities, colleges, seminaries, and convents, including fraternity and sorority houses and customary indoor and outdoor recreational facilities in connection with any of the aforesaid uses and on the site thereof.
   (b) Golf clubs, country clubs, and other membership clubs, not operated primarily for profit.
   (c) Hospitals, as defined in this ordinance.

MINIMUM SIZE OF LOT

The Regulations set forth under this Heading are subject to the Provisions of Section 1335.06.

AREA	WIDTH
For uses permitted in R-1 DISTRICTS	
6,000 SQUARE FEET	60 FEET

For Planned Residential Development: As Specified in Section 1335.03.

MAXIMUM COVERAGE OF LOT BY ALL BUILDINGS

USE	PERCENTAGE
FOR ANY DWELLING	30%
FOR ANY OTHER USE	50%

RESIDENCE DISTRICTS R-1-G

MAXIMUM HEIGHT OF BUILDINGS

IN STORIES	IN FEET
For Uses permitted in R-1 DISTRICTS	
2½	35

For Planned Residential Development: As Specified in Section 1335.03.

MINIMUM YARD DIMENSIONS

The Regulations set forth under this Heading are subject to the Provisions of Section 1335.06 with respect to side yards on existing lots in certain situations and to the provisions of Section 1335.07 with respect to accessory buildings.

FRONT	EACH SIDE YARD	REAR
30	For uses permitted in R-1 Districts: Same as specified for R-1 District. For Planned Residential Development as specified in Section 1335.03.	20

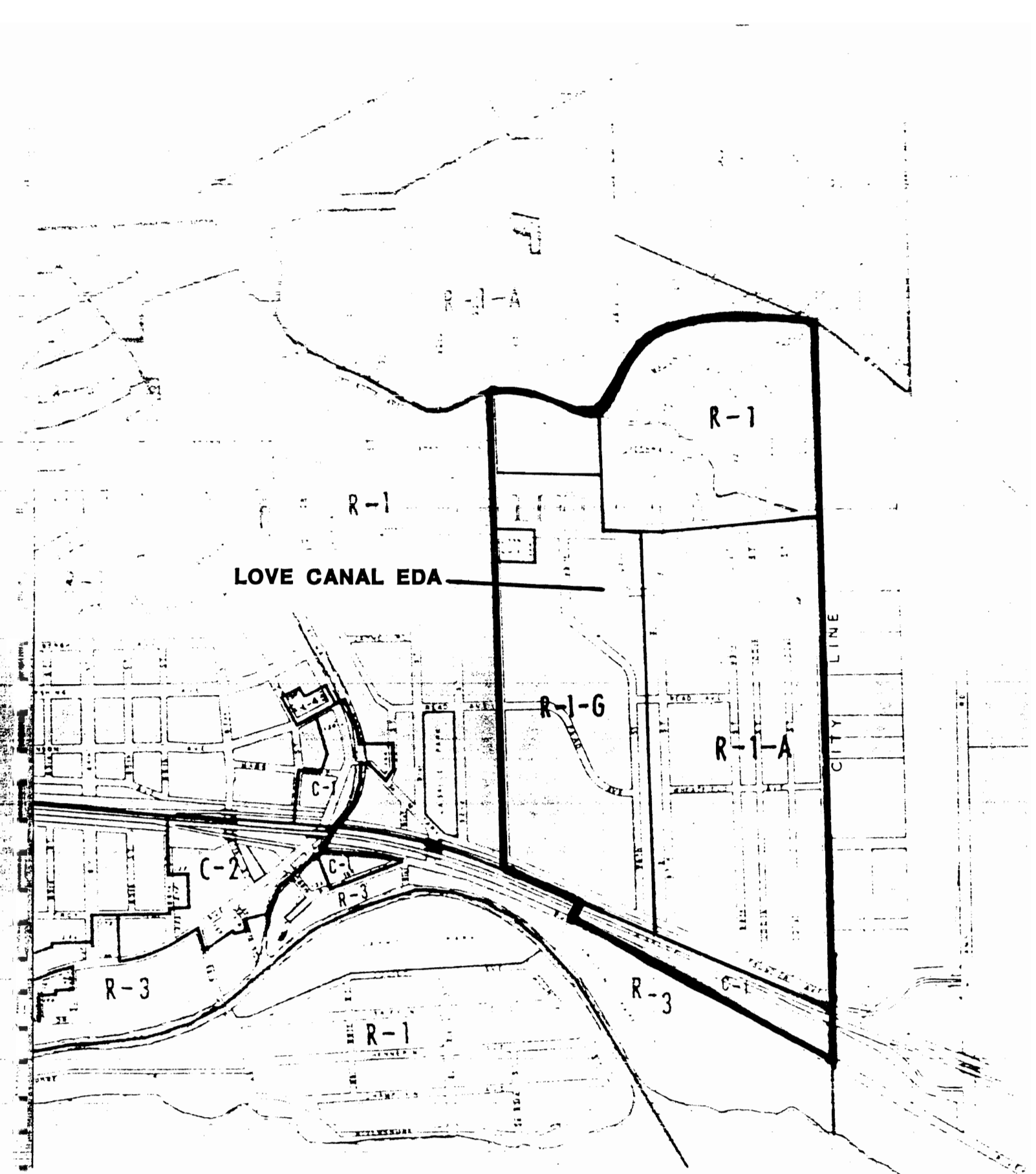
MINIMUM OFF-STREET PARKING SPACE

The Regulations set forth under this Heading are subject to the Provisions of Section 1335.08.

FOR	EXCEPT AS OTHERWISE PROVIDED BELOW, ONE PARKING SPACE FOR EACH.
DWELLING	ONE DWELLING UNIT
SCHOOLS	2 STAFF MEMBERS
PUBLIC & SEMI-PUBLIC BUILDINGS	400 SQUARE FEET OF GROSS FLOOR AREA
USES PERMITTED UNDER 3 (d) UNDER "DISTRICT USES"	AS SPECIFIED IN SECTION 1335.09
CLUBS	8 RESIDENT MEMBERS

MINIMUM LOADING ZONE SPACE

None Required



CITY OF NIAGARA FALLS ZONING MAP

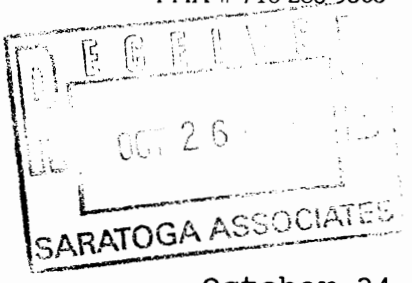
APPENDIX E:

PLANT SURVEY

LOVE CANAL AREA REVITALIZATON AGENCY

9501 COLVIN BOULEVARD
NIAGARA FALLS, NEW YORK 14304
TELEPHONE 283-9501
FAX # 716-283-9505

MICHAEL C. O'LAUGHLIN, Chairman
TERRY W. KUEHN, Vice Chairman
JAMES D. HEUER, Secretary
LEOTIS S. BELK, Asst. Secretary
FRANK SODA, Treasurer
JOHN CASSATA, Asst. Treasurer
DAVID BROOKS
CARROLL J. COLPOYS
RICHARD J. HOGAN, JR.



WILLIAM D. BRODERICK
Executive Director
RICE, REID, BRODERICK & WATTENGEL
Counsel

October 24, 1989

Mr. Jim Koury
The Saratoga Associates
Saratoga Square
443 Broadway
Saratoga Springs, New York 12866

Dear Jim,

Enclosed please find a copy of the plant survey which was done for the wetland area. You will note that we have no Sky-Blue Aster.

We do show a protected species (page 9), the Closed Gentian. I am checking into the implications of this find.

Best regards,

LOVE CANAL AREA REVITALIZATION AGENCY

James E. Carr
Director of Planning

I:KOURY.SVY
JEC/sjl 10-24-89

CURRICULUM VITAE

PATRICIA MAUREEN ECKEL
Research Fellow
Division of Botany, Buffalo Museum of Science, Buffalo, NY 14211

PERSONAL:
Born Niagara Falls, New York. Married: Dr. Richard H. Zander

EDUCATION:
B.A. Cum Laude in Greek and Latin Classics, 1980, B.A. Cum Laude in Art History, 1980, both from the State University Center at Buffalo, Buffalo, New York. Master of Arts, SUNY Center at Buffalo, 1984, project: a Manual of Botanical Latin.

APPOINTMENTS:
Research Associate, Buffalo Museum of Science, 1979 to 1985. Research Fellow, 1986 to present.

Editorial assistant for "The Bryologist," the quarterly journal of the American Bryological and Lichenological Society, 1981-1984.

Director of the Moss Exchange of the Americn Bryological and Lichenological Society Moss Exchange, 1984 to present.

Associate Editor for the Newsletter of the Niagara Frontier Botanical Society, 1984-1985.

Treasurer, Niagara Frontier Botanical Society, 1984-1985; Secretary, 1988-1989.

Director of the American Bryological and Lichenological Society Moss Exchange, 1984 to present.

Collaborator, Department of Botany, Smithsonian Institution, 1985 - 1987.

Associate Systems Operator, TAXACOM, Electronic Bulletin Board for Systematic Botany. Division of Botany, Buffalo Museum of Science, Buffalo, NY.

Fellow, The Explorer's Club, 1988 to present.

OWNER AND PRINCIPAL INVESTIGATOR: Botanical Services, 160 Humboldt Parkway, Buffalo, New York, 14214.

PROFESSIONAL AFFILIATIONS:
American Association for the Advancement of Science, American Bryological

and Lichenological Society, American Fern Society, American Institute of Biological Sciences, American Society of Plant Taxonomists, California Botanical Society, International Association of Bryologists, International Association of Plant Taxonomists, Buffalo Society of Natural Sciences (Fellow), Natural Areas Association, Niagara Frontier Botanical Society, Rochester Academy of Science (Life Member), Southwest Association of Naturalists.

PROFESSIONAL EXPERIENCE:

Type Collections Manager, Clinton Herbarium, Buffalo Museum of Science, July, 1987 - December, 1987; September, 1988 to present.

CONTRACTS, GRANTS:

Buffalo Society of Natural Sciences sponsorship of research on the bryophyte flora of the state of Wyoming, 1984 to 1989.

Grant from the Adirondack Mountain Club, Western New York Chapter to promote a flora of the Niagara River Gorge, 1985-6.

Contract from the New York Department of Parks, Recreation and Historic Preservation, botanical survey of Goat Island, 1988.

PUBLICATIONS:

(Translation from the Swedish of preface to:) Sextus Otto Lindberg. Om de europeiska Trichostomeae (Concerning the European Trichostomeae). Oefvers. Foerh. Kongl. Svenska Vetensk. - Akad. 21: 1864. The Bryologist 83: 132. 1980.

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Review: Steps Toward Better Scientific Illustration, by Arly Allen. National Newsletter of the Guild of Natural Science Illustrators. April 1982, Vol. 1983, #4.

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the Niagara Frontier Botanical Society. Vol. 1, #1, Oct. 18, 1983.

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Floerkea proserpinacoides Willd., or False Mermaid: a spring wildflower uncommon in the Niagara Frontier Region. Newsletter of the Niagara Frontier Botanical Society Vol.2, #3, June 1, 1984.

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Three reviews: Zenkert, C. A. Flora of the Niagara Frontier Region; C. A. Zenkert & R.H. Zander, Flora of the Niagara Frontier Region, Supplement; R. H. Zander & G. Pierce, Flora of the Niagara Frontier Region, Second Supplement. in: The Plant Press, newsletter for Ontario botanists. 1985. Vol. 3 (2): pp. 72-75.

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Gymnostomiella orcuttii Bartr. (Pottiaceae) new to the western coast of Mexico. 1985. Evansia. Vol. 2(2): 28-29.

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Didymodon australasiae var. umbrosus (Musci: Pottiaceae) new to eastern North America. 1986. Bryologist 89: 70-72.

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New and Interesting Records for the Niagara Frontier Flora. 1988. Clintonia: Vol. 3 (2), pp. 4-7.

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Ceratodon purpureus fo. dimorphus (Philib.) Moenk.: Taxa Minora Delineata I. 1988. The Bryologist Vol.91(3):235.

Dicranum flagellare var. minutissimum: Taxa Minora Delineata II. 1989 (in preparation).

Restoration of Geum laciniatum to the Niagara Flora. 1989. Clintonia. Vol. 4(2):p.2.

New and Interesting Graminoids in the Niagara Frontier Region. 1989. Clintonia. Vol. 4(2):pp.4-5.

Bryoerythrophyllum ferruginascens (Stirt.) Giac. in Eastern North America. 1989. The Bryologist (submitted).

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Eucladium verticillatum (Musci: Pottiaceae), second Ontario collection. 1989. Evansia (submitted).

EXSICCATAE:

Musci Planitiebus Incolae Exsiccati. Century I, first quarter. Mosses of the Great Plains of North America. New York Botanical Garden and the Buffalo Museum of Science. 1987. (Steve Churchill, senior editor).

Musci Planitiebus Incolae Exsiccati. Century I, second quarter. Mosses of the Great Plains of North America. New York Botanical Garden and the Buffalo Museum of Science. 1987. (Steve Churchill, senior editor).

MANUSCRIPTS IN PREPARATION: Checklist by County of the Mosses of Wyoming. Some mosses from the state of Guerrero, Mexico. Floristic survey of a relict Balsam Fir swamp.

BOOK-LENGTH MANUSCRIPTS IN PREPARATION:

Moss Flora of Mexico, New York Botanical Garden (co-editor with senior editors Drs. Howard Crum and A. J. Sharp).

Moss Flora of the Great Plains, New York Botanical Garden and Buffalo Museum of Science (with Steven Churchill).

The Niagara Flora, Buffalo Museum of Science.

Latin bryophyte terminology. 1986. In: A Glossary of Bryophyte Terms, Dr. R. Magill, ed. (in preparation): a multilingual bryological glossary, being compiled with international cooperation by the Missouri Botanical Garden for the International Association of Bryologists.

OTHER:

Latin renderings of descriptions and diagnoses of new taxa are done for taxonomic botanists on a professional basis. This is an international service provided through the Museum of Science, Buffalo. Among institutions requesting this service: Tottori Mycological Institute, Japan; Herbario Nacional, Mexico City, Mexico.

Annual index prepared for The Bryologist: 1983, 1986, 1987.

Bibliographies are compiled each year of articles pertaining to botany published in various journals for the province of Ontario, Canada, for The Plant Press, newsletter of Ontario botanists, 1983 to 1989.

BOTANICAL SURVEYS

1985: Survey of the Ferns of the St. Johns Conservation Area, Ontario, Canada, for the Niagara Peninsular Conservation Authority.

1985: Natural History Inventory of the Hilltop Nature Sanctuary, Buffalo Society of Natural Sciences: The Vascular Plants, Ferns, Mosses, Hepatics and Lichens.

1985-present: Survey of the Vascular and Cryptogamic flora of the Canadian-American Niagara River Gorge (in progress). This study is coordinated with rare plant inventories of the Natural Resource Division of the New York State Department of Environmental Conservation. The Goat Island portion is funded by the New York State Department of Parks, Recreation and Historical Preservation.

1985-present: County Checklist and Bryogeography of the State of Wyoming: the Mosses; in association with the Rocky Mountain Herbarium, Laramie, Wyoming (in progress).

FIELD EXPERIENCE:

1978. Summer. Virginia. Vascular plants.

1980. Summer. Colorado, Utah, Nevada, Oregon, Washington, British Columbia. Vascular plants. 1981. Fall. West Virginia, North Carolina. Vascular Plants. Winter. Mexico, Vera Cruz. Bryophytes, vascular plants.

1982. Spring. Canada, Newfoundland. Bryophytes (Fogo Island, and etc.), New York State. Fall. Mexico. Distrito Federal; Edo. Puebla: Valle de Tehuacán; Edo. Guerrero. Bryophytes,

vascular plants.

1983. Summer. Canada. Ontario to Minnesota. Bryophytes, pteridophytes Fall. USA. Western New York. Pteridophytes.

1984. Spring. West Virginia, Florida. Bryophytes, vascular plants. Summer. New York. Pteridophytes, vascular plants. Winter. Canada, Ontario. Bryophytes.

1985. Spring. New York: Niagara River Gorge. Bryophytes. May: Ontario, the southeastern counties, bryophytes. June-July: 9,000-mile solo collecting trip to New Mexico, Arizona, California and Wyoming, bryophytes. August: Ecuador, bryophytes.

1986. Autumn, 8,000-mile collection in Texas, New Mexico, Arizona, California, Wyoming, Montana, Saskatchewan: bryophytes.

BOTANICAL SURVEY OF AN 80 ACRE PLOT IN THE TOWN OF WHEATFIELD
Authorized by the Niagara Falls Love Canal Revitalization Commission.
Jim Carr, Director.

by P. M. Eckel
Environmental Consultant in Botany
160 Humboldt Parkway
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STUDY AREA

An 80-acre plot of land located in the Town of Wheatfield, Niagara County, was studied. The property is bounded on the north by Colvin Blvd (where it was semiwooded), on the east by Williams Road (commercially developed and farmland), on the south by the LaSalle Expressway, and on the west by 102nd and 103rd Streets (residences). The plot is characterized by a high moisture content in the soil and is part of generally low land extending to the east and drained by Black Creek, a tributary, with Bergholtz Creek to the north, of Cayuga Creek, which empties into the Niagara River west and south of the study area.

METHODOLOGY

Ten hours were spent on the site on October 19 and 20, 1989. October is late in the growing season and many herbaceous species of plants of the spring and summer season were not available for examination, hence only the October flora is described based on flowering material. Due to time limitations, only a sample of the bryophyte cover was examined.

DESCRIPTION OF THE AREA EXAMINED

The wooded (Quercus wetland) portions of the plot resemble and may be considered once part of the existing extensive woods with fragmented borders to the east. Outliers of this woods may be seen in lot boundaries of cultivated fields. Williams Road, on the plot's east boundary, is in the process of heavy commercial development and the plot will be ecologically increasingly isolated in the years ahead.

Vegetation types include an impondment of drainage associated with Black Creek in the northeastern extremity around thirty feet from the junction of Colvin Blvd and Williams Road. The impondment appears associated with building of the roads; several dead trunks of mature trees arise from the water surface. The impondment happened sufficiently long ago for dense native vegetation to have established itself.

Wet-Oak-Maple-Elm woods are concentrated also in the northeastern quadrant of the study area, dominated by Pin Oak (Quercus palustris), Swamp White Oak (Quercus bicolor), American Elm (Quercus americana), Silver Maple (Acer saccharinum) and Red Maple (Acer rubrum) - the maples probably hybridizing. There is abundant evidence of early logging both by stumps over two feet

DBH, the multitude of mature trees deriving from stump sprouts, and deeply grooved, vegetated logging ruts crisscrossing the understory. The woods has been isolated by clear-cut areas representing old and recent periods of adjacent farming. Mature trees of Trembling Aspen (Populus tremuloides) and immature (ca. 6+ inch DBH) of Cottonwood (Populus deltoides) fringe the Oak woods boundaries. The woods is actively regenerating with high tree species diversity and successful seed germination of native hardwoods. This indicates that conditions for natural woods regeneration are good.

On the periphery of these woods, extensively on the east and north generally in areas of improved drainage are dense, nearly impassable monoculture-thickets of Panicled Dogwood (Cornus racemosa), Silky Cornel (Cornus amomum) and Arrow-wood (Viburnum dentatum) with Sedge carpets (Carex spp.) and bryophyte (moss) communities, perhaps indicative of old abandoned fields.

Interspersed among the thickets are tongues of grassy meadows indicating recently abandoned land use, such as farming. These meadows are most evident on the eastern side behind old residential lots facing west on 102nd Street, and are on occasion interior to border thickets. A second low area exists in the center of the plot; this was apparently an impondment created in part by erection of a low ridge on the north side, forming the south boundary of the Oak woods section. This wet depression is essentially sterile, its central mud basin covered with a mat of Mild Water Smartweed (Polygonum hydropiperoides) with fringes of Cattail (Typha latifolia) and, on the east side, facing Williams Road, Phragmites (Phragmites communis).

On the plot's southern third, the west boundary is made up of a block of houses and an eastern strip of residences, constituting three rows of housing, rather than the one row as in the northern two thirds of the plot. The plant communities of the east half include communities of willows and a change in native herbaceous species.

Alien and noxious weeds are confined at present to the periphery of the 80 acres. On the east side are extensive populations of Phragmites. Purple Loosestrife (Lythrum salicaria), is most heavily concentrated on the periphery, especially in a wet ditch just southwest of Colvin Blvd, but otherwise is only interspersed throughout the acreage studied. European Buckthorn (Rhamnus frangula) is becoming distributed throughout the plot, mainly spread by birds. Noxious weeds, such as Winter Cress (Barbarea vulgaris) are beginning to enter where canopy is open and residences are near, such as on the south boundary. Box Elder, where it has been planted near old residences, is actively seeding and will eventually develop monocultures. Various Honeysuckles were observed in old plantings, but as yet these do not appear to be spreading.

Abundant evidence of animal life exists throughout the area by skat observed on paths and in burrow holes visible throughout.

SPECIES LISTS

[Species that are not native to the flora of the Niagara Frontier Region are preceded by an asterisk (*)].

1. Imponded area, northeast corner.

Large animal holes pierce soil mounds on the eastern margin of the pool. Surface of water completely covered by Lemna (Lemna trisulcata). This depression is bounded to the north by a dense palisade of Cat-tail (Typha latifolia) and an outer layer of Phragmites. On the east, not far from Williams Road there is a dense thicket of Bebb and Pussy Willow (Salix bebbiana, S. discolor). The south and east sides are forest trees of Pin Oak and Aspen, American Elm.

HERBS:

Cursed Crowfoot (Ranunculus scleratus) growing amid the Water Purslane
Cut-leaved Water Horehound (Lycopus americana)
Needle Spike-rush (Eleocharis acicularis)
Ovate Spike-rush (Eleocharis obtusa)
Pilewort (Erechtites hieracifolia var. hieracifolia)
Rice Cut-grass (Leersia oryzoides) dense just above wet soil
Tick Trefoil (Desmodium sp.)
Virginia Bugleweed (Lycopus virginiana)
Water Purslane (Ludwigia palustris) forming mats on mud

2. Oak, Maple, Elm wet-woods, northeast boundary. Evidence of deer hunting by shotgun shells and a shooting platform constructed in the crotch of a tree, with ladder.

HERBS:

Canada Goldenrod (Solidago canadensis)
Enchanter's Nightshade (Circaea quadrisulcata)
Boneset (Eupatorium perfoliatum)
Gray Goldenrod (Solidago nemoralis)
Laciniate Avens (Geum laciniata)
Northern Willow-herb (Epilobium ciliatum)
Purple-stemmed Angelica (Angelica atropurpurea)
Tall Hairy Agrimony (Agrimonia gyrosepala)
Meadow Rue (Thalictrum cf. dioicum)
Virginia Knotweed (Polygonum virginianum)
White Avens (Geum canadense)
Wrinkled Goldenrod (Solidago rugosa)

FERNS:

All ferns are protected protected by New York State law (Section 193.3 of the New York State Penal Code) except Sensitive Fern.
Lady Fern (Athyrium filix-femina)
Sensitive Fern (Onoclea sensibilis)
Shield fern (Dryopteris austriaca var.)

MOSSES AND LIVERWORTS:

Atrichum undulatum
Barbula unguiculata (open, disturbed area)
Brachythecium sp.
Cratoneuron filicinum
Lophocolea heterophylla
Mnium cuspidatum

SHRUBS AND VINES:
Arrow-wood (Viburnum dentatum) (forming thickets)
Beaked Willow (Salix bebbiana)
Bristly Greenbriar (Smilax hispida)
Common Highbush Blackberry (Rubus alleghaniensis)
Elder (Sambucus pubens or canadensis)
*European Buckthorn (Rhamnus frangula)
Frost or River Grape (Vitis riparia) diameter to 3 inches
*Guelder Rose (Viburnum opulus)
Maple-leaved Viburnum (Viburnum acerifolium)
Poison Ivy (Rhus radicans) small area
Pussy Willow (Salix discolor)
Red Raspberry (Rubus strigosus)
Spicebush (Lindera benzoin)
Witch Hazel (Hamamelis virginiana)

TREES:
American Ash (Fraxinus americana) especially on margins
American Elm (Ulmus americana)
American Hornbeam, Musclewood, Blue Beech (Carpinus caroliniana)
-regenerating, some to 4" DBH.
Basswood (Tilia americana) - regenerating
Hickory (Carya sp.) single tree
Pin Oak (Quercus palustris), dominant and conspicuous
Red Elm (Ulmus rubra)
Red or Scarlet Oak (Quercus borealis var. maxima or Quercus coccinea) trees to over one foot DBH, infrequent - regenerating.
Silver Maple (Acer saccharinum)
Swamp White Oak (Quercus bicolor)
White Oak (Quercus alba) scarce

3. The northern extremity supports a drainage slough of probable artificial origin through the center of a disturbed meadow. There was water in the channel, all of it occupied by vegetation, where Cattail (Typha latifolia) dominates, in direct competition with an extensive population of Purple Loosestrife (Lythrum salicaria). Recently, a population of Phragmites has established itself and will surely increase over the years. Ditch vegetation occurs throughout the area studied in wet paths occassionally filled with water.

Holes in the ditch walls indicate occupation by mammals.

Species in the water and on the sides of the ditch:

HERBS:
Cattail (Typha latifolia and T. angustifolia)
Common Rush (Juncus effusus var. solutus)
Cut-grass (Leersia oryzoides)
Cut-leaved Water Horehound (Lycopus americana)
Dark-Green Bullrush (Scirpus atrovirens)
Ditch Stonecrop (Penthorum sedoides)
Dudley's Rush (Juncus dudleyi)
Foxtail Sedge (Carex vulpinoides)
Knotted Rush (Juncus nodosus)
Nodding Sticktight (Bidens cernua)
Northern Willow-herb (Epilobium ciliatum)
Path Rush (Juncus tenuis)
Phragmites (Phragmites communis)
Pointed Broom-sedge (Carex scoparius)
*Purple Loosestrife (Lythrum salicaria)
Sedges: additional sedge leaf-bases of other species were noted
Swamp Milkweed (Asclepias incarnata)
Virginia Bugleweed (Lycopus virginiana)
Water-plantain (Alisma plantago-aquatica)
*Water Smartweed (Polygonum hydropiper)

MOSSES: on wet, bare soil, north-facing side of ditch:
Barbula convoluta
Brachythecium sp.
Campylium chrysophyllum
Ceratodon purpureus
Dicranella heteromalla
Fissidens adianthoides
Fissidens taxifolius

4. Thickets.

Thickets abound on the eastern periphery of the study area and are an important part of the buffer for the old wooded section, providing a hedge against intruders and protecting the forest microclimate, especially from the urban environment.

Well developed bryophyte populations inhabit the tops of drainage depressions throughout this area, contributing topographic diversity - low microhabitats of high moisture, wet elevations and drier conditions between the depressions. Vegetation covers the soil, particularly species in the sedge family.

MOSSES:
Atrichum undulatum
Mnium cuspidatum
Thuidium

HERBS:
All of the Aster noted in the meadow areas below are present, only less

abundantly.
Canada Goldenrod (Solidago canadensis)
Common Rush
*Common St. John's-wort (Hypericum perforatum)
Dudley's Rush
Early Goldenrod (Solidago juncea) occasional
*Four-seeded Vetch (Vicia tetrasperma)
Narrow-leaved Goldenrod (Solidago graminifolia) (confined to open margins)
Indian tobacco (Lobelia inflata)
Path Rush
Sedge species abundant, unidentifiable in October
Yellow Pimpernell (Taenidia integerrima)
*Winter Cress (Barbarea vulgaris) occasional
Wrinkled Goldenrod

FERNS:
Lady Fern
Sensitive Fern

SHRUBS AND VINES:
Arrow-wood (Viburnum dentatum) occasional
Frost or River Grape
*Concord Grape escaped from cultivation, fruiting and seeding in this thicket with edible grapes
Washington Thorn (Crataegus phaenopyrum). This is a very mature shrub of similar age to that planted by the northeast residence.

TREES:
note the beginning of a lichen flora establishing itself on the older tree trunks - a sign of improvement in air quality. Many of the trees are 5 - 7" DBH.
American Ash (Fraxinus americana), saplings frequent
American Elm (Ulmus americana)
Red Maple (Acer rubrum)
Silver Maple (Acer saccharinum)
Red Elm (Ulmus rubra) This tree is frequent throughout and saplings evident. Several larger trees have died - these are mainly on the periphery.

5. Meadows

Shrubs in these areas are beginning to replace the grasses and form populations indicating meadow areas are successional to thickets with thicket species already noted. Particular to the meadow area is one shrub, which is abundant in the meadow just south of the residence on the northwest corner of the study area. Meadows throughout the complex support lush populations of Bluejoint Grass (Calamagrostis canadensis), typical of wet habitats.

Most urban forbs are confined to the eastern and western road margins, and are only occasional in the interior of the study area.

This floristic integrity is due to dense thicket buffers on the periphery of the area.

Skat was observed on all pathways, indicating area is used for wildlife.

HERBS:

Bed-straw (Gallium sp.)
*Bent Grasses (Agrostis spp.)
*Bird's-foot Trefoil (Lotus corniculatus)
*Black-eyed Susan (Rudbeckia hirta var. pulcherrima)
Bluejoint Grass (Calamagrostis canadensis)
Boneset (Eupatorium perfoliatum)
*Broad-leaved Plantain (Plantago major)
*Bull Thistle (Cirsium vulgare)
Canada Goldenrod, two varieties
*Canada Thistle (Cirsium arvense)
Cockle-bur (Xanthium strumarium)
Common Beggar-ticks (Bidens frondosa)
*Common St. John's-wort
Cut-leaved Water Horehound
*Dandelion (near the roads; Taraxacum officinale)
*Deptford Pink (Dianthus armeria)
Early Goldenrod
*Four-seeded Vetch
Gray Goldenrod (Solidago nemoralis)
Hairy Aster (Aster pilosus var. pilosus)
Heal-all (Prunella vulgaris)
Hispid Yellow Cress (Rorippa islandica var. hispida)
Hops (Humulus lupulus)
Jewelweed (Impatiens biflora) occasional
*Large-bracted Western Tickseed (Bidens polylepis), wet area by road.
Late Goldenrod (Solidago gigantea)
*Meadow Fescue (Festuca elatior)
*Moneywort (Lysimachia nummularia)
Narrow-leaved Goldenrod rivalling the grasses in abundance
New England Aster (Aster novae-angliae)
*Ox-eye Daisy (Chrysanthemum leucanthemum)
*Prickly Lettuce (Lactuca serriola var. integrata)
*Purple Loosestrife (Lythrum salicaria)
*Quack-grass (Agropyron repens)
*Queen Anne's Lace (Daucus carota) not abundant
*Red Clover (Trifolium pratense)
Rough Barnyard Grass (Echinochloa muricata)
Rugel's Plantain (Plantago rugelii)
Scouring Rush (Equisetum sp.)
early Sedge species
*Sheep Fescue (Festuca ovina) very abundant ground cover
Smooth Aster (Aster laevis)
Starved Aster (Aster lateriflorus)

Strawberry (Fragaria sp.)
*Sulphury Cinquefoil (Potentilla recta)
Swamp Milkweed
Switchgrass (Panicum virgatum)
Tall White Aster (Aster simplex)
*Teasel (Dipsacus sylvestris), by the road.
*Timothy (Phleum pratense)
Virginia Bugle-weed
Wartweed (Euphorbia maculata)
White Heath Aster (Aster ericoides)
*White Sweet-clover (Melilotus alba)
Wild Crane's Bill (Geranium maculatum) south woods
Witchgrass (Panicum capillare) scarce
Wood-grass (Muhlenbergia mexicana)
Wool-grass (Scirpus cyperinus)
Yellow Sweet-clover (Melilotus officinalis)

SHRUBS (mostly isolated plants, usually less than six feet tall):
Arrow-wood
*Autumn Elaeagnus (Elaeagnus umbellata Thunb.) A Japanese plant found growing spontaneously among grasses - an escape from a local garden.
Common Highbush Blackberry (Rubus alleghaniensis)
Hawthorn (Crataegus sp.) single plant, a native Hawthorn.
Frost or River Grape young.
Narrow-leaved Meadow-sweet (Spiraea alba), abundant in one area
Northern Dewberry (Rubus flagellaris)
Panicled Dogwood (Cornus racemosa) abundant
Silky Cornel (Cornus amomum) infrequent
Staghorn Sumac (Rhus typhina) few plants on northern and southern extremity of study area.

trees (mostly seedlings and saplings):
Black Willow (Salix nigra) One individual.
Cottonwood (Populus deltoides) few.
White Ash (Fraxinus americana) saplings.
Maple (Acer saccharum hybrid with A. saccharinum?) saplings.
Pussy willow One individual.
Trembling Aspen (Populus tremuloides)

6. South section.

A special section on the southeastern boundary supports an interesting plant population dominated by a diversity of willow species. The area is generally free of Purple Loosestrife. Dense Phragmites on the east boundary facing Williams Road protects open, low soil vegetation just behind it from dominating by roadside weeds. The presence of populations of soil lichens is indicative of good atmospheric and soil quality. Species of fungi, including a specimen of Russula were evident on the wet

to moist soil.

The most significant aspect of this area is an extensive (+200) population of Closed Gentian (Gentiana andrewsii). This plant is protected by New York State law (Section 193.3 of the New York State Penal Code) and is reported as "rather frequent" in the Niagara Frontier Region by Zenkert (1934).

HERBS:
Bedstraw (Galium spp.)
Blue Flag (Iris versicolor)
Closed Gentian (Gentiana andrewsii)
Cut-leaved Water Horehound
False Nettle (Boehmeria cylindrica)
Narrow-leaved Cattail (Typha angustifolia)
Northern Willow-herb
Purple-stemmed Angelica
Slender Gerardia (Gerardia tenuifolia)
Smooth Aster
Swamp Milkweed
Torrey's Rush (Juncus torreyi)
Virginia Bugleweed

In moist areas abundant to thicket-forming Willows:
Heart-leaved Willow (Salix rigida)
Beaked Willow
Black Willow
Pussy Willow
Sandbar Willow (Salix interior) one stand among Gentians
Cottonwood
Trembling Aspen

RARE PLANTS

No rare or endangered plants were found in the study area. Special emphasis was made on finding the Sky-Blue Aster:

Aster oolentangiensis Sky-Blue Aster, Azure Aster

New York Natural Heritage Program, New York Rare Plant Status List, February, 1989, S. E. Clemants, ed.

-G4G5
Apparently or demonstrably secure globally, though it may be quite rare in parts of its range, especially at the periphery.

-S1 Typically 5 or fewer occurrences, very few remaining individuals, acres, or miles of stream, or some factor of its biology making it especially vulnerable in New York State.

no federal status defined by US Dept. Interior, 1974 Endangered Species Act (v. Code of Federal Regulations 50 CFR 17); see Federal Register Vol. 50, no. 188, pp. 39526 - 39527.

no state legal status (regulation 6NYCRR part 193.3 (amendment pending); New York State Environmental Conservation Law section 9-1503)

"The azure aster is locally common on drier ofter prairie-like habitats of southern Ontario"; it is located in Ontario along the north shore of Lake Ontario and Lake Erie, and the St. Lawrence (Semple & Heard, 1987) and reaches the northeastern portion of its range on the shores of the lakes in western New York State. [On prairies, banks of streams and borders of woods" House, 1924] In 1934, Zenkert reported the species from "Whirlpool woods, crest of limestone gorge of Niagara River" but was not collected since before 1885 when found by George Clinton (Zenkert, 1934). A specimen was collected in 1985 near the Clinton site at DeVeaux College woods, City of Niagara Falls, New York (Eckel, No. 132285, Sept. 23, 1985, specimen at the Clinton Herbarium, Buffalo Museum of Science). The only other collection in New York State was near Rochester in 1896 (House, 1924).

Although within the range of flowering for the species, no blue asters were found on the study site, including two rather locally common native blue asters: Smooth Aster (Aster laevis) and Purple-stemmed Aster puniceus (Aster puniceus). There is little evidence that the native population of Sky-Blue Aster still living at DeVeaux woods, a few miles west of the Love Canal area, has ever expanded since collected over a century ago, and is probably restricted to the micro-climate associated with the Niagara gorge.

Hairy Aster (Aster pilosus) was found in this area on the north eastern margin. A variety of this species is on the New York Heritage List, the var. Pringeli, the plants examined were distinctly hirsute on the stem, and constitute the var. pilosus. Hairy Aster is reported as rare in western New York State by Zander and Pierce (1979) where it has been previously found only at Moss Lake Sanctuary, Allegany Co. and Bergen Swamp, Genesee Co. (Zenkert & Zander, 1975). There is good indication that this species is more common than previously thought, and will probably, with further field research in the region, be found to be frequent to common.

Ontario Aster (Aster ontarionis) G5, SH, which occurs on the Natural Heritage List, was also looked for as the habitat seemed appropriate, and there is the suggestion this species was found at one time in Lockport New York [colleague, personal communication, Heritage Program]. Although numerous white-flowered asters were examined, none had the characteristic investiture on the stem and leaves of Aster ontarionis - a plant not yet reported for the Niagara floristic region (Zander & Pierce, 1979), but perhaps recently found at Dufferin Islands,

Ontario, across the Niagara River.

MITIGATIONS

Inasmuch as the studied area has been designated a Class 2 Wetland by the New York State DEC, and because the present investigation found evidence of considerable diversity and regeneration in this woods, any development around the periphery of the area should include certain mitigation to insure the integrity of the existing buffer zone.

Extensive natural buffers protecting the central botanical complex are formed by thickets of Arrow-wood, Silky Cornel and Panicled Dogwood. These thicket areas protect the floristic integrity in the center of the area, and provide cover and forage for wildlife. On the northeast section of Oak woods, buffers are formed from various plants: sparse thickets of the species mentioned, willows, grape, which also kills trees and shrubs on the margins only, forming a wall, and invasive Phragmites. Areas without such protection will become and are becoming corridors for infestation by weedy species, especially that generated by urban planting.

It is recommended that natural borders of dense vegetation be allowed to develop, and that any construction on the periphery of the area not remove thickets or pierce or penetrate dense vegetation. The forest edge must be closed, as well as the edges of clearings where natural thickets have become established.

The following species are noxious weeds that overgrow the native vegetation. These must not be planted for landscaping and, where established, efforts should be made to remove them:

Boxwood, Manitoba Maple, Ash-leaved Maple (Acer negundo)
Common Buckthorn (Rhamnus cathartica)
European Buckthorn (Rhamnus frangula)
any Honeysuckle (Lonicera sp.)
Multiflora Rose (Rosa multiflora)
Viburnum sp. such as Wayfaring Tree (Viburnum lantana).

Residences along 102nd Street, forming the eastern boundary of the study area have demonstrated good landscaping practice by, in several cases, planting trees native to the wooded lots: primarily Silver Maple. Landscaped business would ensure the high quality of the local woodlands and meadows by planting young plants regenerating in the area in lots being developed on the periphery.

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APPENDIX F:

TRAFFIC INFORMATION

City of Niagara Falls, New York

November 28, 1989

RECEIVED
DEC 4
SARATOGA ASS

RECEIVED
DEC 4 1989
SARATOGA ASSOCIA

Mr. James R. Koury
Staff Planner
The Saratoga Associates
Old Saratoga Square
443 Broadway
Saratoga Springs, NY 12866

SUBJECT: LOVE CANAL STREET AND TRAFFIC INFORMATION

Dear Mr. Koury:

Per your written request (undated), attached please find street inventory and general improvement information as prepared by this office (attached). The attached table legend and inventory map should be self-explanatory.

With regard to your traffic question, The City's Traffic Engineering Division indicates that no traffic count information is available within the Love Canal EDA. Due to the residential nature of this area, such counts were never deemed necessary. Likewise, no intersections within this area are considered problem intersections with regard to accidents. Again, this may be attributable to the low volume of traffic using these streets, although a review of accident data prior to the declaration of the Love Canal area indicate a similar low accident rate.

It is necessary for me to mention in closing that I am unaware of any delay in providing this information caused by this office. As you are aware, any information requested in the Love Canal area required the approval of the City's Corporation Counsel prior to release and said release was only obtained within the past two weeks.

I trust this information satisfies your needs.

