

## **Borough Board Atlantic Yards Committee**

Summary of the March 2, 2006 Meeting on Infrastructure, Air Quality, Noise and Energy

### **Borough Board Atlantic Yards Committee Members in Attendance:**

Borough President Marty Markowitz  
Council Member Letitia James  
Assembly Member Joan Millman  
Community Board 6 Chair Jerry Armer

### **Supporting Staff:**

Greg Atkins, Office of Borough President Marty Markowitz  
Richard Bearak, Office of Borough President Marty Markowitz  
Judd Schechtman, Office of Borough President Marty Markowitz  
Ellen Oettinger, Office of Borough President Marty Markowitz  
Neal Kronley, Office of Council Member David Yassky  
Ken Pemberton, Senator Carl Andrews  
Robert Perris, District Manager, Community Board 2  
Craig Hammerman, District Manager, Community Board 6

### **Guests & Panelists:**

Dr. Franco Montalto, eDesign Dynamics, LLC  
Dr. Paul Mankiewicz, The Gaia Institute  
Reed Super, Columbia Law School  
Darryl Cabbagestalk, Director of Project Management Unit, Department of Environmental Protection  
Geraldine Kelpin, DEP  
Chung Chan, DEP  
Augustine Craig, DEP  
Joseph Murphy, Consolidated Edison  
Lawrence Laskowski, Consolidated Edison

## **I. Discussion with the Panel**

See below questions and topics covered during the panels covering Infrastructure, Air Quality, Noise and Energy.

**a. Infrastructure discussion with Darryl Cabbagestalk, Augustine Craig and Chung Chan of DEP; and Dr. Franco Montalto, eDesign Dynamics, LLC; Dr. Paul Mankiewicz, The Gaia Institute; and Reed Super, professor at Columbia Law School**

**Can you walk us through the stormwater system and the path that sewage takes to get to the plant?**

*D. Cabbagestalk:* The sewage travels through a 78 inch pipe to a larger inflow pipe to the Gowanus Pump Station [GPS] by the canal. Once it hits the GPS, goes around Red Hook before it gets to the plant. The plant can stand a .1 to .15 increase per hour of rainwater before its capacity maxes out.

**As you probably know, the most significant contributor to the Combined Sewage Overflow [CSO] problem is stormwater runoff. The Atlantic Yards site includes areas that are largely impervious, including surfaces that are presently city streets where runoff goes directly into catch basins. Forest City Ratner has discussed retaining 100% of the stormwater on**

**site. What should we expect to be disclosed in the EIS in regards to the functioning of the sewer system and water pollution control plant based on the proposed amount of development of the Atlantic yards project?**

*D. Cabbagestalk:* We are not involved in the EIS development; we usually look at what the impacts would be on CSOs. I would anticipate that they are going to deal with that in the EIS. I haven't seen a final scope that deals with that. DEP is coming up with a long term control plan. We will be looking to see how they will be handling the CSO issue.

**Dr. Montalto, I noted that you have experience with engineering and hydrological modeling of natural treatment systems for both wastewater and stormwater treatment. Obviously, it would be difficult to design a natural treatment system for project of this size. In your opinion, what kind of mitigation measures are economically feasible and desirable?**

*Dr. Montalto:* If you think about the surface of Brooklyn about the surface of a watershed, it's broken into sub areas that correspond to the CSOs. There is a piece of land that causes overflows. Runoff generated from CSO sheds is what causes runoff and excess capacity. To the extent that you can modify the surface so that less runoff gets into system when it rains, in that sense you are modifying the infrastructure in a more natural way. By taking a watershed approach by reducing inputs of stormwater, we can reduce the number of overflows. That's an alternative to an end pipe solution like most municipalities use. This kind of infrastructure tends to be expensive and technically difficult to site in urban areas because real estate is high. We did study in OH007 (Owl's Head) to come up with methodology to assess cost effectiveness to watershed pollution prevention approach to installing a CSO tank which is often proposed. DEP had come up with a cost effectiveness curve for a CSO tank. Replacing specific surfaces within a CSO shed with surfaces that produce less runoff. 1/2 surface is rooftops which produce runoff. If rooftops are converted to surfaces that can contain stormwater, there is a potential reduction in runoff. This kind of low-impact approach was significantly more cost effective than an end pipe solution. We're working as a sub-contractor with DEP on a long-term control plan. In this case I would refer to a watershed approach as opposed to a hard infrastructure approach.

