

SUBSURFACE INVESTIGATION WORK PLAN

**90-11 31ST AVENUE
QUEENS, NEW YORK 11369**

NYS DEC Spill No. 0800899

GCI Project No. 2008045

Prepared For:

**New York State
Department of Environmental Conservation
(NYS DEC)
and
Mr. Peter Giampilis
230 Half Hollow Road
Dix Hills, New York 11746**

September 15, 2008

Prepared By:

**General Consolidated Industries, Inc.
Environmental and Engineering Consultants
1092 Motor Parkway
Hauppauge, New York 11788-5228
1-800-842-5073**

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1.0 INTRODUCTION

1.1 Overview

This Phase II Subsurface Investigation Work Plan has been prepared by General Consolidated Industries, Inc. (GCI), for the property located at 90-11 - 90-21 31st Avenue, Jackson Heights, Queens, New York.

The subject site is depicted on Figure 1.0 - Site Location Map. The objective of the Phase II Subsurface Investigation Work Plan is to outline the objectives and methodology which will be employed at the site in order to assess soil vapor contamination and soil contamination.

The investigative activities will be conducted in a stepped approach so as to ensure that all necessary work has been completed prior to moving towards the next phase. The location of the relevant site features are depicted on Figure 4.0 - Site Diagram.

The Work Plan will be implemented utilizing a site specific Quality Assurance/Quality Control (QA/QC).

2.0 SITE BACKGROUND AND SETTING

2.1 Site Description

The subject site is located at 90-11 31st Avenue, Jackson Heights, Queens County, New York. The site is identified on the tax map as a portion of Block 1388, Lot 36. The subject site is part of a single lot parcel which is rectangular in shape and measures 10,000 square feet or 0.23 acres. The subject site is improved by the subject building and a pedestrian sidewalk.

The subject site is presently improved by a one (1) story commercial building. The subject building is occupied by "New York Drycleaners". The current operations at the site entail on-site dry cleaning. According to the Borough of Queens Tax Assessor, the subject building was constructed in 1932.

2.2 Previous Environmental Assessments

The supplemental Phase II Subsurface Investigation activities to be conducted at the subject site are being conducted as per the requirements of the New York State Department of Environmental Conservation (NYS DEC). The NYS DEC requirements are based on the Phase II Environmental Subsurface Investigation report, dated November 29, 2007, prepared by JJ Blake Technical Services, LLC and the Phase II Subsurface Investigation report, dated March 3, 2008 prepared by GCI.

The reports are summarized as follows:

Phase II Environmental Subsurface Investigation report, dated November 29, 2007, prepared by JJ Blake Technical Services, LLC

The subject building is currently occupied by a dry cleaner. A total of five (5) soil borings were installed within the basement of the subject building and within the rear yard in order to determine if the soil at the subject site has been impacted due to dry cleaning activities.

Three (3) borings were installed within the basement of the subject building. Boring 1 was installed adjacent to a sump pump; boring 2 was installed in the area below the dry cleaning apparatus; and boring 3 was installed adjacent to a heating oil AST. In addition, there were two

(2) borings installed at the north side of the rear yard and at the south side of the rear yard. The soil samples obtained from borings 1, 2, 4 and 5 were submitted to the laboratory for analysis of chlorinated VOCs. The analytical data indicated that there were no VOCs detected in the samples, with the exception of boring SB-1. Tetrachloroethylene was detected at 61 ppm.

The report recommended the following:

- "Blake recommends that a groundwater sample be collected from the front of the facility along 31st Avenue to ensure that there has been no impact to groundwater.

Phase II Subsurface Investigation, dated March 3, 2008, prepared by GCI

A representative groundwater sample was obtained from boring GW-1. The sample was submitted to the laboratory for analysis. The analytical results for the groundwater sample indicated that there were elevated levels of Tetrachloroethylene and Cis-1,2-dichloroethene detected above the NYS DEC Groundwater Standards. Based upon the analytical data, it appears that the groundwater quality within the vicinity of boring GW-1 has been slightly impacted. The report recommended submitting a copy of the Phase II Subsurface Investigation report to the NYS DEC for review.