Very truly yours,

Kevin P. O'Brien

Kevin P. O'Brien, P.E.
City Engineer

KPO:bb
cc - David F. Jaros, P.E.
Carl Mooradian
Dominick Bettino
John W. Boddecker
Walter Hoffman
File

LOVE CANAL STREET INVENTORY

(ALL STREETS CLASSIFIED AS RESIDENTIAL)

CONTRACT #	LOCATION	FROM	TO	PAVED WIDTH	R.O.W.	MARGIN	ROADWAY CROSS SECTION	NEED *
P.C. 564	93rd St.	Frontier Ave.	Colvin Blvd.	30'	66'	18'	C	RS II & RS I
P.C. 1001	93rd St.	Colvin Blvd.	Bergholtz Cr.				A	RS I
P.C. 973	95th St.	Frontier Ave.	Colvin Blvd.				B	RS I
P.C. 877	96th St.	Colvin Blvd.	Southerly		60'	15'	A	RS I
P.C. 768	99th St.	Colvin Blvd.	Southerly				A	RS II
P.C. 951	100th St.	Frontier Ave.	Colvin Blvd.		50'	10'	B	Overlay/5% Base
P.C. 950	101st St.	Frontier Ave.	Read Ave.				B	Nothing
"	"	Read Ave.	Colvin Blvd.				B	RS I
P.C. 1045	102nd St.	Frontier Ave.	Colvin Blvd.		58'	14'	D	Nothing
P.C. 802	96th St.	Colvin Blvd.	Greenwald Ave.		60'	15'	A	Repave
P.C. 800	97thSt.	Colvin Blvd.	Greenwald Ave.				A	RS II
P.C. 765	98th St.	Colvin Blvd.	Mason Dr.				A	RS I
P.C. 803	99th St.	Black Cr. Dr.	Moschel Ct.				A	RS II
P.C. 804	100th St.	Colvin Blvd.	Moschel Ct.				A	RS I
P.C. 805	101st St.	Black Cr. Dr.	Mueller Ct.				A	RS I
P.C. 972	Frontier Ave.	93rd St.	96th St.		50'	15'N/5'S	B	RS I
P.C. 994	Frontier Ave.	96th St.	102nd St.	25'		12.5	B	M & O/10% Base
P.C. 1053	Read Ave.	93rd St.	95th St.				B	Nothing
P.C. 944	Wheatfield Ave.	100th ST.	102nd St.				B	Nothing
P.C. 558	Colvin Blvd.	93rd St.	96th St.	20'BS	125'	32.5	C	RS I
P.C. 844	Colvin Blvd.	96th St.	102nd St.	30'		52.5N/42.5S	A	RS I
P.C. 801	Greenwald Ave.	96th St.	98th St.		60'	15'	A	Repave
P.C. 780	Mason Dr.	98th St.	98th St.				A	RS I
P.C. 806	BlackCr. Dr.	99th St.	101st St.				A	Nothing
P.C. 808	Moschel Ct.	98th St.	Mueller Ct.				A	RS I
P.C. 807	Mueller Ct.	Moschel Ct.	E/O 101st St.				A	RS II

* Indicates recommended scope of pavement rehab at time of visual inspection - August 26, 1989

LOVE CANAL STREET INVENTORY

(ALL STREETS CLASSIFIED AS RESIDENTIAL)

CONTRACT #	LOCATION	FROM	TO	PAVED WIDTH	R.O.W.	MARGIN	ROADWAY CROSS SECTION	NEED *
P.C. 564	93rd St.	Frontier Ave.	Colvin Blvd.	30'	66'	18'	C	RS II & RS I
P.C. 1001	93rd St.	Colvin Blvd.	Bergholtz Cr.	↓	↓	↓	A	RS I
P.C. 973	95th St.	Frontier Ave.	Colvin Blvd.	↓	↓	↓	B	RS I
P.C. 877	96th St.	Colvin Blvd.	Southerly	↓	60'	15'	A	RS I
P.C. 768	99th St.	Colvin Blvd.	Southerly	↓	↓	↓	A	RS II
P.C. 951	100th St.	Frontier Ave.	Colvin Blvd.	↓	50'	10'	B	Overlay/5% Base
P.C. 950	101st St.	Frontier Ave.	Read Ave.	↓	↓	↓	B	Nothing
"	"	Read Ave.	Colvin Blvd.	↓	↓	↓	B	RS I
P.C. 1045	102nd St.	Frontier Ave.	Colvin Blvd.	↓	58'	14'	D	Nothing
P.C. 802	96th St.	Colvin Blvd.	Greenwald Ave.	↓	60'	15'	A	Repave
P.C. 800	97thSt.	Colvin Blvd.	Greenwald Ave.	↓	↓	↓	A	RS II
P.C. 765	98th St.	Colvin Blvd.	Mason Dr.	↓	↓	↓	A	RS I
P.C. 803	99th St.	Black Cr. Dr.	Moschel Ct.	↓	↓	↓	A	RS II
P.C. 804	100th St.	Colvin Blvd.	Moschel Ct.	↓	↓	↓	A	RS I
P.C. 805	101st St.	Black Cr. Dr.	Mueller Ct.	↓	↓	↓	A	RS I
P.C. 972	Frontier Ave.	93rd St.	96th St.	↓	50'	15'N/5'S	B	RS I
P.C. 994	Frontier Ave.	96th St.	102nd St.	25'	↓	12.5	B	M & O/10% Base
P.C. 1053	Read Ave.	93rd St.	95th St.	↓	↓	↓	B	Nothing
P.C. 944	Wheatfield Ave.	100th ST.	102nd St.	↓	↓	↓	B	Nothing
P.C. 558	Colvin Blvd.	93rd St.	96th St.	20'BS	125'	32.5	C	RS I
P.C. 844	Colvin Blvd.	96th St.	102nd St.	30'	↓	52.5N/42.5S	A	RS I
P.C. 801	Greenwald Ave.	96th St.	98th St.	↓	60'	15'	A	Repave
P.C. 780	Mason Dr.	98th St.	98th St.	↓	↓	↓	A	RS I
P.C. 806	BlackCr. Dr.	99th St.	101st St.	↓	↓	↓	A	Nothing
P.C. 808	Moschel Ct.	98th St.	Mueller Ct.	↓	↓	↓	A	RS I
P.C. 807	Mueller Ct.	Moschel Ct.	E/O 101st St.	↓	↓	↓	A	RS II

* Indicates recommended scope of pavement rehab at time of visual inspection - August 26, 1989

LEGEND - ROADWAY CROSS SECTION

TYPE - A 6" CONCRETE BASE 2" BINDER
1" TOP

TYPE - B 6" RUN OF CRUSHER, 6" CONCRETE
BASE, 2" BINDER, 1" TOP

TYPE - C 6" CONCRETE BASE

TYPE - D STABILIZE STONE BASE
2" BINDER, 1" TOP

LEGEND - ROADWAY IMPROVEMENT

OVERLAY ONLY (TOP ONLY)

a] MINIMUM SPOT - ASPHALT REMOVAL

b] BASE, CURB, SIDEWALK & CATCH BASINS (MINIMAL)

MILL & OVERLAY BINDER & TOP (3")

TOP (1")

a] SPOT MILLING OR 100% MILLING

b] BASE, CURB, SIDEWALK & CATCH BASINS (MINIMAL)

RE-SURFACING - TYPE I

a] MILL OR SPOT REMOVAL OF ASPHALT PAVEMENT

b] BASE REPLACEMENT (LESS THAN 25%)

c] CURB, SIDEWALK & CATCH BASINS (LESS THAN 50%)

RE-SURFACING - TYPE II

a] MILL OR REMOVE ASPHALT PAVING

b] BASE (0% TO 50%)

c] CURB (0% TO 100%)

d] SIDEWALK (0% TO 100%)

e] CATCH BASINS (0% TO 100%)

RE-PAVING

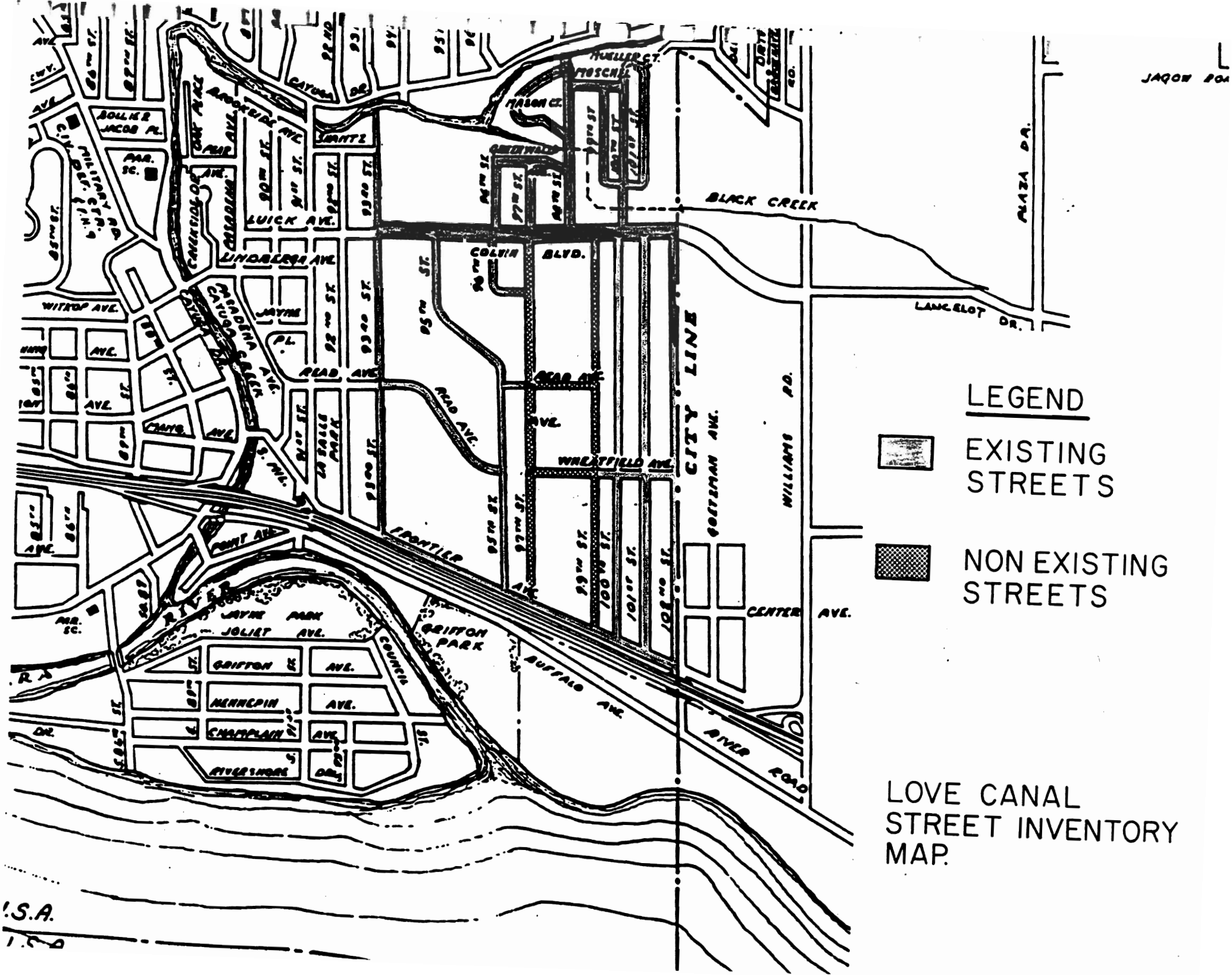
a] REMOVE ENTIRE ASPHALT SURFACE

b] BASE REPLACEMENT (50% TO 100%)

c] CURB (0% TO 100%)

d] SIDEWALK (0% TO 100%)

e] CATCH BASINS (0% TO 100%)


LEGEND
EXISTING STREETS
NON EXISTING STREETS
LOVE CANAL STREET INVENTORY MAP.
BLACK CREEK
CITY LINE
FRONTIER AVE.
BUFFALO AVE.
RIVER ROAD
CENTER AVE.
WILLIAMS RD.
GOLFMAN AVE.
PLAZA DR.
LANCELOT DR.
COLVIN BLVD.
WHEATFIELD AVE.
READ AVE.
LUICK AVE.
WITTOP AVE.
LINDBERGH AVE.
CAYUGA CREEK
LAYNE PARK
JOLIET AVE.
GRIFTON PARK
GRIFTON AVE.
HENNEPIN AVE.
CHAMPLAIN AVE.
RIVERSHORE DR.
COUNCIL
PRATT AVE.
JACOB PL.
MASON CT.
HUELLER CT.
GREENWOOD
CAYUGA DR.
APPLEWOOD AVE.
CRESTVIEW DR.
CRAIG AVE.
LAYNE PL.
PARK SC.
MILITARY RD.
ASTWELL
85TH ST.
86TH ST.
87TH ST.
88TH ST.
89TH ST.
90TH ST.
91ST ST.
92ND ST.
93RD ST.
94TH ST.
95TH ST.
96TH ST.
97TH ST.
98TH ST.
99TH ST.
100TH ST.
101ST ST.
102ND ST.
103RD ST.
104TH ST.
40TH
DRY
JAQUA RD.

APPENDIX G:

REILLY'S RESPONSE TO LOIS GIBBS

United States
Environmental Protection Agency
Washington, D.C. 20460

May 14, 1990

The Administrator

Ms. Lois Gibbs
Executive Director
Citizens Clearinghouse for
Hazardous Wastes. Inc.
P.O. Box 926
Arlington, Virginia 22216

Dear Ms. Gibbs:

I appreciated very much the chance to meet you in January and hear in detail your concerns about Love Canal. This letter responds to the issues you raised during our conversation and to your recent written comments on the Love Canal Habitability Study. I know I promised to get back to you promptly. The delay in responding to you reflects the fact that a great deal of examination, thought, and consultation has gone into my review. Love Canal, as you know, has a complex history.

I have considered your comments and looked into the Habitability Study itself. I have consulted with the Agency's General Counsel Don Elliott, Regional Administrator Connie Eristoff, Assistant Administrator Don Clay, with members of the Peer Review Panel that evaluated the Study, and with others. The overriding question I have focused on is "have we complied with the law?" I am now satisfied that the answer to that question is "yes." Specifically, I have concluded that the Love Canal Habitability Study was conducted in full conformance with the law, that it was rigorously designed and carried out to ensure that it was scientifically sound and unbiased, and that it was subjected to full scrutiny and comment by nationally-recognized independent experts and the public. All this the law demands of EPA. We are not called upon to make decisions about the future land uses of the area.

Based upon the information in the Study, decisions about the future use of the Love Canal Emergency Declaration Area (EDA) are being made by state and local authorities, which are the appropriate levels of government to make such calls. State and local agencies, in making their decisions about the future use of the land adjacent to Love Canal and about the associated environmental impacts, will clearly need to take into account the full range of issues, uncertainties, and public sentiments that are present.

Before addressing the specific issues you have raised, I want to make very clear that the area of concern here is not the Love Canal site itself. The Habitability Study was not undertaken to assess the habitability of the Love Canal disposal site or the two rings of homes that originally surrounded it. These homes were torn down and the land on which they stood, along with Love Canal, are buried under a 40-acre cap with a liner and extensive barrier drain collection system, which is operated and maintained by New York State. An extensive, fenced buffer area separates the site from the Emergency Declaration Area. The site is surrounded by monitoring wells and routine monitoring to date shows that this containment system is working effectively. Thus, the area assessed by the Habitability Study -- the Emergency Declaration Area -- is outside of the Love Canal Site.

In this letter, I want to address the issues raised during our meeting and in your subsequent written comments. It may be helpful first to recount briefly the background of the Love Canal Habitability Study. As you know, in 1982 the U.S. Department of Health and Human Services issued a decision on the habitability of the Love Canal Emergency Declaration Area. This decision was based on the results of an extensive environmental sampling program in which several thousand samples were collected and analyzed for a broad spectrum of chemicals. Except for contamination in Love Canal area sewers and creeks, which has now been cleaned up, the study found no indication that any Love Canal chemicals had migrated into the Emergency Declaration Area.

It is important to note that another federal agency, the U.S. Department of Health and Human Services, determined that the Emergency Declaration Area was suitable for residential use provided that the EDA sewers and their contaminated drainage tracts were remediated and that continuous safeguards were in place to monitor the site and prevent further leakage from it. These tasks were accomplished as part of the Love Canal remediation program; the New York State Department of Health concurred in this finding.

After this decision, however, some issues were raised about how this program to sample and analyze chemicals in the EDA was designed and carried out. To provide further assurances that the habitability decision was technically sound, EPA decided that a second study on habitability should be conducted. This second study, which began in 1983, was subsequently mandated by the Superfund Amendments and Reauthorization Act of 1986.

To respond to the concerns you raised in your meeting with me, I have reviewed the following issues: (1) whether the EPA Habitability Study was conducted in conformance with the law; (2) whether it is scientifically sound; and (3) whether it was conducted with full public consultation.

Section 312(e) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) directed EPA to "conduct or cause to be conducted a habitability and land use study" which would assess the risks associated with inhabiting the Emergency Declaration Area; compare the level of hazardous waste contamination in the Emergency Declaration Area to that present in other comparable communities; and assess the potential uses of the land within the Emergency Declaration Area, including but not limited to residential, industrial, commercial and recreational uses, and the risks associated with such potential uses. I have concluded that the Habitability Study fulfills those statutory requirements for the following reasons.

The Habitability Study assesses the risks associated with inhabiting the Emergency Declaration Area in a number of ways. First, it compares the levels of certain indicator chemicals in the Emergency Declaration Area soil to the levels found in four comparable communities. These indicator chemicals were deemed by the scientists conducting the study to be representative of those chemicals which would likely have been present if the area had been affected by chemicals from the Love Canal disposal site. The comparison approach used in the Study assesses the relative risks of inhabiting the Emergency Declaration Area by comparing contamination levels in the EDA to levels found in comparable residential communities which are presently inhabited but are not affected by a chemical landfill.

Moreover, the Technical Review Committee, which was created in August of 1983 in order to develop a scientifically sound approach for determining the habitability of the Emergency Declaration Area and to provide high-level oversight of all Love Canal matters, thoroughly evaluated the various approaches that could be used to conduct the study. The Technical Review Committee was comprised of experts from EPA, the Centers for Disease Control, the New York State Department of Health, and the New York State Department of Environmental Conservation. After extensive deliberation, and public discussion, the Technical Review Committee concluded that the comparative approach used in the study was the most scientifically sound way to assess the habitability of the Emergency Declaration Area, particularly in light of the lack of relevant standards for the chemicals that might be found in the EDA and the lack of toxicological data for these chemicals.

The use of the comparative approach was supported by EPA's independent panel of scientific experts, including representatives from the New York University Medical Center, Yale University School of Medicine, the University of California School of Public Health, the Lawrence Livermore Laboratory, Massachusetts General Hospital, Harvard University, the University of Texas, and other institutions. This expert peer review panel, which held a meeting on May 10-11, 1989 to discuss New York State's Habitability Decision, concluded that "the lack of appropriate toxicological data for the many chemicals present in the Canal and the lack of standards of acceptability for these chemicals makes the exposure and risk assessment approach unworkable at this time."

In conducting the Study, the Technical Review Committee recommended an approach that went beyond the comparison of comparable communities, as discussed in your letter. The Habitability Study went to great lengths to assess the risks of inhabiting the Emergency Declaration Area by analyzing approximately 2300 surface soil samples taken from this area to determine whether they contained levels of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) in excess of the 1 part per billion (ppb) level of concern established through a quantitative risk assessment as a standard by the Centers for Disease Control. The Technical Review Committee focused on TCDD because this 1 ppb level of concern was the only relevant standard available for chemicals in the Emergency Declaration Area.

Only one Emergency Declaration Area soil sample (from a vacant lot) was found to contain TCDD at a level in excess of the 1 ppb level of concern, and that soil has since been remediated. Ninety-seven percent of the samples did not contain <u>any</u> traces of TCDD that could be detected by even the most sensitive analytical instruments. After reviewing the results of these analyses, the U.S. Agency for Toxic Substances and Disease Registry concluded that "2,3,7,8-TCDD is not present in the surface soil of the Emergency Declaration Area at a concentration of human health concern."

Finally, the Technical Review Committee analyzed air samples from 562 residences in the Emergency Declaration Area to determine whether persistent chemicals from Love Canal found their way into surrounding homes. Chlorobenzene was not detected at all, and chlorotoluene was detected in one home. After carefully evaluating all of the data, the Technical Review Committee determined that the presence of the chlorotoluene could not be attributed to Love Canal. By determining whether toxic chemicals were present in the air of Emergency Declaration Area residences, the Technical Review Committee assessed a second path of risks of inhabiting the EDA. The methods employed to conduct these independent scientific reviews were deemed to be the most practical and appropriate under the circumstances.

With regard to assessing the potential alternative uses and risks of those uses as required by the statute, I believe that by assessing the risks of residing in the Emergency Declaration Area, which the Technical Review Committee determined was the highest use of the land, EPA has fulfilled the requirement to assess the potential uses of land within the Emergency Declaration Area. In developing the Habitability Criteria, Dr. Frederick Pohland of The Georgia Institute of Technology stated that "[t]he most sensitive habitability criteria would, I think, be applied to individual residences and so, in a way we would cover just about any other option should the decision be for something other than residences."

EPA has been cooperating with the state agencies which have evaluated the potential uses of the land in the Emergency Declaration Area. By funding both the Love Canal Land Use Advisory Committee, as well as the Love Canal Area Revitalization Agency, and by assessing the risks of residing in the Emergency Declaration Area and thus, in effect, the risks of other potential uses, I believe that EPA has complied with the statutory requirements of CERCLA section 312(e)(3).

With respect to the second matter, scientific validity, after a thorough review, I have concluded that the Habitability Study was conducted in a scientifically sound manner. To assure the study's scientific validity, the Technical Review Committee convened a panel of distinguished scientists from across the nation nominated by TRC members and the public to assist in developing the criteria for determining whether the Emergency Declaration Area was habitable. The habitability criteria, the pilot studies, and the design and results of the Habitability Study were scrutinized by EPA's peer review panel comprised of independent scientific experts.

The peer review panel, which reviewed the results of the Habitability Study, unanimously concluded that "each of the component parts of the habitability study was well planned, well executed, and had a high level of data quality assurance, and that the resulting data are of high quality and are appropriate for making a determination on habitability." EPA's independent review of the study has also concluded it was scientifically sound and unbiased. To further assure myself, I spoke personally and at some length with several scientists on the peer review panel who all assured me that in their opinion the study was valid and appropriate.

With respect to the third issue you raised concerning public involvement in conducting and reviewing the study, the Technical Review Committee held decision-making meetings at four to six week intervals throughout the entire, 6-year course of the study. All of these meetings -- a total of fifty -- were held in a public forum open and accessible to all. These meetings were advertised in local newspapers and through extensive mailings; they were held in convenient locations in Niagara Falls.

Before closing, I want to take particular note of your final concern about the broader public policy implications. Love Canal has become a national symbol for the environmental threats we face from hazardous waste and a powerful impetus to take strong steps to prevent such events from ever occurring again.

The role of the Federal government has been to ensure that the Habitability Study was conducted in a credible and scientific manner. Having done so, EPA properly, and in accordance with the law, provided the Habitability Study to the State of New York in order that the appropriate settlement and land use decisions could be made. EPA's involvement in solving chemical contamination problems at Love Canal will continue. The Agency has maintained and will continue to maintain a strong role in the ongoing investigative and cleanup work at Love Canal. Well over $100 million in Federal funds has been expended in support of these activities. The Agency will continue to provide funding to New York State for other activities.

In closing, let me stress again how much I appreciate your visit last January. I value the role of citizens and grassroots environmental organizations and applaud, in particular, your unceasing efforts and your personal struggle to focus public attention on the plight of your former community. Your current work with the Citizens Clearinghouse for Hazardous Wastes also serves a valuable purpose. These are not easy issues, and my belief is that we can both learn a great deal from each other.

Again, thank you for taking the time to raise your concerns regarding this matter with me. My staff and I look forward to working with you on this and other important issues.

Sincerely yours,

William K. Reilly

William K. Reilly

P.S. And congratulations on winning the Goldman Prize!

APPENDIX H:

SEVINSKY LETTER

STATE OF NEW YORK
DEPARTMENT OF LAW
120 BROADWAY
NEW YORK, NY 10271

ROBERT ABRAMS
Attorney General

JAMES A. SEVINSKY
Assistant Attorney General in Charge
Environmental Protection Bureau

212-341-2450

January 19, 1990

FEDERAL EXPRESS

Mr. James E. Carr
Director of Planning
Love Canal Area Revitalization Agency
9501 Colvin Boulevard
Niagara Falls, N.Y. 14304

Re: Love Canal Area Master Plan--Draft Generic Environmental Impact Statement

Dear Mr. Carr:

The Department of Law (DOL) submits the following comments on the Draft Generic Environmental Impact Statement (DGEIS) for the Love Canal Area Master Plan dated December 6, 1989:

1. The DGEIS states (at 64) that "More site-specific environmental review will be necessary as projects are proposed for each sub-area [of the Love Canal EDA]." The regulations under the State Environmental Quality Review Act (SEQR) provide in Section 617.15 as follows:

> (b) Generic EIS's and their findings should set forth specific conditions or criteria under which future actions will be undertaken or approved, and shall include procedures and criteria for supplements to reflect impacts, such as site specific impacts, which have not been adequately addressed or analyzed in the generic EIS. Such procedures shall include provision for public notice for supplements which allow for public comment on the new material presented by the supplement in the same manner as was provided in respect to the generic EIS. (See Section 617.8(g) of this Part.)
>
> (c) When a final generic EIS has been filed under this

(c) When a final generic EIS has been filed under this Part:

(1) no further SEQR compliance is required if a subsequent site specific action will be carried out in conformance with the conditions and thresholds established for such actions in the findings statement resulting from the generic EIS;

(2) a supplemental findings statement must be prepared if the subsequent proposed action was adequately addressed in the generic EIS but was not addressed or was not adequately addressed in the findings statement for the generic EIS;

(3) a supplement to the final generic EIS must be prepared if the subsequent proposed action was not addressed or was not adequately addressed in the generic EIS and the subsequent action involves one or more significant environmental effects; and

(4) a negative declaration must be prepared if a subsequent proposed action was not addressed or was not adequately addressed in the generic EIS and the subsequent action will not result in any significant environmental effects.

The DGEIS fails to set forth specific conditions, criteria and procedures contemplated by subsection (b) of this regulation. In addition, full compliance with SEQR appears to require the preparation of one or more supplements in accordance with subsection (c) before specific actions may be taken.

2. We urge LCARA to carefully consider the comments submitted by other interested parties, including but not limited to the New York State Disaster Preparedness Commission, Department of Environmental Conservation (DEC) and Department of Health (DOH). In particular, we share DEC's concerns regarding the potential impact to the wetland and floodplain, the continued operation and maintenance of all Love Canal site remedial facilities, and the possibility of blasting activities, and DOH's concerns regarding the account of the history of Love Canal.

Very truly yours,

James Sevinsky 1/19

JAMES A. SEVINSKY

JAS/bjs

APPENDIX I:

NYSDEC CONTINGENCY PLAN

LOVE CANAL CONTINGENCY PLAN

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

THOMAS C. JORLING, COMMISSIONER

DIVISION OF HAZARDOUS WASTE REMEDIATION

MICHAEL J. O'TOOLE, JR., DIRECTOR

REVISED FEB 2 3 1990

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
LOVE CANAL LEACHATE TREATMENT FACILITY
CONTINGENCY PLAN
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Site Description and Operation
Niagara Falls Fire Department Standard Operating Procedures
Hazardous Material Storage Areas
Standard Operating Procedure for Deteriorating Drums
Air Monitoring
Decontamination of Equipment and Tools
Incident Report Form
Contingency Plan Revision Log

EMERGENCY TELEPHONE NUMBERS

EMERGENCY **911**
(Police, Fire, Ambulance)

AMBULANCE SERVICE

Frontier Ambulance Service	285-3663
Niagara Ambulance Service	284-4228
Niagara Falls Memorial Hospital	278-4000

POLICE

Niagara Falls	278-8280
Sheriff	285-5355
State Police	297-0755

SPILL CONTROL

N.Y.S. Oil and Hazardous Material Spill Notification	(800) 452-7362	
National Response Center	(800) 424-8802	
Niagara Falls Wastewater Treatment Plant	278-4973	Shift Operator

NIAGARA COUNTY
Emergency Management Office
Emergency Operating Center 283-0371

NIAGARA COUNTY

General Sanitation	284-3124
After 5 pm & weekends	439-6141

EMERGENCY COORDINATORS

During normal operations at the Love Canal Leachate Treatment Facility, there are two on-site plant operators. In the event of a spill or other emergency, both persons have full authority and responsibilities for implementing the contingency plan. The primary emergency coordinator will:

1. direct work by on-site personnel or private contractors in clean-up operations,

2. be responsible for the notification of all outside agencies during the implementation,

3. provide an accurate description of the situation to outside response groups, and

4. insure that clean-up operations are carried out as described in this plan.

The Emergency Coordinators are listed on the following page.

EMERGENCY COORDINATORS

Name	Telephone Number Office	Home	Title
* Brian Sadowski	(716) 283-0111	(716) 731-5654	Senior Treat. Fac. Operator
2)Maurice Moore	(716) 283-0111	(716) 283-5230	Treatment Fac. Operator
3)Loren Green	(716) 283-0111	(716) 283-0389	Maintenance Assistant
4)David Locey	(716) 847-4585	(716) 754-8453	Assist. Sanitary Engineer
5)Abul Barkat	(716) 847-4585	(716) 691-4157	Senior Sanitary Engineer
6)Yavuz Erk	(716) 847-4585	(716) 882-7134	Senior Sanitary Engineer

Additionally, there are personnel based in Albany who are on-site from time to time. Again, these are listed in order of priority.

Albany, NY-based personnel

*Gerald Rider	(518) 457-0927	(518) 674-5985	Section Chief
*Philip Waite	(518) 457-0927	(518) 583-0571	Senior Sanitary Engineer
7)John Strang	(518) 457-0927	(518) 383-0154	Senior Sanitary Engineer

*Mr. Rider will act as primary emergency coordinator whenever he is on-site. Mr. Waite, when on-site, will act as primary emergency coordinator in Mr. Rider's absence. If neither Mr. Rider nor Mr. Waite is on-site, Mr. Sadowski will act as primary emergency coordinator.

RESPONSE TO EMERGENCY SITUATIONS
GENERAL INSTRUCTIONS

For all cases which require implementation of the contingency plan, the following actions should be taken in order:

1. Notify the emergency coordinator

2. Get immediate attention for any injuries. Emergency phone number for police, fire, or ambulance is **911**. Other emergency phone numbers are on the inside front cover.

3. Shut down all plant process pumps and field pumps. Field pumps can be shut down from the treatment plant office control panel. Plant pumps can be shut down by closing the air valve at each individual pump. If the emergency situation exists within the treatment area, plant pumps are to be shut down by turning off the air compressor in the mechanical room.

4. Perform a primary search of the situation and determine level of severity based on amount of release, material involved and area damaged.

5. Stop any continuous release if able to do so without entering contaminated environment.

6. Inform the spill cleanup contractor if necessary and other appropriate emergency response organizations and the NYSDEC Central Office in Albany.

7. Proceed with response and cleanup activities outlined in each section.

8. An investigation should be conducted to determine the cause of the event which triggered the implementation of this contingency plan. Ways to reduce a future occurrence of the event should be undertaken.

   Each time the Contingency Plan is put into effect, the complete details of the incident must be noted in the operator's daily log, and reported to the Director of the Bureau of Construction Services through the Chief of the Operation and Maintenance Section in a written report. An incident report form is included in the Appendix.

AQUEOUS PHASE LEAKS
(RAW WATER AND FILTER FEED TANKS, NON-SLUDGE PIPING SYSTEM)

a. Protective Clothing Required:

1) Level B protective gear.

2) Supplied air respirators. Respiratory protection may be reduced to full-face air purifying respirator after sufficient air monitoring shows continuous levels of less than 5 ppm total organic vapor concentration and oxygen levels greater than or equal to 19.5%.

b. Equipment and materials required for cleanup:

1) A minimum of 3 persons, 2 of which must have completed required training. At least one NYSDEC person must supervise the cleanup.

2) Protective clothing, mops, absorbent pigs, used clothing drums and detergent are stored in the process area. If protective clothing and supplied air cannot be obtained because of the spill, duplicate equipment is stored in the administration building storage room.

c. Action to be taken.

1. Shut down all plant processes.[1] Treatment Bay doors should be open
2. Suit up in protective clothing and supplied air.
3. Close upstream valve.
4. If leak is continuing, take action to contain then stop the leak. For a leaking pipe, patch pipe or contain and collect leaking fluids. For a tank leak, empty contents of tank to below the source of the leak.
4. Bleed pipe from valve to source of leak if necessary.
5. Flush spilled material to chemical floor drain with large volume of water using available low pressure water hoses with nozzle in the treatment room. Use industrial cleaning agents or penetone to aid in flushing to chemical drain.
6. Steam clean affected areas of floor using high pressure steam from Steam Jenny.
7. Mop floor and dispose of mop(s) when done with cleanup.
8. Decontaminate any equipment which became contaminated during leak (such as lawn mower or items stored under adsorber unit)

[1] Process pumps may be run under the observation of the treatment plant operator for the purposes of emptying a leaking tank.

d. Final clean-up and inspection.

All mop heads, absorbent pigs, squeegees and protective clothing should be placed in drums for disposal in accordance with the facility's drum storage policy. The floor should be visually inspected (especially in tight areas around the tank) for contamination. Air should be monitored with an HNu meter. If readings persist above background levels, the floor should be steam cleaned and scrubbed until readings correspond to background levels.

Immediate arrangements should be made through the Operation and Maintenance Section to replace or repair tank and all affected pipes. Similar equipment should be inspected for possible failure in the same area; if the raw water tank cracked at the connection to the pump suction line, for example, the corresponding connection should be closely inspected on the filter feed tank.

NON-AQUEOUS PHASE LEAKS
(RUPTURE OF INDOOR SLUDGE TANK AND SLUDGE TRANSPORT LINES)

a. Protective Clothing Required:

1) Level B protective gear.

2) Supplied air respirators. Respiratory protection may be reduced to full-face air purifying respirator after sufficient air monitoring shows continuous levels of less than 5 ppm total organic vapor concentration and oxygen levels greater than or equal to 19.5%.

b. Equipment and materials required for cleanup:

1) A minimum of 3 persons, 2 of which must have completed required training. At least one NYSDEC person must supervise the cleanup.

2) Protective clothing, shovels, hard bristle brooms, absorbent pigs, used clothing drums and detergent are stored in the process area. If protective clothing and supplied air cannot be obtained because of the spill, duplicate equipment is stored in the administration building storage room.

3) Floorsorb is located in the storage blockhouse

c. Action to be taken.

1. Shut down all plant processes.[1] Treatment Bay doors should be open
2. Suit up in protective clothing and supplied air.
3. If leak is continuing, take action to contain then stop the leak. For a leaking pipe, place pail under leak and close valve. For a tank leak, empty contents of tank to below the source of the leak.
4. Bleed pipe from valve to source of leak if necessary.
5. Set up a perimeter berm around the spill using floorsorb to contain the sludge.
6. Take shovels full of floor sorb and apply to sludge perimeter and leak area.
7. Cover the spill with floorsorb until the sludge is not permeating the upper layer.
8. Shovel the spent floorsorb into drums. Position the drum so that drum moving equipment has access to it.
9. Scrub floor with hard bristle brooms using hot water and detergent solution. Work all water using squeegees including rinse water towards the chemical floor drain.
10. Scrub floor a second time using hot water and detergent solution. Work all water including rinse water towards the chemical floor drain.
11. Decontaminate any equipment which became contaminated during leak (such as lawn mower or items stored under adsorber unit)

[1] Process pumps may be run under the observation of the treatment plant operator for the purposes of emptying a leaking tank.

Final cleanup and inspection:

All shovels, mop heads, other expendables and protective clothing should be placed in drums for final disposal in accordance with the Site's drum storage policy. Immediate arrangements should be made through Albany to replace or repair tank and all affected pipes. The floor should be visually inspected (especially in tight areas around the tank) for contamination. Trough area should also be checked for sludge buildup. Air should be monitored with an HNu meter. If reading persist above background levels, the floor should be steam cleaned and rinsed until readings correspond to background levels.

CLARIFIER LEAK

a. Protective Clothing Required:

1) Level B protective gear.

2) Supplied air respirators. Respiratory protection may be reduced to full-face air purifying respirator after sufficient air monitoring shows continuous levels of less than 5 ppm total organic vapor concentration and oxygen levels greater than or equal to 19.5%.

b. Equipment and materials required for cleanup:

1) A minimum of 3 persons, 2 of which must have completed required training. At least one NYSDEC person must supervise the cleanup.

2) Protective clothing, shovels, mops, absorbent pigs, used clothing drums and detergent are stored in the process area. If protective clothing and supplied air cannot be obtained because of the spill, duplicate equipment is stored in the administration building storage room.

3) Floorsorb is located in the storage blockhouse

c. Action to be taken.

1. Shut down clarifier feed pump if on. Treatment Bay doors should be open
2. Suit up in protective clothing and supplied air.
3. Empty clarifier by connecting hose to drain connection on influent side of clarifier and throttling to chemical drain trench.
4. Set up a perimeter berm around the spill using floorsorb to contain sludge or leachate.
5. Take shovels full of floor sorb and apply to sludge perimeter and leak area.
6. Cover the spill with floorsorb until the sludge is not permeating the upper layer. Leachate can be flushed to floor trench or utility pumped to raw water tank.
7. Shovel the spent floorsorb into drums. Position the drum so that drum moving equipment has access to it.
8. Flush floor with large volume of water using hoses in treatment room.
9. Scrub floor with hard bristle push brooms using hot water and detergent solution. Work all water with squeegee including rinse water towards the chemical floor drain.
10. Scrub floor a second time using hot water and detergent solution. Work all water including rinse water towards the chemical floor drain.

d. Final Cleanup

Decontaminate any equipment which became contaminated during leak (such as lawn mower or items stored under adsorber unit). Drum all contaminated expendables. Immediate arrangements should be made through Albany to replace or repair tank and all affected pipes. The floor should be visually inspected (especially in tight areas around the tank) for contamination. Trough area should also be checked for sludge buildup. Air should be monitored with an HNu meter. If reading persist above background levels, the floor should be steam cleaned and rinsed until readings correspond to background levels.

TREATMENT PLANT

FIRE

A) SMALL FIRE with no threat of chemical contamination

a. Protective clothing required:
Level D or greater level of protection if already being worn.

b. Equipment and materials required:
Fire extinguishers are located in the treatment area as shown on the floor plan.

c. Action to be taken.
1. Shut down electrical equipment.
2. If alone, use intercom to tell other plant personnel you are fighting a fire and give location.
3. Use appropriate fire extinguisher.
4. If extinguisher is ineffective in fighting the fire, take the same action described below for a large fire. Trip fire alarm.
5. Watch for reignition.
6. Notify Albany DEC Office.

d. Final cleanup and inspection
When cool, dispose of all waste items properly.
If fire was electrical, have electrical contractor review circuits prior to energizing.
Try to determine cause of fire.
Make a list of all items destroyed or unusable.
Get extinguisher recharged.

B) LARGE FIRE or fire WITH THREAT of chemical CONTAMINATION

a. Protective clothing required:
None initially. During final cleanup and inspection Level B shall be worn unless a lesser level is appropriate in accordance with DEC Guidance.

b. Equipment and materials required:
None.

c. Action to be taken.
1. Shut down electrical equipment and compressors.
2. Use intercom or alarm to alert all on-site personnel.
3. Call Fire Department. Dial 911.
4. Evacuate to Administration Building or Public Information Office at the discretion of the emergency coordinator. Emergency coordinator should be able to open gate and direct Fire Dept. personnel. At least one NYSDEC person must be present at all times at the site entrance gate.
5. Emergency coordinator will coordinate with the Fire and Police Departments in accordance with their Department's Standard Operating Procedures.

d. Final Cleanup and inspection
Approval will be obtained by the Fire Department prior to a site building entry. Upon approval, the emergency coordinator will conduct a thorough investigation of the building and establish a list of cleanup and inspection priorities.

EXPLOSION.

a) Protective Clothing Required:

See Action to be Taken.

b) Equipment and Materials required:

Fire extinguisher.

c) Action to be taken:

1. Report incident to Emergency Coordinator
2. Call Fire Department
3. Cease operations
4. Tell others in vicinity
5. Leave Building Quickly. Commence Evacuation Plan if necessary.
6. Fire Department to enter building first. Be aware of possible vapor buildup. Monitor air, use Level B personal protection and explosion proof equipment.

d) Final cleanup and inspection.

After the Fire Department has determined the area of the explosion to be safe, cleanup released NAPL and APL first. Cleanup contaminated debris next, then non-contaminated debris. Assess damage, being sure to also look for any splattering of liquids on walls and process equipment, cracked windows and loose pipe connections.

SPILL - ADMINISTRATION BUILDING

No hazardous waste is stored in or near the administration building. At times there may be waste ignitable solvents in the lab room. Waste ignitible solvents will not exceed 5 gallons and will not be stored overnight.

a. Protective clothing required:
Level C protection.

b. Equipment and materials required:
Detergent, mop and pail, rags.

c. Action to be taken.

1. If there is a solvent spill or gasoline spill in the Administration Bldg., a no smoking rule will be put into effect until the spill is cleaned up.
2. Ventilate the building by opening doors and windows.
3. Use mop and pail with industrial detergent to clean up spill. Dispose of liquid into leachate collection system.
4. If the spilled material reached the floor drains, flush drains with a generous amount of soapy water.

d. Final clean-up and inspection.
Emergency coordinator will determine when area is clean by a visual inspection. Leave solvent-soaked rags in a pail of water on the Decon Pad for 24 hours prior to placing in trash or storing as a hazardous waste.

FIRE - ADMINISTRATION BUILDING

A) SMALL Fire

a. Protective clothing required:
Level D.

b. Equipment and materials required:
Fire extinguishers are located in each room as shown on the floor plan. (Floor plan shown in Equipment List Section.)

c. Action to be taken.
1. If alone, use intercom to tell other plant personnel you are fighting a fire and give location.
2. Use fire extinguisher.
3. If extinguisher is ineffective in fighting the fire, take the same action described below for a large fire. Trip fire alarm.
4. Watch for reignition.
5. Notify Albany DEC Office.

d. Final cleanup and inspection
When cool, dispose of all waste items properly.
If fire was electrical, have electrical contractor review circuit prior to energizing circuit.
Try to determine cause of fire.
Make a list of all items destroyed or unusable.
Get extinguisher recharged.

B) LARGE fire

a. Protective clothing required:
Stay in clothing being presently worn and do not enter into the hazardous area.

b. Equipment and materials required:
Spill cleanup equipment for use after the fire is out. (Refer to specific section of Contingency Plan for cleanup.)

c. Action to be taken.
1. Shut down electrical equipment.
2. Use intercom or alarm to alert all on-site personnel.
3. Call Fire Department. Dial 911.
4. Evacuate to Treatment Facility Building or Public Information Office at the discretion of the emergency coordinator. Emergency coordinator should be able to open gate and direct Fire Dept. personnel. At least one NYSDEC person must be present at all times at the site entrance gate.
5. Emergency coordinator will coordinate with the Fire and Police Departments in accordance with their Department's Standard Operating Procedures.

d. Final Cleanup and inspection
Approval will be obtained by the Fire Department prior to a site building entry. Upon approval, the emergency coordinator will conduct a thorough investigation of the building and establish a list of cleanup and inspection priorities.

RUPTURE OF SLUDGE STORAGE TANKS

a. Protective Clothing Required:

1) Level B protective gear.

b. Equipment and materials required for cleanup:

1) A minimum of 3 persons, 2 of which must have completed required training. At least one NYSDEC person must supervise the cleanup.
2) Protective clothing, shovels, hard bristle brooms, absorbent pigs, used clothing drums and detergent are stored in the process area.
3) Floorsorb is located in the storage blockhouse.

c. Action to be taken.

I. Pinhole Leaks

1. Suit up in protective clothing and supplied air.

2. If leak is continuing, take action to contain then stop the leak. for a leaking pipe, place pail under leak and close valve. For a tank leak, empty contents of tank to below the source of the leak.

3. Bleed pipe from valve to source of leak if necessary.

4. Take shovels full of floor sorb and apply to sludge perimeter and leak area.

5. Cover the spill with floorsorb until the sludge is not permeating the upper layer.

6. Shovel the spent floorsorb into drums. Position the drum so that drum moving equipment has access to it.

7. Scrub containment area with hard bristle brooms using hot water and detergent solution. Pump all water including rinse water into the chemical drain.

8. Scrub containment area a second time using hot water and detergent solution. Pump all water including rinse water into the chemical floor drain.

9. Decontaminate all cleanup equipment and any equipment which became contaminated during leak.

RUPTURE OF SLUDGE STORAGE TANKS (CONTINUED)

c. II. Rupture

1. Evacuate treatment facility and administration buildings.

2. Call NYSDEC SPILL NOTIFICATION (800) 452-7362 to request emergency cleanup contractor.

3. If adequate manpower is available, suit up in protective clothing and supplied air to estimate damage and amount spilled.

4. One NYSDEC person is to remain "clean" to be able to enter buildings.

5. Restrict visitor access to the site

6. Coordinate with cleanup contractor the transfer of sludge in secondary containment area to either other sludge storage tanks or central sector leachate holding tank. Verify that sludge volume can be accepted into tank prior to pumping. One tank is to remain empty, if possible to allow for transfer in emergency situations.

7. Cleanup remaining sludge in containment area by following steps 4 thru 9 for Pinhole Leak Procedure, previous page.

Final cleanup and inspection:

All shovels, mop heads (decontaminate broom handles) and protective clothing should be placed in drums for final disposal. Immediate arrangements should be made through Albany to replace or repair tank and all affected pipes. Visually inspect the containment area. Air should be monitored with an HNu meter. If readings persist above background levels, the area is to be steam cleaned and rinsed until readings correspond to background levels.

OVERFLOW - SOUTH SECTOR HOLDING TANK

a. Protective clothing required:
Level C protection
Air purifying, full face mask respirator. Air must be monitored with photovac tip or HNu meter. Air readings above 5 ppm total organics will require supplied air protection.

b. Equipment and materials required:
50 lb bags of floorsorb, available in the storage blockhouse Shovels, rakes and plastic are also stored in the blockhouse.
55 gallon drums are stored along side the metal shed north of the treatment plant. A worst case estimate would require 20 to 30 drums.
At least 2 NYSDEC employees must be present during cleanup operations.

c. Action to be taken.

