

APPENDIX O

SSDS AS-BUILT DRAWINGS – BUILDING 7

THE SHOPS AT ATLAS PARK
BUILDING 7 SUB-SLAB DEPRESSURIZATION SYSTEM
AS-BUILT DRAWINGS
QUEENS, NEW YORK

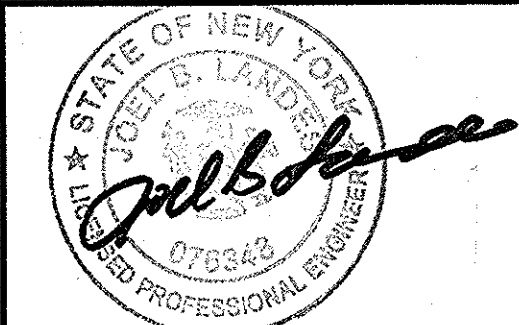
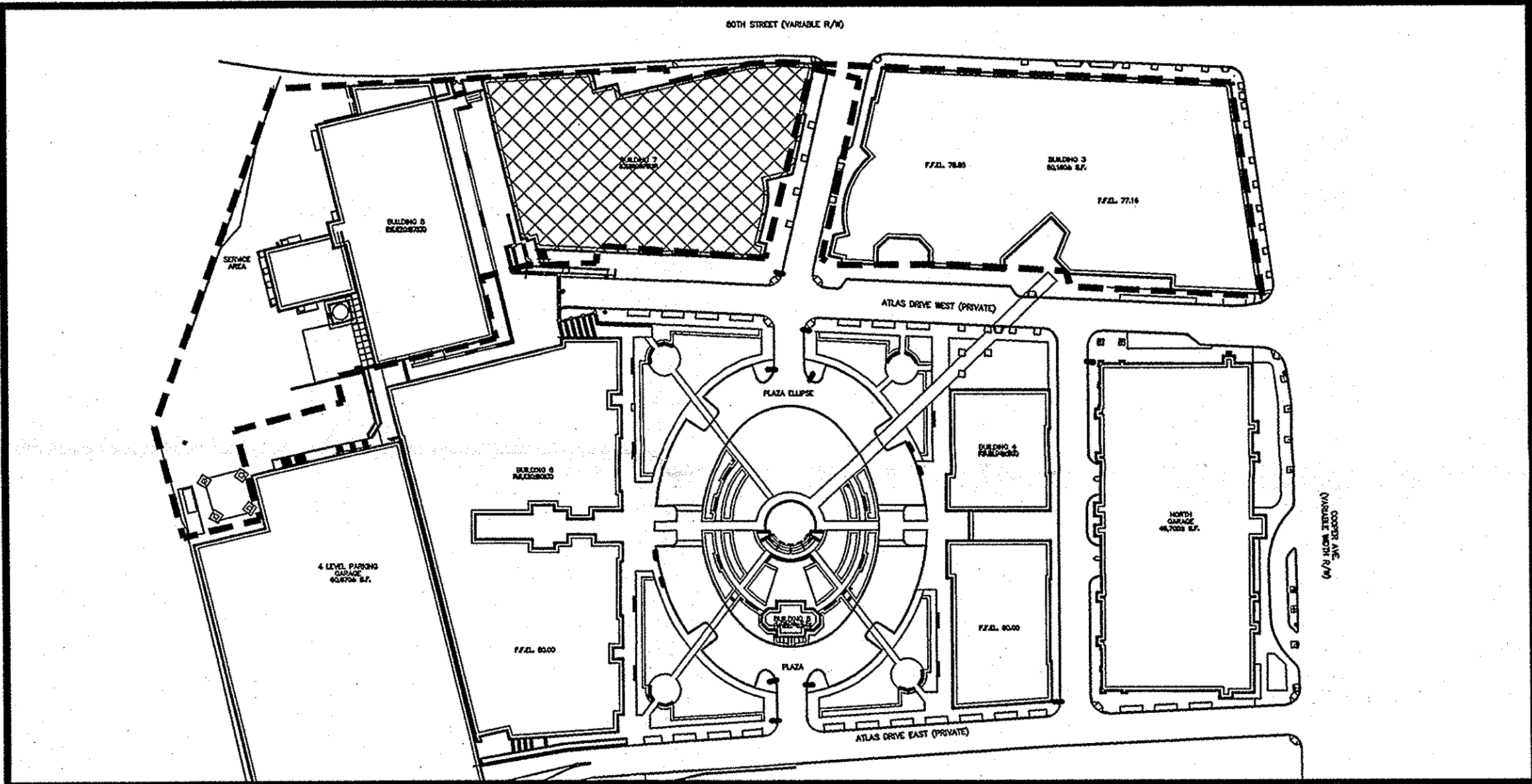


Base Map taken from New York USGS Quadrangle Map - Jamaica

SITE LOCATION MAP

LIST OF DRAWINGS		
DRAWING NAME	SCALE	DRAWING NUMBER
COVER SHEET	NOT TO SCALE	B7-SSDS-0
SUB-SLAB DEPRESSURIZATION SYSTEM DETAIL (AS-BUILT)	1"=16'	B7-SSDS-1
FOUNDATION PLAN (AS-BUILT)	AS SHOWN	B7-SSDS-2
FIRST FLOOR PLAN (AS-BUILT)	AS SHOWN	B7-SSDS-3
ROOF PLAN (AS-BUILT)	AS SHOWN	B7-SSDS-4
SUB-SLAB DEPRESSURIZATION SYSTEM DETAIL (AS-BUILT)	AS SHOWN	B7-SSDS-5

SITE KEY PLAN



JOEL B. LANDES
PROFESSIONAL ENGINEER N.Y. LIC. No.076348

12/27/06



21 Penn Plaza
360 West 31st Street, 8th Floor
New York, NY 10001-2727
P: 212.479.5400 F: 212.479.5444
www.langan.com

NEW JERSEY PENNSYLVANIA NEW YORK CONNECTICUT FLORIDA
NJ Certificate of Authorization No. 24GA27895400

Project

THE SHOPS AT ATLAS PARK
BUILDING 7 SUB-SLAB
DEPRESSURIZATION SYSTEM
AS-BUILTS

QUEENS

Drawing Title

COVER SHEET

NEW YORK

Project No. 5555113

Date 12/26/06

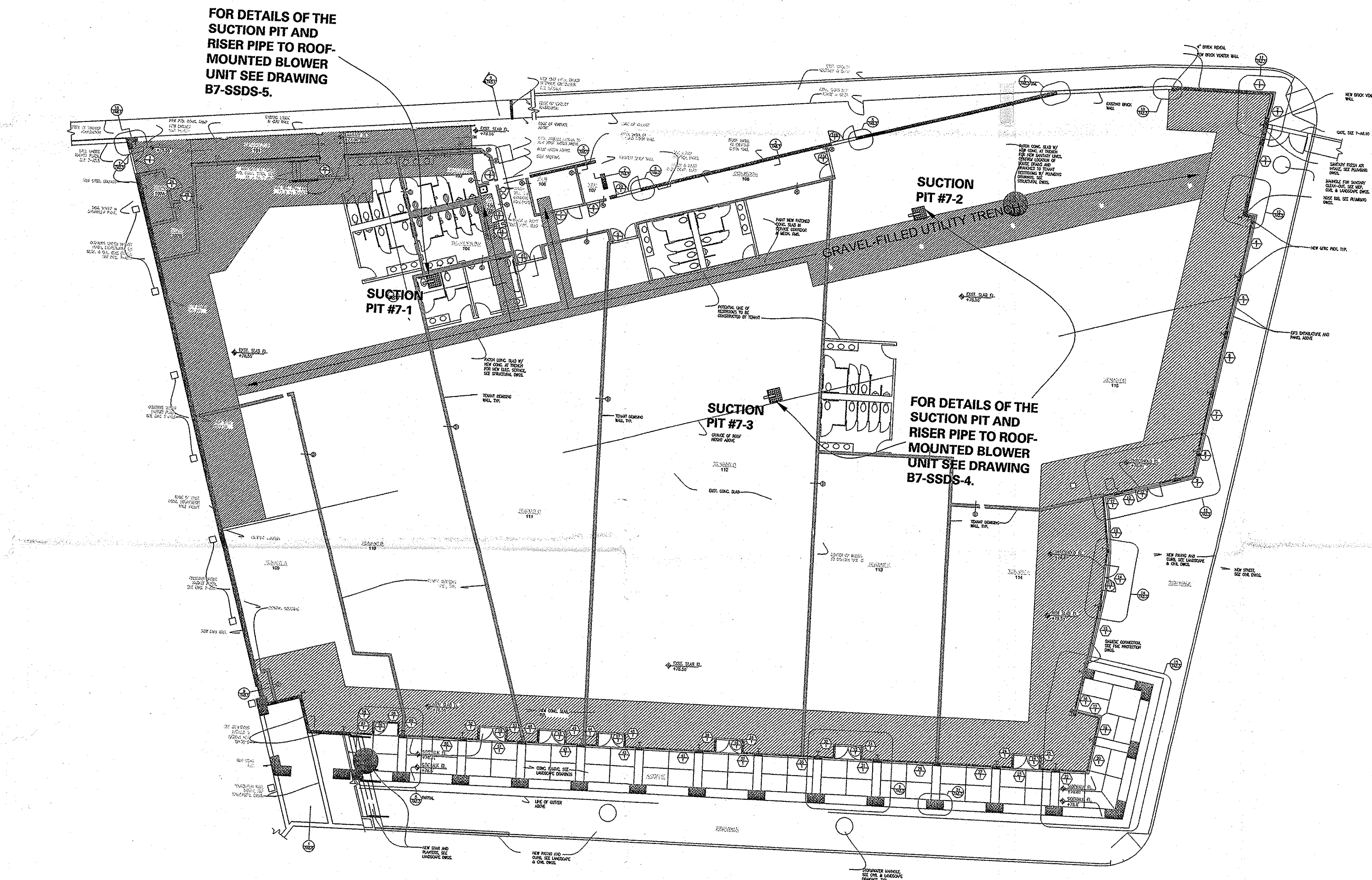
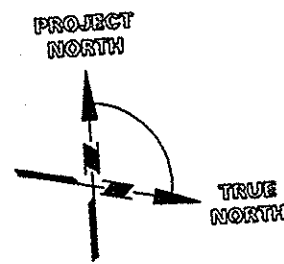
Scale NOT TO SCALE

