User: WSIEBER Spec: ######## File:O:\CE2360A – BAY PARK ATHLETIC\DESIGN\04_GRADING DRAINAGE & UTILITY PLAN.DWG Scale:1:30 SavedDate:2/21/2014 Time:16:10 Plot Date: Walter Sieber: 2/21/2014; 16:25 ; Layout:6 GRADING DRAINAGE UTILITY PLAN – SOUTH

GENERAL NOTES

SUBGRADE EXCAVATION

ALL UNNECESSARY (EXCESS) TOP SOIL, UNDESIRABLE MATERIAL AND DEBRIS IN THE SUBGRADE SHALL BE EXCAVATED AND REMOVED FROM THE PROPERTY AT NO ADDITIONAL COSTS TO THE COUNTY. ALL REMOVED TOP SOIL, UNDESIRABLE MATERIAL AND DEBRIS IN THE SUBGRADE SHALL BE BACKFILLED AND COMPACTED WITH CLEAN, SELECT FILL MATERIAL TO BRING THE SITE TO THE PROPER ELEVATIONS AT NO ADDITIONAL COST TO THE COUNTY.

CLEANING OF EXISTING DRAINAGE

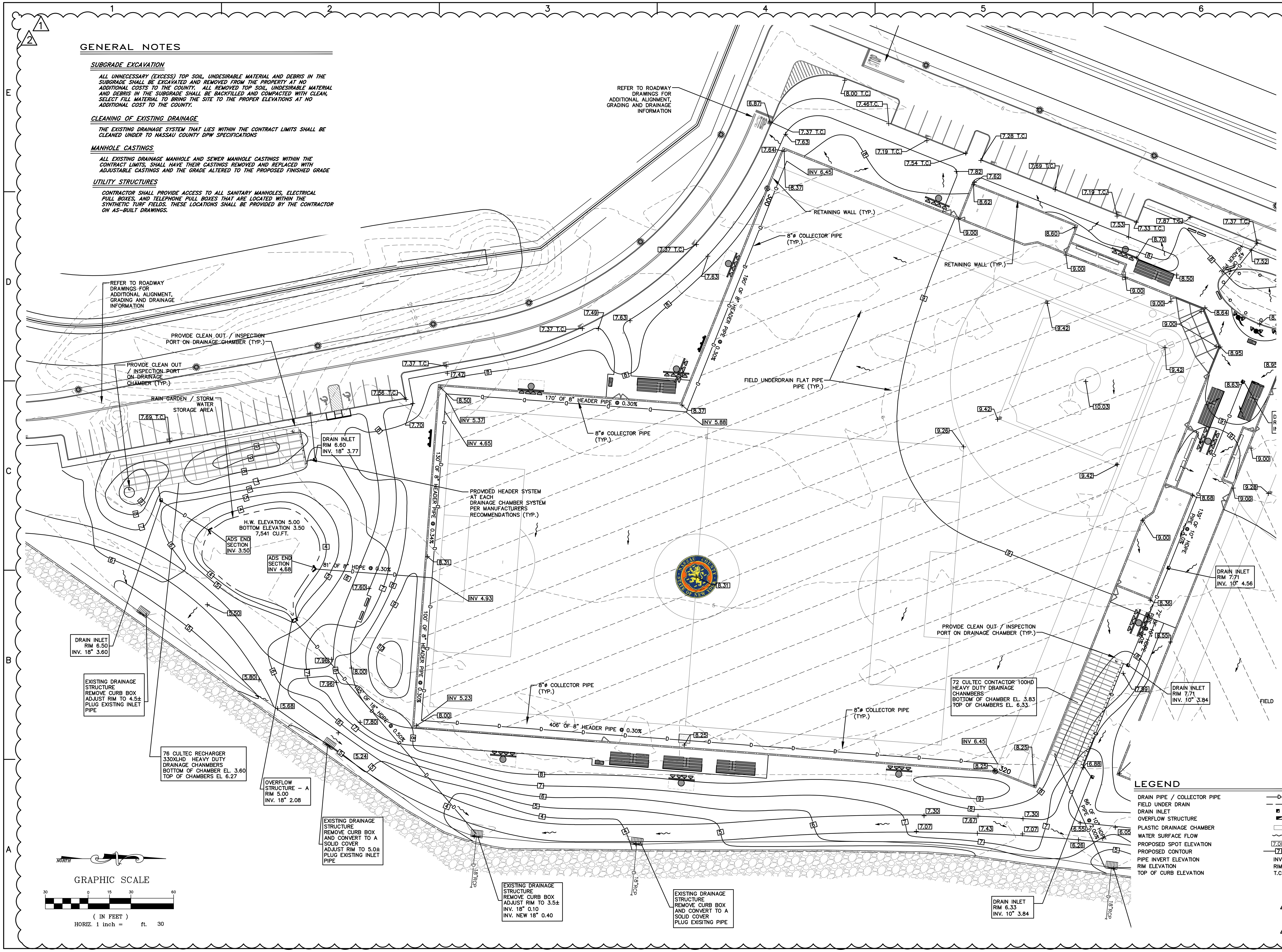
THE EXISTING DRAINAGE SYSTEM THAT LIES WITHIN THE CONTRACT LIMITS SHALL BE CLEANED UNDER TO NASSAU COUNTY DPW SPECIFICATIONS

MANHOLE CASTINGS

ALL EXISTING DRAINAGE MANHOLE AND SEWER MANHOLE CASTINGS WITHIN THE CONTRACT LIMITS, SHALL HAVE THEIR CASTINGS REMOVED AND REPLACED WITH ADJUSTABLE CASTINGS AND THE GRADE ALTERED TO THE PROPOSED FINISHED GRADE

UTILITY STRUCTURES

CONTRACTOR SHALL PROVIDE ACCESS TO ALL SANITARY MANHOLES, ELECTRICAL PULL BOXES, AND TELEPHONE PULL BOXES THAT ARE LOCATED WITHIN THE SYNTHETIC TURF FIELDS. THESE LOCATIONS SHALL BE PROVIDED BY THE CONTRACTOR ON AS-BUILT DRAWINGS.



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NO.	DATE	ISSUED FOR	BY
2	02/24/14	ADDENDUM 2	CE&A
1	02/14/14	ADDENDUM 1	CE&A

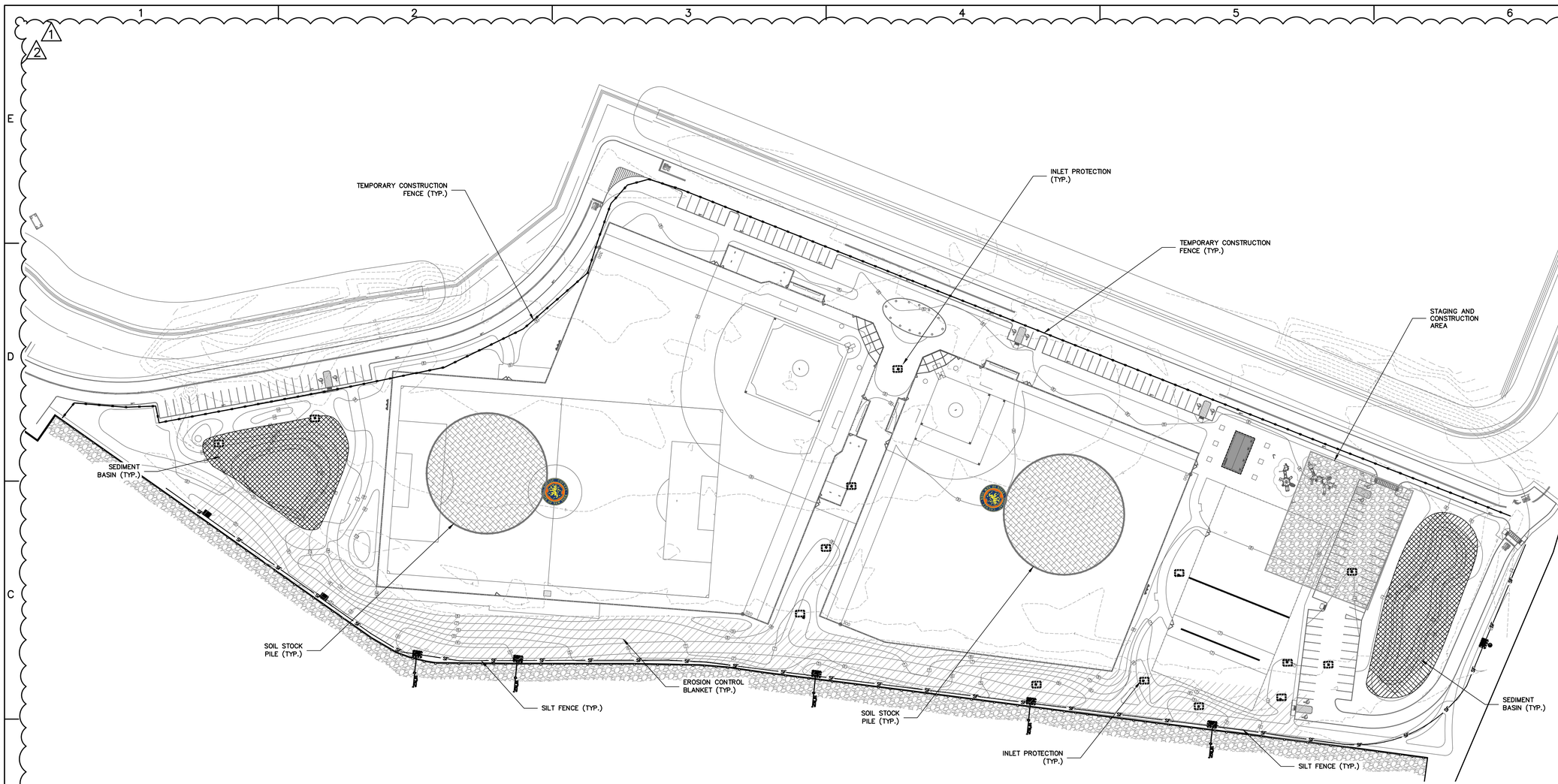
DATE:	JANUARY 2014
PROJECT NO.:	00726788.0000
FILE NAME:	
DESIGNED BY:	CAMERON ENGINEERING & ASSOCIATES, LLP
DRAWN BY:	WCS
CHECKED BY:	KMM

SHEET TITLE

PARK IMPROVEMENTS GRADING & DRAINAGE PLAN SOUTH

SCALE: AS SHOWN

PA-105



LEGEND

- TEMPORARY FENCE CONSTRUCTION FENCE
- SILT FENCE — SF —
- INLET PROTECTION
- SEDIMENT BASINS
- STOCK PILE AREA
- STAGING AND CONSTRUCTION AREA
- EROSION CONTROL BLANKET

NORTH

GRAPHIC SCALE

60 0 30 60 120

(IN FEET)

HORIZ. 1 inch = ft. 60

EROSION & SEDIMENT CONTROL NOTES

1. THE PROPOSED EROSION CONTROL MEASURES SHOWN ON THIS PLAN SHALL BE INSTALLED PRIOR TO THE START OF CONSTRUCTION. ADDITIONAL EROSION CONTROL MAY BE NECESSARY, BASED UPON FIELD CONDITIONS THAT MAY DEVELOP AS CONSTRUCTION PROGRESSES AND AS MAY BE REQUIRED BY NASSAU COUNTY DEPARTMENT OF PUBLIC WORKS. THE FOLLOWING GENERAL CONDITIONS SHALL BE OBSERVED.

   A. EXISTING VEGETATION TO REMAIN SHALL BE PROTECTED AND REMAIN UNDISTURBED.
   B. CLEARING AND GRADING SHALL BE SCHEDULED SO AS TO MINIMIZE THE SIZE OF EXPOSED AREAS AND THE LENGTH OF TIME THAT AREAS ARE EXPOSED.
   C. THE LENGTH AND STEEPNESS OF CLEARED SLOPES SHALL BE MINIMIZED TO REDUCE RUNOFF VELOCITIES AND QUANTITIES.
   D. RUNOFF SHALL BE DIVERTED AWAY FROM CLEARED SLOPES.
   E. SEDIMENT SHALL BE TRAPPED ON THE SITE.
   F. SPECIFIC METHODS AND MATERIALS EMPLOYED IN THE INSTALLATION AND MAINTENANCE OF EROSION CONTROL MEASURES SHALL CONFORM TO THE "NEW YORK GUIDELINES FOR URBAN EROSION AND SEDIMENT CONTROL".
2. SEDIMENT BARRIERS (SILT FENCE OR APPROVED EQUAL) SHALL BE INSTALLED PRIOR TO ANY GRADING WORK ALONG THE LIMITS OF DISTURBANCES AND SHOULD BE MAINTAINED FOR THE DURATION OF THE WORK. NO SEDIMENT FROM THE SITE SHALL BE PERMITTED TO WASH ONTO ADJACENT PROPERTIES, WETLANDS OR ROADS.
3. GRADED AND STRIPPED AREAS AND STOCKPILES SHALL BE KEPT STABILIZED THROUGH THE USE OF TEMPORARY SEEDING AS REQUIRED. SEED MIXTURES SHALL BE IN ACCORDANCE WITH SOIL CONSERVATION SERVICE RECOMMENDATIONS.
4. DRAINAGE INLETS INSTALLED AS PART OF THE PROJECT SHALL BE PROTECTED FROM SEDIMENT BUILDUP THROUGH THE USE OF SEDIMENT BARRIERS, SEDIMENT TRAPS, ETC., AS REQUIRED.
5. PROPER MAINTENANCE OF EROSION CONTROL MEASURES IS TO BE PERFORMED AS INDICATED DURING ROUTINE INSPECTION AND AFTER HEAVY OR PROLONGED STORMS. MAINTENANCE MEASURES INCLUDE, BUT ARE NOT LIMITED TO, CLEANING OF SEDIMENT BASINS OR TRAPS, CLEANING OR REPAIR OF SEDIMENT BARRIERS, CLEANING AND REPAIR OF BERMS AND DIVERSIONS AND CLEANING AND REPAIR OF INLET PROTECTION.
6. APPROPRIATE MEANS SHALL BE USED TO CONTROL DUST DURING CONSTRUCTION.
7. A STABILIZED CONSTRUCTION ENTRANCE SHALL BE MAINTAINED TO PREVENT SOIL AND LOOSE DEBRIS FROM BEING TRACKED ONTO LOCAL ROADS. THE CONSTRUCTION ENTRANCE SHALL BE MAINTAINED UNTIL THE SITE IS PERMANENTLY STABILIZED.
8. SEDIMENT BARRIERS AND OTHER EROSION CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL UPLAND DISTURBED AREAS ARE PERMANENTLY STABILIZED (SEE GRADING NOTE NUMBER 1). AFTER PERMANENT STABILIZATION, PAVED AREAS SHALL BE CLEANED AND DRAINAGE SYSTEMS CLEANED AND FLUSHED AS NECESSARY.
9. ALL STOCK PILE AREAS SHALL BE LOCATED IN MEADOW, CLEARED AREAS OR NON WOODED AREAS.
11. ALL DRAINAGE STRUCTURES AND PIPES SHALL BE CLEANED OUT ONCE THE CONTRIBUTING AREAS ARE PERMENTALLY STABLIZED

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NO.	DATE	ISSUED FOR	BY
2	02/24/14	ADDENDUM 2	CE&A
1	02/14/14	ADDENDUM 1	CE&A

DATE: JANUARY 2014
PROJECT NO.: 00726788.0000
FILE NAME:
DESIGNED BY: CAMERON ENGINEERING & ASSOCIATES, LLP
DRAWN BY: WCS
CHECKED BY: KMM

SHEET TITLE

PARK IMPROVEMENTS EROSION AND SEDIMENT CONTROL PLAN

SCALE: AS SHOWN

2
1

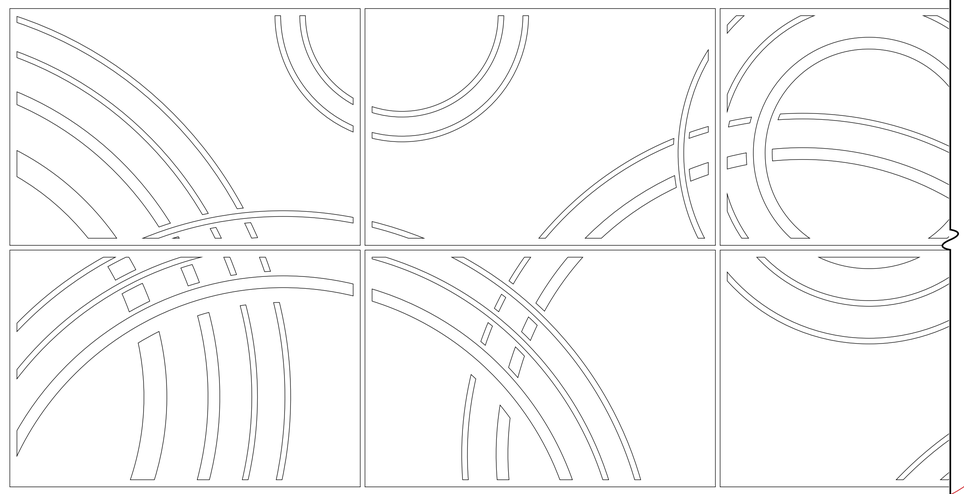
PA–112

User: MSIEBER Spec: ######## File:O:\CE2360A - BAY PARK ATHLETIC\DESIGN\07_EROSION AND SEDIMENT.DWG Scale:1:30 SaveDate:2/21/2014 Time:16:22 Plot Date: Walter Sieber; 2/21/2014; 16:27 ; Layout:10 EROSION AND SEDIMENT CONTROL PLAN

Appendix Document E
Lighting and Signage from SEQR

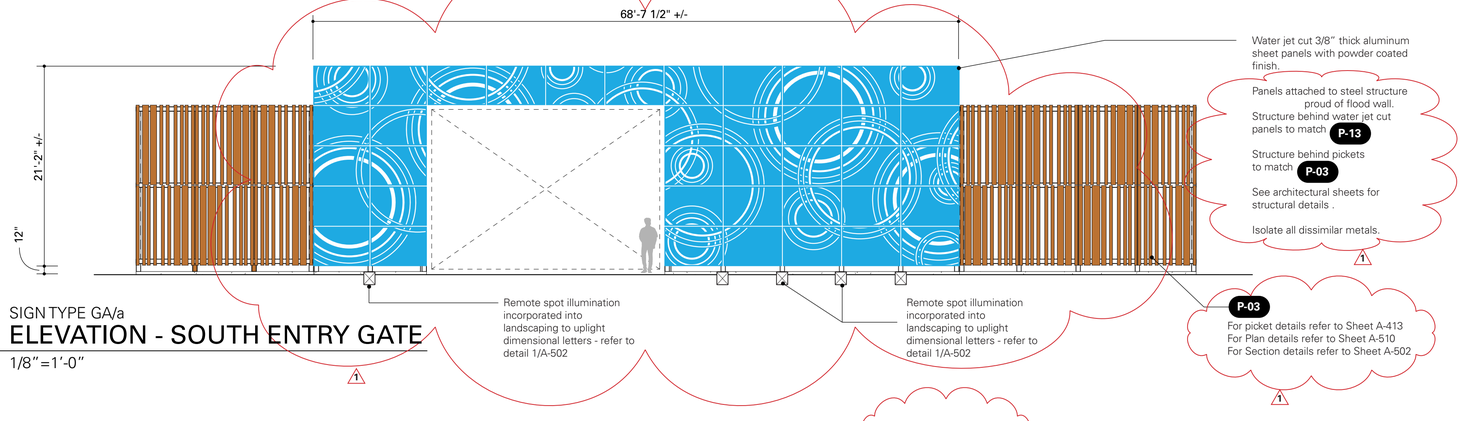
DOCUMENT G

SIGN TYPE GA/a
3 PATTERN DETAIL
3/4"=1'-0"



NOTE:
Water droplet pattern art to be provided separately to fabricator

SIGN TYPE GA/a
4 PATTERN DETAIL
3/4"=1'-0"



SIGN TYPE GA/a
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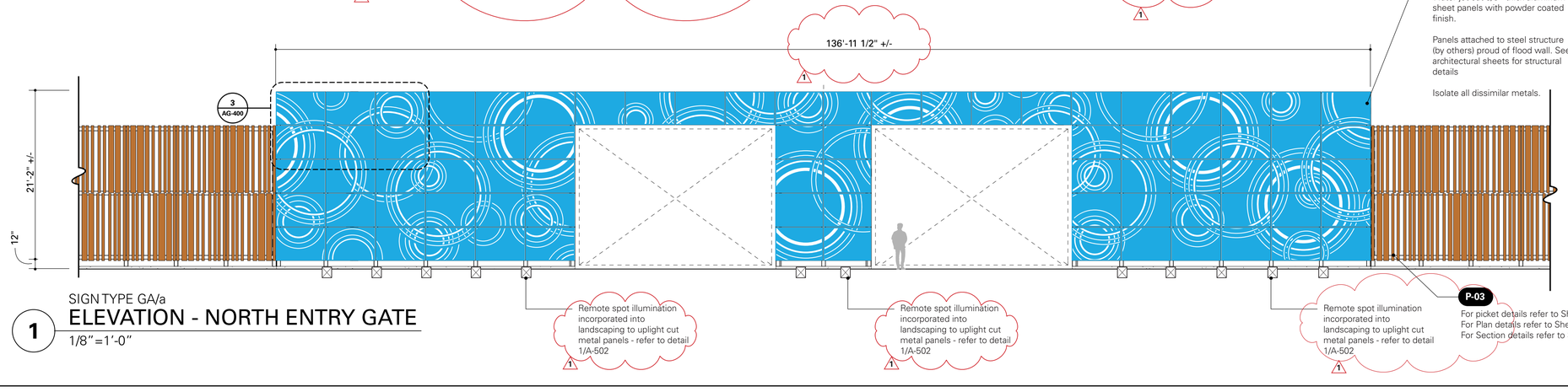
1/8"=1'-0"



SIGN TYPE GA/a
1 ELEVATION - NORTH ENTRY GATE
1/8"=1'-0"

COLOR SCHEDULE

P-01	MATTHEW PAINT MP18091	P-09	PMS2995 50%
P-02	MATTHEW PAINT MP18149	P-10	PMS2995 40%
P-03	PMS7572	P-11	PMS2995 30%
P-04	PMS2995	P-12	PMS2995 20%
P-05	PMS2995 90%	P-13	PMS307
P-06	PMS2995 80%		
P-07	PMS2995 70%		
P-08	PMS2995 60%		

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NO.	DATE	ISSUED FOR	BY
1	Feb 2014	ADDENDUM 1	

DATE: JANUARY 2014
PROJECT NO.: PROJECT NO.:
FILE NAME: MMA_NY Bay Park Flood Protection
DESIGNED BY: RTKL
DRAWN BY: RTKL
CHECKED BY: RTKL

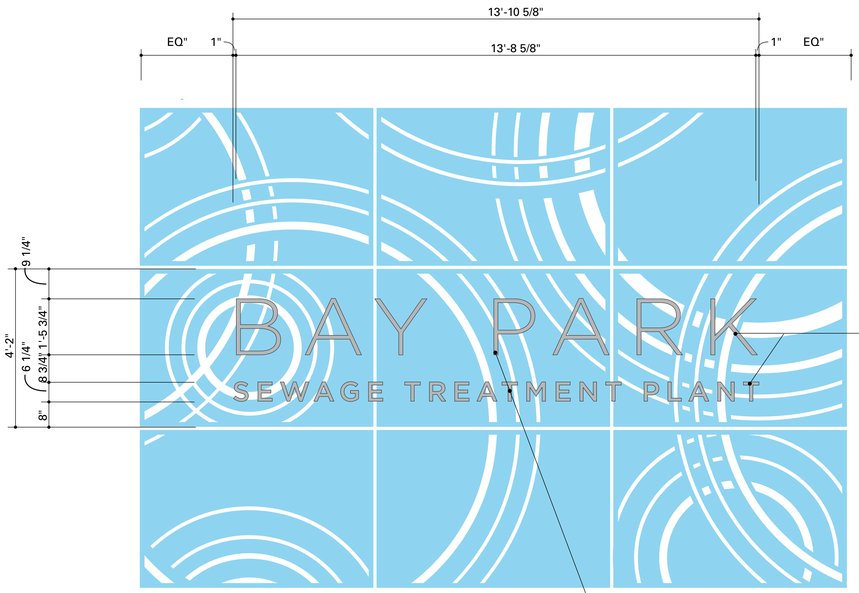
SHEET TITLE

GATE PATTERN

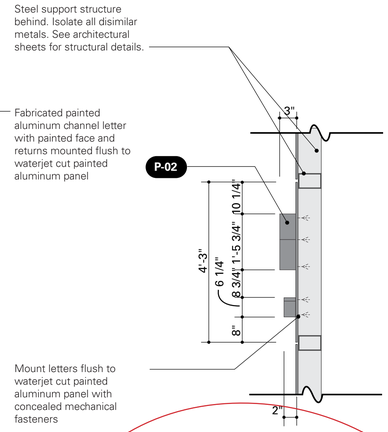
GA/a

SCALE:

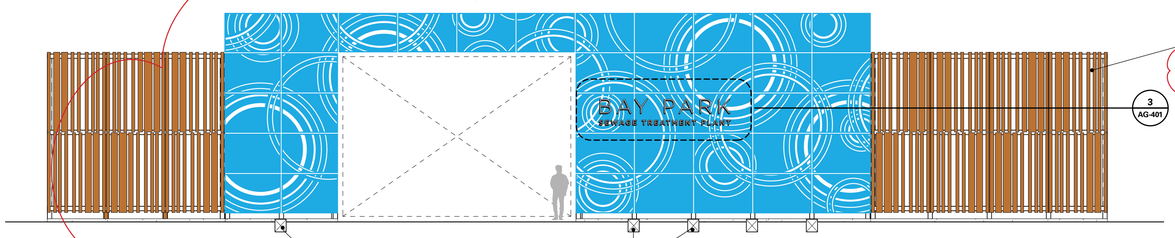
AG-400



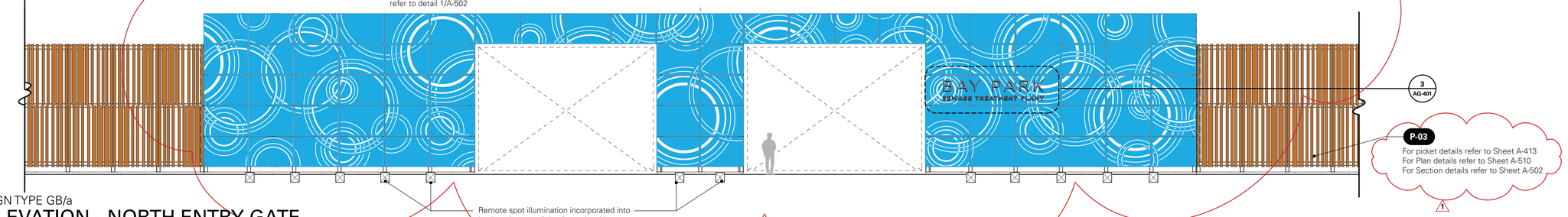
SIGN TYPE GB/a
3 DETAIL
1/2"=1'-0"