1. Shut down pumps feeding the holding tank. This can be done from the control panel in the office or from the circuit breaker mounted on the telephone pole directly west of the holding tank. Pumps are controlled by circuits #3 and #4. All other processes and pumps in the facility should also be shut down.
2. Determine the extent of contamination. This should be done by visual observation. If leachate has reached the storm sewers, the City of Niagara Falls Wastewater Treatment Plant, and the New York State Oil and Hazardous Material Spill Notification Number should be called.
3. Stop any flow at the spill's outer boundary by forming a dike with absorbent.
4. Cover the affected area with a one-half inch layer of the absorbent material. Once the spill has been contained and there are no free liquids, the emergency coordinator must decide if the spill can be cleaned by hand or if a backhoe or other equipment is required.
5. All absorbent and the top 6 inches minimum of soil should be removed and placed in drums for storage. The area should then be covered with a plastic tarpaulin and roped off to discourage access.
6. If leachate is present in the tank manway, process south sector at least until manway is empty.

d. Final Cleanup and inspection
Inspect pump chamber 2 for signs of leachate intrusions through chamber walls.
Develop plan to further decontaminate affected areas and manway.

NOTE: The North/Central Sector Holding Tank has an overflow drain which sends all overfilled leachate into the south sector collecting system. If the overflow drain becomes clogged, and an non-contained overflow occurs, the action to be taken will follow the procedure for the overflow of the South Sector Holding Tank.

SITE

LIST OF EMERGENCY EQUIPMENT

A) Treatment Facility

ITEM (# of)	LOCATION	DESCRIPTION AND CAPABILITIES
Fire extinguishers (7)	See Floor Plan: Treatment Facility Emergency Eqipment Locations	Model 10H ABC Multiuse CB dry chemical fire extinguisher for use on A,B,C type fires A - wood, paper B - flammable liquids C - electrical
Scott ska-pak emergency escape unit (4)	in cabinet #3 on the the west wall of the treatment plant area	The ska-pak is a full 5-min escape SCBA. Its primary purpose is for use with an external air supply
Half face mask respirators, cartridge type (14)	2) on coat rack in hallway 12) in cabinet #2 on the west wall of treatment plant	For use in the presence of organic vapors and acid gases, only when oxygen content is greater than 19.5%
Portable air compressor for use with ska-paks (1)	1) near southeast exit to treatment plant	Supplies air suitable for breathing when located in an area with uncontaminated air. Can supply two air lines at 60 psi. Airlines are kept on the west wall of the treatment plant area
Compressed air cylinder - breathing quality (3)	3) along east wall	Supplies air suitable for breathing for a minimum 2 hours
protective coveralls, gloves, boots, and hardhats (6 minimum)	in cabinet #2 and #3 west wall of treatment plant	Coveralls, gloves and boots are used to protect against dermal contamination.
50 lb. bags of absorbent (10 minimum)	in block house south of plant	Absorbent material used to contain spills and increase solids content of sludges and slurries

EQUIPMENT LIST

LIST OF EMERGENCY EQUIPMENT

A) Treatment Plant (continued)

ITEM (# of)	LOCATION	DESCRIPTION AND CAPABILITIES
First aid kits (4)	1) in plant office 3) locker room	Basic first aid kit for treatment of accident victims
Shower/eyewash stations	2 at ends of clarifier 1) portable	Used to flush contaminants from body or eyes in the event of (3) situation that is IDLH

B) Administration Building

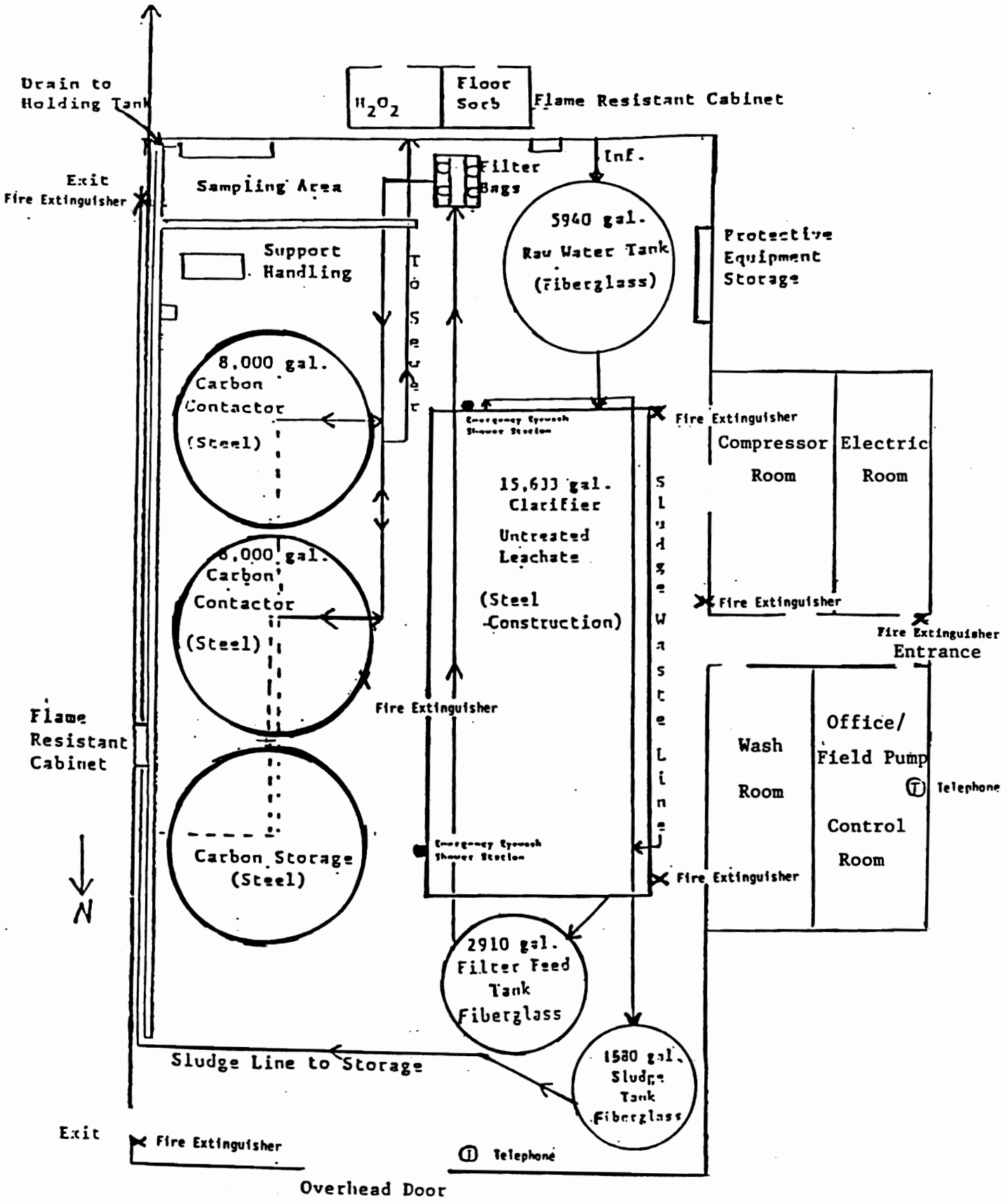
Scott air-packs (4)	4) located in the Adm. Bldg. storage room SW shelf	30 minute air supply with full face masks. Positive pressure self-contained breathing apparatus
Bellow and tank resuscitation units (1)	1) located in storage room, central shelf	Used to resuscitate accident victims overcome by fumes and/or lack of oxygen
Fire extinguisher (7)	in each room	Dry chemical and CO2, 17 lb.
Protective coveralls, gloves, boots and hard hats	in storage room. Minimum 3 boots size 12 all other minimum quantity: 12	Coveralls, gloves and boots are used for dermal protection
Disposable half respirator (6)	in equip. storage room	For use in the presence of organic vapors and acid gas, only when oxygen content is greater than 19.5%.
Organic Vapor Respirator Cartridges; 4 minimum each make & model	in equipment storage room	For use in Scott, American Optical or MSA Air-Purifying Respirators
First Aid Kit (1)	in locker room	For a group of 50 people
Shower/eyewash stations	in laboratory room	Used to flush contaminants from body or eyes in the event of situation that is IDLH
Air Horn (1)	in storage room	For signalling people in field

Administration Building (continued)

Combination Oxygen meter and Explosivemeter (1)	Laboratory	Measures percent of oxygen in the atmosphere; measures percent of lower explosive limit of atmosphere

B) Decontamination and Drum Storage Building

Fire extinguisher (5)	See Drawing: Emergency Equipment Locations	Dry chemical, 10 lb.
50 lb. bags of absorbent (20 minimum)	Equipment Storage Area	Absorbent material used to contain spills and increase solids content of sludges and slurries
Shower/eyewash stations	in Decontamination Area	Used to flush contaminants from body or eyes in the event of situation that is IDLH



TREATMENT FACILITY

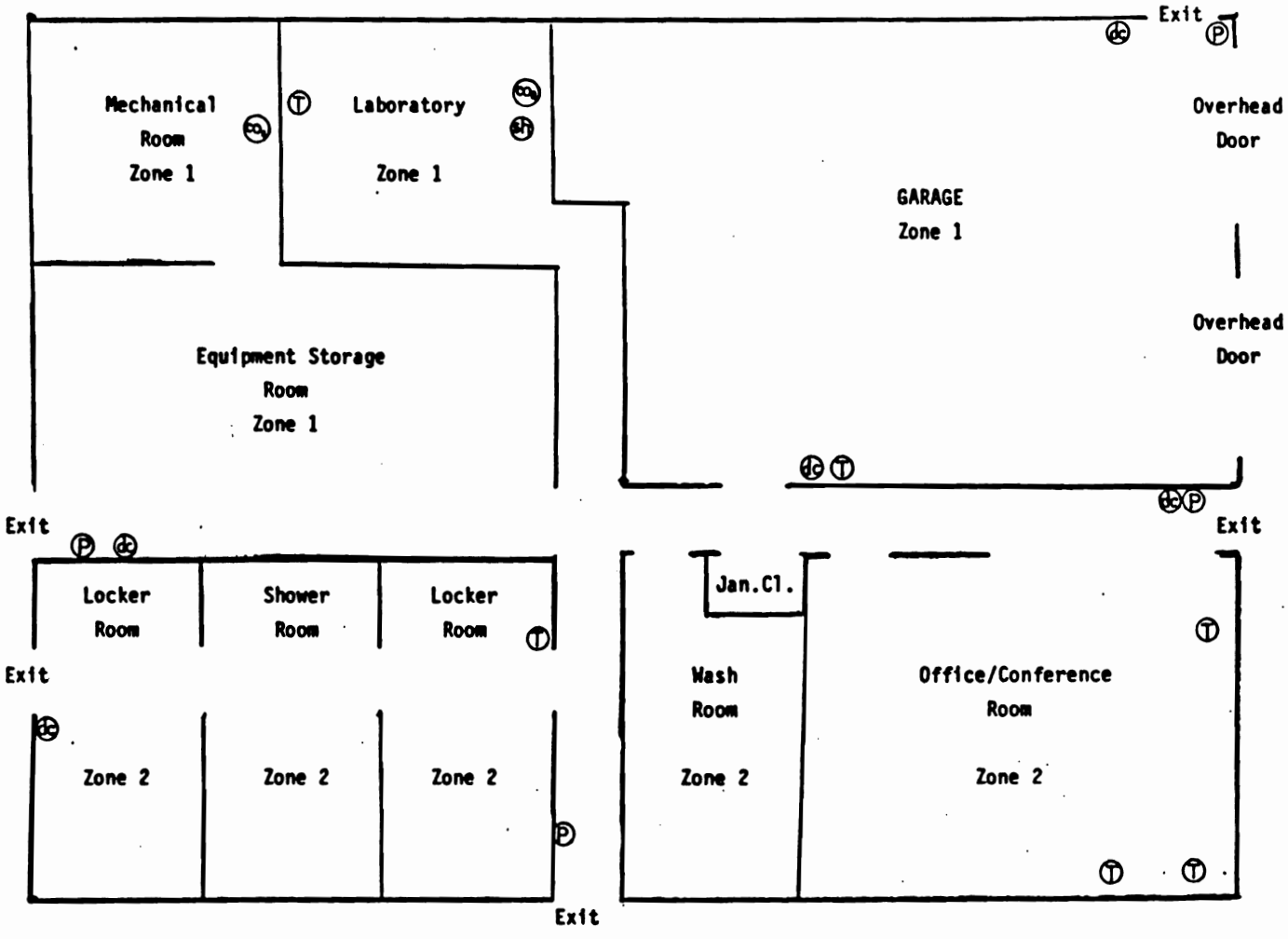
FLOOR PLAN/EMERGENCY EQUIPMENT/COMMUNICATION LOCATIONS

1/90

Drawing Not To Scale

EMERGENCY EQUIPMENT/ COMMUNICATION LOCATIONS

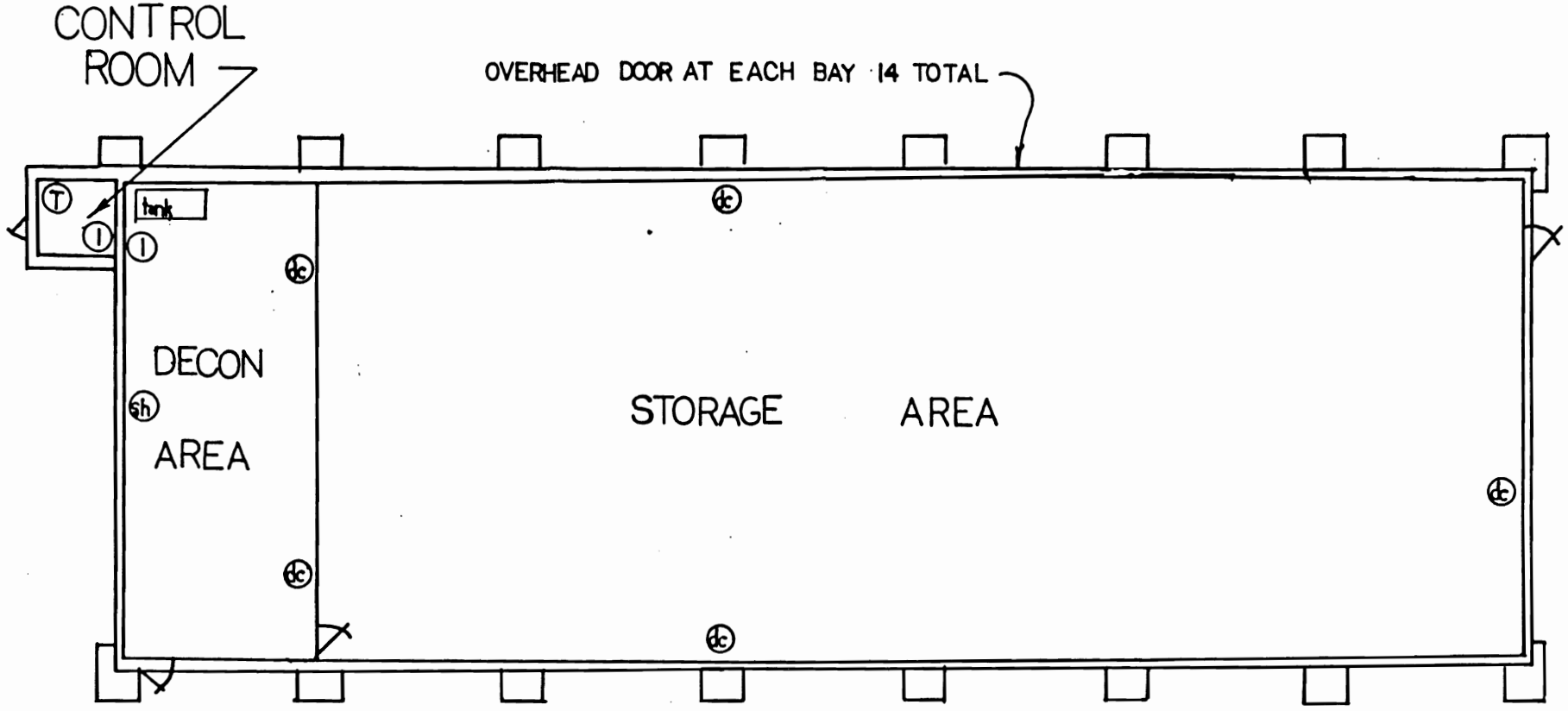
ADMINISTRATION BUILDING FLOOR PLAN -



(P) PULL STATION FIRE ALARM
(T) TELEPHONE
(sh) EMERGENCY EYE WASH AND SHOWER
(CO_2) CARBON DIOXIDE FIRE EXTINGUISHER
(dc) DRY CHEMICAL FIRE EXTINGUISHER

N

EMERGENCY EQUIPMENT/COMMUNICATION LOCATIONS



TANK IS 275 GAL. DIESEL OIL

(I) INTERCOM

(T) TELEPHONE

(sh) EMERGENCY EYE WASH AND SHOWER

(dc) DRY CHEMICAL FIRE EXTINGUISHER

N

BUILDING PLAN

DECONTAMINATION/DRUM STORAGE FACILITY

EVACUATION PLAN

A. EVACUATION OF TREATMENT FAC., ADMINISTRATION BLDG., DECON/DRUM BLDG.

1. Responsibility.

   The emergency coordinator will be responsible for the evacuation of all personnel from the building(s). The emergency coordinator will conduct the evacuation or appoint an individual to conduct the evacuation.

2. Signal

   The signal to evacuate the buildings will be the directive given by the emergency coordinator or his designee to evacuate. Either the telephone intercom or face to face communication will be used.

3. Procedure

   a. Shut down all on-going operations
   b. Exit the nearest accessible exit. See Evacuation Routes.
   c. Assemble at meeting area
   d. Evacuate site to Public Information Office

4. Meeting Area

   All persons evacuated will initially meet in 97th Street in front of the building. The emergency coordinator or his designee will count heads and verify that everyone has been evacuated from the buildings. When everyone has been assembled, the primary evacuation route will be used unless blocked by objects or threat of toxic plume, in which event an alternate route will be taken.

B. FIELD OPERATIONS - DEPARTMENT LEAD

1. Responsibility

   The emergency coordinator will be responsible for signal to evacuate and count heads to verify that everyone has been evacuated.

2. Signal

   The emergency coordinator or his designee will signal the project leader by radio or air horn communication. Three long (3-5 sec.) blasts of the air horn will signal an emergency situation with possible evacuation.

3. Procedure

   a. Shut down all ongoing operations.
   b. Pack-up or secure equipment so that it will not be windblown or weathered
   c. Decontaminate if necessary,
   d. Evacuate to meeting area
   e. Evacuate site to Public Information Office

4. Meeting Areas

   The project leader will oversee that all in-the-field personnel meet first in front of the Treatment Facility. If conditions prohibit meeting in this area, the next meeting areas will be, in priority, 1) at 97th Street and Read Ave., 2) at gate at Frontier Ave. and 95th Street. When everyone has been assembled, the primary evacuation route will be used unless blocked by objects or threat of toxic plume, in which event an alternate route will be taken.

C. FIELD OPERATIONS - CONTRACTOR OPERATIONS

1. Responsibility

The emergency coordinator will be responsible for the signal to evacuate. The on-site State Project Engineer will be responsible for overseeing the evacuation procedure.

2. Signal

The emergency coordinator or his designee will signal the Project Engineer by radio or air horn communication. Three long (3-5 sec.) blasts of the air horn will signal an emergency situation with possible evacuation.

3. Procedure

The evacuation procedure will be in accordance with the evacuation plan in the Contractor's approved Health and Safety Plan. In the absence of a Contractor Health and Safety Plan, the procedure will be:

a. Shut down all ongoing operations.
b. Pack-up or secure equipment so that it will not be windblown or weathered
c. Decontaminate if necessary
d. Evacuate through nearest available exit to field trailer. If there is no field trailer, assemble at 99th Street and Colvin Blvd.

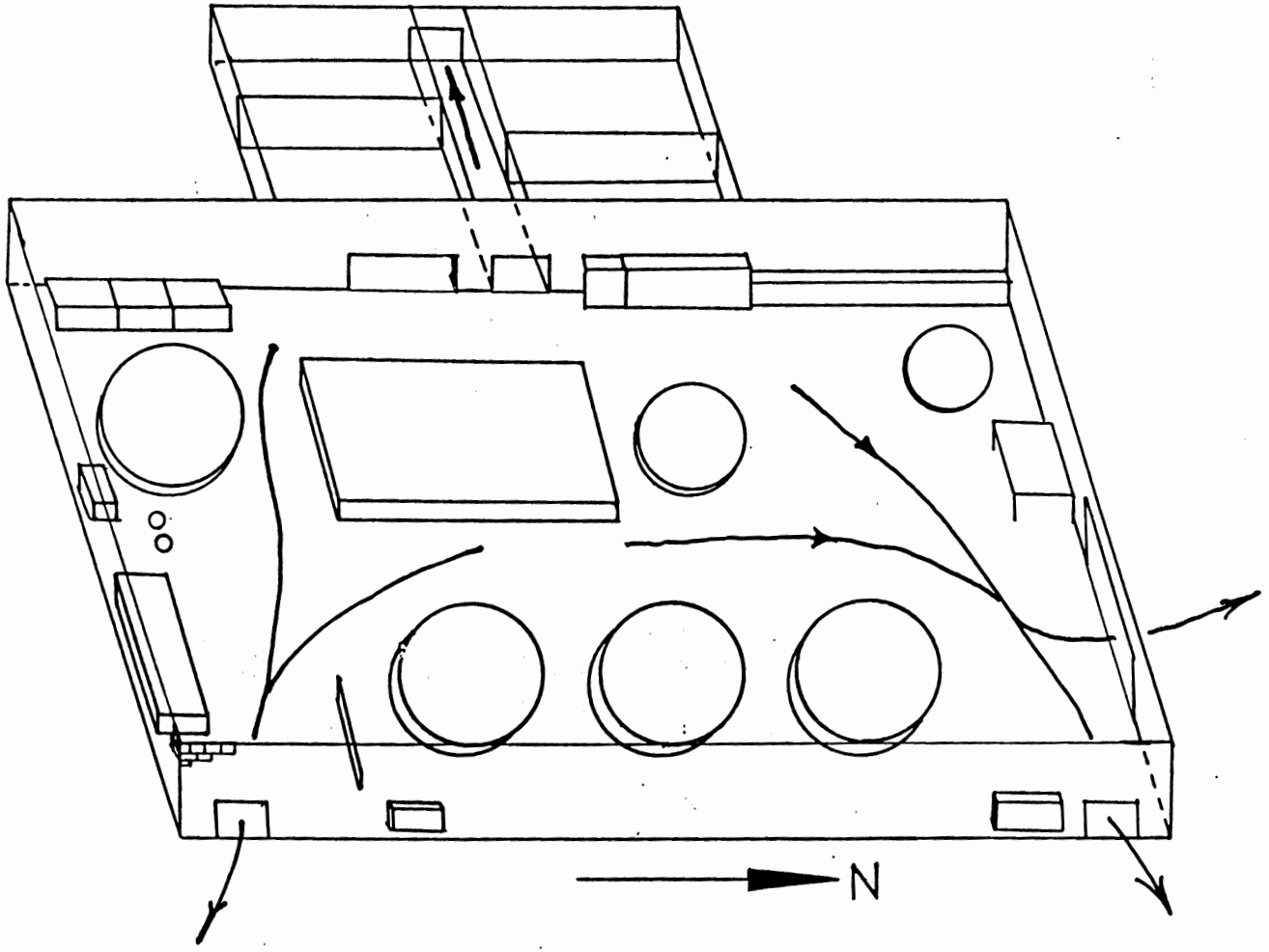
E. RESIDENTIAL AREAS

Any hazardous material release or threat of release which will extend beyond the secure Love Canal Site will require notification of the Niagara Falls Police Department - Dial 911.

It will be the responsibility of the emergency coordinator to be sure the appropriate authorities are notified.

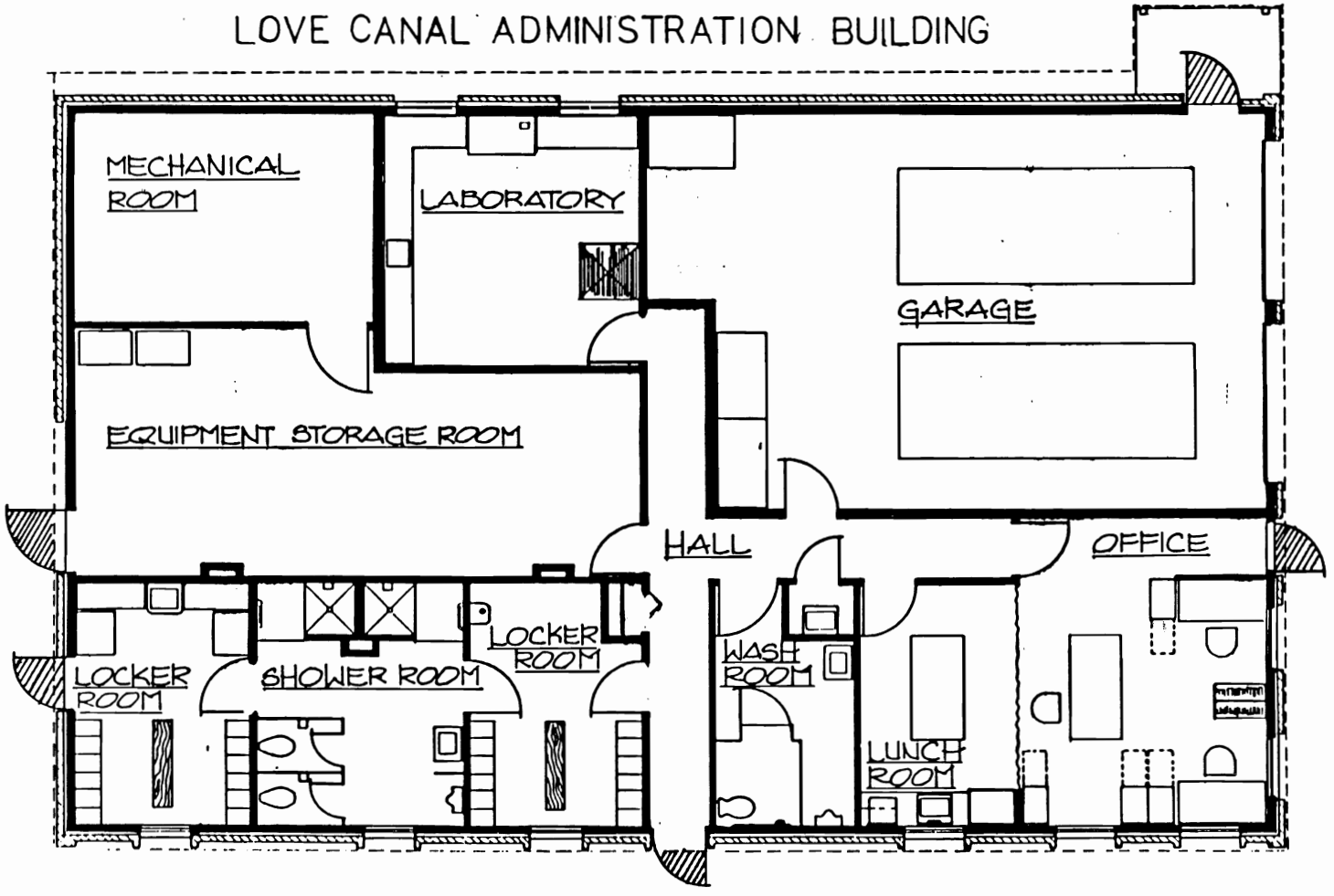
EVACUATION ROUTES

LOVE CANAL LEACHATE TREATMENT FACILITY

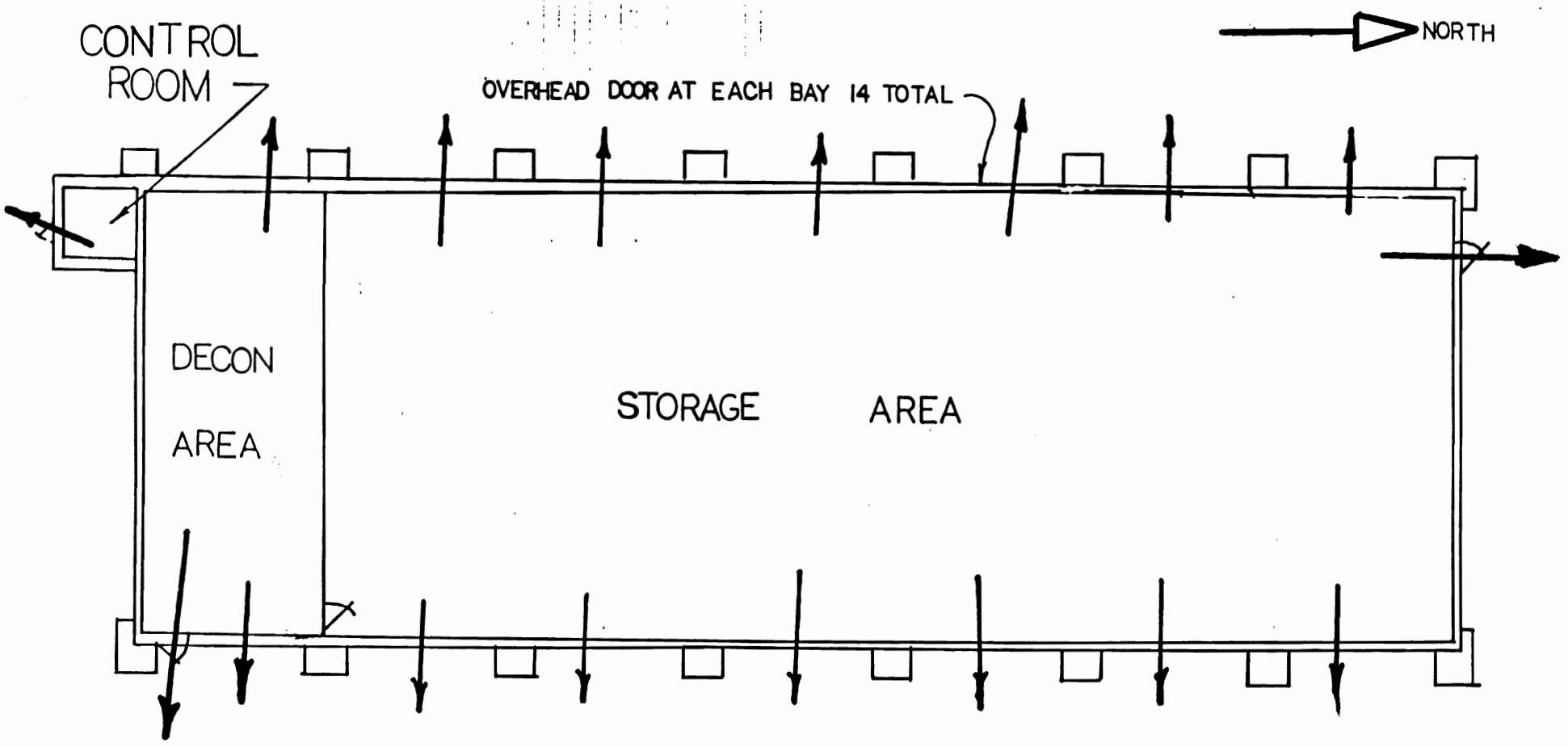


EVACUATION ROUTES

LOVE CANAL ADMINISTRATION BUILDING



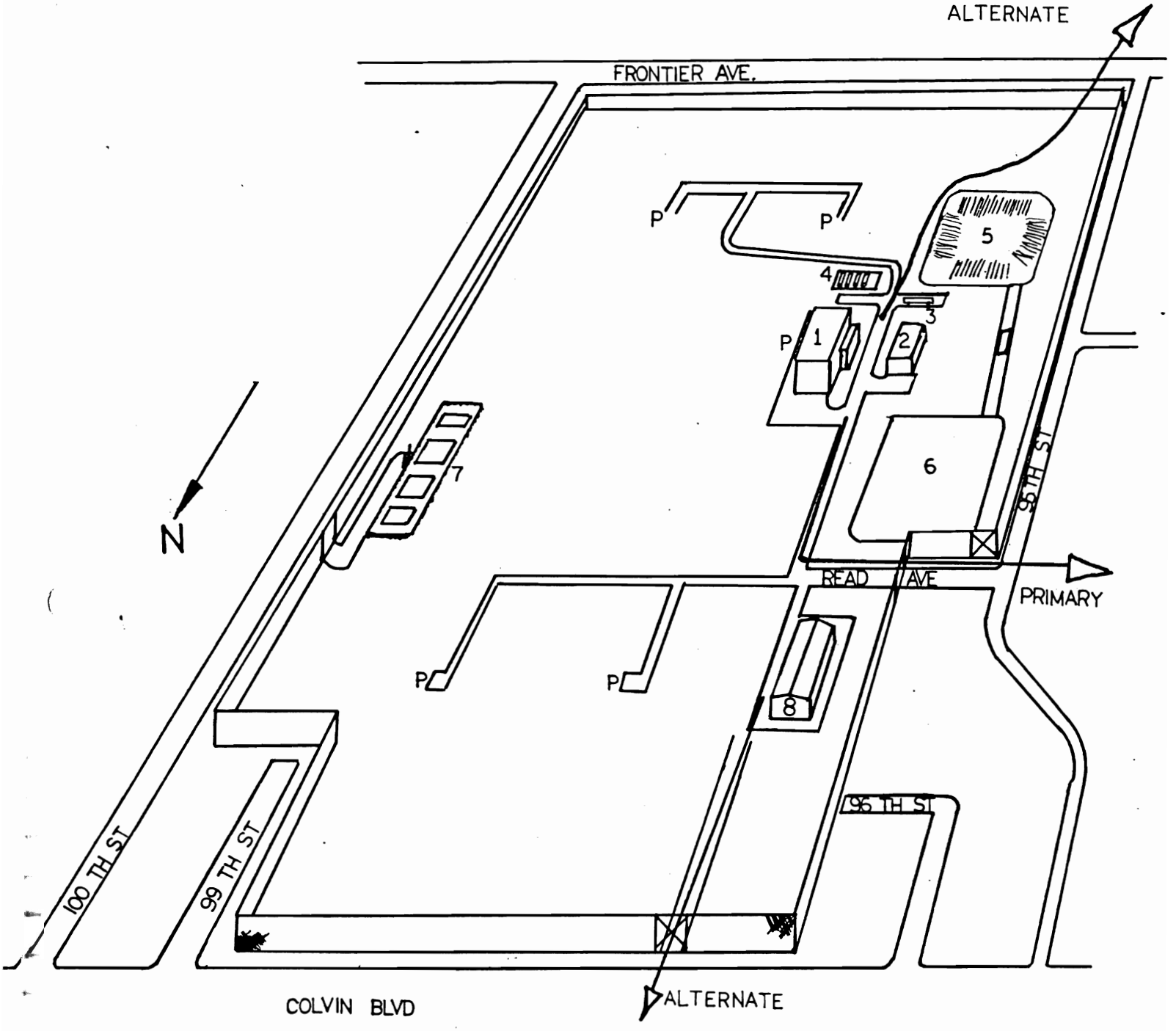
EVACUATION ROUTES



BUILDING PLAN

DECONTAMINATION/DRUM STORAGE FACILITY

SITE EVACUATION ROUTES



PUBLIC INFORMATION OFFICE

LOVE CANAL SITE
FEBRUARY 1990

1 LEACHATE TREATMENT FACILITY
2 ADMINISTRATION BUILDING
3 PLASMA ARC UNIT TRAILER
4 SLUDGE STORAGE TANKS
5 DEWATERING CONTAINMENT FACIL.
6 STAGING AREA
7 SEWER SEDIMENT FACILITY
8 DECONTAMINATION/DRUM FACILITY
P PUMP STATION

BOMB THREATS, SEVERE WEATHER AND ACTS OF VANDALISM

A. BOMB THREATS

1. Get as much information from the caller as you can (where, time of detonation, type of bomb, who is calling, etc.)
2. Notify emergency coordinator
3. Phone emergency number, 911, or call the Niagara Falls Police Department
4. Evacuate area

B. SEVERE WEATHER OR ACTS OF VANDALISM

1. Determine extent of damage: identify what equipment items need repair/replacement, any hazardous material releases-material and quantity
2. Contain and stop any continuing releases
3. Report to the Niagara Falls Police Department and NYSDEC Special Project Section Supervisor

SUMMARY OF AGREEMENTS WITH EMERGENCY RESPONSE OFFICIALS

The following arrangements have been made through meetings, phone calls and correspondence with the Niagara Falls Police and Fire Departments and the Niagara Falls Memorial Hospital.

1. The Niagara Falls Police Department has agreed to the following:

   - To provide frequent patrols of the Love Canal Area.
   - To secure the area and restrict unauthorized entry during any emergency at the facility.
   - In case of forced entry at the facility, officers will not enter the building until a NYSDEC employee arrives. In addition, a burglar alarm will be monitored by the police.

2. Officials from the Niagara Falls Fire Department were given a tour of the facility. The following agreements were made:

   - In case of fire, forced entry should be made into the site and any of the buildings rather than wait for a DEC employee.
   - If entry is made into the treatment plant during a fire, full protective clothing must be worn including a full face mask with SCBA. This also holds true for entry into pump chambers.
   - The sludge holding tank was identified as being a possible source of toxic fumes if ignited. Areas where flammable solvents are likely to be found were also pointed out. These areas are marked on the floor plan, located in the Equipment List.

3. Representatives of the Niagara Falls Memorial Medical Center were also given a tour of the facility. The following arrangements were made:

   - In case of medical emergency, the hospital will be contacted at 278-4000.
   - Hospital emergency room personnel will be equipped with isolation suits if needed. Emergency room procedures will be the same as those for the hospital's disaster preparedness program.
   - Arrangements for the use of an isolation room at the hospital have been made.
   - Any protective clothing contaminated during the medical operations will be placed in a drum and returned to the Love Canal.

4. In the event of a need for a cleanup contractor, the New York State Spill Response Number (Buffalo: 847-4590, 7:30 a.m. - 4:30 p.m.; or (800) 452-7362 anytime) will be called.

   The Region 9 NYSDEC has contracts with two cleanup contractors which are obligated to respond to a spill within 2 hours.

ARRANGEMENTS WITH AUTHORITIES

AMENDMENT OF CONTINGENCY PLAN

This contingency plan will be immediately amended whenever:

1) The plan fails in an emergency

2) The site changes in its design, construction, operation, maintenance, or other circumstances - in a way that materially increased the potential for fires, explosions, or releases of hazardous waste or hazardous waste constituents, or changes the response necessary in an emergency.

3) The list of emergency coordinators changes

4) The list of emergency equipment changes

APPENDIX

SITE DESCRIPTION AND OPERATION

The Love Canal leachate collection and treatment system was constructed to prevent the outward migration of chemical contamination from the abandoned hazardous waste landfill. The leachate collection system consists of approximately 7000 linear feet of perforated drain pipe with sand backfill. The depth of the pipe ranges from 15 to 18 feet and surrounds the sixteen acre landfill. Included in the system are four wet wells and two underground holding tanks of 25,000 and 30,000 gallon capacity.

The treatment plant system consists of mechanical clarification, filtration and carbon adsorption. The Love Canal Leachate Treatment Facility operates once or twice a week, drawing leachate from the two underground holding tanks. There are also four 10,000 gallon holding tanks on site for sludge storage. Inside the treatment plant, there are two fiberglass leachate holding tanks of 5,940 and 2,910 gallon capacity. There is also a sludge holding tank with a capacity of 1,580 gallons.

The treatment plant has a floor trench designed to intercept any spills which may occur inside the treatment room. This trench drains to the 30,000 gallon holding tank for eventual treatment. Additionally, there is a concrete carbon loading pad in the back of the plant which can be used for equipment decontamination; this also drains to the 30,000 gallon leachate holding tank.

Ventilation in the plant area is provided by a Dravo-Hastings Blower, located on the roof, and two floor exhaust fans. Additionally six exhaust fans ventilate organic vapors from any de minimus losses in the process system and carbon vent sorbs.

Across the street from the treatment facility is the Administration Building. The Administration Building houses the office for the treatment plant operators, shower and locker facilities, a laboratory bench, and a garage area. On the eastern edge of the site, across the cap from the treatment plant, is the sewer dewatering facility consisting of settling tanks and a sand filter.

At the time of this revision of the Contingency Plan (February 1990), construction was not yet complete with the Decontamination/Drum Storage Building. The building will have a capacity for 2000 drums and facilities for decontaminating equipment. The building has its own washwater collection system that can be pumped to the site's treatment plant. The building is being constructed to NYSDEC's permit requirements for a hazardous waste facility.

The purpose of this plan is to establish procedures which must be followed in order to minimize hazards to human health and the environment. These hazards could occur as a result of unplanned release of hazardous waste into the environment during operation and maintenance of the Love Canal Treatment Facility. The provisions of this plan must be carried out whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents.

LOVE CANAL TREATMENT FACILITY
95TH ST. + READ AVE.
283-0111

THE LOVE CANAL TREATMENT FACILITY CONSISTS OF TWO BUILDINGS IN A FENCE ENCLOSED AREA. ONE BUILDING IS THE ADMINISTRATION BUILDING AND THE OTHER IS THE TREATMENT PLANT. THIS FACILITY IS MANNED BY TWO OPERATORS AND ONE MAINTENANCE ASSISTANT FROM 7:30 AM - 4:00 PM MONDAY-FRIDAY ONLY.

KEYS - ENGINES 7, 9, T2 and CAR 80 HAVE WHICH OPEN BOTH BLDGS.

EMERGENCY PHONE NO. - IN THE EVENT OF AN EMERGENCY AT THIS SITE ONE OF THE PLANT PERSONNEL LISTED BELOW SHOULD BE NOTIFIED AS SOON AS POSSIBLE.

BRIAN SADOWSKI
731-5654
MAURICE MOORE
283-5230
LOREN GREENE
283-0389

ENTRY GATE - THERE IS ONLY ONE VEHICLE ENTRY GATE TO THIS FACILITY. IT IS LOCATED ON 95TH ST. APPROX. 1,000 FEET NORTH OF READ AVE. THIS GATE IS MADE UP OF TWO SECTIONS. ONE SECTION IS REMOTELY CONTROLLED FROM THE ADMINISTRATION BLDG AND TREATMENT FACILITY AND THE OTHER WHICH IS PADLOCKED MAY BE OPENED MANUALLY BY CUTTING THE PADLOCK.

HYDRANTS - THERE IS ONLY ONE HYDRANT WITHIN THE FENCED AREA. IT IS LOCATED '150 NORTH OF THE TREATMENT PLANT ON THE ENTRANCE ROAD.

THE ADMINISTRATION BUILDING

THE ADMINISTRATION BUILDING IS A ONE STORY BRICK BUILDING CONTAINING OFFICES, STORAGE AND LOCKER ROOMS. THE ONLY AREA IN THIS BUILDING WHICH MAY CAUSE A PROBLEM IS THE GARAGE AREA WHICH IS LOCATED IN THE N/W CORNER OF THE BUILDING. THERE CAN BE UP TO TWO VEHICLES PARKED IN THIS AREA.

MAIN ELECTRIC: LOCATED IN THE S/W CORNER OF THE BUILDING (SEE DRAWING)

MAIN WATER SHUTOFF: LOCATED IN THE S/E CORNER OF THE BUILDING (SEE DRAWING)

ALARM PANEL IS LOCATED INSIDE THE MAN DOOR ON THE NORTH END OF THE BUILDING. THERE ARE TWO ZONES. ZONE #1 IS THE EAST HALF OF THE BUILDING AND ZONE #2 IS THE WEST HALF OF THE BUILDING.

DETECTORS - THERE ARE SMOKE AND HEAT DETECTORS IN THIS BUILDING.