Drn. By PP

Last Revised

Drawing No.



B7-SSDS-0

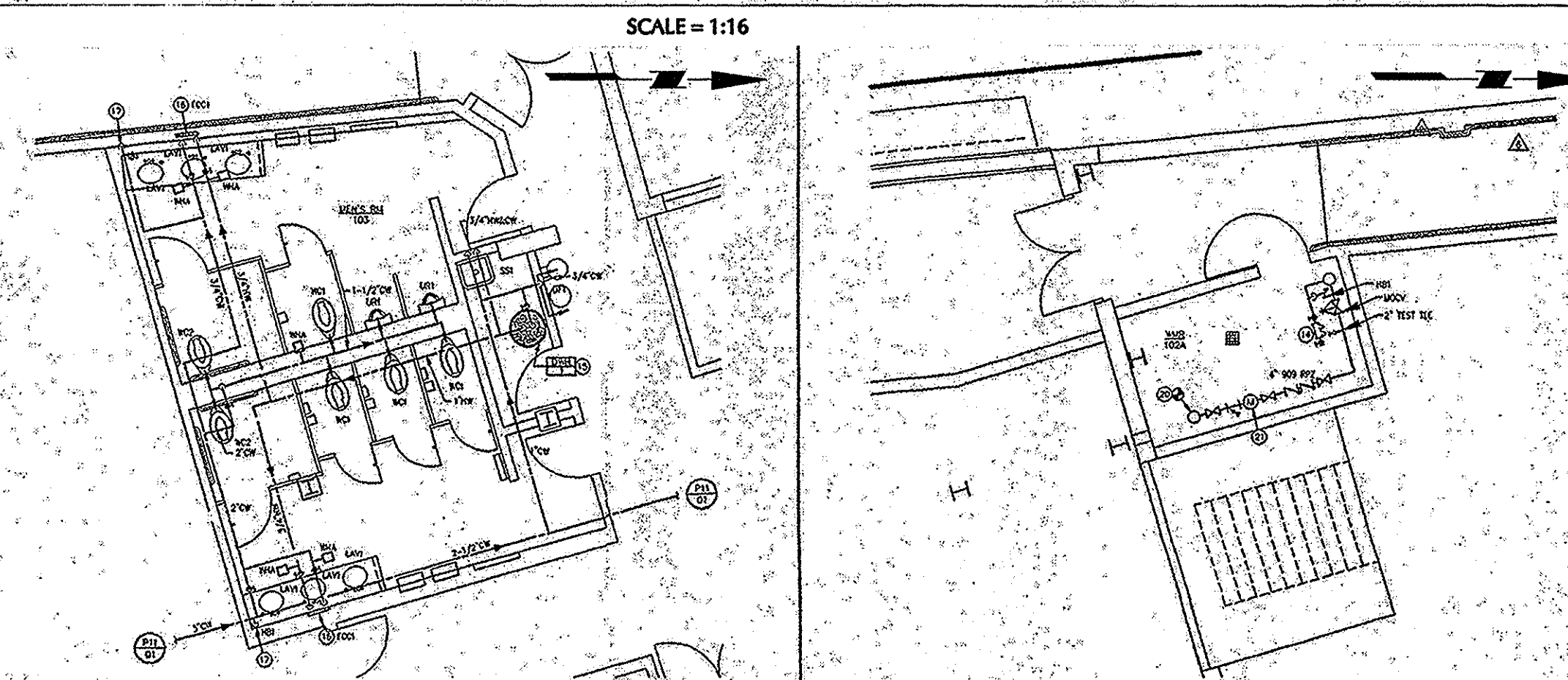


BUILDING 7 PLAN



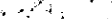






NOTES:

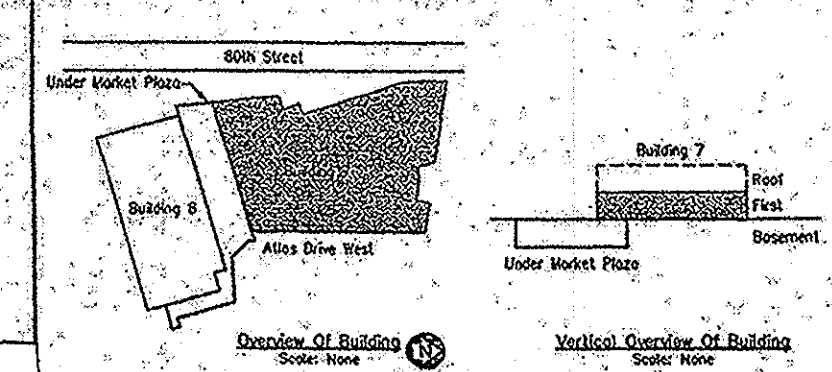
- (1) BASE PLAN IS THE BUILDING 7 BASEMENT PLAN, DRAWING 162-7-A2.0, DEVELOPED BY THANHHAUSER ESTERSON KAPELL ARCHITECTS AND DATED 4 MAY 05.
- (2) A DETAIL OF THE SUCTION PITS IS SHOWN ON DRAWING B7-SSDS-5.
- (3) SUCTION PIT LOCATIONS MAY BE SHIFTED WITH APPROVAL FROM LANGAN ENGINEERING TO ACCOMMODATE OTHER BUILDING COMPONENTS OR ARCHITECTURAL DETAILS.
- (4) TENANT DEMISING WALLS ARE ASSUMED TO BE NON-STRUCTURAL AND DO NOT REQUIRE A CONTINUOUS FOOTING. IF CONTINUOUS FOOTINGS ARE REQUIRED FOR WALLS, ADDITIONAL SUCTION PITS MAY BE REQUIRED.
- (5) SUCTION PIT #7-2 IS ADJACENT TO A GRAVEL-FILLED UTILITY TRENCH AND SHALL BE LINKED TO THE TRENCH BY A GRAVEL LAYER A MINIMUM OF 6-INCHES THICK.



					 21 Penn Plaza 380 West 31st Street, Suite 900 New York, NY 10001-2727 P: 212.479.5400 F: 212.479.5444 www.langan.com NEW JERSEY PENNSYLVANIA NEW YORK CONNECTICUT FLORIDA NJ Certificate of Authorization No: 249A27998400	Project THE SHOPS AT ATLAS PARK GLENDALE QUEENS NEW YORK	Drawing Title BUILDING 7 SUB-SLAB DEPRESSURIZATION SYSTEM LAYOUT (AS-BUILT)	Project No. 5555107	Drawing No.
Date	Description	No.	JOEL B. LANDES PROFESSIONAL ENGINEER N.Y. LIC. No.076348	12/27/06				Date 12/22/06	
	Revisions							Scale 1" = 16'	B7-SSDS-1
								Dn. By CAP	
								Last Revised	1 Of 5