SIGN TYPE GB/a
4 SIDE VIEW
1/2"=1'-0"



SIGN TYPE GB/a
2 ELEVATION - SOUTH ENTRY GATE
1/8"=1'-0"



SIGN TYPE GB/a
1 ELEVATION - NORTH ENTRY GATE
1/8"=1'-0"

COLOR SCHEDULE			
P-01	MATTHEWS PAINT MP18091	P-09	PMS2995 50%
P-02	MATTHEWS PAINT MP18149	P-10	PMS2995 40%
P-03	PMS7572	P-11	PMS2995 30%
P-04	PMS2995	P-12	PMS2995 20%
P-05	PMS2995 90%	P-13	PMS307
P-06	PMS2995 80%		
P-07	PMS2995 70%		
P-08	PMS2995 60%		

1

BAY PARK
SEWAGE TREATMENT PLANT

SIGN TYPE GB/a
5 3D VIEW
NOT TO SCALE

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NO.	DATE	ISSUED FOR	BY
1	Feb 2014	ADDENDUM 1	

DATE: JANUARY 2014
PROJECT NO.: PROJECT NO.
FILE NAME: MMA_NY Bay Park Flood Protection
DESIGNED BY: RTKL
DRAWN BY: RTKL
CHECKED BY: RTKL

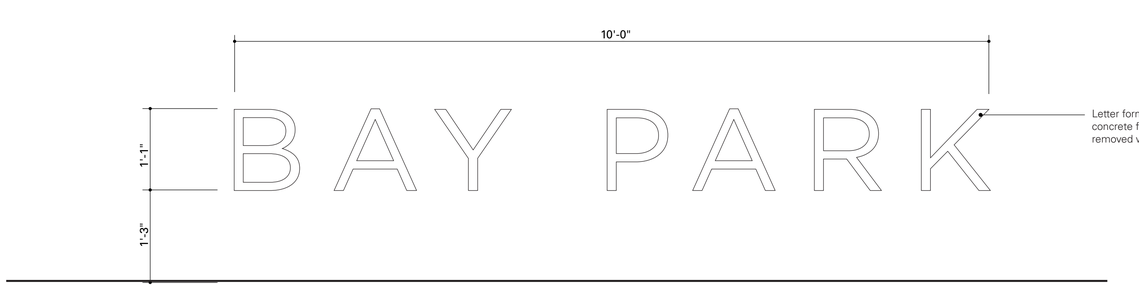
SHEET TITLE

GATE ENTRY ID

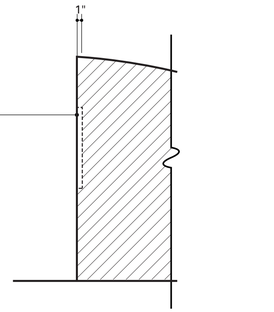
GB/a

SCALE:

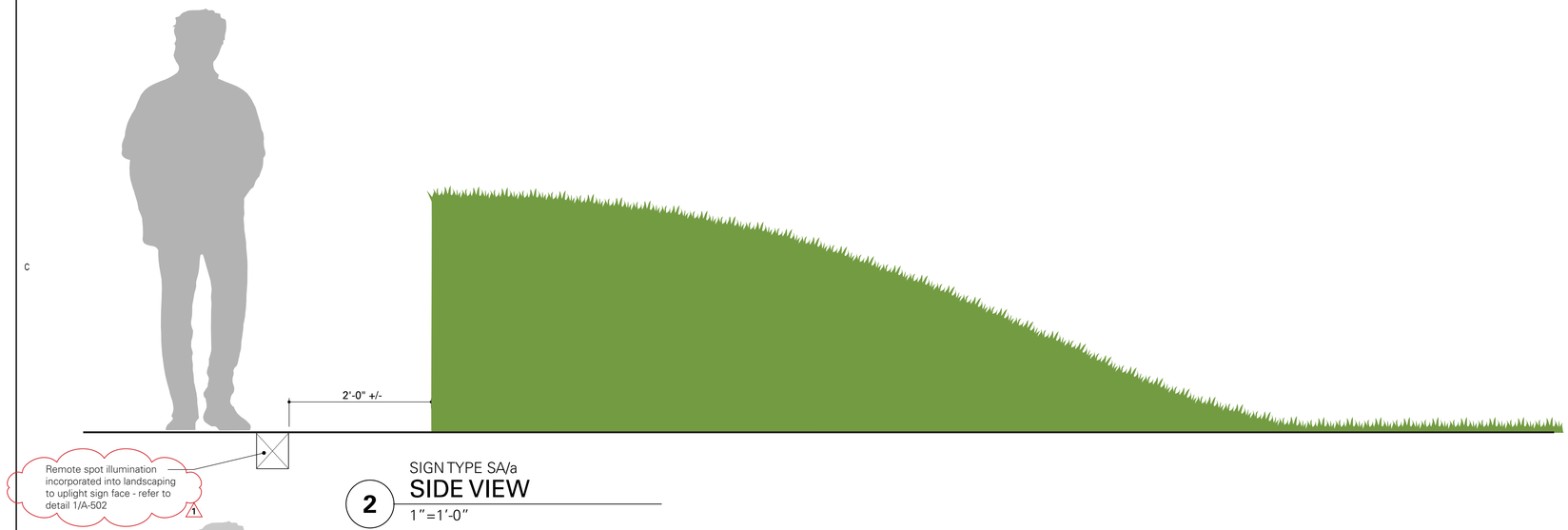
AG-401



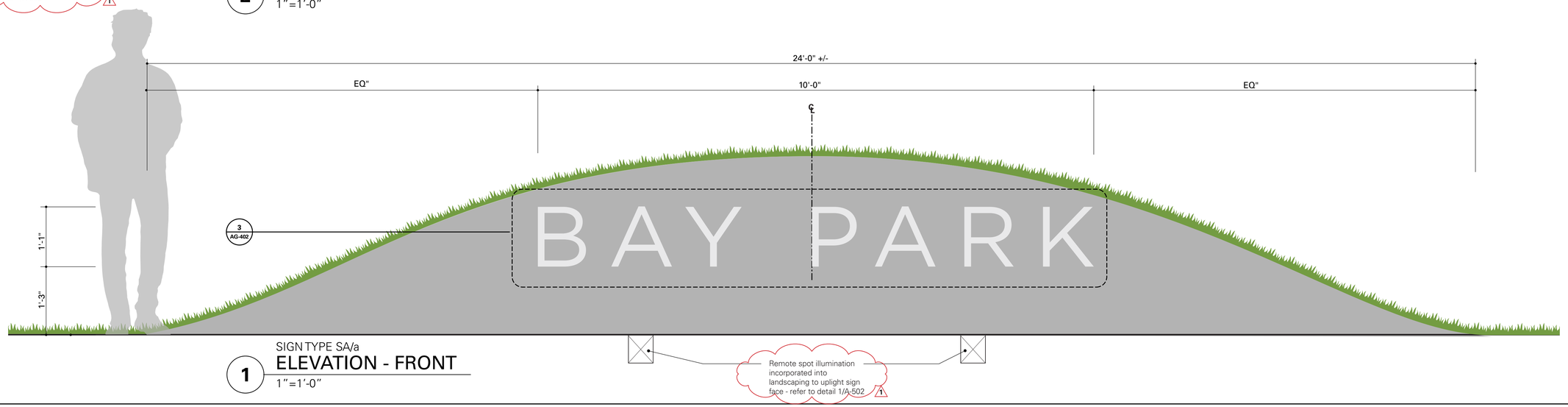
SIGN TYPE SA/a
3 DETAIL
1"=1'-0"



SIGN TYPE SA/a
4 SECTION
1"=1'-0"



SIGN TYPE SA/a
2 SIDE VIEW
1"=1'-0"



SIGN TYPE SA/a
1 ELEVATION - FRONT
1"=1'-0"

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NO.	DATE	ISSUED FOR	BY
1	Feb 2014	ADDENDUM 1	

DATE: JANUARY 2014
PROJECT NO.: PROJECT NO.:
FILE NAME: MMA_NY Bay Park Flood Protection
DESIGNED BY: RTKL
DRAWN BY: RTKL
CHECKED BY: RTKL

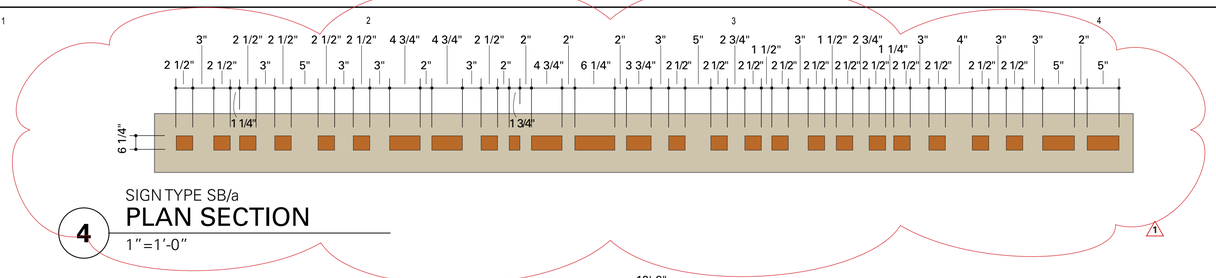
SHEET TITLE

PARK IDENTITY PRIMARY

SA/a

SCALE:

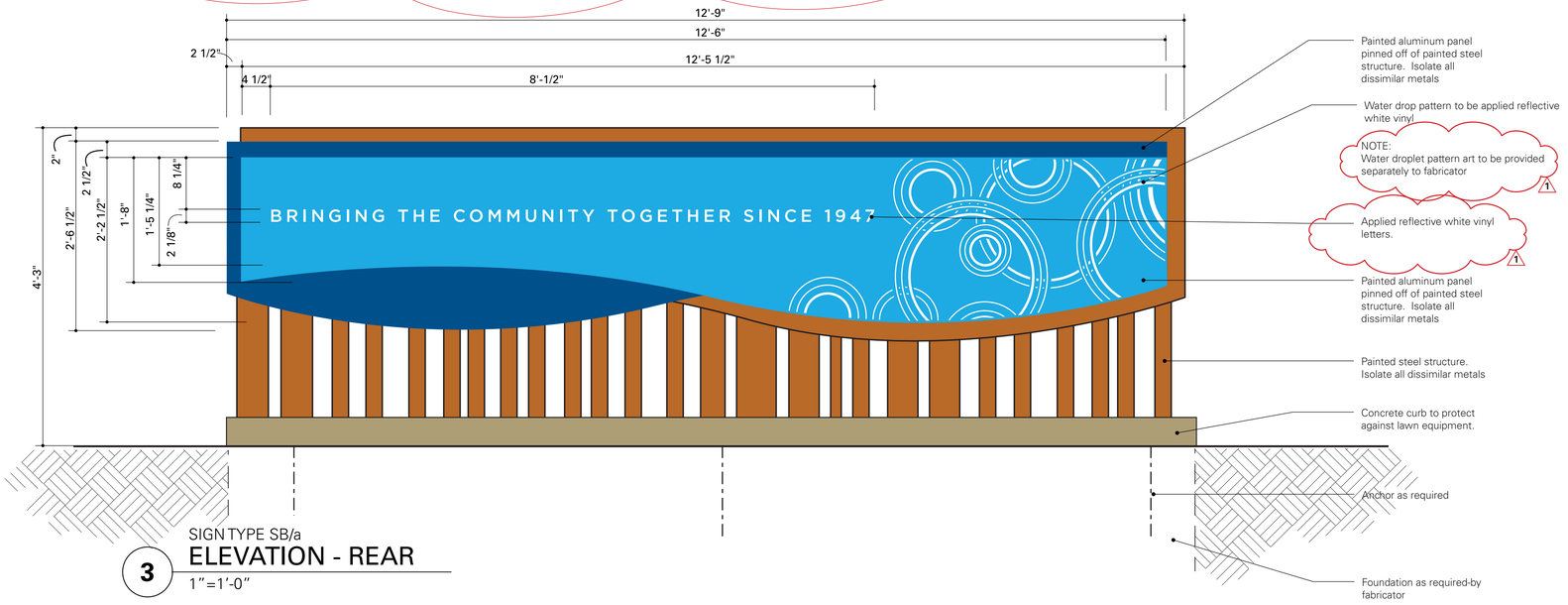
AG-402



SIGN TYPE SB/a

4 PLAN SECTION

1″=1′-0″



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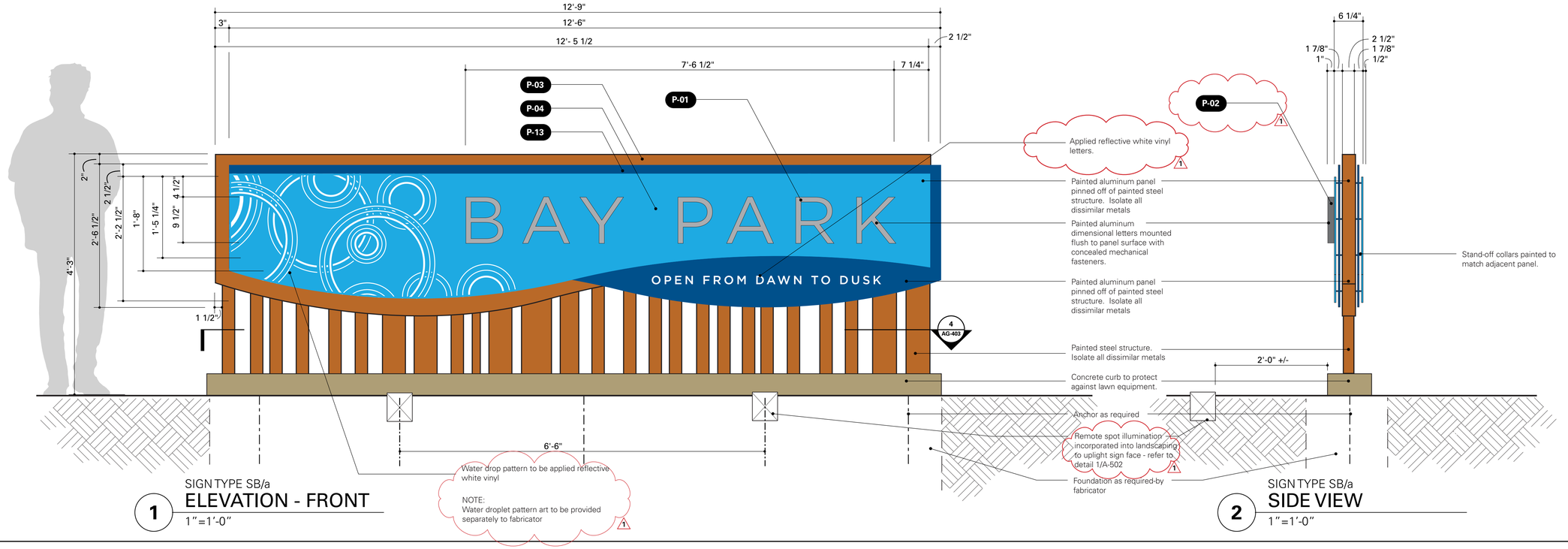
3 ELEVATION - REAR

1″=1′-0″



SIGN TYPE SB/a

1 ELEVATION - FRONT

1″=1′-0″

SIGN TYPE SB/a

2 SIDE VIEW

1″=1′-0″

COLOR SCHEDULE

P-01	MATTHEWS PAINT MP18091	P-09	PMS2995 50%
P-02	MATTHEWS PAINT MP18149	P 10	PMS2995 40%
P-03	PMS7572	P 11	PMS2995 30%
P-04	PMS2995	P-12	PMS2995 20%
P-05	PMS2995 90%	P-13	PMS307
P-06	PMS2995 80%		
P-07	PMS2995 70%		
P-08	PMS2995 60%		

1

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NO.	DATE	ISSUED FOR	BY
1	Feb 2014	ADDENDUM 1	

DATE: JANUARY 2014
PROJECT NO.: PROJECT NO.
FILE NAME: MMA_NY Bay Park Flood Protection
DESIGNED BY: RTKL
DRAWN BY: RTKL
CHECKED BY: RTKL

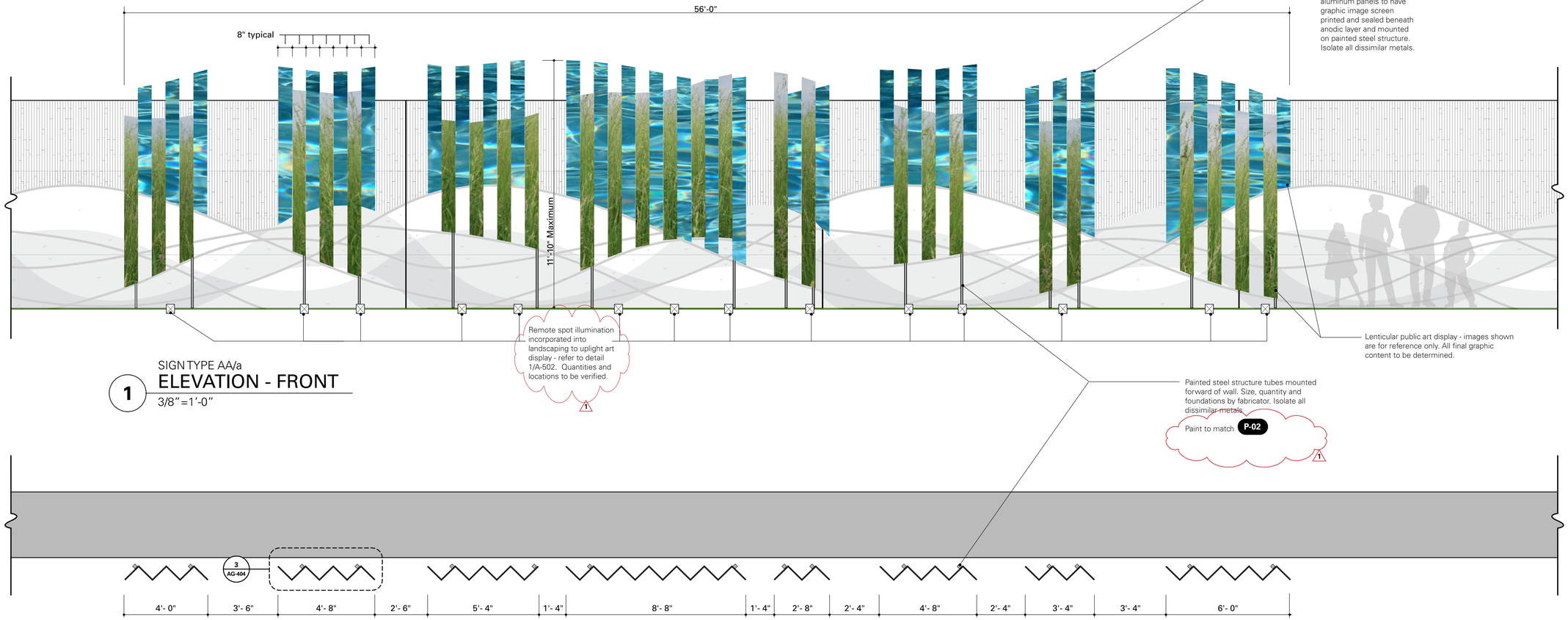
SHEET TITLE

PARK IDENTITY SECONDARY

SB/a

SCALE:

AG-403



SIGN TYPE AA/a

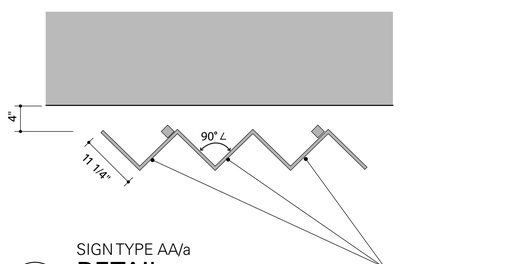
1 ELEVATION - FRONT

3/8" =1'-0"

SIGN TYPE AA/a

2 PLAN

3/8" =1'-0"



SIGN TYPE AA/a

3 DETAIL

3/4" =1'-0"

All Southeast facing panels to have one continuous image. All Southwest facing panels to have a second different continuous image.

P-01	MATTHEWS PAINT MP18091	P-09	PMS2995 50%
P-02	MATTHEWS PAINT MP18149	P 10	PMS2995 40%
P-03	PMS7572	P 11	PMS2995 30%
P-04	PMS2995	P-12	PMS2995 20%
P-05	PMS2995 90%	P-13	PMS307
P-06	PMS2995 80%		
P-07	PMS2995 70%		
P-08	PMS2995 60%		

1

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1	Feb 2014	ADDENDUM 1	

DATE: JANUARY 2014
PROJECT NO.: PROJECT NO.:
FILE NAME: MMA_NY Bay Park Flood Protection
DESIGNED BY: RTKL
DRAWN BY: RTKL
CHECKED BY: RTKL

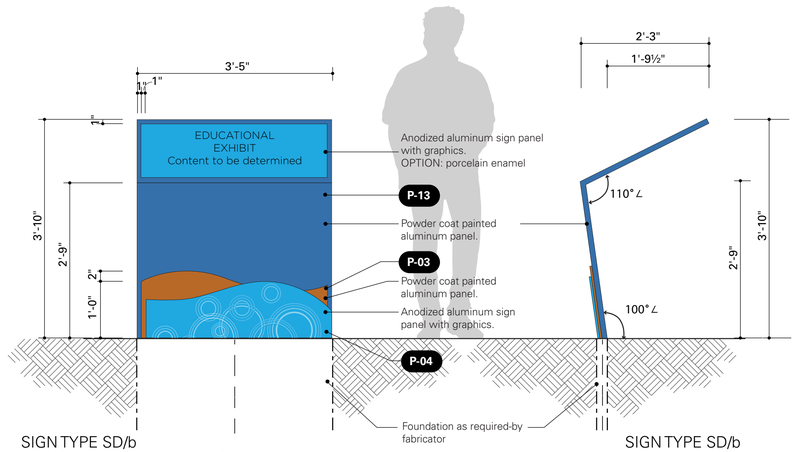
SHEET TITLE

PUBLIC ART DISPLAY

AA/a

SCALE:

AG-404



SIGN TYPE SD/b

1 FRONT ELEVATION - FREESTANDING OPTION 2

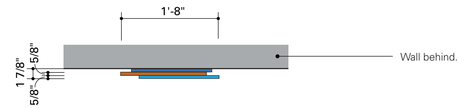
3/4"=1'-0"

NOTE:
All graphics shown are for reference only. All content to be determined.

SIGN TYPE SD/b

2 SIDE ELEVATION - FREESTANDING OPTION 2

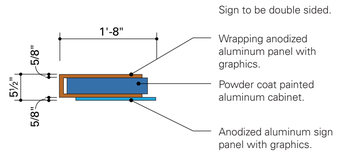
3/4"=1'-0"



SIGN TYPE SD/a

4 PLAN - WALL MOUNTED

3/4"=1'-0"



SIGN TYPE SD/a

3 FRONT ELEVATION - WALL MOUNTED

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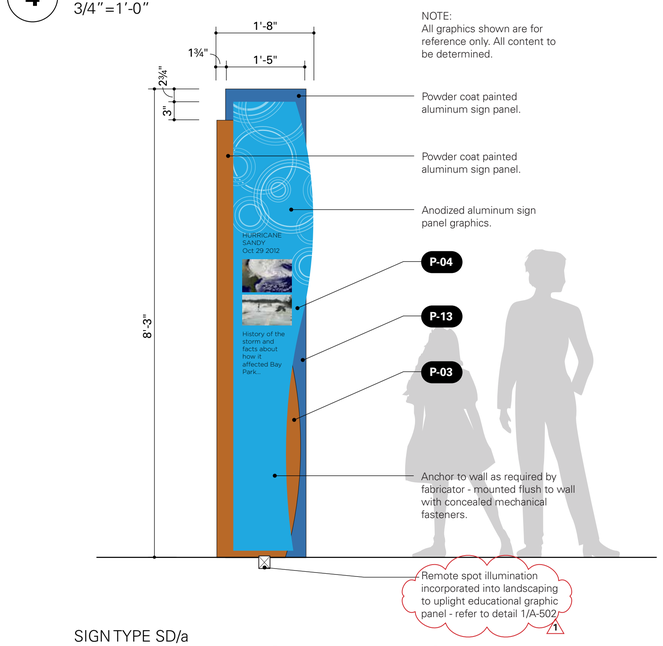

SIGN TYPE SD/a

3 FRONT ELEVATION - WALL MOUNTED

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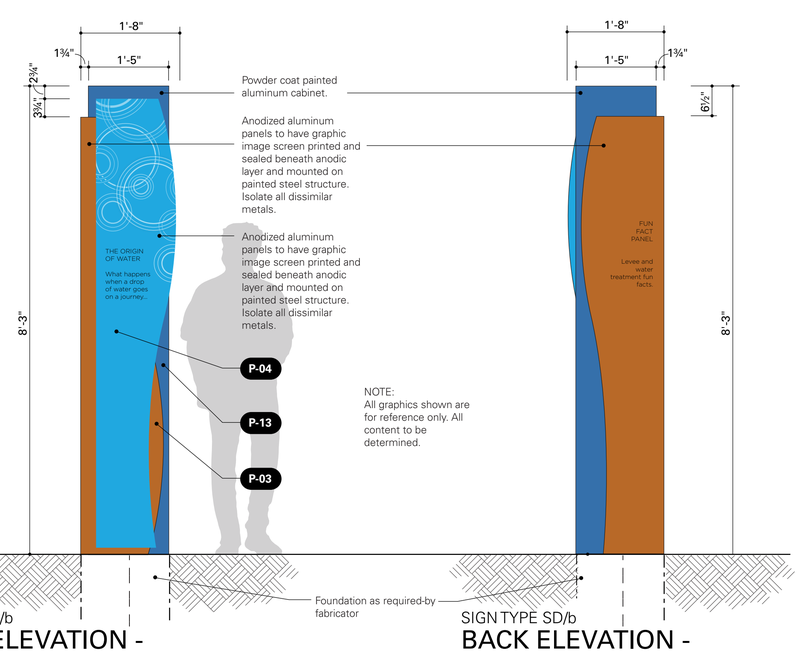

SIGN TYPE SD/b

5 FRONT ELEVATION - FREESTANDING OPTION 1

3/4"=1'-0"

SIGN TYPE SD/b

5 BACK ELEVATION - FREESTANDING OPTION 1

3/4"=1'-0"

COLOR SCHEDULE			
P-01	MATTHEW PAINT MP18091	P-09	PMS2995 50%
P-02	MATTHEW PAINT MP18149	P-10	PMS2995 40%
P-03	PMS7572	P-11	PMS2995 30%
P-04	PMS2995	P-12	PMS2995 20%
P-05	PMS2995 90%	P-13	PMS307
P-06	PMS2995 80%		
P-07	PMS2995 70%		
P-08	PMS2995 60%		