MAIN GAS SHUTOFF. THE MAIN GAS SHUTOFF IS LOCATED '50 S/W OF THE BUILDING (SEE DRAWING)

THE TREATMENT PLANT

THE TREATMENT PLANT IS A ONE STORY BRICK BUILDING WHICH HOUSES THE LEACHATE TREATMENT EQUIPMENT.; THE TREATMENT AREA HAS A FLOOR TRENCH WHICH IS DESIGNED TO INTERCEPT ANY SPILLS WHICH MAY OCCUR. THIS TRENCH DRAINS INTO A 30,000 GAL. HOLDING TANK FOR EVENTUAL TREATMENT IN THE SYSTEM. IN THE EVENT OF A FIRE INVOLVING HAZARDOUS MATERIALS ANY FIREFIGHTING WATER RUNOFF SHOULD BE FLUSHED INTO THIS TRENCH IF POSSIBLE.

IT IS THE OPINION OF THE SENIOR TREATMENT PLANT OPERATOR THAT THE POSSIBILITY OF A FIRE IN OR OUTSIDE THE TREATMENT PLANT IS REMOTE, BUT IF THERE WERE A FIRE THE MOST LIKELY PLACE WOULD BE THE SLUDGE STORAGE TANKS. THERE IS A 1,500 GAL. SLUDGE STORAGE TANK LOCATED IN THE N/W CORNER OF THE BUILDING. THERE ARE FOUR 10,000 GAL. SLUDGE STORAGE TANKS LOCATED APPROX. '30 SOUTH OF THE TREATMENT PLANT. THESE TANKS ARE SURROUNDED BY A CONCRETE CONTAINMENT PAD AND WALLS WHICH ARE CAPABLE OF HOLDING 45,000 GAL. OF MATERIAL IN THE EVENT OF A SPILL OR LEAK.

MAIN ELECTRIC: LOCATED IN A SMALL ROOM ON THE RIGHT INSIDE THE MAN DOOR ON THE CENTER OF THE WEST WALL (SEE DRAWING)

MAIN WATER SHUTOFF: LOCATED IN THE COMPRESSOR ROOM (SEE DRAWING)

MAIN GAS SHUTOFF LOCATED APPROX. '50 S/W OF THE ADMINISTRATION BLDG. (SEE DRAWING)

VENTILATION: THE TREATMENT AREA MAY BE VENTILATED BY USING TWO EXHAUST FANS WHICH ARE MOUNTED ON THE ROOF OR TWO EXHAUST FANS LOCATED AT THE FLOOR. THE CONTROLS FOR THESE FANS ARE LOCATED IN THE COMPRESSOR ROOM ON THE WEST WALL. (SEE DRAWING)

ALARM SYSTEM: THE TREATMENT AREA CONTAINS TWO SMOKE AND HEAT DETECTORS. THEY ARE CENTRALLY MONITORED BY SECURITY TODAY, INC.

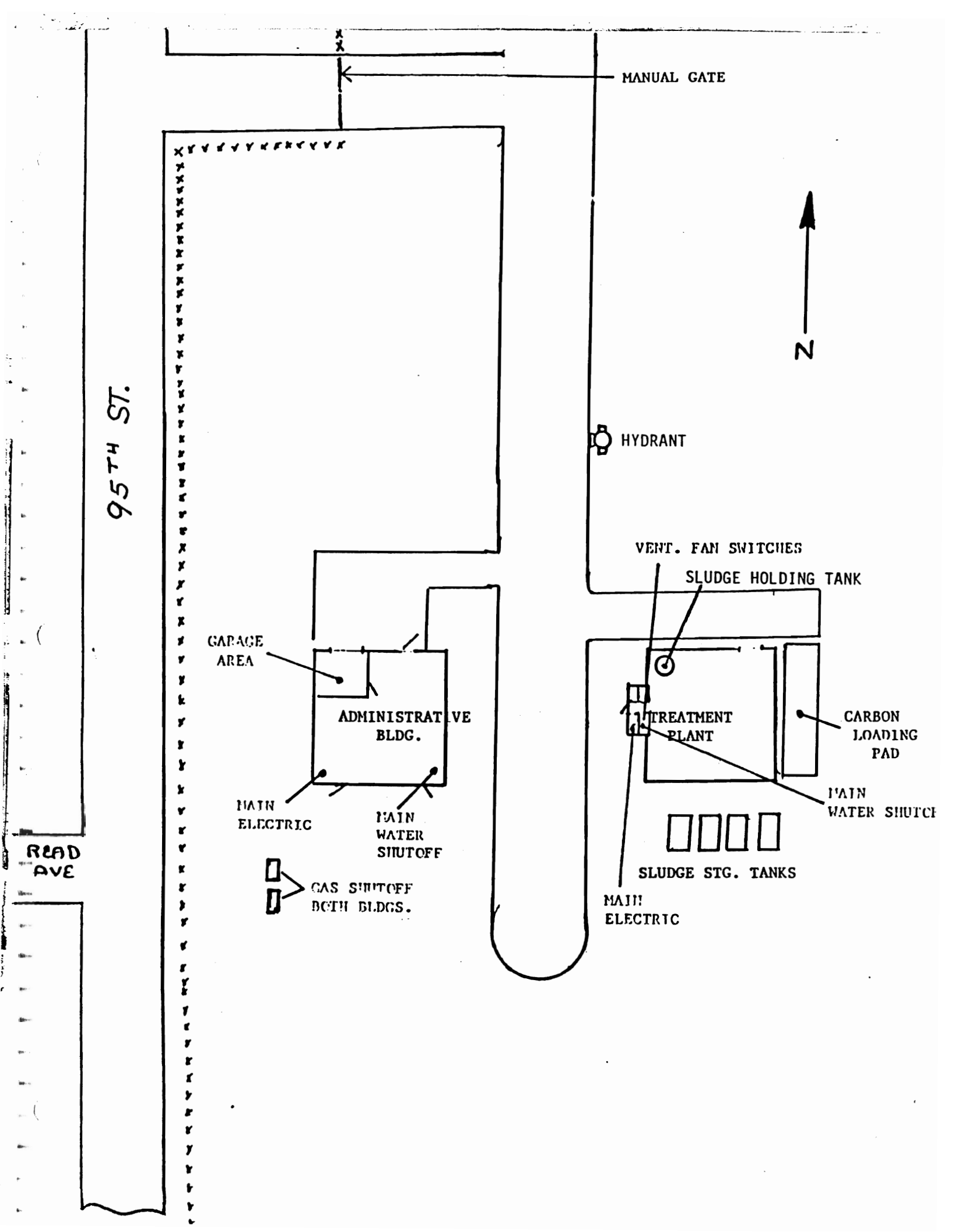
BECAUSE OF THE HAZARDOUS NATURE OF THE MATERIALS IN THE TREATMENT PLANT, OFFICERS WILL INSURE THAT ALL PERSONNEL ARE PROPERLY EQUIPPED WITH FULL PROTECTIVE CLOTHING AND BREATHING APPARATUS BEFORE ENTERING THE GATE.

SOP

FIRST ENGINE:	MASK UP AT THE GATE. HIT HYDRANT ON THE WAY IN OR CALL FOR THE SECOND DUE ENGINE TO LAY A SUPPLY LINE. PARK UPWIND AND ATTACK THE FIRE.
SECOND ENGINE:	MASK UP AT THE GATE. LAY SUPPLY LINE TO THE FIRST ENGINE IF NECESSARY. PARK UPWIND AND ASSIST THE FIRST ENGINE IN FIGHTING THE FIRE.
FIRST TRUCK:	MASK UP AT THE GATE. PROCEED TO THE FIRE AND PARK UPWIND. VENTILATE.

EVERY EFFORT SHOULD BE MADE BY ALL PERSONNEL TO AVOID CONTACT WITH SMOKE OR MATERIALS IF POSSIBLE WHEN FIGHTING A FIRE IN THE TREATMENT AREA. IN THE EVENT OF CONTAMINATION OF PERSONNEL OR EQUIPMENT THERE IS A CONCRETE PAD ON THE EAST SIDE OF THE TREATMENT PLANT KNOWN AS THE CARBON LOADING PAD WHICH MAY BE USED AS A DECONTAMINATION AREA. THIS PAD ALSO DRAINS INTO THE 30,000 GAL. HOLDING TANK FOR EVENTUAL TREATMENT IN THE SYSTEM.

B/C DENNIS D. LONG


MANUAL GATE
95TH ST.
N
HYDRANT
VENT. FAN SWITCHES
SLUDGE HOLDING TANK
GARAGE AREA
ADMINISTRATIVE BLDG.
TREATMENT PLANT
CARBON LOADING PAD
MAIN ELECTRIC
MAIN WATER SHUTOFF
MAIN WATER SHUTOFF
SLUDGE STG. TANKS
GAS SHUTOFF BOTH BLDGS.
MAIN ELECTRIC
READ AVE

KEY TO HAZARDOUS MATERIAL STORAGE

LOCATION

1 See Treatment Facility Key

2 Maximum 10 gallons of flammable liquids in laboratory and garage

3 No hazardous materials present

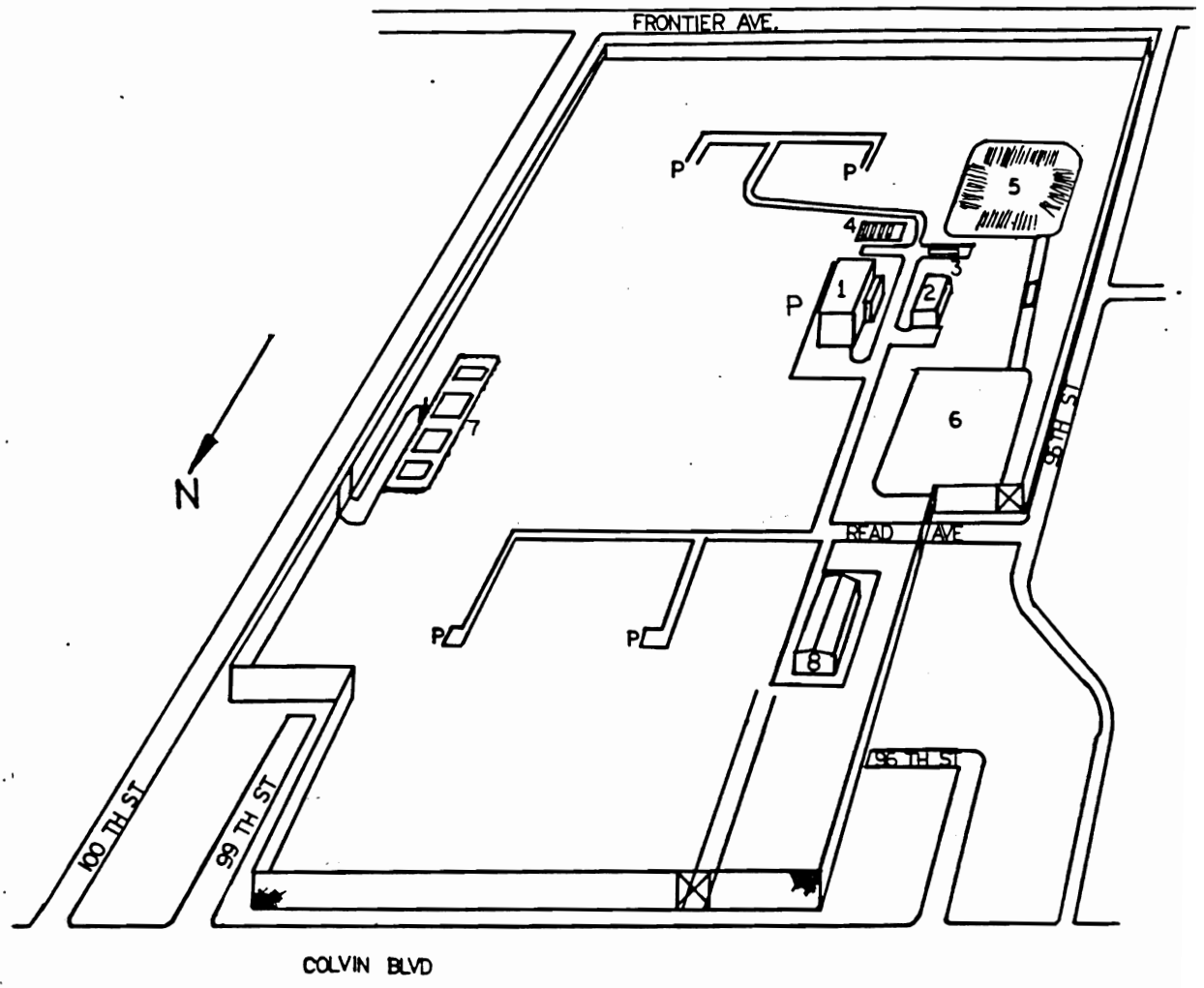
4 Contains approximately 23,000 gallons of highly toxic sludge. This liquid is considered flammable because of the presence of 2% -5% toluene in the sludge

5 Contains construction and demolition debris buried under approx. 3 feet of clay and soil

6 No hazardous materials stored

7 Currently empty. For wastewater storage only. Hypalon® lining.

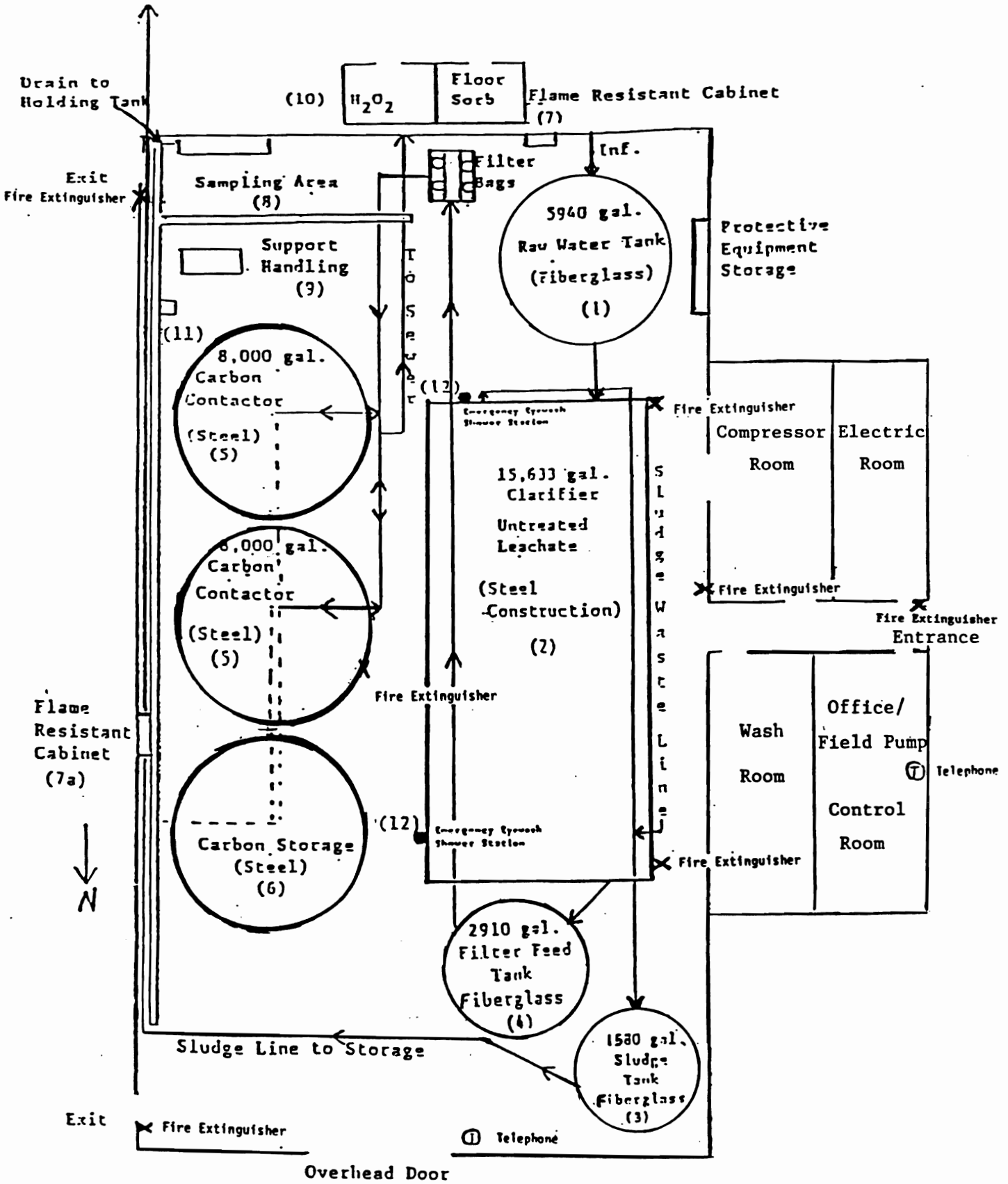
8 Drums contain non-flammable solids only. 275 gallon diesel oil tank in southwest corner.



PUBLIC INFORMATION OFFICE

LOVE CANAL SITE
FEBRUARY 1990

1 LEACHATE TREATMENT FACILITY
2 ADMINISTRATION BUILDING
3 PLASMA ARC UNIT TRAILER
4 SLUDGE STORAGE TANKS
5 DEWATERING CONTAINMENT FACIL.
6 STAGING AREA
7 SEWER SEDIMENT FACILITY
8 DECONTAMINATION/DRUM FACILITY
P PUMP STATION



TREATMENT FACILITY

FLOOR PLAN/EMERGENCY EQUIPMENT/COMMUNICATION LOCATIONS

Key on Following Page

Drawing Not To Scale

HAZARDOUS MATERIAL STORAGE AREAS AND QUANTITY

KEY - LEACHATE TREATMENT FACILITY

1. Contaminated water with 1% - 5% organic phase. During processing, this tank would contain between 1,000 and 4,000 gallons. At all other times, it contains approximately 200 to 300 gallons. This material would most probably extinguish flames on contact.

2. Contains approximately 15,000 gallons of contaminated water at all times. Would most probably extinguish flames on contact.

3. Contains from 0 to 1500 gallons of highly toxic sludge. This material may burn if in contact with an ignition source, and would probably give off toxic fumes while burning.

4. Contains contaminated water which would most probably extinguish flames on contact. During processing this tank contains 700 to 2,500 gallons. At all other times contains 200 to 300 gallons.

5. Steel pressure vessels containing activated carbon saturated with leachate. May give off toxic flammable gases if heated. Protected from rupture by a pressure release system.

6. Steel storage vessel. Normally empty, but may contain same materials as in (5) above. When not empty, the date board on the tank will indicate a date.

7. Fire resistant cabinet contains highly flammable solvents - acetone, hexane, methylene chloride.

7a. Fire resistant cabinet contains flammable and combustible motor fuels.

8. Sampling area that includes sample ports under a fume hood with adjacent work space.

9. Support handling area with variable air and clean water pressures.

10. Hydrogen peroxide stored in this blockhouse is fed into the plant through a small plastic tube. This area contains up to 90 gallons of 50% hydrogen peroxide in drums. Peroxide is a strong oxidizer and can aid in the combustion.

11. Small quantities of nitric acid in a cabinet designed specifically for acids.

12. Emergency Eyewash and Shower Stations

X Fire Extinguishers

February 2, 1990

OPERATION AND MAINTENANCE PROCEDURE
OVERPACKING OF DETERIORATING METAL DRUMS
STANDARD OPERATING PROCEDURE (S.O.P.)

PURPOSE: To prevent the inadvertent discharge of hazardous material from deteriorating metal drums.

DESCRIPTION: Current procedures at the Love Canal Facility site # 9-32-020 requires the use of D.O.T. 17H of 17E landfill drums to dispose of any contaminated material accumulated during normal processes. In addition, carbon removed from the contact vessels is currently stored in these drums to await final disposal. Over time these drums deteriorate and may require overpacking into larger 85 gal. salvage drums to prevent the discharge of material from these drums.

SAFETY PRECAUTIONS:

1. Overpacking can be VERY DANGEROUS and can cause SEVERE INJURY. Care must be taken not to hurry, become fatigued or become complacent during the operation.

2. Deteriorating drums present an inadvertent discharge problem therefore level "B" protection should be utilized by the ground workers to include air purifying respirators. The operator should have a respirator at hand.

3. Plastic should be used to prevent contamination or a drum liner can be taped over the outside of the drum before transport to and into the overpack.

4. Overpacking involves the use of the 545-A Ford tractor, therefore, caution should be used when working in proximity to the vehicle.

5. Drums to be overpacked could be on a pallet stacked more than 2 high. Care should be taken to avoid being close to the area when the pallet is being removed.

6. Drums are heavy and the floorsorb used comes in 50 lb. bags, proper lifting procedures should be used.

7. Lifting of the drums involves either lifting with a drum chain or by a sling. Caution must be taken when the drum is being lifted to avoid a falling drum.

8. Pinch points and escape routes must be noted by ground workers.

PROCEDURE:

1. Determine which drum(s) require overpacking.

PROCEDURE: (cont.)

2. Isolate the pallet containing the drum(s) to be overpacked and remove it to a clear working area.

3. Remove lid from either a plastic or a steel 85 gal. salvage drum.

4. Place 1/4 bag of floorsorb in the bottom of the overpack.

5. Determine if the drum can be lifted by the top of the rim. If not the drum must be lifted with the use of a sling.

6. If the drum lifting chain can be used, place the ears of the chain over the ring of the drum.

7. Slowly direct the tractor operator to lift the forks enough to take up the slack in the chain.

8. Lift the drum high enough to place a drum liner over the drum and tape it to the top of the drum.

9. If a sling must be used then sling the drum as close to the top as is practical.

10. Repeat steps 7 and 8.

11. Move away from the drum while it is being lifted and transported.

12. Once the drum is over the overpack, guide the drum into the overpack as it is being lowered.

13. Remove the chain or sling.

14. Place the remainder of the floorsorb around the drum.

15. Put the cover on the overpack and tighten the ring.

16. Mark the overpack with the following information:
    1. Drum contents.
    2. Drum log number.
    3. Date overpacked.
    4. Responsible party for overpacking.
    5. Sequential number of overpack, 1,2,3...5,6,7...etc.

17. Place the overpack onto a pallet with only overpacks, secure and move the pallet to the overpack storage area.

18. Clean up any spills, leakage, bags, floorsorb etc.....

SPECIAL REQUIREMENTS: This operation should, ideally, require three(3) workers. Two(2) ground workers and one(1) operator.

FREQUENCY: As needed.

SERVICE/SUPPLIERS:

OVERPACKS
Greif Bros. Inc.
Hyde Park Blvd.
Niagara Falls, NY

(716) 278-1465

FLOORSORB
Hubbs & Howe/D.J. Mead Inc.
2200 Harlem Rd.
Buffalo, NY 14225

(716) 895-7937

VENTILATION AND AIR MONITORING

During all cleanup operations inside the treatment plant all doors to the outside should be opened to assist in ventilation. During cleanup activity , both indoors and outdoors, the atmosphere will be monitored using an oxygen meter, explosivemeter, and HNu Model PL101 or equivalent. Explosivemeter should not be used if the oxygen level is below 19.5%. Work will also be suspended in any area if the explosivemeter indicates greater than 20% of the LEL. If the reading on the HNu is between 0 and 5 ppm, respiratory protection must be a full face cartridge type respirator. If the reading exceeds 5 ppm, cleanup personnel must either leave the immediate area and wait for fumes to dissipate or resume operations using a self contained breathing apparatus (SCBA) or a positive pressure supplied air using either breathing air cylinders or a portable air compressor. The air compressor must be located in a clean atmosphere. Supplied air must be used in conjunction with a 5 minute escape bottle. If the HNu reading exceeds 300 ppm, cleanup activities must be abandoned until fumes are allowed to dissipate. Refer to Health and Safety documents and Site Operation and Maintenance Procedures for a more thorough description of monitoring.

The emergency coordinator and cleanup personnel are to be thoroughly trained in the use of safety and monitoring equipment. The emergency coordinator and cleanup personnel are to be familiar with the USEPA's publication Standard Operating Safety Guides and USEPA's Field Standard Operating Procedures Numbers 4, 6, 7, 8. (Site Entry, Work Zone, Decontamination of Response Personnel, Air Surveillance).

DECONTAMINATION OF EQUIPMENT AND TOOLS

All equipment and tools used during cleanup operations must be thoroughly decontaminated or stored as a hazardous waste with the intention of future disposal. All washwater used during decontamination must be returned to the leachate collection system for treatment. The liquids can be returned to the leachate collection system by disposing down the drain at the decontamination pad or through the sink located in the treatment room or decon/drum storage building. Do not dispose of hazardous wastes down any administration building sink or washroom sink.

Small hand tools may be decontaminated by wiping clean with rags soaked in a solvent (i.e. methylene chloride, acetone) or in an industrial strength detergent (i.e. penetone). If this is not sufficient the tools may be cleaned with high pressure steam or water.

Larger tools and vehicles such as trucks and backhoes may be cleaned using high pressure water and steam upon the discretion of the emergency coordinator.

Refer to Health and Safety documents and Site Operation and Maintenance Procedures for a more thorough description of decontamination steps.

INCIDENT REPORT FORM

TO: Section Chief, Operations and Maintenance Section
Bureau of Construction Services
Division of Hazardous Waste Remediation

1. Time incident discovered _____ Date _____

2. Time incident contained _____ Date _____

3. Approximate location and type of accident (e.g., fire, explosion, release) _____

_____

4. Material released _____
Approximate quantity _____

5. Extent of injuries (if any) _____

_____

6. Assessment of actual or potential hazards to human health or the environment (if applicable) _____

_____

_____

7. Estimated quantity and disposition of material recovered from the incident _____

_____

8. Corrective action to control the incident and prevent further incidents _____

_____

_____

9. Property and equipment damaged _____

_____

_____

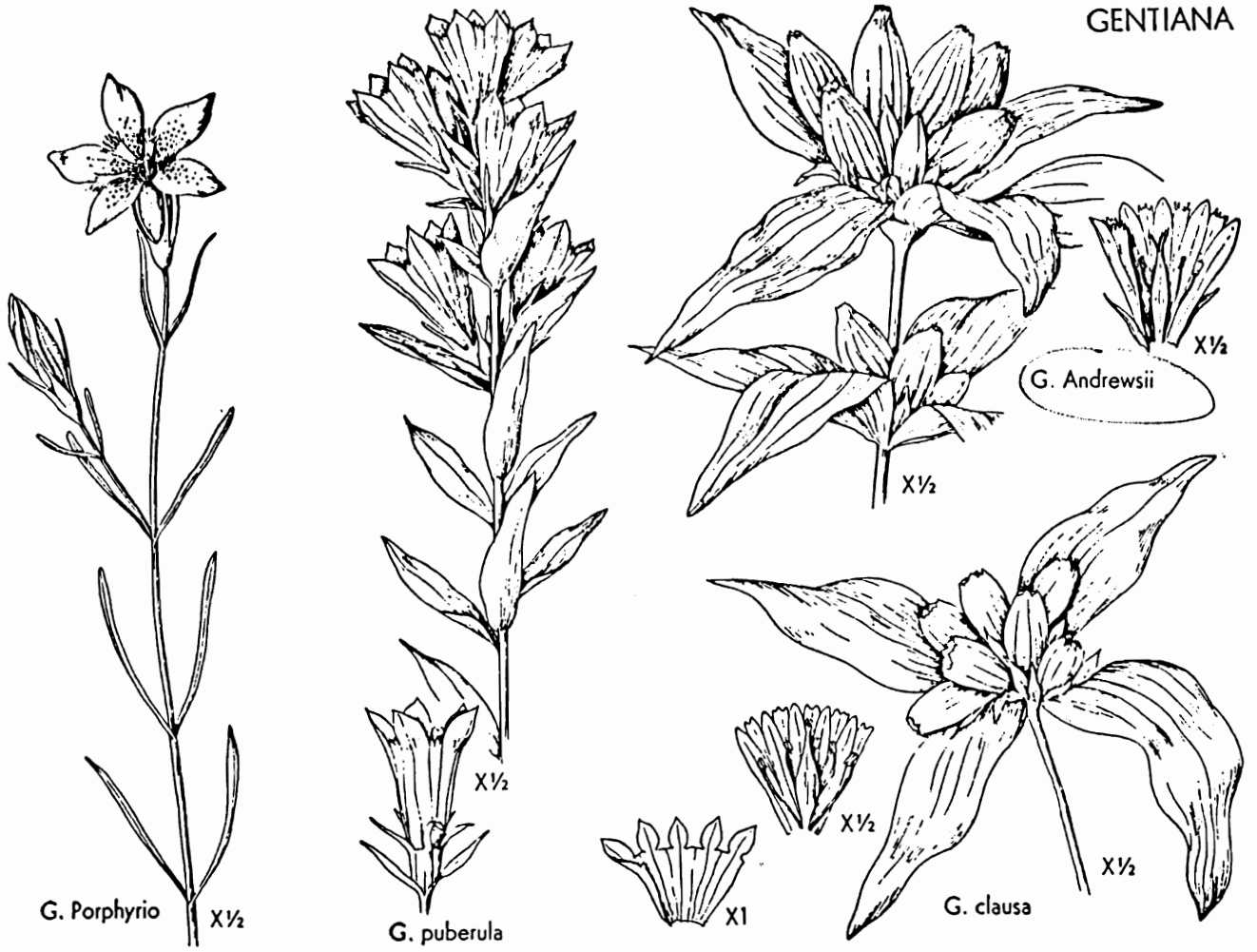
10. Name of Emergency Coordinator _____

Signature of Reporter _____

Date _____

APPENDIX J:

ECKEL COMMUNICATION



9. Gentiana Andrewsii Griseb. Closed Gentian. Stems 4–8 dm. tall, usually simple. Leaves lanceolate or ovate-lanceolate, acute or acuminate, up to 15 cm. long and 4 cm. wide, acute to obtuse or rounded at the sessile base. Flowers blue, varying to white, several in a dense terminal cluster and often 1 or few in the upper one or two axils, subtended by an involucre of foliage leaves and much smaller lanceolate bracts. Calyx-lobes variable in shape and size, usually lanceolate to oblanceolate and 4–10 mm. long. Corolla closed, 3–4 cm. long, the thin lobes adnate to the plaits as far as the truncate, narrow, usually apiculate summit, the plaits dilated distally, fimbriate, exceeding the corolla-lobes and forming most of the summit of the corolla.

Wet woods, meadows, and shores, Que. and locally in New England to Man., s. to N. J., O., Ky., Mo., and Neb., and in the mountains to N. C. Aug.–Oct. [*Dasystephana Andrewsii*, B. & B., Small, Rydb.] Apparently hybridizes with *G puberula* and *G. flavida*.

10. Gentiana clausa Raf. Closed Gentian. Very like *G. Andrewsii*, with which it was long confused, in foliage and general aspect. Calyx-lobes foliaceous, broadly as long. Corolla-lobes prolonged beyond their adnation to the plaits into distal, firm, ovate or oblong lobes; plaits about as long as the corolla-lobes, shallowly 2–3 toothed or lobed.

Moist woods and meadows, Me. to N. Y., s. to N. J. and along the mountains to N. C. Sep., Oct. [Included in *G. Andrewsii*, Gray, B. & B.]

11. Gentiana Saponaria L. Stem 4–8 dm. tall, usually glabrous, occasionally puberulent distally in lines. Leaves lanceolate or oblong-lanceolate, 5–10 cm. long, acute or acuminate, abruptly narrowed at the base. Flowers few to several in a dense terminal cluster and 1 to few in the upper axils or on short lateral branches. Sepals lanceolate, oblong, or oblanceolate, 5–12 mm. long, rarely a trifle shorter or longer. Corolla blue, varying to white, 3–4 cm. long, its lobes obtuse or rounded, free from the plaits in the distal 3–6 mm. and surpassing them by 1 mm. or less.

Moist woods and thickets, s. N. Y. to Fla. and La., mostly on the coastal plain, n. in the interior to Ind., Wis., and

OSED TUBES

ıı ceae)

Gentiana procera ... *narrow*, 1-nerved. ... wet sand. Interior, ..., Ohio. JULY–OCT.

... *Gentiana crinita* ... *ls* flaring out from ... on long stalks. 1–3 ...itoba to Ontario and ... SEPT.–NOV.

... *Gentiana puberula* ...less, 5-pointed flowers ... leaves lanceolate. ... Wisconsin, Michi- SEPT.–OCT.

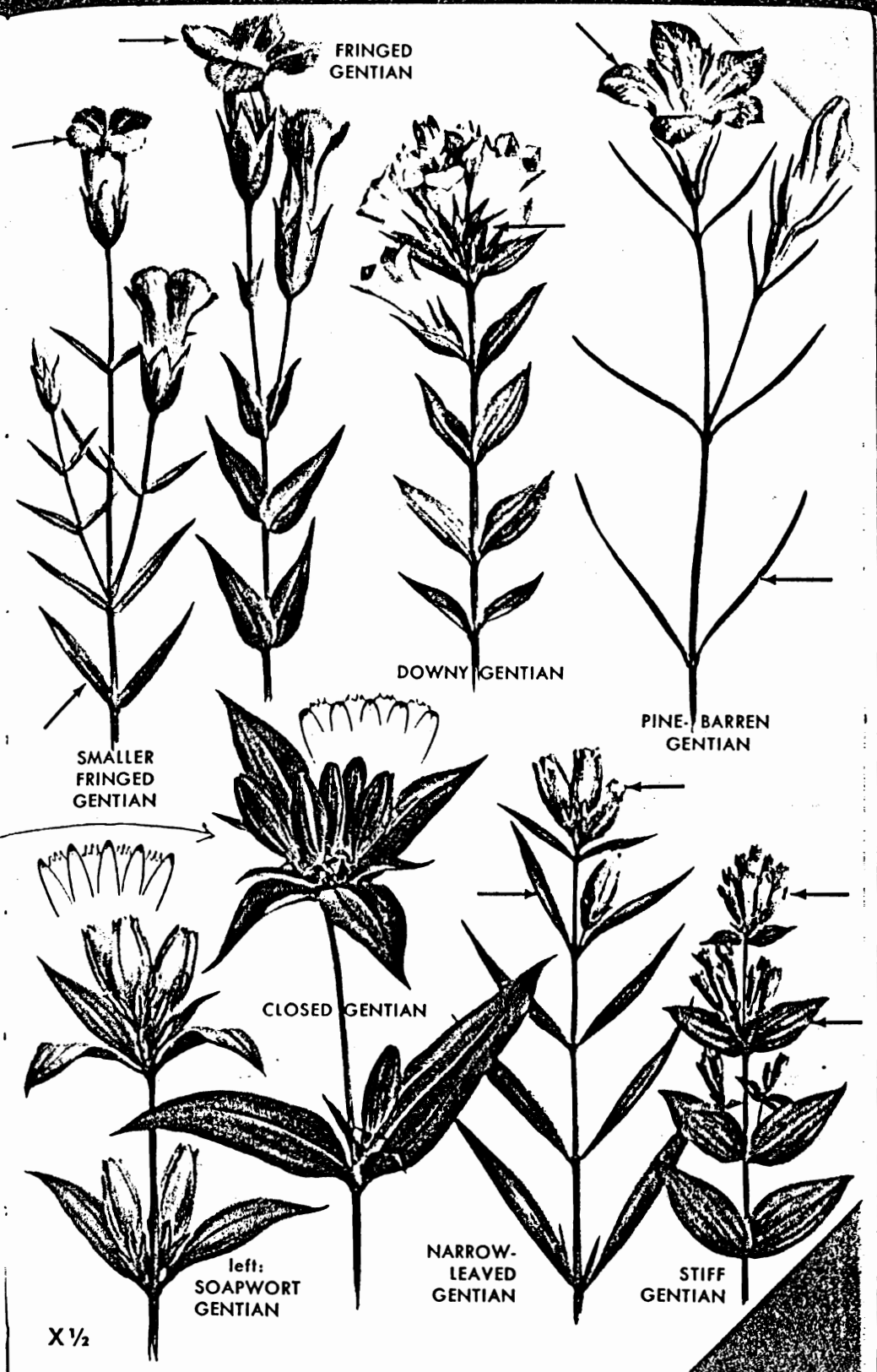
Gentiana autumnalis ...d ...owers marked with ...ts between the lobes. ...rens, coastal bogs. S. AUG.–OCT.

Gentiana saponaria ...blue-violet or white); ...a ...l, *petal tips are free* ... pals *more erect* (not ...ps. Minnesota, Wis- SEPT.–OCT.

Gentiana andrewsii ...d ...by and slightly ex- ...inset). 1–2 ft. A very ...a ... the petal tips free ...m ...dows. Manitoba, AUG.–OCT.

... *Gentiana linearis* ...d ...*ounded flower lobes* ...white. 6–24 in. Wet ...uperior to Labrador ...ia AUG.–SEPT.

Gentiana quinquefolia ...*sters* of small, tubular ...es Flowers often in ...p...g. 6–30 in. Rich ...Michigan, Ontario, s. AUG.–OCT.



FEB 06 1990

BUFFALO SOCIETY OF NATURAL SCIENCES

BUFFALO MUSEUM OF SCIENCE AND TIFFT FARM NATURE PRESERVE

HUMBOLDT PARKWAY, BUFFALO, NEW YORK 14211 (716)896-5200

RECEIVED
FEB 12 1990
SARATOGA ASSO

Febuary 5, 1990

Mr. James E. Carr
Director of Planning
Love Canal Area Revitalization Agency
9501 Colvin Boulevard
Niagara Falls, New York 14304

Dear Jim:

Enclosed please find photocopies of Gentiana andrewsii, including copies made from actual herbarium specimens. It is quite a distinctive species, quite robust compared to the other herbaceous vegetation with which it grows. The broad OPPOSITE leaves are distinctive. When it flowers in August its blue petals are striking. I observed them growing beneath willow trees on the edges of grassy clearings.

On the air photo I have indicated the area in the northeastern section where I believe most of the tags occurred corresponding to wet woods, the old Oak woods with an empondment by Colvin Blvd. No Gentians grow in this area, although it possesses a complex relatively undisturbed plant community. The area where the Gentian population occurs is in the south-east section just westward of the thickets facing the road (Williams).

I hope this information is of use to you. If you have further questions please feel free to contact me.

Sincerely,

P.M. Eckel

CONTINGENCY PLAN REVISION LOG

DATE	AREA REVISED	NEW ACTION

ERECT, VASE-LIKE OR CLOSED TUBES

GENTIAN FAMILY (Gentianaceae)

SMALLER FRINGED GENTIAN *Gentiana procera*
Similar to Fringed Gentian, but leaves *narrow*, 1-nerved. *Fringe shorter.* 6–20 in. Wet prairies, bogs, wet sand. Interior, Manitoba, Ontario south to Iowa, Indiana, Ohio. JULY–OCT.

FRINGED GENTIAN *Gentiana crinita*
Note the swirl of *4 delicately fringed petals* flaring out from the deep corolla tube. Individual flowers on long stalks. 1–3 ft. Meadows, wet woods, banks. Manitoba to Ontario and across n. U.S.; in mts. to Georgia. SEPT.–NOV.

DOWNY GENTIAN *Gentiana puberula*
Note the tight cluster of mostly stalkless, 5-pointed flowers with no fringes. Stems minutely downy; leaves lanceolate. 8–20 in. Prairies, sandy soil. Minnesota, Wisconsin, Michigan, s. Ontario, w. New York south. SEPT.–OCT.

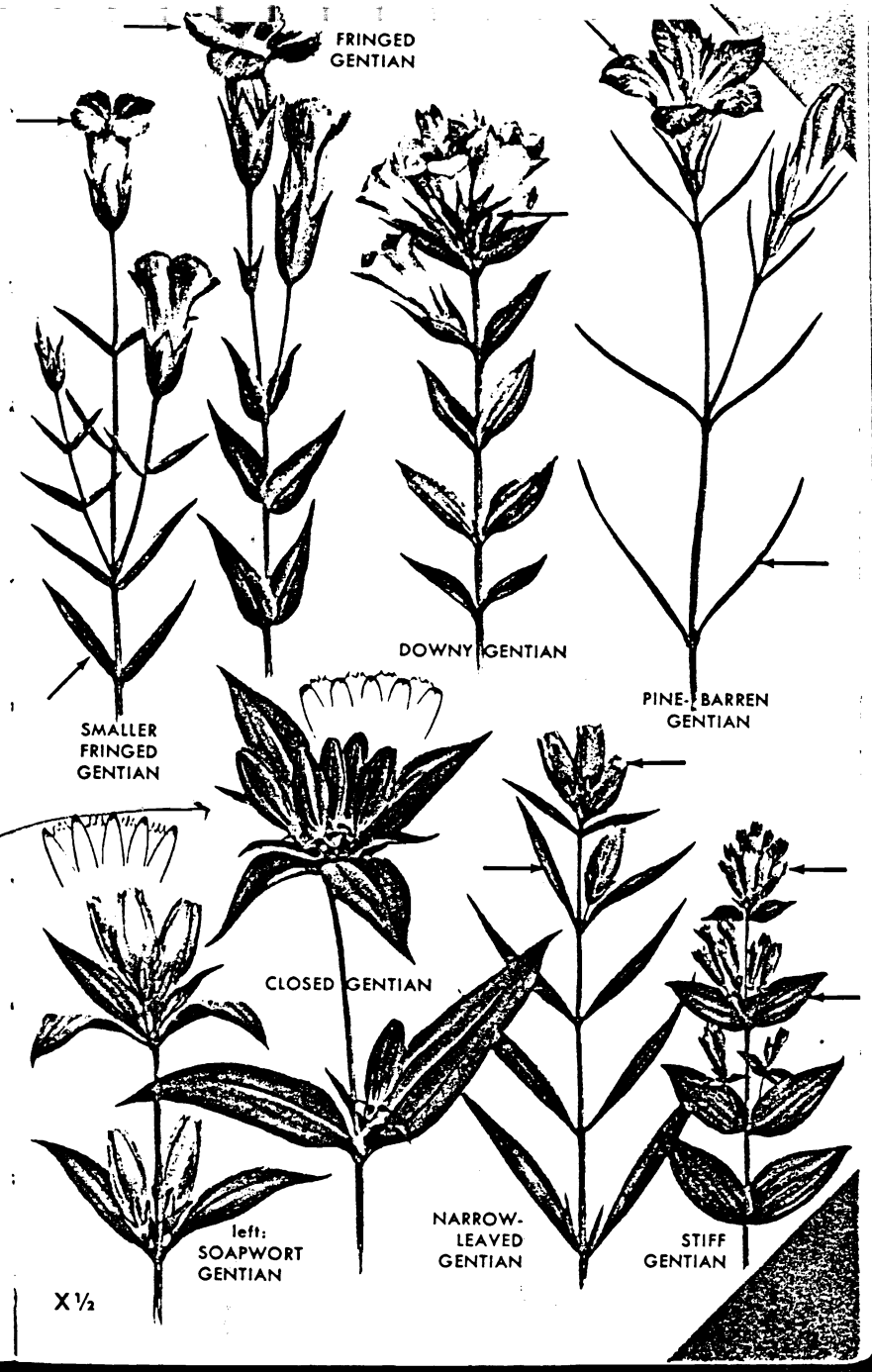
PINE-BARREN GENTIAN *Gentiana autumnalis*
Note the single (or 2 or 3) large 5-pointed flowers marked with *pale stripes and specklings;* pointed pleats between the lobes. Leaves *linear.* 8–18 in. Wet pine barrens, coastal bogs. S. New Jersey; se. Virginia south. AUG.–OCT.