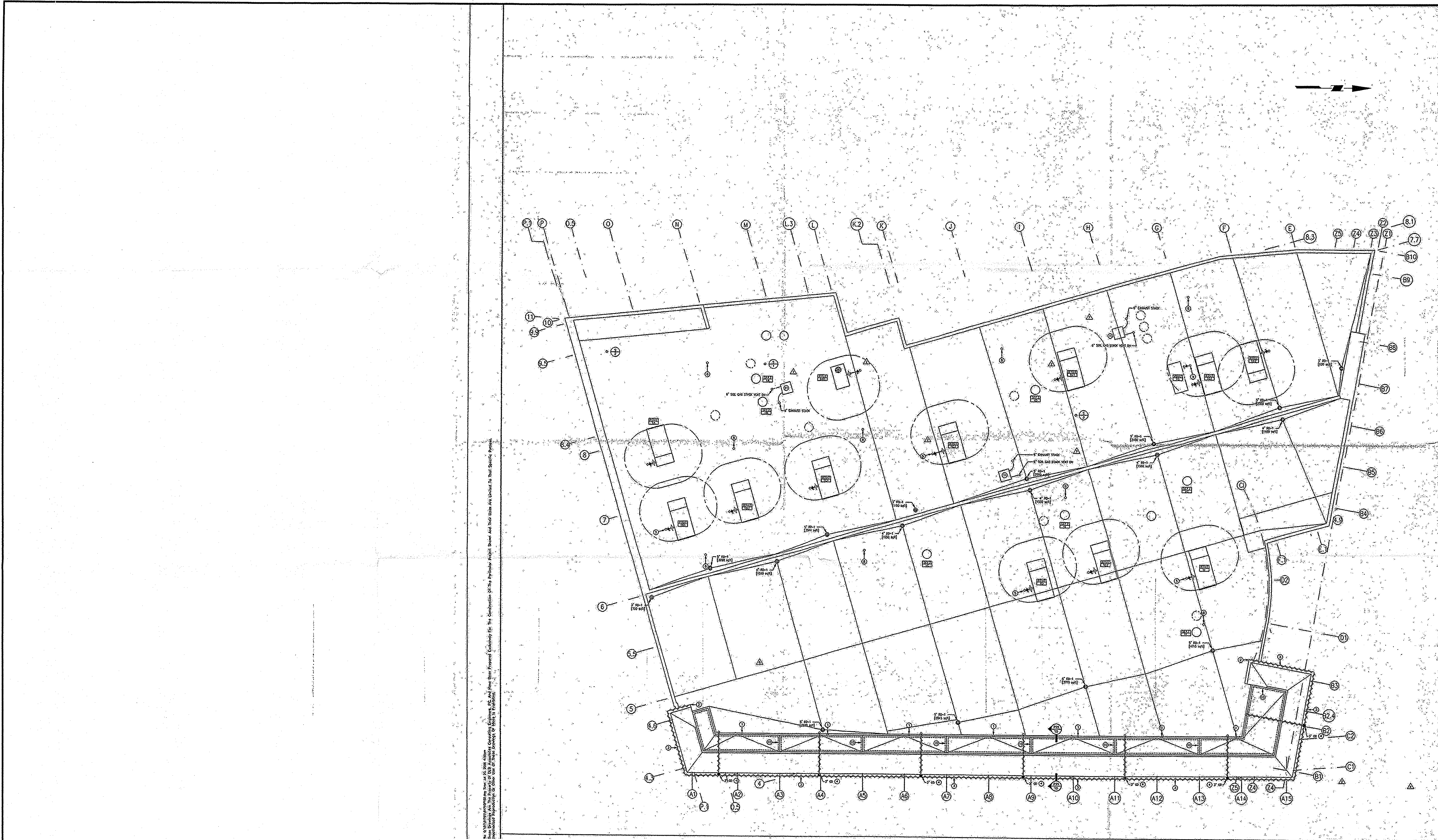


- [illegible]

- ### PARTIAL SYMBOL LIST
- | | |
|---|--|
|  | Steam Piping |
|  | Cold Water Piping |
|  | Hot Water Piping |
|  | Gas Piping |
|  | Unique Identifier / Sub-Header Service |
|  | Plumbing Fixture Number |
|  | Tells Valve/Back Valve |
|  | Check Valve |
|  | Gas Cock |



				 21 Penn Plaza 360 West 31st Street, Suite 900 New York, NY 10001-2727 P: 212.479.5400 F: 212.479.5444 www.langan.com NEW JERSEY PENNSYLVANIA NEW YORK CONNECTICUT FLORIDA NJ Certificate of Authorization No: 24AG27999400	Project	Drawing Title	Project No. 5555107	Drawing No.
					THE SHOPS AT ATLAS PARK	BUILDING 7 FIRST FLOOR PLAN (AS-BUILT)	Date 12/22/06	B7-SSDS-3
					GLENDALE		Scale AS SHOWN	
							Drn. By CAP	
							Last Revised	
Date Description No.			JOEL B. LANDES PROFESSIONAL ENGINEER N.Y. LIC. No.076348		QUEENS	NEW YORK		3 Of 5
Revisions			12/27/06					



KEY NOTES (Symbols O, @, etc.)

1. Suction Drain From Higher Roof Above To Spit On To Roof. Provide Siphonblock. Heat Trace Siphonblock.
2. Downspout From Outer To Spit On Lower Roof. Provide Siphonblock. Heat Trace Siphonblock.
3. Outer All Around Perimeter Of Sloped Roof Shall Be Heat Traced.
4. Outer Drain Shall Be Routed Tight To Underside Of Roof Deck And Through Back Wall Of Access To Spit On Lower Roof. See Detail. Heat Trace At Piping. Provide Siphonblock.
5. Route Gas Piping From Rooftop Unit Down Through Roof. Coordinate Exact Location And Connection Size With Mechanical Contractor. Provide Gas Siphonblock Valve And Cap At Each Typical.
6. Point Of Connection For Gas (Heating) For Future Tenant. Provide Isolation Valve And Cap. Not Used.
7. Not Used.
8. 4" Vent Piping Up Through Roof. Terminates At 12" Below Roof Line And Cap Both Ends For Future Tenant Connection.
9. Point Of Connection Of Gas (Heating) For Future Restaurant Tenant. Provide Gas Isolation Valve And Cap.
10. Provide Heat Tracing System Around Perimeter Of Flat Roof In Areas Indicated. Including Gas Through Siphon. The Point Of Entry Is Above Mechanical Room.
11. Connect 6" Soil Gas Piping To Roof-Mounted Blower Providing Air Necessary Venting And Filtration For Manufacturer's Installation Detail. Route Blower Exhaust To 6" Exhaust Stack. Extend Stack To 12" Above High Roof Line Providing All Necessary Structural Supports, Guys, Etc. Ensure That Exhaust Stack Is A Minimum Of 10 Feet From Rooftop Unit Intakes. Refer To Civil Engineering Depressurization System Plans For Additional Information.

GENERAL NOTES

1. All Requirements For Installation Of Gas Pipes Shall Be In Accordance With Gas Company Recommendations, NYC Building Code And All Applicable Plumbing Subordinations.
2. Gas Water Assembly Including Valves, Piping, Vents And All Appurtenances Shall Be In Strict Accordance With Gas Company Requirements.
3. Gas Branch Lines Shall Be Taken Off The Main With Not Less Than A Two Elbow Sub. Branch Outlet Pipes Shall Be Taken From The Top Or Side Of Horizontal Lines And Not From Bottom.
4. Gas Pressure Regulator For Rooftop Units Shall Be Supplied And Installed By Rooftop Unit Manufacturer.
5. Refer To And Coordinate With Architectural And Mechanical Roof Plans For Exact Locations Of All Rooftop Equipment.
6. Heat Tracing System Shall Be Minimum One-Side System For Roof And Outer Downspouts. Or Approved Equal. Cables Shall Be Self-Regulating 12 W/ft (Green) 277V, 30A, Model GTS-275. Coordinate The Number Of Receiver Poles Given With The Electrical Contractor. System Shall Be Complete With All Necessary Connectors, Straps, Hangers, Etc. And Shall Be Installed Per Manufacturer's Recommendations.
7. Heat Tracing Shall Be Installed Within Outlets And Downspouts That Required To Be Routed Up Roof Edge And Around Perimeter Of Flat Roof (Including Long Through Supports) As Indicated.
8. An Automatic Control System Shall Be Provided That Will Sense Both Moisture And Temperature Conditions. Control System Shall Be Complete With All Necessary Sensors, Etc. Per Manufacturer's Recommendations.
9. System Shall Be Fully Tested Per Manufacturer's Recommendations Prior To Startup.

