Galli Engineering, P.C.

October 25, 2012

New York City Office of Environmental Remediation
Voluntary Cleanup Program
c/o Shaminder Chawla
100 Gold Street, 2nd Floor
New York, NY 10038

Re: VCP Project #13CVCP094K – 81 Fleet Place
Remedial Action Work Plan (RAWP) Stipulation List

Dear Mr. Chawla,

Galli Engineering, P.C. (Galli) hereby submits a Remedial Action Work Plan (RAWP) Stipulation List for the subject site to the New York City Office of Environmental Remediation (NYC OER) on behalf of RA Real Estate, LLC. This letter serves as an addendum to the RAWP to stipulate additional content, requirements and procedures that will be followed during the site remediation. The contents of this list are added to the RAWP and will supersede the content in the RAWP where there is a conflict in purpose or intent. The additional requirements/procedures include the following:

Stipulation List

1. The criterion attached in **Appendix 1** will be utilized if additional petroleum containing tank or vessel is identified during the remedial action or subsequent redevelopment excavation activities. All petroleum spills will be reported to the NYSDEC hotline as required by applicable laws and regulations. This contingency plan is designed for heating oil tanks and other small or moderately sized storage vessels. If larger tanks, such as gasoline storage tanks are identified, OER will be notified before this criterion is utilized.

2. A pre-approval letter from all disposal facilities will be provided to OER prior to any soil/fill material removal from the site. Documentation specified in the Appendix E of the RAWP (Soils/Materials Management Plan - Section 1.6 "Materials Disposal Off-Site") will be provided to OER. If a different facility for the soil/fill material is selected, OER will be notified immediately.

3. An outbound truck transport route is attached in **Appendix 2**.

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4. A soil reuse on-site location diagram is attached in **Appendix 3**.

5. A CD containing the final RAWP including this approved Stipulation List will be placed in the library that constitutes that primary public repository for the project documents.

6. Signage for the project will include a sturdy placard mounted in a publically accessible right of way. The sign will consist of the NYC BCP Information Sheet (see **Appendix 4**) announcing the remedial action. The Information sheet will be printed out on 8" x 11.5" paper, laminated and permanently affixed to the placard.

7. In the event that hazardous waste is identified during the remedial action or subsequent redevelopment excavation activities at this NYC VCP project, and removal and transportation of hazardous waste becomes necessary, the project may be subject to the New York State Department of Environmental Conservation's Special Assessment Tax (ECL 27-0923) and Hazardous Waste Regulatory Fees (ECL 72-00402). See DEC's website for more information: http://www.dec.ny.gov/chemical/9099.html.

8. Additional groundwater investigation will be conducted prior to excavation. A sampling plan is attached in **Appendix 5**.

9. A pre-construction meeting is required prior to start of remedial excavation work at the site. A pre-construction meeting will be held at the site and will be attended by OER, the developer or developer representative, the consultant, excavation/general contractor, and if applicable, the soil broker.

Sincerely,

Ken Brooks

Ken Brooks, P.E.
Senior Project Manager

cc: M. Mandac, OER
A. Sozomenu, Red Apple Real Estate, Inc.

Appendix 1

Generic Procedures for Management of Underground Storage Tanks Identified under the NYC BCP

Prior to Tank removal, the following procedures should be followed:

- Remove all fluid to its lowest draw-off point.
- Drain and flush piping into the tank.
- Vacuum out the "tank bottom" consisting of water product and sludge.
- Dig down to the top of the tank and expose the upper half.
- Remove the fill tube and disconnect the fill, gauge, product, vent lines and pumps. Cap and plug open ends of lines.
- Temporarily plug all tank openings, complete the excavation, remove the tank and place it in a secure location.
- Render the tank safe and check the tank atmosphere to ensure that petroleum vapors have been satisfactorily purged from the tank.
- Clean tank or remove to storage yard for cleaning.
- If the tank is to be moved, it must be transported by licensed waste transporter. Plug and cap all holes prior to transport leaving a 1/8 inch vent hole located at the top of the tank during transport.
- After cleaning, the tank must be made acceptable for disposal at a scrap yard, cleaning the tanks interior with a high pressure rinse and cutting the tank in several pieces.