**One possible mitigation is for the developer to retain 100% of the runoff. How does that work?**

*Dr. Montalto:* Well, there are retention basins, detention basins – myriad solutions to capture stormwater. Some are more or less feasible in urban areas.

**Where was it mentioned that the developer would retain 100% of the runoff? Was it in the scope?**

*Dr. Montalto:* It wasn't in the scope.

**Would it be in the EIS that they're planning to hold 100% in system?**

*Dr. Montalto:* It should be. Since this is a combined sewer area, the Red Hook plant could increase because of stormwater, but also because you're adding a significant population to the area. You are also increasing the "dry weather flow" wastewater, even if stormwater is completely detained. The project areas as specified (primary and secondary), those type of study areas don't correspond to anything significant in terms of CSOs. The appropriate scale of impact would be the CSO shed or interceptor shed of this particular area.

**CSOs are problematic for an area that extends beyond the local area. To what extent can developers be held responsible for incremental effects of CSOs?**

*R. Super:* Perhaps the World Trade Center could be a model for what a developer could commit to do. There is the same issue there though it's a smaller parcel at 16 acres. The Lower Manhattan Development Corporation committed to capture all stormwater on site. Unlike some projects that are rezonings, there can be a commitment by the one developer. There's a perception that waste will get handled for us by the City. Ideally, that is the case, but not for New York City and the other 4% combined systems in United States. Any development that increases the amount of combined sewage, you will increase the amount that discharges into the Gowanus

Canal and the East River. In the EIS they will identify which pipes in the Gowanus and the River that will have this outfall.

We think DEP could be doing more to manage the CSOs, but if they committed every city dollar, they still would not be able to take care of all wet weather problems. The extra capacity created by retaining stormwater will be eaten up by the 7,000 residential units. Any development will either make it worse, put off the date that DEP can hold it, or make it better. It's all connected, and the developer has an obligation to be sure they do not increase the sewage.

**It's worse when CSO overflow is wet weather, right? The system can handle the dry weather capacity.**

*R. Super:* There is a 60 million gallon a day capacity, and 1/2 is being used in dry weather. It's at about 30 million capacity.

*D. Cabbagestalk:* In wet weather it's 120 million.

**So if a project of this scale were to take stormwater runoff, we're helping during rainy weather, even though it's increasing dry weather.**

*R. Super:* Right, dry days it doesn't matter. During wet weather, if you take out from the system stormwater and at the same time add sewage, and the net is less, then you have reduced it. But you are altering the makeup of the sewage.

*Dr. Montalto:* The EIS needs to get at what the capacity is of the sewer pipes in the CSO sheds where this project lies. What is the additional dry weather contribution of this project going to be? We could implement water conservation measures, grey water recycling, the Solare Building is taking advantage of the incentive program providing by the City for developers to treat waste water on site and recycle it. Those options should be considered as well, because those will reduce contribution for dry weather flow. The waste water impacts to the CSO problem could be significantly larger than just the stormwater impacts. Some stormwater probably goes into the ground and then into the sewer system now. If the developer is able to retain 100% of stormwater on site, maybe they're reducing stormwater a bit. That reduction may be insignificant compared to the increase in waste water. One idea that could be considered is a mitigation measure in exchange for waste water adding to system, in which the reductions in stormwater are subsidized by the developer not just on site, but off site. So there is a balancing act.

**Could the developer use low-flow toilets and shower heads that could help with wastewater?**

*Dr. Montalto:* Sure, but there will be some wastewater.