PARTIAL SYMBOL LIST

	Storm Piping
	Storm Piping / Outer With Heat Tracing
	Heat Tracing on Flat Roof
	Cold Water Piping
	Hot Water Piping
	Gas Piping
	Unique Identifier / Sub-metered Service
	Plumbing Fixture Number
	Data View/End View
	Check Valve
	Gas Cap

Under Market Plaza

8th Street

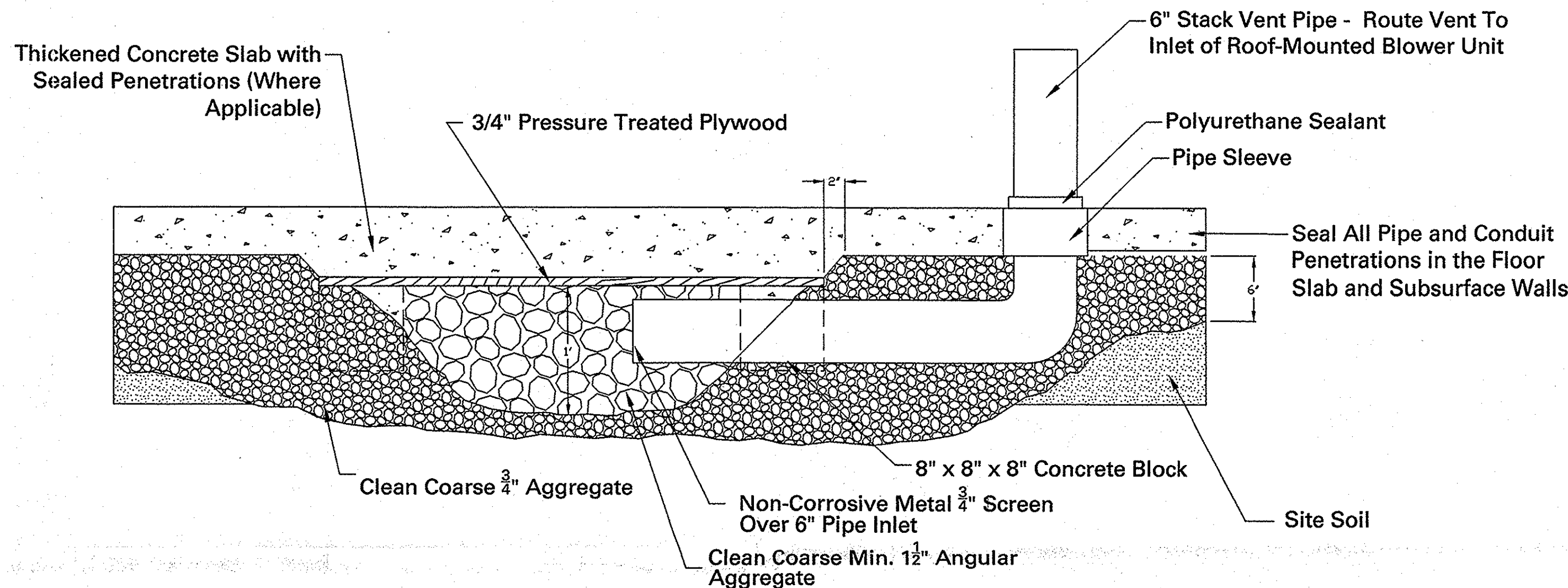
Building 7

Under Market Plaza

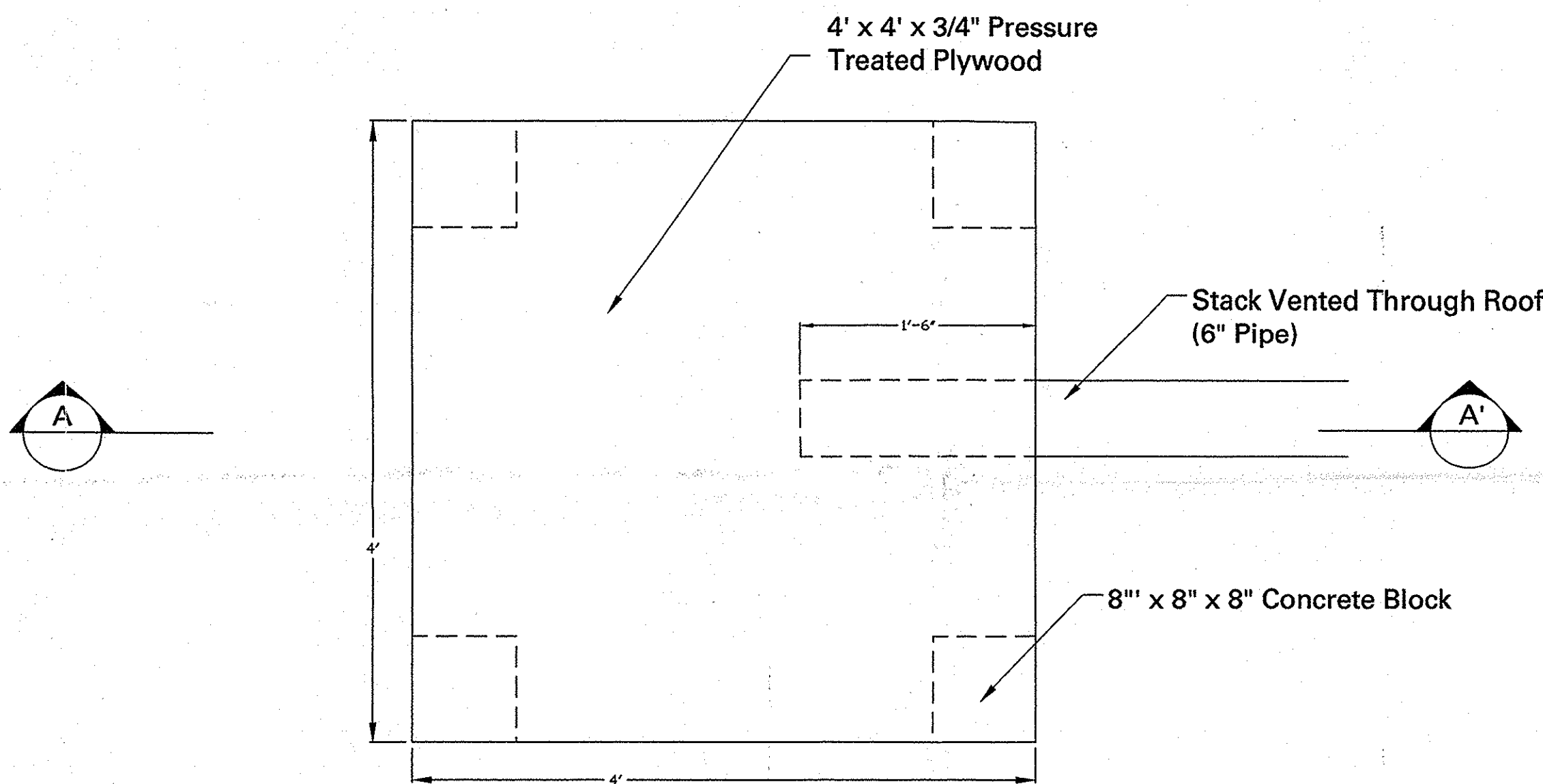
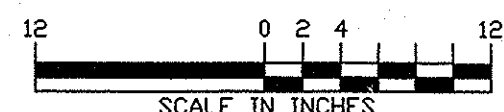
Veridex Overview of Building

Scale: None

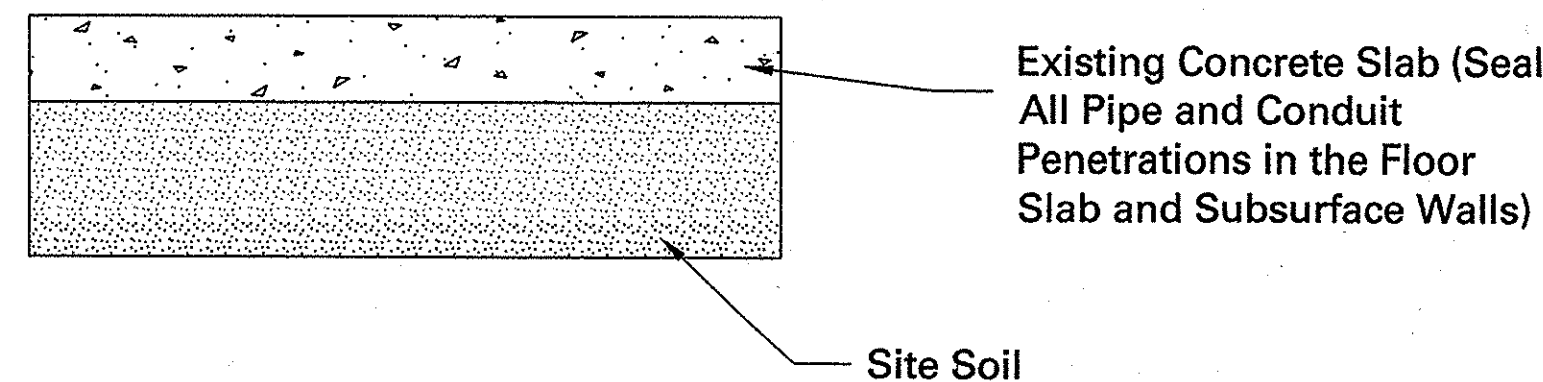
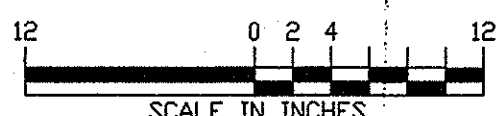
<div><div></div><div><p>ELANGAN ENGINEERING & ENVIRONMENTAL SERVICES</p><p>21 Penn Plaza 360 West 31st Street, Suite 900 New York, NY 10001-2727 P: 212.479.5400 F: 212.479.5444 www.langan.com</p><p>NEW JERSEY PENNSYLVANIA NEW YORK CONNECTICUT FLORIDA NJ Certificate of Authorization No. 24GA27998400</p></div></div>			<p>Project</p> <p>THE SHOPS AT ATLAS PARK</p> <p>GLENDALE</p> <p>QUEENS NEW YORK</p>		<p>Drawing Title</p> <p>BUILDING 7 ROOF PLAN (AS-BUILT)</p>		<p>Project No. 5555107</p> <p>Date 12/22/06</p> <p>Scale AS SHOWN</p> <p>Drn. By CAP</p> <p>Last Revised</p>		<p>Drawing No.</p> <p>B7-SSDS-4</p> <p>4 Of 5</p>						
<table><thead><tr><th>Date</th><th>Description</th><th>No.</th></tr></thead><tbody><tr><td></td><td>Revisions</td><td></td></tr></tbody></table>			Date	Description	No.		Revisions		<p>JOEL B. LANDES PROFESSIONAL ENGINEER N.Y. LIC. No. 076348</p> <p>12/27/06</p>						
Date	Description	No.													
	Revisions														