2.3 Hydrogeologic Setting

Surface Water Characteristics

A majority of the site is covered by the subject building. The remainder of the site is covered with pedestrian sidewalks. The surface topography at the site is nearly level throughout. Storm water runoff is directed to the curb side municipal storm water collection system. The up-gradient drainage area within 1,000 feet of the subject site is improved with commercial buildings. The potential for flooding at the site is considered to be slight.

Groundwater Characteristics

The Borough of Queens is characterized by Alton stony loam (As) and Miami stony loam (Ms) and bedrock. The depth to groundwater at the subject site was encountered between approximately thirty one (31) to thirty four (34) feet below ground surface (bgs). Groundwater generally flows east, northeast. Please note that actual groundwater flow can be affected by many variables including underground utilities and other subsurface openings or obstructions such as basements, underground parking garages and subway lines, bedrock geology, etc.

Groundwater is not used as a drinking water supply in the Borough of Queens. Potable (drinking) water is supplied to the subject site by the New York City Bureau of Water. The Bureau obtains-potable water from the Croton Reservoir located in Westchester County and other fresh water reservoirs in upstate New York.

Geological Characteristics

According to the United States Department of Agriculture, Soil Conservation Service - Soil Survey, New York is located in the Atlantic Coastal Plain physiographic province which is characterized by low hills of unconsolidated sands, gravel and silt. The subsurface deposits consist of the Upper Glacial deposits that are characterized by southward sloping deposits of sand, gravel and silt. The Upper Glacial deposits have a maximum thickness of 600 feet.

They are underlain by the Magothy, Raritan and Lloyd Formations. The Gardiners clay and the Jameco gravel separate the Upper Glacial deposits and the Magothy Formation along the south west portion of Long Island. The Borough of Queens is underlain by bedrock, although the majority of it is at several hundred feet below land surface.

3.0 PHASE II SUBSURFACE INVESTIGATION ACTIVITIES

The objectives of the Supplemental Phase II Subsurface Investigation Activities are to determine the presence of soil vapor contamination, as well as to determine the presence of soil contamination within the basement sump.

3.1 Soil Boring Installation

Geoprobe® tooling will be utilized to obtain one (1) soil sample from the basement sump. The location of the proposed boring location is depicted on Figure 4.0 - Site Diagram. Discrete soil samples will be secured in continuous two (2) foot intervals from ground surface to a depth of six (6) feet below grade.

The collected samples will be visually inspected for possible evidence of contamination. In addition, the samples will be field screened with a Perkin-Elmer Model 2020 photo-ionization detector (PID) for the presence of volatile organic vapors which can be associated with petroleum based contamination.

3.2 Soil Vapor Probes

A Geoprobe® drill rig and Geoprobe® tooling will be utilized to obtain one (1) soil vapor probe outside the front of the subject building and one (1) soil vapor probe outside the rear of the subject building, for a total of two (2) samples. One (1) sub-slab sample with associated indoor air and ambient air sample will be collected within the subject building. The location of the proposed boring locations are depicted on Figure 4.0 - Site Diagram.

The borings will be advanced to a predetermined depth using a Geoprobe® hydraulic powered probing unit. This mechanized, vehicle mounted probing system applies both static force and hydraulic powered percussion hammers for tool placement (static down forces up to 3,000 pounds combined with percussion hammers of eight (8) horsepower continuous output). Recovery of sample volumes will be facilitated by a probe-driven sampler.

The Geoprobe® utilizes a 2.25 inch outer diameter macro core sampling sheath. Once the drive point reaches the desired depth, the expendable point is disengaged. A PRT adapter and tubing is fed through the rods and rotated to form a vacuum-tight connection at the point holder.

The samples will be field screened with a Perkin-Elmer Model 2020 photo-ionization detector (PID) for the presence of volatile organic vapors.

3.3 Applicable or Relevant Regulatory Requirements

The following applicable or relevant Regulatory requirements for the subject site have been identified:

1. New York State Department of Health (NYS DOH) Center for Environmental Health Bureau of Environmental Exposure Investigation "Guidance for Evaluating Soil Vapor Intrusion in the State of New York".