**Because problems associated with CSOs are so large in scope, solutions will have to be very grand scale as well. I have heard that the DEP is working on a long-term CSO control plan. Could you explain the details of that plan and what it hopes to accomplish?**

*A. Craig:* Yes, there is a program. We're looking at all CSOs in city and trying to evaluate their capacity, etc. What is really being done is to reduce the flow to the waterways. It's twice the capacity, and they're thinking of ways to increase the domestic capacity.

*D. Cabbagestalk:* We're aiming for 2007 to have a plan in place for 18 sites around the City. Modernizing the Flushing tunnel, introducing an interceptor from the pumping station directly across to the Columbia Street interceptor. We're looking to partner with the Army Corps of Engineers. At low tide there is a smell from the particles in the water; we're looking at dredging in that area of the Gowanus. The plan has not been finalized. We have a deadline of June 2007 for all 18 locations.

**During the scoping hearing for the Atlantic Yards project I brought up the fact that the radius of the plan does not include the Gowanus. We're talking about all the particles that will empty into it. What can we do to see that the EIS includes a broader area, because the sewage is not going to stop where the study stops.**

*D. Cabbagestalk:* They should be addressing the runoff to the Gowanus irrespective of whether they address it in the EIS. Based on the comments for the scope of work and based on

experience with the Hudson Yards and Greenpoint-Williamsburg, it's been something we've looked at as a prevalent issue.

**There are a lot of basements flooded in the area. We want to see that that Flushing tunnel is up and running, because residents with flooded basements blame it on the overflow. At least there are no longer dead animals floating along the Canal. Unless we clean it up, I'm hard pressed to imagine that people would want to live in close proximity, with all the housing planned for that site. So we'll have something by June 2007?**

*D. Cabbagestalk:* We're aiming to have it to the State Department of Environmental Conservation [DEC] by then. We don't have a particular date, but by June 2007.

**Dr. Montalto, can we get a copy of the study on Owls' Head?**

*Dr. Montalto:* I'm submitting it to a journal to be published next week.

**About five weeks ago [Community Board 6] held a meeting with DEP because in Red Hook they complain about backups in their basements and flooding from streets because of rainwater. We're looking at wastewater for up to 7,000 additional residents and wastewater from a marina that would come down from Atlantic Yards, and we already have a problem. Currently, the city is under a consent decree for the amount and number of CSOs. Once Atlantic Yards is up and running, both residential and the arena, we may be exceeding the requirements.**

*D. Cabbagestalk:* I wouldn't anticipate that in terms of us letting Atlantic Yards go through and exacerbating the consent order.

**So your role in reviewing the EIS is more than cursory?**

*D. Cabbagestalk:* When it comes to this issue, we'll be reading it, and if there's an issue, we will have it addressed. We don't have an official role to comment on the document. We just have to make sure it coincides.

**This deadline of June 2007 for the consent order – [Community Board 6 is] very concerned about the Gowanus Canal. When will the Community Board be involved?**

*D. Cabbagestalk:* It's in draft form right now.

**What about the Flushing tunnel?**

*D. Cabbagestalk:* We're putting together an EIS.

**I'm assuming that the schedule has changed – now it's been moved up to 2008 after being put off to 2010. It seems biggest problem is not wet weather flow, but the waste water from the residences an arena. Whatever excess capacity is in red hook, we're taking it way with the 7,000 residential units. Now we're shrinking that down. It's nice that the developer will be looking to retain wet weather flow, but we should be looking at pretreatment ideas for the residences and the arena.**

**You'd mentioned that you're working with the Army Corps to dredge the canal?**

*D. Cabbagestalk:* We're looking to partner with them to restore the canal, but it depends on a lot of variables, like the budget.

**If you dredge it, and then what happens to the bulkheads when you do dredge it?**

*D. Cabbagestalk:* Thank you, that's a very good question.

*Dr. Montalto:* To my knowledge, the public process of the USA project of Gowanus Canal is now completed, so it's over with. Would DEP change the results of what was found in that whole public process if we have a new development?

*D. Cabbagestalk:* I'm sure they'll look at the document again. I'm sure it has taken into account growth factors, anticipating growth in a particular catchment area. There are so many studies going around, and again, we're doing a new plan as the world changes.