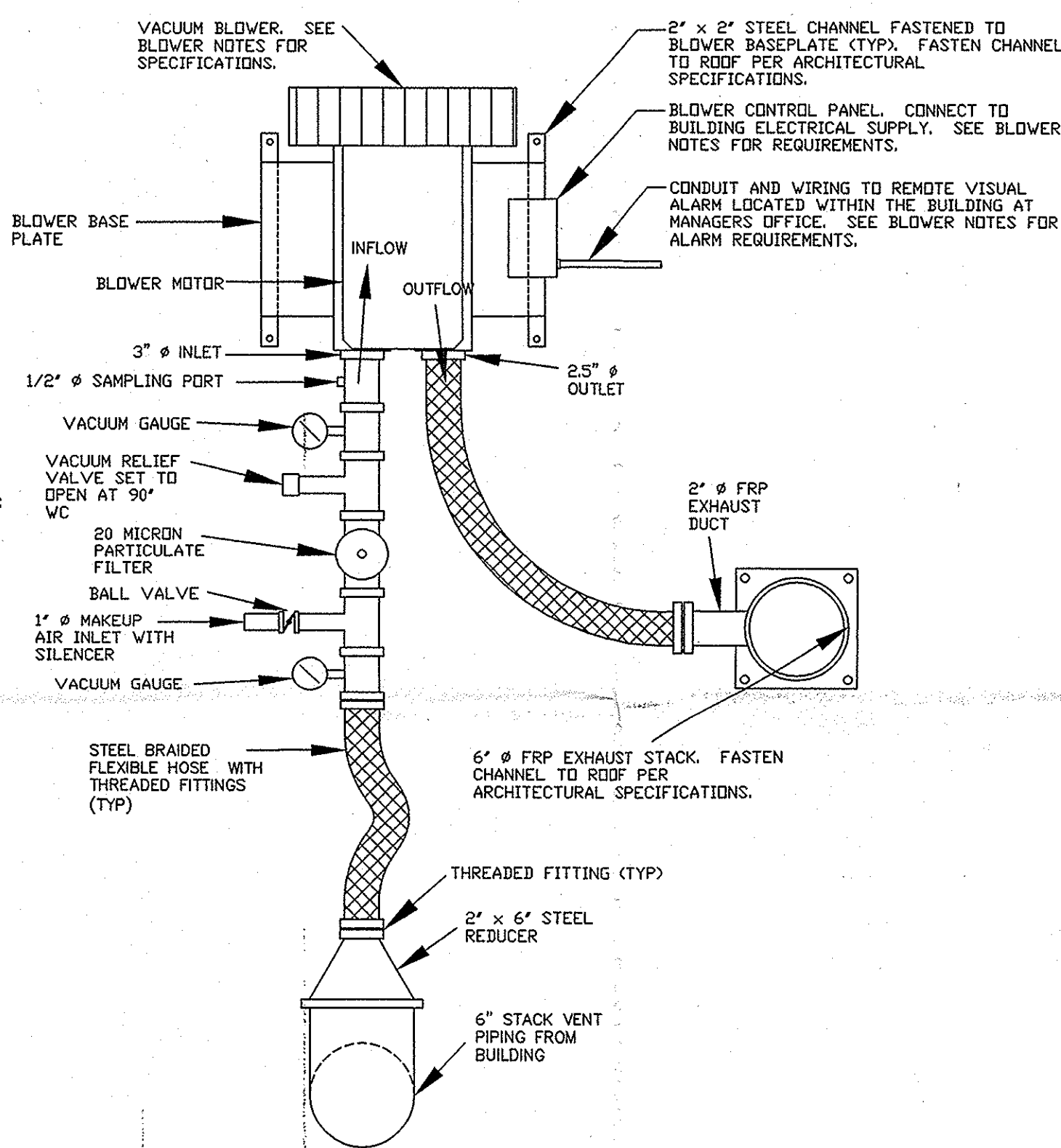
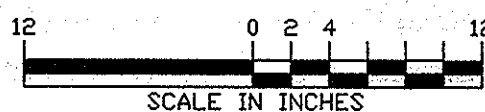
DETAIL 2: SUCTION PIT SECTION A - A'