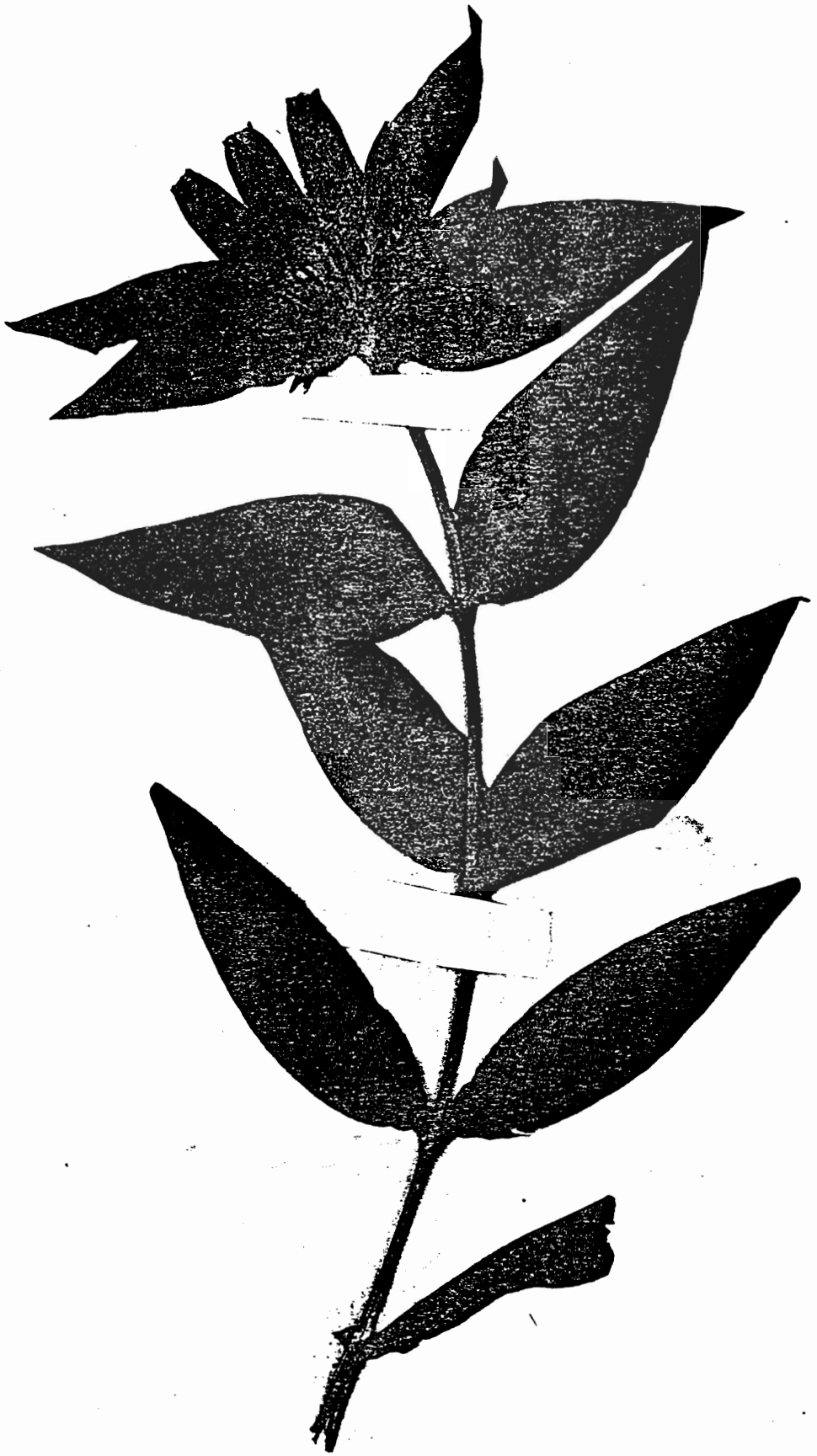
SOAPWORT GENTIAN *Gentiana saponaria*
Similar to Closed Gentian but paler (blue-violet or white); flowers open slightly. When spread by hand, *petal tips are free* of the fringed joining membrane (inset). Sepals *more erect* (not reflexed). 1–2½ ft. Wet spots, swamps. Minnesota, Wisconsin, Indiana, New York south. SEPT.–OCT.

CLOSED GENTIAN *Gentiana andrewsii*
The deep blue petals stay *closed*, joined by and slightly exceeded by a fringed whitish membrane (inset). 1–2 ft. A very similar species, *G. clausa* (not shown), has the petal tips free of the joining membrane. Wet places, meadows. Manitoba, s. Ontario, sw. Quebec, Vermont south. AUG.–OCT.

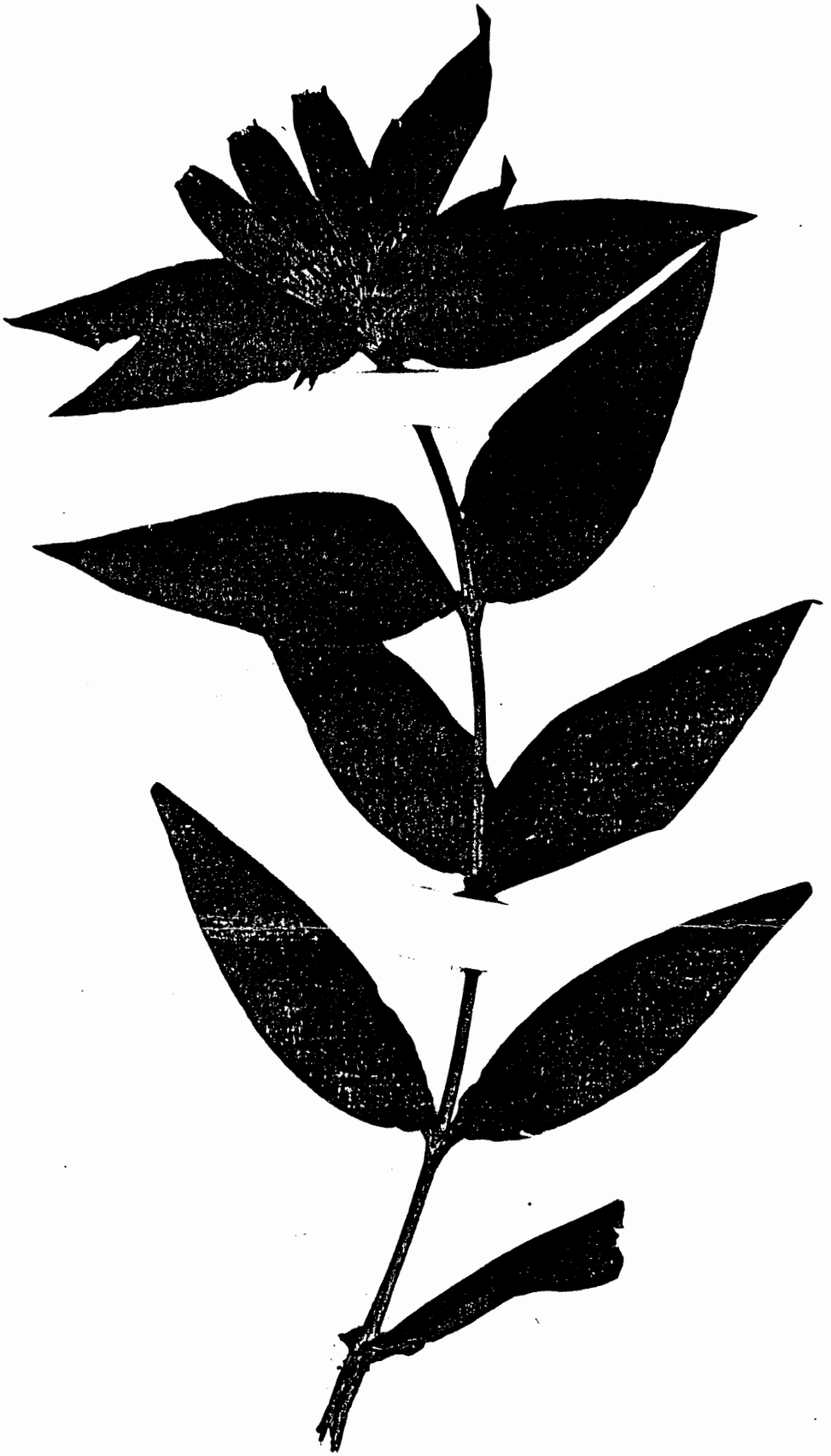
NARROW-LEAVED GENTIAN *Gentiana linearis*
The combination of *very slender leaves* and *rounded flower lobes* separate this from the others. Blue to white. 6–24 in. Wet meadows, bogs, wet woods. Lake Superior to Labrador and south (mainly in mts.) to W. Virginia. AUG.–SEPT.

STIFF GENTIAN *Gentiana quinquefolia*
Note the *4-ridged stem* and the *tight clusters* of small, tubular lilac flowers with 5 bristle-pointed lobes. Flowers often in groups of 5. Leaves broadly ovate, clasping. 6–30 in. Rich woods, wet fields, slopes. Minnesota, Michigan, Ontario, s. Maine south, mainly in mts. AUG.–OCT.





ENTERED
160404



ENTER
6040

Willow thicket
+
Gentians

As a result of this process, the Committee agreed on the following land use recommendations and special considerations for the whole EDA, and for those areas judged by the Commissioner of Health to be habitable and not habitable.

I. GENERAL RECOMMENDATIONS FOR THE ENTIRE EDA

1. The Love Canal site should be isolated from the residential communities surrounding the site in a manner which is aesthetically pleasing and which enhances the whole EDA area.

2. Government should continue ongoing monitoring of the area and research on clean up and isolation of Love Canal hazardous wastes. This is to assure protection for existing and new residents and to identify new ways to deal with such wastes. Easements should be maintained along the fence surrounding the Love Canal site to ensure government access to the site in order to carry out continuous monitoring.

3. A Public Information and Environmental Education Center should be developed and maintained in the Love Canal EDA to serve as a resource for information on the history of the Love Canal. Several locations for this Center were discussed, including the 93rd Street School.

One committee member, Emma Kelley, objected to the visitor's center recommendation on the grounds that it would perpetuate and glorify the Love Canal.

II. RECOMMENDATIONS FOR HABITABLE AREAS (EDA Areas 4-7)

The majority of the Committee believes that the EDA areas declared to be habitable by the Commissioner of Health should be revitalized for residential use. There are a number of conditions attached to that basic recommendation:

1. Prior to resettlement, government agencies should invest in efforts to bring the area back to its earlier state as a viable neighborhood. This means upgrading houses, roads, street lights, landscaping, etc.

2. Resettlement should be phased in--not all homes should be sold at once. This is for two reasons: to avoid flooding the real estate market, and to assure that homes being impacted by remediation of creeks are not sold while that work is continuing. In other words, people should not be moved into areas next to creek excavation work or transport routes. The Niagara Falls Area Board of Realtors should be consulted on marketability issues.

3. The Committee prefers that homes should be sold for owner occupation only. Current renters should be allowed to stay.

4. All potential residents of the area must be notified of the history of the neighborhood, of the neighborhood's proximity to the Love Canal site, and of the Love Canal Habitability Study and Decision. This notice should accompany all future transactions and afford potential residents the opportunity for an informed choice.

APPENDIX K:

LAND USE ADVISORY COMMITTEE FINAL REPORT

JUL 13 '89 10:54 NYS DEPT OF HEALTH

SX Copy to Peter Slocum

-3448

Niagara University

Niagara University, N.Y. 14109

CE OF THE PRESIDENT

July 11, 1989

David Axelrod, M.D.
Commissioner of Health
New York State Health Department
Corning Tower, 14th Floor
Gov. Rockefeller Empire State Plaza
Albany, NY 12237

DATE RECEIVED

JUL 12 1989

NYS DEPARTMENT OF HEALTH
OFFICE OF THE COMMISSIONER

Dear Dr. Axelrod:

Attached you will find the final report of the Land Use Advisory Committee which you commissioned last fall. I believe we have fulfilled the mandate which you gave us. I trust that you will find our report helpful in making your final decision on this matter.

I wish to take this opportunity to commend the staff of the Department of Health for the outstanding cooperation we received throughout this process: Peter Slocum, Karen Kalaijian Bill Stasiuk, and Anita Gabalski. All were extremely helpful and supportive as we went about our task. We never would have been able to complete this project as quickly and as thoroughly as we did without their wonderful assistance. I ask please that you communicate my gratitude and that of the committee to your staff.

While the process was at times difficult, Dr. Axelrod, I firmly believe that it was a profitable experience not only for the committee members but also the members of the local community. I sincerely hope that our efforts will bear fruit in assisting you as you attempt to assist and serve the people of the Love Canal area.

Sincerely,

Donald J. Harrington, Chn

Donald J. Harrington, C.M.
President

DJH/ls

LOVE CANAL LAND USE ADVISORY COMMITTEE

FINAL REPORT

July 10, 1989

Along with the September 27, 1988, decision on the habitability of the Love Canal Emergency Declaration Area (EDA), Commissioner of Health, David Axelrod, M.D., appointed the Love Canal Land Use Advisory Committee. Comprised of current and former residents of the Love Canal area and other citizens representative of Niagara Falls community interests, the Committee was charged with assuring local input in the development of recommendations on land use for the Love Canal EDA.

The Committee first met on November 6, 1988, and on fourteen additional occasions through June 19, 1989. With the exception of the first, all meetings were open to the public and structured to facilitate public participation and input. Initial meetings were directed at fact finding. Committee members reviewed the history of the Love Canal site, toured the Love Canal EDA and learned about the process leading to the habitability decision. The habitability decision itself was reviewed in detail, as were past, ongoing and proposed remedial activities. Committee members heard presentations from representatives of the City of Niagara Falls, the Town of Wheatfield, the Niagara Falls Housing Authority, the City of Niagara Falls Board of Education, the Niagara Falls Area Board of Realtors, the Love Canal Area Revitalization Agency, current residents, former residents, environmental groups, and the interested public of Niagara Falls. To ensure local input in the development of recommendations on land use, the Committee conducted two public hearings, one on February 21, 1989, and one on March 1, which was continued on March 8, 1989. Throughout these meetings and hearings, testimony, proposals and comments on land use options for the EDA were solicited.

On March 8, 1989, the Committee voted to suspend deliberations pending the resolution of uncertainty created by the discovery of highly contaminated soil in one of the comparison areas used to make a decision on the habitability of the EDA. Because this finding of chemically contaminated soil raised questions, the Department of Health convened a panel of scientific experts to review the finding and to determine its impact on the habitability decision. The scientific panel met on May 10 and 11, and determined that the presence of chemically contaminated soil at the Niagara Community Church did not invalidate the use of Census Tract 225 as a comparison area and that the habitability decision need not be reconsidered. Furthermore, the panel reaffirmed that the comparison approach used for the habitability study and decision "remains a viable approach for the Love Canal."

On May 25, the Committee reconvened and heard one last presentation on the planning activities scheduled by the Love Canal Area Revitalization Committee. In addition, the Committee made determinations as to how it would proceed to complete its deliberations. The last three meetings of the Committee were devoted to reviewing the many land use options and special considerations brought to the Committee's attention throughout the past seven months and to finalizing recommendations.

Niagara University

Niagara University, N. Y. 14109

OFFICE OF THE PRESIDENT

July 11, 1989

JUL 19 1989

SARATOGA ASSOC...

Mayor Michael C. O'Laughlin
Chairman
Love Canal Area Revitalization Agency
City Hall
745 Main Street
Niagara Falls, NY 14302

Dear Mike:

Attached you will find the final report of the Land Use Advisory Committee commissined by Dr. David Axelrod in the fall of 1988. I trust that this report will be of assistance to you and to the other members of the Love Canal Area Revitalization Agency as you move forward in your planning for the Love Canal area.

I thank the agency for its assistance and cooperation throughout this process. What began with a certain amount of understandable tension between our committee and your agency quickly became, in my opinion, a healthy working relationship. I thank you for all that you and others did to assist in that process.

Sincerely,

Donald J. Harrington, Ch

Donald J. Harrington, C.M.
President

DJH/ls

5. Senior citizen housing should be a priority for the areas west of the Canal itself, where the former Griffin Manor housing development once stood. The Committee favors senior citizen housing because of a perceived need in the Niagara Falls area and the success of the existing Garden Complex.

6. Where there is a need, remaining homeowners should be assisted with grants or low interest loans, etc. to upgrade the condition of their homes. This would allow improvements to be made throughout the revitalized EDA, regardless of whether the property is owned by LCARA or a private individual, and will, in turn, enhance the value of the whole neighborhood.

Two Committee members did not join in the overall recommendation for residential resettlement. Patricia Powell and Barbara Hanna both said they had concerns about the possibility of future contamination problems coming from the Canal, and in particular, doubts about the wisdom of having children and women of child-bearing age living near the Canal.

III. RECOMMENDATIONS FOR NON-HABITABLE AREAS (EDA Areas 1-3)

The majority of the Committee recommended the following for the EDA areas declared to be not habitable by the Commissioner of Health:

1. Recognizing economic limitations, nonetheless, every effort should be made to remediate areas 2 and 3 to a level of habitability comparable to areas 4-7. This will enable areas 2 and 3 to be developed for residential use.

2. If cost prohibits the total remediation required for residential resettlement, areas 2 and 3 should be developed for light industrial use. In light of the proximity to residential areas, certain appropriate remediation must be carried out under this option. This will provide an opportunity for the City of Niagara Falls and the Town of Wheatfield to benefit from the Free Trade Agreement. Any industrial development of this area should be planned and consider the needs of existing residents.

3. Under either of these conditions, current residents: should have the right to remain in areas 2 and 3 if they so choose; should be eligible for low income loans or grants to rehabilitate their properties; should be given an opportunity to bid on homes in areas 4-7, if they wish to relocate; and should receive a selling price for their homes comparable to the value of similar homes in any other area of the City of Niagara Falls and Town of Wheatfield.

4. Basic services such as water, sewage, street lights, roads, etc. should be maintained and upgraded to current standards in areas 2 and 3 where people continue to reside.

5. Area 1 should not be remediated or developed for residential use. Other uses should be considered. Residents and businesses in area 1 should have the same rights as current residents in areas 2 and 3, as listed in 3 above.

Two Committee members did not join in the overall recommendation for residential resettlement of areas 2 and 3. Barbara Hanna and Patricia Powell both recommended that: the area should be re-zoned to prohibit future residential use; current area renters and homeowners with minor children should be relocated; homeowners who wish to remain in the area should be granted the opportunity to do so, with the understanding that they will be the last residential tenant of the property; and, finally, that the area should be developed for light industrial use and for use under the Free Trade Agreement.

These recommendations reflect the thoughtful consideration of the many land use options and issues raised throughout the eight-month life of the Love Canal Land Use Advisory Committee. They are predicated on the conclusions on habitability reached by the Commissioner of Health and the assumptions that safeguards will continue to prevent further leakage from the Canal, that the containment and leachate treatment system will be maintained and operated under effective, continuous and clearly accountable management, and that the effectiveness of the containment and leachate treatment system will continue to be monitored and reported on an annual basis.

Love Canal Land Use Advisory Committee

Father Donald J. Harrington, Chairman
President
Niagara University
Niagara University, New York 14109

Ms. Emma Kelley
498 101st Street
Niagara Falls, New York 14304

Mr. Wayne D. Morgan
486 103rd Street
Niagara Falls, New York 14304

Ms. Susan K. Hugill
Regional Vice President
M&T Bank
750 Main Street
Niagara Falls, New York 14301

Sister Mary Frate
Catholic Charities of Buffalo
Niagara County District Office
237 Fourth Street
Niagara Falls, New York 14303

Ms. Barbara G. Hanna
Executive Assistant
Ecumenical Task Force/Niagara Frontier
259 Fourth Street
Niagara Falls, New York 14303

Ms. Patricia M. Powell
Public Health Director
Niagara County Health Department
5467 Upper Mountain Road
Lockport, New York 14094

Mr. John D. Hoffman
President
Warren D. Hoffman and Associates
256 Third Street
Niagara Falls, New York 14303

Dr. Franklyn Collins
President
Ohmtek
2160 Liberty Drive
Niagara Falls, New York 14304

Mr. Samuel J. Giarrizzo
1067 98th Street
Niagara Falls, New York 14304

Mr. Henry J. Kalfas
8423 Richmond Avenue
Niagara Falls, New York 14304

APPENDIX L:

LIST OF CORRESPONDENCE/LETTERS

LIST OF CORRESPONDENCE RECEIVED FOR LOVE CANAL AREA MASTER PLAN INVENTORY AND ANALYSIS SECTION

Written Correspondence

Terrestrial and Aquatic Ecology

1) Buffalo Museum of Science, Plant Survey from Ms. Pat Eckel

2) NYSDEC, Information Services, Significant Habitat Unit, Burrell Buffington, re: significant habitat, wildlife, plant species.

Historic Resources

New York State Office of Parks, Recreation and Historic Preservation, Historic Resources, Julia Stokes, re: historic resources at Love Canal EDA.

Archaeological Resources

New York State Museum, Prehistoric Site File, Phillip Lord, re: significant archaeological resources at the Love Canal EDA.

Transportation

City of Niagara Falls Engineer's Office, Rich Golden, re: City street inventory within EDA, roadway conditions/proposed improvements.

Commercial Data

Buffalo Chamber of Commerce, Year End Building Construction Summaries for Erie and Niagara Counties.

Telecommunications

6/7/89 Edward Smalley, City of Niagara Falls School District, re: School Capacity.

Ms. Dolly Ciraolo, Niagara-Wheatfield School District, re: School Capacity.

Mike DeSantis, City of Niagara Falls Engineer's Office, re: utilities capacity.

Tom Sobczak, Kreibhel Associates, re: sewer system maps for Town of Wheatfield.

Woody Herman, Water Superintendent, Town of Wheatfield.

6/16/89 Dan Filipski, NYSDOT, re: I-190 interchange.

6/19/89 Dominic Penali, City of Niagara Falls Tax Assessor's Office, re: tax rates and revenues, impact of Love Canal on City tax revenues.

Lucy, Town of Wheatfield Recreation Department, re: recreational facilities in the Town of Wheatfield.

Marilyn, City of Niagara Falls Recreation Department, re: recreational facilities in the City of Niagara Falls.

Town of Wheatfield Administrative Offices, re: fire services capacity and service capability for rehabitated/redeveloped Love Canal.

Superintendent Ferra, City of Niagara Falls Police Department, re: capacity and service capability for rehabitated/redeveloped Love Canal.

Dr. Radin, Superintendent, Niagara-Wheatfield School System, re: school enrollments and capacity.

Town Clerk, Town of Wheatfield, re: police services capacity for rehabitated/redeveloped Love Canal.

6/27/89 A.K. Gupta, NYSDEC, re: Creek remediation.

David Foster, NYSDEC, re: air testing while remediation activities underway.

Kathy Hannemann, NYSDEC, Region 6 Office, re: Class II wetland in Sub-areas 2 and 3.

6/28/89 Rich Golden, City of Niagara Falls Engineer's Office, re: street system in Love Canal EDA.

6/29/89 Mr. William Hug, City of Niagara Falls School District, re: school projections.

8/16/89 Diette Palmer, Town Clerk, Town of Wheatfield, re: library services.

Niagara Falls Public Library, re: library satellite offices.

David Kiel, Burrell Buffington, NYSDEC, Significant Habitat Unit, re: Sky-Blue Aster.

8/23/89 Ray O'Keefe, City of Niagara Falls Chamber of Commerce, re: commercial construction activity and absorption rates.

8/28/89 Phyllis Argy-Fester, President, City of Niagara Falls Board of Realtors, re: commercial sales activity, absorption rates.

James Prachtal, Summit Park Development, re: commercial sales activity and absorption rates, impact of Love Canal industrial park on region.

9/20/89 Guy Bax, City of Niagara Falls Building Inspector's Office, re: floodplain requirements.

9/21/89 F.W. Dodge Company, re: construction activity, permit issuances in Niagara County.

9/27/89 Patti Cramer, Town of Niagara, re: permit issuances for residential and commercial activities.

9/28/89 Marge, Town of Wheatfield Building Inspector's Office, re: permit issuances for residential and commercial activities.

11/15/89 Rich Stanton, City of Niagara Falls Attorney, re: permission letter for release of information from City Engineer's Office.

12/12/89 John Strang, NYSDEC, re: containment area engineering.

THE SARATOGA ASSOCIATES

LANDSCAPE ARCHITECTS, ARCHITECTS, AND PLANNERS

VIA CERFTIFIED MAIL

April 11, 1990

Ms. Dolly Ciraolo
Niagara-Wheatfield School District
2794 Sounders Stttlement Road
Sanborn, NY 14304

Dear Ms. Ciraolo:

Re: Love Canal Area Master Plan
TSA Project #89031.17P

In a telephone conversation on June 7, 1989, I spoke with you regarding schools which service the Love Canal EDA. I would like to verify this information for our written records.

You had previously stated that students living within the portion of the Love Canal EDA attended Errich Road Elementary School, Edward Towne Middle chool, and the Niagara-Wheatfield Senior High School. The area of the EDA serviced by the Niagara-Wheatfield School District includes 102nd Street (odd numbers) and 103rd Street (numbers 413-497).

If the above information is incorrect, please respond in written form within three (3) days of receipt of this letter. If no changes are required, there is no need to respond.

Thank you very much for your time and effort in this matter.

Sincerely,

James R. Koury

James R. Koury

JRK/bc
cc: D. C. Sitler

OLD SARATOGA SQUARE, 143 BROADWAY, SARATOGA SPRINGS, NY 12866, TELEPHONE 518/587-2550, TELEFAX 518/587-2564

SARATOGA SPRINGS, BUFFALO, AND NEW YORK

THE SARATOGA ASSOCIATES

LANDSCAPE ARCHITECTS, ARCHITECTS, AND PLANNERS

VIA CERFTIFIED MAIL

April 11, 1990

Mr. Michale DeSantis
Engineers Office
City of Niagara Falls
City Hall
Niagara Falls, NY 14304

Dear Mr. DeSantis:

Re: Love Canal Area Master Plan
TSA Project #89031.17P

In a telephone conversation on June 7, 1989, I spoke with you regarding water and sewer capacity for a rehabilitated/redeveloped Love Canal EDA. I would like to verify this information for our written records.

The Saratoga Associates had developed anticipated loadings for water and sewer service, 390,000 gpd and 322,000 gpd, respectively. You had stated that sufficient capacity existed to accommodate these loadings in that a capacity of 10 million gpd and 8 million gpd existed in the City of Niagara Falls water and sewer systems, respectively.

If the above information is incorrect, please respond in written form within three (3) days of receipt of this letter. If no changes are required, there is no need to respond.

Thank you very much for your time and effort in this matter.

Sincerely,

James R. Koury

James R. Koury

JRK/bc
cc: D. C. Sitler

OLD SARATOGA SQUARE, 143 BROADWAY, SARATOGA SPRINGS, NY 12866, TELEPHONE 518/587-2550, TELEFAX 518/587-2564

SARATOGA SPRINGS, BUFFALO, AND NEW YORK

THE SARATOGA ASSOCIATES

LANDSCAPE ARCHITECTS, ARCHITECTS, AND PLANNERS

VIA CERFTIFIED MAIL

April 11, 1990

Mr. Willis D. Retzlaff
Assessor
Town of Wheatfield
2800 Church Road
North Tonawanda, NY

Dear Mr. Retzlaff:

Re: Love Canal Area Master Plan
TSA Project #89031.17P

In a telephone conversation on June 19, 1989, I spoke with you regarding tax rates in the Town of Wheatfield. I would like to verify this information for our written records.

You had previously stated that the tax rate for the Town of Wheatfield is $29-31 per $1,000 of assessed valuation, dependent upon whether or not the area is sewered. The non-homestead rate is $39.63 per $1,000 of assessed valuation. Also, when asked if the loss of tax base in the Love Canal area affected the Town of Wheatfield, you had stated that no formal examination of this had ever been conducted.

If the above information is incorrect, please respond in written form within three (3) days of receipt of this letter. If no changes are required, there is no need to respond.

Thank you very much for your time and effort in this matter.

Sincerely,

James R. Koury

James R. Koury

JRK/bc
cc: D. C. Sitler

OLD SARATOGA SQUARE, 443 BROADWAY, SARATOGA SPRINGS, NY 12866, TELEPHONE 518/587-2550, TELEFAX 518/587-2564

SARATOGA SPRINGS, BUFFALO, AND NEW YORK

THE SARATOGA ASSOCIATES

LANDSCAPE ARCHITECTS, ARCHITECTS, AND PLANNERS

VIA CERFTIFIED MAIL

April 11, 1990

Mr. Woody Herman
3113 Niagara Falls Boulevard
North Tonawanda, NY

Dear Mr. Herman:

Re: Love Canal Area Master Plan
TSA Project #89031.17P

In a telephone conversation on June 7, 1989, I spoke with you regarding water service to the Love Canal EDA. I would like to verify this information for our written records.

You had previously stated that the Town of Wheatfield maintains water service to 102nd Street (odd number) and 103rd Street. Also, 102nd Street is serviced by an 8 inch main running the full length of the street. However, the line only services one house; all other homes were disconnected at the main line.

If the above information is incorrect, please respond in written form within three (3) days of receipt of this letter. If no changes are required, there is no need to respond.

Thank you very much for your time and effort in this matter.

Sincerely,

James R. Koury

James R. Koury

JRK/bc
cc: D. C. Sitler

OLD SARATOGA SQUARE, 443 BROADWAY, SARATOGA SPRINGS, NY 12866, TELEPHONE 518/587-2550, TELEFAX 518/587-2564

SARATOGA SPRINGS, BUFFALO, AND NEW YORK

THE SARATOGA ASSOCIATES

LANDSCAPE ARCHITECTS, ARCHITECTS, AND PLANNERS

VIA CERFTIFIED MAIL

April 11, 1990

Superintendent Ferra
City of Niagara Falls Police Department
520 Hyde Park Boulevard
Niagara Falls, NY 14302

Dear Superintendent Ferra:

Re: Love Canal Area Master Plan
TSA Project #89031.17P

In a telephone conversation with a representative of the Police Department on June 19, 1989, I spoke of the adequacy of the police protection services in the Love Canal EDA upon resettlement and redevelopment of the area. I would like to verify this for our written records.

Your reprsentative had stated that no problems in servicing a rehabilitated Love Canal are foreseen. Police protection for the Love Canal EDA is derived from the main station house located at 520 Hyde Park Boulevard. There are no individual precinct houses.

If the above information is incorrect, please notify this office within three (3) days of receipt of this letter. If no changes or modifications are required, there is no need to respond.

Thank you very much for your time and effort in this matter.

Sincerely,

James R. Koury

James R. Koury

JRK/bc
cc: D. C. Sitler

OLD SARATOGA SQUARE, 443 BROADWAY, SARATOGA SPRINGS, NY 12866, TELEPHONE 518/587-2550, TELEFAX 518/587-2564

SARATOGA SPRINGS, BUFFALO, AND NEW YORK

THE SARATOGA ASSOCIATES

LANDSCAPE ARCHITECTS, ARCHITECTS, AND PLANNERS

VIA CERFTIFIED MAIL

April 11, 1990

Director
Niagara Falls Public Library
1425 Main Street
Niagara Falls, NY 14304

Dear Director:

Re: Love Canal Area Master Plan
TSA Project #89031.17P

In a telephone conversation on August 16, 1989, I spoke with you regarding the location of library facilities in the City of Niagara Falls. I would like to verify this information for our written records.

You had stated that only one (1) satellite office exists and is located at 87th Street and Bufffalo Avenue.

If the above information is incorrect, please notify this office within three (3) days of receipt of this letter. If no changes or modifications are necessary, there is no need to respond.

Thank you very much for your time and effort in this matter.

Sincerely,

James R. Koury

James R. Koury

JRK/bc
cc: D. C. Sitler

OLD SARATOGA SQUARE, 443 BROADWAY, SARATOGA SPRINGS, NY 12866, TELEPHONE 518/587-2550, TELEFAX 518/587-2564

SARATOGA SPRINGS, BUFFALO, AND NEW YORK

THE SARATOGA ASSOCIATES

LANDSCAPE ARCHITECTS, ARCHITECTS, AND PLANNERS

VIA CERFTIFIED MAIL

April 11, 1990

Mr. William Hug
Administrator for Research, Planning
and Education
City of Niagara Falls School District
607 Walnut Street
Niagara Falls, NY 14304

Dear Mr. Hug:

Re: Love Canal Area Master Plan
TSA Project #89031.17P

In a telephone conversation on August 16, 1989, I spoke with you regarding the capacity of the City of Niagara Falls School District to absorb new student population as a result of the resettlement of the Love Canal EDA. I would like to verify this information for our written records.

You had stated that the elementary schools have a residual capacity for 25 to 50 more students, with the downtown schools being closer to 70-100 students. The elementary schools serve grades 1 through 5.

The middle schools serve grades 6 through 8. Presently, there is an overutilization of schools and they are at or above capacity.

The senior high schools are also at or above capacity, due to the closing of Trott Vocational School. Activities at Trott were shifted to two (2) remaining high schools, of which many went to LaSalle High School.

The Saratoga Associates has the updated school projections recently completed by the school district.

Furthermore, the school tax rate is $14,95 per $1,000 of assessed valuation for homestead property, and $31.72 per $1,000 of assessed valuation for non-homestead property.

If any of the above information is incorrect, please notify this office within three (3) days of receipt of this letter. If no changes or modifications are required, there is no need to respond.

Sincerely,

James R. Koury

James R. Koury
JRK/bc
cc: D. C. Sitler

OLD SARATOGA SQUARE, 443 BROADWAY, SARATOGA SPRINGS, NY 12866, TELEPHONE 518/587-2550, TELEFAX 518/587-2564

SARATOGA SPRINGS, BUFFALO, AND NEW YORK

MAY 14 1990
SARATOGA ASSOCIATES

SCHOOL DISTRICT OF THE CITY OF NIAGARA FALLS, NEW YORK
Administration Building 607 Walnut Avenue Niagara Falls, NY 14301

William L. Sdao
Superintendent of Schools

Carmen A. Granto
Deputy Superintendent

May 10, 1990

Mr. James R. Koury
The Saratoga Associates
Old Saratoga Square
443 Broadway
Saratoga Springs, New York 12866

Dear Mr. Koury:

The information you wished to confirm in your letter of April 11, 1990 is essentially correct. The only update we can provide is that relating to the three smallest downtown schools of Hyde Park, Maple Avenue and H.J. Kalfas. For planning purposes we recommend you consider these schools at capacity. Due to projected enrollment and possible program changes these buildings are not anticipated to have any meaningful additional room for growth. However, the larger schools of Niagara Street and H.F. Abate could accomodate 70-100 more students if needed.

If you have any further question or concerns please feel free to contact me at (716) 286-4257.

Sincerely,

Patrick A. O'Keefe

Patrick A. O'Keefe
Supervisor of Instruction

cc: Mr. Sdao
Mr. Granto

Cynthia A. Bianco
Supervisor of Instructional Program Services

Barbara A. Bundy
Supervisor of Elementary Education

Patrick A. O'Keefe
Supervisor of Secondary Education

THE SARATOGA ASSOCIATES

LANDSCAPE ARCHITECTS, ARCHITECTS, AND PLANNERS

VIA CERFTIFIED MAIL

April 11, 1990

Dr. Radin
Superintendent of schools
Niagara-Wheatfield School District
2794 Sounders Stttlement Road
Sanborn, NY 14304

Dear Dr. Radin:

Re: Love Canal Area Master Plan
TSA Project #89031.17P

In a telephone conversation on June 19, 1989, I spoke with you regarding the project student enrollments and capacity of the schools in the Niagara-Wheatfield School District to absorb new students from a resettled Love Canal EDA. I would like to verify this information for our written records.

You had stated that the Erie Niagara Regional Planning Board had conducted an enrollment projection study which identified a .48 multiplier per dwelling unit. However, the Niagara-Wheatfield School District was contesting this result, and that a .80 multiplier was more realistic. Also, you stated that the Errick Road Elementary School was overcrowded and that a new addition was being planned to rectify this situation. Overall, no problems are foreseen if new students were added to the district from the Love Canal EDA.

The school tax rate for the Town of Wheatfield is $15.32 per $1,000 of assessed valuation for homestead property, and $23,98 per $1,000 of assessed valuation for non-homested property.

If the above information is incorrect, please notify this office within three (3) days of receipt of this letter. If no changes or modifications are required, there is no need to respond.

Furthermore, if a student enrollment projection study has recently been accepted by the district, The Saratoga Associates would like very much to obtain a copy for use in revising the Love Canal Area Master Plan.

Thank you very much for your time and effort in this matter.

Sincerely,

James R. Koury

James R. Koury

JRK/bc
cc: D. C. Sitler

OLD SARATOGA SQUARE, 443 BROADWAY, SARATOGA SPRINGS, NY 12866, TELEPHONE 518/587-2550, TELEFAX 518/587-2564

SARATOGA SPRINGS, BUFFALO, AND NEW YORK

THE SARATOGA ASSOCIATES

LANDSCAPE ARCHITECTS, ARCHITECTS, AND PLANNERS

VIA CERFTIFIED MAIL

April 11, 1990

Fire Chief
City of Niagara Falls Fire Department
Public Safety Building
Niagara Falls, NY 14304

Dear Chief:

Re: Love Canal Area Master Plan
TSA Project #89031.17P

In a telephone conversation on June 29, 1989, I spoke with you regarding fire protection services for the Love Canal EDA. I would like to verify this information for our written records.

You had stated that two (2) fire stations service the Love Canal EDA. These include the Military Road Firehouse at Military Road and Boullier Avenue, and the 72nd Street and Frontier Avenue fire house.

When both of the above are out on call, trucks are then moved from the north end fire stations. Two (2) engines and a truck are sent to every call. When back-up is needed, a mutual aid agreement exists with the county. The nearest fire station which is called upon when back-up is required is the Frontier Fire House in the Town of Wheatfield.

No service problems existed at the Love Canal prior to the Love Canal problem, and more are expected after the area is rehabilitated/redeveloped.

If any of the above information is incorrect, please notify this office within three (3) days of receipt of this letter. If no changes are required, there is no need to respond.

Sincerely,

James R. Koury

James R. Koury

JRK/bc
cc: D. C. Sitler

OLD SARATOGA SQUARE, 443 BROADWAY, SARATOGA SPRINGS, NY 12866, TELEPHONE 518/587-2550, TELEFAX 518/587-2564

SARATOGA SPRINGS, BUFFALO, AND NEW YORK

THE SARATOGA ASSOCIATES

LANDSCAPE ARCHITECTS, ARCHITECTS, AND PLANNERS

VIA CERFTIFIED MAIL

April 11, 1990

Mr. Dominic Penali
Assessor
City of Niagara Falls
City Hall
Niagara Falls, NY 14304

Dear Mr. Penali:

Re: Love Canal Area Master Plan
TSA Project #89031.17P

In telephone conversations on June 17 and June 28, 1989, I spoke with you regarding tax rates in the City of Niagara Falls and the impact on the City of Niagara Falls from the loss of tax dollars from the Love Canal EDA. I would like to verify this information for our written records.

You had previously stated that the tax rate for the City of Niagara Falls for homestead property is $39.42 per $1,000 of assessed valuation. For non-homestead property, which includes commercial and vacant land, the rate is $70.94 per $1,000 of assessed valuation.

In regard to the loss of tax base in the City of Niagara Falls due to the Love Canal, you had stated that there was a very large impact on the city. The total assessment dollars lost totalled approximately $8 million. However, during the years 1979, 1980, and 1981, taxes were figures on fractional value. From 1982 to the prsent, taxes were figured on full value. A poriton of the above $8 million reflects years at fractional assessed value. If this figure reflected full vlaue during the years 1979-81, the loss of assessed value would be closer to $20 million. The total tax base for the City of Niagara Falls is approximatley $900 million.

Furthermore, existing residents remaining at the Love Canal EDA receive a 25 percent exemption in property values. Taxes are then figured on reduced assessment valuation.

If the above information is incorrect, please respond in written form within three (3) days of receipt of this letter. If no changes are required, there is no need to respond. Thank you very much for your time and effort in this matter.

Sincerely,

James R. Koury

JRK/bc
cc: D. C. Sitler

OLD SARATOGA SQUARE, 443 BROADWAY, SARATOGA SPRINGS, NY 12866, TELEPHONE 518/587-2550, TELEFAX 518/587-2564

SARATOGA SPRINGS, BUFFALO, AND NEW YORK

THE SARATOGA ASSOCIATES

LANDSCAPE ARCHITECTS, ARCHITECTS, AND PLANNERS

VIA CERFTIFIED MAIL

April 11, 1990

Ms. Diette Palmer
Town Clerk
Town of Wheatfield
2800 Church Road
North Tonawanda, NY

Dear Ms. Palmer:

Re: Love Canal Area Master Plan
TSA Project #89031.17P

In telephone conversations on June 19 and August 16, 1989, I spoke with you regarding fire protection services, police services, library facilities, and postal services in the Town of Wheatfield. I would like to verify this information for our written records.

You had provided me with the following information:

Fire Services: There are five (5) districts in the Town of Wheatfield. The fire company servicing the portion of the Love Canal EDA is the Frontier Fire Company. All fire districts are manned with volunteers.

Police Services: The Town of Wheatfield is serviced by the Niagara County Sheriff's office. The Town of Wheatfield does not maintain its own policy protection force.

Library Facilities: The Town of Wheatfield doe not have any library facilities. The town contracts with the Sanborn-Pekin Library for services.

Postal Services: There are no postal offices in the Town of Wheatfield. The town utilizes postal facilities located in North Tonawanda, Niagara Falls, Sanborn and Lockport.

If any of the above information is incorrect, please respond in written form within three (3) days of receipt of this letter. If no changes are required, there is no need to respond.

Thank you very much for your time and effort in this matter.

Sincerely,

James R. Koury

James R. Koury

JRK/bc
cc: D. C. Sitler

OLD SARATOGA SQUARE, 143 BROADWAY, SARATOGA SPRINGS, NY 12866, TELEPHONE 518/587-2550, TELEFAX 518/587-2564

SARATOGA SPRINGS, BUFFALO, AND NEW YORK

THE SARATOGA ASSOCIATES

LANDSCAPE ARCHITECTS, ARCHITECTS, AND PLANNERS

VIA CERFTIFIED MAIL

April 11, 1990

Recreation Office
City of Niagara Falls
Hyde Park
Niagara Falls, NY 14304

Attention: Marilyn

Dear Marilyn:

Re: Love Canal Area Master Plan
TSA Project #89031.17P

In telephone conversations on June 19 and August 16, 1989, I spoke with you regarding park facilities in the City of Niagara Falls, especially near the Love Canal EDA. I would to verify this information for our written records.

You had stated that two (2) parks/recreation areas were located in proximity to the Love Canal EDA. These include Griffon Park and the 91st Street Recreation Area. Griffon Park has been closed for two (2) years due to contamination from the adjacent 102nd Street landfill. Adjoining the park are two (2) ball diamonds which are closed, as well. However, the boat docks are open and utilized. The 91st Street Recreation Area contains a pool and two (2) softball diamonds.

If any of the above information is incorrect, please respond within three (3) days from receipt of this letter. If no changes are necessary, there is no need to respond.

Thank you very much for your time and effort in this matter.

Sincerely,

James R. Koury

James R. Koury

JRK/bc
cc: D. C. Sitler

OLD SARATOGA SQUARE, 443 BROADWAY, SARATOGA SPRINGS, NY 12866, TELEPHONE 518/587-2550, TELEFAX 518/587-2564

SARATOGA SPRINGS, BUFFALO, AND NEW YORK

THE SARATOGA ASSOCIATES

LANDSCAPE ARCHITECTS, ARCHITECTS, AND PLANNERS

VIA CERFTIFIED MAIL

April 11, 1990

Ms. Pat Eckel
Buffalo Society of Natural Sciences
Huboldt Parkway
Buffalo, NY 14211

Dear Ms. Eckel:

Re: Love Canal Area Master Plan
TSA Project #89031.17P

In telephone conversations on October 31, 1989 and February 28, 1990, I spoke with you regarding the Sky Blue Aster and its location in Western New York. I would like to verify this information for our written records.