**What is DEP's role in relation to the EIS? Do you give advice to the Empire State Development Corporation or the developer?**

*D. Cabbagestalk:* We do not have a role, because the state's ESDC is the lead agency. We have a role outside the CEQR process - enforcement air and noise code, and we'll look at the chapters.

*A. Craig:* The drainage area is independent of the EIS process, and there is a drainage plan for the entire city. This particular drainage area impacts the drainage downstream area at the top of the system.

**There is other proposed development at the top of the hill.**

*A. Craig:* The drainage plan takes that all into consideration.

*D. Cabbagestalk:* In terms of the EIS, it takes into account the no-action and no-build scenarios. Those developments coming up will be taking care of in that.

**I'd like to know more about equipment that the developer would use to catch all that stormwater.**

*Dr. Mankiewicz:* Do we know what size? 700 gallons, maybe?

*R. Super:* Sometimes there is confusion about whether 100% of the water will be captured or 100% of the site will be covered. At the World Trade Center, it seems that a breaking point is 80-85%, because you'd have to have such a big tank, but 80-85% is cost-effective and feasible.

*Dr. Mankiewicz:* Do we have any insight on what will be done with the stormwater? Separating grey water can make a huge difference. You could have a substantial impact on the problem.

**What are some other benefits of catching stormwater on site?**

*Dr. Mankiewicz:* The opportunities for stormwater catchment are amazing when you look at it. It's a loss to the landscape and to the plants not to use all that water. Olmstead pointed out that he could add value to property by building a park. I hate to see the water wasted. If you can run vegetation system, and add greenroofs – I've got a patent on lightweight soil for green roofs, by the way. Every gram of water when you evaporate it, it takes with it five hundred and forty calories. The more green in the area, the cooler it's going to be.

**Mr. Cabbagestalk, are you familiar with Atlantic Commons? Are you aware that they have some sewer problems now?**

*D. Cabbagestalk:* No, I was not aware. But I'll write that down and check on it.

**We always talk about capacity of the plant. I know engineers are looking at the source, to size things appropriately. Are there any other potential bottlenecks that we should keep an eye on, like interceptors? Are there any points that might reach capacity before the plant does?**

*D. Cabbagestalk:* No, it would either reach the station or the plant.

*Dr. Montalto:* There are pipes and there are regulators. The regulator directs water out when it reaches capacity. Those are what overflow. It's an extremely complex system.

**b. Air Quality and Noise discussion with Darryl Cabbagestalk, Augustine Craig and Chung Chan of DEP**

**I am sure that people are concerned about other ambient noise, not just automobile noise, such as that from construction, and people coming to and from arena events. Can you tell us what noise effects are required to be studied in the E-I-S and why certain noises are not?**

*D. Cabbagestalk:* Noise from trucks, cars, stationary noise are all a part of it. If there were a stadium with an open roof it would be analyzed. With construction, we would look at the potential for impacts if the construction was of a certain duration. From an enforcement standpoint, we'd look at noise impacts because of construction.

*C. Chan:* When we look at construction, we use the same approach as the operation of the proposed project. We add the factor that the construction is not permanent. And second, construction by nature is very intrusive. In an EIS, we normally disclose what the temporary

impacts are and try to mitigate the impacts. Not to the extent that we would for permanent impacts, but to the point that its practical.

**But construction could be 10 years. Will is be part of your analysis?**

*C. Chan:* Yes, particularly with that duration, it will have not just qualitative impacts, but quantitative impacts, because it would affect the community for a long time. Sometimes we subscribe measures to mitigate that.

**We know that construction activity will result in some air quality issues. What are best practices for mitigation of air pollution resulting from construction activity?**

*G. Kelpin:* The city's air code has a provision for controlling construction dust. By the time the project is in place, we will have a rule that spells out what measures should be taken. Right now, it's just best management practices. A general provision is that the site is wet down during construction. In cases where there is a lot of truck traffic, they will have a washing station so that the dust they pick up on site stays on-site and does not get on city streets. Trucks have to be covered to contain what is in the container. If there are long open pots of soil, during a windy and dry period, they have to be wet down or covered. Because of size, probably, what they do on roadways, they will probably put some type of covering over the internal roadways so the trucks will not kick that up. The law says that visible dust will not come off construction sites.