1

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BAY PARK FLOOD PROTECTION

00-13041.00

NO.	DATE	ISSUED FOR	BY
1	Feb 2014	ADDENDUM 1	

DATE: JANUARY 2014
PROJECT NO.: PROJECT NO.
FILE NAME: MMA_NY Bay Park Flood Protection
DESIGNED BY: RTKL
DRAWN BY: RTKL
CHECKED BY: RTKL

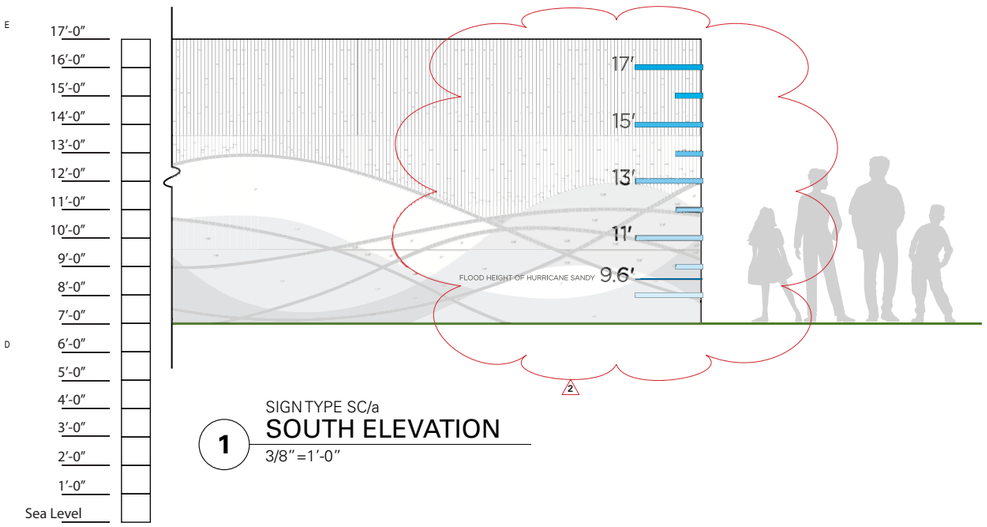
SHEET TITLE

EDUCATIONAL EXHIBIT

SD/a,b

SCALE:

AG-411



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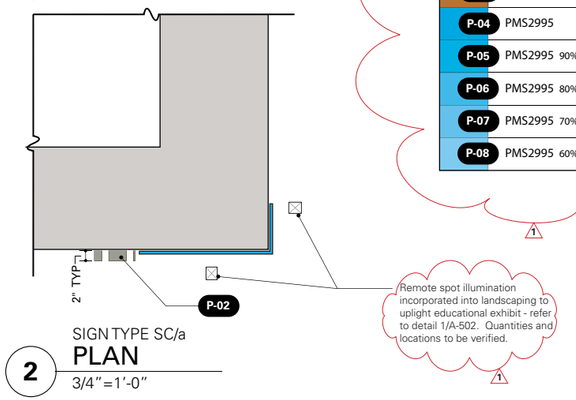

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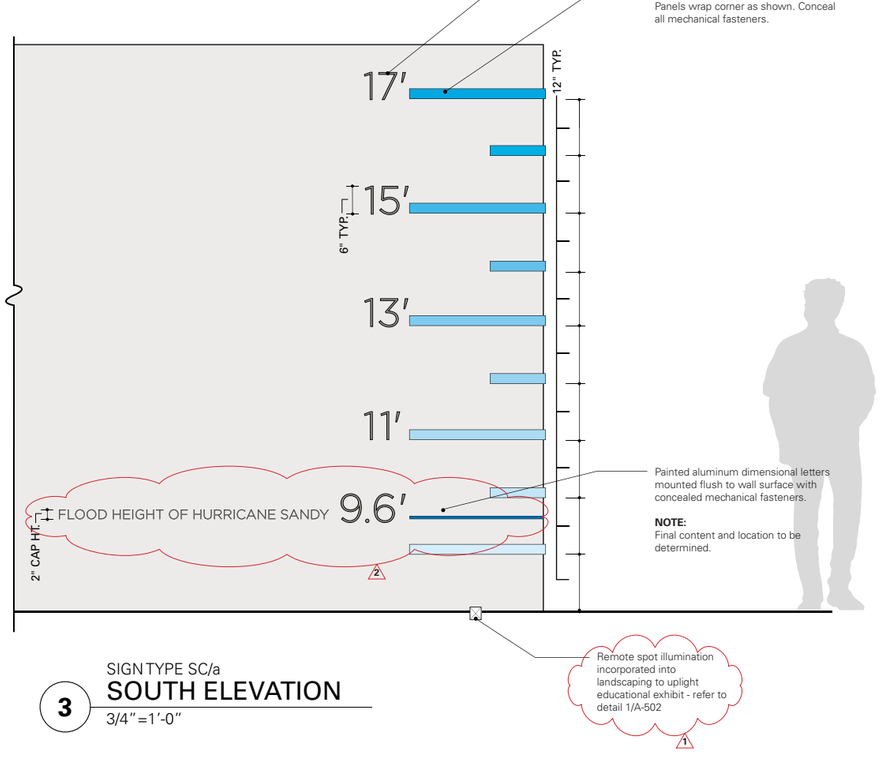
2 PLAN
3/4″=1′-0″

COLOR SCHEDULE			
P-01	MATTHEW PAINT MP18091	P-09	PMS2995 50%
P-02	MATTHEW PAINT MP18149	P-10	PMS2995 40%
P-03	PMS7572	P-11	PMS2995 30%
P-04	PMS2995	P-12	PMS2995 20%
P-05	PMS2995 90%	P-13	PMS307
P-06	PMS2995 80%		
P-07	PMS2995 70%		
P-08	PMS2995 60%		



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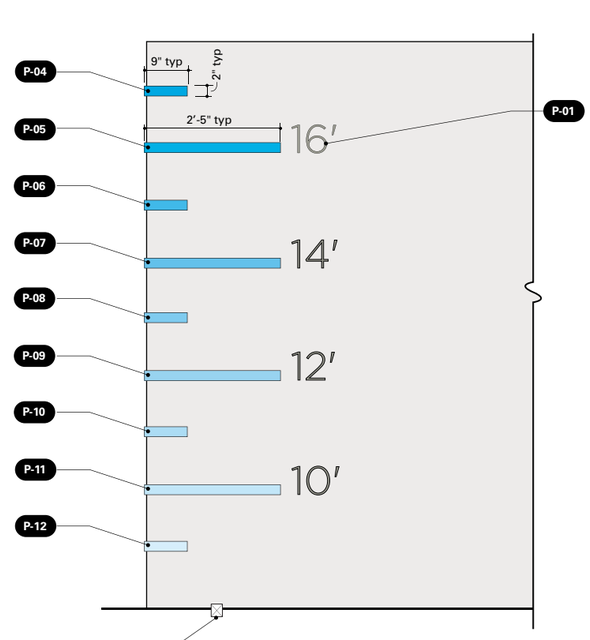


SIGN TYPE SC/a
4 EAST ELEVATION
3/4″=1′-0″

HAZEN AND SAWYER
Environmental Engineers & Scientists

LEGAL ENTITY:
MALCOLM PIRNIE, INC.

ARCADIS
A JOINT VENTURE

RTKL
AN ARCADIS COMPANY

SEALS

DO NOT USE FOR CONSTRUCTION

NASSAU COUNTY, NEW YORK
NASSAU COUNTY DPW

BAY PARK FLOOD PROTECTION

00-13041.00

NO.	DATE	ISSUED FOR	BY
1	Feb 24, 2014	ADDENDUM 2	
1	Feb 2014	ADDENDUM 1	

DATE: JANUARY 2014
PROJECT NO.: PROJECT NO.
FILE NAME: MMA_NY Bay Park Flood Protection
DESIGNED BY: RTKL
DRAWN BY: RTKL
CHECKED BY: RTKL

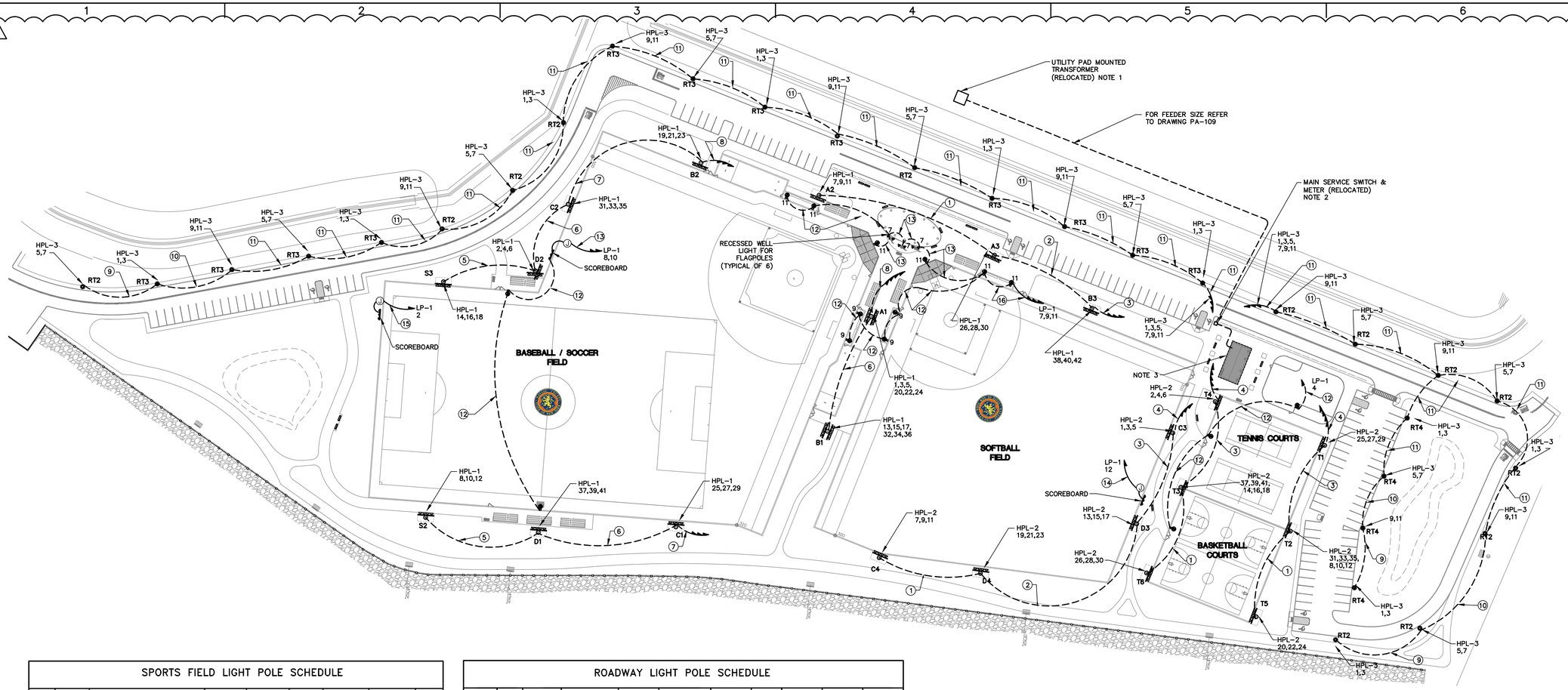
SHEET TITLE

SANDY EDUCATION

SC/a

SCALE:

AG-410



SPORTS FIELD LIGHT POLE SCHEDULE

POLE ID	MTG HEIGHT FEET	CIRCUIT DESCRIPTION	LTG CONTROL PANEL No.	# OF FIXTURES	LAMP WATTS	CONTACTOR SIZE (AMPS)	CONTACTOR ID	ZONE
A1	70	BASEBALL 1	LCP-1	5	1500	30	C1	1
A2	70	BASEBALL 1	LCP-1	5	1500	30	C2	1
B1	80	BASEBALL 1/SOCCER 1	LCP-1	9	1500	30	C3	2
B2	80	BASEBALL 1/SOCCER 1	LCP-1	9	1500	30	C4	2
C1	70	BASEBALL 1/SOCCER 1	LCP-1	5	1500	30	C5	2
C2	70	BASEBALL 1/SOCCER 1	LCP-1	4	1500	30	C6	2
D1	70	BASEBALL 1/SOCCER 1	LCP-1	5	1500	30	C7	2
D2	70	BASEBALL 1/SOCCER 1	LCP-1	5	1500	30	C8	2
S2	70	SOCCER 1	LCP-1	5	1500	30	C9	3
S3	70	SOCCER 1	LCP-1	5	1500	30	C10	3
A1	70	BASEBALL 2	LCP-2	6	1500	30	C11	4
A3	70	BASEBALL 2	LCP-2	6	1500	30	C12	4
B1	80	BASEBALL 2	LCP-2	7	1500	30	C13	4
B3	80	BASEBALL 2	LCP-2	7	1500	30	C14	4
C3	70	BASEBALL 2	LCP-2	3	1500	30	C15	4
C4	70	BASEBALL 2	LCP-2	3	1500	30	C16	4
D3	70	BASEBALL 2	LCP-2	4	1500	30	C17	4
D4	70	BASEBALL 2	LCP-2	4	1500	30	C18	4
T1	40	TENNIS	LCP-2	2	1500	30	C19	5
T2	40	TENNIS	LCP-2	2	1500	30	C20	5
T3	40	TENNIS	LCP-2	2	1500	30	C21	5
T4	40	TENNIS	LCP-2	2	1500	30	C22	5
T2	40	BASKETBALL COURTS	LCP-2	2	1500	30	C23	6
T3	40	BASKETBALL COURTS	LCP-2	2	1500	30	C24	6
T5	40	BASKETBALL COURTS	LCP-3	2	1500	30	C25	6
T6	40	BASKETBALL COURTS	LCP-3	2	1500	30	C26	6

NORTH

GRAPHIC SCALE

60 0 30 60 120

(IN FEET)

HORIZ. 1 inch = ft. 60

ROADWAY LIGHT POLE SCHEDULE

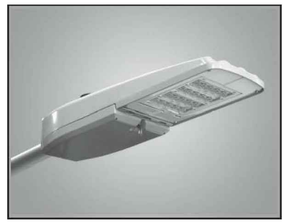
SYMBOL	POLE ID	MOUNTING HEIGHT	MANUFACTURER	CATALOG NUMBER	DESCRIPTION	LAMP	NUMBER LAMPS	LUMENS PER LAMP	LIGHT LOSS FACTOR	WATTAGE
●	RT2	22 FEET	AMERICAN ELECTRIC LIGHTING	ATB0 30B LED E10 480 R2	ATB0 SERIES 108W LED 1A TYPE 2 4000K CCT W/ PHOTO CONTROL	30B 4K LED ARRAY	1	9237.698	0.9	108
●	RT3	22 FEET	AMERICAN ELECTRIC LIGHTING	ATB0 30B LED E10 480 R3	ATB0 SERIES 108W LED 1A TYPE 3 4000K CCT W/ PHOTO CONTROL	30B 4K LED ARRAY	1	9340.916	0.9	108
●	RT4	22 FEET	AMERICAN ELECTRIC LIGHTING	ATB0 30B LED E10 480 R4	ATB0 SERIES 108W LED 1A TYPE 4 4000K CCT W/ PHOTO CONTROL	30 LED 4K ARRAY	1	9336.402	0.9	108

FEEDER SCHEDULE

ID	WIRE & CONDUIT SIZE
1	3#10, 1#10G. – 1-1/4"
2	6#10, 2#10G. – 1-1/4"
3	9#10, 3#10G. – 1-1/4"
4	12#10, 4#10G. – 1-1/2"
5	3#6, 1#8G. – 1-1/2"
6	6#6, 2#8G. – 1-1/2"
7	9#6, 3#8G. – 2"
8	12#6, 4#8G. – 2-1/2"
9	2#12, 1#12G. – 1-1/4"
10	4#12 2#12G. – 1-1/4"
11	6#12, 3#12G. – 1-1/4"
12	2#6, 1#8G. – 1-1/4"
13	3#6, 2#8G. – 1-1/4"
14	2#10, 1#10G. – 1-1/4"
15	2#4, 1#8G. – 1-1/4"
16	4#6, 3#8G. – 1-1/4"

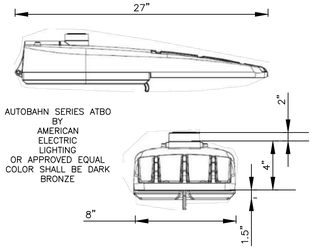
GENERAL NOTES

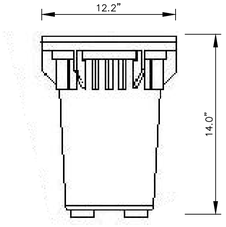
1. *EXISTING UTILITY TRANSFORMER TO BE RELOCATED. CONTRACTOR SHALL FIELD VERIFY ACTUAL LOCATION.*
2. *EXISTING MAIN SERVICE SWITCH TO BE RELOCATED. CONTRACTOR SHALL FIELD COORDINATE FINAL LOCATION. PROVIDE CT CABINET AND METER.*
3. *FOR COMFORT STATION BUILDING PLAN REFER TO DRAWING PA-111.*
4. *CABLE SPLICES SHALL BE MINIMIZED. REQUIRED SPLICES SHALL BE WATERPROOFED USING SPLICING KITS AND MATERIAL AS MANUFACTURED BY RAYCHEM.*
5. *PROVIDE PULL AND JUNCTION BOXES WHERE REQUIRED AND SIZED AS PER NEC.*



ROADWAY LIGHTING FIXTURE

SCALE: N.T.S.





1. RECESSED WELL LIGHT SHALL BE MANUFACTURED BY HUBBELL OUTDOOR LIGHTING MODEL # RU100P8 OR APPROVED EQUAL
2. LIGHT FIXTURE SHALL HAVE A NON-METALIC HOUSING AND LENS FRAME WITH A BRONZE FINISH
3. FIXTURE SHALL HAVE TEMPERED IMPACT RESISTANT GLASS LENS
4. FIXTURE SHALL HAVE ALL STAINLESS STEEL HARDWARE
5. FIXTURE SHALL HAVE A 100 WATT BULB WITH 120 VOLT BALLAST
6. CONTRACTOR SHALL PROVIDE LENS GUARD AS MANUFACTURED BY HUBBELL OUTDOOR LIGHTING MODEL # RU100G OR APPROVED EQUAL
7. CONTRACTOR TO PROVIDE PHOTO CELL LIGHT CONTROL FOR RECESSED WELL LIGHTING

RECESSED WELL LIGHT FOR FLAGPOLES

SCALE: N.T.S.

HAZEN AND SAWYER
Environmental Engineers & Scientists
LEGAL ENTITY:
MALCOLM PIRNIE, INC.
ARCADIS
A JOINT VENTURE
CAMERON ENGINEERING & ASSOCIATES, LLP

SEALS

DO NOT USE FOR CONSTRUCTION

NASSAU COUNTY, NEW YORK
NASSAU COUNTY DPW

BAY PARK FLOOD PROTECTION

NO.	DATE	ISSUED FOR	BY
2	02/24/14	ADDENDUM 2	CE&A
1	02/14/14	ADDENDUM 1	CE&A

DATE: JANUARY 2014
PROJECT NO.: 00726788.0000
FILE NAME:
DESIGNED BY: CAMERON ENGINEERING & ASSOCIATES, LLP
DRAWN BY: WCS
CHECKED BY: KMM

SHEET TITLE

PARK IMPROVEMENTS SPORT FIELD & ROADWAY LIGHTING PLAN

SCALE: AS SHOWN

2
1

PA-108

User: WSIEBER Spec: ######## File:G:\CE2360A - BAY PARK ATHLETIC\DESIGN\SPORTS FIELD LIGHTING LAYOUT.DWG Scale:1:30 SavedDate:2/21/2014 Time:16:08 Plot Date: Walter Sieber; 2/21/2014; 16:26 ; Layout:E-001ELECTRICAL SITE PLAN

Appendix Document F
Public Hearing Minutes from SEQR

NASSAU COUNTY LEGISLATURE

LEGISLATIVE HEARING ON SANDY RECOVERY OPERATIONS AND CAPITAL BUDGET PROJECTS RELATING TO THE BAY PARK SEWAGE TREATMENT PLANT

NORMA GONSALVES,
Presiding Officer

VINCENT MUSCARELLA,
Chairman

1550 Franklin Avenue
Mineola, New York

Thursday, March 20, 2014
2:10 P.M.

A P P E A R A N C E S:

NORMA GONSALVES,
Presiding Officer

RICHARD NICOLELLO,
Deputy Presiding Officer

HOWARD KOPEL,
Alternate Deputy Presiding Officer

MICHAEL VENDITTO

DENISE FORD

LAURA CURRAN

FRANCIS X. BECKER

VINCENT MUSCARELLA,
Public Works Chairman

ELLEN BIRNBAUM

LAURA SCHAEFER

DONALD MACKENZIE

KEVAN ABRAHAMS,
Minority Leader

ROSE MARIE WALKER

DENNIS DUNNE

JUDITH JACOBS

DAVID DENENBERG

DELIA DERIGGI-WHITTON

CARRIE SOLAGES

SIELA BYNOE

WILLIAM J. MULLER, III
Clerk of the Legislature

LIST OF SPEAKERS

Full Legislature/3-20-14

PRESIDING OFFICER GONSALVES: Please lead us in the Pledge of Allegiance.

(Whereupon, the Pledge of Allegiance was recited.)

PRESIDING OFFICER GONSALVES: Mr. Muller, will you please call the roll?

CLERK MULLER: Deputy Presiding Officer Nicolello?

LEGISLATOR NICOLELLO: Here.

CLERK MULLER: Legislator Kopel?

LEGISLATOR KOPEL: Here.

CLERK MULLER: Legislator Bynoe?

LEGISLATOR BYNOE: Here.

CLERK MULLER: Legislator Solages?

LEGISLATOR SOLAGES: Here.

CLERK MULLER: Legislator Ford?

LEGISLATOR FORD: Here.

CLERK MULLER: Legislator Curran?

LEGISLATOR CURRAN: Here.

CLERK MULLER: Legislator Becker?

LEGISLATOR BECKER: Here.

CLERK MULLER: Legislator Muscarella?

Full Legislature/3-20-14

LEGISLATOR MUSCARELLA: Here.

CLERK MULLER: Legislator Birnbaum?

LEGISLATOR BIRNBAUM: Here.

CLERK MULLER: Legislator DeRiggi-Whitton?

LEGISLATOR DERIGGI-WHITTON: Here.

CLERK MULLER: Legislator Venditto?

LEGISLATOR VENDITTO: Here.

CLERK MULLER: Legislator Schaefer?

LEGISLATOR SCHAEFER: Here.

CLERK MULLER: Legislator Dunne?

LEGISLATOR DUNNE: Here.

CLERK MULLER: Legislator Jacobs?

LEGISLATOR JACOBS: Here.

CLERK MULLER: Legislator Walker?

LEGISLATOR WALKER: Here.

CLERK MULLER: Legislator MacKenzie?

LEGISLATOR MACKENZIE: Here.

CLERK MULLER: Legislator

Full Legislature/3-20-14

Denenberg?

LEGISLATOR DENENBERG: Here.

CLERK MULLER: Minority Leader Abrahams?

LEGISLATOR ABRAHAMS: Here.

CLERK MULLER: Presiding Officer Gonsalves?

PRESIDING OFFICER GONSALVES: Present.

CLERK MULLER: We have a quorum.

PRESIDING OFFICER GONSALVES: At this point, I would like to ask the clerk to recite the public notice for the public hearing.

CLERK MULLER: The public notice for the public hearing is:

Please take notice that the Nassau County Legislature will hold a hearing on Superstorm Sandy recovery operations and capital projects relating to the Bay Park Sewage Treatment Plant on Thursday, March 20, 2014 at 2:00 p.m. in the Peter J. Schmitt Memorial Legislative Chamber Theodore Executive and Legislative

Building, 1550 Franklin Avenue, Mineola, New York.

PRESIDING OFFICER GONSALVES: At this time I would take a motion to open the hearing.

LEGISLATOR DUNNE: So moved.

LEGISLATOR KOPEL: Second.

PRESIDING OFFICER GONSALVES: Moved by Legislator Dunne, seconded by Legislator Kopel. All those in favor of opening the hearings, signify by saying aye.

(Aye.)

Any opposed?

(No verbal response.)

The hearing is now open.

Before we begin, first of all, welcome to all of you who are here today. Certainly, I thank you for being here, because it's a very important hearing on the recovery and storm hardening efforts currently underway at Bay Park Sewage Treatment Plant.

Indeed, in all of Nassau County's history, the reconstruction projects at the

Bay Park facility are unprecedented in scope and expense, and having engaged agencies at every level of government including the federal emergency management agency and the New York State Environmental Facilities Corporation.

As a legislature, through our Rules Committee, we review and take votes on the many contracts for the engineering, design and construction of the massive capital projects that are components of this recovery.

We are also responsible, through the Full Legislature, to put in place and oversee the financial resources that will pay for these efforts and monitor these expenses through the capital plan process.

Since 2010, due to the aggressive oversight of this majority and the outstanding efforts of the Mangano Administration, we had finally made substantial progress in addressing the damage to our sewage infrastructure that resulted from the many years of neglect and

mismanagement, only to be dealt a devastating setback by the destruction brought on by Superstorm Sandy.

The task before us is nothing less than the total reconstruction of this critical piece of infrastructure.

However, this unprecedented crisis has also yielded a once in a lifetime opportunity. We now have the ability to rebuild stronger and smarter. It is the complexity of this recovery effort, with all of its moving parts, that brings us here today.

It is my hope that we can utilize this hearing and future hearings to bring together in one forum the many initiatives that the administration has advanced towards a successful recovery of the Bay Park Sewage Treatment Plant.

Today we have with us Chief Deputy County Executive Robert Walker, commissioner of the Department of Public Works, Sheila Shah; and a team of professionals that have been working

tirelessly to manage this very complex rebuilding and storm hardening effort.

This hearing will consist of a presentation from the administration, a question and answer period for the legislators, and, finally, public comment.

Due to the schedules of some of our members, I have allocated three hours to this hearing. I will call a recess to a later date if we are unable to finish by that time.

Also, as the Chair of the Public Works, I will call upon Legislator Muscarella to conduct the balance of the meeting. There is a great deal of ground to cover. So, now, Minority Leader Abrahams would like to make a brief statement, please.

LEGISLATOR ABRAHAMS: Thank you, Madam Presiding Officer Gonsalves. I think, like a lot of you in the audience, I surely hope that three hours is enough to cover this hearing.

That being said, I just have a

brief statement that I want to read into the record on behalf of the minority democratic caucus.

Last summer, the Mangano Administration appeared before this body urgently insisting hundreds of millions of dollars in bonding was immediately necessary to begin the work on repairing the county sewage system.

The chief deputy county executive himself stood at the podium and claimed that sewer contracts amounted to $400 million or more, were poised to come before the legislature, and that it will be catastrophic to delay them.

Indeed, he promised by the end of the year the county would enter into $700 million worth of sewage contracts and that nothing should stand in the way.

At that moment, the easy and popular thing to do would be to simply write the blank check demanded by the administration. The minority caucus, however, understood that this would not be

in the best interests of either -- the interest of either our south shore residents or the Nassau County taxpayers. We refuse to rush into incurring such an immense amount of debt because we knew it would be irresponsible.