DETAIL 1: SUCTION PIT - PLAN VIEW



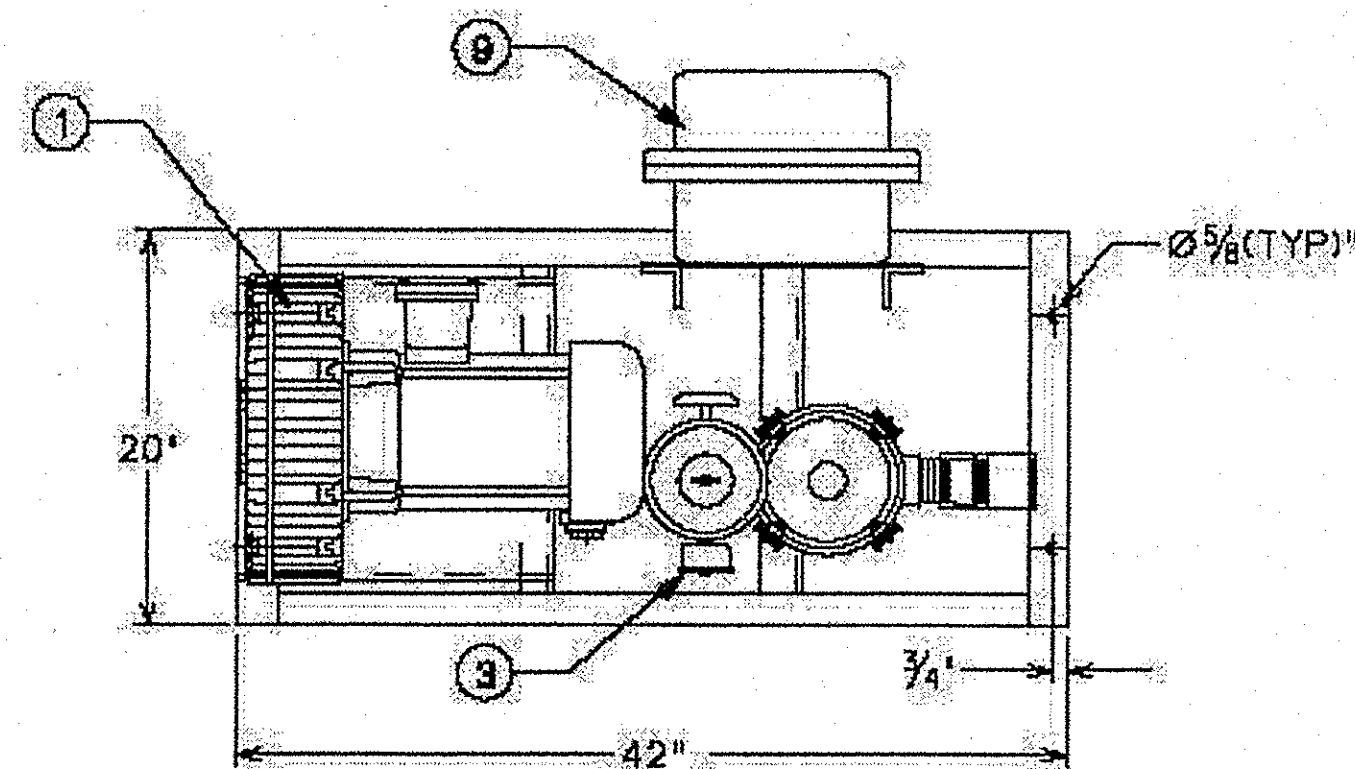
DETAIL 3: TYPICAL SLAB-ON-GRADE CONSTRUCTION AND JOINT DETAILS



DETAIL 4: ROOF-MOUNTED BLOWER SCHEMATIC

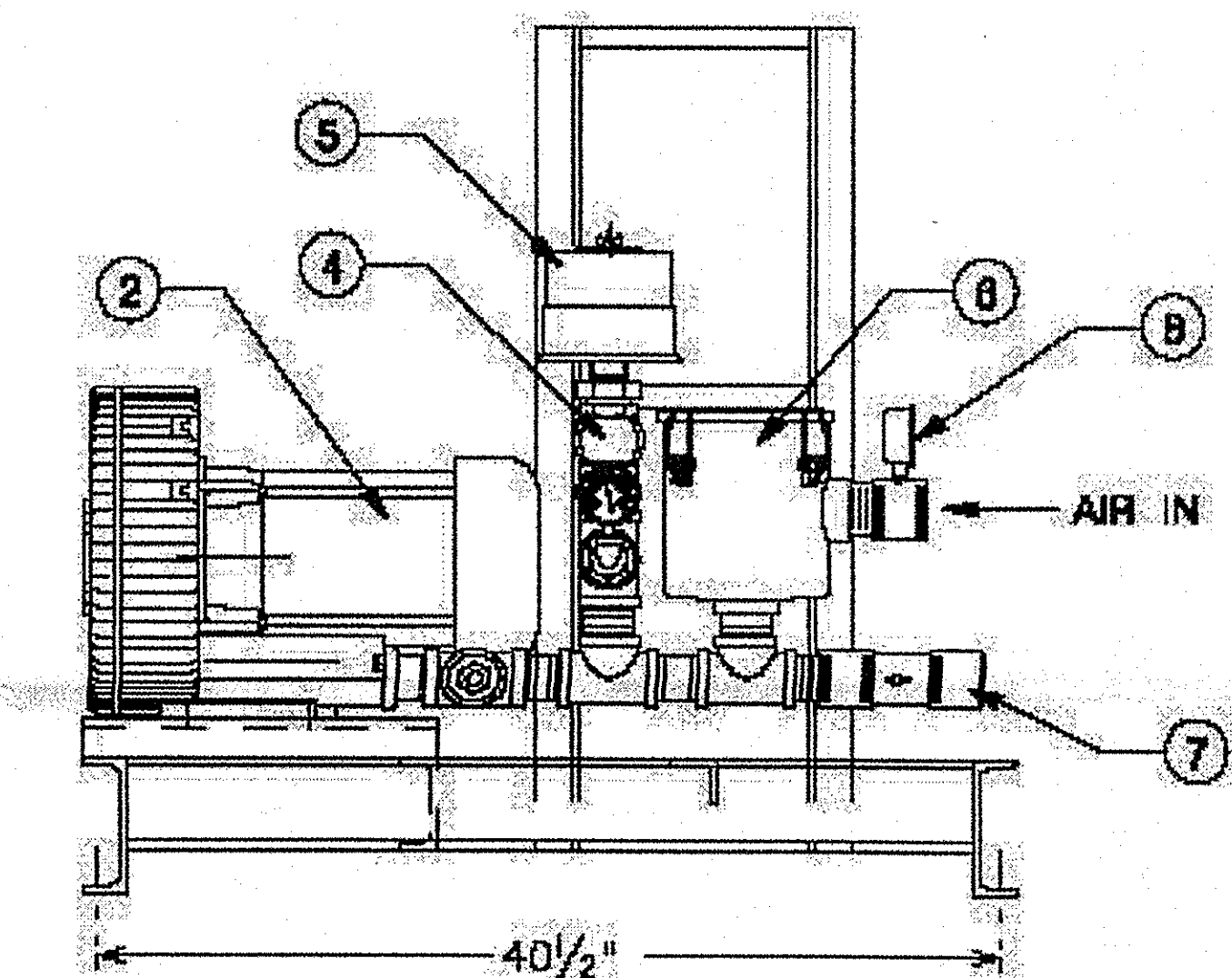
NOT TO SCALE

ITEM	PART NO.	QTY	DESCRIPTION
1	VARIABLE	1	VACUUM BLOWER
2	VARIABLE	1	MOTOR
3	0-30" HG (0-400" H ₂ O)	1	VACUUM GAUGE
4	GLOBE (1-12")	1	AIR BLEED VALVE
5	AF-3200P	1	AIR BLEED FILTER
6	ATF-200-15124	1	INLET FILTER
7	VC612	1	RELIEF VALVE (8" H ₂ O)
8	0-30" HG (0-400" H ₂ O)	1	VACUUM GAUGE
9	6636SC143V03A120	1	EXP. P.F. MOTOR STARTER
10	NOT SHOWN	2	STEEL BASE
11	NOT SHOWN	2	FLEX CONNECTOR WITH UNION (2")
12	NOT SHOWN	1	REMOTE ALARM PANEL



DETAIL 5: ROOF-MOUNTED BLOWER SKID SCHEMATIC - PLAN VIEW

NOT TO SCALE



DETAIL 6: ROOF-MOUNTED BLOWER SKID SCHEMATIC - ELEVATION VIEWS

NOT TO SCALE

GENERAL NOTES

- DESIGN DETAILS AND DRAWING ARE ADAPTED FROM EPA DOCUMENT EPA/625/R-92/016.
- INSTALLATION OF THE SOIL GAS COLLECTION AND VENT PIPING MUST BE COORDINATED WITH THE INSTALLATION OF OTHER UTILITIES.
- ALL CONNECTIONS AT THE VENT PIPE FITTINGS AND JOINTS SHALL BE LEAK FREE. THIS SHALL BE DEMONSTRATED BY THE PERFORMANCE OF A 10 PSI (MIN.) AIR PRESSURE TEST FOLLOWING PIPE/FITTINGS ASSEMBLY.
- VENT (RISER) PIPE MATERIAL SHALL BE SELECTED BY THE CONTRACTOR IN ACCORDANCE WITH APPLICABLE BUILDING CODE.
- RISER PIPE SHALL BE EXTENDED TO THE ROOF WITH MINIMAL CHANGES IN DIRECTION.
- ALL PIPE AND CONDUIT PENETRATIONS THROUGH THE SLAB AND SUBSURFACE WALLS SHALL BE SEALED WITH A HIGH ADHESIVE SEALANT (GE POLYURETHANE SEALANT, MODEL GE9495 12C, OR APPROVED EQUIVALENT).
- ALL HORIZONTAL PIPE RUNS MUST BE PITCHED A MINIMUM OF 1/8" PER FOOT TO ALLOW CONDENSATION TO DRAIN BACK INTO THE SUCTION PIT.
- THE DEPRESSURIZATION SYSTEM MUST BE CLEARLY LABELED IN EACH ACCESSIBLE AREA (A MINIMUM OF EVERY 10 LINEAR FEET OF PIPE RUN).
- TO AVOID ENTRY OF SUBSURFACE VAPORS INTO THE BUILDING, THE VENT PIPE'S EXHAUST MUST BE ABOVE THE EAVE OF THE ROOF (PREFERABLY, ABOVE THE HIGHEST EAVE OF THE BUILDING AT LEAST 12 INCHES ABOVE THE SURFACE OF THE ROOF), AT LEAST 10 FEET ABOVE GROUND LEVEL, AT LEAST 10 FEET AWAY FROM ANY OPENING THAT IS LESS THAN 2 FEET BELOW THE EXHAUST POINT, AND 10 FEET FROM ANY ADJOINING OR ADJACENT BUILDINGS, OR HVAC INTAKES OR SUPPLY REGISTERS. RAIN GAUDES OR CAPS MUST BE PLACED ON THE EXHAUST POINT SO AS NOT TO INCREASE THE POTENTIAL FOR SUBSURFACE VAPORS TO ENTER THE BUILDING.