4.0 FIELD SAMPLING AND LABORATORY PROTOCOL

4.1 Sample Analysis

All samples will be immediately stored on ice and delivered to a United States Environmental Protection Agency (US EPA) certified laboratory for analysis. The laboratory chosen for this investigation is Long Island Analytical Laboratories Inc., which is located in Holbrook, Long Island, New York. The National Environmental Laboratory Approval Program (NELAP) certification number for the laboratory is NY01273. All samples will be hand delivered to Long Island Analytical Laboratories Inc., in accordance with NYS DEC chain of custody procedures, for analysis.

4.2 Laboratory Protocol

Soil Boring - Basement Sump

The soil sample obtained from two (2) to four (4) feet below grade will be retained for field screening. The visual and olfactory field data will be utilized in determining the samples to be submitted to the laboratory. It is estimated that a total of one (1) soil sample will be submitted to the laboratory for analysis.

The representative soil samples will be analyzed for volatile organic compounds (VOCs) utilizing EPA Method 8260. The samples will be delivered to the laboratory within forty-eight (48) hours of being collected.

Soil Vapor Probes

At each probe location, the sample obtained from five (5) feet below grade will be retained for field screening. It is estimated that a total of one (1) sample will be collected from four (4) different locations and submitted to the laboratory for analysis.

The representative samples will be analyzed for volatile organic compounds (VOCs) utilizing EPA Method 8260. The samples will be delivered to the laboratory within forty-eight (48) hours of being collected.

4.3 Field Instrument Calibration / Maintenance

Routine maintenance and calibration schedules will be established according to manufacturer recommendations for all field instruments. The maintenance and calibration program is described below.

Routine daily maintenance will be performed to ensure that the Perkin-Elmer Model 2020 photo-ionization detector operates properly. Field maintenance procedures include:

- Removal of dirt and debris;
- Replacement of disposable parts (i.e. filters, probe membranes, etc.) as required;
- Storage of equipment in a secure, dry area; and,
- Recharging of battery packs when not in use.

The Perkin - Elmer Model 2020 PID will be calibrated to an isobutylene standard before and after use to insure reliability. Calibration data will be recorded in the project field book.

4.4 Sampling Equipment Decontamination Procedures

All non-disposable sampling equipment (i.e., augers, hand augers, bailers, sampling devices, etc.) will be decontaminated between use to prevent cross contamination. The decontamination procedures are as follows:

1. Equipment will be scrubbed in a bath of potable water and low-phosphate detergent;
2. Potable water rinse;
3. Scrub with low-phosphate detergent;
4. Potable water rinse;
5. Air dry.

4.5 Chain of Custody Procedures

A chain of custody form will accompany the containers during transportation, sample collection and analysis. Upon receipt of the sample cooler, field staff will inspect the custody seal to determine if it is intact. The seal number and condition of the cooler upon arriving at the subject site will be recorded in a field book. The chain of custody form will be completed at the time of sample collection and included with samples during shipment to the laboratory for signature upon receipt:

Chain of custody forms will include the following information:

- Sample identification/number;
- Date and time of collection;
- Sample matrix;
- Sample location;
- Number of containers;
- Analytical parameters;
- Dates of possession; and,
- Signatures of all individuals involved in possession.

The custody seal number will be recorded in the project field book prior to shipment of samples from the field to the laboratory. Copies of all Chain of Custody forms will be included.

4.6 Quality Assurance / Quality Control Samples

Appropriate Quality Assurance/Quality Control (QA/QC) procedures will be utilized during implementation of all field activities, including but not limited to the following:

- Use of disposable vinyl gloves during all sampling.
- All sampling will be conducted with disposable, hermetically sealed, sampling equipment.
- Routine maintenance and calibration schedules will be established according to manufacturer recommendations for all field instruments.
- All non-disposable sampling equipment (i.e., augers, hand augers, Geoprobe sampling devices, etc.) will be decontaminated between use to prevent cross contamination.
- Laboratory sample containers will be shipped to the site in a sealed cooler.