Despite enormous pressure, we demanded effective oversight of the renovation process as a condition of borrowing, we demanded to know the level of state and federal assistance the county could expect.

We realized that the legislature had a special responsibility to protect the people of the south shore by making sure that the renovation process was kept on schedule and on budget. We wholeheartedly agreed that the county should borrow every dollar necessary to repair the system, but no more than was necessary.

For that, we are vilified as obstructionists accused of playing politics with the well being of Nassau citizens and blamed for jeopardizing the environment of

the south shore.

Now, approximately nine months later, it seems that we are correct in being cautious. Of the hundreds of millions of dollars in bonding that the administration has said that it could not live without, it is not clear that even one penny has actually been borrowed.

As for the flood of new contracts that Mr. Walker assured us would be coming down by September of last year, it has turned out to be a mere trickle.

As far as we can tell, only a fraction of the $700 million worth of contracts has actually been materialized. And, an even smaller fraction of that figure has actually been paid out to the contractors. Where is the urgency now?

We are all still waiting for Mr. Walker's $700 million package of contracts. While we are happy to vindicate, we are more anxious to get to the bottom of why progress of the sewer piers have apparently been so painfully slow, and why what we were told

has not turned out to be true.

Why hasn't more bonding been done if it was actually necessary? Why haven't we seen the hundreds of millions of dollars in contracts needed to repair the system? What is happening to slow down the process? And, more importantly, what can be done to speed it up?

Over the course of this hearing, we hope to get answers to those questions and, for the sake of the people of Nassau County, we sincerely hope that the answers we receive will be more reliable than what we were given last summer. Thank you.

PRESIDING OFFICER GONSALVES: Just a reminder that our first order of business will be the presentation by DPW and its committee, and that the presentation would be led by Chief Deputy County Executive Robert Walker.

And, after the presentation, I ask my colleagues to ask questions pertaining to that presentation and then give an opportunity to the public to respond

to what they have seen and heard today.

Without any further ado, I welcome Chief Deputy County Executive Robert Walker.

CHIEF DEPUTY WALKER: Madam Presiding Officer and Minority Leader Abrahams, thank you very much for having us here today. I'm glad we started off with those great comments. Good luck on the election and, you know, I think we will move forward in trying to get some good things done on behalf of the taxpayers of Nassau County.

Not that I want to go back to those days, but I think in the aftermath of Hurricane Sandy, which I don't have to remind many people that are in this room today that live actually in the Bay Park community, when you looked outside and saw a 12 foot wave crash through not only their homes but the Bay Park facility, and be rendered helpless, at that time we looked to move as forward as possible.

I think it was very clear that

day that we talked about having a bonding authorization in place so we could enter into contracts and at that time the legislature was kind enough to give $262 million, which at that point then we started dividing contracts up, but let us not go back into history, I think it's a time that we should be moving forward together, working together as one to make sure that the residents of Nassau County get the services they so dearly need.

We are very proud that over $120 million of contracts have been entered into strictly for Sandy repairs or will be approved in the next coming weeks. $120 million is a considerable sum of money as we go forth.

But, just to take a step back, and for those that do not know the area, the Bay Park facility is surrounded by two water bodies, Hewlett Bay and Rockaway Channel.

At that point during the storm both water bodies entered into the Bay Park plant and, again, a wave of 12 to 13 feet in

various entities took over the entire facility rendering it helpless and inoperable for over 56 hours.

For those that don't understand that it's inoperable, that means that literally that sewage could not be conveyed through the facility. Sewage started to build up in the collection system. At that point, what do you do? You are left with very few options.

At that point, the county executive, working alongside Governor Cuomo, Mayor Bloomberg, the mayor of New York City at the time, Senator Skelos, went to work immediately with the professionals that are with us today in terms of working on immediate repairs of our facility. Those repairs took place, again, within 56 hours conveyance through the plant was taking place, and we reduced the ability for residents to actually have sewage backed up into their homes.

With over 100 people, 24 hours a day, working in that facility that did such

a tremendous job, and we can look back now and without them we would not be in the situation we are today. 45 days upon completion of the conveyance, we were actually meeting our SPDES permit again.

Why I say that, you put into perspective, all you have to do is look throughout New York and New Jersey, where people still today are not meeting their permit on a daily basis because of the damage they suffered. We have met it every day since 45 days after the storm, roughly the first week in December. Not that we're happy that it took 45 days, but, again, the work needed to be done.

Just talking about one specific area of the plant which entails over 50 different motors and drives, gear boxes, control panels, in one area of the plant, the final settling tanks, 50 different, again, motors were damaged, and that's just one process of the plant.

So the plan that I mentioned before, the committee that was put into

place led by our great commissioner, Sheila Shah and her team, Ken Arnold, Joe Davenport who lived it 24/7, was sleeping at the facility many days. Actually, I shouldn't even say he was even sleeping, who is with us today, and Deputy Commissioner Millet, along with Peter Gloss and Mike DeNicola from Hazen and Sawyer, and ARCADIS.

The team that was put in place with those 100 people I mentioned really have four specific tasks; one, obviously, as I mentioned before, to get conveyance through the facility. We wanted to neutralize the impact of having the backup in the collection system and into people's homes.

Secondly, again, was to begin temporary repairs so the facility can actually treat the sewage, which, again, took place within 45 days, and, then third, and fourth, to look at different aspects to begin our permanent repairs and to put into place the measures needed to receive the dollars from the federal government and from

the state government.

Again, I cannot mention the State of New York, the State Office of Emergency Management and Governor Cuomo for their tremendous work in helping us through that process.

For anybody that was there, and I know Legislator Kopel was, we had police as far as away as South Carolina, North Carolina, Virginia, Tappan, New York, New Jersey, Connecticut, leading police escorts with motors and pumps so we could actually achieve some type of success. Within 12 hours we had equipment on the ground to be able to effectuate a lot of these things.

As I mentioned before again, all you have to look at is areas around us that still are not meeting their permits with literally sewage reaping into their water bodies.

In total, we were successful in achieving $17 million from FEMA to repay for those temporary measures. And, as I get into FEMA a little bit later, we started

moving forward immediately at that time to see how we can make the temporary repairs permanent and how we can achieve success with the federal government. I think we were very successful.

At that time, thanks to this legislature body, we went out for an RFP process and we were able to select and then be approved by both, again, the legislature, which we thank you and NIFA, the selection of ARCADIS -- Hazen Sawyer, I apologize. The Hazen Sawyer team and joint venture team that was approved. That team is now leading the charge at the Bay Plant on a daily basis. They are our program manager, and you are going to hear from them a little later on. They will detail in great detail where we are currently today.

As I mentioned before, Commissioner Shah, Deputy Commissioners Millet and Arnold and Joe Davenport, our chief sanitary engineer, again, on the ground on a daily basis. They have been tremendous in moving this process forth.

And, without their work, I don't think that we would ever be successful in having the federal government award Nassau County $830 million along with the state for the rebuilding of Bay Park. $830 million is the largest award ever given to a single entity project in the entire United States.

Obviously there are billions of dollars awarded to the MTA, but that's for several projects. This is the largest project that's able to receive those dollars.

FEMA dollars, $830 million, an MOU that was signed and effectuated and now we are getting the project worksheet, the grant award, handed down from the state. The ten percent local match being picked up by the State of New York as well. So the county is to receive $830 million for the rebuilding of the Bay Park facility.

Much work has been done. We'll get into that in finer detail. Again, the legislature has been very grateful in that work, and I thank the presiding officer in

terms of scheduling rules meetings when we do have contracts to be approved, to go through the process.

These contracts are not simple contracts. They are contracts of multimillion dollars, 24, 34, 15 that then requires the approval of the NIFA board, not just their chairperson. So I think it also takes a greater detail of time. And I thank them for working with us. They have been very helpful in scheduling additional meetings.

Just on a note, I would -- and the county executive truly believes in allowing the residents, and that's why we welcome obviously this hearing. He has created the Bay Park Sewer Advisory Committee that's made up of several environmental groups, civic associations, legislative members from both the presiding officer and the minority leader. We have met bimonthly. The report is available on line. It's a report that's a monthly report given to all the legislators and to the

advisory members. We actually have March's with us today to provide the openness and transparencies as we go through this process and we will continue to, in fact, do that. We welcome activities such as this.

We have invited two of the members of the committee, the building trades members and one of the main reasons why we have them as part of it is we want as many people to bid as we possibly can see bid on these projects. These are all open bids that are available and follow all the procurement processes of the county and, the more people that bid, selfishly, we would like to get the lowest price possible, but we also like to see local people bidding and we have been very successful along that endeavor.

So, at this point, we can get into further detail of some of the questions that you may have as we continue along with the presentation. We can get into a little conversation about the ocean outfall but I would prefer that to be at the end because I

think, without doing any type of repairs first to Bay Park with nitrogen removal, and things of that nature, it's very hard to have a -- we can probably have a three-hour conversation just on the ocean outfall.

But I would turn it over at this point, again, we were very fortunate to have Hazen and Sawyer, the ARCADIS team, leading in their joint venture which consists of several engineering firms, professionals in the field that will walk us through the presentation, and then answer any questions that you may have.

MR. DeNICOLA: Thank you, Rob. Presiding Officer, Minority Leader, I know you guys might recognize me. We took several tours, I believe, around the wastewater treatment plant many times.

For the record, my name is Michael DeNicola from Hazen and Sawyer, and I'm the program manager for the Bay Park recovery.

I just want to run through, and, Peter, if you can just, so I can see the

slides. I know you guys have several questions and we are going to try to answer those as well as show you the progress at Bay Park. First, just to go through the agenda quick, and we are going to try to go through this pretty quickly --

LEGISLATOR DENENBERG: To the chair, do we have copies of this presentation?

MR. DeNICOLA: Yes. Just real quick, the agenda, the plant process performance, FEMA update, the construction overview on what is being constructed now and what is in bid, as well as some discussion on outfall and then obviously discussion and questions.

So, real quick, Bay Park after Sandy we were not treating sewage. We were trying to settle. We were doing disinfection and we had no conveyance, as Rob said, 56 hours.

But, after that, we got the plant back in compliance in 45 days. This graph, real simply, we measure several things for

permit compliance, suspended solids, and basically a CBOD, which is an oxygen demand on receiving water. This slide shows the total suspended solids. Obviously you see the big huge peak which was Sandy. 45 days later, we're back in compliance, and we have not violated a permit since then.

Next slide, again, CBOD, which is oxygen demand on the okay general demand on the receiving water. Sandy was a huge impact. Since that 45 days, December 15th, I believe Joe Davenport, we have not violated permits.

Now, it's been a struggle, believe me. The plant is still under repair. We just need to keep it stable. Getting those copies.

PRESIDING OFFICER GONSALVES: We have them, Mr. Walker.

MR. DeNICOLA: Just on the plant performance. Again, TSS and CBOD, basically is the measure of the wastewater strength is what we traffic on the influent and what goes out of the plant.

That 45 days was tough. To get a secondary system back into operation, it's a biology that you need to grow. So it took several weeks. But I think all of us should be proud that that plant came back into compliance and, as Rob mentioned, plants in New York City, in New Jersey, have not met compliance over the last 15 months periodically. So, that's what we are committed to.

Just on the FEMA update, Peter, I would turn it over to you.

MR. GLOSS: Hello, my name is Peter Gloss. I'm a co-project manager and I work with ARCADIS JV team. I want to talk a little bit about the FEMA interaction that the county has had over the past 12 months.

As many of you know, FEMA has been actively involved in what has taken place at Bay Park. It's one of their priority projects because of the size of the damage that was incurred.

The JV and the county staff and the people who are involved at the plant

have been meeting, almost literally, two to three times a week for the past 12 months, with the FEMA staff working through very detailed damage descriptions, trying to capture the exact extent of damage because FEMA has very specific procedures that they have to follow in order to define damage.

Then convert those damage scopes into cost estimates to measure the damage. And then, moving from there, to begin to cost out the mitigation which is related to, of course, the damaged elements.

So, that's been a real long journey for the county, and the journey has culminated in, as Rob said, the award of $830 million which is a sum of money that combines both the repair of the plant and the mitigation of the plant. And, as Rob said, that's the largest single grant to an applicant thus far in history for this pilot program, and it provides the county with an unprecedented amount of flexibility in how it spends the $830 million between repair and mitigation.

So, without going into more detail on the FEMA update, we are still continuing to work with FEMA to obligate the project worksheet and to continue to move forward with them through the various administrative procedures that are in place to approve the projects as we design and put them out to bid.

I will pass it off to Mike now who can talk to us more about some of the construction projects that have been active, starting with the Sandy related projects, and then going to the non-Sandy related projects.

MR. DeNICOLA: So, currently, just real quick, the county and the commissioner's office and Rob, the night of the storm, Peter and myself were called, and I have been on-site ever since.

I'm so glad to see that we have six active construction projects ongoing for the FEMA repair. That is a rendering that you guys see of a new electrical substation, and I wish it was that easy that we can just

pop this up and build it, but notice to proceed should go out, I think the date on this, by 3-24 we're looking for notice to proceed, legislative approval, I'm sorry.

So that would be four of the substations. This is a mitigated facility which is an elevation 18.25 and there are six substations on the facility that distribute power through the entire facility about six megawatts.

Again, another rendering of what was bid and now a notice to proceed is going to go out for leg approval, sorry, 3-24. Again, another rendering of a facility that we are building.

Next slide, one more, I don't want to bore you guys. We can go through it. Another project, I'm going to turn this over to Peter, but this project was, the bids came in on Tuesday for the berm to protect the plant. We have a pre-award meeting tomorrow with the contractor, the selected or the winning bid right now tomorrow, and, Peter, I will turn it over to

you to talk a little bit about the berm.

MR. GLOSS: Sure. Because of the unique concentration of interrelated mechanical and electrical systems at the plant, one of the solutions to protect the plant for future events was to build a perimeter boundary around it. That was a very cost effective approach. It made a lot of sense and it happened to be that the county had sort of a half a berm preexisting and that berm functioned as a visual shield and noise barrier.

So, we took that concept further and we designed what we call the perimeter protection system, which is basically half levies and half reinforced concrete walls.

We took some of the work that we had done in the New Orleans experience, post Katrina, and we used some of the standard Army Corp of Engineering designs in places where we didn't have the footprint. We went through a reinforced concrete structure in places where we had a footprint or we were concerned about the views from the immediate

adjacent neighbors, we had preferred the berm because it had a soft visual impact.

I can show a couple of images here. We should note that part of the project is to do significant improvements to the parkland immediately east and west of the berm because those parklands will be used in part as staging areas.

Another thing that we did is we took the road that was along the bulkhead and we basically brought it into the park so that the community has a greater connection to the water body itself.

This imagine shows expanded view of the park. The numerous elements of the new parkland. These fields are all elevated. Prior to Sandy, one of the problems of this park was that it was a very low lying park. The service did not have much height on top of the groundwater table so there were plenty of flooding issues. Every time there was a heavy rain, the teams couldn't play in the park because it didn't drain very well.

So this project not only reconstructs the park, but it elevates the park approximately three feet in its entirety and the ball fields are new modern self drain fields so you will not have a problem playing after a rain event in the future. That was a big issue for the community.

A couple of renderings here. We show the concepts of what the view experience is going to be like. This is sort of at the rear of the park as you abut the golf course and you can see the reinforced concrete structure with the artwork on the wall. And we propose to put markings on the wall to have the public be reminded of what happened when Sandy came and some of the issues that we face with climate change.

This rendering is the rendering on the front entrance which is a rendering that shows the facade that is being used to basically hide the very large reinforced concrete gate structures that need to be

built so that they are wide enough for ongoing normal traffic to go in and out of the plant but, at the same time, strong enough to hold the design elevation which is at 18.25 feet as Mike had said.

I'll pass it back to Mike.

MR. DeNICOLA: We have a new slide. Many of you have taken the tour. This facility does not operate off of utility. It operates off of primary source generators. Currently we have -- what we are using as the primary source is Aggreko generators which are, basically the containers that you see in this photo, these containers just most recently, as of last week, we changed out to natural gas units for air emissions.

You see this double decker, and many of you guys have gone out there and you've seen a single layer that keeps on multiplying. But this facility is about 13.5 megawatts. It's about double the capacity, more than double the capacity of the plant.

We also have two of the primary source generators, house generators, interim controls that we tested for 72 hours are being used for backup. And also I know a concern of many of the residents. The natural gas units, there's not much of a difference, but, as I said, last week we finished the last pod, we have three pods and we need to put up attenuation baffles because are going to be operational for the next 12 months.

Also as backup, the house generators have been tested with interim controls. Even though ancillary systems are still damaged and we don't trust, we needed a back-up source of power. So the Aggrekos will be primary, and the house generators would back up and the generator controls project, which we will get into a little later, is ongoing.

Again, temporary systems I know is an issue. Sludge de-watering was extremely damaged. If you don't remove sludge from this system, you can't operate

the plant.

This airplane hanger, as many of the residents call it, is a temporary sludge de-watering system with odor control. Obviously it's tented. It's four belt filter presses and this is how we are going to de-water our sludge for the next few years, until that sludge de-watering building is repaired.

The demon process, and I saw some of the questions, we piloted a de-ammonification process where we take the high strength nitrogen waste from the filtrate off de-watering, and you do this. De-ammonification process to reduce that nitrogen by 90 percent.

So, essentially, that stream is about 15 to 20 percent of the total nitrogen coming into the plant, and this process piloted successfully. You have a 90 percent reduction and the county has committed to building a full-scale installation. So this is our sludge de-watering where you take that filtrate and that high strength

nitrogen you remove.

Just some of the construction photos we'll go through real quick. This is odor control. One of the non-Sandy projects which the program is managing is new odor control facilities for aeration as well as primary tanks. On the primary tanks, we're installing carbon filters as a secondary system, and on the aeration tanks, we are replacing the wet scrubbers. This construction has started and is well into construction.

More odor control, just another photo that was taken a few months ago with the snow. Obviously we had bad winter which impacted some of the construction.

Digester clean out, I'm happy to report that the digester clean-out project is in full scale. The first digester was cleaned, structurally repaired.

As of last week, we started filling the tank again. We are painting the cover, and we are going to move on to the next tank.

This is the sludge thickening project. The waste activated sludge that comes from the secondary system goes to a gravity belt thickener, that is in full scale construction right now.

This is another digester photo of the groundwater de-watering that we're doing to protect the bottom slabs from upheaval. This is the sludge -- the digester clean-out project. As I mentioned, as we clean out those digesters, that's why we built this structure, odors are a prime concern. So when we clean out the digester and load the trucks, we want to make sure everything is enclosed and there's odor control.

Sludge thickening, again, we have to bypass the filtration line, so this is just showing some workers doing a bypass pipe.

Again, another photo of the GBT job, sludge thickening job. Interior demolishing the tanks and doing some concrete work. This is one of the pump station jobs. This is a Sandy project.

This is Glen Cove. Two of the smaller pump stations, but they are under construction now. These are just some specific photos, and, Pete, I don't know if you want to add anything?

One of the jobs that the notice to proceed has been issued, the contractor is immobilized and it's under construction as the final tank repair. This is a Sandy job. These final tanks, and I think Rob had mentioned it, these are the 50 collected drives, 50 motors that were damaged. This job is in construction right now. This is just the air plant for sludge de-watering.

MR. GLOSS: We wanted to also just touch on the outfall really quick. As Rob had said, you know, the focus, of course, is to repair the plant and mitigate the plant. But one of the things that the county is also doing is looking to the future of the region, and the county is proposing to EPA to take the Bay Park discharge that is currently Reynolds Channel -- sorry about that, to take the Bay Park

discharge that's currently in Reynolds Channel and to combine that with two of the treatment plants that are currently on the island and pump the two treatment plants up to the Bay Park service district and then tunnel underneath Long Beach and send it out to an ocean outfall. So the county is exploring that with EPA right now and, as Rob had said, this is probably not the focus and we could talk about this --

LEGISLATOR DENENBERG: Just to the chair, which two plants are they, because he just mentioned two other plants?

MR. GLOSS: Long Beach plant and Greater Atlantic Beach. Greater Atlantic Beach is right over there on the image.

I think with that, that concludes the presentation. We're open to questions.

PRESIDING OFFICER GONSALVES: Chairman of the Public Works Committee, Legislator Muscarella, will take questions from the legislators.

CHAIRMAN MUSCARELLA: Thank you. Here is, basically if I could just lay out

this thing for us.

We have basically the extent of the damage and you have given us a bit of the plan to restore and replace, but what I would like to do is kind of direct the committee and the committee questions towards where we are in terms of the steps underway to implement the plan that the county has.

I will try and allow each legislator to give some questions. I won't go one side then the other, but I would ask, please, if a question has been asked and answered, let's come up with another question rather than ask the same things over and over again.

I would ask that you allow the legislators to ask their own questions without jumping in provided that they are germane to why we are here today.

I would also ask that you allow the testimony to proceed unimpeded and, if after that, your question is not answered then you can either repeat it or ask to

clarify.

Here's basically what I want to start out with and I would like, if you could, very briefly, in layman's terms, to kind of tell us what was damaged and what projects are needed, and then what projects are currently ongoing.

You told us about six projects that are currently undergoing, but then you didn't say one, two, three, four, you kind of gave us a whole overview. If we could kind of more easily pinpoint this is what happened very briefly, the following were damaged, and we have the following problems at that plant.

This is what the plan is to fix those problems and then these are the three, four, five, six, eight projects which are underway, and where we are in terms of our ongoing process to do that.

You might also want to tell us what it's costing to do those things, how much we have committed so far. That may be a big task, Mr. Walker, but if you could

kind of do that, I think it gives us some direction and some structure to this whole thing.

CHIEF DEPUTY WALKER: And what we're going to try and do is walk you through so you can see where you can follow along. We will also walk you through this monthly report that's provided. It is a working document. So if any of the legislators would like to see things added in, we were actually just sitting here and added something in talking about it. One thing that is missing is the actual overall schedule. So we will add that in starting next month.

But, again, this is a living document anything that you would like to see added to this please let us know and we have been working with both the majority and the minority that has those questions related to this and we're going to add anything that you seem to think is important, but we will go through these projects now.

MR. GLOSS: Mike, maybe you and I

could tag team this. There is a number of projects -- do you all have this slide in your presentation? You probably can't see it on the monitor. This breaks up the projects that are currently active. The upper left is projects and construction. Let's just go down this list and we will talk through them.

The digester project that's been done is being done because of the condition of the digesters prior to Hurricane Sandy. So it's not related, per se, to Hurricane Sandy damage, but it's related to the condition of the digester. Mike has talked about that in his presentation.

The generator controls rehab project which is actively in construction right now, is a job that is not related to Hurricane Sandy but it is and is related to a condition that was present prior to Hurricane Sandy.

The odor control improvements, again, is a project that was not specifically related to Hurricane Sandy but

was in motion prior to Hurricane Sandy. The sludge thickening improvements project was also in motion prior to Hurricane Sandy, however, this project is unique because we have included in the scope of this project mitigation elements so that the job is being constructed in a way that is a mitigated project when it gets built.

Mike, maybe you want to talk a little about that.

MR. DeNICOLA: Yes. I mean, the first question, just to address that, what was damaged at the plant. That wave came in, the entire electrical distribution systems, many homes, their entire electrical panels, and their ability to provide electricity to the first and second floors, that was damaged at Bay Park. You can't run a facility without electrical distribution.

The raw sewage pumps or the pumps to pump into that facility and the pumps to pump out of that facility were damaged. That was the major damage as well as all the ancillary systems for the primary source

generators, final clarifiers. They said the damage was major, catastrophic, almost, that's just to answer the first question.

And, Peter, on sludge thickening, was a pre-Sandy project essentially to repair their waste activated thickening facility. It was in construction, it was actually several days from being turned over and then Sandy hit and it damaged some of that facility.

So, within that, we had to repair that as well as do mitigation. So some of those pumps become submersible, so if it's ever flooded again, it's not damaged because they're submersible pumps, they can take the water and once we un-water the tunnel, they go back into service.

MR. GLOSS: Next is the final settling tank. Again, that's the job that Rob had referred to. All the mechanical systems for the tanks were submerged in salt water so the county put a project to replace all the mechanical systems. This is directly related to Hurricane Sandy and this

is a job that's in construction.

Then the pump station group one repair and mitigation is also related to Hurricane Sandy and it involved the pump stations that were impacted significantly by the surge that came aboard, the land in that area, particularly in the Glen Cove.

So those are the projects that are actively in construction right now where physical work is taking place. The projects bid and to be bid we will go through these as well and we'll talk about the details of each one. The influent screen facility is a project that is pre-Sandy and it's related to the condition of the influent screening facility.

Electrical distribution, phase one is a project that is related to the repair of the damaged elements of the electrical system and I will let Mike talk about that.

MR. DeNICOLA: Yes. And we showed that during the presentation. The first phase was those four substations that

are raised to elevation 18.25 and distributes power to the entire facility. And, again, the notice to proceed should come out hopefully shortly. It's at the leg for Monday.

MR. GLOSS: And to state what is obvious in those images, the county is elevating what's within the plant when they can in addition to the berm. The intent there is to build a multiple level of defense approach to incoming storm conditions.

So we didn't want to replace a substation at a grade, so the joint venture comes up with a design that elevated the substation so that if berm were to somehow fail, which is highly unlikely, but if it would be, there would be resiliency in the power system at the plant, and the design criteria for the plant's electrical system is to be resilient to storms even if the berm wouldn't be there. So it's a belt and suspender approach. Because the plant -- we never want the plant to be down again and

have conveyance impacted so the sewage backs up into the system.

The perimeter full-production system, I think we've talked about that. That's a job the bids are open, and we're meeting with the contractor tomorrow to go through the details of his bid, the apparent low bidder.

Grit removal facility was a job that was pre Hurricane Sandy and related to the condition of the facility prior to Hurricane Sandy. It was in need of repair.

Mike, do you want to talk a little bit about sludge de-watering, the damage and the demo contract?

MR. DeNICOLA: Yes. Again, sludge de-watering was completely damaged, that was the tent, the airplane hangar I keep referencing. That was a phased repair. We want to demo the building. That contract will go out by the end of the month for construction bid.

Then the second phase will go out to basically rehab the entire building which

would -- that building took the most damage in terms of all the pumps, all the electrical equipment. So it's a two phase project and the first phase will go out in March. The rehab will go out, I believe, Peter -- I'm sorry, the second phase will go out, NTP on March of 2015.

We thought it would make sense to demo the entire area, do the As-Bilt drawings and have a second contractor come in and rehabilitate the entire facility.

MR. GLOSS: Electrical distribution, phase two.

MR. DeNICOLA: Electrical distribution, phase two is probably the largest project at Bay Park. Estimates right now are about $280 million to -- again, phase one is for four substations. There are six substations on the site. So, phase two will be the additional two substations, however, it will also be the primary source generators, it will be all the switch gear, the remaining two substations, emergency backup generation,

and eventually a PSE&G second feeder and transformers so we have a utility backup.