BLOWER NOTES

- THE BLOWER ASSEMBLY FOR PIT #7-1 AND #7-2 SHALL PROVIDE A 50 CFM FLOW RATE AT A MINIMUM OF 50 INCHES WC VACUUM (IN CONTINUOUS OPERATION) AT THE BLOWER INLET. THE BLOWER ASSEMBLY FOR PIT #7-3 SHALL PROVIDE A 100 CFM FLOW RATE AT A MINIMUM OF 50 INCHES WC VACUUM (IN CONTINUOUS OPERATION) AT THE BLOWER INLET.
- THE BLOWER SCHEMATICS ARE SHOWN TO ILLUSTRATE THE REQUIRED COMPONENTS AND THEIR GENERAL LOCATIONS IN THE PIPING RUN. THE ACTUAL CONFIGURATION AND DIMENSIONS OF THE BLOWER ASSEMBLY MAY VARY BASED ON MANUFACTURING METHODS AND FIELD CONDITIONS.
- EACH BLOWER ASSEMBLY INCLUDING BLOWER, MOTOR, BASEPLATE, CONTROL PANEL, REMOTE VISUAL ALARM, VALVES, GAUGES, FILTER, AND FLEXIBLE HOSE SHALL BE AIRTECH MODEL NUMBERS 2BH1 400-7A H 26 (PIT #7-1), 2BH1 400-7A H 26 (PIT #7-2), AND 2BH1 500-7A H 26 (PIT #7-3) BLOWER PACKAGE UNITS. THE BLOWER SHALL BE HOUSED IN AN ANVER CORPORATION SOUND ENCLOSURE MODEL SDE-8 OR APPROVED ALTERNATIVE. THE BLOWER UNIT SHALL BE INSTALLED WITHIN THE ENCLOSURE. MULTIPLE TYPES OF BLOWER UNITS HAVE BEEN SPECIFIED ACCORDING TO ESTIMATED SITE CONDITIONS, IF NECESSARY, AND WITH OWNER APPROVAL, BLOWER UNIT 2BH1 600-7A H 16 MAY BE USED FOR ALL SUCTION PITS.
- THE ELECTRICAL PANEL FOR THE BLOWER SHALL INCLUDE AN AUXILIARY CONTACT FOR THE REMOTE ALARM. THE REMOTE ALARM SHALL BE LOCATED WITHIN A BUILDING MANAGERS OFFICE. THE ALARM SHALL CONSIST OF A WARNING LIGHT, NEMA 12 ENCLOSURE, AND ASSOCIATED RELAYS AS MANUFACTURED BY AIRTECH. THE REMOTE ALARM AND BLOWER CONTROL PANEL SHALL BE CONFIGURED SUCH THAT IF THE BLOWER STOPS OPERATING, THE REMOTE ALARM WILL BE ACTIVATED. A 120V ELECTRICAL SUPPLY SHALL BE PROVIDED TO THE REMOTE PANEL.
- THE REMOTE VISUAL ALARM SHALL BE LABELED AS FOLLOWS:
 - SUB-SLAB VAPOR VENTING SYSTEM ALARM
 - BLOWER MALFUNCTION IF LIT
 - SERVICE BLOWER IMMEDIATELY
- THE BLOWER MOTOR WILL REQUIRE A 3 PHASE, 60 HZ, 480 VOLT POWER SUPPLY (230 VOLT MAY BE ACCEPTABLE UPON OWNER APPROVAL). THE CONTROL PANEL FOR THE BLOWER WILL REQUIRE A 115 VOLT POWER SUPPLY. THE REMOTE VISUAL ALARM WILL REQUIRE A 115 VOLT POWER SUPPLY FROM THE BUILDING'S ELECTRICAL SYSTEM. COORDINATE POWER SUPPLIES WITH BUILDING POWER FLOOR PLAN.

ANY REVISIONS REQUIRE EDIT TO LAST REVISED DATE	
JOEL B. LANDES PROFESSIONAL ENGINEER N.Y. LIC. No. 076348	12/27/06

LANGAN ENGINEERING & ENVIRONMENTAL SERVICES 21 Penn Plaza 360 West 31st Street, Suite 900 New York, NY 10001-2727 P: 212.479.5400 F: 212.479.5444 www.langan.com	
NEW JERSEY	PENNSYLVANIA NEW YORK CONNECTICUT FLORIDA
NJ Certificate of Authorization No. 24GA27998400	

Project	THE SHOPS AT ATLAS PARK GLENDALE NEW YORK
---------	---

Drawing Title	BUILDING 7 SUB-SLAB DEPRESSURIZATION SYSTEM DETAIL (AS-BUILT)
---------------	---

Project No.	5555107	Drawing No.	B7-SSDS-5
Date	12/22/06	Scale	AS SHOWN
Drn. By	JH	Last Revised	5 Of 5



LAUREL ENVIRONMENTAL ASSOCIATES, LTD.

52 ELM STREET • HUNTINGTON, NY • 11743

PHONE: (631) 673-0612 • FAX: (631) 427-5323

WWW.LAURELENV.COM

April 26, 2006

Mr. Jamie P. Barr

Assistant Project Manager

LANGAN | *ENGINEERING & ENVIRONMENTAL SERVICES*

21 Penn Plaza

360 West 31st Street, 8th Floor

New York, NY 10001-27278, via email jbarr@Langan.com

Re: Atlas Park Sub-Slab Evaluation and Smoke Test
Buildings 6 & 7, Glendale, Queens, NY
LEA Project #05-323

Dear Mr. Barr:

On April 12, 2006, Scott Yanuck and Brendan Moran completed evaluation of the effectiveness of the existing sub-slab venting (depressurization) system by measuring the created pressure field. Unlike our visit to the site on April 10, 2006, when none of the sub-slab depressurization systems were running, on the 12th, we found all sub-slab systems operational, all suction pits completed, and the majority of the joints in the slab sealed. Three areas were repaired by Laurel Environmental Associates, Ltd. to reduce the likelihood of system failure during the evaluation: 1) a 4" bentonite/concrete cap was installed in the open concrete slab adjacent to SSD Pit 6-1; 2) the concrete around the posts closest to SSD Pit 7-3 were sealed with urethane caulk to seal large gaps that were allowing air leakage to the system.

This evaluation consisted of a series of sub-slab air communication tests to measure the pressure differential created by the systems in operation at various points in two sections of Building 6 that had failed the previous evaluation and all of Building 7 of each of the two buildings. In the process, we determined the radius of influence for each suction pit. Small diameter test holes were drilled into the slab at strategic measuring point locations and at varying distances from each suction pit. Differential pressure measurements at these points enabled us to characterize, by interpolation or extrapolation, the extent and intensity of the active pressure field. Measurement was by digital manometer. This procedure was repeated until sufficient data was gathered to indicate the perimeter of the detectable influence area (minimum .001 water column inches). Test holes were filled with backer rod and urethane caulk at conclusion of testing.

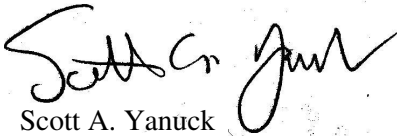
All measurements are documented in this report and attached pressure field map. Based on inspection of the systems, measurements and smoke testing completed, we have the following comments and conclusions:

1. An inspection of risers and suction pits found all locations complete, with no deficiencies noted.
2. One of deficiency in the slab was noted near suction pit 6-1. This consisted of an area missing a concrete slab in the 6-1 floor. This was repaired by Laurel Environmental Associates, Ltd. on April 10, 2006.

3. The seal between concrete and the post closest to suction pit 7-3 was poor, allowing air to enter the system from the surface. These deficiencies were repaired with urethane caulking by Laurel Environmental Associates, Ltd. on April 12, 2006.
4. A quantitative evaluation of the effectiveness sub-slab system to create a measurable negative pressure field that extends throughout the sub-slab(s) of each building found satisfactory negative pressure fields in slabs treated by suction pits 6-1, 6-2, 7-1, 7-2 and 7-3. The slabs serviced by suction pits 6-1 and 6-2, which failed the evaluation in December 2005, now passed the test. Vacuum measured at the pipe leading into suction pit 6-1 was 0.117 inches of water in December 2005 and was 0.206 inches of water on April 12, 2006. This is still low, but apparently still enough vacuum for the system to pass the test.

If you have any questions, please contact me.

Respectfully submitted by,
Laurel Environmental Associates, Ltd.



Scott A. Yanuck
President

Attached: Table I
 Photographs
 Sub-Slab Depressurization Sketches

TABLE I

Evaluation of Sub-Slab System, Building 7

Suction Points 7-1 and 7-3

Location	Inches WC	Distance from Suction Point 7-3 in feet
	04/12/06	
TP-7-3-1	0.330	15
TP-7-3-2	0.251	45
TP-7-3-3	0.027	85
TP-7-3-4	0.033	100
TP-7-3-5	0.010	160
TP-7-3-6	0.033	151
TP-7-3-7	0.037	152
TP-7-3-8	0.157	100
TP-7-3-9	0.120	80
TP-7-3-10	0.179	48
TP-7-3-11	0.136	48
TP-7-3-12	1.104	19
TP-7-3-13	0.809	45
TP-7-3-14	0.154	89

Suction Point 7-2

Location	Inches WC	Distance from Suction Point in feet
	04/12/06	
TP-7-2-1	0.012	13
TP-7-2-2	1.230	16
TP-7-2-3	0.081	44
TP-7-2-4	0.169	56
TP-7-2-5	0.136	75
TP-7-2-6	0.033	112
TP-7-2-7	0.047	64
TP-7-2-8	0.072	60
TP-7-2-9	0.427	20
TP-7-2-10	0.080	24
TP-7-2-11	0.032	52