- A chain of custody form will accompany the containers during transportation, sample collection and analysis.
- Upon receipt of the sample cooler, field staff will inspect the custody seal to determine if it is intact. The seal number and condition of the cooler upon arriving at the Site will be recorded in a field book.
- The chain of custody form will be completed at the time of sample collection and included with samples during shipment to the laboratory for signature upon receipt.
- There will be no QA/QC samples collected or analyzed during the course of the Remedial Action activities.

4.7 Data Evaluation

The analytical data will be compared to the New York State Department of Health's Guidance for Evaluating Soil Vapor Intrusion in the State of New York.

4.8 Report Preparation

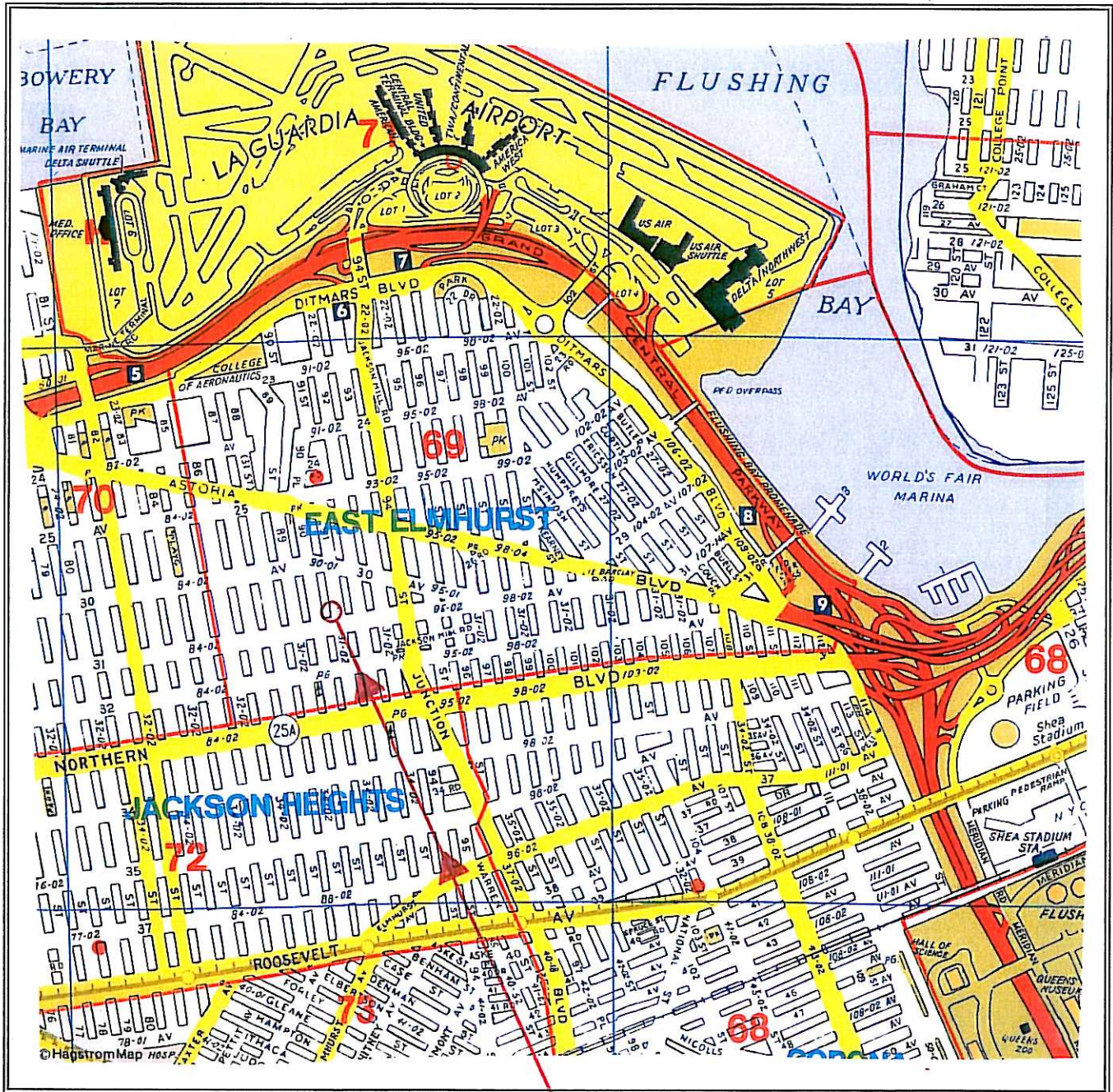
Upon completion of the field activities, a Phase II Subsurface Investigation report will be prepared. The report will detail the work performed, all field data and observations, laboratory analysis results, summary laboratory tables, soil boring logs, a site diagram, PID reading results, site photographs, conclusions, and recommendations.