So there is a lot of leg work in terms of design to work with PSE&G, to work with manufacturers of primary source generators. Obviously a critical project, and probably one of the largest projects.

MR. GLOSS: Then the last one here, sludge de-watering and construction. I just want to point out that that job that's being bid, that's a design contract that's being bid because the program management team doesn't do the design work for all the projects. So that's actually advertising soon to be awarded from a design perspective and the bid openings here are for the construction projects. The pump stations are in the design RFPs.

If you'd like now we can shift off to the design RFPs in the right side of the column. There are number of design RFPs out there to address the damage that was due directly with Hurricane Sandy, so at this point now we really begin to talk about

projects that really stemmed from the damage and involved mitigation of the damage elements specifically.

Barnes Avenue was a point in the collection system that collapsed and caused, as many of you know, significant damage to the neighboring houses. So this is a design contract that has been let out by the county to come up with a fix for that problem so it wouldn't happen again. You can see the date is coming out imminently.

The sludge de-watering facility, as we talked about, these are design RFPs. The proposal for the sludge de-watering was due last month, and that's to design the facility itself.

The pump stations have been split up into eight groups, groups one through eight, and those design RFPs you can see here. There's pump station group two, three, four, five, six, seven and eight. Those are packages, again, going out to bid, publically bid for consulting firms to do the design work, again, directly related to

the damage incurred by Hurricane Sandy.

The effluent tide pump was another -- one of these critical facilities that was submerged by the salt water. So visualize these humongous 600 horsepower motors and these pumping systems, and they were just completely inundated with water. And, when salt water hits the wirings, and the windings on the motor, it basically renders it inoperable.

So, what the county has done, the county has taken those motors and has performed temporary cleaning on them, and then this is the contract to perform the permanent repair which will be a mitigated motor which will be able to be submerged.

Then the storm water system improvements, I can let Mike talk about the storm water.

MR. DeNICOLA: Yes. Again, we are building a berm around the entire facility so now, when it rains, that is a bathtub, and the storm water management for that bathtub needs to take -- there needs to

be other ways to get that rain water out of Bay Park and that wastewater facility, so that's the storm water.

If I would suggest, I mean, you can read this table, if you need specifics about it -- you know, we, as the program manager, we are putting out 30 percent design. We want to make sure we maintain the integrity of the plant, we want to make sure we maintain systems that work together. Because everything is interrelated. You can't do this blindly. So these are the dates for the design RFPs for third party designers and for third party CMs, and these are the dates and the master schedule. We would be happy to address each one.

CHAIRMAN MUSCARELLA: Thank you. You don't really have to. Here's what I want to do before I open it up, just a couple of things.

I understand and I think we all understand, a project like this, you can't shut down the plant and then rebuild it.

The existing plant has to

continue to remain operative while you are doing all this works. That's a substantial obstacle you have to overcome.

Could you just tell me, the bids that have come in, the work that you're doing, basically have you been over budget, under budget, are things proceeding properly the way you want them to?

Additionally, time frames, scheduling, are you behind schedule, are you kind of where you want to be, ahead of schedule? Just reassure me or let us know, because if there are going to be problems going forward, I think we are entitled to know.

Are we progressing like we should be?

MR. DeNICOLA: Right now on the facility there are six active construction projects. As the program manager, as the CM we monitor schedules. That's how we gauge the contractor, and that's how we pay the contractors, based on a resource loaded schedule; dollars, manpower. The digester

project is 85 days roughly behind schedule. The other projects are on schedule.

When we lose schedule on a project, for example, we ask them to recover time. So 85 days in the grand scheme of things on one project out of six is not bad but we need to recover schedule on the project. The other projects are on schedule. That's how we monitor the contractor's progress.

Obviously we had a bad winter, that hurts concrete, it hurts everything. The E-1 bid was I believe about 7 million or so below the engineer's estimate. So our estimate was about 35 and it came in about 28, 29.

One thing we are learning with the market conditions right now is contractors are hungry. There's a lot of work out there. New York City, Suffolk County, Nassau County, everybody is getting aggressive. Everybody also understands that in Nassau County and especially in Bay Park that there is a ton of work going on. So

we're very happy with the bids and the market conditions right now.

I will let Peter talk about the berm because that's another bid we just received.

MR. GLOSS: Just to say on the berm job, it was a very competitive bid. We got seven respondents which was more than we thought we were going to get, and the prices were significantly below the engineer's estimate. So it was a great market climate for us at the moment right now.

I'm not sure if this is going to be the same way in a year from now, but at this moment right now, the county's projects are ahead of the curve of the other regional projects. So we're seeing a lot of respondent activity.

CHAIRMAN MUSCARELLA: And I think it goes without asking but I'll ask it anyway, these are union jobs that are bidding, lowest responsible bidder?

MR. GLOSS: Yes.

MR. DeNICOLA: And just to add to

that, obviously New York State, Wicks Law, most of these jobs are going out as PLA jobs, so we have one prime which helps us in terms of the same hours for all the unions. Again, it's still all the unions that are involved but they are PLAs.

CHAIRMAN MUSCARELLA: How much money have we committed so far? That we know was spent?

CHIEF DEPUTY WALKER: To date, we have, pending the two approvals next week, $150 million on Sandy contracts, and $70 million on non-Sandy contracts.

CHAIRMAN MUSCARELLA: About 250 of the --

CHIEF DEPUTY WALKER: $220 million.

CHAIRMAN MUSCARELLA: Of the?

CHIEF DEPUTY WALKER: Of the 800 it's about 150.

CHAIRMAN MUSCARELLA: That's committed or will be committed by next week?

CHIEF DEPUTY WALKER: Correct.

CHAIRMAN MUSCARELLA: Okay. I

know Legislator Ford, did you have some questions?

LEGISLATOR FORD: Thank you very much, Legislator Muscarella. I'll also probably jump around.

I just want to say Deputy County Executive Walker, I appreciate your comments and, I agree, we need to move forward. We are still recovering from this storm and our residents are tired of politics and appreciate the efforts to work together for the betterment of our community. I thank you very much.

I know the Bay Park Sewage Treatment Plant impacts not only the residents of Bay Park but also those who live along the south shore and the barrier island, Long Beach barrier island, as well as residents in Oceanside and Island Park.

Now, I'm going through the schedule right now and, just let me know quickly, all right, when will the work truly begin and what do you expect?

I know you already started

working on it, but I mean, like, the real nuts and bolts of it, when is it really going to --

MR. DeNICOLA: Again, the six active construction jobs have started. The berm contract is a pre-award and that's going to be a major impact to that facility. If everything goes well with the pre-award, everything goes well with the leg and with NIFA, and we award that contract, and the notice to proceed, by early summer, there is going to be major construction on that berm.

Again, there are six active construction jobs. The electrical is going to get started within, if that 24 date is true, we are going to get started within the next month.

Now there are eight active construction jobs that are -- it's major work going on at that facility.

LEGISLATOR FORD: And I know that my thing is, when we went there on the tour, we had those generators that were so noisy, and I know that impacted the quality of life

for the residents, not only the odor but the noise, are we going to get rid of them or are they still there?

MR. DeNICOLA: They are still there. In one of the photos, we had to convert those or basically replace those with natural gas units which aren't -- there is no noise difference between the diesel and natural gas. There are emission differences, and they are going to be there for another 12 months operating that plant and using the primary source generators within the facility as a backup until the generator control job is done.

As I mentioned, last week we finished the natural gas conversion and we are going to put attenuation baffles now that spring and summer are coming. Believe me, it's not going to be perfect. It is what it is.

LEGISLATOR FORD: Do you know if the noise is going to be lessen then?

MR. DeNICOLA: Yes. Right now the noise at the fence line is 90 DBA. I'm

hoping to go lessen that by 25 percent.

LEGISLATOR FORD: All right. Hopefully that will work. Then, also, with the odor control, I know we are working on that. With the height of the berm that you're putting in, what is it going to be, 18 feet surrounding the sewage treatment plant, do you feel that that -- I mean, I know that the big issue is the odor control. It is terrible.

I know that over the years many residents have complained about that, there are complaints way in the past, they feel nobody ever listened to them.

Do you think with the improvements of odor control as well as the height of the berm, do you think that can help minimize the odor that seeps through the neighborhood?

MR. DeNICOLA: Number one, I looked into the odor complaints since the first of the year, there were three odor complaints, which doesn't surprise me they were so low because it's winter and

everybody's windows are closed.

I have been in wastewater treatment plants for 25 years. There are odors. And I think the projects -- and I will let Peter speak a little bit to this, the bio filters for the aeration tanks, as well as the secondary stage carbon for the primary tanks, which is major source of odor for sulfites is definitely going to improve it. Is it ever going to disappear? It's a wastewater treatment plant. It's never going to disappear.

LEGISLATOR FORD: I hope every effort is going to be made to make it as less smelly as possible.

CHIEF DEPUTY WALKER: The first time I went there I rolled down the window and that's how I found it unfortunately.

One of the things we are doing, the administration in conjunction with the joint venture, is we are going to begin, they've been purchased, is to actually put odor sensors that are going to go in the community on the site so we can begin also

getting a better idea of where those odors are coming from.

Some of them obviously, it would be foolish to say it doesn't come from the plant, we all know it comes from the plant. But there are other impediments in that are that we believe having those sensors will give us a better idea to map and deal with it.

The problem with Reynolds Channel, we know there are issues surrounding there due to the high nitrogen levels and the low oxygen levels and everything of that nature. That may be an area that we may need to work with the DEC to dredge or other things like that reduce some of the odor.

So the sensors will be installed within the next couple months, 90 to 120 days, and then we will begin mapping where those odors are from and use that to hopefully pinpoint some additional work that needs to be done.

LEGISLATOR FORD: I thank you

very much because now you're going to help me segue into my next question.

Of course we're repairing the Bay Park Sewage Treatment Plant but we know that the plant has to be upgraded and we know the nitrogen, certain things need to be removed and this is something that basically is also state mandated.

As we are doing the repairs, are we also doing some of the upgrades in anticipation of hopefully nitrogen removal or removing more out so that hopefully we will help Reynolds Channel, and, of course, and -- I'm glad you did speak about dredging, we're not going to talk about it today, but you know I'm going to be after you on that.

CHIEF DEPUTY WALKER: I'm going to go out there with -- we have Millet, that's why he sitting back there, he's bringing a bulldozer in.

The one thing that was talked about earlier was the ocean outfall, not to talk a little bit about that, but part of

the ocean outfall, and we have had extensive conversations with the EPA and DEC.

We know that the new TMGL standards are going to come out. We don't know exactly what they're going to be but we're pretty close to understanding what that will entail.

To be very blunt, there is no way that Bay Park will ever able to reach the nitrogen level of two or zero if they come out with those standards by having the outfall in Reynolds Channel. It would be impossible unless this legislature committed over a billion dollars, unless we decided that we're no longer going to have a park facility, the golf course is going to come and go because it will never fit into that facility. It just will not. It's not fixing what we have there. It will actually be entailing putting in new buildings, construction, and things of that nature.

However, we do know with the ocean outfall we still need to do some type of denitrification which the plan consists,

and that's why I jumped into the ocean outfall. The ocean outfall project will consist of both the nitrogen removal to a level that we believe will not only be acceptable but actually requested by the EPA/the DEC. We already started the demon pilot program. That was only on a certain process within the plant. That will actually lower our nitrogen removal immediately by a third. However, that will not meet those guidelines that they need us to meet.

The ocean outfall project consists of a complete nitrogen -- not a complete nitrogen removal, but a fairly fairly large reduction coinciding with that outfall, and we are working on those funds as we speak.

LEGISLATOR FORD: All right. Thank you. What is the capacity of the plant? And are you also building it to accept -- like, you know, if we all of a sudden have a need to have a bigger plant to accept more sewage? We are talking about

possibly pumping Long Beach and Atlantic Beach but we also at Point Lookout which is still on cesspools, but there may be a time in the future they may come on to sewers.

MR. DeNICOLA: That's correct. And, yes, the plant, every plant, Nassau County, Suffolk County, New York City, the SPDES permit dictates your maximum flow. Bay Park is permitted for a 70 MGD maximum flow rate. Cedarhurst and Lawrence, Long Beach, Point Lookout, Greater Atlantic Beach fit well within that. Any further expansion we have not looked at.

Right now we operate about 52 MGD, I believe, so we're well within that. But if there's further development or expansion, that would have to be looked at a later date.

LEGISLATOR FORD: Thank you. Also, one other thing with me, are we planning on doing on-site testing of effluents? A lot of times we have to, to the DEC, we have to send the samples up. It may take a couple of days, a week, or

something. That is one of the issues that we have because a lot of times we have a spill and we don't know really the full impact.

Since Reynolds Channel is the recipient of all of this, and we do use it for recreational activities, I want to know, is there any way of getting on-site testing so that we know right then and there if there is some sort of danger that we need to alert our residents?

CHIEF DEPUTY WALKER: We're actually in the process of reviewing the potential to actually do real-time data, where actually people get it and also have a camera set up actually at the outfall, and we are in the process of going through those programs.

So the answer is yes, that is the desire that we would like to see move forward in that direction and we are just waiting to get some further clarity as to how we can progress in that manner.

LEGISLATOR FORD: And, then, what

steps are you taking to minimize disruption to the residents during the construction phase? I know the construction is going on, but if we are going to step it up, we are looking at more workers, more trucks, and everything, and you're actually driving through a small community.

MR. DeNICOLA: One of the challenges that we are faced with, and that's why some of this phasing and construction is essentially that, is the traffic through that community. There's one road into that plant. Whether you go around the front entrance or the back entrance, you are still coming down Fifth Avenue. There is a ton of workers, a ton of engineers, there is the chemical trucks, the sludge trucks, and now we are going to have the berm trucks going through.

You know, environmental assessments have been done trying to evaluate exactly how those trucks get in and out of that facility and how we are going to stage them and there's limitations on every

contract.

Future contracts we are putting or thinking about putting limitations, we have to evaluate, that there can't be any workers coming in that facility with their personal cars. There's going to be off site parking, so it's a major concern.

I'm not going to say we have figured it all out so far, but it's definitely a major concern and I appreciate you bringing it up. It's just one road going into that facility.

LEGISLATOR FORD: I will be in touch with you on that.

My last question will be, because there's a lot of other people, I don't want to monopolize.

But when you talked about sending out for each of the PS group repair, pump station repair and mitigation, you're sending it out, like each one is going to be bid out separately, or -- what would be the benefit of having perhaps different companies working on pump stations, what is

the benefit?

MR. GLOSS: There are two benefits specifically; one of them is, if you break up the 30 or so pump stations that have to be addressed, you can get it done quicker and, I think the second thing is, they all want to have the same problem, I mean, they were all impacted by Sandy but they may be mitigated in different ways. We tried to sort of group them in a way that makes sense from a mitigation perspective, so that there was some commonality among the groups.

LEGISLATOR FORD: Okay. And in regard to the outfall pipe, I know that when will a decision be made as to whether or not there will be -- that we will be able to get an outflow pipe and, if we are going to accept or the city of Long Beach will enter into an agreement with the county?

CHIEF DEPUTY WALKER: I personally don't want to speak for the county executive nor any of you up there, however, I believe that's the only solution

that we actually have. I don't believe there is really any other one.

So, we are working very diligently on looking at all of the funding mechanisms in place. I know we're joined by the City of Long Beach today, in that we have worked very close, hand in glove, in working through the process. We believe it doesn't make any sense to have three outfalls in various spots right in the western bay area. So we will continue to work through that process.

We are working through the FEMA process to see what funding level will be associated with FEMA.

Just this morning we met with the Re-Build by Design, which is a very -- their program is called Living By the Bay, it's a competitive program that 4.6 billion is available from the Department of Housing and Urban Development. They have included dollars for the ocean outfall into their program.

Again, it's competitive so we

have to work with our congressional and senatorial delegation in Washington to see us receive those dollars, and we will continue to do that but they have put funding into that.

We have requested and the governor has been very supportive, Senator Schumer has been very supportive of having the infrastructure CDBG dollar have certain amounts set aside.

So we believe with the nitrogen removal/ocean outfall you're talking of anywhere between 650 to $750 million. Obviously, again, we have been very successful being in the ground first in terms of competitive on our bids. Every bid really is coming in lower than we thought it would. So we will continue to be aggressive on that time line.

Again, we're talking about a ten percent movement in the bid, talking $75 million. You're not talking $750,000 on a smaller bid so there's great disparity where that number could be. We are aggressively

seeking those dollars and working with all our partners to see that -- the environmental community could not have been any better to work with through this process. Many of them are here today as well.

So we're going to continue to go down the path that that is our only option. I personally believe that it is.

LEGISLATOR FORD: I thank you very much, and thank you.

CHAIRMAN MUSCARELLA: And I'm happy to hear that you understand that the impact on the community is an important concern of ours with us understanding that you want to do this job as efficiently, effectively, and as quickly as possible and those two issues may not always be joined together.

Mr. Denenberg, you have some questions?

LEGISLATOR DENENBERG: Thank you. As ranking member of Public Works, I want to thank the committee chair, Mr. Muscarella,

for having this status hearing. I do think that these status hearings are important to do at least on a quarterly basis to know where we've been, where we are now, and where we are going, and where we are going, and hopefully where we are going is to rebuild this plant and upgrade both Bay Park and Cedar Creek.

I'm going to work off of the reports that you gave us and, if I'm looking at the March monthly report, there's just three documents that I want to refer to as I'm asking questions regarding the status of each project.

So I have the summary Pre-Sandy Capital Projects and Sandy Recovery Capital Projects which are from page III and IV. So three and four from your March report, if that's okay.

I will hand you, if you don't have it, I'm going to hand you the project schedule from the July 2013 Power Point presentation when $262 million in bonding was approved and then later that year over

$860 million more in bonding was approved.

So I have the schedule of these projects for July 2013 which is eight months ago.

CHIEF DEPUTY WALKER: Was it 460, not 860?

LEGISLATOR DENENBERG: I'm sorry, 460 for a total of over 800. Sorry.

CHIEF DEPUTY WALKER: That's your $400 million you always talk about, now you know where it went.

LEGISLATOR DENENBERG: No, actually the $400 million that I'm talking about, aren't you sorry you asked, Rob --

CHIEF DEPUTY WALKER: I'm teasing.

LEGISLATOR DENENBERG: The final document that I'm handing is from a 2010 capital plan which has, when I counted, $400 million worth of projects that I think you called the pre-Sandy capital projects.

So my first question is, when you say pre-Sandy capital projects, I'm assuming that you mean projects that have been in

your capital project prior to Sandy?

CHIEF DEPUTY WALKER: Yes, and those that have not been impacted by Sandy. But most of them are all pre-Sandy. There are pre-Sandy projects that we are going to be set to either go to let by bid and/or have started.

LEGISLATOR DENENBERG: And Sandy recovery capital projects are those projects that are -- that became projects after Sandy in order to recover the plant, correct?

CHIEF DEPUTY WALKER: Correct.

LEGISLATOR DENENBERG: So, with respect to Bay Park, the three Sandy recovery projects, 35121 and 3P311, and 35123, those three projects which total $890 million are all for Bay Park and are all Sandy related, Sandy recovery?

CHIEF DEPUTY WALKER: It's Bay Park pump stations, the 30 pump stations, and Barnes Avenue. Barnes Avenue, the FEMA did not support funding for Barnes Avenue with the exception of I think a million and a half dollars.

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LEGISLATOR DENENBERG: So none of the Sandy recovery capital projects would be for Cedar Creek, correct?

CHIEF DEPUTY WALKER: Correct.

LEGISLATOR DENENBERG: So let me first talk about the pre-Sandy capital projects and, to make it easier, I will go down the pre-Sandy capital project list that is provided in the --

CHIEF DEPUTY WALKER: There is some Cedar Creek in here.

LEGISLATOR DENENBERG: In the pre-Sandy capital?

CHIEF DEPUTY WALKER: Yes.

LEGISLATOR DENENBERG: You were correct, you said the Sandy recovery capital projects were all Bay Park, correct?

CHIEF DEPUTY WALKER: Yes, Bay Park pump station, Barnes Avenue.

LEGISLATOR DENENBERG: The pre-Sandy capital projects would be projects that existed prior to Sandy, correct?

CHIEF DEPUTY WALKER: Yes.

LEGISLATOR DENENBERG: And some

of those may relate to Cedar Creek, correct?

CHIEF DEPUTY WALKER: Yes.

LEGISLATOR DENENBERG: So I'm going to refer to pre-Sandy capital projects, there's eight of those, and then the three Sandy capital projects just to inquire as to the schedule, the status, how much money has been spent, and schedule going forward, exactly what you are here for.

35116 is the first capital project number that you referred to in your March summary sheet, correct?

MR. DeNICOLA: Yes.

LEGISLATOR DENENBERG: Page four, 35116, that's odor control both at Cedar Creek and at Bay Park, correct?

MR. DeNICOLA: Correct.

LEGISLATOR DENENBERG: If I look back, and I don't know if we can put this up, is it possible to put up the July schedule on the overhead?

It's not possible?

CHIEF DEPUTY WALKER: I don't

know which July schedule.

LEGISLATOR DENENBERG: The July schedule that you provided with the status report that was given to us --

CHIEF DEPUTY WALKER: If it's not in this presentation, we can't put it up.

LEGISLATOR DENENBERG: This was the July presentation, Nassau County Bay Park STP Rebuilding Our Plant For the Future, July 15th, 2013, from Hazen and Sawyer and you presented this to us in July.

CHIEF DEPUTY WALKER: I don't know if they have it on their computer so we wouldn't be able to put it up, but --

LEGISLATOR DENENBERG: Okay. Well, I handed you the sheets, do you have that?

MR. DeNICOLA: We don't.

LEGISLATOR DENENBERG: Hand them the sheets. With respect to 35116, which is odor control systems, according to your July 2013 report, by quarter three 2013, $42 million was supposed to be spent, if not contracted, my concern is you have 35116, in

your March report right now says that the total budget is 35.9, the total encumbrance 27, and the paid to date is $679,000.

CHIEF DEPUTY WALKER: The project has started, that is odor control, it's odor control at both Cedar Creek and Bay Park. You may have claims in here for $2 million that hasn't been posted, so it's not going to be paid. In here is the cost of the contract. The cost of the contract is roughly, if I remember right, is about 26, $27 million.

So what's not in here is the cost for the construction management, the cost for mitigation, because there will be a component in this that will be a mitigation cost that has not been in here because that contract, again, was put out prior to having some mitigation put in, and it doesn't also account for the -- as I said, the construction management.

But both contracts, that contract for both plants has been awarded and progressing.

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LEGISLATOR DENENBERG: That contract, I agree with you that the contract, at least B2713, sorry for numbers, odor control at Bay Park and Cedar Creek contract passed September 9th, 2013, my concern is, it seems like so little has been done and in accordance with the schedule from July 2013, $42 million was supposed to be spent by third quarter 2013.

CHIEF DEPUTY WALKER: No, no, no. That's when the contract was to be awarded, not spent by. That's when the contract was to be awarded. It's not going to be spent. You have to have the authorization in place. You don't have to have the technical cash in place but you needed to have at least the dollars to award the contract.

The contract was awarded then. The contract is working. And the spent to date will take place -- I hope everyone remembers, this is going to be a four year project. We are going to be talking about this until 2017. It's impossible to finish any time before that unless we are

miraculously going be able to drop in a new plant via helicopters. So this is going to be a four year project.

LEGISLATOR DENENBERG: So right now you are reporting that $679,000 has been spent.

CHIEF DEPUTY WALKER: Has been paid. Has been paid.

LEGISLATOR DENENBERG: Let me finish.

CHIEF DEPUTY WALKER: Has been paid.

LEGISLATOR DENENBERG: 27 million has been encumbered for that particular contract, correct?

CHIEF DEPUTY WALKER: Correct.

LEGISLATOR DENENBERG: I think the contract amount was 24.7 but my question for Cedar Creek and Bay Park, because I get these questions, and I see you all the time, so I want to thank you for always taking me around in Bay Park, but I've also been around in Cedar Creek.

Where are we on odor control?

Visually, visually, to report back to my constituents in the Cedar Creek area or to answers questions in Bay Park, visually I haven't seen anything. So I don't know where they are on this contract or why so little has been spent to date.

MR. DeNICOLA: Understand that that number is probably not accurate because the contractors on both facilities are mobilized as of several months ago. Major excavation, re-routing of piping, the piles are going in. The piles are going in in both facilities.

So right now, I will say if we are 15 to 20 percent done with construction, that is probably an accurate number at both facilities, and I would invite you to come out. I will take you around both facilities. The construction is well underway.

LEGISLATOR DENENBERG: What do I call you, Robert?

MR. DeNICOLA: My name is Michael.

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LEGISLATOR DENENBERG: I always get it wrong. I was asking Rob a question and he answered. That was actually a good answer.

I'm going by your number that shows less than two percent paid --

CHIEF DEPUTY WALKER: Again, just remember, that was paid to date. They may have an invoice that they have not approved for payment that could be two million, three million, four million. So you are always working 60 days, 90 days to see payment after that work was completed.

LEGISLATOR DENENBERG: So the schedule that said quarter three, 2013 for odor control, and $42 million, that's not accurate money-wise because it was only $25 million, and it's not accurate time-wise because that was only when we hoped the contract would go out to bid?

CHIEF DEPUTY WALKER: It is accurate in the time line. If you look, the contract was awarded in September 24, 2013. That's third quarter, 2013. That's when the

contract is awarded. It was awarded then.

LEGISLATOR DENENBERG: Most people would want to know, certainly my constituents, I think all of us, would want to know when this project should be done. Is there something in this report that we can look at?

CHIEF DEPUTY WALKER: Look at that same page on 27. It's a 26 month construction project.

LEGISLATOR DENENBERG: Which page am I looking at, the one that's on the screen?

CHIEF DEPUTY WALKER: October of '15. October '15 is when it should be done now?

CHIEF DEPUTY WALKER: Yes.

LEGISLATOR DENENBERG: Let's move on to the next project. By the way, the odor control, 35116, goes all the way back and I provided you a copy to 2010 capital plan where there was about $25 million then. Did we lose any money or we hadn't started it when the --

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CHIEF DEPUTY WALKER: It was designed and went out to bid, it was bid on August 20, 2013 and awarded September 24, 2013.

LEGISLATOR DENENBERG: So nothing took place pre-Sandy?

CHIEF DEPUTY WALKER: No. No. Work-wise. The only thing that took place was the design.

LEGISLATOR DENENBERG: But we did approve money according to the 2010 capital plan?

CHIEF DEPUTY WALKER: Yes.

LEGISLATOR DENENBERG: Are we combining the money that was pre from 2010 with the money that was approved in July of last year for this project?

CHIEF DEPUTY WALKER: What bond is that coming from? Ken Arnold has the actual bond.

LEGISLATOR DENENBERG: Well, for odor control we approved $26 million in July 2013 but prior thereto, in 2009, according to the 2010 capital budget, if I'm looking

at the -- the $26 million also.

CHIEF DEPUTY WALKER: You approved $8.5 million, $26 million was the authorization, still $26 million from 10 to 13. You had $8.5 million in '11, another $12 million in '12, another 5.4 in '13 that equals 26.9. So the authorization amount at that time might have been 26 million but it didn't take place for all those four years.