During the tank and pipe line removal, the following field observations should be made and recorded:

- A description and photographic documentation of the tank and pipe line condition (pitting, holes, staining, leak points, evidence of repairs, etc.).
- Examination of the excavation floor and sidewalls for physical evidence of contamination (odor, staining, sheen, etc.).
- Periodic field screening (through bucket return) of the floor and sidewalls of the excavation, with a calibrated photoionization detector (PID).

<u>Impacted Soil Excavation Methods</u>

The excavation of the impacted soil will be performed following the removal of the existing tanks. Soil excavation will be performed in accordance with the procedures described under Section 5.5 of Draft DER-10 as follows:

- A description and photographic documentation of the excavation.
- Examination of the excavation floor and sidewalls for physical evidence of contamination (odor, staining, sheen, etc.).

- Periodic field screening (through bucket return) of the floor and sidewalls of the excavation, with calibrated photoionization detector (PID).

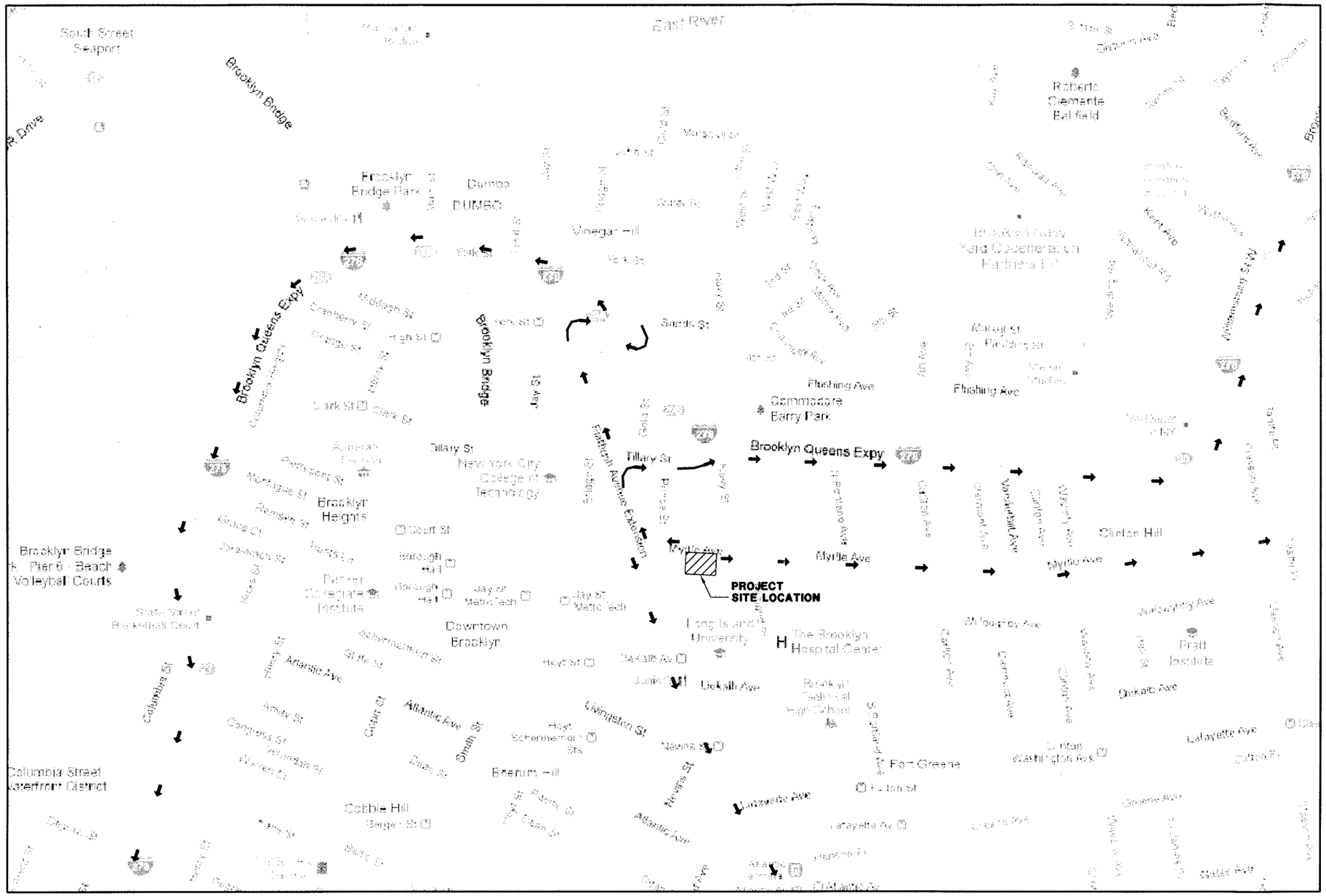
Final excavation depth, length, and width will be determined in the field, and will depend on the horizontal and vertical extent of contaminated soils as indentified through physical examination (PID response, odor, staining, etc.). Collection of verification samples will be performed to evaluate the success of the removal action as specified in this document.
The following procedure will be used for the excavation of impacted soil (as necessary and appropriate):