Evaluation of Sub-Slab System, Building 6

Suction Point 6-1

Location	Inches WC		Distance from Suction Point in feet
	12/14/05	04/12/06	
TP-6-1-1	<0.001	0.005	40
TP-6-1-2	0.005	0.020	16
TP-6-1-3	0.004	0.046	20
TP-6-1-4	0.008	0.031	30
TP-6-1-5	--	0.136	20
TP-6-1-6	--	0.013	18

Suction Point 6-2

Location	Inches WC		Distance from Suction Point in feet
	12/14/05	04/12/06	
TP-6-2-1	<0.001	0.031	90
TP-6-2-2	0.002	0.054	55
TP-6-2-3	0.003	0.060	40
TP-6-2-4	0.026	0.112	20 (relocated to 25' 04/12/06)
TP-6-2-5	0.025	0.131	20

WC = Water Column

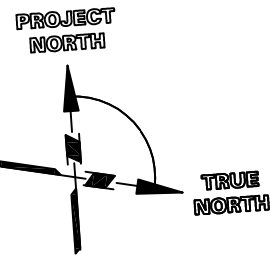
TP = Test Point



Photo 1, unfinished slab in close proximity to Suction Point 6-1



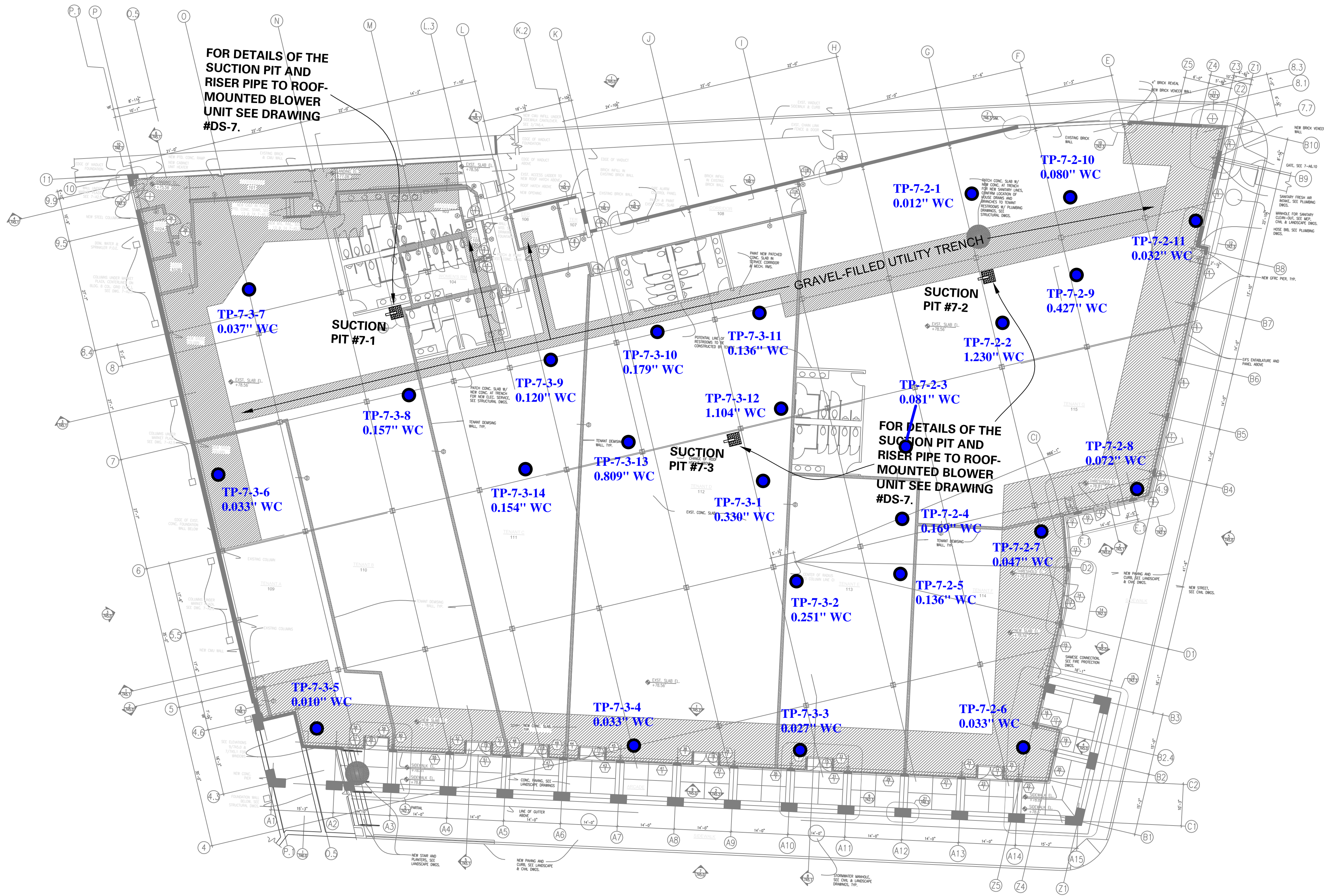
Photo 2, concrete slab adjacent to Suction Pit 6-1 sealed by Laurel Environmental 4-12-06



Evaluation of Sub-Slab System, Building 7

Suction Points 7-1 and 7-3		
Location	Inches WC	Distance from Suction Point 7-3 in feet
TP-7-3-1	0.330	15
TP-7-3-2	0.251	45
TP-7-3-3	0.027	85
TP-7-3-4	0.033	100
TP-7-3-5	0.010	160
TP-7-3-6	0.033	151
TP-7-3-7	0.037	152
TP-7-3-8	0.157	100
TP-7-3-9	0.120	80
TP-7-3-10	0.179	48
TP-7-3-11	0.136	48
TP-7-3-12	1.104	19
TP-7-3-13	0.809	45
TP-7-3-14	0.154	89

WC = Water Column
TP = Test Point



Evaluation of Sub-Slab System, Building 7

Suction Point 7-2		
Location	Inches WC	Distance from Suction Point in feet
TP-7-2-1	0.012	13
TP-7-2-2	1.230	16
TP-7-2-3	0.081	44
TP-7-2-4	0.169	56
TP-7-2-5	0.136	75
TP-7-2-6	0.033	112
TP-7-2-7	0.047	64
TP-7-2-8	0.072	60
TP-7-2-9	0.427	20
TP-7-2-10	0.080	24
TP-7-2-11	0.032	52

WC = Water Column
TP = Test Point

BUILDING 7 PLAN

NOTES:

- (1) BASE PLAN IS THE BUILDING 7 BASEMENT PLAN, DRAWING 162-7-A2.0, DEVELOPED BY THANHHAUSER ESTERSON KAPPELL ARCHITECTS AND DATED 4 MAY 05.
- (2) A DETAIL OF THE SUCTION PITS IS SHOWN ON DRAWING DS-7.
- (3) SUCTION PIT LOCATIONS MAY BE SHIFTED WITH APPROVAL FROM LANGAN ENGINEERING TO ACCOMMODATE OTHER BUILDING COMPONENTS OR ARCHITECTURAL DETAILS.
- (4) TENANT DEMISING WALLS ARE ASSUMED TO BE NON-STRUCTURAL AND DO NOT REQUIRE A CONTINUOUS FOOTING. IF CONTINUOUS FOOTINGS ARE REQUIRED FOR WALLS, ADDITIONAL SUCTION PITS MAY BE REQUIRED.
- (5) SUCTION PIT #7-2 IS ADJACENT TO A GRAVEL-FILLED UTILITY TRENCH AND SHALL BE LINKED TO THE TRENCH BY A GRAVEL LAYER A MINIMUM OF 6-INCHES THICK.

<div><div>Date</div><div>Description</div><div>No.</div></div> <div>Revisions</div>			<div><div><div><div><div></div><div>LANGAN</div></div><div>ENGINEERING & ENVIRONMENTAL SERVICES</div></div><div>21 Penn Plaza 360 West 31st Street, Suite 900 New York, NY 10001-2727 P: 212.479.5400 F: 212.479.5444 www.langan.com</div><div>NEW JERSEY PENNSYLVANIA NEW YORK CONNECTICUT FLORIDA NJ Certificate of Authorization No: 24GAZ7996400</div></div></div>		<div>Project</div> <div>THE SHOPS AT ATLAS PARK</div> <div>GLENDALE</div> <div>QUEENS</div> <div>NEW YORK</div>	<div>Drawing Title</div> <div>ACTIVE SUB-SLAB DEPRESSURIZATION SYSTEM - BLDG. 7</div>	<div>Project No.</div> <div>5555107</div> <div>Date</div> <div>6/14/05</div> <div>Scale</div> <div>1" = 16'</div> <div>Drn. By</div> <div>CAP</div> <div>Last Revised</div> <div>7/7/05</div>	<div>Drawing No.</div> <div>DS-4</div> <div>4 Of 7</div>
---	--	--	--	--	---	---	---	--