LEGISLATOR DENENBERG: That's right. But we approved 26.9, even though it was never spent and never used, and that 26.9 was authorized as you're looking by 2010, looks like it was --

CHIEF DEPUTY WALKER: No, no, no, it wasn't. It was authorized by 2013. It was $1 million if 10, 8.5 in '11, $12 million in '12, 5.4 in '13, which then equals your 26.9 in '13.

LEGISLATOR DENENBERG: All of that was in the capital plan from '10?

CHIEF DEPUTY WALKER: No. $1 million in '10. This is for the year 2010, county debt, $1 million. Cannot spend any

more than that.

LEGISLATOR DENENBERG: Let me just ask this. Make a long story short. How much are we going to end up spending on this? Is it $42 million that was in your July report, or is it going to be $27 million pursuant to this contract?

CHIEF DEPUTY WALKER: As long as there are not any change orders, you're talking about $27 million. If there are change orders or other things that come about, it will actually be more money.

As I said before, the mitigation is not included in that cost estimate.

LEGISLATOR DENENBERG: I thought that we approved 26 million in July on top of what was already approved and I'm trying to figure out if we are spending 26 million or 42 million.

CHIEF DEPUTY WALKER: As I said, you're going to have the $27 million that's definitely being spent, unless it comes in cheaper, you're going to have the mitigation that's not included in this that will go out

to bid and/or be a change order. I believe it will go out to bid. Then that will be on top of it for the odor control mitigation.

LEGISLATOR DENENBERG: Let's go on to 3B120, that's the preliminary treatment modification which is pre-Sandy, correct?

CHIEF DEPUTY WALKER: Yes.

CHAIRMAN MUSCARELLA: That's the next pre-Sandy contract. That, in fact, goes back to the 2010 capital plan too but, just to make sure, from the July 2013 schedule that you provided to us, 3B120, was supposed to have $29 million. $29 million was supposed to be contracted third quarter of 2013.

According to this schedule, we've only encumbered 4.5. We have only spent 1.6 million which is only 3 percent. I'm looking back at the contracts and we don't have more than $1.3 million contracted for 3B120 which is the preliminary treatment modification.

CHIEF DEPUTY WALKER: Yes, you

do. You have a contract that was approved by Rules on March 10th, 2014, Item B6, 2014, from Picone, that was awarded and they are beginning in May of 2014.

LEGISLATOR DENENBERG: So that's for a total of 12.3 million in March and it's coming in May as well?

CHIEF DEPUTY WALKER: Starting in May. They're mobilizing and starting. And then you currently have a contract that is out to bid that is scheduled to open on March 25th, 2014 for the grit again with construction beginning in May of '14.

LEGISLATOR DENENBERG: So where it says in your schedule from July, $29 million in quarter three, 2013, right now including March which is first quarter, 2014, we're up to about 12.5, and then you're saying by May which is second quarter 2014, we'll be in the $20 million area?

CHIEF DEPUTY WALKER: Probably another $45 million between both contracts. There's two contracts.

LEGISLATOR DENENBERG: So why did

this slip from quarter three, 2013, to at least it looks like first or second quarter 2014?

CHIEF DEPUTY WALKER: It didn't actually slip. When we look at the schedule and how to schedule appropriately, they determined that this was the better way to handle that schedule.

LEGISLATOR DENENBERG: I'm just going by the schedule, said $29 million by quarter three, 2013.

CHIEF DEPUTY WALKER: And, as I said, this will be a working schedule. Some things will be quicker. Remember at that point we only wanted to do the electrical distribution in one phase. We are now doing that in two phase. So things change on the best way to operate for the facility as deemed appropriate by people much smarter than me, the engineers.

CHIEF DEPUTY WALKER: So what's the current schedule for this $29 million --

CHIEF DEPUTY WALKER: The construction --

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LEGISLATOR DENENBERG: Let me ask the question. The total contract cost is $29 million. I'm looking at a July 2013 schedule which said that that total contract cost would be contracted by quarter three 2013, with what passed March 10, 2014, for preliminary treatment modifications we're up to contracting 12.3. So when are we going to contract the rest of the money?

CHIEF DEPUTY WALKER: I said that before. One of the contracts has already been awarded. The second contract will be awarded in March and we hope in May they will start construction. One was awarded March 10th. The other one will be awarded, I'm sorry, at the next meeting we believe. The bid is currently opening March 25th, awarded in April to begin in May. So both of those contracts. Two separate contracts.

LEGISLATOR DENENBERG: So the last -- or the full amount should be contracted by April?

CHIEF DEPUTY WALKER: Yes. One already is and you will have another

contract for grit. So you have the influent and the grit.

LEGISLATOR DENENBERG: And this 3B120 is preliminary treatment modifications for Bay Park only, correct?

CHIEF DEPUTY WALKER: Yes.

LEGISLATOR DENENBERG: 3B120 is only for Bay Park, correct?

CHIEF DEPUTY WALKER: Yes, correct.

LEGISLATOR DENENBERG: 35114 is the next project and that's wastewater sludge thickening?

CHIEF DEPUTY WALKER: 35114. They vary. You have the --

LEGISLATOR DENENBERG: It's wastewater facility improvement?

CHIEF DEPUTY WALKER: Yes. Bay Park and Glen Cove.

LEGISLATOR DENENBERG: This is pre-Sandy, correct?

CHIEF DEPUTY WALKER: Yes. You have eight projects. Five Glen Cove, three in Bay Park.

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LEGISLATOR DENENBERG: From the 2010 capital plan, we had 25.1 million which is about the same amount now, correct? We expect to spend $25 million?

CHIEF DEPUTY WALKER: Wait. Just on sludge, all together, all projects, total projects cost --

LEGISLATOR DENENBERG: $25 million?

CHIEF DEPUTY WALKER: No. What I'm looking at right now it's a total of encumbered dollars, about $40 million, and paid to date is about 20.

LEGISLATOR DENENBERG: Paid to date is about 20 on 35114 which is about 46 percent, correct?

CHIEF DEPUTY WALKER: 46.01 to be exact.

LEGISLATOR DENENBERG: But is everything in contract at this point?

CHIEF DEPUTY WALKER: I think with the exception of the sludge de-watering at Glen Cove I think that was, just at this point, and also the baffles, the aeration

tank baffles. That's in design. Now that would actually go to a contract after that. And if you look, there's $53 million that was authorized so there is some dollars left to cover that construction cost when it actually goes to construction.

LEGISLATOR DENENBERG: When I look at the July report, it says 2-3-2013 for all the various projects under 35114 to be in contract by quarter three.

CHIEF DEPUTY WALKER: We didn't even have the Glen Cove projects listed on that schedule, so I don't know what you're referring to.

LEGISLATOR DENENBERG: I'm looking at the schedule. So is everything for Bay Park now in contract?

CHIEF DEPUTY WALKER: Yes, and in construction.

LEGISLATOR DENENBERG: Then if we go to -- and right now on this project we paid out 46 percent?

CHIEF DEPUTY WALKER: Let me just go back to that. If you look actually at

the interim sludge facility at Bay Park, that's 93 percent. If you look at the primary settling tanks, that's 80 percent. The only one again that's the least that just began is the sludge thickening facility which we just discussed earlier.

LEGISLATOR DENENBERG: Let me go to the next, 35100 project, which is the digester rehabilitation, correct?

CHIEF DEPUTY WALKER: Correct.

LEGISLATOR DENENBERG: Now, according to the July report, the 35100 which is digester rehabilitation, that's a pre-Sandy project, correct?

MR. WALKER: Correct.

LEGISLATOR DENENBERG: That was scheduled way back in 2009 and was part of the 2010 capital project as well, but now the total bond authorization according to your report is $40 million, correct?

CHIEF DEPUTY WALKER: For Bay Park and Cedar Creek.

LEGISLATOR DENENBERG: $40 million for Bay Park and Cedar Creek,

correct?

CHIEF DEPUTY WALKER: Yes, for both.

LEGISLATOR DENENBERG: We spent only 2.5 which is 5.7 percent according to your report.

CHIEF DEPUTY WALKER: That was actually paid to date. I don't know where they are today since then.

LEGISLATOR DENENBERG: According to the report and the testimony from July 2013, I just want to make sure we got it right. The contract was --

CHIEF DEPUTY WALKER: We have 15 percent complete project as we speak today. So about 15 percents, even though it was only paid roughly, you know, nine percent.

LEGISLATOR DENENBERG: Are we fully contracted for it yet?

CHIEF DEPUTY WALKER: Just for Bay Park, not for Cedar Creek.

LEGISLATOR DENENBERG: When are we going to contract for Cedar Creek? According to July 2013 testimony, I even

asked about Cedar Creek and the full digester cleaning, the 35100, which is digester project, was supposed to be contracted, the full almost $40 million by quarter three, 2013.

CHIEF DEPUTY WALKER: The design will be complete. It will go out to bid with construction in the beginning of about October or November. They prefer to do the construction during the winter months because of obviously the odor for the residents, it's much better to be doing that work with the cleaning and things of that nature in the winter compared to the summer.

LEGISLATOR DENENBERG: Is that true? I don't think that even makes sense. I understand for odor control, but it's not that easy to take out something that has water in the middle of the winter.

CHIEF DEPUTY WALKER: Do you want to explain?

MR. DeNICOLA: Yes. Bay Park has started. We're going to go through all the seasons. Cedar Creek --

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LEGISLATOR DENENBERG: No, no. I was just told that you only want to do this in the winter and I would disagree.

CHIEF DEPUTY WALKER: No. Prefer to start it in the winter.

MR. DeNICOLA: The digester clean-out job will go through all seasons and it's going to be bid in May and it will start in the fall and go through all the seasons.

LEGISLATOR DENENBERG: It will start in the fall go through all the seasons. So the digester cleaning for Bay Park is going to start in the fall of this year, or --

MR. DeNICOLA: No, no. Bay Park is started, we do the structural rehab, it's being filled up, and --

LEGISLATOR DENENBERG: Okay. So, Cedar Creek we'll start in the fall?

MR. DeNICOLA: Cedar Creek, the design is being completed, 100 percent design will be bid in May and, after it goes through the process, it will start in the

fall.

LEGISLATOR DENENBERG: So when can I see a contract for Cedar Creek? Because the last time I looked at the schedule it was quarter three, 2013.

CHIEF DEPUTY WALKER: A construction contract?

MR. GLOSS: Also, just to comment on what Rob had said about staging some of this work in the wintertime, you know, one of the things that is true is that because the winter time does not have the associated high ambient temperatures, generally speaking, the odor profile of some of these products is less. So it's preferred, if you can, to stage some of this work in the wintertime because the residents will be less -- they'll be less direct contract because the windows will be closed.

LEGISLATOR DENENBERG: I'm, really, I'm having trouble hearing you. Sorry.

When is Cedar Creek going to get contracted?

MR. DAVENPORT: The design will be complete in May and we will be going out to bid right after that.

LEGISLATOR DENENBERG: Okay. I will skip to the three Sandy recovery projects. $892 million. These three projects, 35121, 3P311 and 35123, $892 million, correct?

CHIEF DEPUTY WALKER: Correct.

LEGISLATOR DENENBERG: Your summary sheet says that right now, .98 percent has been paid, correct?

CHIEF DEPUTY WALKER: Correct.

LEGISLATOR DENENBERG: According to the schedule that we were given in July, 35121 included the electrical work but also included about a total of $540 million. Now it's been broken up to 35121 and 35123.

But over 600 million was supposed to be contracted, part in quarter three 2013 and part in quarter four 2013. But, according to this, we've entered into less than $50 million worth of contracts right now. Less than $50 million. I assume the

electrical contract, which is $300 million must be coming soon, right?

CHIEF DEPUTY WALKER: No. Well, first the electrical distribution is now divided into two phases. So the first phase which is roughly, and I forget the number before, $29 million, is on the rules calendar for Monday.

The perimeter barrier wall/other mitigation would hopefully be on the calendar for April. That's another -- I just don't want to use a number, but anywhere between 35 to $40 million depending on if the low bidder is deemed to be qualified which we think he is. They are doing a walk-through tomorrow. So that's another $75 million that's going to be in place.

As of right now encumbered you will see $55 million has already been encumbered to day. Add the additional dollars I just told you, you're upwards of over $100 million. The electrical distribution which is the biggest is now in

two phases.

LEGISLATOR DENENBERG: According to, in July, and I'm looking back at the testimony when we voted -- I voted for all of the bonding but we were told that the electrical would go out to bid by quarter four 2013 and we would have $260 million bid on these emergency projects, the storm recovery capital projects by quarter three, 2013.

So, right now we only have contracts for about $55 million. So when are we going see the -- and you just counted a phase one on the electrical to be coming within a month?

CHIEF DEPUTY WALKER: No, no. Coming Monday.

LEGISLATOR DENENBERG: How much is that, $140 million?

CHIEF DEPUTY WALKER: No, no. I just said $29 million. It's completely divided into two phases. Just so we are comparing apples to apples, because right now we're not.

This sheet that you're talking about also has other items that are non-Sandy. There are non-Sandy items on here, such as the digesters that we just went over. Such as the screens.

LEGISLATOR DENENBERG: Yes. But we also have in quarter four 2013, both on Sandy recovery items, $72.5 million and 326. That's $400 million. None of that has gone to contract yet.

CHIEF DEPUTY WALKER: Yes. You're right, by three days. One contract is Monday. The other contract we hope is in April.

Also, look at these numbers. I said before, we have been very competitive in our bids. We estimated, the engineers estimated bids that are coming in much cheaper. Granted, do we want to be moving faster, yes, we always want to be moving faster.

However, we are also doing it the right way, making sure the residents are being dealt with appropriately, that we can

stage appropriately. The electrical distribution, which, if you look at the amount of money is almost 48 percent of the overall cost, and that's now divided into two phases. That second phase, going out to bid, and it could have, if we so choose, but we didn't. So that's why these numbers aren't going to add.

LEGISLATOR DENENBERG:

Mr. Walker, I would agree with you that certainly we would want to be moving faster. The reason for my question is, to date, we have paid about $8 million for Sandy recovery projects which, everyone said in July 2013 were emergency projects, and we've encumbered $55 million, and a fraction of what should have been in contract in quarter three or quarter four is in contract to date.

I'm glad to hear, and that's why I was listening to your response, that at least phase one of the electrical and several other of the Sandy recovery capital projects will be going into contract in the

next few weeks.

Entering into a contract and actually expending the money and getting the work done is two different things. So we have to get to the contracts first.

CHAIRMAN MUSCARELLA: Mr. Denenberg, if I might, at this point, we're approaching 35 minutes and there are other legislators that would like to speak.

LEGISLATOR DENENBERG: Let me just ask one last question.

CHAIRMAN MUSCARELLA: I will. And I understand your line of questioning and I understand that your concern is that we haven't strictly stuck to all of the schedules and I think that they would stipulate to the fact that, yes, sometimes the schedules change. They have explained the reasons why they've changed. They've explained that they've done things in phases. They've explained that perhaps something done in the wintertime is better than in the summertime. They've explained that as you go forward in the real world,

sometimes it makes more sense to do things other than the way you originally scheduled to do because the experts explained that you should do it in different ways. I think everybody will stipulate to that.

So if you can ask your one more question, we can move on.

LEGISLATOR DENENBERG: Thank you. And the reason for trying to keep to a schedule as well as having the quarterly reports is so that those projects that are to be exigent are done on an exigent basis. Those which were pre-Sandy we can already see were around for years at it point.

But my final issue with respect to -- and I don't know if it's Mike or Mr. Walker to answer this, but until the sludge -- until the sludge thickening facility and the electrical repairs are done and that facility is rebuilt, we are going to continue to do this operation outside right,right? Am I wrong? And that's far from perfect because, even though, the last time I was there at the end of the year, you

hadn't put the covering over it yet. I went back this week and I saw the cover over the sludge de-watering facility in the parking lot.

But until this goes to bid and the work is done, we are going to be doing that operation which is the lion's share of sewage treatment in a parking lot.

MR. DeNICOLA: That's correct. Sludge de-watering will remain in that tent with odor control for the duration until sludge de-watering building is rehabilitated. And, based on the schedule, you can see the dates on the sheet we put up. What date would that be done?

MR. DeNICOLA: Sludge de-watering is 2000 --

LEGISLATOR DENENBERG: I have the demo to be done February 7th, 2015. Sludge de-watering reconstruction, March 31st, 2018.

MR. DeNICOLA: That's correct. If that's the date, then I believe it's on the table, yes.

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LEGISLATOR DENENBERG: And you had bid opening December 23rd, 2014 for the reconstruction project?

LEGISLATOR DENENBERG: Phase two, correct.

LEGISLATOR DENENBERG: And this is the current schedule?

MR. DeNICOLA: That's correct.

LEGISLATOR DENENBERG: Thank you.

CHAIRMAN MUSCARELLA: Mr. Dunne.

LEGISLATOR DUNNE: Thank you, Mr. Chairman. I know we have public comment to come also, so I'm going to be very brief.

At Cedar Creek we have the nine foot inflow pipe and it goes to bar screens and then they pump it up and it has to -- from what I understand, gravity pulls it down to the grit tanks and then it goes out to the primary tanks.

Now, if you are going to elevate everything in Bay Park, are you going to be relying on gravity like they do at Cedar Creek?

MR. DeNICOLA: Yes. Bay Park and

every sewage treatment plant is basically the same. Every sewage treatment plant is always built at the lowest elevation because you want to run the collection system by gravity.

Then, typically, what you do is you raise, you use raw sewage pumps then to raise that to a certain elevation and then it runs through the plant by gravity. That is the way Bay Park runs, that's the way Cedar Creek runs, and that will remain the way.

We run the plant by gravity, but you have to increase the flow or the head and run the remainder away through the plant by gravity.

LEGISLATOR DUNNE: So you'll be pumping it higher, that's all?

MR. DeNICOLA: Exactly.

LEGISLATOR DUNNE: The pumps, they're able to be totally submerged, I heard before, is that accurate?

MR. DeNICOLA: Yes. I mean, the way to mitigation, and Peter can probably

comment, depending on the size of a pump, in terms of horsepower, whether it's 50 horsepower, one horsepower, or 500 horsepower, you can make those pumps which basically is the motor, is submersible so it can completely be submersed and still operate. That's one of the ways that we mitigate some of those motors. The larger motors it's harder to do, so you raise them out of the flood plan.

LEGISLATOR DUNNE: Now, is that what went wrong in the past, they were not submergible?

MR. DeNICOLA: In some instances, in some of the smaller motors, yes, in the tunnels they weren't submersible, correct.

LEGISLATOR DUNNE: So we're fixing that, that's great. Now, are they natural gas operated or they use methane from the plant that the plant produces, or how do they use those pumps?

MR. DeNICOLA: The pumps are run on electricity which is generated from the house generators, so they use either natural

gas, diesel fuel, or digester gas to produce electricity to run those motors.

LEGISLATOR DUNNE: Now, the generators, we're renting them right now?

MR. DeNICOLA: Yes, we are renting the primary source of power which is the rental of Aggreko generators.

LEGISLATOR DUNNE: Is that because we haven't upgraded the electrical yet?

MR. DeNICOLA: Correct. There is an existing project to upgrade the generator controls on the primary source generators. The Aggrekos were rented for that project prior to Sandy. We're lucky we had them, but now they're the primary source of power.

Interim controls have been put on the primary source generators so we can use them as backup, and the generator controls project will be done -- and I don't want to misspeak the date, but it's on that sheet, within the next year.

So the Aggrekos could get out of there. We never intended to use to Aggrekos

24/7 but unfortunately, after Sandy, we have to.

LEGISLATOR DUNNE: So, the sooner we get the electric going, the sooner we can stop paying all the money for these generators, save us what, a million a month?

MR. DeNICOLA: Right now, I believe the number is -- the rental cost is about $470,000 a month for those Aggrekos.

LEGISLATOR DUNNE: Half a million, okay. My final question, I'm going to be really brief, the odor sensors that the deputy county executive spoke about, is that going to happen in Cedar Creek also, are you going to use those odor sensors at Cedar Creek also?

MR. DeNICOLA: Yes, yes. The perimeter monitoring for all odors will be done at both Bay Park and Cedar Creek.

LEGISLATOR DUNNE: How soon is that again?

MR. DeNICOLA: I think within the next several months.

LEGISLATOR DUNNE: That's

terrific. Thank you so much. Those were my questions.

CHAIRMAN MUSCARELLA: Thank you. Mr. Kopel.

LEGISLATOR KOPEL: Thank you, Mr. Chairman. I've got a few questions. I happen to live near a sewage plant, which is going, hopefully at some point it will be decommissioned and turned into a pumping station, in Lawrence.

I tell you, I've lived there about 27 years, going on that, and never once had an issue. And, yes, I do smell things. Very close, never once had an issue.

So I go back to some of the tours that I took of the Bay Park plant, and this was before Sandy, and odor was a major problem even back then.

I know we were working on it back then and some of the technical people told me that there are several different ways of controlling odors, and it's a cost issue as to which one is the most efficacious in

getting it done. In other words, some are better than others, some are more cost efficient than others.

I wonder which one we are looking at now being that the people that live in Bay Park live so very close by and odors do waft in even quite a distance at times.

CHIEF DEPUTY WALKER: I'm going to have Peter answer in a second, but this is something that we've been dealing with since 2010, myself, the county executive in working with you, obviously, Howard.

So we tasked a group with coming up with the most state of the art equipment, not doing it the way it was done in the past. Obviously the facility probably hadn't been touched in 20 years, and that we literally tasked them with coming up with new innovative ways that other people have done this.

Again, secondly, having the sensors is very crucial at Glen Cove, Cedar Creek, and Bay Park because you get a real good analysis of where all the odor is

actually coming from, or the different type of materials that are in the air at those points.

So, they will get into more greater detail with you in a second as to what we're doing, but it's a state of the art, looking at the waves of the future, and, again, more importantly, is now taking that data as well and saying what else can we do above and beyond.

LEGISLATOR KOPEL: Right. We mentioned dredging as well, and that might very well be necessary. It's years of accumulation of all this stuff.

CHIEF DEPUTY WALKER: Agreed. And it could be from other things in the area that we are not even cognizant of that then we will go deal with those issues, that could be a county issue, could be a private issue, but we will then be able to deal with it.

LEGISLATOR KOPEL: Or a garage dump across the way, yes.

MR. GLOSS: So, starting about

four years ago, the county embarked upon an odor control project where they looked at -- the did an exhaustive sampling collection effort that was spanning two different seasons to sample all the different odor sources at both plants and they prioritized the problems of each plant. What came of that was that they discovered three specific processes contributed to more than half of all the odor issues.

At Cedar Creek it was aeration tank auto control system. At Bay Park it was aeration tank odor control system, and the primary sludge thickening, primary sludge settling tanks.

So the county designed three projects to address each of those three sources. For Bay Park and for Cedar Creek, the county basically replaced the existing technology which worked well, but it was about 15 years dated in terms of the technology selection. They chose an innovative technology called a bio-filter which probably works about three or four

times as well, and actually takes about a fraction of the chemical usage, so it's cheaper to run and it's actually more effective. So this is a situation where technology is really --

LEGISLATOR KOPEL: But more expensive to build, I think, right?

MR. GLOSS: Slightly more expensive to build but, if you look at the operating costs and the savings and the chemical costs, it actually pays for itself in less than ten years.

LEGISLATOR KOPEL: Over a period of time.

MR. GLOSS: Over a period of time. And then they also put a double stage odor control device at Bay Park on the primary settling tanks. So they have traditional technology used and then they have a carbon secondary stage and that polishes the exhaust that goes through the primary stage. And should the primary stage fail, it will all get caught up in the second stage.

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LEGISLATOR KOPEL: That's good. Because people who live there, they understand when most of them bought their homes they bought it close to a plant, but, nonetheless, we do have to do our best.

One more question, please. I'm now talking about the ocean outfall. I've read something recently about the possibility that this can cause some problems out in the ocean and that that could impact various parts of the shore.

Secondly, the second thing is, did I understand correctly that tertiary treatment such as is done in some other places, which can actually turn sewage into actual drinking quality water, but that's not an option because of space; is that right, or is it more expensive or what?

CHIEF DEPUTY WALKER: I will let the scientist answer this one.

MR. GLOSS: I think that -- and I'm not going to speak for EPA or the DEC, but I think it is certainly and formally a consensus that moving the disposal point of

the effluent, the effluent discharge point to the ocean, has a significant net positive impact for the region.

What it does is it takes it out of the western bays, which is an impaired water body for nutrients and it moves it into the Atlantic. Now, the issues in the Atlantic Ocean have more to do with dissolved oxygen, and that's why the EPA folks are concerned about nutrients in the water because they don't want to drop the DO.

So part of what the county is going to do, should the funding come in on the ocean outfall, is try to select locations on the ocean where the DO problem is not present, and that's why the county is also committing to denitrify the effluent so it does not exasperate the DO.

LEGISLATOR KOPEL: But the alternative question that I had posed was whether this was a better idea than tertiary treatment on-site?

MR. DeNICOLA: I'll answer.

Nitrate removal is done, New York City does it, Nassau County is going to have to do it, it's the level that you're going to have to do it to. Florida, for example, they're going to zero in terms of nitrogen. When you say is it more -- the economics of going to a reverse osmosis process which is basically what you do to take salt water into drinking water, and that's what you need to do, the price goes up into the billions.

LEGISLATOR KOPEL: You don't have to actually go -- well, you can still do a tertiary treatment without turning it into drinking water, right?

MR. DeNICOLA: No, you're not, but if you're going to have to reclaim water, you have to put in membranes and reverse osmosis.

LEGISLATOR KOPEL: What I'm simply saying is could you not treat it to the quality that Reynolds Channel might be had there not been -- I'm not talking, you don't have to remove the salt and dissolve

minerals and all that kind of --

MR. DeNICOLA: I understand. And to get down to the nitrogen levels, based on the DEC, they're saying if we zero out nitrogen from Bay Park, that the western bays are still impaired. So that means, if they want us to get to zero, you have to go to membranes and reverse osmosis, which you're talking about several billion dollars. That's why an ocean outfall makes and just to add to Peter, and an ocean outfall doesn't mean you don't need to treat. Because you will still impair the beaches, so you need to do some level of treatment as well.

LEGISLATOR KOPEL: Thank you.

MR. DeNICOLA: You're welcome.

CHAIRMAN MUSCARELLA: Mr. Abrahams.

LEGISLATOR ABRAHAMS: I just have first a quick thing before I get into my questions.

I just received a note from a constituent that was telling me that the

broadcast, I guess that the live stream for the county's hearing on the county's website is not working properly. So he was requesting that if it's possible, Madam Presiding Officer, if we can archive the hearing so somebody can reach it at a later date. That's why there was a little pause before --

CHIEF DEPUTY WALKER: We pulled this plug over here. I think it's a problem using these microphones. I think that's connected to it. I think these microphones may not go into the system.

LEGISLATOR ABRAHAMS: He had mentioned also that apparently the site was just hanging, the picture would be stagnant.