**Atlantic Avenue is well-traveled with trucks. This construction site is nearly the city center. I'm wondering if the air quality with the construction going on will be studied in conjunction with the city center's unique nature.**

*G. Kelpin:* I'm not sure how it would be handled. In terms of the actual practice, we would be sure that (to the extent it complies with city law) that what is produced on site stays on site.

**Brooklyn is out of compliance with the National Ambient Air Quality Standards for Ozone, and the draft scope states that the EIS will follow the DEP Interim Guidance for Particulate Matter 2.5. Since this project proposes to move a basketball arena from an auto-dominated site in New Jersey to a large transit hub, I suspect that it also has the potential to actually improve air quality in the region on the whole. Is this something that EIS's typically study?**

*D. Cabbagestalk:* If you look at it from a regional perspective, it could be a net increase, but this is a localized project. The EIS is going to focus on the impacts to the community. I'm assuming that there might be a statement about net benefit. I don't think it will be studied quantitatively in terms of a region.

*C. Chan:* I don't think the scope proscribed that.

**This project could have a 10 year construction time. It will probably use 100% diesel construction equipment and trucks. Are there city requirements and will EIS look for it where contractors have to use low emission vehicles?**

*G. Kelpin:* As of 2007, diesel truck standards are being lowered significantly: however, it's for new truck purchases. For construction equipment and new engines, reduced standards are being proposed. Their phasing starts 2008-2010. There are opportunities to retrofit construction equipment and trucks and diesel engines. I think people are aware that there's local legislation for city contracts and vehicles that are doing that. [DEP] doesn't control those contracts. We hope that by the time this contract comes forward that those types of initiatives will have been proven to be doable. I think a lot of the equipment will be available e to be used by any contractor. I think the cost will have come down significantly in the next couple of years.

There's a base of construction equipment and companies in the city. I think it is likely that they will have equipment that is retrofitted available. Ultra low sulfur diesel, by the time this is in place, will be in the pipeline. There's a lot of opportunity in the private world to take advantage of the groundwork being laid by the city efforts. This equipment will be available. We're seeing some fleets turning over sooner than others.

*D. Cabbagestalk:* From an EIS standpoint, in the construction chapter, I would anticipate that they would go through some of those, what would be used to minimize impacts.

**At the moment the EIS is being done by the State. When it comes to the construction, will they have to abide by New York City noise and emission codes?**

*G. Kelpin:* Technically, state agencies do not have to comply with local law. We have seen in a lot of situations where there is a commitment to follow local laws on a number of state projects.

**The effect of noise – mobile noise – is going to be greater than the study area in the draft scope. The traffic generated will go out into Park Slope, Fort Greene, etc. Does the EIS look at that type of noise generation? How do we get the area expanded to look at noise beyond that 1/4 and 1/2 mile radius?**

*D. Cabbagestalk:* The routes the trucks travel will be designated truck routes and will be looked at in the traffic area. In the past that's how we've done it.

**It's troubling that because this is a state project the contractors will not have to adhere to local law. I'm concerned because this is being referred to as the lead belt. Fort Greene has one of the highest asthma rates in New York. The senior center Cumberland Gardens is right near the project. This project is going to have an effect on the children and seniors. What state laws address or mitigate these concerns?**

*G. Kelpin:* There's a fine point here. We have adjudicated some cases where the contractor is working on a state project but has to abide by our laws. Whoever's looking at this project, if there are issues, they are going to have to get resolved. There are sensitive folks involved – things that are normally in a contract, dust control, etc, a lot of the state Department of Transportation contracts have provisions concerning retrofitting and cleaner technologies. It's hard for me to fathom that these technologies are not going to be routine across the board by that time.