Enclosed are copies of telecommunications which summarize our conversations. If any of the information contained in these telecoms is incorrect, please notify this office within three (3) days of receipt of this letter.

Thank you very much for your time and effort in this matter.

Sincerely,

James R. Koury

James R. Koury

JRK/bc
cc: D. C. Sitler

Enclosures

OLD SARATOGA SQUARE, 443 BROADWAY, SARATOGA SPRINGS, NY 12866, TELEPHONE 518/587-2550, TELEFAX 518/587-2564

SARATOGA SPRINGS, BUFFALO, AND NEW YORK

cc: DCS
DFB
JRK
file orig.

THE SARATOGA ASSOCIATES **TELECOM**

PROJECT: Love Canal 89030.1 P

TO: Pat Eckel, Buffalo Museum of Science

FROM: JRK

DATE: 10/31/89

CONTENTS: Re: Aster Study

Study area encompassed section of EDA bounded by Williams Road (East), Colvin Blvd (North), 102nd/12- Street (West) and LaSalle Expressway (South).

Rare-ected plant (Closed Gentian) species is not located within Class II wetland. Plant species is located immediately North of LaSalle Expressway and ea of 103rd Street. I do not believe it is within EDA boundary. Called Pat back to expand further but she had left for the day. Will try again tomorrow (11/1).

She suggested possible mitigation - be to have all population or portion of moved to an alternative location SO as not to destroy. Might want to Check with DEC. called - man in charge of - not in office 'til 11/5/8

Also, legislation is pending which will group Protected endangered Plant Species together. Need to call

cc: DCS
DFB
JRK
File Orig

THE SARATOGA ASSOCIATES **TELECOM** #89031

PROJECT: Love Canal FGEIS
#89031.17 P

TO: Pat Eckel, Bflo. Museum of Scienc

FROM: JRK

DATE: 2/20/90

CONTENTS:

(1.) Pat is a consultant for the Bflo. Museum of Science. Not on salary with museum, but she has an office at museum. She is a research fellow.

(2) Chemicals had no impact on disappearance of Sky Blue Aster.

Very rare plant. Closest reporting Station is located at DeVoe Woods across from Whirlpool State Park.

Also, Love Canal area not a typical habitat - too wet.

Sky Blue Aster Probably never existed @ Love Canal. even

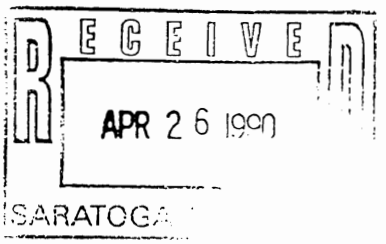
Pat up!! Questioned why existence of Sky Blue Aster was key

BUFFALO SOCIETY OF NATURAL SCIENCES

BUFFALO MUSEUM OF SCIENCE AND TIFFT NATURE PRESERVE

1020 HUMBOLDT PARKWAY, BUFFALO, NEW YORK 14211-1293 (716) 896-5200

April 25, 1990
Clinton Herbarium



James R. Koury
Old Saratoga Square
443 Broadway
Saratoga Springs, NY 12866

Dear Mr. Koury:

I am sorry to be late in responding to your letter of April 11, 1990, which came certified mail. The report of our telephone conversations is essentially correct. On the note dated 2/28/90 I would like to say that I doubt if anyone is competent to say whether chemicals had any impact on the disappearance in the State of New York of old reported stations of Sky-blue Aster or any other rare plant for that matter. It is a moot point regarding the impact of chemicals on a hypothesized station of this species in the Love Canal area because there is no evidence of its ever occurring there. There are only two stations of this plant extant in New York State, I believe, according to conversations I have had with a man who has done field research on this question, although the Delmar office of the DEC would know of other localities. Habitat disturbance is probably the most likely cause of the disappearance of this species, rather than chemical stress.

Sincerely,

P.M.Eckel

THE SARATOGA ASSOCIATES

LANDSCAPE ARCHITECTS, ARCHITECTS, AND PLANNERS

VIA CERFTIFIED MAIL

April 11, 1990

Recreation Department
Town of Wheatfield
2800 Church Road
North Tonawanda, NY

Attention: Lucy

Dear Lucy:

Re: Love Canal Area Master Plan
TSA Project #89031.17P

In telephone conversations on June 19 and August 16, 1989, I spoke with you regarding park facilities in the Town of Wheatfield. I would like to verify this information for our written records.

You had previously stated that no park areas exist in close proximity to the Love Canal EDA. The nearest park areas are Riverfront Park located on River Road and Fairmount Park on Nash and Steig Roads. Also, you had identified other park areas and the extent to which they are used. These are identified on the attached Telecom.

If the above information is incorrect, please respond within three (3) days from receipt of this letter. If no changes are necessary, there is no need to respond.

Thank you very much for your time and effort in this matter.

Sincerely,

James R. Koury

James R. Koury

JRK/bc
cc: D. C. Sitler
Enclosure

OLD SARATOGA SQUARE, 443 BROADWAY, SARATOGA SPRINGS, NY 12866, TELEPHONE 518/587-2550, TELEFAX 518/587-2564

SARATOGA SPRINGS, BUFFALO, AND NEW YORK

cc: DCS
DFB
JRK
Fleorig

THE SARATOGA ASSOCIATES **TELECOM**

PROJECT: Love Canal 89031-1P

TO: Lucy, WF Recreation Dept.

FROM: JRK

DATE: 9/16/89

CONTENTS: Park Information - Town of W.F.

Total Acreage ≈ 65 acres

(1.) Fairmount Park - Nash & Steig Rd.
approximately 52 acres. Town's largest Park
Includes: 6 baseball diamonds, 4 tennis courts, 2 basketball courts, 1 soccer field, Horseshoe pits, pond for fishing - fish have to be thrown back, Tiny-to as well as children's playground, 30' x 40' training pool, Volleyball poles, 10 pavilio and ice skating Rink.

Heavy use

(2.) Six (6) satellite Parks - located at Fire Companies. lease lo for $1.00 from fire Cos. for park Town maintains all parks.

approx. 2 acres each
12 total

a) Adams Fire - Nash Rd.
- tennis court, basketball court, baseball, playground

Moderately Used

b) St. Johnsburg Fire Co. - Ward Rd.
- playground

c) Baisch Park - connecting Blvd.
- playground, baseball ◇, tennis court

d) Shawnee Fire Co. - Lockport Road
- playground, tennis courts, 2 baseball ◇'s.

e) American Legion Park - Ward Rd,
- Baseball ◇, tennis court, Playground

f) Summit Park Mall took park located where Ma is now. However, a new one is to be built on Ca

g.) River Rd. Memorial Park planning ste 1990 ope

RECEIVED
APR 20 1990
JRK
SARATOGA ASSOCIATES

Dear Sir:

Because your letter was to the attention of a phone clerk in our office who was on vacation, this was not opened until April 20. Further correspondence should be sent to Gloria Laviccia, Director of Parks + Rec.

I apologize for the time lapse.

G. L.

THE SARATOGA ASSOCIATES

LANDSCAPE ARCHITECTS, ARCHITECTS, AND PLANNERS

VIA CERFTIFIED MAIL

April 11, 1990

Recreation Department
Town of Wheatfield
2800 Church Road
North Tonawanda, NY

Attention: Lucy

Dear Lucy:

Re: Love Canal Area Master Plan
TSA Project #89031.17P

In telephone conversations on June 19 and August 16, 1989, I spoke with you regarding park facilities in the Town of Wheatfield. I would like to verify this information for our written records.

You had previously stated that no park areas exist in close proximity to the Love Canal EDA. The nearest park areas are Riverfront Park located on River Road and Fairmount Park on Nash and Steig Roads. Also, you had identified other park areas and the extent to which they are used. These are identified on the attached Telecom.

If the above information is incorrect, please respond within three (3) days from receipt of this letter. If no changes are necessary, there is no need to respond.

Thank you very much for your time and effort in this matter.

Sincerely,

James R. Koury

James R. Koury

JRK/bc
cc: D. C. Sitler
Enclosure

OLD SARATOGA SQUARE, 143 BROADWAY, SARATOGA SPRINGS, NY 12866, TELEPHONE 518/587-2550, TELEFAX 518/587-2564

SARATOGA SPRINGS, BUFFALO, AND NEW YORK

cc: DCS
DFB
JRK
File orig

THE SARATOGA ASSOCIATES **TELECOM**

PROJECT: Love Canal 89031-1P

TO: Lucy, WF Recreation Dept.

FROM: JRK

DATE: 8/16/89

CONTENTS: Park Information - Town of W.F.

Total Acreage ~~105~~ 57 acres

(1.) Fairmount Park - Nash & Steig Rd.
approximately 52 acres. Town's largest Park
Includes: 6 baseball diamonds, 4 tennis courts, 2 basketball courts, 1 soccer field, 4 horseshoe pits, pond for fishing - fish have to be thrown back, Tiny-tot as well as children's playground, 30' x 40' 3' deep training pool, Volleyball ~~courts~~, 10 pavilion and ice skating Rink.

Heavy use

(2.) Six (6) satellite Parks - located at Fire Companies. ~~for $1.00 from Fire Cos. for park Town maintains all parks~~ no cost lease-la

approx. ~~2 acres each~~ 12 total

a) Adams Fire - Nash Rd.
- tennis court, basketball court, baseball, playground

moderately Used

b) St. Johnsburg Fire Co. - Ward Rd.
- playground

c) Baisch Park - connecting Blvd.
- playground, baseball ◇, tennis court

d) Shawnee Fire Co. - Lockport Road
- playground, tennis courts, 2 baseball ◇'s.

e) American Legion Park - Ward Rd.
- Baseball ◇, tennis court, playground

f) Summit Park Mall took park located where Mal is now. However, a new one is to be built ~~Brecti~~

g.) River Rd. memorial Park - planning sta 1990 oper

APPENDIX M:

GROWTH INDUCING ASPECTS SUPPORT DATA

DIRECT AND INDIRECT ECONOMIC EFFECTS ON NIAGARA FALLS FROM LOVE CANAL RESETTLEMENT

The impact of the resettlement will have both a direct and an indirect effect on total income for the City of Niagara Falls and the Town of Wheatfield. The principal direct effects--on water and sewer and the school system--have been documented above. These effects result increases in population and employment approximating 2,600 and 2,400, respectively. This analysis estimates the direct and indirect effects on community **income** resulting from the resettlement.

Direct Income Effect for Niagara Falls

The direct income impact of the resettlement on Niagara Falls is estimated to be between $63 million and $76 million[1]. This estimate is based on the assumption that the total sum of new income to the community will be less than the sum of new resident income and the income of workers at the light industrial, office and commercial developments. Justification for this estimate follows.

The direct increase in income from the resettlement will be the result of two different influences: **First**, an increase in the housing stock within the Niagara Falls community will likely offset some of the current outmigration from the metropolitan area, increasing the total population. **Second**, the light industrial, commercial and office developments will increase the number of total jobs in the metropolitan area, either reducing the unemployment rate, attracting new workers from outside the community or a combination of both.

The **net** economic effect of the increased population and increased employment will likely be less than the sum of each change figured separately. For the resettlement to increase total income--thus total spending--in Niagara Falls, it must be a result of **net new employment** in the community. The benefit of the increased population comes from increased spending on the part of new residents. If the economy is to benefit, this spending must represent new dollars for the community, not simply a shift in residency for people already working in Niagara Falls.[2] For

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[1]See table below.

[2]This is not to suggest that the resettlement only has an effect if the residents are new Niagara Falls citizens, but that if the resettlement fully displaces housing presently occupied, then

a population increase to benefit the community, we must assume that the new residents bring with them new spending power for the community, i.e., that they have jobs or some other source of income that is new to Niagara Falls.

The largest increase in total community income would occur if each of the 1,086 new households in the resettled Love Canal neighborhood represented new spending power in the community--that is, each household represented at least one new job (or transfer payments such as a private pension, social security payment, unemployment benefit or welfare payment). Similarly, the enlarged employment base--the roughly 2,400 new jobs created by the light industrial, commercial and office developments--will have an effect only if these jobs also represent new income for the community. Thus, if the households in the resettled area represent a net increase in population to Niagara Falls (with, on balance, new sources of income) and if the 2,400 jobs are also new to the community, then the resettlement would generate almost 3,500 new jobs. The total direct impact on the City of Niagara Falls would be estimated by multiplying this number of new jobs by the average wage of Niagara Falls workers.

Such assumptions are unrealistic, however. **First**, given its relatively low price, the new housing will likely increase the vacancy rate for housing in other portions of the metropolitan area, at least to some degree. If residents simply move from other parts of the City to Love Canal, then their spending, too, is simply relocated. Estimating the share of housing that will, on net, represent new residents is very difficult. Bureau of the Census data from March 1988 estimates that 59% of all moving families will move within the same county.[3] We would expect, therefore, that the initial effect on population would be slight. The initial effect would likely be on the vacancy rate within the community at large. Overall population is determined by other factors. **Second**, to the extent that some of the new residents of the resettled Love Canal neighborhood take jobs in the new light industrial, commercial or office developments, they would be counted twice in the 3,500 noted above. **Third**, some of the new jobs will have the net effect of reducing the unemployment rate within Niagara Falls, not drawing new workers to

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the effect will be zero.

[3]U.S. Department of Commerce, Bureau of the Census, Current Population Reports, *Household and Family Characteristics*. Report P-20, #437, March 1988.

the community. While this would be very good for the community and the new jobholders, it would diminish the estimate of economic benefit by the amount of the lost transfer payment. Such an result is likely--while the unemployment rate for the Buffalo metropolitan area fell to 6.0% January 1990[4] (from 7.4% one year earlier), it is still higher than the state average of 5.5%.

Indirect Economic Effect on Niagara Falls

The indirect income effect of the Love Canal resettlement is estimated to be between $32 million and $38 million[5]. This is calculated by using an output multiplier with the estimated direct the growth induced by the direct income increase discussed above. The procedure used for estimation of the **multiplier** follows.

The estimate of indirect effects induced by new income in the community is based on the extent to which new spending in the community becomes recirculated within Niagara Falls. Were all income spent and re-spent within Niagara Falls, the effect of new spending on the economy would be very large. The indirect impact is, however, reduced by several "leakages:" **First**, some portion of new income is typically saved. To the extent that these savings are invested outside the community or simply taken out of circulation, they leave the flow of spending on goods and services. **Second**, federal and state income tax deductions and forced savings for social security reduce the amount wage earners can spend locally. **Third**, consumers spend some of their income outside the community, whether through a mail order catalog or by shopping while physically outside the City. **Finally**, suppliers within the community typically purchase some portion of their supplies from other parts of the state, country or world. As a result, only a fraction of local spending becomes local income because of the small level of value added.[6]

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[4]*New York State Unemployment Trends*, NYS Department of Labor, March 1990.

[5]See table below.

[6]The best example is an auto dealership. While the total sales of an automobile dealership may seem quite large, its impact on the community is much less because of the large sums of money paid to auto manufacturers. Only a very small share of the dealer's receipts becomes local income.

The total output multiplier is a combination of these factors. The largest value for the multiplier occurs when consumers spend most of their income locally and where local suppliers purchase most of their inputs locally. Were consumers to spend 90% of their income locally and 90% of business receipts were to become local income, the multiplier would be 5.3. Thus one dollar of new income would eventually result in a total change in community income of $5.30. These numbers are unreasonably high, however. In 1989, Americans spent approximately 78% of their gross personal income on personal consumption. If 80% of the remainder is spent locally, then the proportion of income spent locally should be approximately 62%. The share of local spending that becomes local income depends partly on the share of sales revenue that is paid to employees. In 1989, 67% of the total receipts of non-financial corporate business in the United States was paid out in employee compensation.[7] Were a large share of this compensation to be paid to local workers and if some of spending on inputs were to be spent locally, then we might expect as much as 70% of local spending to become local income. This varies dramatically with the size of community. A large, integrated metropolitan community like the Buffalo-Niagara Falls CMSA (Consolidated Metropolitan Statistical Area) is likely to have a larger multiplier. With these assumptions, the multiplier would be approximately 1.8, which is still much lower than the upper limit multiplier described above.

Two final modifications are in order. In theory, the multiplier represents the increase in "non-basic" business activity that is likely to follow an increase in economic activity in a "basic" sector.[8] To the extent that the non-basic industries (principally wholesale, retail and service) have excess capacity, the induced growth from new income will be reduced. Given the substantial loss in population experienced in the Buffalo-Niagara Falls CMSA, the non-basic sector may have excess capacity in the non-basic sector, thus urging use of a lower multiplier.

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[7]Council of Economic Advisors, *Economic Report of the President*, February 1990.

[8]Economic base theory suggests that the basic industries in an economy are those that bring new income into the community from outside. These industries are those that sell products to other communities and regions. The non-basic industries support these exporting industries. The size of the non-basic sector is directly tied to the size of the export sector. Induced growth is a result of expansion in the non-basic sector after an increase in basic economic activity. The multiplier measures the sum of the new basic activity and this expansion in the non-basic sector.

A second modification is necessary if we desire to apply the multiplier to Niagara Falls only, rather than to the entire CMSA. The economic relationship between Buffalo and Niagara Falls is quite close. If we are only concerned with Niagara Falls, then we must assume some considerable leakage from Niagara Falls to Buffalo, further reducing the size of the multiplier. For the purpose of this analysis, we have employed a multiplier of 1.5.

Public Service Impact of Direct and Indirect Income

Increases in population, employment and income will have only marginal effects on the costs of providing most public services. The City of Niagara Falls has suffered substantial out-migration in recent years. Between 1980 and 1987, Niagara County is estimated to have lost 11,139 residents, almost 5% of its population. The City of Niagara Falls accounted for a large share of the decline, losing 6,840 residents--fully 9.6% of its population--between 1980 and 1986 (1987 estimates are as yet unavailable for the City of Niagara Falls)[9]. This loss of population has forced the City to spread the capital cost of public services over a shrinking tax base. Furthermore, the capital facilities maintained by the City, having once supported a substantially larger population, now have considerable excess capacity. For example, while the total demand on the water supply system of the City from the resettlement is estimated at just less than 400,000 gallons per day, the City presently has excess capacity of 10 million gallons per day. Similarly, while the resettlement will increase the demand for wastewater treatment services by about 330,000 gallons per day, the City has excess capacity of about 8 million gallons per day.[10]

The impact on the school system will be more substantial. With declining enrollments during the early part of the decade, school buildings were closed. The existing Niagara Falls schools presently operates at capacity. Additional capacity is required and will be accomplished by re-opening the 93rd Street School.

Given the excess capacity likely in most service areas (the school district being the principal exception) and the relatively small predicted induced growth, the Love Canal resettlement is not likely to burden the City of Niagara Falls unduly. A more detailed fiscal

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[9]U.S. Bureau of the Census, Current Population Reports and the Federal-State Cooperative Program for Population Estimates.

[10]City of Niagara Falls, City Engineer's Office.

impact assessment would examine the status of city services more thoroughly and could estimate with greater precision the relationship between tax revenue (as described in the main report) and service cost from the resettlement. This preliminary analysis suggests that tax revenue is likely to exceed the cost of additional service provision.

Estimating Direct and Indirect Output Effects
Love Canal Resettlement

POTENTIAL INCOME EFFECT OF POPULATION, EMPLOYMENT INCREASE

Estimated Per Capita Income: New Residents

Per Capita Income 1990 (est)	Number Residents	Projected Income
$10,934	2,656	$29,040,375

Estimated Earnings: New Employees

Annual 1990 Earnings (est)	Number of New Jobs	Projected Annual Earnings
$28,547	2,398	$68,456,857

MAXIMUM THEORETICAL INCREASE IN INCOME $2,339,933,581

NOTES

1. Per capita income estimate is based on the 1985 per capita income estimates released by the Census Bureau in Current Population Reports. This has been estimated for 1990 using the change in average hourly earnings data reported by U.S. Department of Labor, Bureau of Labor Statistics.
2. Annual earnings are estimated from weekly earnings data reported by U.S. Department of Labor, Bureau of Labor Statistics.

Estimating Direct and Indirect Output Effects
Love Canal Resettlement

ADJUSTED INCOME ESTIMATE--OPTIMISTIC

Assumptions:

1. 41% of resettled housing represents a net increase in population. Census Bureau reports in 1988 that 59% of families who moved in their sample moved within the same county. This is optimistic for a community with a recent history of net outmigration.
2. 20% of the new income from residents is double counted in the estimate of earnings from industrial development.
3. 10% of the net, new jobs created by the development represent a reduction in unemployment, thus a loss in transfers from outside the region.

Resident Income Adjustments	$29,040,375
less 59%	$17,133,822
less 20%	$2,381,311
Remainder	$9,525,243
New Employment Adjustments	$68,456,857
less 266 jobs x $9,000 transfer	$2,385,000
Remainder	$66,071,857
TOTAL ESTIMATED INCOME (ADJUSTED)	$75,597,100
INDUCED GROWTH ESTIMATE (MULTIPLIER OF 1.5)	$37,798,550
TOTAL IMPACT--DIRECT + INDIRECT	$113,395,650

Estimating Direct and Indirect Output Effects
Love Canal Resettlement

ADJUSTED INCOME ESTIMATE--PESSIMISTIC

Assumptions:
1. 20% of resettled housing represents a net increase in population.
2. 40% of the resident income is double counted in the estimate of earnings from industrial development.
3. 40% of the net, new jobs created by the development represent a reduction in unemployment, thus a loss in transfers from outside the region.

Resident Income Adjustments	$29,040,375
less 80%	$23,232,300
less 40%	$2,323,230
Remainder	$3,484,845
New Employment Adjustments	$68,456,857
less 959 jobs x $9,000 transfer	$8,631,000
Remainder	$59,825,857
TOTAL ESTIMATED INCOME (ADJUSTED)	$63,310,702
INDUCED GROWTH ESTIMATE (MULTIPLIER OF 1.5)	$31,655,351
TOTAL IMPACT--DIRECT + INDIRECT	$94,966,053

APPENDIX N:

LCARA HOUSING CONDITION/VALUATION DATA

GUIDELINES FOR UNIT CONDITION SURVEY

The following are the general guidelines for the ranking of LCARA homes by condition:

10. Excellent condition - no major repairs required. May have a few minor items which require repair or replacement. Less than $1,000 to place on the market.

9. Very good condition - no major repairs. Some minor repairs or replacements; replace some broken windows, new hot water tank etc. Less than $2,500 to repair.

8. Good condition - moderate repairs required. No significant structural damage; many broken windows, perhaps limited water damage. Less than $5,000 to repair.

7. Fair condition - may have a major component requiring replacement, i.e. new kitchen or bath, major drywall replacement. Typical cost $10,000 to repair.

6. Fair condition - one major and many minor repairs required. Up to $15,000 to repair.

5. Moderately deteriorated - two major components require replacement, i.e. both kitchen and bath or walls or floors. Could include structural damage. Typical repairs $20-25,000.

4. Deteriorated - extensive repairs required to most major building components. Could include significant structural damage. Typical repairs $25-30,000.

3. Poor condition - gut rehab potential but no major components presently usable. Typical repairs $40,000.

2. Very poor condition - slight gut rehab potential. Major building components may be structurally sound but require extreme repair. Typical repair $45,000.

1. Beyond hope - no significant value. Structural damage, all major building components have no value. Ready for demolition.

I:UNIT-CON.SVY
JEC/sjl 5-11-90

Name	Code	Street	House Number	Purchase date	Purchase price	Demolition	Cond.	Hab.	Present value
Abraas	FRES	100th	765	7/16/82	34,000.00		5	n	17,000.00
Atwood	FRES	100th	707	12/03/80	33,500.00		1	n	3,350.00
Betton	FRES	100th	735	5/22/81	37,000.00		4	n	14,800.00
Daniel	FRES	100th	723	2/23/81	29,500.00		3	n	8,850.00
Dia Paul	FRES	100th	629	4/03/81	32,500.00		1	n	3,250.00
Fortin	FRES	100th	731	8/28/81	32,500.00		4	n	13,000.00
Gilmore	FRES	100th	671	11/25/81	36,000.00		2	n	7,200.00
Grenzy	FRES	100th	793	12/15/80	29,000.00		1	n	2,900.00
Jaruszaucus	FRES	100th	453	2/20/81	37,500.00		3	n	11,250.00
Litten	FRES	100th	719	11/19/80	40,000.00		3	n	12,000.00
Maikranz	FRES	100th	753	9/04/81	32,000.00		6	n	19,200.00
McCabe	FRES	100th	499	1/30/81	30,500.00		2	n	6,100.00
Nuzun	FRES	100th	465	1/05/81	38,000.00		3	n	11,400.00
Retton	FRES	100th	787	11/19/80	26,500.00		2	n	5,300.00
Rorve	FRES	100th	489	10/16/81	29,000.00		1	n	2,900.00
Shawers	FRES	100th	711	7/24/81	27,000.00		2	n	5,400.00
Struzik	FRES	100th	781	4/03/81	28,000.00		4	n	11,200.00
Tauter	FRES	100th	775	3/27/81	27,000.00		5	n	13,500.00
Williams	FRES	100th	727	2/23/81	31,000.00		4	n	12,400.00
Wojtorucz	FRES	100th	631	1/23/81	33,500.00		1	n	3,350.00
Zawacki	FRES	100th	759	6/22/81	35,000.00		4	n	14,000.00
Zimmerman	FRES	100th	419	12/12/80	30,000.00		2	n	6,000.00
Aderman	FRES	101st	722	11/24/80	35,000.00		3	n	10,500.00
Aul	FRES	101st	499	12/03/80	34,000.00		2	n	6,800.00
Bagocus	FRES	101st	617	3/27/81	29,730.00		3	n	8,919.00
Bailey	FRES	101st	691	11/24/80	35,000.00		3	n	10,500.00
Ball	FRES	101st	759	12/16/80	39,000.00		6	n	23,400.00
Ball	FRES	101st	782	1/30/81	39,500.00		6	n	23,700.00
Bassett	FRES	101st	624	2/19/81	34,500.00		6	n	20,700.00
Brennan	FRES	101st	798	12/10/80	30,500.00		6	n	18,300.00
Bruso	FRES	101st	602	12/29/80	30,000.00		4	n	12,000.00
Caldwell	FRES	101st	685	3/13/81	34,000.00		1	n	3,400.00
Clark	FRES	101st	736	2/19/81	40,000.00		2	n	8,000.00
Clelano	FRES	101st	795	6/10/81	32,500.00		6	n	19,500.00
Cornell	FRES	101st	628	7/15/81	37,500.00		5	n	18,750.00
Cosimano	FRES	101st	705	3/06/81	47,000.00		1	n	4,700.00
TOTAL NO. PROPERTIES	36				1,207,230.00	0.00	3	AVE	393,519.00 TOTAL

Name	Code	Street	House Number	Purchase date	Purchase price	Demolition	Cond.	Hab.	Present value
Craner	FRES	101st	786	9/17/82	25,500.00		6	n	15,300.00
D'Angelo	FRES	101st	618	2/19/81	36,000.00		3	n	10,800.00
Durken	FRES	101st	794	7/24/81	34,000.00		2	n	6,800.00
Eliah	FRES	101st	479	10/12/84	17,000.00		2	n	3,400.00
Fetter	FRES	101st	493	12/16/80	26,500.00		2	n	5,300.00
Froman	FRES	101st	766	5/29/81	36,000.00		6	n	21,600.00
Gower	FRES	101st	450	1/17/85	18,000.00		2	n	3,600.00
Hohle	FRES	101st	451	3/05/82	43,000.00		6	n	25,800.00
Hy	FRES	101st	486	12/15/80	34,500.00		3	n	10,350.00
Iacovitti	FRES	101st	524	3/09/81	33,500.00		4	n	13,400.00
Iacovitti	FRES	101st	719	11/15/83	35,500.00		4	n	14,200.00
John	FRES	101st	711	5/22/81	31,950.00		3	n	9,585.00
Kline	FRES	101st	621	2/20/81	36,500.00		3	n	10,950.00
Knepp	FRES	101st	545	1/23/81	28,500.00		3	n	8,550.00
Kraus	FRES	101st	727	6/29/81	38,500.00		2	n	7,700.00
Kula	FRES	101st	532	1/07/81	34,500.00		3	n	10,350.00
Mackain	FRES	101st	668	12/04/80	20,000.00		2	n	4,000.00
Madej	FRES	101st	791	5/15/81	38,000.00		7	n	26,600.00
Masocco	FRES	101st	528	12/09/80	34,500.00		3	n	10,350.00
McCoulf	FRES	101st	799	12/18/80	37,000.00		3	n	11,100.00
Myers	FRES	101st	485	7/24/81	29,000.00		3	n	8,700.00
Novak	FRES	101st	735	3/13/81	33,000.00		2	n	6,600.00
Nowaryta	FRES	101st	723	9/04/81	34,000.00		3	n	10,200.00
Nugent	FRES	101st	427	12/18/80	42,000.00		1	n	4,200.00
Panepinto	FRES	101st	772	5/28/82	36,000.00		5	n	18,000.00
Perry	FRES	101st	778	12/18/81	33,500.00		3	n	10,050.00
Ponzi	FRES	101st	732	1/28/81	32,000.00		5	n	16,000.00
Rebon	FRES	101st	531	3/09/81	30,500.00		2	n	6,100.00
Reiter	FRES	101st	476	12/12/80	39,000.00		3	n	11,700.00
Sadley 101	FRES	101st	518	12/17/80	34,000.00		4	n	13,600.00
Samjlski	FRES	101st	490	6/22/81	22,500.00		3	n	6,750.00
Smith/Baliah	FRES	101st	760	12/19/80	33,500.00		4	n	13,400.00
Tamborski	FRES	101st	634	6/10/81	36,000.00		3	n	10,800.00
Truist	FRES	101st	753	12/16/80	26,000.00		2	n	5,200.00
Tubinis	FRES	101st	672	2/19/81	31,000.00		6	n	18,600.00
Tyler	FRES	101st	702	1/14/81	36,500.00		3	n	10,950.00
TOTAL NO. PROPERTIES	72				2,374,680.00	0.00	3	AVE	794,104.00 TOTAL

Name	Code	Street	House Number	Purchase date	Purchase price	Demolition	Cond.	Hab.	Present value
Velardo	FRES	101st	645	4/01/81	32,000.00		1	n	3,200.00
Walaszik	FRES	101st	701	5/22/81	37,000.00		3	n	11,100.00
Walker	FRES	101st	426	12/22/80	39,000.00		3	n	11,700.00
Altezir	FRES	102nd	448	12/11/80	34,500.00		1	n	3,450.00
Atwood	FRES	102nd	668	12/19/80	35,000.00		3	n	10,500.00
Baker	FRES	102nd	554	6/05/81	37,500.00		4	n	15,000.00
Basile	FRES	102nd	500	11/03/84	43,000.00		4	n	17,200.00
Burns	FRES	102nd	493	11/24/80	37,000.00		3	n	11,100.00
Burredge	FRES	102nd	672	12/09/80	32,000.00		2	n	6,400.00
Carr	FRES	102nd	775	7/01/81	32,500.00		2	n	6,500.00
Carune	FRES	102nd	451	7/16/81	31,500.00		2	n	6,300.00
Davey	FRES	102nd	756	4/29/83	29,000.00		3	n	8,700.00
Dundas	FRES	102nd	417	3/14/86	30,000.00		2	n	6,000.00
Garber	FRES	102nd	502	3/06/81	27,500.00		1	n	2,750.00
Gorman	FRES	102nd	658	7/10/81	37,000.00		1	n	3,700.00
Gullo	FRES	102nd	702	12/04/80	34,000.00		1	n	3,400.00
Hiller	FRES	102nd	521	4/30/82	35,000.00		1	n	3,500.00
Hillis	FRES	102nd	432	2/18/81	31,500.00		1	n	3,150.00
Hobbs	FRES	102nd	516	12/29/83	15,000.00		1	n	1,500.00
Hunter	FRES	102nd	644	12/29/80	28,000.00		3	n	8,400.00
Ireland	FRES	102nd	786	1/05/81	32,500.00		2	n	6,500.00
Konecki	FRES	102nd	456	1/26/81	48,000.00		1	n	4,800.00
Kreamer	FRES	102nd	706	4/03/81	37,500.00		2	n	7,500.00
Kupiec	FRES	102nd	654	6/01/81	33,000.00		2	n	6,600.00
La Rock	FRES	102nd	664	2/01/89	33,000.00		9	n	29,700.00
Leader	FRES	102nd	510	7/23/87	18,000.00		1	n	1,800.00
Little	FRES	102nd	433	12/12/80	28,000.00		2	n	5,600.00
Lynch	FRES	102nd	436	12/02/80	36,000.00		1	n	3,600.00
McDonald	FRES	102nd	624	11/19/80	34,000.00		4	n	13,600.00
McGuire	FRES	102nd	477	6/26/81	27,500.00		1	n	2,750.00
Mrzugut	FRES	102nd	495	2/18/81	30,000.00		4	n	12,000.00
Nelson	FRES	102nd	475	8/12/81	33,000.00		4	n	13,200.00
Novak	FRES	102nd	450	2/27/81	34,000.00		3	n	10,200.00
Papiernick	FRES	102nd	550	12/01/80	35,000.00		1	n	3,500.00
Pivka	FRES	102nd	597	1/14/81	22,000.00		1	n	2,200.00
Reeiley	FRES	102nd	440	12/18/80	33,000.00		1	n	3,300.00
TOTAL NO. PROPERTIES	108				3,547,180.00	0.00	3 AVE		1,064,504.00 TOTAL

Name	Code	Street	House Number	Purchase date	Purchase price	Demolition	Cond.	Hab.	Present value
Rzucedla	FRES	102nd	796	7/31/81	38,000.00		5	n	19,000.00
Salisbury	FRES	102nd	431	10/14/83	31,000.00		3	n	9,300.00
Smith	FRES	102nd	546	1/05/81	32,000.00		1	n	3,200.00
Stauffer	FRES	102nd	732	2/18/81	31,000.00		2	n	6,200.00
Stratton	FRES	102nd	694	4/10/81	32,000.00		3	n	9,600.00
Stricker	FRES	102nd	462	6/17/81	35,000.00		3	n	10,500.00
Thompson	FRES	102nd	764	1/16/81	39,000.00		2	n	7,800.00
Tracey	FRES	102nd	542	12/02/80	28,500.00		3	n	8,550.00
Walck	FRES	102nd	798	3/13/81	33,500.00		3	n	10,050.00
Wallace	FRES	102nd	466	12/03/80	34,000.00		3	n	10,200.00
Zortman	FRES	102nd	536	6/11/82	30,000.00		3	n	9,000.00
Adams	FRES	103rd	478	4/01/81	35,500.00		3	n	10,650.00
Anderson	FRES	103rd	484	1/12/81	39,950.00		5	n	19,975.00
Cornelius	FRES	103rd	421	10/01/86	27,500.00		1	n	2,750.00
Cornelius	FRES	103rd	482	8/07/81	31,000.00		3	n	9,300.00
Dunnire	FRES	103rd	420	12/22/80	34,500.00		2	n	6,900.00
Gospodarski	FRES	103rd	480	1/12/81	36,000.00		3	n	10,800.00
Johnston	FRES	103rd	479	12/09/80	33,500.00		3	n	10,050.00
Kolinsky	FRES	103rd	471	7/31/81	27,000.00		1	n	2,700.00
Vogel	FRES	103rd	490	5/29/81	36,000.00		2	n	7,200.00
Waters	FRES	103rd	473	2/20/81	28,000.00		1	n	2,800.00
Lincoln	FRES	Buffalo Ave.	10030	4/13/81	22,000.00		3	n	6,600.00
Reley	FRES	Center Ave.	10225	5/15/81	23,500.00		1	n	2,350.00
Hohle	FRES	Frontier Ave.	10114	4/19/84	42,000.00		2	n	8,400.00
Mang	FRES	Frontier Ave.	10104	11/27/85	36,500.00		2	n	7,300.00
Slenker	FRES	Frontier Ave.	10016	9/10/82	37,000.00		3	n	11,100.00
Bouley	FRES	Wheatfield	10002	5/29/00	32,000.00		2	n	6,400.00
Peri	FRES	Wheatfield Ave.	10003	3/25/83	34,000.00		3	n	10,200.00

TOTAL NO. PROPERTIES 136 4,467,130.00 0.00 3 AVE 1,303,379.00 TOTAL

Name	Code	Street	House Number	Purchase date	Purchase price	Demolition	Cond.	Hab.	Present value
Belden	ERES	101st	728	9/22/87	16,000.00		1	n	1,600.00
Kelly	ERES	101st	510	10/07/87	21,000.00		2	n	4,200.00
Lemaster	ERES	101st	466	7/21/88	15,000.00		1	n	1,500.00
Rizzon	ERES	101st	523	9/28/88	29,500.00		5	n	14,750.00
Ward	ERES	101st	454	9/15/87	14,000.00		2	n	2,800.00
Esposito	ERES	102nd	648	12/17/87	24,000.00		2	n	4,800.00
Savard	ERES	102nd	792	2/26/88	28,500.00		5	n	14,250.00
Sawyer	ERES	102nd	498	10/23/87	30,000.00		5	n	15,000.00
Ventry	ERES	102nd	449	6/02/88	26,500.00		5	n	13,250.00
Wilson	ERES	102nd	616	9/30/87	18,500.00		3	n	5,550.00
Carline	ERES	103rd	435	9/22/88	19,500.00		2	n	3,900.00
Collins	ERES	103rd	430	9/22/87	27,000.00		2	n	5,400.00
Ecker	ERES	103rd	475	12/17/87	35,000.00		1	n	3,500.00
Wolf	ERES	103rd	413	10/07/87	50,500.00		5	n	25,250.00
Fama	ERES	Buffalo Ave.	10114	7/21/88	41,700.00		6	n	25,020.00
Iadicicco	ERES	Buffalo Ave.	10020	10/15/87	5,000.00		3	n	1,500.00
Peuckert	ERES	Buffalo Ave.	10102	12/17/87	29,000.00		2	n	5,800.00
Chapman	ERES	Colvin Blvd.	10003	9/10/87	34,000.00		5	n	17,000.00

TOTAL NO. PROPERTIES	18	464,700.00	0.00	3 AVE	165,070.00	TOTAL

Name	Code	Street	House Number	Purchase date	Purchase price	Demolition	Cond.	Sale price	Hab.	Present value
Barbero	FRES	100th	1051	4/01/81	34,500.00		9	47,000.00	h	42,300.00
Barch	FRES	100th	1063	7/24/81	30,000.00		8	55,000.00	h	44,000.00
Baron	FRES	100th	1071	2/27/81	44,500.00		8	39,000.00	h	31,200.00
Bassett	FRES	100th	1047	12/03/82	40,000.00		6	49,000.00	h	29,400.00
Beresheski	FRES	100th	1039	10/02/81	48,200.00		8	60,000.00	h	48,000.00
Cook	FRES	100th	1059	12/11/80	34,000.00		9	46,000.00	h	41,400.00
Cook	FRES	100th	1084	6/12/81	39,000.00		9	47,000.00	h	42,300.00
Destino	FRES	100th	1075	12/19/80	37,000.00		7	49,000.00	h	34,300.00
Haseley	FRES	100th	1034	12/09/80	38,500.00		8	46,000.00	h	36,800.00
Johnson	FRES	100th	1040	4/10/81	37,000.00		9	47,000.00	h	42,300.00
Johnson	FRES	100th	1080	3/27/81	37,000.00		9	47,000.00	h	42,300.00
Kanipe	FRES	100th	1052	10/16/81	34,000.00		8	46,000.00	h	36,800.00
Karansky	FRES	100th	1007	1/28/81	33,000.00		7	46,000.00	h	32,200.00
Kerr	FRES	100th	1064	1/14/81	39,500.00		9	47,000.00	h	42,300.00
La Frice	FRES	100th	1083	7/01/81	36,000.00		7	47,000.00	h	32,900.00
Luick	FRES	100th	1099	6/17/81	36,950.00		9	49,000.00	h	44,100.00
Maslek	FRES	100th	1055	12/05/80	37,000.00		9	48,000.00	h	43,200.00
Mayflower	FRES	100th	1079	5/26/81	38,500.00		8	47,000.00	h	37,600.00
Menquel	FRES	100th	1095	1/26/81	38,000.00		9	47,000.00	h	42,300.00
Miller	FRES	100th	1033	11/25/80	32,500.00		8	47,000.00	h	37,600.00
Mills	FRES	100th	1044	9/23/82	40,000.00		9	47,000.00	h	42,300.00
Mills	FRES	100th	1072	8/18/81	36,850.00		9	48,000.00	h	43,200.00
Monti	FRES	100th	1091	3/13/81	47,500.00		8	42,000.00	h	33,600.00
Omiatek	FRES	100th	1087	1/29/82	39,000.00		8	47,000.00	h	37,600.00
Pendelton	FRES	100th	1048	5/01/81	36,500.00		8	47,000.00	h	37,600.00
Petrishin	FRES	100th	1076	3/18/81	38,500.00		7	49,000.00	h	34,300.00
Priest	FRES	100th	1068	3/13/81	38,000.00		8	47,000.00	h	37,600.00
Robins	FRES	100th	1067	5/01/81	38,500.00		8	47,000.00	h	37,600.00
Romanchoch	FRES	100th	1090	4/24/81	39,000.00		8	49,000.00	h	39,200.00
Taylor	FRES	100th	1056	7/31/81	33,500.00		8	46,000.00	h	36,800.00
Testa	FRES	100th	1060	1/14/81	36,500.00		7	48,000.00	h	33,600.00
Whatley	FRES	100th	1015	11/06/81	36,000.00		9	49,000.00	h	44,100.00
Yadacus	FRES	100th	1043	2/27/81	36,000.00		8	34,000.00	h	27,200.00
Adcock	FRES	101st	1041	8/10/81	47,850.00		4	60,000.00	h	24,000.00
TOTAL NO. PROPERTIES	34				1,288,850.00	0.00	AVE 8	1,616,000.00		1,292,000.00 TOTAL