CLERK MULLER: The site crashed for a period of time when Legislator Denenberg spoke, when it was called on him, I was handed a note that it was back up, and, as to the sound, it does come from those mikes, but it is working.

Unfortunately, if the site crashes, I can't archive it. But I will be

more than happy if your constituent watched, and we'll e-mail him or her the transcript that we receive from the court reporter.

LEGISLATOR ABRAHAMS: Okay. I appreciate that, Bill.

I just have one general question. I think most of the questions were covered by previous speakers. But my one general questions is, and I think Legislator Denenberg started to jump into a little bit, but I was really starting to tie more in regards to the actual construction schedules.

I know that you guys took a lot of time to put together the document that we're looking at that spells out when we are going to design and procurement and detail design and bid opening, but what I've really been pushing for is the actual, again, idea of the actual construction schedule on a weekly or monthly basis as it pertains to each of the projects.

It's not really a question but more of a concern that maybe we can have

that information on a go-forth basis. From the time we talked, just to be up front, I know you had said it's a very extensive and very difficult document to put together and also to update to make sure it's accurate. We will take that into consideration, obviously, and we'll hold people to it to each "I" being dotted and each "T" being crossed. But we would like to see that document.

CHIEF DEPUTY WALKER: We will add the monthly schedule and then we will get you all the backup. We will figure out how to do that amongst contracts. I don't know how yet, but in the monthly report, we'll have an overall schedule in here and we'll add that to it definitely. We were talking about that too saying, why isn't it in here.

And, secondly, we will figure out a way to -- maybe it's bimonthly with the construction contracts so you can see them and compare them, it's a lot of documents as the one we sent you. I think that was for odor control. So we will figure out how we

can update that.

Again, the last thing I want to do is not share it, and I don't waste people's time putting a lot of those things together. So we'll figure out how to do that.

LEGISLATOR ABRAHAMS: Okay. And then my second point really ties into, is the public aware, or do we publicize on the county website the current progress of projects?

CHIEF DEPUTY WALKER: Yes. We are actually putting the report on there that was on there today.

LEGISLATOR ABRAHAMS: So this document is on the county website?

CHIEF DEPUTY WALKER: Yes.

LEGISLATOR ABRAHAMS: And, folks, if they want to get a general sense of where a project was or when they anticipate a project being completed or if they hear a construction noise, they know full well why they're hearing it because the digesters are being worked and they're generating noise?

CHIEF DEPUTY WALKER: Yes. And what we're actually doing too, we have already -- and I spoke to Legislator Kopel and Legislator Ford, I was going to speak to them afterwards, we are going to be actually meeting with the Bay Park Civic Association. It think they scheduled a meeting with us. I don't remember the exact date they gave us today. We are doing it around their schedule so we can give them an ongoing schedule and see how they want to be notified.

We're involved in a process as well. We're going to use them to actually alert people. I think they probably do a much better job at it than we do, so they know who the best people are that can spread the word that we can provide them with information. So, we're meeting with them. I don't have the date yet.

LEGISLATOR ABRAHAMS: I think if we got used to spreading the word on the website it would be good, because I know when we went down to the site, I know many

people expressed that the noise that comes from the temporary generators, and it sounded like to me based off the work or maintenance that's being done to the general generators, basically if that work is going on, the temporary ones are there.

I think if we are able to explain or post on the website that there's even going to be work going on, even if it's maintenance in general, I think that would definitely go along -- I mean, there's nothing they can do about it, but the bottom line is, I think we should try to make sure they have the information as much as we can.

CHIEF DEPUTY WALKER: I agree.

LEGISLATOR ABRAHAMS: Madam Presiding Officer, and Chair Muscarella, give me a second.

I just have a general question. I don't know if you can answer, Mr. Walker, or maybe somebody else, but I guess we had authorized the borrowing for certain sewer projects under Ordinance 20-8-13 in the January 2013 Ordinance 101-13 July of 2013.

I guess we just need a breakdown of the projects that have been incorporated into the projects authorized in Ordinance 168-13 which we passed in December of 2013.

CHIEF DEPUTY WALKER: I will have Ken provide it everybody but it's basically $120 million that's devoted to project 35121, and $53.2 million that's in project 3P311. And 168-13 is in which one? 35121. We will have him forward that to you.

LEGISLATOR ABRAHAMS: Mr. Walker, that's the overlap between the two?

CHIEF DEPUTY WALKER: Yes, some Sandy, it's some of the pump stations, Sandy, not Sandy.

LEGISLATOR ABRAHAMS: Okay. Thank you.

CHAIRMAN MUSCARELLA: Legislator Schaefer.

LEGISLATOR SCHAEFER: Thank you, Legislator Muscarella. I just have two quick questions. How long do you anticipate the berm project will take to complete?

CHIEF DEPUTY WALKER: About 24

months.

LEGISLATOR SCHAEFER: Is completion of the berm project contingent upon the other projects being completed first?

CHIEF DEPUTY WALKER: No. Again, hopefully the contract will be awarded in April and we begin as quickly as possible, May to June depending on mobilization.

LEGISLATOR SCHAEFER: Thank you.

CHAIRMAN MUSCARELLA: Ms. Curran.

LEGISLATOR CURRAN: Thank you. I will be brief. Barnes Avenue in Baldwin. There's been problems there before Sandy, obviously with Sandy it was much more dramatic.

I'm wondering if you could explain in very understandable terms what the problem was, and how the solution will fix it.

CHIEF DEPUTY WALKER: I will try to explain it in the easiest terms because these guys get into terms I can't understand either.

So, I actually, unfortunately, about two days into the storm met with Legislator Scannell at the time with the county executive and we toured many residents' houses in and around Barnes, and I believe First, Second and Third Street if my memory serves me right.

Obviously that was the problem we talked about before the conveyance through the plant, how we had, unfortunately, two locations, Barnes Avenue, North Boulevard, that suffered, basically over capacity of the system. The sewage had nowhere to go anymore and where did it go? It burst and had that problem in the street.

In a nutshell, the pipes, for lack of better words, intercepters and things like that, laterals and other things that I've come to know, just did not handle capacity. Why that happened? A variety of different reasons. There was illegal connections. People were tied into the system that should not have been tied into the system. You know what? At the end of

the day, is that going to happen? It shouldn't, and it probably happens throughout the entire collection system, people tie into the wrong lines sometimes, not willfully doing it, knowingly doing it, but they have. So the pipe could not handle the capacity.

For the Village of Hempstead, the only way they will ever have economic development as well as dealing with this issue surrounding the residents of Baldwin and that region is to put in a pump station which we are working, part of this 892 is money, about, say, $25 million dollars that will go into building that pump station, putting in a new intercepter, bigger pipes, the easiest way to describe it, as well as bringing some sewage directed to Cedar Creek to open up the capacity.

Right now we have awarded a contract to Cameron Engineering. They are going to be designing, they have a very tight window. About six months. That contract will actually be coming to the

legislature, the Rule Committee in very short order, April.

Then they will get to work, about six month design period, and the 18 month construction period by which it will be complete.

So, in a nutshell again, it just couldn't handle the capacity, and this will solve that problem as well as helping aid the economic development of the county with the development in the Village of Hempstead.

CHAIRMAN MUSCARELLA: Thank you. Ms. Jacobs.

LEGISLATOR JACOBS: Yes. I'm going to make it as quick as I can. Rob, I just wanted to talk to you a little bit about FEMA money.

CHIEF DEPUTY WALKER: Yes.

LEGISLATOR JACOBS: I know in January they sent a letter out talking about the alternate procedure pilot program.

CHIEF DEPUTY WALKER: Yes.

LEGISLATOR JACOBS: Okay. I have two and half pages of questions but I'm

going down to the mid thing that we want.

CHIEF DEPUTY WALKER: And we would be glad to sit another day.

LEGISLATOR JACOBS: And do the whole thing.

CHIEF DEPUTY WALKER: With you any day.

LEGISLATOR JACOBS: Thank you.

CHIEF DEPUTY WALKER: I'm right around the corner, I can come over any time.

LEGISLATOR JACOBS: See, that's so great. So, anyway, listen, is it reimbursable with the alternate procedure, are they going to be paying us up front, or is this something that's reimbursable?

CHIEF DEPUTY WALKER: I'm going to make it even more complicated than your question, but try to make it less complicated at the same time.

The legislature obviously approved the $463 million, construction contracts, roughly about $455 million with the EFC.

So, the EFC is going to be -- and

why we don't go actually, and Tim Sullivan loves the fact that we don't have to, that we don't go to the market for cash, is because all we need is authorization. We need to do authorization because we are going to actually get the money directly from EFC. So the EFC is going to be sending the money to us to pay our bills.

LEGISLATOR JACOBS: Before we have to --

CHIEF DEPUTY WALKER: Even before we even get the FEMA money, and before we make payment with the exception of some of the ones that we already have to pay.

The money that we already have to pay, that will be the first money we reimburse, but all the additional money will come from the EFC. They will pay our claims. We will -- we take the money down, pay their claims. They will draw it down immediately to pay.

The FEMA is now going to give the EFC money. FEMA is going to give the State of New York, through the Department of

Homeland Security, maybe $400 million right from the start. Right off the bat, $400 million. We are working this out. That's why it's still in the working process on how we do this.

And then to confuse you even more, you have the 10 percent share that comes from CDBG, another whole issue, so the money will come from EFC to us. The FEMA money will come to the state department of Homeland Security, and we are telling them it will be easier for them just to reimburse their own entity at EFC so they're coming to us to go back to them. It makes absolutely no sense.

So those are all those logistical things that we're working out. At the end of the day, it cost us nothing because we have a zero interest loan for five years. The project we believe will be finished before five years. It better be.

LEGISLATOR JACOBS: Hopefully.

CHIEF DEPUTY WALKER: And then it will be no cost to the county. We saved the

fact that there's a zero interest loan, and, again, all of those caveats, literally had a three and a half hour conversation 9 o'clock last night, we finished about 12 o'clock this morning with the various entities on how that is all being played out. We're just fine tuning that as well.

The good thing again is also that the 10 percent match is also being paid for by the state, vis-a-vis, the CDBG money that they got through the supplemental appropriation. So we're going to figure out how that works too, so we don't have to pay out and then be reimbursed.

LEGISLATOR JACOBS: Okay. So now that brings me back to my next part but it's just one more question, in three parts, but one question.

If we come in over the estimate, the number one question would be, is the county responsible?

CHIEF DEPUTY WALKER: Yes.

LEGISLATOR JACOBS: All right. How much of that remaining amount will be

picked up by New York State, any or none?

CHIEF DEPUTY WALKER: I would say probably none. I will say this, we were very comfortable -- let me not tell you the number because that was all negotiated. We negotiated this for quite some time with the State of New York who we could not have had better partners, and FEMA, actually, the general counsel of FEMA, Senator Schumer. It could not have been a better process working with, again, Governor Cuomo, Senator Schumer, not that they can listen, because there is no sound, so it doesn't really matter. We will send them the testimony too. All kidding aside it was a negotiation that this team really conducted and did a great job.

So we were comfortable with the number knowing what it was going to cost. Remember, we have resiliency upon resiliency in here. We are putting in the berm. We believe the cost of the berm that FEMA gave us reimbursement for is $75 million. I think you are going to be very surprised

when you see that number come in next week and you're going to be, like, we're in good shape here.

We know we were never getting reimbursed for Barnes Avenue, however, we believe it was a project that we had to do that residents couldn't not do it. So that was $20 million that the county was going to have to come up with one way or another. We were committed to that project.

So that moved from 830 to 850. Right now we are about 880 because of some other non-Sandy -- or 892. There are some other things that the county is going to have to come up with as part of our normal capital budget.

Again, we have been so fortunate so far and, knock on wood, is every job at bid has come in cheaper than we thought it would and cheaper than the reimbursement that FEMA has.

So, the good thing about that is, that enables us, this alternative program, enables us to now use that money for Barnes

Avenue. So it doesn't have to come out of county money. We can't use that money to buy goldfish or something like that, we have to be able to use that money to spend on mitigation in the plants and we know there are other things we can do.

There are things that we can do at Cedar Creek, things we can do at Glen Cove, things we can do at Bay Park, and things we can do within the entire collection system to mitigate and make better and that's what we will be enabled to do if we hit our mark.

This team is tasked with hitting that mark and so far, again, they have been doing a great job. The negotiations couldn't have went any better because of the amount -- and, if anyone wants to sit, you can come in the office any day. The stack of documents would not fit on this table of the information we provided. That's why we were successful in getting that money. But now it's important to hit the mark. I think we will. I'm very confident just at the

success we have had so far.

People that are contracting with us never wanted to contract with the county before because the jobs now are so big, it's been very helpful.

LEGISLATOR JACOBS: Well, I'm sure that FEMA also gives them a sense of comfort too.

CHIEF DEPUTY WALKER: Yes, I agree.

LEGISLATOR JACOBS: Let me ask this, has New York State signed the letter, the confirmation of the letter -- the January letter?

CHIEF DEPUTY WALKER: Sorry?

LEGISLATOR JACOBS: Has New York State signed the letter?

CHIEF DEPUTY WALKER: Yes. You know what it is, they were sent to both places, so one signed one and one signed the other and FEMA just put it together, yes.

LEGISLATOR JACOBS: So I'm just concerned, and, obviously, if we have excess, I assume you are depending on

borrowing, right, for that?

CHIEF DEPUTY WALKER: If we need, if the county needs to do that. I'm hoping that we don't.

LEGISLATOR JACOBS: Okay.

CHIEF DEPUTY WALKER: And I'm saying, just because of the success so far that we've had, I don't want to jinx ourselves, but we'll continue on the path.

And, like I said, with Barnes Avenue, that was a project that the county executive committed to. I believe that the legislature would commit to doing it. It's a good project for so many different reasons. Just the economic activity that can be derived out of the Village of Hempstead for the benefit of all Nassau County, it makes sense to do it, plus the residents of Barnes Avenue, it's a county issue.

Even if we just dealt with Barnes Avenue and said, okay, the economic development is not important to us, which, we all know that that's not the case, we

still needed to do that project. Just FEMA did not, FEMA said it's not a FEMA -- or they could not approve it as FEMA money. We can go after other pots, but, listen, I think that $830 million, the only place it hurts us, it hurts us when the state's going to have the ability to issue grants for other hazardous mitigation, I think -- I don't think we will be at the top of that list. I think they're going to help other areas that haven't been successful with FEMA. I'm just being a realist.

LEGISLATOR JACOBS: But this is so important in the overall picture.

CHIEF DEPUTY WALKER: And they even viewed it to be.

LEGISLATOR JACOBS: I don't think the entire of Nassau County realizes how important this is. I know it definitely impacts immediately the south shore. But, truthfully, it effects every single one of us.

CHIEF DEPUTY WALKER: I couldn't agree with more.

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LEGISLATOR JACOBS: Thank you very much.

CHAIRMAN MUSCARELLA: Legislator DeRiggi-Whitton.

LEGISLATOR DERIGGI-WHITTON: Michael, can I just ask you a few questions about the plant itself? When you referred to something called a wave that hit the plant during Sandy, what is your approximate estimation as to how high that wave was?

MR. DeNICOLA: I'm going to defer a little bit to Peter because him and the ARCADIS people, he knows a lot better, but, I mean, my basic understanding is, we feel that about 12 to 13 feet was the standing water elevation and that what I've learned over this whole process is, that doesn't account for the wave action that happened.

LEGISLATOR DERIGGI-WHITTON: That's what I mean. What do you think the wave action --

MR. DeNICOLA: It would be a guess. I mean, a couple of feet of wave action.

MR. GLOSS: If you look at the different high water elevations and you sort of look at the distance that the wind engages the water with in order to create wave action, it probably is a couple of feet of variation.

LEGISLATOR DERIGGI-WHITTON: So, we're getting pretty close to the 18 feet then.

MR. GLOSS: Well, a couple of things. The county is designing, not to Sandy, but to the 500 year return frequency. So, what FEMA basically says, if you have a critical facility, you can't rebuild back to status quo, you have to rebuild to what they call a 500 year return frequency event. It's a very severe event. That event is 18.25 feet.

So Sandy was obviously significantly less than that, but what FEMA wants to do is not spend money twice. So FEMA, if they're going to give you money, particularly $830 million, they want it to last for a good long time.

LEGISLATOR DERIGGI-WHITTON: And if we're talking about a 13 foot level -- basically you said it was after the water had settled, I mean, waves could possibly be like, what, five, six feet over that, correct?

MR. GLOSS: Yes. Well, I mean --

LEGISLATOR DERIGGI-WHITTON: Well, then that brings us over the 18 feet. That's what my concern is. Do you think that everything we are adjusting for, do you think it's high enough? Do you think that 18 feet is sufficient?

MR. GLOSS: Yes. I think that the 18 feet that the county is building to is actually higher than the insurance mapping that's currently valid in the region.

LEGISLATOR DERIGGI-WHITTON: So, if Sandy came again, I know we always say it's 100 year storm, you're confident that the 18 feet is high enough?

MR. GLOSS: Absolutely, yes.

LEGISLATOR DERIGGI-WHITTON: Even

though it's pretty close, we're talking less than a foot or two?

MR. GLOSS: Yes, we think that the wave action is not going to exceed three feet. I think that the dynamics of the water within the region will probably keep it below 18.25 feet.

LEGISLATOR DERIGGI-WHITTON: I would feel better if we had a little bit of a bigger margin. But, you're the engineer.

One other quick question, with the berm, what is the berm made out of?

MR. GLOSS: There is two different types of berm material. Some of the berm is a reinforced concrete structure and some of the berm is a more traditional levy that has a clay core that is then surrounded by soil.

LEGISLATOR DERIGGI-WHITTON: Is that erosion proof?

MR. GLOSS: Yes. These designs are basically US Army Corp of Engineer designs and they are certified by the Corp and they are used extensively throughout the

U.S. and the world.

LEGISLATOR DERIGGI-WHITTON: So you don't think that because it's right on the water that we will have an issue having to repair it every five years or something like that to replace the traditional berm?

MR. GLOSS: No. The slope of the levy sections is three to one. And, actually, that slope is primarily because you want to be able to mow it with a lawn mower. But you don't really need the extra soil. The protective element is the clay core.

LEGISLATOR DERIGGI-WHITTON: And the cement as well.

MR. GLOSS: Right. There is a cement portion and then there's a portion that's more like a levy that has a core.

LEGISLATOR DERIGGI-WHITTON: How high does the cement part go?

MR. GLOSS: They all go to 18.25 feet.

LEGISLATOR DERIGGI-WHITTON: One other quick question. I understand that you

switched from propane to natural gas for the generators. As far as safety goes, propane is usually contained in a tank so we know if there was some type of explosion or something, which possibly could happen in this type of facility, it would be contained to that amount, but the natural gas is hooked to an infinite amount, correct?

MR. DeNICOLA: No. And, you're correct. The actual, the original generators were run off of diesel and not propane, and the now the natural gas, you're right, it's a gas main that feeds them, but we have, according to the building department, Public Health Department and just engineering good judgement, there are safety valves.

So, if there is an accident, the gas automatically shuts off and we have that at every generator as well as on the main, as well as at the gas pad that comes into the facility. So there has to be safeties. Because if we have a fire and we can't shut the gas off, it becomes a big fire.

LEGISLATOR DERIGGI-WHITTON: So the reason why you switched it is just -- it's easier?

MR. DeNICOLA: Number one, it was for emissions because diesel burns dirtier than natural gas, and, number two, it was a cost savings to the county because these are going to be operating for a while.

LEGISLATOR DERIGGI-WHITTON: Then, I guess, Mr. Walker, I have a couple of really quick questions on the finance end of it.

The memorandum of understanding, can we have a copy of that?

CHIEF DEPUTY WALKER: Sure.

LEGISLATOR DERIGGI-WHITTON: You may have provided that in the past, but I would just like to look at that.

CHIEF DEPUTY WALKER: We will get you one.

LEGISLATOR DERIGGI-WHITTON: Again, recapping what Judy Jacobs said, you really anticipate that the money will be forwarded prior to us using it, so that

possibly -- because I was concerned about bonding this much -- obviously I want the work to be done as soon as possible, but the bonding would really affect our bond rating if we had to go out --

CHIEF DEPUTY WALKER: And that's why we did the EFC financing because it is literally a zero sum game, literally, as the money goes back and forth within minutes. There's no need for the county -- all we are required to do is have the bond authorization in place, and that's all that needs to --

LEGISLATOR DERIGGI-WHITTON: So hopefully we won't have to put money out?

CHIEF DEPUTY WALKER: No. And we've done this before with them.

LEGISLATOR DERIGGI-WHITTON: Can I ask you a quick -- this might be like a, I don't know, maybe it's a housekeeping, but when I look at all the capital projects and it says matching budget, why don't we have anything there?

CHIEF DEPUTY WALKER: Because

it's an obligation so some of them we are working through all of those. And some of those are a working document.

LEGISLATOR DERIGGI-WHITTON: I think every single one doesn't have a matching budget.

CHIEF DEPUTY WALKER: It will be matching. We don't know where. It's coming from CDBG. I don't know how it's worked out. The $81 million, that's the matching, that's 10 percent, that's coming from the state, they haven't told us how it's coming.

LEGISLATOR DERIGGI-WHITTON: Right.

CHIEF DEPUTY WALKER: I believe, as I said, the conversations we had last night, instead of matching the whole project, they might rather just fund three projects at $81 million and say, that's it, I'm done, because they don't want to deal with it themselves for five years, so we are working through those obligations. We just don't have the budget yet.

LEGISLATOR DERIGGI-WHITTON: That

would be good just to have in the budget eventually how it's matched. It would make me feel better.

Just with the FEMA with the other part of Sandy, and you don't have to answer this now, but what percentage did we get back from the $200 million?

CHIEF DEPUTY WALKER: So, right now, we spent about $150 million in operations. We have received back I think as of now obligated 140. What we have actually received back, I'm not sure, but we actually have more PWs been added to the system as we speak. We received up to 90 percent share of all the documents and we have been receiving -- actually, we are very happy where we are.

LEGISLATOR DERIGGI-WHITTON: Could you send me that as well?

CHIEF DEPUTY WALKER: Yes.

LEGISLATOR DERIGGI-WHITTON: I get asked sometimes. We always say, hopefully, and now we are about 18 months out.

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CHIEF DEPUTY WALKER: If you could wait until, if you don't mind, just give me another two weeks because some of those other ones are coming online now that are being obligation. They are in the final congressional cue.

LEGISLATOR DERIGGI-WHITTON: Okay. Again, I would just, you know, because we should, by 18 months, I know with Irene we had about, we thought 90 percent or whatever percentage we ended up getting --

CHIEF DEPUTY WALKER: We actually got 100 percent in Irene.

LEGISLATOR DERIGGI-WHITTON: Right. But I'm just saying, by 18 months, we had a good amount.

CHIEF DEPUTY WALKER: Yes.

LEGISLATOR DERIGGI-WHITTON: One last question, I know you said that all the contracts were like PAL contracts --

CHIEF DEPUTY WALKER: PLA.

LEGISLATOR DERIGGI-WHITTON: PLA?

CHIEF DEPUTY WALKER: Yes. Project Labor Agreements.

LEGISLATOR DERIGGI-WHITTON: So there's no work orders with this, correct?

CHIEF DEPUTY WALKER: No. It's all actually public bid on the county website with these jobs because they're so big it's a project labor agreement. It goes out to bid. A project labor agreement is with the Nassau Suffolk Building Trades and it goes out to bid as a public work document and complies with all the federal state regulations and then it goes to the legislature for approval.

LEGISLATOR DERIGGI-WHITTON: So I just want to close and say, I'm glad we're having the hearings. It might seem arduous but I think it's keeping us on track at least. I know I feel better.

Maybe one last question, Rob. The $400 million we bonded in '09, do you know -- I know we had different numbers as to how much of that still remains.

CHIEF DEPUTY WALKER: The last time we went through this, and I wish I found the notes, there's roughly about $20

million that was available to be authorized to use in a project.

A lot of those projects that go back when they talk about that $400 million number, like I said two projects were pelletization plants that no one ever wanted to do pelletization plant at Bay Park and Cedar Creek. I think that was over $130 million. I remember, it was like 76, or might have been $150 million, whatever the case may be.

The gentleman that put that report together, Chris Yansik, I know I saw him earlier, who's done a great job managing the capital program for the county for as long as he's been here. Basically $20 million available to be used and we're going to use it for some other projects -- you can only use it for specific projects at Bay Park, Cedar Creek or Glen Cove. And that's where the money will go.

LEGISLATOR DERIGGI-WHITTON: So just so I have it clear, out of the $400 million, you think it's only $20 million

used?

CHIEF DEPUTY WALKER: I think 20 or 18.

LEGISLATOR DERIGGI-WHITTON: So about less than ten percent?

CHIEF DEPUTY WALKER: Am I close, Chris, yes. I actually have somewhat of a memory sometimes.

One more thing. When you said you will never get Cedar Park and those sewage treatment plants down to two percent sulfite, or --

CHIEF DEPUTY WALKER: No, you can. It's not -- if you decided to do this and this legislature said, money is not an option, you can spend billions of dollars, and you're going to lose the park.

LEGISLATOR DERIGGI-WHITTON: Right. Let me just ask you one more quick question. The north shore, are they pretty much in that range, like around two percent?

CHIEF DEPUTY WALKER: I think they're already at four or five. We operate now much higher in -- the numbers aren't

even close. The numbers are at 20s compared to being four or five.

LEGISLATOR DERIGGI-WHITTON: Why do you think that is? What is the difference between the north shore, and -- other than the fact that it's an ocean, I understand that, but is it volume or why do you think there is such a discrepancy between the two?

CHIEF DEPUTY WALKER: I guess it's the level of treatment that that facility had in place and there were different standards then than there was in the western bays. The western bays didn't have certain standards that they're now adopting to and moving to. So everything is treated differently. Obviously the cost of treating 50 MGDs compared to treating five, 10, or 15, obviously there's a difference. But that's pretty much is it.

LEGISLATOR DERIGGI-WHITTON: Right. Thank you.

CHAIRMAN MUSCARELLA: Ms. Bynoe, I understand you had some questions but

they've been answered; is that correct?

LEGISLATOR BYNOE: Yes.

CHAIRMAN MUSCARELLA: Having run this thing, I have two questions, you indicated before that the digester clean-out project was behind. Very quickly, was there a reason for that?

CHIEF DEPUTY WALKER: Just the weather, really, 72 days, the winter weather.

CHAIRMAN MUSCARELLA: When you talk about speeding it up, how does that happen, do they put more manpower on?

MR. DeNICOLA: Exactly. We talk about, any time we lose time on a construction project we talk about recovery, so it would be either manpower, extra shifts, or a re-sequence, and that's what -- we want to maintain the schedule. That's what we are dealing with now.

CHAIRMAN MUSCARELLA: Madam Presiding Officer, do you have anything?

PRESIDING OFFICER GONSALVES: Yes, I do. First of all, thank you,

Legislator Muscarella, for moving the hearing along so smoothly, thank you, Mr. Walker, for your wealth of knowledge and in sharing that with us today, and Hazen and Sawyer, Michael and Peter, and, of course, Commissioner Shah and her staff.