- Two (2) original reports will be forwarded to the client.
- One (1) original report will be forwarded to the NYS DEC.

4.9 Project Schedule

GCI will submit the report within four (4) weeks of receiving approval. The field work and sampling will be completed within one (1) week of approval from the NYS DEC. The laboratory analysis will be completed within one (1) week of the field work. The report preparation will be completed within two (2) weeks of receipt of all laboratory analysis results.

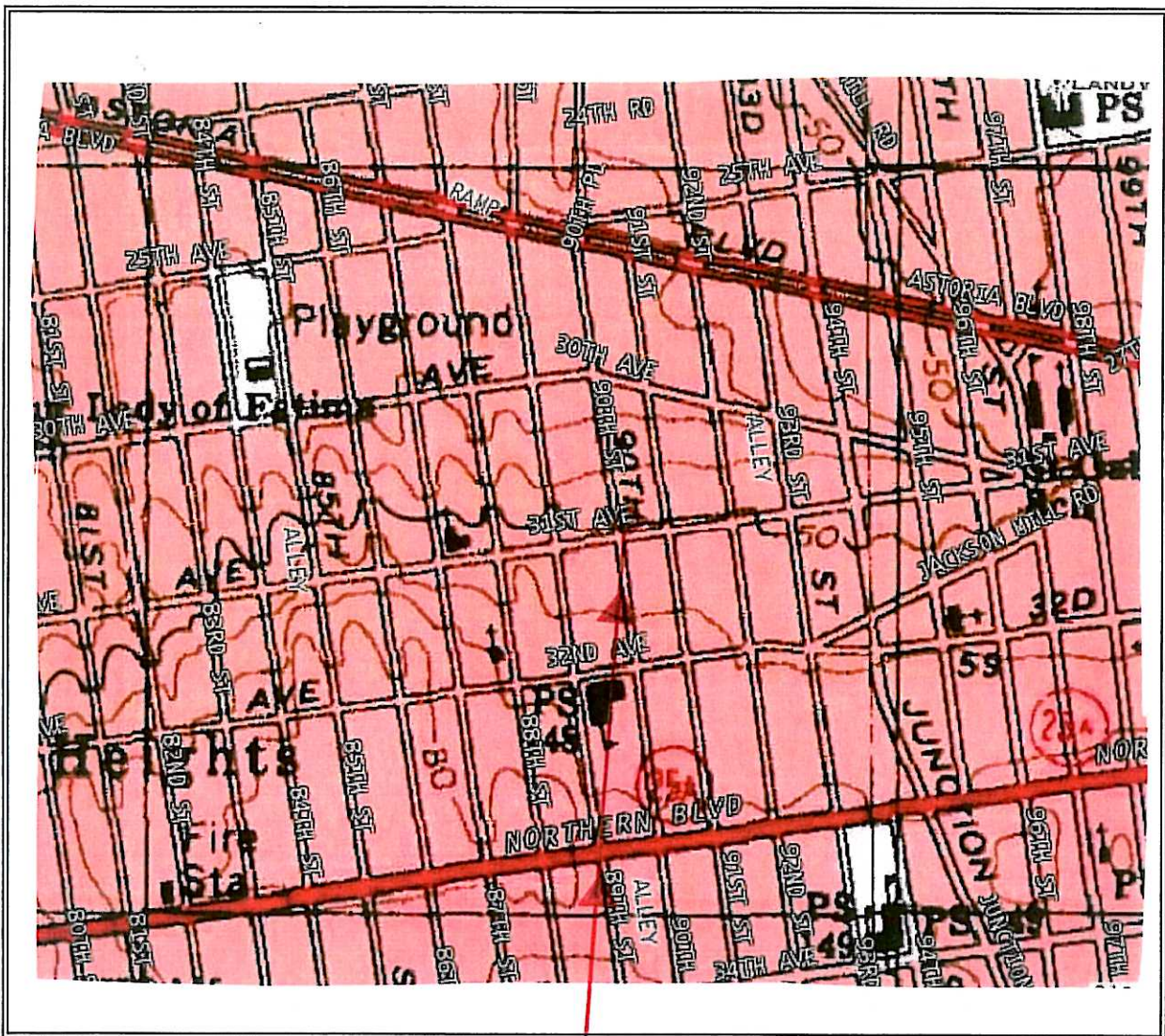
SITE LOCATION MAP



SUBJECT SITE

90-11 - 90-21 31st Avenue
Queens, New York 11369

U.S.G.S. 7.5 MINUTE TOPOGRAPHIC MAP



U.S.G.S. 7.5 MINUTE TOPOGRAPHIC MAP

90-11 - 90-21 31st Avenue
Queens, New York 11369

TAX MAP & OWNERSHIP REFERENCE

PROPERTY INFORMATION

1) Property: 9011 31ST AVE, FLUSHING NY 11369-1725 C015

APN:	01388-0036	Use:	STORE BUILDING
Alt/Old APN:		Total Value:	\$435,060
Card #:		Land Value:	\$85,500
County:	QUEENS, NY	Imprv Value:	\$349,560
Census:	351.00	Market Value:	\$2,150,000
Map Pg:	09-01-16	Mkt Land Val:	\$219,000
Municipality:	JACKSON HEIGHTS	Assd Yr:	2007
Township:		% Improve:	080%
		Neighbr Code:	
Owner:	GIAMPILIS PETER	Owner Vest:	/ /
		Phone:	

Mail: 6249 30TH AVE; WOODSIDE NY 11377-1229 C037

Owner Transfer =	Rec Dt:	Price:	Doc#:	Type:
	Sale Dt:			

SALE & FINANCE INFORMATION