Name	Code	Street	House Number	Purchase date	Purchase price	Demolition	Cond.	Sale price	Hab.	Present value
Alyar	FRES	101st	1070	6/01/81	38,500.00		9	57,000.00	h	51,300.00
Aughtaan	FRES	101st	1097	3/27/81	33,000.00		8	46,000.00	h	36,800.00
Bauil	FRES	101st	1050	1/06/81	45,000.00		8	57,000.00	h	45,600.00
Brown	FRES	101st	1093	12/04/81	35,000.00		9	47,000.00	h	42,300.00
Dauilson	FRES	101st	1066	4/24/81	38,500.00		8	47,000.00	h	37,600.00
DeFrancesco	FRES	101st	1078	10/08/82	39,000.00		9	49,000.00	h	44,100.00
Faulring	FRES	101st	1053	5/01/81	41,000.00		8	42,000.00	h	33,600.00
Furucci	FRES	101st	1074	6/03/81	38,000.00		9	47,000.00	h	42,300.00
Garner	FRES	101st	1038	12/30/80	41,000.00		9	49,000.00	h	44,100.00
Greswolil	FRES	101st	1094	12/03/80	36,000.00		9	47,000.00	h	42,300.00
Hapeman	FRES	101st	1058	1/19/81	33,000.00		8	47,000.00	h	37,600.00
Hetrick	FRES	101st	1049	6/12/81	35,000.00		8	46,000.00	h	36,800.00
Illig	FRES	101st	1089	11/20/81	36,500.00		9	49,000.00	h	44,100.00
Ivey	FRES	101st	1098	11/14/80	35,000.00		10	46,000.00	h	46,000.00
Jewell	FRES	101st	1082	3/02/81	34,500.00		9	47,000.00	h	42,300.00
Kerr	FRES	101st	1045	4/15/81	37,000.00		6	48,000.00	h	28,800.00
King	FRES	101st	1062	12/09/80	40,000.00		8	48,000.00	h	38,400.00
Lech	FRES	101st	1046	2/22/85	34,000.00		8	47,000.00	h	37,600.00
Lenz	FRES	101st	1065	1/14/81	45,000.00		7	62,000.00	h	43,400.00
Lutz	FRES	101st	404	11/25/80	29,000.00		3		h	
Marranna	FRES	101st	1057	6/05/81	38,000.00		8	47,000.00	h	37,600.00
McCarthy	FRES	101st	1090	4/03/81	36,000.00		8	47,000.00	h	37,600.00
O'Rourke	FRES	101st	1069	1/12/81	34,000.00		8	47,000.00	h	37,600.00
Pack	FRES	101st	1042	1/21/81	36,000.00		8	55,000.00	h	44,000.00
Panattoni	FRES	101st	1085	8/27/82	35,000.00		8	47,000.00	h	37,600.00
Prandy	FRES	101st	1037	8/28/81	40,000.00		9	48,000.00	h	43,200.00
Quick	FRES	101st	1073	12/05/80	40,000.00		7	58,000.00	h	40,600.00
Richards	FRES	101st	1086	6/24/83	40,000.00		5	47,000.00	h	23,500.00
Sawyer	FRES	101st	1077	9/25/81	38,000.00		7	55,000.00	h	38,500.00
Virga	FRES	101st	1061	2/26/82	36,000.00		9	49,000.00	h	44,100.00
Adam	FRES	93rd	1034	6/03/81	33,000.00		7	37,000.00	h	25,900.00
Bates	FRES	93rd	730	12/04/80	31,500.00		5	45,000.00	h	22,500.00
Berkabile	FRES	93rd	534	1/30/81	34,000.00		4	48,000.00	h	19,200.00
Bresnock	FRES	93rd	802	1/28/81	34,500.00		6	45,000.00	h	27,000.00
TOTAL NO. PROPERTIES	68				2,538,850.00	0.00	AVE 8	3,219,000.00		2,545,900.00 TOTAL

Name	Code	Street	House Number	Purchase date	Purchase price	Demolition	Cond.	Sale price	Hab.	Present value
Broeker	FRES	93rd	502	6/24/81	29,500.00		2	48,000.00	h	9,600.00
Broeker	FRES	93rd	728	12/04/80	33,500.00		6	39,000.00	h	23,400.00
Brown	FRES	93rd	824	12/03/80	35,000.00		5	47,000.00	h	23,500.00
Buckhard	FRES	93rd	652	7/15/81	34,000.00		7	42,000.00	h	29,400.00
Calarco	FRES	93rd	806	11/13/81	34,500.00		3	47,000.00	h	14,100.00
Calovini	FRES	93rd	1014	11/14/80	34,000.00		4	47,000.00	h	18,800.00
Conway	FRES	93rd	612	7/01/81	32,500.00		7	45,000.00	h	31,500.00
Crynes	FRES	93rd	908	10/16/81	42,000.00		3	57,000.00	h	17,100.00
Darata	FRES	93rd	542	8/07/81	32,500.00		6	45,000.00	h	27,000.00
DeLaughter	FRES	93rd	940	1/26/81	35,500.00		5	36,000.00	h	18,000.00
DiLaoura	FRES	93rd	742	11/25/80	32,000.00		6	45,000.00	h	27,000.00
Ferraro	FRES	93rd	736	5/03/88	32,000.00		7	45,000.00	h	31,500.00
Fose	FRES	93rd	828	11/18/83	30,500.00		7	45,000.00	h	31,500.00
Fruman	FRES	93rd	750	1/23/81	36,000.00		6	47,000.00	h	28,200.00
Gambino	FRES	93rd	1102	4/29/83	40,500.00		7	49,000.00	h	34,300.00
Gately	FRES	93rd	636	12/22/80	34,000.00		3	48,000.00	h	14,400.00
Harris	FRES	93rd	1038	3/11/83	32,000.00		4	46,000.00	h	18,400.00
Harris	FRES	93rd	616	12/16/80	35,000.00		7	48,000.00	h	33,600.00
Haynes	FRES	93rd	1056	3/20/81	33,500.00		9	46,000.00	h	41,400.00
Hepburn	FRES	93rd	842	5/20/81	32,500.00		7	45,000.00	h	31,500.00
Kieth	FRES	93rd	628	6/29/81	26,000.00		4	48,000.00	h	19,200.00
Krzyskoski	FRES	93rd	1010	10/08/82	32,500.00		4	46,000.00	h	18,400.00
McClain	FRES	93rd	1060	12/12/80	34,500.00		5	47,000.00	h	23,500.00
Merrill	FRES	93rd	836	3/18/83	30,500.00		4	45,000.00	h	18,000.00
Mervak	FRES	93rd	1006	12/05/80	39,000.00		6	47,000.00	h	28,200.00
Nearhoof	FRES	93rd	1030	7/15/81	36,000.00		6	34,000.00	h	20,400.00
Neyrlir	FRES	93rd	832	10/09/81	34,500.00		3	47,000.00	h	14,100.00
Novark	FRES	93rd	664	3/02/81	34,000.00		6	47,000.00	h	28,200.00
Osetowski	FRES	93rd	1116	5/01/81	37,500.00		4	49,000.00	h	19,600.00
Pacana	FRES	93rd	810	3/18/00	32,000.00		3	46,000.00	h	13,800.00
Pierson	FRES	93rd	1018	4/15/81	32,500.00		6	39,000.00	h	23,400.00
Rioley	FRES	93rd	924	9/18/81	35,000.00		6	36,000.00	h	21,600.00
Rogers	FRES	93rd	1022	6/29/84	33,500.00		5	47,000.00	h	23,500.00
Sarve	FRES	93rd	746	12/23/80	34,500.00		6	47,000.00	h	28,200.00
TOTAL NO. PROPERTIES	102				3,691,850.00	0.00	AVE 7	4,761,000.00		3,350,200.00 TOTAL

Name	Code	Street	House Number	Purchase date	Purchase price	Demolition	Cond.	Sale price	Hab.	Present value
Specir	FRES	93rd	1130	1/06/81	40,000.00		10	48,000.00	h	48,000.00
Stanish	FRES	93rd	1108	12/08/86	43,000.00		5	49,000.00	h	24,500.00
Stellrecht	FRES	93rd	702	7/01/81	40,400.00	4,929.81	1		h	
Tooker	FRES	93rd	732	11/25/80	32,000.00		7	45,000.00	h	31,500.00
Waggoner	FRES	93rd	1026	1/30/81	36,500.00		7	47,000.00	h	32,900.00
Willick	FRES	93rd	918	5/03/88	35,500.00		10	39,000.00	h	39,000.00
Blanchard	FRES	96th	1004	12/04/81	33,000.00		7	49,000.00	h	34,300.00
Bunce	FRES	96th	1039	8/20/82	47,500.00		8	68,000.00	h	54,400.00
Foy	FRES	96th	1040	12/09/80	37,500.00		6	30,000.00	h	18,000.00
Galuano	FRES	96th	1045	12/18/81	44,000.00		7	49,000.00	h	34,300.00
Kenny	FRES	96th	1064	1/26/81	59,000.00		5	58,000.00	h	29,000.00
King	FRES	96th	985	7/01/81	43,000.00		5		h	
Leo	FRES	96th	1058	1/28/81	54,500.00		4	55,000.00	h	22,000.00
Rutten	FRES	96th	1046	11/27/85	33,000.00		8	45,000.00	h	36,000.00
Schultz	FRES	96th	1050	5/08/81	41,500.00		6	47,000.00	h	28,200.00
Seslir	FRES	96th	1021	11/25/80	43,000.00		8	49,000.00	h	39,200.00
Staub	FRES	96th	1010	5/03/88	37,000.00		9	48,000.00	h	43,200.00
Whitenight	FRES	96th	1022	1/28/81	36,500.00		7	57,000.00	h	39,900.00
Will	FRES	96th	1033	6/15/84	43,000.00		9	48,000.00	h	43,200.00
Ciadillo	FRES	97th	1032	7/01/81	55,000.00		4	64,000.00	h	25,600.00
Meharian	FRES	97th	1027	9/14/81	34,000.00		9	46,000.00	h	41,400.00
Whaley	FRES	97th	1021	11/02/84	39,500.00		8	47,000.00	h	37,600.00
Wright	FRES	97th	1015	12/10/80	42,000.00		8	46,000.00	h	36,800.00
Young	FRES	97th	1033	6/17/81	43,500.00		7	46,000.00	h	32,200.00
Alexander	FRES	98th	1071	11/06/81	38,500.00		10	49,000.00	h	49,000.00
Aumen	FRES	98th	1089	1/19/81	37,000.00		7	48,000.00	h	33,600.00
Bagovich	FRES	98th	1105	6/05/81	43,000.00		3	58,000.00	h	17,400.00
Bailey	FRES	98th	1037	5/21/82	38,000.00		6	47,000.00	h	28,200.00
Bechtel	FRES	98th	1031	10/12/84	36,000.00		7	47,000.00	h	32,900.00
Biddecker	FRES	98th	1020	2/20/81	35,000.00		7	47,000.00	h	32,900.00
Butera	FRES	98th	1092	5/22/81	39,500.00		8	49,000.00	h	39,200.00
Campbell	FRES	98th	1111	10/20/83	37,000.00		2	48,000.00	h	9,600.00
Chambers	FRES	98th	1032	6/26/81	37,500.00		8	45,000.00	h	36,000.00
Clive	FRES	98th	1026	12/01/80	34,000.00		8	46,000.00	h	36,800.00
TOTAL NO. PROPERTIES	136				5,061,250.00	4,929.81	AVE 7	6,325,000.00		4,437,000.00 TOTAL

Name	Code	Street	House Number	Purchase date	Purchase price	Demolition	Cond.	Sale price	Hab.	Present value
Cody	FRES	98th	1085	8/20/81	38,500.00		6	47,000.00	h	28,200.00
Crandall	FRES	98th	1104	7/21/88	38,500.00		10	48,000.00	h	48,000.00
D'Aloise	FRES	98th	1093	2/02/81	37,700.00		4	48,000.00	h	19,200.00
Dussler	FRES	98th	1014	12/29/80	36,000.00		5	47,000.00	h	23,500.00
Fadel	FRES	98th	1023	12/18/80	36,000.00		7	46,000.00	h	32,200.00
Garner	FRES	98th	1040	12/23/80	39,000.00		7	47,000.00	h	32,900.00
Glenn	FRES	98th	1097	1/19/81	37,500.00		5	49,000.00	h	24,500.00
Jones	FRES	98th	1011	1/12/81	37,000.00		6	48,000.00	h	28,800.00
Lunney	FRES	98th	1017	12/22/80	39,000.00		4	46,000.00	h	18,400.00
McCutcheon	FRES	98th	1076	6/19/86	42,500.00		9	49,000.00	h	44,100.00
Mikula	FRES	98th	1088	10/02/81	38,000.00		7	48,000.00	h	33,600.00
Richards	FRES	98th	1096	6/07/85	36,500.00		8	49,000.00	h	39,200.00
Schmitt	FRES	98th	1110	10/02/81	38,500.00		6	49,000.00	h	29,400.00
Stecher	FRES	98th	1117	8/17/81	44,500.00		1	58,000.00	h	5,800.00
Virga	FRES	98th	1045	2/26/82	42,000.00		8	49,000.00	h	39,200.00
Virga	FRES	98th	1051	2/26/82	45,000.00		10	49,000.00	h	49,000.00
Waters	FRES	98th	1079	11/24/80	39,700.00		7	49,000.00	h	34,300.00
Bresnack	FRES	99th	1047	7/24/81	37,500.00		7	47,000.00	h	32,900.00
Bryan	FRES	99th	1071	8/12/81			6	45,000.00	h	27,000.00
Burt	FRES	99th	1051	12/10/80	35,470.00		6	47,000.00	h	28,200.00
Casal	FRES	99th	1079	3/02/81	37,000.00		7	49,000.00	h	34,300.00
Delles	FRES	99th	1026	12/12/80	41,000.00		8	58,000.00	h	46,400.00
Dookaluk	FRES	99th	1040	12/09/80	36,500.00		7	49,000.00	h	34,300.00
Dowdall	FRES	99th	1068	2/27/81	36,000.00	4,308.45	4		h	
Ecker	FRES	99th	1046	2/18/81	33,000.00		6	48,000.00	h	28,800.00
Evert	FRES	99th	1084	1/30/81	36,500.00		5	49,000.00	h	24,500.00
Falcone	FRES	99th	1060	7/09/82	45,500.00		8	49,000.00	h	39,200.00
Holmes	FRES	99th	1087	4/15/81	41,500.00		6	47,000.00	h	28,200.00
Keith	FRES	99th	1039	1/21/81	39,000.00		8	48,000.00	h	38,400.00
Le Fevre	FRES	99th	1059	3/04/81	38,000.00		8	45,000.00	h	36,000.00
Le Vick	FRES	99th	1043	12/30/80	40,000.00		8	46,000.00	h	36,800.00
Lo Presti	FRES	99th	1064	12/09/80	40,500.00		7	47,000.00	h	32,900.00
Manganero	FRES	99th	1033	3/18/00	37,500.00		6	49,000.00	h	29,400.00
Matkowski	FRES	99th	1072	8/17/81	37,000.00		7	47,000.00	h	32,900.00
TOTAL NO. PROPERTIES	170				6,339,120.00	9,238.26	AVE 7	7,921,000.00		5,497,500.00 TOTAL

Name	Code	Street	House Number	Purchase date	Purchase price	Demolition	Cond.	Sale price	Hab.	Present value
Miesko	FRES	99th	1075	6/08/81	42,000.00		7	57,000.00	h	39,900.00
Pace	FRES	99th	1080	10/09/81	36,000.00		6	47,000.00	h	28,200.00
Paczkowski	FRES	99th	1056	2/26/82	40,000.00		9	49,000.00	h	44,100.00
Pittaro	FRES	99th	1034	12/17/80	44,000.00		5	57,000.00	h	28,500.00
Redeiut	FRES	99th	1076	1/14/81	37,500.00		5	49,000.00	h	24,500.00
Russ	FRES	99th	1067	4/01/81	36,000.00		7	47,000.00	h	32,900.00
Schmitz	FRES	99th	1083	12/17/80	39,000.00		4	49,000.00	h	19,600.00
Smith	FRES	99th	1030	11/20/81	35,000.00		6	49,000.00	h	29,400.00
Williams	FRES	99th	1044	3/09/81	33,000.00		6	47,000.00	h	28,200.00
Hamner	FRES	Black Creek Dr.	10027	2/18/81	55,000.00		6	60,000.00	h	36,000.00
Jacoby	FRES	Black Creek Dr.	10021	2/18/81	33,000.00		7	47,000.00	h	32,900.00
Kott	FRES	Black Creek Dr.	9909	12/23/80	43,000.00		7	39,000.00	h	27,300.00
Licht	FRES	Black Creek Dr.	9917	1/23/81	34,000.00		6	46,000.00	h	27,600.00
Rizzo	FRES	Black Creek Dr.	9903	2/19/81	40,000.00		8	47,000.00	h	37,600.00
Tyszka	FRES	Black Creek Dr.	10015	7/17/81	35,500.00		6	46,000.00	h	27,600.00
Ciminello	FRES	Colvin Blvd.	10004	12/09/80	35,000.00		5	46,000.00	h	23,000.00
Hanrahan	FRES	Colvin Blvd.	9902	2/25/81	32,500.00		7		h	
Kupiec	FRES	Colvin Blvd.	10022	1/14/81	37,000.00		4	46,000.00	h	18,400.00
Pozniak	FRES	Colvin Blvd.	10002	2/19/81	36,000.00		6	49,000.00	h	29,400.00
Zappendorf	FRES	Colvin Blvd.	10016	12/17/80	35,500.00		7	46,000.00	h	32,200.00
Fisher	FRES	Covin Blvd.	10010	8/05/83	33,000.00		7	47,000.00	h	32,900.00
Berak	FRES	Greenwald Ave.	9609	9/25/81	41,000.00		7	47,000.00	h	32,900.00
Butera	FRES	Greenwald Ave.	9614	9/10/82	46,500.00		7	54,000.00	h	37,800.00
Goupil	FRES	Greenwald Ave.	9613	2/27/81	32,000.00		8	47,000.00	h	37,600.00
Grazzini	FRES	Greenwald Ave.	9705	7/13/84	49,000.00		9	52,000.00	h	46,800.00
Kolano	FRES	Greenwald Ave.	9605	11/19/80	45,000.00		6	47,000.00	h	28,200.00
Krul	FRES	Greenwald Ave.	9602	12/29/80	40,250.00		5	48,000.00	h	24,000.00
Matsulavage	FRES	Greenwald Ave.	9714	4/15/81	68,600.00		9	58,000.00	h	52,200.00
Waz	FRES	Greenwald Ave.	9713	12/12/80	54,000.00		8	49,000.00	h	39,200.00
Zupa	FRES	Greenwald Ave.	9629	1/23/81	41,000.00		8	47,000.00	h	37,600.00
Baio	FRES	Mason Ct	11	9/04/81	51,000.00		7	60,000.00	h	42,000.00
Alongi	FRES	Mason Ct.	56	12/02/80	52,000.00		3	54,000.00	h	16,200.00
Beach	FRES	Mason Ct.	77	1/16/81	43,500.00		9	48,000.00	h	43,200.00
Earp	FRES	Mason Ct.	73	1/14/81	44,500.00		7	47,000.00	h	32,900.00
TOTAL NO. PROPERTIES	204				7,739,470.00	9,238.26	AVE 7	9,549,000.00		6,568,300.00 TOTAL

Name	Code	Street	House Number	Purchase date	Purchase price	Demolition	Cond.	Sale price	Hab.	Present value
Falbo	FRES	Mason Ct.	81	11/19/80	48,500.00		6	56,000.00	h	33,600.00
Ferro	FRES	Mason Ct.	8	12/29/80	47,000.00		8	49,000.00	h	39,200.00
Gage	FRES	Mason Ct.	80	7/10/81	39,900.00		7	48,000.00	h	33,600.00
Jarlenski	FRES	Mason Ct.	15	10/16/81	44,000.00		9	48,000.00	h	43,200.00
Johnson	FRES	Mason Ct.	53	7/21/88	43,000.00		9	58,000.00	h	52,200.00
Little	FRES	Mason Ct.	41	6/18/87	83,000.00		10	58,000.00	h	58,000.00
Lucinski	FRES	Mason Ct.	37	6/29/81	62,500.00		9	64,000.00	h	57,600.00
Maulis	FRES	Mason Ct.	85	4/19/84	51,500.00		9	58,000.00	h	52,200.00
Nickles	FRES	Mason Ct.	19	6/30/87	45,000.00		7	49,000.00	h	34,300.00
Ricotta	FRES	Mason Ct.	69	3/20/81	69,000.00		10	65,000.00	h	65,000.00
Schnieder	FRES	Mason Ct.	72	3/29/85	43,500.00		5	49,000.00	h	24,500.00
Stewart	FRES	Mason Ct.	52	1/15/87	39,500.00		2	47,000.00	h	9,400.00
Taft	FRES	Mason Ct.	57	12/11/80	48,000.00		9	54,000.00	h	48,600.00
Vacca	FRES	Mason Ct.	23	1/05/81	49,000.00		8	49,000.00	h	39,200.00
Walker	FRES	Mason Ct.	61	8/17/81	50,500.00		10	59,000.00	h	59,000.00
Zino	FRES	Mason Ct.	26	9/11/81	55,375.00		9	54,000.00	h	48,600.00
Bedfad	FRES	Moschel Ct.	9818	9/25/81	37,500.00		4	49,000.00	h	19,600.00
Brown	FRES	Moschel Ct.	9916	3/18/81	36,000.00		6	48,000.00	h	28,800.00
Cuddahee	FRES	Moschel Ct.	9910	12/02/80	36,000.00		6	47,000.00	h	28,200.00
Gassner	FRES	Moschel Ct.	9817	2/19/81	39,400.00		4		h	
McCartney	FRES	Moschel Ct.	9920	12/30/80	34,500.00		5	46,000.00	h	23,000.00
Resing	FRES	Moschel Ct.	9824	3/27/81	37,500.00		3	49,000.00	h	14,700.00
Rotella	FRES	Moschel Ct.	9832	4/29/81	90,000.00		1	70,000.00	h	7,000.00
Staub	FRES	Moschel Ct.	9904	1/14/81	40,500.00		5	49,000.00	h	24,500.00
Sturtevant	FRES	Moschel Ct.	9804	4/13/84	43,500.00		8	49,000.00	h	39,200.00
Thompson	FRES	Moschel Ct.	9810	11/25/81	41,500.00		5	49,000.00	h	24,500.00
Torcasio	FRES	Moschel Ct.	9912	2/18/81	50,000.00		5	52,000.00	h	26,000.00
DeLabio	FRES	Mueller Ct.	10114	12/01/80	47,500.00		3	39,000.00	h	11,700.00
Kysor	FRES	Mueller Ct.	10016	10/02/81	48,500.00		3	48,000.00	h	14,400.00
Masur	FRES	Mueller Ct.	10010	7/01/81	38,000.00		8	49,000.00	h	39,200.00
Pagano	FRES	Mueller Ct.	10022	9/30/83	38,500.00		9	49,000.00	h	44,100.00
TOTAL NO. PROPERTIES	235				9,217,645.00	9,238.26	AVE 7	11,107,000.00		7,611,400.00 TOTAL

Name	Code	Street	House Number	Purchase date	Purchase price	Demolition	Cond.	Sale price	Hab.	Present value
Barber	ERES	93rd	820	9/10/87	35,500.00		1	47,000.00	h	4,700.00
Lacey	ERES	93rd	712	9/22/87	21,500.00		6	39,000.00	h	23,400.00
Church of God	ERES	96th	989	11/18/87	44,000.00		8		h	44,000
Pera. Savings	ERES	98th	1056	11/18/87	33,000.00		9		h	
United MTMC	ERES	Colvin Blvd	9610	12/31/88	293,700.00		9		h	300,000

TOTAL NO. PROPERTIES	5	427,700.00	0.00	AVE 7	86,000.00	28,100.00	TOTAL	

Name	Code	Street	House Number	Purchase date	Purchase price	Cond.	Hab.
Barney	EVAC	100th	lot	12/31/99	0.00	0	n
La Via	EVAC	100th	703 lot	2/26/88	4,000.00	0	n
Stanvich	EVAC	100th	lot	6/02/88	4,500.00	0	n
Cecula	EVAC	101st	lot	1/14/88	4,500.00	0	n
Lemaster	EVAC	101st	lot	7/21/88	300.00	0	n
Stanvich	EVAC	101st	lot	6/02/88	4,500.00	0	n
Dann	EVAC	102 & 103rd	lots	6/30/88	3,000.00	0	n
Behrens	EVAC	102nd	lot	6/30/88	5,500.00	0	n
Del Equitties	EVAC	102nd	lot	12/30/88	7,100.00	0	n
Fratella	EVAC	102nd	lot	5/03/88	19,800.00	0	n
Heiman	EVAC	102nd	lot	12/30/88	10,900.00	0	n
Kahley	EVAC	102nd	lot	5/03/88	1,300.00	0	n
Palumbo	EVAC	102nd	lot	6/30/88	25,500.00	0	n
Szymanski	EVAC	102nd	lot	12/31/99	250.00	0	n
Winn	EVAC	102nd	lot	9/28/88	18,500.00	0	n
Ferraro	EVAC	103rd	lot	5/03/88	4,000.00	0	n
Good	EVAC	103rd	lot	7/21/88	600.00	0	n
Hickin	EVAC	103rd	lot	6/02/88	7,000.00	0	n
Hickin	EVAC	103rd	lot	7/21/88	7,000.00	0	n
Riley	EVAC	103rd	lot	12/28/88	3,500.00	0	n
Wilson	EVAC	103rd	lot	12/30/88	450.00	0	n
Brindisi	EVAC	Buffalo Ave.	lot	12/31/99	0.00	0	n
Slattery	EVAC	Buffalo Ave.	9808 lot	9/28/88	10,000.00	0	n

TOTAL PROPERTIES 23 142,200.00 TOTAL

Name	Code	Street	House Number	Purchase date	Purchase price	Cond.	Hab.
Summerson	ERES	93rd	520	1/14/88	19,500.00	0	h
Mason	ERES	Greenwald Ave.	9700lot	12/18/87	12,000.00	0	h
	TOTAL	2			31,500.00	TOTAL	
Cook	ERES	100th	431	1/14/88	4,500.00	0	n
Hopkins	ERES	100th	435	5/03/88	4,500.00	0	n
La Via	ERES	100th	427	1/14/88	4,500.00	0	n
Hopkins	ERES	101st	745lot	5/03/88	4,000.00	0	n
Barney	ERES	102nd	736	12/28/88	26,000.00	0	n
Marcyan	ERES	102nd	515lot	10/23/87	4,000.00	0	n
Voorhes	ERES	102nd	610	12/18/87	4,000.00	0	n
Iadicicco	ERES	Buffalo Ave.	10012	9/15/87	22,000.00	0	n
Iadicicco	ERES	Buffalo Ave.	10014	9/15/87	21,000.00	0	n
	TOTAL	9			94,500.00	TOTAL	

11 TOTAL PROPERTIES 126,000.00 GRANT TOTAL

Name	Code	Street	House Number	Purchase date	Purchase price	Cond.	Hab.
DeFrancesco	FRES	101st	1081	7/17/81	37,000.00	0	h
Chatman	FRES	93rd	658	2/05/81	38,000.00	0	h
Fees	FRES	93rd	546	2/25/81	28,000.00	0	h
Knight	FRES	93rd	530	11/24/80	35,000.00	0	h
La Verdi	FRES	93rd	606	4/13/81	35,500.00	0	h
Pries	FRES	93rd	708	2/02/81	31,500.00	0	h
Ray	FRES	93rd	912	2/19/81	37,200.00	0	h
Travis	FRES	93rd	524	6/29/81	39,500.00	0	h
Volk	FRES	93rd	538	12/19/80	34,500.00	0	h
Williamson	FRES	93rd	1046	7/16/82	33,500.00	0	h
Wooter	FRES	93rd	624	2/02/81	22,000.00	0	h
Hoplight	FRES	99th	1063lot	1/19/81	37,000.00	0	h
Barone	FRES	Mason Ct.	46lot	9/03/86	49,000.00	0	h
Nicolette	FRES	Mason Ct.	16	12/11/80	57,000.00	0	h
Woodcock	FRES	Moschel Ct.	9828	12/02/80	52,000.00	0	h

TOTAL 15 566,700.00 TOTAL

APPENDIX O:

ECKEL TELECOM

CC: DCS
DFB
JRK
File orig.

THE SARATOGA ASSOCIATES **TELECOM**

PROJECT: Love Canal 89030.1 P

TO: Pat Eckel, Buffalo Museum of Science

FROM: JRK

DATE: 10/31/89

CONTENTS: Re: Aster Study

Study area encompassed section of EDA bounded by Williams Road (East), Colvin Blvd (North), 102nd/103rd Street (West) and LaSalle Expressway (South).

Protected plant (Closed Gentian) species is not located within Class II wetland. Plant species is located immediately North of LaSalle Expressway and east of 103rd Street. I do not believe it is within EDA boundary. Called Pat back to expand further but she had left for the day. Will try again tomorrow (11/1).

She suggested possible mitigation - be to have all population or portion of moved to an alternative location SO AS not to destroy. Might want to check with DEC. called - man in charge of - not in office 'til 11/5/89

Also, legislation is pending which will group Protected Endangered Plant Species together. Need to call [illegible]

APPENDIX P:

DPL/LCARA AGREEMENT

C171937

AGREEMENT
LOVE CANAL AREA REVITALIZATION AGENCY
AND
NEW YORK STATE DISASTER PREPAREDNESS COMMISSION

THIS AGREEMENT, made as of the 9th day of October, 1980, by and between the PEOPLE OF THE STATE OF NEW YORK (hereinafter referred to as "State"), acting by and through WILLIAM C. HENNESSY, CHAIRMAN OF THE DISASTER PREPAREDNESS COMMISSION (hereinafter referred to as "Chairman") of the NEW YORK STATE DISASTER PREPAREDNESS COMMISSION (hereinafter referred to as "Commission"), whose office is in the Department of Transportation Administration and Engineering Building, State Campus, 1220 Washington Avenue, in the City and County of Albany and State of New York 12232, and LOVE CANAL AREA REVITALIZATION AGENCY (hereinafter referred to as "Agency"), organized pursuant to Chapter 259 of the Laws of 1980 as an industrial development agency, whose principal office is located at 1003 98th St. Niagara Falls, N.Y. 14304.

W I T N E S S E T H:

WHEREAS, Governor Hugh L. Carey entered into an agreement with the Federal Emergency Management Agency for an emergency No. FEMA-3080-EM, New York, dated June 9, 1980; and

WHEREAS, it is recognized that an emergency exists requiring assistance of the State at the Love Canal area in the County of Niagara, New York; and

WHEREAS, President Carter, on May 21, 1980, determined an emergency to exist in the State of New York due to the adverse impact of chemical wastes in the Love Canal Chemical Waste Land Fill in the City of Niagara Falls; and

WHEREAS, by the authority of the two provisos in the section of the Supplemental Appropriations and Rescission Act, 1980 (Pub. L. 96-304; 94 Stat. 857), entitled "Federal Emergency Management Agency - Funds Appropriated to the President - Disaster Relief" (94 Stat. 876), popularly known as the Javits-Moynihan amendment, the President is authorized, from funds appropriated to the President, to provide relocation for the families residing within the boundaries defined in the emergency declared by the President on May 21, 1980, at the Love Canal, in the State of New York; and

WHEREAS, the President has agreed with the Governor to provide Federal funds for the relocation of such families by letter agreement dated October 1, 1980, (copy attached and made a part hereof); and

WHEREAS, by Chapter 640 of the Laws of 1978, a Disaster Preparedness Commission was created in the Executive Department to deal with all aspects of man-made or natural disaster prevention, response and recovery and with the powers and responsibilities, inter alia, to direct state disaster operations and coordinate state disaster operations following the declaration of a state disaster emergency, and assist in the coordination of federal recovery efforts and coordinate recovery assistance by state and private agencies; and

RECEIVED
OCT 28 1980
DEPARTMENT OF
AUDIT & CONTROL
CONSTRUCTION CONTRACT
SECTION

WHEREAS, Section 21 of Article 2-B of the Executive Law, as added by that Chapter 640 of the Laws of 1978, authorized the Governor to designate the Chairman of the Commission, and

WHEREAS, on March 30, 1979 Governor Carey designated William C. Hennessy, the Commissioner of Transportation, a member of the Commission by virtue of his office in accordance with Section 21 of the Executive Law, as the Chairman of such Commission, and

WHEREAS, the Governor has directed the Chairman to render such assistance as may be necessary to assist in relocation of residents of the area in the Love Canal; and

WHEREAS, by Chapter 259 of the Laws of 1980, the Love Canal Area Revitalization Agency was created as an industrial development agency to improve conditions in the Love Canal area of the County of Niagara, affecting portions of the City of Niagara Falls and the Town of Wheatfield and to make use of the funds appropriated in Chapter 732 of the Laws of 1979 and other available Federal, State and local moneys for the improvement of such conditions, the Love Canal area being limited and bounded as follows:

(a) In the city of Niagara Falls, beginning at a point where the center line of Buffalo Avenue intersects with the center line of 102nd Street, thence northerly along center line of 102nd Street and its extension to its intersection with Bergholtz Creek, thence westerly along Bergholtz Creek to its intersection with the center line of 93rd Street, thence southerly along the center line of 93rd Street including those properties on the west side of 93rd Street fronting on such street and its extension to its intersection with center line of Buffalo Avenue, thence easterly along the center line of Buffalo Avenue to the point of beginning and:

(b) In the Town of Wheatfield, all real property adjacent to the city of Niagara Falls beginning at a point on the center line of 102nd Street at its intersection with the center line of Frontier Avenue, thence easterly along Frontier Avenue, including those properties on the south of Frontier Avenue fronting on such Avenue to the center line of 103rd Street, thence northerly along the center line of 103rd Street, including those properties on the east of 103rd Street fronting on such street to its intersection with the center line of Center Road, thence westerly along the center line of Center Road to its intersection with the center line of 102nd Street, including all properties on the north side of Center Road, fronting on Center Road, thence southerly along the center line of 102nd Street to point of beginning; also included are those properties fronting on the east and west sides of the extension of 103rd Street center line north from its intersection with the center line of Center Road to its terminus; also included are those properties fronting on the east side of 102nd Street north from the intersection of the center line of 102nd Street and the center line of Center Road to the intersection of the center line of 102nd Street and the center line of Colvin Boulevard; and

WHEREAS, the Chairman and the Love Canal Area Revitalization Agency have determined that it is in the best interests of the State and the Agency to have the Agency undertake all activities in connection with the relocation of residents from, and the acquisition and maintenance of property and the reclamation and revitalization of, the Love Canal area in the County of Niagara, New York.

NOW, THEREFORE, it is hereby agreed and understood between the parties hereto as follows:

1. With respect to property in the Love Canal designated area the Agency, after a request of a resident of such area and in consultation with the Chairman, shall enter into a contract for the acquisition of any such property from the respective owner thereof, shall acquire such property in its name and shall hold record title to the same, provided that in no event shall the Agency be obligated to incur any obligation or expense or to advance or make any payment in excess of the funds made available to the Agency.

2. The Agency shall rely upon and utilize the services of the Real Estate Division of the State Department of Transportation and personnel thereof (hereinafter referred to as "Division"), in the acquisition and relocation efforts. In connection with acquisition and relocation, the actions of the Department of Transportation shall be in accordance with the policies established by the Agency.

3. The Division shall determine by appraisal the value of the properties to be acquired, shall negotiate the acquisition of each such property with the owner thereof and upon the conclusion of negotiations shall certify to the Agency on the negotiated purchase price. The Agency shall thereupon enter into a contract of purchase, in form and substance satisfactory to the Agency, with the owner of the involved property at the purchase price certified by the Division. The Agency shall acquire title to the property pursuant to such approved purchase contract and shall pay over to the owner the cash portion of the purchase price. Inspections of the properties and all factual determinations in respect of the condition of the properties shall be made by the Division and reported to the Agency prior to contract closings.

4. (a) In the event Federal funds for the project of relocation of families are made available to the State, the Agency shall submit to the State a schedule or schedules of anticipated cash requirements to meet its costs and expenses incurred or to be incurred for property acquisition. Such schedules shall indicate the amounts of money paid or to be paid in connection with the acquired property as well as the related costs to the Agency that are involved in such acquisition, but not including any expenses of the personnel of the Division. From the federal funds provided for the project the Comptroller shall release and pay over to the Agency funds sufficient to meet such schedules. The vouchers for each payment or release shall be in summary form and the document supporting the expenditures or anticipated expenditures shall be maintained in a secure manner by the Agency in a place readily accessible to the Chairman, the Federal Government, and the State Comptroller for the purposes of auditing such costs and expenses. Such request for payment or release of funds for costs and expenses which have been incurred, may provide for payment of 100 percent of the costs and expenses which the Agency has determined will be involved in the next succeeding quarter for relocation

6. All items of cost and expense shall be subject to audit by the State. In the event that the State Comptroller requires that his office approve the purchase contracts for any property acquired pursuant to the terms of this Agreement, then such contract shall be submitted to such State Comptroller for his approval prior to their becoming effective. The accounting records therefor shall be retained by the Agency for at least six years after completion of the State Comptroller's final audit under this Agreement, or three years after payment of the final voucher to the State by the Federal Government with respect to the emergency, whichever period shall expire last.

7. Except as herein provided, no contract for services outside the Agency of more than $5,000 will be effective or binding as to the State unless and until the Chairman approves such contract.

8. The Agency shall cause title to the properties to be examined but shall have no responsibility for the accuracy of such examinations or for any determination as to the status or quality of title to the properties acquired. Title to the properties shall be insured, if the Agency so determines.

9. It is understood by and between the parties hereto that this Agreement shall be deemed executory only to the extent of the moneys available to the State and no liability on account thereof shall be incurred by the State or the Agency beyond moneys available for the purposes hereof except for the obligations of the State under paragraph 6 hereof.

10. The State shall have access to, and the right of use of, the property, for any purpose whatsoever and the Agency shall take such action with respect to the operation and maintenance of the property as the State shall direct.

11. The Agency agrees not to assign, transfer, convey, sublet or otherwise dispose of this Agreement or any part thereof, or of its right, title or interest therein, or its powers to execute any contract to any person, company or corporation without previous consent in writing of the Chairman, except for property management or property conveyance purposes.

12. The rights and obligations created hereunder shall be enforceable only by the parties hereto, and nothing contained herein shall be deemed to create any right in, or any right to enforce the provisions hereof by any third party.

IN WITNESS WHEREOF, the State has caused this instrument to be signed by the Chairman and the Agency has caused this instrument to be signed by its duly authorized officer.

DISASTER PREPAREDNESS COMMISSION

BY: _____
William C. Hennessy, Chairman

APPROVED AS TO FORM
NEW YORK STATE
ATTORNEY GENERAL

APPROVED AS TO FORM

_____
Attorney General

By: _____

RICHARD W. CROSS
Attorney

LOVE CANAL AREA REVITALIZATION AGENCY

BY: _____
Chairman

APPROVED: 11/13/80

_____
State Comptroller

STATE OF NEW YORK)
) SS:
COUNTY OF ALBANY)

On this 28th day of October, 1980, before me, the subscriber, personally came WILLIAM C. HENNESSY, to me known and known to me to be the Chairman of the Disaster Preparedness Commission of the State of New York, and the same person described in and who executed the within instrument, and he duly acknowledged that he executed the same as such Chairman pursuant to the statute in such case provided.

Peter S. Loomis

Notary Public

PETER S. LOOMIS
Notary Public, State of New York
Qualified in Albany County
Commission Expires March 30, 1981

STATE OF NEW YORK)
Niagara) SS:
COUNTY OF ~~ALBANY~~)

On this 9th day of October, 1980, before me personally came Michael C. O'Laughlin, to me known, who being duly sworn, did depose and say that he resides in Niagara Falls, New York, that he is the Chairman of the Love Canal Area Revitalization Agency, the Agency described in and which executed the foregoing instrument, that he know the seal of said Agency, that the seal affixed to said instrument was such Agency seal, that it was so affixed by order of the membership of said Agency, and that he signed his name thereto by like order.

Richard J. Morris

Notary Public

RICHARD J. MORRIS, Notary Public
State of New York, Monroe County
Commission Expires March 30, 1981

APPENDIX Q:

DGEIS DISTRIBUTION LIST

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Attn: Joseph Petillo, Esq.
1515 Broadway
New York, NY 10036-8960
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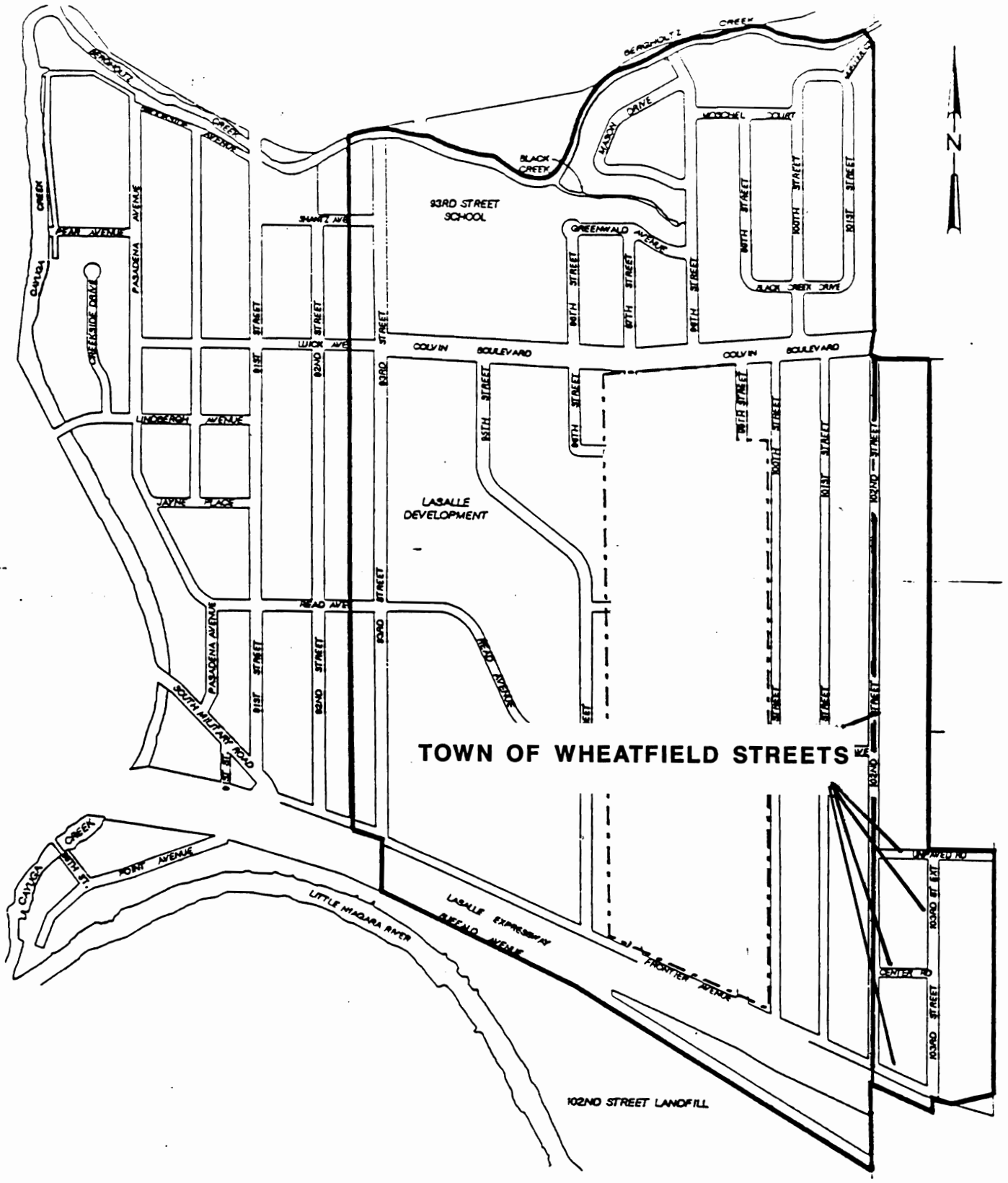
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APPENDIX R:

TOWN OF WHEATFIELD STREETS



LOVE CANAL AREA MASTER PLAN

FIGURE 4: Love Canal EDA

Source: Love Canal Emergency Declaration Area Habitability Study, 1988

THE SARATOGA ASSOCIATES

BRISTOL, LITYNSKI, WOJCIK, P.C.

LANDSCAPE ARCHITECTS, ARCHITECTS AND PLANNERS

APPENDIX S:

SDAO LETTER

SCHOOL DISTRICT OF THE CITY OF NIAGARA FALLS, NEW YORK

Administration Building 607 Walnut Avenue Niagara Falls, NY 14301

February 5, 1990

Mr. Michael J. O'Toole, Jr., P.E.
Department of Environmental Conservation
Division of Hazardous Waste Remediation
50 Wolf Road
Albany, NY 12233-7010

Dear Mr. O'Toole:

At the Love Canal Technical Review Committee meeting held at the Red Jacket Inn, Niagara Falls on Wednesday, January 17, the Niagara Falls School District advanced a number of concerns related to the general matter of the rehabilitation of the Love Canal area in general and to the 93rd Street School site in specific.