**There should be a way for us to put some kind of language to hold them to abide by the city laws.**

### **c. Energy discussion with Joseph Murphy and Lawrence Laskowski of Con Edison**

**For the past few summers we have experienced brownouts in some areas of Brooklyn, including Fort Greene. What caused those brownouts, and what are you doing to ensure that the addition of this development does not increase our risk of brownouts in Brooklyn?**

*L. Laskowski:* Deterioration in the secondary network. Most of the Brooklyn area is fed from a network service where you have a secondary type system that is tied in a large grid. Customers are served in a secondary system that is fed by transformers. We will get situations where you have equipment failures occur. You can get into high voltage periods.

**How will the grid accommodate the 7,000 new residences? Looking ahead at the demands, how is ConEd going to keep up? Do you work with the city and state agencies overseeing this to be sure the construction will not negatively impact the service?**

*L. Laskowski:* Each year we look at the projections for community – called the load – and at how that impacts our facilities. We evaluate against the ratings of the system. ConEd is a network design, so that on the forecasted peak day, we can beat that load with any two facilities. That is our criteria. Right now, we have an annual system improvement budget that covers this, as well as improvements on a secondary system.

*J. Murphy:* Two things. One, much of this project will not be supplied from our network system, so we don't envision that it will impact. It won't have the traditional network supply. It will have network supply feeders because the need is so intensified, with high tension feeders into the building. For a portion of the project, it's closely married to the Borough Hall network, which is probably one of the most robust, that represents one of the only day-peaking networks in the

borough. So this gives us the opportunity to use some of our existing capacity, swinging to evening use of the arena and residential units.

**But there are many other projects in Downtown coming online.**

*L. Laskowski:* We know; it's great! And all due to you [Marty Markowitz]!

*J. Murphy:* On Fourth Avenue and Atlantic Avenue, a portion of that comes into the Borough Hall network. We're pretty well situated to pick up that load.

**Conservation is very important. I met with the company National Grid from the United Kingdom. He explained that conservation is a very important part of what they do in the UK, by minimizing for a new power plant. Can you tell me what New York State Energy and Research Development Authority [NYSERDA] programs are available?**

*J. Murphy:* In a meeting with the developer's representative a few weeks ago, he assured me that in he is meeting with NYSERDA and that he was looking at big powered motors, etc and other machines. We asked about any plan of distributive generation at the facility. We don't anticipate any. We didn't see any in what they submitted to us. I anticipate they will be required to have some kind of backup generating facility for the arena. But we haven't seen that yet.

**ConEd met with Community Board 6 a few months ago and spoke to us about the need of a new station at Bond and Butler Streets. They talked about the Borough Hall station reaching capacity at this point and the need for a new substation to split the load. If the arena were to be built today, that the high tension lines are not in place to feed that area, so they would have to be placed somewhere in the street. So we would not only have construction project in Atlantic Yards, but a field also. Where will they be?**

*J. Murphy:* The actual residential units are going to be supplied by the primary feeders. Given the density that they are high rise buildings, there will be primary feeders in front or in the buildings. There will be transformers in the sidewalk of the building that will transform down from primary to residential.

**I don't think those conductors exist right now.**

*L. Laskowski:* That's all in place right now, with the 27,000 volt feeders. There are sufficient feeders in the area. The geographic location from our perspective is pretty unique, because there are four network loaders that come together in that spot. The substation is part of a thirty year, long-range plan that we've been forming for Brooklyn. The timing of that facility is about ten years in the future.

*J. Murphy:* We'd have to do some feeder extensions. As the development proceeds further away from Fourth and Fifth Avenues, we would need to extend our facility down Dean Street toward Fifth Avenue.

**Who bears the costs of this work? General rate payers? The developer?**

*J. Murphy:* It depends. It is an as-of-right as a customer that ConEd is obligated to extend facilities. There are instances, whether or not there are space limitations, like a sidewalk. For the arena and towers, the burden of the installation of transformers are shifted to the developer because it's inside property line. The bulk of the cost is installation, and that would be shifted to the developer.