- Wear appropriate health and safety equipment as outlined in the Health and Safety Plan.
- Prior to excavation, ensure that the area is clear of utility lines or other obstructions. Lay plastic sheeting on the ground next to the area to be excavated.
- Using a rubber-tired backhoe or track mounted excavator, remove overburden soils and stockpile, or dispose of, separate from the impacted soil.
- If additional UST's are discovered, the NYSDEC will be notified and the best course of action to remove the structure should be determined in the field. This may involve the continued trenching around the perimeter to minimize its disturbance.
- If physically contaminated soil is present (e.g., staining, odors, sheen, PID response, etc.) an attempt will be made to remove it, to the extent not limited by the site boundaries or the bedrock surface. If possible, physically impacted soil will be removed using the backhoe or excavator, segregated from clean soils and overburden, and staged on separated dedicated plastic sheeting or live loaded into trucks from the disposal facility. Removal of the impacted soils will continue until visibly clean material is encountered and monitoring instruments indicate that no contaminants are present.
- Excavated soils which are temporarily stockpiled on-site will be covered with tarp material while disposal options are determined. Tarp will be checked on a daily basis and replaced, repaired or adjusted as needed to provide full coverage. The sheeting will be shaped and secured in such a manner as to drain runoff and direct it toward the interior of the property.

Once the site representative and regulatory personnel are satisfied with the removal effort, verification of confirmatory samples will be collected from the excavation in accordance with DER-10.

Appendix 2

Outbound Truck Transport



LEGEND

NYCDOT APPROVED TRUCK ROUTES →→→

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REV.	DATE	DESCRIPTION	BY

JOB NO. 0851-01-002

DRAWN ADS

CHECKED KLB

APPROVED RDS

SEAL

RED APPLE REAL ESTATE, INC.

SITE LOCATION: 81 FLEET PLACE, BROOKLYN, NY

M.O.E.R.