	LAST SALE	PRIOR SALE
Recording/Sale Date:	02/20/1990	01/31/1990
Sale Price/Type:		
Document #/Stamp \$:	2953-2170	
Deed Type:	DEED (REG)	
1st Mtg Loan \$/Type:		
1st Mtg Rate/Type/Term:	/	/
1st Mtg Lender:		
2nd Mtg Loan \$/Type:		
2nd Mtg Rate/Type/Term:	/	/
Transfer B&P:		
Title Company:		
Seller:		
New Construction:		
Other Last Sale Info =	# Parcels:	Type 2: Pend:

SITE INFORMATION

Zoning:	R4	Sewer Type:	Acres:	0.23
County Use:	K1	Water Type:	Lot Area:	10,000
State Use:		Electric:	Lot Width:	100.00
Bldg Class:	K1		Lot Depth:	100.00
			Lot Shape:	
Garage Cap#:		Site Influence:	Bldg Width:	100
Garage2 Sqft:			Bldg Depth:	75
Parking Sqft:				
Parking Type:				

IMPROVEMENT INFORMATIONCounty: **QUEENS, NY**APN: **01388-0036**

Gross Bldg Area:	7,485	Total Rooms:		Construction:
Bldg/Living Area:	7,485	Bedrms:		Foundation:
Ground Flr Area:		Baths (Full/Half):		Ext Wall:
Above Grade:		Ttl Baths/Fixt:		Int Wall:
Upper Area:		Yr Built/Eff:	1932	Roof Type:
2nd Flr Area:		# Stories:	1.00	Roof Matl:
Rec Rm Area:		Fireplace/#:		Roof Shape:
Basement Area:		Basement Type:		Heat Fuel:
Basement Fin:		Pool:		Heat Type:
\$/SF:		Porch Type:		Parcel Fuel:
Perimeter Area:		Patio Type:		Floor Type:
		Attic Type:		Floor Cover:
# Bldgs:	1	Style:		Air Cond:
# Res. Units:	6			
# Comm Units:	6			
Inspect Entry:				
Permit Amt:				
Bldg Type:				
Bldg Comments:				
Parcel Comments:				