Following brief statements made by School Superintendent William Sdao on behalf of Board President Matthew Buchalski, who was also present, you requested that the district forward to you at our earliest convenience a written summary of our concerns and of our wishes on this general issue.

The following represent the present joint position of district Board and staff:

1. Need for 93rd Street School Site

There is a provable need for additional student program space in the Niagara Falls School District at present. The district can demonstrate this need will grow slowly but steadily for the next five years. It now appears both financially prudent and educationally advisable to look to the reconstitution of 93rd Street School as the course of first action in addressing this need.

Attached you will find a brief position paper outlining the major factors contributing to these future student space needs.

Architectural, engineering, and environmental studies have been authorized by the district to determine the essential factors to be addressed in rendering the building suitable for student use.

William L. Sdao
Superintendent of Schools

Carmen A. Granto
Deputy Superintendent

We regret that earlier district public positions on the re-use of 93rd Street School strongly suggested the probable use of the building for central office, warehouse, or maintenance shops or a combination thereof. Those factors which have now led us to our conclusion that the building must be used for direct student purposes have occurred rather dramatically and of recent date.

2. Decontamination Technology

Although a number of your NYSDEC colleagues, Robert Schick and Ed Bellmore in particular, have been most helpful in explaining to the district your intentions on the total Love Canal project, it was only within the last several weeks that the district became fully aware of the specific technology to be employed in decontaminating the last remaining 7000 cubic yards of lightly contaminated sub-soil on 93rd Street School property.

There is little need to dwell upon the environmental expectations of the highly sensitized residents of Love Canal proper as well as the entire community of Niagara Falls. We are fully convinced that no matter how persuasive the professional and technical evidence may be that the contaminated soil in question has been rendered thoroughly non-toxic and innocuous there would remain in the collective community mind overriding environmental reserve in populating an elementary school with children ages 5-11. Burying this soil on site would present a well-nigh impossible public relations task for the district to carry out.

It is, therefore, the strong conviction and desire of the school district that the contaminated soil in question be totally and physically removed from the 93rd Street School site. We were pleased to learn at the January 17 TRC that you and Mr. Stephen Luftig, USEPA, will be approaching Occidental Chemical to determine if they can accommodate this soil in their existing local toxic waste containment area and that you are also willing to consider the possibility of on-site solidification and subsequent removal as a reasonable modification of the original protocol.

3. Congruence With General Love Canal Rehabilitation Goals

As noted, the district has already authorized architect/engineer studies of 93rd Street School to determine the degree and extent of rehabilitation necessary. We have also authorized our district Environmental Specialist, William Gardiner, to review all existing environmental test data available from DEC, EPA, and New York and County Health Departments, and any other respected testing agency to determine if, in fact, the decontamination and removal of the subject 7000 cubic yards of contaminated soil will remove the last environmental obstacle to full and unfettered student and faculty occupation of the building. The district is prepared to authorize additional environmental tests in and about the school to confirm and resolve environmental concerns beyond the management plans we presently have on file for the address of asbestos abatement at 93rd Street School.

If our findings are as we presently judge they will be, the district will move at all deliberate speed to establish a truly fine educational center consistent with the high standard currently existent within the district. We also envision the restored school to be a natural setting for area civic, social, and recreational activities.

The restored building and the presence of 300-350 students and 75 faculty and district staff members would certainly be consistent with the mode of life and level of habitability which the tentative Love Canal Area Revitalization Agency draft Master Plan proposes.

Mr. Roy Rogers, Chief School Business Officer, and Mr. William Gardiner have been designated as district monitors and technical advisors on this issue. Mr. James Ingrasci, School District Treasurer, has been accepted by the Love Canal Area Revitalization Agency as an acknowledged auditor for all of their meetings and activities.

We wish to be fully informed of your activities on this matter and of those of other regulatory agencies similarly involved.

We are grateful for your cooperation. The district very much wishes to cooperate with your efforts in every way possible.

We ask that you join with us in making 93rd Street School a fully actualized and vital instructional center by September 1993.

Yours truly,

William L. Sdao
Superintendent of Schools

WLS:bj
copy: Mr. Thomas Jorling
Mr. Edward Sullivan
Mr. Stephen Luftig
Mayor Michael C. O'Laughlin
Mr. Larry Krizan
Mr. Spencer Scofield
Mr. Robert Schick
Mr. William Broderick

NEED FOR ADDITIONAL DISTRICT SPACE

1. NON-PUBLIC SCHOOLS - The community continues to experience a continuing erosion of the non-public education community. Three non-public elementary schools were closed in June 1989. The total non-public district population has decreased from approximately 2,000 to 1,600 in the last several years. The only remaining non-public high school is down to a total population of 180 students, a difficult number to justify a full spectrum of challenging subject offerings over four grade levels.

2. INCREASED STUDENT SERVICES - Even with a fixed student population, district space needs grow yearly. All school districts, especially urban districts, are constantly required to increase the kinds and the intensity of services required by all students. These include, but not limited to, the following services:

   - Pre-kindergarten
   - Day care
   - Full-day kindergarten
   - Latch-key programs
   - Networking with social service agencies throughout the community

Needless to say, all these services require program space in our already strained facilities. In addition, we also have a high concentration of students who need remediation and handicapped

students with special needs. In our county demographic and economic pressures are pushing such student out of the suburbs and rural sectors into the only county urban center with available resources. In our district remedial and handicapped students now comprise approximately 20.5% and 9.3% of our student population, respectively. Traditionally, these students require additional services which impact on space utilization.

3. LOVE CANAL REVITALIZATION - William Broderick, Executive Director of LCARA, has announced that agency will, in March of this year, place the first of some 120 habitable homes on the market. That agency has on hand the names of more than 150 interested purchases. These homes alone will add substantially to our student population. Beyond these homes, the agency is planning on larger numbers of new housing units.

4. GENERAL ECONOMIC RESURGENCE - The Niagara Falls community and environs is at long last experiencing a significant and broadly based economical resurgence. The Free Trade Agreement with Canada has triggered a dramatic increase in property values and job availability. Two internationally acclaimed commercial syndicates are shortly to establish two mega-malls in the area to capitalize upon our historic tourist base as well as upon an ever-increasing Canadian consumer market. These activities are rapidly absorbing the persistent 7-9% housing vacancy rate in Niagara Falls. Occupied homes and apartments translate into students.

5. MAGNET SCHOOLS - In school year 1989-90, our school district is utilizing a $200,000 state education grant to survey the concept of magnet schools and to plan for the introduction of some element of this concept in September 1990. Magnet schools require a specialization of space and resources. They work best when they are separate and removed from traditional educational processes.

APPENDIX T:

ROGERS LETTER

PRJ
8703.17P
B.1

FEB 27 1990

SCHOOL DISTRICT OF THE CITY OF NIAGARA FALLS, NEW YORK
Administration Building 607 Walnut Avenue Niagara Falls, NY 14301

JCR

RECEIVED
MAR 2 1990
SARATOGA ASSOCIATES

February 23, 1990

Mr. Jim Carr
Love Canal Area
Revitalization Agency
41 Mason Court
Niagara Falls, New York 14304

Dear Jim:

In response to your call regarding school board policy for community use of facilities, I have included Board Policy KG which indicates that the Board of Education allows for community use of the facilities which would include the playground areas.

I hope that this meets your requirements. If there are any questions, please don't hesitate to call me.

Very truly yours,

Roy W. Rogers
Administrator for School
Business Services

RWR:mmm
Enc.

William L. Sdao
Superintendent of Schools

Roy W. Rogers
Administrator for School Business Services

Carmen A. Granto
Deputy Superintendent

COMMUNITY USE OF SCHOOL FACILITIES

The use of school facilities is under the control and supervision of the Board of Education. The Board has adopted policies and approved regulations and procedures concerning the use of school facilities, which conform with the provisions set forth in Section 414 of the Education Law.

Since the schools of the community have been built with public funds and are supported by the citizens of the community, the Board wishes to do all that is possible, consistent with the provisions of the New York State Education Law, to make school facilities available to community organizations. Therefore, the Board shall permit the use of school property, when not in use for school purposes, for any of the following purposes:

1. Instruction in any branch of education, learning or the arts.

2. Public library

3. Social, civic and recreational meetings and entertainments and other uses regarding the welfare of the community provided the activities are non-exclusive and open to the general public.

4. Meetings, entertainments and occasions where the proceeds are to be used for an educational or charitable purpose. However, such use shall not be allowed if such occasions are under the exclusive control of and the proceeds are to be applied for the benefit of any religious, fraternal, secret or exclusive society or organization other than organizations of veterans of the armed forces of the United States and organizations of volunteer firemen.

5. For polling places, primaries and elections, registration of voters, and political meetings. Political meetings may not, however, be held without the consent of the Board.

6. For civic forums and community centers. The Board, upon the petition of 25 citizens, shall organize, conduct and control civic forums and community centers to promote and advance the principles of Americanism.

The Board wishes to take every precaution to insure the safety of all persons on school property. Since the National Fire Protection Association has listed the use of cigarettes and matches as one of the most common causes of school fires, the Board strictly prohibits smoking in all school

buildings. The superintendent shall inform the chairperson of each organization using school facilities of this requirement and the Board shall reserve the right to cancel permits for the use of school buildings upon a violation of this requirement.

Adopted 7/1/68

APPENDIX U:

OPPORTUNITY/COST DATA

THE SARATOGA ASSOCIATES

LANDSCAPE ARCHITECTS, ARCHITECTS, AND PLANNERS

LOVE CANAL - ESTIMATE OF INFRASTRUCTURE VALUE
COST SUMMARY BY STREET

Watermains-Sanitary Sewers-Storm Sewers-Roadways

STREET	ESTIMATED CONSTRUCTION COST
93rd Street	937,712
101st Street (Colvin to Frontier)	1,065,915
102nd Street	897,340
103rd Street & Center Avenue	468,975
96th Street	294,555
97th Street	183,195
Greenwald Court	172,225
98th Street	399,295
Mason Court	320,265
Moschel Court	138,255
99th Street	250,435
100th Street	383,025
Black Creek Drive	655,915
101st Street	307,665
Mueller Court	147,620
Wheatfield Avenue	131,460
	6,753,852
Contingencies(10%)	675,385
Total Estimated Construction Value	$7,429,237
Planning, Design & Construction Phase Engineering 25%	$1,857,309

OLD SARATOGA SQUARE, 443 BROADWAY, SARATOGA SPRINGS, NY 12866, TELEPHONE 518/587-2550, TELEFAX 518/587-2564

SARATOGA SPRINGS, BUFFALO, AND NEW YORK

THE SARATOGA ASSOCIATES

LANDSCAPE ARCHITECTS, ARCHITECTS, AND PLANNERS

LOVE CANAL - ESTIMATE OF EXISTING INFRASTRUCTURE VALUE

ASSUMPTIONS:

I. Materials

A. Watermains - Cast DeDuctile Iron
B. Sanitary Sewers - VCP or PVC
C. Storm Sewers - Concrete or VCP or CMP
D. Roadway - Per Niagara Records
E. Water Service Pipes - 3/4" Copper
F. Sanitary Service Pipes - 4" C.I. or PVC
G. Manholes - Brick or Precast Concrete
H. Catch Basins - Brick or Precast Concrete

II. Conditions

A. Undeveloped Site When Installed
B. Length of Service Lines - Up to Property Lines/ROW

III. Estimating Procedure

A. Estimating prices used are believed to be reasonable approximations of the costs to construct the listed facilities.

B. The intent of this estimate is to arrive at a "ballpark" figure to provide an ORDER of magnitude rather than an exact estimation of the infrastructure.

OLD SARATOGA SQUARE, 443 BROADWAY, SARATOGA SPRINGS, NY 12866, TELEPHONE 518/587-2550, TELEFAX 518/587-2564

SARATOGA SPRINGS, BUFFALO, AND NEW YORK

APPENDIX V:

DEMOLITION DEBRIS LETTER

LOVE CANAL AREA REVITALIZATION AGENCY
9501 COLVIN BOULEVARD
NIAGARA FALLS, NEW YORK 14304
TELEPHONE 283-9501

RECEIVED
MAR 29 1990
SARATOGA ASSOCIATES

MICHAEL C. O'LAUGHLIN, Chairman
TERRY W. KUEHN, Vice Chairman
JAMES D. HEUER, Secretary
LEOTIS S. BELK, Asst. Secretary
FRANK SODA, Treasurer
JOHN CASSATA, Asst. Treasurer
DAVID BROOKS
CARROLL J. COLPOYS
RICHARD J. HOGAN, JR.

WILLIAM D. BRODERICK
Executive Director
RICE, REID, BRODERICK & WATTENGEL
Counsel

July 11, 1989

Town Board
Town of Lewiston
1375 Ridge Road
Lewiston, New York 14092

Dear Members of The Board:

This is to advise you that the Love Canal Area Revitalization Agency has contracted with DaVal Corporation to demolish nine homes in the Love Canal Area. We understand that DaVal will be bringing the debris to the Modern Landfill in Lewiston.

The New York State Department of Environmental Conservation has written a letter stating they have no objection to the disposal of the demolition debris at Modern Landfill. (A copy of this letter is enclosed). In reaching this conclusion the DEC checked their test results for each of the homes to be demolished to assure that no contamination was found at any of them. The habitability decision by Dr. David Axelrod, the State Health Commissioner also reflects this fact.

If there is any further information you would like please do not hesitate to call me.

Very truly yours,

LOVE CANAL AREA REVITALIZATION AGENCY

William D. Broderick
Executive Director

WDB/sek
A:debrisL

New York State Department of Environmental Conservation
600 Delaware Avenue, Buffalo, New York 14202

Thomas C. Jorling
Commissioner

June 9, 1989

Mr. William D. Broderick
Executive Director
Love Canal Area Revitalization Agency
41 Mason Drive
Niagara Falls, NY 14304

Dear Mr. Broderick:

I am in receipt of your May 31, 1989 letter regarding the demolition of homes in the Love Canal Revitalization area in Niagara Falls.

Please be advised that this office has no objection to the demolition or the disposal of the demolition debris at the Modern Landfill in the Town of Lewiston, Niagara County.

Should you have questions regarding this matter, please feel free to contact this office at 847-4585.

Very truly yours,

Robert J. Mitrey, P.E.
Associate Sanitary Engineer

RJM:jd
cc: Modern Landfill
Niagara County Health Department

LOVE CANAL AREA REVITALIZATON AGENCY
9501 COLVIN BOULEVARD
NIAGARA FALLS, NEW YORK 14304
TELEPHONE 283-9501
FAX # 716-283-9505

MICHAEL C. O'LAUGHLIN, Chairman
TERRY W. KUEHN, Vice Chairman
JAMES D. HEUER, Secretary
RICHARD J. HOGAN, JR., Asst. Secretary
FRANK SODA, Treasurer
JOHN CASSATA, Asst. Treasurer
DAVID BROOKS
CARROLL J. COLPOYS
REV. JOSEPH ROBINSON

WILLIAM D. BRODERICK
Executive Director
RICE, REID, BRODERICK & WATTENGEL
Counsel

February 6, 1990

New York State Department
of Environmental Conservation
600 Delaware Avenue
Buffalo, New York 14202

Attention: Robert Mitrey

Gentlemen:

The Love Canal Area Revitalization Agency will shortly be requesting bids for demolition of a number of homes in the Emergency Declaration Area surrounding the Love Canal. Our previous demolition contractor, with your approval, was able to take the debris to the Schultz landfill in Cheektowaga. We would like to make a similar arrangement with the Niagara County Refuse District.

We are requesting that you give us a letter of clearance for the Niagara County Refuse District to accept demolition debris from the homes listed on the attached page.

We have listed 32 homes although budget limitations may prevent us from demolishing all of these houses this year.

Your prompt attention to this matter would be appreciated as we hope to put the next demolition contract out to bid within the next month.

Thank you very much for your cooperation.

Yours sincerely,

LOVE CANAL AREA REVITALIZATION AGENCY

William D. Broderick
Executive Director

02/06/90
i:demoltr.wdb

DEMOLITIONS IN THE HABITABLE AREA

534 - 93RD STREET
708 - 93RD STREET
908 - 93RD STREET

1064 - 96TH STREET

1085 - 98TH STREET
1117 - 98TH STREET

1080 - 99TH STREET

1041 - 101ST STREET

52 - MASON DRIVE

9832 - MOSCHEL COURT

10016 - MUELLER COURT
10114 - MUELLER COURT

DEMOLITIONS IN THE NON-HABITABLE AREA

489 - 100TH STREET
793 - 100TH STREET

466 - 101ST STREET
645 - 101ST STREET
728 - 101ST STREET

510 - 102ND STREET
516 - 102ND STREET
521 - 102ND STREET
546 - 102ND STREET
597 - 102ND STREET
644 - 102ND STREET
706 - 102ND STREET
756 - 102ND STREET
775 - 102ND STREET

430 - 103RD STREET
435 - 103RD STREET

10012 - BUFFALO AVENUE
10014 - BUFFALO AVENUE
10030 - BUFFALO AVENUE

451 - WHEATFIELD AVENUE

New York State Department of Environmental Conservation
600 Delaware Avenue, Buffalo, New York 14202

Thomas C. Jorling
Commissioner

June 9, 1989

Mr. William D. Broderick
Executive Director
Love Canal Area Revitalization Agency
41 Mason Drive
Niagara Falls, NY 14304

Dear Mr. Broderick:

I am in receipt of your May 31, 1989 letter regarding the demolition of homes in the Love Canal Revitalization area in Niagara Falls.

Please be advised that this office has no objection to the demolition or the disposal of the demolition debris at the Modern Landfill in the Town of Lewiston, Niagara County.

Should you have questions regarding this matter, please feel free to contact this office at 847-4585.

Very truly yours,

Robert J. Mitrey, P.E.
Associate Sanitary Engineer

RJM:jd
cc: Modern Landfill
Niagara County Health Department

New York State Department of Environmental Conservation
600 Delaware Avenue, Buffalo, New York 14202



Thomas C. Jorling
Commissioner

December 12, 1989

Mr. Stephen Elggren
Integrated Waste Systems
6 Fountain Plaza
Buffalo, NY 14150

Dear Mr. Elggren:

This office is in receipt of your request to accept for disposal the demolished homes from the Love Canal area. According to the documentation submitted and information available to this office, your request is approved for a one time only disposal for the 10 listed homes. This application is approved providing that the following conditions are met:

1. That only aboveground debris is included for disposal.

2. That only demolition debris that meets 6NYCRR Part 360-1.2(b)(33) be deposited.

Should you have any questions pertaining to this matter, please contact the writer.

Very truly yours,

Robert C. Wozniak
Solid Waste Specialist II

RCW:jd
cc: Mr. Robert Mitrey
Mr. William Broderick

APPENDIX W:

CLARIFICATION TO THE HABITABILITY DECISION

Clarification
of Habitability Decision
Love Canal Emergency Declaration Area - EDA 4

16 June 1989

Summary

On May 10-11, 1989, a panel of experts met to discuss several questions raised by the discovery of chemically-contaminated soil at the Niagara Community Church. The Church is located in Niagara Falls in one of the comparison areas used in the habitability study. The presence of chemically-contaminated soil raised questions regarding the use of Census Tract 225 as a comparison area and the viability of the comparison approach. The panel concluded that the presence of contaminated soil at the Church did not invalidate the use of Census Tract 225 as a comparison area and that the comparison approach was a viable means of assessing habitability for the Love Canal EDA.

One of the experts, Dr. Michael Stoline, asked for a re-assessment and interpretation of the decision regarding the habitability of a portion of the Emergency Declaration Area (EDA 4 - the sampling area north of Colvin Boulevard, east of 98th Street and south of Moschel Court). He was concerned about BHC[1] contamination in that area, particularly in what he characterized as "hot spots" or locations with much higher levels of BHCs than found elsewhere in the study (letter attached). He had prepared an analysis of the data that assessed the magnitude of the 95th percentiles for each of the sampling areas in the EDA relative to the magnitude of the 95th percentiles in the comparison areas. The 95th percentile BHCs were generally more than an order of magnitude (ten-fold) higher in EDA 1 and 4 than in the Niagara Falls comparison areas.

After discussion, the panel concluded that "it may be appropriate to clarify the decision with respect to the habitability of EDA 4 in the face of the data for BHCs". Furthermore, because the habitability of EDA 4-7 appeared to depend on LCICs not being "consistently" elevated in soil, a review of the statistical power associated with the decision was recommended.

The Department has reviewed the data from the habitability study along with data from samples taken in 1980. The highest level of β-BHC found in samples obtained from the EDA at that time was in a sample from the same property (near the intersection of Black Creek Drive and 100th Street) where the highest level of β-BHC was found in the habitability study. The maximum level found in 1980 was 806 parts per billion (ppb) compared to 4108 ppb found in the habitability study. In 1980, elevated levels of BHCs were found in samples both at the surface and at 6 feet deep. These findings suggest that contaminated fill may have been used on this property, because the β isomer rather than the γ isomer (the pesticide lindane) was predominant and the contamination is not limited to the surface. Although none of the levels of BHCs found is sufficient to require remediation, the Department will recommend additional sampling in this area for evidence of greater contamination that might not have been identified to date.

The panel of experts specifically considered how government agencies should react to the future discovery of contamination in the EDA. They concluded that "government agencies should treat reports of potential contamination or discoveries of contamination at the Emergency Declaration Area as they would anywhere else in the state". Thus, even if a localized area of contamination were to be discovered in the EDA, the habitability of a neighborhood would not be affected unless the contamination was a threat to the health of neighborhood residents. Where localized contamination is found (such as in the parking lot of the Niagara Community Church), its extent is identified and efforts to remediate the contamination are pursued.

---

[1] BHCs are isomers of hexachlorocyclohexane, previously called benzene hexachloride.

Rationale for reaching habitability decision

The habitability criteria for the EDA were comprised of three distinct components - an assessment of the air in individual residences, an assessment of dioxin (2,3,7,8-tetrachlorodibenzo-*p*-dioxin) in the soil of each residence, and an assessment of "indicator chemicals" (LCICs) in the soil of neighborhoods in the EDA (EDA 1-7) relative to comparison areas in Niagara Falls and Erie County. As noted in the decision, the air assessment "identified no dwellings where chemicals from the Love Canal are currently adversely affecting ambient or indoor air in the dwellings in the EDA." In the habitability study, dioxin was found at one location in EDA 3 at concentrations of 17-35 ppb, in excess of the 1 ppb level of concern for dioxin in residential soil that was derived by the federal Centers for Disease Control. Additional sampling in the vicinity of the original sample found that the area of contamination was quite limited (less than five feet in radius and less than 12 inches of surface soil). Subsequently, the area of contamination was removed.

The comparison approach applied to the LCICs in soil (the third component of the habitability criteria) was a statistical comparison of LCIC levels in each of the neighborhoods or sampling areas in the EDA. The statistical method used compared overall levels of LCICs in each EDA sampling area to overall levels of LCICs in each comparison area.

Comparison of soil LCICs in EDA 1-3 to Niagara Falls comparison areas found consistently higher levels of LCICs in EDA 1-3. The multivariate statistical comparisons (combining all LCICs together in the comparison) found soil LCIC concentrations to be generally greater in EDA 1-3 than in both Niagara Falls comparison areas. Individually, at least two of the three chlorobenzenes were greater in EDA 1-3 than either of the two Niagara Falls comparison areas, and at least three of the four BHCs were greater in these EDA sampling areas than the Niagara Falls comparison areas, except that in EDA 3 the BHC concentrations were not significantly different from those in Census Tract 225.

In EDA 4 the results of the comparisons were mixed. Overall LCIC concentrations (compared by the multivariate analysis) were generally less in EDA 4 than Census Tract 221 and not significantly different from Census Tract 225. Individually, three BHCs were greater in EDA 4 compared to Census Tract 221, but three of the chlorobenzenes were greater in Census Tract 221 than in EDA 4. Moreover, none of the LCICs was individually greater in EDA 4 than Census Tract 225. Based on this analysis of the data, EDA 4 was judged to be more similar to EDA 5-7 than to EDA 2-3.

The elevated 95th percentile levels of BHCs (particularly β-BHC) in EDA 4 were considered in reaching the habitability decision. These high values largely resulted from two samples with β-BHC concentrations of 4108 and 1729 ppb (samples 302 and 270). Although these two samples were from properties close to one another, these results were not considered indicative of localized chemical waste disposal, since even though the concentrations were high relative to other samples in the study, they were not high relative to levels found to be associated with chemical waste or to be present at the Love Canal itself prior to remediation. For example, earlier studies at the Love Canal found γ-BHC at 20,000 ppm (20,000,000 ppb) in soil close to the Canal.

For the reasons listed above, EDA 4 was considered to be habitable along with EDA 5-7.

Additional review of the statistical power

In the habitability study, the power of the statistical test used is the probability or chance of rejecting the hypothesis that a particular EDA sampling area was the same as a comparison area, when in fact it was not.

When the habitability study was designed, the statistical power was defined as a 90% probability of detecting an order-of-magnitude difference in concentrations of soil LCICs, and the sample sizes needed to provide that power were calculated independently for each LCIC (univariate analysis) and for the combined LCICs (multivariate analysis). In EDA 4, LCIC findings were inconsistent. The BHCs suggested that EDA 4 was more contaminated than one Niagara Falls comparison area, but the chlorobenzenes suggested that the comparison area was more contaminated than EDA 4. Thus, the decision to consider EDA 4 no different from the comparison area was based on having several LCICs simultaneously greater and other LCICs simultaneously lower in an EDA sampling area than in the comparison areas. These findings potentially reduced the statistical power available, because the power of having several LCICs simultaneously greater in an EDA area is the product of the individual probabilities. However, for a variety of reasons (primarily improvements in the techniques for chemical analysis after the pilot study was completed), the statistical power actually available in the study was greater than planned.

As can be seen in the attached analysis (see Table 1 of the memorandum from Bruce Peterson, CH2M Hill dated May 19, 1989), the study actually had a probability of nearly 1.0 (100%) to detect an "order of magnitude" difference. This exceeds the goal set for the habitability study of a 90% probability to detect such a difference.

CH2M HILL

To: Doug Garbarini/U.S. E.P.A.
Ed Horne/N.Y.S.D.O.H.

From: Bruce Peterson/CH2M HILL -SEA

Date: May 19 1989

Proj: WDC63394.PM

Copy: Nelline Scheuer/CH2M HILL -WDC

RECEIVED
MAY 25 1989
Division of Environmental Health Assessment

RE: Retrospective power for habitability decision

During the peer review meeting of May 10 and 11, a question was raised about the retrospective power of the habitability decision. Strictly speaking this calculation is not possible as the habitability decision was not based only on the statistical comparisons but rather on a combination of public health assessments and the statistical comparisons.

However, if the areas declared habitable are compared with the areas declared not habitable then a pattern can be seen to the statistical comparisons. The pattern of habitability is similar to what would be obtained if the following rule was applied to the univariate statistical comparisons:

> An area is habitable if no more than 4 LCICs are significantly different from the Niagara Falls comparison areas.

Table G-3 of Volume 5 of the habitability study final report shows the power estimated for the univariate comparisons for several assumed differences. You may recall that power is the probability of detecting a difference of a given size. The goal for the habitability study was to have a 90% probability of detecting an "order of magnitude" difference. The difference being interpreted as a difference in median values.

Table G-3 shows the probability of detecting a difference between background and the EDA assuming that the LCIC concentration is greater by an amount D in the EDA than in the background. The power of the empirical habitability decision rule can be calculated by assuming that it is detecting an increase in concentration of an amount D in all LCICs simultaneously. Given this assumption, table G-3 can be used to calculate the probability that more than 4 LCICs would be found to be significantly different if all LCICs in the EDA had concentrations greater than background by an amount D.

Table 1 shows the results of this calculation. The values are calculated by summing the probabilities of all possible combinations of more than 4 LCICs being simultaneously found significantly different given the probabilities from table G-3.

Table 1

Difference 'D' between EDA and background. EDA is (1+D)	Probability of detecting difference 'D' in all LCICs using empirical decision rule
0.00	0.0000
0.05	0.0001
0.10	0.0013
0.20	0.0269
0.50	0.4887
1.00	0.9671
2.00	1.0000
5.00	1.0000
10.00	1.0000

Table G-3

POWER (AT ALPHA = 0.05) FOR UNIVARIATE TESTS BASED ON LOGNORMAL MIXTURE PARAMETERS GIVEN IN TABLE G-2 FOR GOOD DATA GIVEN IN TABLE B-4 OF FINAL REPORT VOLUME III, WITH SAMPLE SIZE 75

	LCIC[b]							
Delta[a]	1	2	3	4	5	6	7	8
.00	.046	.051	.052	.046	.048	.046	.047	.043
.05	.173	.093	.076	.066	.062	.066	.059	.059
.10	.408	.187	.119	.096	.096	.096	.072	.072
.20	.847	.459	.253	.200	.136	.200	.100	.105
.50	1.000	.961	.678	.525	.338	.525	.198	.259
1.00	1.000	1.000	.972	.878	.676	.878	.360	.520
2.00	1.000	1.000	1.000	.996	.958	.996	.678	.827
5.00	1.000	1.000	1.000	1.000	1.000	1.000	.943	.991
10.00	1.000	1.000	1.000	1.000	1.000	1.000	.996	1.000

[a] LCIC concentrations in EDA sampling area are drawn from a statistical population related to that of the comparison area by the factor 1+delta; delta=10.0 corresponds to an order of magnitude shift.

[b] LCIC 1 = 1,2-Dichlorobenzene
2 = 1,2,4-Trichlorobenzene
3 = 1,2,3,4-Tetrachlorobenzene
4 = Chloronaphthalene
5 = alpha BHC
6 = delta BHC
7 = beta BHC
8 = gamma BHC

WDR359/030/2

APPENDIX X:

HABITABILITY STUDY TRANSMITTAL LETTER

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION II
26 FEDERAL PLAZA
NEW YORK, NEW YORK 10278

JUL 28 1988

Honorable David Axelrod
Commissioner of Health
Empire State Plaza
Corning Tower
Albany, New York 12237

Dear Commissioner Axelrod:

The Technical Review Committee (TRC) is transmitting to you the five volume Love Canal Emergency Declaration Area Habitability Study Final Report. It is our understanding that, utilizing the environmental sampling and statistical data from this study and other currently available information, you will determine the habitability of the Emergency Declaration Area (EDA). It is also our understanding that you will convene a panel to assist in recommending best land-uses for the area. The formal acceptance of this report by the TRC and your subsequent determinations, will fulfill the requirements of Section 312(e) of the Superfund Amendments and Reauthorization Act (SARA). Section 312(e) requires that study data be made public, and that habitability and land-use determinations be made so that the land within the EDA can be put to its best use.

As you are aware, the TRC was formed in August 1983 to provide interagency coordination and oversight of issues related to the remedial program at the Love Canal. The TRC is chaired by the Environmental Protection Agency (EPA) and includes senior level officials of the EPA Region II, the Department of Health and Human Services (DHHS), the New York State Department of Environmental Conservation (DEC), and the New York State Department of Health (DOH). Agency representatives of the TRC have included William Librizzi, Kenneth Stoller and Stephen Luttig of the EPA, Daniel VanDerMeer and John Liddle of DHHS, Norman Nosenchuck and Michael O'Toole of the DEC, and Robert Huttaker and William Stasiuk of the DOH.

The TRC's first major undertaking was to develop criteria for habitability that, when applied to the EDA, could be used by the New York State Commissioner of Health to make a determination on the habitability of neighborhoods and residences within the EDA. DHHS and DOH were charged by the TRC with the basic task of developing these criteria. Ten distinguished, independent scientists representing a variety of disciplines including environmental medicine, epidemiology, toxicology, engineering, statistics, and sociology, assisted in this difficult task.

In 1985, following numerous public meetings, draft reports and consideration of several approaches, a set of criteria were proposed by the DHHS and the DOH. These criteria were subsequently peer reviewed and issued in December 1986 as the Proposed Habitability Criteria for the Love Canal Emergency Declaration Area.

These proposed criteria were endorsed by the TRC in January 1987. The criteria provided the conceptual framework for obtaining the information necessary to determine if the Love Canal site (in its present state of remediation and with the guarantees of EPA and NYSDEC for continuous monitoring and containment) has a measurable impact on the environment of the EDA which, in the judgement of the Commissioner of Health, renders the EDA or neighborhoods in the EDA not habitable from a public health standpoint.

In 1986, pilot studies were conducted to test the feasibility of implementing the proposed habitability criteria and to obtain data to refine elements of the study protocols and design. The methods and results of the pilot studies were peer reviewed in 1987. Several significant modifications were made including lowering the detection limit for eight Love Canal Indicator Chemicals (LCICs) in soil to the 0.2-0.3 parts per billion (ppb) range prior to the initiation of the full scale study. In October 1986, SARA embodied and codified the study under Section 312(e).

The three environmental assessments for the study and their respective reports were completed in May 1988 and peer reviewed in June 1988. The results of the study and related activities have been documented in a five volume set of final reports. Volume I provides an introduction and documentation of the decision making process through the development and implementation of the Habitability Study. Volumes II and III report on the air and soil assessments for LCICs, respectively. Volume IV presents the results of the soil 2,3,7,8-TCDD assessment. Volume V includes a summary of the peer review of the study and responses to the peer reviewers' evaluation. For your reference, we have also included the 1986 Proposed Habitability Criteria.

The TRC, has reached a major milestone in transmitting the Habitability Study final report to you. We believe that the investigations comprising the Habitability Study have employed the highest scientific standards and have yielded credible data. It is our understanding that you intend to make a judgement on the habitability of the EDA, and convene a panel representative of Niagara Falls community interests to provide you with recommendations for best use of the EDA land. It is also understood that you will transmit your determinations to the EPA Administrator late in 1988.

The implementation of your recommendations will be the next major task at hand. Section 312(d) of SARA mandates that EPA provide technical assistance to the agency or authority of the State of New York designated to implement the habitability and land-use determinations so that the land in the EDA can be put to its best use. EPA is prepared to provide such assistance to the designated agency. It is recommended that the agency which the State of New York selects for this purpose also be identified in your transmittal to the EPA Administrator.

The TRC remains collectively or individually available to respond to questions or concerns which you or the Niagara Falls advisory panel may have.

Sincerely yours,

Stephen D. Luftig, P.E.
Chairman
Technical Review Committee

John Liddle, Ph.D
Assistant Director
Division of Environmental
Health Laboratory Sciences
Center for Environmental
Health and Injury Control

William Stasiuk, Ph.D., Director
Center for Environmental Health

Michael J. O'Toole, Jr., P.E.
Acting Director
Division of Hazardous
Waste Remediation

Enclosure

APPENDIX Y:

PETERSON MEMORANDUM

CH2M HILL

To: Doug Garbarini/U.S. E.P.A.
Ed Horne/N.Y.S.D.O.H.

From: Bruce Peterson/CH2M HILL -SEA

Date: May 19 1989

Proj: WDC63394.PM

Copy: Nelline Scheuer/CH2M HILL -WDC

RECEIVED
MAY 25 1989
Division of Environmental Health Assessment

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10.00	1.0000

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.20	.847	.459	.253	.200	.136	.200	.100	.105
.50	1.000	.961	.678	.525	.338	.525	.198	.259
1.00	1.000	1.000	.972	.878	.676	.878	.360	.520
2.00	1.000	1.000	1.000	.996	.958	.996	.678	.827
5.00	1.000	1.000	1.000	1.000	1.000	1.000	.943	.991
10.00	1.000	1.000	1.000	1.000	1.000	1.000	.996	1.000

[a] LCIC concentrations in EDA sampling area are drawn from a statistical population related to that of the comparison area by the factor 1+delta; delta=10.0 corresponds to an order of magnitude shift.

[b] LCIC 1 = 1,2-Dichlorobenzene
2 = 1,2,4-Trichlorobenzene
3 = 1,2,3,4-Tetrachlorobenzene
4 = Chloronaphthalene
5 = alpha BHC
6 = delta BHC
7 = beta BHC
8 = gamma BHC

WDR359/030/2

APPENDIX Z:

REVISED CITY OF NIAGARA FALLS SCHOOL DISTRICT PROJECTIONS

NOVEMBER 1989

SCHOOL DISTRICT PROJECTED ENROLLMENT 1990-1994

YEAR	K	1	2	3	4	5	6	7	8	9	10	11	12
'1989-90	696	757	698	646	670	610	626	615	593	704	569	549	561
'1990-91	631	840	710	662	640	655	606	709	608	649	634	519	533
'1991-92	594	762	788	674	655	626	650	687	701	665	584	578	504
'1992-93	602	716	715	748	667	641	622	736	679	767	599	533	561
'1993-94	615	726	672	679	741	652	637	705	728	743	690	546	518
'1994-95	615	742	681	638	672	725	647	722	697	796	669	629	530

SPECIAL EDUCATION

YEAR	K	K-5	1-5	6-8	9-12	ELM	MID	SR	TOTAL	K-12
'1989-90	696	4077	3381	1834	2383	311	206	238	755	9049
'1990-91	631	4138	3507	1923	2335	314	208	240	762	9158
'1991-92	594	4099	3505	2038	2331	314	208	240	762	9230
'1992-93	602	4089	3487	2037	2460	314	208	240	762	9348
'1993-94	615	4085	3470	2070	2497	314	208	240	762	9414
'1994-95	615	4073	3458	2066	2624	314	208	240	762	9525

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ELEMENTARY SCHOOL PROJECTIONS 1990-1994

ABATE	K	1	2	3	4	5	SUB TOT	SP. ED.	TOTAL
'1989-90	119	151	139	141	149	159	858	56	914
'1990-91	123	144	142	132	140	146	827	57	884
'1991-92	116	148	135	135	131	137	802	57	859
'1992-93	117	140	139	128	134	128	786	57	843
'1993-94	120	141	131	132	127	131	782	57	839
'1994-95	120	145	132	132	131	124	784	57	841
HYDE PARK									
'1989-90	113	110	110	93	85	105	616		616
'1990-91	89	136	103	104	92	83	607		607
'1991-92	84	107	128	98	103	90	610		610
'1992-93	85	101	100	121	97	101	605		605
'1993-94	87	103	95	95	120	95	595		595
'1994-95	87	105	97	95	94	117	595		595
KALFAS									
'1989-90	33	48	39	39	37	38	234	27	261
'1990-91	36	40	45	37	39	36	233	27	260
'1991-92	34	43	38	43	37	38	233	27	260
'1992-93	34	41	40	36	43	36	230	27	257
'1993-94	34	41	38	38	36	42	229	27	256
'1994-95	34	41	38	38	38	35	224	27	251

MANN	K	1	2	3	4	5	SUB TOT	SP. ED	TOTAL
'1989-90	76	75	64	52	70	53	390	40	430
'1990-91	61	91	70	60	51	68	401	40	441
'1991-92	58	74	86	66	60	50	394	40	434
'1992-93	58	70	69	82	65	59	403	40	443
'1993-94	58	70	66	65	81	64	404	40	444
'1994-95	58	70	66	65	64	70	393	40	433
MAPLE									
'1989-90	68	65	62	59	58	46	358	21	379
'1990-91	59	82	61	59	58	57	376	21	397
'1991-92	55	71	77	58	58	57	376	21	397
'1992-93	58	66	67	73	57	57	378	21	399
'1993-94	60	70	62	64	72	56	384	21	405
'1994-95	60	72	66	64	63	70	395	21	416
NIAGARA									
'1989-90	131	135	145	104	115	98	728	64	792
'1990-91	119	158	127	138	103	112	757	65	822
'1991-92	112	144	148	121	137	101	763	65	828
'1992-93	114	135	135	140	120	134	778	65	843
'1993-94	116	138	127	128	139	117	765	65	830
'1994-95	116	140	129	128	127	136	776	65	841

'60TH	K	1	2	3	4	5	SUB TOT	SP. ED.	TOTAL
'1989-90	43	44	37	44	45	29	242	39	281
'1990-91	40	52	41	35	44	44	256	39	295
'1991-92	38	48	49	39	35	43	252	39	291
'1992-93	39	46	45	47	39	34	250	39	289
'1993-94	40	47	43	43	47	38	258	39	297
'1994-95	40	48	44	43	43	46	264	39	303
'66TH									
'1989-90	55	60	39	54	49	41	298	42	340
'1990-91	49	66	56	37	53	48	309	43	352
'1991-92	46	59	62	53	37	52	309	43	352
'1992-93	46	56	55	59	52	36	304	43	347
'1993-94	47	56	53	52	58	51	317	43	360
'1994-95	47	57	53	52	51	57	317	43	360
'79TH									
'1989-90	58	69	63	60	62	41	353	22	375
'1990-91	56	70	65	60	59	61	371	22	393
'1991-92	52	68	66	62	59	58	365	22	387
'1992-93	53	63	64	63	61	58	362	22	384
'1993-94	54	64	59	61	62	60	360	22	382
'1994-95	54	65	60	61	60	61	361	22	383

MIDDLE SCHOOL PROJECTIONS 1990-94

GMS	6	7	8	SUB TOT	SP ED	TOTAL
'1989-90	345	323	318	986	115	1101
'1990-91	330	367	328	1025	116	1141
'1991-92	354	355	373	1082	116	1198
'1992-93	338	381	361	1080	116	1196
'1993-94	347	364	387	1098	116	1214
'1994-95	352	373	370	1095	116	1211

LMS						
'1989-90	281	292	275	848	91	939
'1990-91	275	342	281	898	92	990
'1991-92	296	331	329	956	92	1048
'1992-93	283	340	318	941	92	1033
'1993-94	290	340	327	957	92	1049
'1994-95	294	348	327	969	92	1061

LSHS	9	10	11	12	SUB TOT	SP ED	TOTAL
'1989-90	340	294	297	276	1207	114	1344
'1990-91	318	306	268	288	1180	115	1295
'1991-92	326	302	279	260	1167	115	1282
'1992-93	376	310	275	270	1231	115	1346
'1993-94	364	357	282	261	1264	115	1379
'1994-95	390	347	325	267	1329	115	1444
NFHS							
'1989-90	364	275	252	285	1176	124	1300
'1990-91	329	328	251	245	1153	125	1278
'1991-92	348	276	273	246	1143	125	1268
'1992-93	389	283	252	274	1198	125	1323
'1993-94	377	326	258	253	1214	125	1339
'1994-95	404	316	298	259	1277	125	1402

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NIAGARA FALLS PUBLIC SCHOOLS TEN YEAR PROJECTIONS

ENROLLMENT PROJECTIONS 9/90'-9/2000

YEAR	K	1	2	3	4	5	6	7	8	9	10	11	12	SPECIAL EDUCATION ELM	MID	SEC	TOTAL
'1989-90	696	757	698	646	670	610	626	615	593	704	569	549	561	311	206	238	9049
'1990-91	631	840	710	662	640	655	606	709	608	649	634	519	533	314	208	240	9158
'1991-92	594	762	788	674	655	626	650	687	701	665	584	578	504	314	208	240	9230
'1992-93	602	716	715	748	667	641	622	736	679	767	599	533	561	314	208	240	9348
'1993-94	615	726	672	679	741	652	637	705	728	743	690	546	518	314	208	240	9414
'1994-95	615	742	681	638	672	725	647	722	697	796	669	629	530	314	208	240	9525
'1995-96	615	742	696	646	631	657	720	733	714	763	716	610	611	314	208	240	9616
'1996-97	615	742	696	661	640	617	652	816	725	781	687	653	592	314	208	240	9639
'1997-98	615	742	696	661	654	626	612	739	807	793	703	627	634	314	208	240	9671
'1998-99	615	742	696	661	654	640	621	693	731	883	714	641	609	314	208	240	9662
'1999-200	615	742	696	661	654	640	636	704	685	800	966	651	622	314	208	240	9834