OUTBOUND TRUCK ROUTE MAP

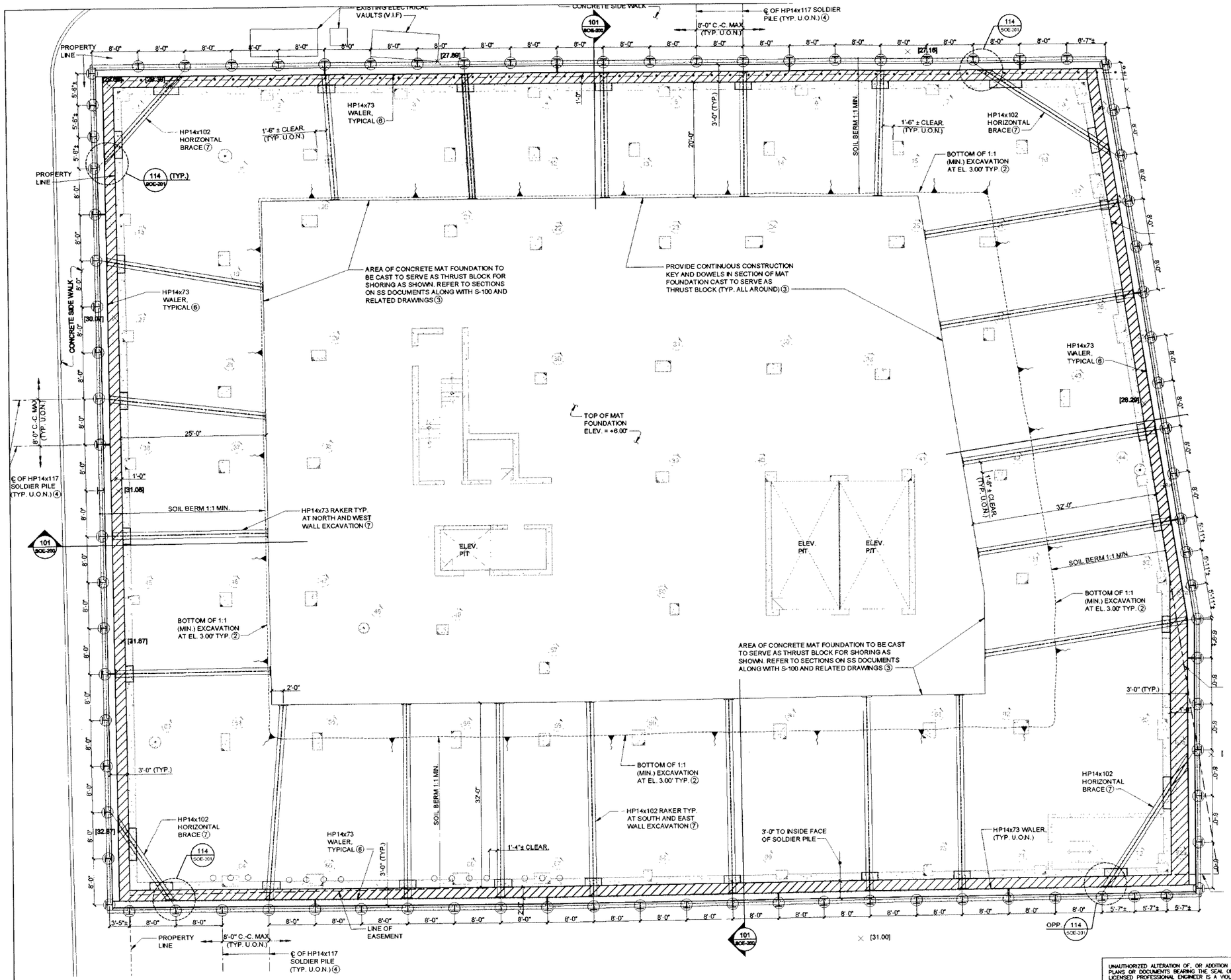
Gatti engineering, P.C.

734 Walt Whitman Road, Suite 402A
Melville, New York 11747

DATE	SCALE	DRAWING NO.
10-25-12	N.T.S.	

Appendix 3

Soil Reuse On-Site Diagram



LEGEND

ON-SITE FILL RE-USE AREA

REV.	DATE	DESCRIPTION	BY

JOB NO. 0851-05-001

DRAWN JJR

CHECKED KLB

APPROVED RDG

SEAL

R.A. REAL ESTATE, INC.

MYRTLE AVE., BROOKLYN, N.Y.

SOIL REUSE ON-SITE DIAGRAM

Galli engineering, P.C.

734 Walt Whitman Road, Suite 402A
Melville, New York 11747

DATE	SCALE	DRAWING NO.
08/20/12	1/8"=1'-0"	1

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Appendix 4

NYC VCP Signage

NYC Voluntary Cleanup Program

81 Fleet Place
Site #: 13CVCP094K

This property is enrolled in the New York City Voluntary Cleanup Program for environmental remediation. This is a voluntary program administered by the NYC Office of Environmental Remediation.