LEGAL INFORMATIONLegal Blk/Bldg: **1388**Legal Lot/Unit: **36**

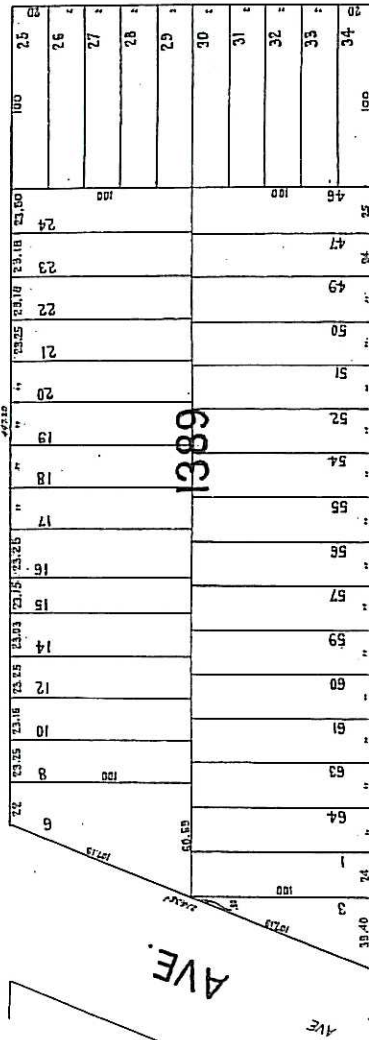
Legal Desc:



⑦
Q9-1

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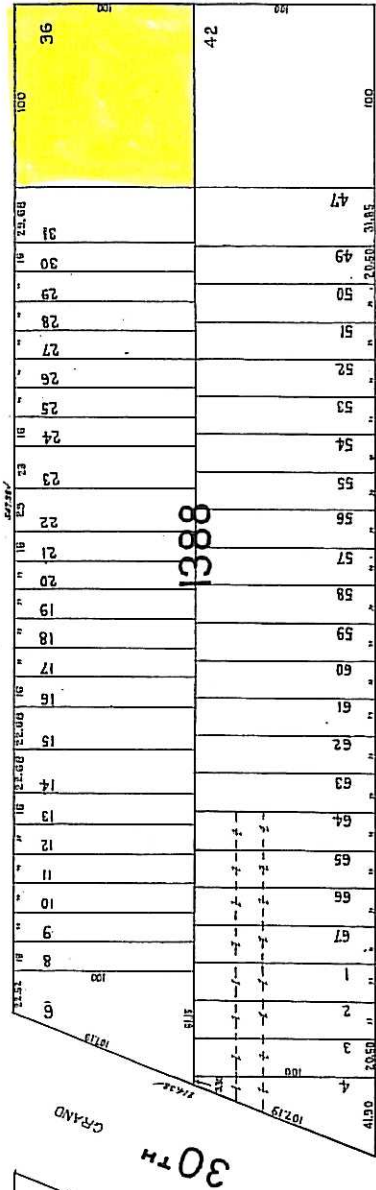
92ND ST. 35TH ST.



SEE PAGE 21

SEE PAGE 5

91ST ST. 34TH ST.






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16

90TH ST. 33RD ST.

SITE DIAGRAM

LEGEND	
PROPOSED BORING / PROBE LOCATION	
BUILDING LINE	
PROPERTY LINE	



GENERAL CONSOLIDATED INDUSTRIES INC.
1092 MOTOR PARKWAY, HAUPPAUGE, NEW YORK 11788
1-800-842-5073

Environmental & Engineering Consultants

TITLE	SITE DIAGRAM					
LOCATION	90-11 31ST AVENUE QUEENS, NEW YORK 11370					
CLIENT	MR. PETER GAMPUS					
DRAWN BY: JO	DATE: 2/28/03	PROJECT No: 2008045				
CHECKED BY: JS	DATE: 2/28/03	DRAWING No: 2008045				
LAST REVISED BY: JO	DATE: 9/15/03	SCALE: N/A	FIG. No. 1 OF 1			