For more information, log on to:
www.nyc.gov/oer

Or scan with smart phone:

If you have questions or would like more information, please contact:

Shaminder Chawla at (212) 788-8841
or email us at brownfields@cityhall.nyc.gov

Appendix 5

Additional Groundwater Investigation Plan

81 Fleet Place
VCP Project #13CVCP094K
Additional Groundwater Investigation Plan
October 25, 2012

Due to a lack of good groundwater samples (i.e., extremely high groundwater metals numbers), additional groundwater sampling will be performed to determine if there is or is not metal contamination tracking off-site.

Three additional monitoring wells, to replace the original destroyed wells, will be installed at approximately the locations shown on the attached site sketch. This arrangement allows for triangulation to calculate local groundwater flow direction and coverage near hot spots associated with high metals and chlorinated solvent concentrations in previous groundwater samples.

Wells will be constructed of 2" diameter threaded Schedule 40 PVC. No solvents will be used. A 10-foot long section of screen with 0.010" slots will be set to intersect the water table. Solid casing will extend from the top of the screen to grade.

Wells will be installed using a 6" diameter hollow stem auger. After setting the screen and riser, a sand pack will be placed to a level at least two feet above the top of the screen. This will be followed by a two-foot layer of bentonite seal, followed by sand or grout mixture to grade.

After installation, wells will be developed by pumping and surging to clear sediment.

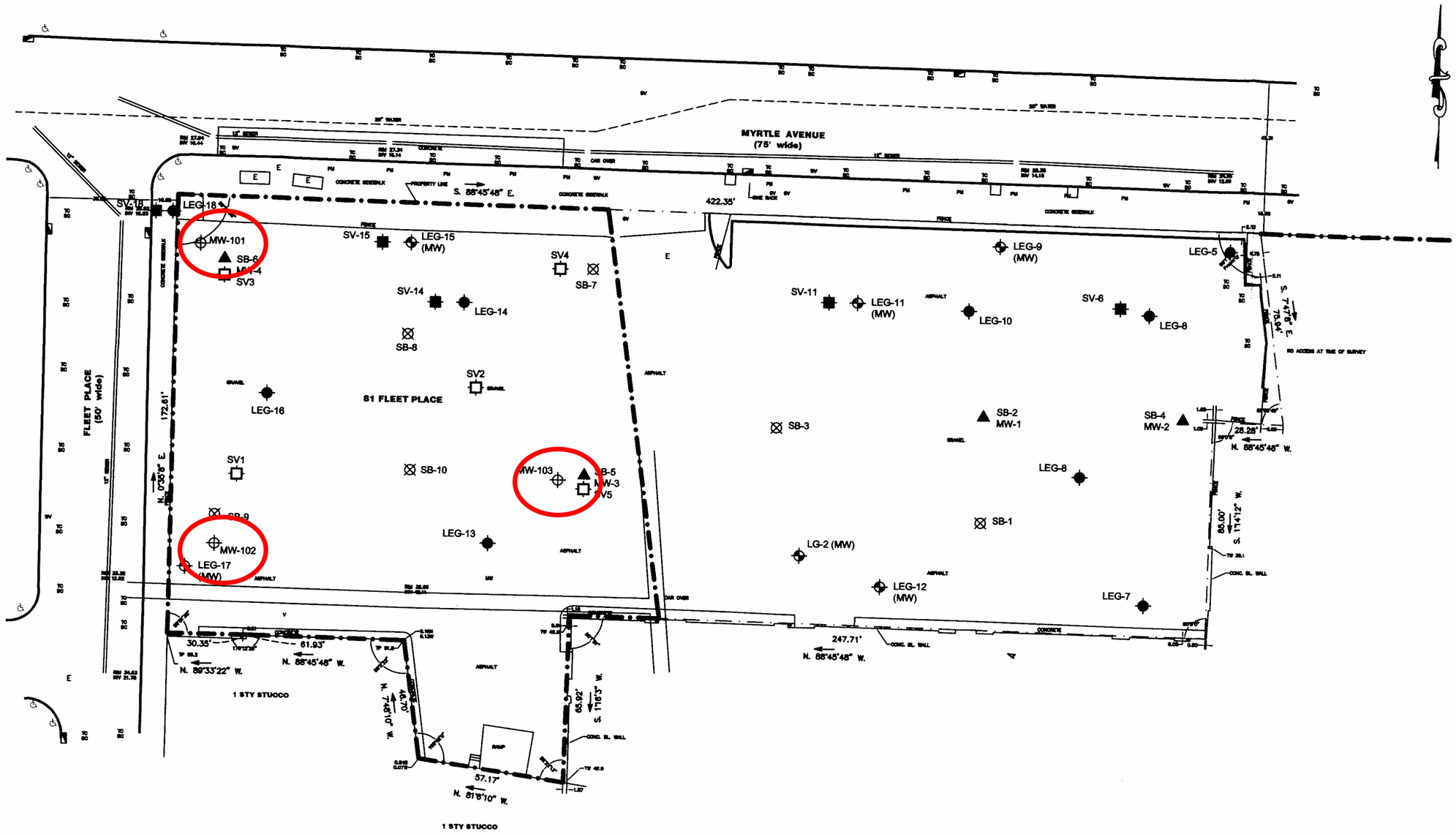
Wells will be surveyed by a NYS licensed surveyor for well location and elevation. Casing elevation will be measured to the nearest 0.01-foot.

One groundwater sampling event will be conducted utilizing industry accepted low flow methods. Depth to water will be monitored while pumping utilizing a low flow peristaltic or bladder pump. Water parameters such as, Temperature, pH, Dissolved Oxygen, Conductivity and Turbidity will be monitored in real time. When parameters have been stabilized, sampling will commence.

Sampling order will be Volatile Organics, followed by Semi Volatile Organics, Pesticides, PCB's and Metals. Samples will immediately be placed in a cooler with ice to keep a temperature of approximately 4°C. The cooler will be transported by Galli employees or laboratory courier to the laboratory.

Samples will be analyzed for Volatile Organics (EPA Method 8260C), Semi-Volatile Organics (EPA Method 8270D), Pesticides (EPA Method 8081B), PCB's (EPA Method 8082A) and TAL Metals (EPA Method 6010C). All samples will be analyzed at a NYSDOH ELAP certified lab. Both unfiltered and field filtered metals samples will be obtained.

After collection and analysis of samples, a brief report will be produced, including a site map indicating calculated groundwater flow direction.



LEGEND

- MONITORING WELL LOCATION (GALLI PROPOSED WELLS)
- BORING LOCATION (LANGAN 12/07)
- MONITORING WELL LOCATION (LANGAN 12/07)
- SOIL GAS PROBE LOCATION (LANGAN 12/07)
- SOIL BORING LOCATION (GALLI 9/10)
- SOIL BORING & MONITORING WELL LOCATION (GALLI 9/10)
- SOIL GAS PROBE (GALLI, JULY 2012)
- SUBJECT SITE

SURVEYORS LEGEND:

TC-TOP OF CURB
BC-BOTTOM OF CURB
TW-TOP OF WALL
BW-BOTTOM OF WALL
LP-LIGHT POLE
SF-SHADE LAP FENCE
CLF-CHAIN LINK FENCE
WF-WOOD PRIVACY FENCE
PF-PICKET FENCE
R-RADIUS
D-DEGREES
M-MINUTES
S-SECOND
SV-GAS VALVE
WV-WATER VALVE
FH-FIRE HYDRANT
SIGN-SIGNAGE
--LIGHT POLE
--UTILITY POLE
MW-MONITORING WELL
GUAR-GUARD SHACK

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REV.	DATE	DESCRIPTION	BY
1	10-26-12	ADD NEW MONITORING WELL LOCATIONS	KLB/JJR

JOB NO. 0857-05-001

DRAWN KAK

CHECKED KLB

APPROVED RDS

SEAL

R.A. REAL ESTATE, INC.
MYRTLE AVE., BROOKLYN, N.Y.

PROPOSED MONITORING WELL LOCATIONS PLAN

Galli engineering, P.C.
734 Walt Whitman Road, Suite 403A
Melville, New York 11747

DATE 08/20/12 | SCALE 1"=20' | DRAWING NO. 4