I don't want to belabor the point because I think that the purpose of the meeting today was met. A great deal of information has been shared and many worthwhile questions have been answered.

Now it's time to hear from the public. I know they have been sitting here very patiently. I'm glad because, at 5 o'clock, this was going to be over and I didn't have to recess it.

So, I have in front of me Richard Kopsco.

MR. KOPSCO: My name is Richard Kopsco. I'm representing the South Shore Audubon Society.

PRESIDING OFFICER GONSALVES: Welcome, Mr. Kopsco.

MR. KOPSCO: South Shore

Audubon's position on the proposed ocean outfall pipe of the Bay Park Sewage Treatment Plant.

It is indeed necessary that the problems to our environment related to the Bay Park Sewage Treatment Plant is solved, for no one can deny that the pollution released by the plant damages our bays. Proper functioning of the facility is crucial in that more than 50 million gallons of treated sewage created by roughly a half million Long Islanders daily are released from the plant into our western bays.

It is crucial that money be provided to repair this facility. However, obtaining additional funds and building an ocean outflow pipe might not be the best solution to this important environmental issue.

Is the solution to pollution really dilution? Before we rush to the ocean, this and many other questions need to be considered. An outflow pipe will transfer treated sewage directly to the

ocean which is also vulnerable to additional pollution and excessive nitrogen loadings. It may itself be subject to harmful algal blooms and an increase of nuisance species such as stinging jelly fish.

Chlorine and pharmaceutical products not completely removed from the sewage will adversely affect marine life.

In addition to the environmental harm, the pollution from the pipe could prohibit recreational use of our coastal waters. Beaches might be closed. If the ocean outflow pipe is added to the Bay Park infrastructure, millions of gallons of treated fresh water will bypass the bays and flow directly into the ocean. But the impacts known of moving an outfall pipe which is dependable source of fresh water from the bay to the ocean.

There is some evidence, for example, that the ecology of Barnegat Bay in Ocean County, New Jersey may have been adversely affected by the re-routing of sewage outfalls from the bay to the ocean.

Before hundreds of millions of dollars are spent on an ocean outflow pipe here in Nassau County, alternatives should be studied and discussed.

Land application of treated wastewater might be a solution to our sewage disposal at Bay Park. It should be considered as a possible alternative. The impact of any outflow pipe on marine and coastal environments should also be studied in detail before approving it.

Bay Park should be repaired and upgraded, but the repairs and upgrade should provide a permanent solution to the problem not just push the problem out to sea. Jim Brown, President, South Shore Audubon Society. Thank you.

PRESIDING OFFICER GONSALVES: Thank you, Mr. Kopsco. Eric Alexander.

MR. ALEXANDER: Presiding Officer, members of the legislature, it's excellent that you're having this hearing. Again, kudos to Nassau officials for securing the largest infrastructure projects

in Long Island's history.

I should say, I'm Eric Alexander, executive director, Vision Long Island. We are on the Bay Park Oversight Committee and we do get to see the monthly updates or every other month that we get the reports that show the progress of this project.

We have been able to tour the plant and see firsthand the electrical needs, the needs of the berm, the de-watering, and what we hear from the public constantly is we do some Sandy work, the need in the community, the victims in East Rockaway, and the impacts that they've had to face. So we're glad that the county is unified on this, again, the largest infrastructure project in Long Island's history. I keep saying that because it blows my mind.

We did have the opportunity to hear from Mike DeNicola, spoke to our Long Island Smart Growth Working Group where there are a number of engineers on that committee, and they have verified that the

approach that is being made in implementing this project is competent and folks are very excited about this project moving forward for Long Island.

Our organization does support an outfall pipe. We were at that press conference on the steps with some of you and, certainly, Legislator Denenberg was there and Mangano was there, and that's something that we want to continue to provide advocacy for.

So, again, this review committee has some folks much smarter than me, Rob Weldner, Operation Splash, and other folks that are watching this progress and there should be oversight.

Having said that, we don't want oversight to get in the way of really good collaborative governance. We would just hope that all information is shared and that everybody moves forward together.

We would just want to say that Cedar Creek and Barnes Avenue, in particular, moving those forward,

particularly Barnes Avenue, because the Hempstead Renaissance Development Project is something we care deeply about, is something that needs the tax revenue and the academic impacts and there are housing projects online.

So, again, I just end it at this and say I'm thankful that questions are getting answered on both sides, but, more importantly, we're thankful that the county has had problems in the past in securing federal funds, and we don't have to get into all the details on that in past years, but here you're showing a unified effort that you can secure these funds and it's going to be very important moving forward for the health, safety, and economic vitality for this county. I just want to say great job.

PRESIDING OFFICER GONSALVES: Thank you, Mr. Alexander. Next speaker is Maureen Murphy.

MS. MURPHY: Thank you. Maureen Murphy with Citizens Campaign for the Environment.

So, thank you for this opportunity to speak today. We are thankful that Nassau County has worked to secure $830 million for plant repairs and storm protection measures.

Right now, we have a rare opportunity to turn an antiquated problem plant into a model sewage treatment plant.

But, one more piece of this puzzle is needed, and that's ocean outfall with denitrification. The addition of the ocean outfall pipe, combined with denitrification technology will protect residents against future catastrophic sewage overflows, help bring back the sensitive bays, and serve as a regional model for sewage treatment plants, and how they should operate.

We are asking that this remain a priority and for you to continue to work to secure the necessary funds to make it happen.

The science shows us that denitrification combined with an ocean

outfall pipe is needed to protect the environment and public health.

Since 2008, over $1.64 million in state and federal money has been spent on studies documenting impacts to the western bays ecosystem. These studies disclose high levels of ammonia and nitrates and concluded that 95 percent of the total nitrogen in the western bays originates from the Long Beach city and the Bay Park Sewage Treatment Plants. Over 85 percent of that nitrogen comes directly from Bay Park.

The studies proved unequivocally our bays are dying and the location of the Bay Park outfall pipe is indeed the reason. This excessive nitrogen is causing low dissolved oxygen, harmful algal blooms, excessive seaweed growth, which resulted in the Town of Hempstead plowing the beaches last summer to remove the seaweed from the ocean beaches and the degradation of wet lands.

An upgraded repair plant is not enough to protect human health and the

environment. An ocean outfall pipe combined with the reduction of nitrogen is needed.

This is a once in a lifetime opportunity that will never present itself again. The choice is clear, we keep killing the bays, or we take action to save the bays. Killing the bay versus saving the bay, seems pretty clear.

The DEC agrees, EPA agrees, the county agrees, and the public supports it. We need an ocean outfall pipe with denitrification. So let's get it done. Thanks.

PRESIDING OFFICER GONSALVES: Thank you, Ms. Murphy. Next speaker is Peter Swanson.

MR. SWANSON: Good afternoon.

PRESIDING OFFICER GONSALVES: Good afternoon, Mr. Swanson.

MR. SWANSON: I'm a resident of Garfield Place. So I'm kind of representing a little bit of Garfield Place in East Rockaway. We are about two minutes from the plant.

Ever since Sandy, we've known many people in our community that have had to deal with sewer in their basement and I won't go on with that. But I tried to find out what I could about sewer treatment plants.

First of all, I would like to ask if there is someone, if you can be an ordinary citizen like me and get a tour the plant, is that possible? I will just leave it out there. I would really like a tour the plant.

I would like to ask one question about sludge. Is sludge still being trucked to Cedar Creek? Can anybody answer that?

PRESIDING OFFICER GONSALVES: Mr. Davenport.

MR. DAVENPORT: No, there is no sludge being trucked from Bay Park to Cedar Creek, no.

MR. SWANSON: There's not anymore, okay. Have you got a cut-off date on when the generators are going to be turned off?

MR. DAVENPORT: As we talked through the capital projects, we have a generator controls rehabilitation project underway now. We expect by the middle of this summer to have two of our generators ready for operation, we'll go back on to those generators. The Aggrekos, the temporary generators will be turned off at that point.

MR. SWANSON: So, like, at the end of the summer?

MR. DAVENPORT: We are hoping mid-summer, July, August.

MR. SWANSON: Good. Okay. Thank you.

MR. DAVENPORT: And just to be clear, the Aggreko units will remain as a backup as an emergency, but they won't be operating.

MR. SWANSON: Will they still be operating on diesel or all on natural gas now?

MR. DAVENPORT: Our in-house generators operate primarily on natural gas

and digester gas.

MR. SWANSON: Will that be raised also in the final project?

MR. DAVENPORT: No. We are building the berm around the plant to protect that facility but we're also -- it's not possible to raise those generators in their current position. We are going to harden that building to protect them but, as part of the future electrical upgrade phase, we are going to install new generators at a higher elevation.

MR. SWANSON: Okay. That's basically what I wanted to ask. Thank you very much.

PRESIDING OFFICER GONSALVES: Thank you, Mr. Swanson. Glenn Torres? Left or something. John Budnick.

MR. BUDNICK: Good afternoon. My compliments to all the members of the legislature as well as the outstanding county officials who obviously working their you-know-whats off to have to get this done.

I have a couple of comments.

First of all, has there been any consideration of a remote site for trucks in the future that would be normally dropping off effluent at the Bay Park plant at an off-site location, perhaps one of the off-site pumping areas, to get it into the pump without all these trucks having to go through the Bay Park community?

Number two, is there any consideration being given to monitoring the material that comes into the plant chemically so that we can make sure that it is not going to create a negative impact on the workings of the plant? Have chemical monitors in the incoming area to make sure if it will have a negative effect on the workings of the plant, that the plant operators know about it and hopefully know how to correct it?

Is there consideration of the ocean outfall being branched to try to mitigate its effect in any particular location of the material that's being pumped out there?

Another thing I want to point out, if we are going to be taking over part of the Bay Park area, that is to say the surrounding park around the sewage treatment plant, to be added into the plant, or used as parking, you must recall it under the State Parks Trust Doctrine, we must get permission from the state legislature for any change of the usage of that property from a parkland to a non-parkland. That's mandatory.

I was wondering if there has been any consideration of there being an exhaust system in addition to the currently contemplated odor control that would flow through an activated charcoal grid to try to minimize any negative material going out into the community?

It also appears that there's a need for an enforcement program to eliminate the effect of illegal hookups which was one of the problems found in Sandy. I don't know how that's going to be created, but is there some contemplation about that?

Also, I understand that in Sandy there were two other additional problems in that the ground water around the Bay Park Plant needed to be de-watered or something and there was no facility or system for that, is that perhaps being contemplated?

I also understand there were problems in some of the laterals or other pipings --

CLERK MULLER: Mr. Budnick, your three minutes have expired.

MR. BUDNICK: And is any consideration being given to a ceiling program for any such leakage? Thank you very much.

PRESIDING OFFICER GONSALVES: Thank you, Mr. Budnick.

MR. BUDNICK: God bless you.

PRESIDING OFFICER GONSALVES: God bless you. Claudia Borecky.

MS. BORECKY: I sit on the county's Hurricane Sandy Sewage Treatment Advisory Committee and I'm a founder of the Coalition of Nassau Civic Associations,

which is an association of civics representing thousands of Nassau residents, an offshoot of an organization originally formed to address the attempt to privatize our sewage treatment plant.

Before that I was on the Sludge Stoppers, a group formed by Legislator Denenberg to stop sewage that was spilling into Reynolds Channel back in 2010.

But I'm going to address what we're concerned about today. Basically, I understand that these projects are for Bay Park, the pump stations, and Barnes Avenue, correct? That's what those three areas are supposed to cover? I don't see any project in here for Barnes Avenue. Is there a reason why?

MR. DAVENPORT: Barnes Avenue is one of the projects that is part of our program. I don't know what you are looking at that you don't see it.

MS. BORECKY: I was looking at the phase one, and I don't know, when we normally have our meeting, there was no

Barnes Avenue projects mentioned.

MR. DAVENPORT: Yes. We have project.

MS. BORECKY: When does that start?

MR. DAVENPORT: We have selected a designer, Deputy County Executive Walker mentioned Cameron Engineering. We would expect the April 7th Rules Committee meeting that that agreement would appear before them. We would start work shortly after that, assuming their approval. We have a six month design schedule, so by the end of this year we would expect to bid plans and specifications for construction improvements.

MS. BORECKY: Because I didn't see it listed or any figures put to it. So I didn't see anything like that.

I also was concerned money-wise. But, first of all, Hazen and Sawyer, they are responsible for just the Sandy recovery projects, or are they managing also --

PRESIDING OFFICER GONSALVES:

Hold on. Other speakers had several questions. They are noted by the court reporter here. So, just ask your questions and, if need be, we will address them to you in writing. This is not the time. This is not a question and answer period.

MS. BORECKY: This is a public hearing.

PRESIDING OFFICER GONSALVES: This is not a question and answer period.

MS. BORECKY: So I will just state our concerns that several members in our coalition are concerned about.

PRESIDING OFFICER GONSALVES: Very good.

MS. BORECKY: 540,000 Nassau County users send their wastewater to Bay Park. The average customer uses 140 gallons of water a day which equals 75,600,000 gallons of water consumed every day.

Yet, we have heard numbers like 68 million gallons per day of effluent is put into Reynolds Channel. We know that 65 million gallons a day of sewage was put in

the channel every day for 45 days after Sandy.

What I'm concerned about is, we are all talking about an outfall pipe and we're talking about, to do that, we are going to need to take in Long Beach sewage as well.

In building up this plant, that obviously couldn't take the sewage that it was taking, it was backing up in Baldwin, is it being built to be able to hold this extra sewage from Long Beach and other --

CLERK MULLER: Ms. Borecky, your three minutes have expired.

MS. BORECKY: All right. And I hope to get an answer to my questions. I just want to thank Dave Denenberg for pushing for this and making sure that Cedar Creek is taken care of as well. Thank you.

PRESIDING OFFICER GONSALVES: A motion to adjourn.

LEGISLATOR DUNNE: So moved.

PRESIDING OFFICER GONSALVES: Motion by Legislator Dunne, and seconded

by -- actually I'm adjourning when I don't need to adjourn.

(Whereupon, the Full Legislative Committee on Sandy Recovery Operations and Capital Budget Projects relating to the Bay Park Sewage Treatment Plant at Bay Park concluded at 5:01 P.M.)

C E R T I F I C A T E

I, FRANK GRAY, a Shorthand Reporter and Notary Public in and for the State of New York, do hereby stated:

THAT I attended at the time and place above mentioned and took stenographic record of the proceedings in the above-entitled matter;

THAT the foregoing transcript is a true and accurate transcript of the same and the whole thereof, according to the best of my ability and belief.

IN WITNESS WHEREOF, I have hereunto set my hand this 31st day of March,2014.

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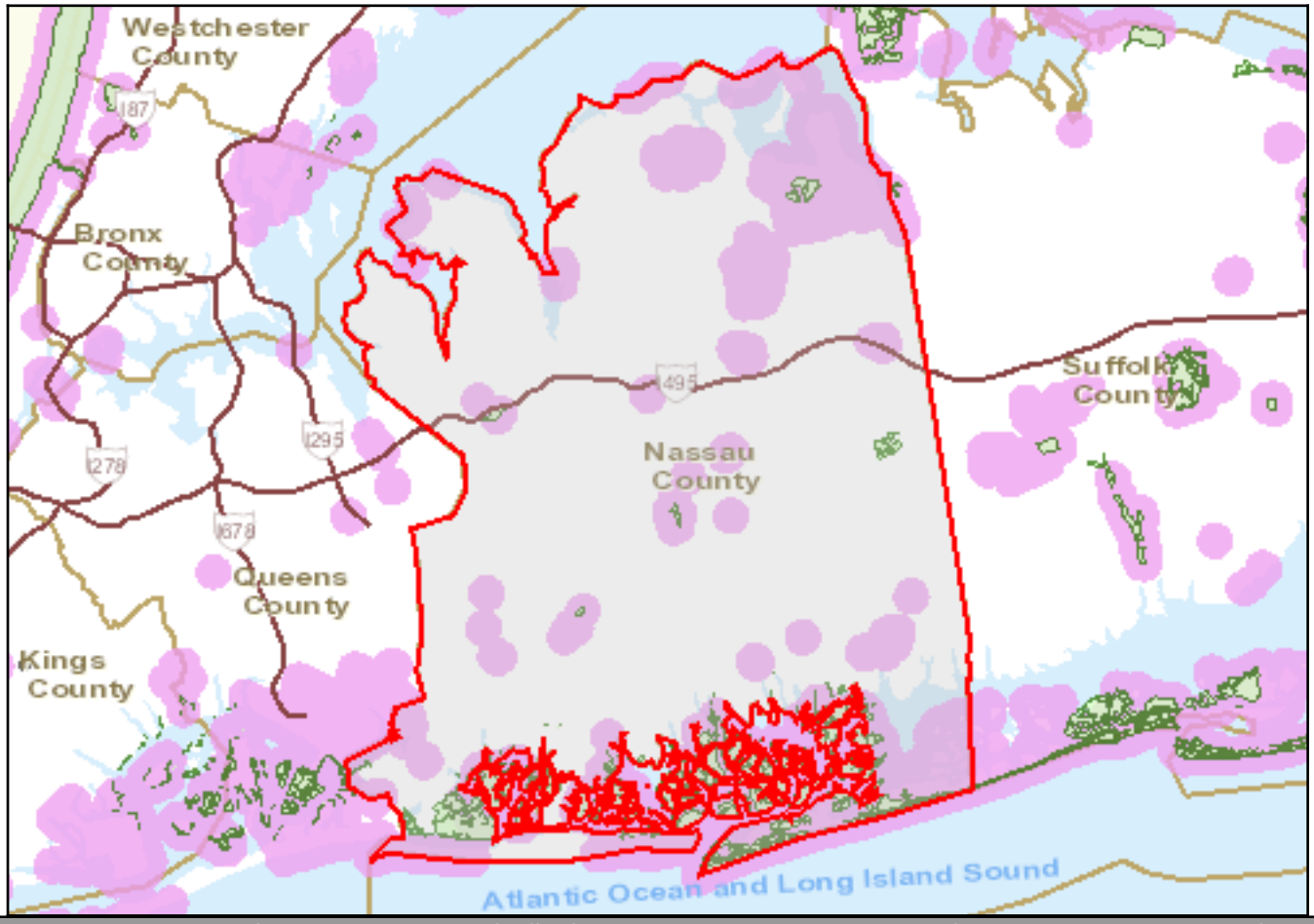
FRANK GRAY

Appendix Document G
Plant Survey List

New York Nature Explorer

Nassau County - Plants

Criteria: County: Nassau; Plant Group: Flowering Plants, Conifers, Ferns and Fern Allies, Mosses, Other Plants



Common Name	Subgroup	Distribution Status	Year Last Documente	Protection Status State	Protection Status Federal	Conservation Rank State	Conservation Rank Global
County: Nassau							
Plant: Flowering Plants							
Algae-like Pondweed *Potamogeton confervoides*	Other Flowering Plants	Historically Confirmed		Rare		S3	G4
American Bittersweet *Celastrus scandens*	Other Flowering Plants	Historically Confirmed		Rare		S3	G5
American Ipecac *Euphorbia ipecacuanhae*	Other Flowering Plants	Recently Confirmed		Endangered		S1	G5

New York Nature Explorer

Common Name	Subgroup	Distribution Status	Year Last Documente	Protection Status		Conservation Rank	
				State	Federal	State	Global
American Strawberry-bush *Euonymus americanus*	Other Flowering Plants	Recently Confirmed	1992	Endangered		S1	G5
Barratt's Sedge *Carex barrattii*	Sedges	Recently Confirmed	1992	Endangered		S1	G4
Bayard's Adder's-mouth Orchid *Malaxis bayardii*	Orchids	Historically Confirmed		Endangered		S1	G1G2
Bead Pinweed *Lechea pulchella var. moniliformis*	Other Flowering Plants	Recently Confirmed	1987	Endangered		S1	G5T4
Bent Sedge *Carex styloflexa*	Sedges	Historically Confirmed	1930	Endangered		S1	G4G5
Bicknell's Sedge *Carex bicknellii*	Sedges	Historically Confirmed		Rare		S3	G5T5
Bird's-foot Violet *Viola pedata*	Other Flowering Plants	Historically Confirmed		Rare		S3	G5
Black-edge Sedge *Carex nigromarginata*	Sedges	Historically Confirmed		Threatened		S2	G5
Blackjack Oak *Quercus marilandica var. marilandica*	Other Flowering Plants	Recently Confirmed		Rare		S3	G5T4T5
Brown Bog Sedge *Carex buxbaumii*	Sedges	Historically Confirmed	1904	Threatened		S2	G5
Bushy Rockrose *Crocanthemum dumosum*	Other Flowering Plants	Recently Confirmed	2003	Threatened		S2	G3
Bushy St. John's-wort *Hypericum densiflorum*	Other Flowering Plants	Recently Confirmed	2000	Endangered		S1	G5
Butternut *Juglans cinerea*	Other Flowering Plants	Historically Confirmed				S4	G4
Button Sedge *Carex bullata*	Sedges	Recently Confirmed	1986	Endangered		S1	G5
Button-bush Dodder *Cuscuta cephalanthi*	Other Flowering Plants	Historically Confirmed		Endangered		S1	G5
Carolina Sedge *Carex caroliniana*	Sedges	Possible but not Confirmed		Endangered		SH	G5

New York Nature Explorer

Common Name	Subgroup	Distribution Status	Year Last Documente	Protection Status		Conservation Rank	
				State	Federal	State	Global
Coast Flatsedge *Cyperus polystachyos var. texensis*	Sedges	Historically Confirmed		Endangered		S1S2	G5T5
Coast Violet *Viola brittoniana*	Other Flowering Plants	Extirpated	1925	Endangered		S1	G4G5
Coastal Goldenrod *Solidago latissimifolia*	Asters, Goldenrods and Daisies	Historically Confirmed	1928	Endangered		S1	G5
Collins' Sedge *Carex collinsii*	Sedges	Historically Confirmed	1927	Endangered		S1	G4
Comb-leaved Mermaid-weed *Proserpinaca pectinata*	Other Flowering Plants	Extirpated		Threatened		S2	G5
Creeping St. John's-wort *Hypericum adpressum*	Other Flowering Plants	Extirpated	1928	Threatened		S2	G3
Crested Fringed Orchis *Platanthera cristata*	Orchids	Extirpated	1950	Endangered		S1	G5
Cross-leaf Milkwort *Polygala cruciata var. aquilonia*	Other Flowering Plants	Historically Confirmed		Rare		S3?	G5T4
Culver's-root *Veronicastrum virginicum*	Other Flowering Plants	Historically Confirmed		Threatened		S2	G4
Curly-heads *Clematis ochroleuca*	Other Flowering Plants	Possible but not Confirmed				SX	G4
Cut-leaved Evening-primrose *Oenothera laciniata*	Other Flowering Plants	Historically Confirmed	1910	Endangered		S1	G5
Dark-green sedge *Carex venusta*	Sedges	Historically Confirmed		Endangered		S1	G4
Downy Lettuce *Lactuca hirsuta*	Asters, Goldenrods and Daisies	Historically Confirmed	1906	Endangered		S1	G5?
Dragon's Mouth Orchid *Arethusa bulbosa*	Orchids	Historically Confirmed		Threatened		S2	G4
Dune Sandspur *Cenchrus tribuloides*	Grasses	Recently Confirmed	2011	Threatened		S2	G5
Dwarf Glasswort *Salicornia bigelovii*	Other Flowering Plants	Recently Confirmed	2011	Threatened		S2S3	G5

New York Nature Explorer

Common Name	Subgroup	Distribution Status	Year Last Documente	Protection Status		Conservation Rank	
				State	Federal	State	Global
Dwarf Umbrella-sedge *Fuirena pumila*	Sedges	Recently Confirmed		Rare		S3	G4
Early Frostweed *Crocanthemum propinquum*	Other Flowering Plants	Recently Confirmed	2010	Threatened		S2S3	G4
Eastern Grasswort *Lilaeopsis chinensis*	Other Flowering Plants	Historically Confirmed		Threatened		S2	G5
Emmons' Sedge *Carex albicans var. emmonsii*	Sedges	Historically Confirmed		Rare		S3	G5T5
Engelmann's Spikerush *Eleocharis engelmannii*	Sedges	Historically Confirmed		Endangered		S1	G4G5
Erect Knotweed *Polygonum erectum*	Other Flowering Plants	Historically Confirmed				S2S3	G5
False China-root *Smilax pseudochina*	Other Flowering Plants	Recently Confirmed	1992	Endangered		S1	G4G5
False Lettuce *Lactuca floridana*	Asters, Goldenrods and Daisies	Historically Confirmed	1924	Endangered		S1	G5
Fascicled False Foxglove *Agalinis fasciculata*	Other Flowering Plants	Recently Confirmed		Rare		S3	G5
Featherfoil *Hottonia inflata*	Other Flowering Plants	Historically Confirmed	1921	Threatened		S2	G4
Few-flowered Nutrush *Scleria pauciflora var. caroliniana*	Sedges	Recently Confirmed	1997	Endangered		S1	G5T4T5
Fibrous Bladderwort *Utricularia striata*	Other Flowering Plants	Possible but not Confirmed		Threatened		S2	G4G5
Five-angled Field-dodder *Cuscuta pentagona*	Other Flowering Plants	Recently Confirmed		Rare		S3	G4G5
Flax-leaf Whitetop *Sericocarpus linifolius*	Asters, Goldenrods and Daisies	Recently Confirmed	1997	Threatened		S2	G5
Fly-poison *Amianthium muscaetoxicum*	Other Flowering Plants	Extirpated	1926			SX	G4G5
Fringed Boneset *Eupatorium torreyanum*	Asters, Goldenrods and Daisies	Recently Confirmed	2001	Threatened		S2	G5T4T5

New York Nature Explorer

Common Name	Subgroup	Distribution Status	Year Last Documente	Protection Status		Conservation Rank	
				State	Federal	State	Global
Georgia Bulrush *Scirpus georgianus*	Sedges	Recently Confirmed	2006	Endangered		S1	G5
Glaucous Rattlesnake-root *Prenanthes racemosa var. racemosa*	Asters, Goldenrods and Daisies	Extirpated	1909			SX	G5T4
Globe-fruited Ludwigia *Ludwigia sphaerocarpa*	Other Flowering Plants	Recently Confirmed	2004	Threatened		S2	G5
Golden Club *Orontium aquaticum*	Other Flowering Plants	Historically Confirmed		Threatened		S2	G5
Golden Corydalis *Corydalis aurea*	Other Flowering Plants	Historically Confirmed		Threatened		S2	G5
Golden Dock *Rumex fueginus*	Other Flowering Plants	Recently Confirmed	1992	Endangered		S1	G5T4T5
Green Milkweed *Asclepias viridiflora*	Other Flowering Plants	Recently Confirmed	2010	Threatened		S2	G5
Green Parrot's-feather *Myriophyllum pinnatum*	Other Flowering Plants	Historically Confirmed	1903	Endangered		S1	G5
Gypsy-wort *Lycopus rubellus*	Other Flowering Plants	Historically Confirmed		Endangered		S1	G5
Hairy Fimbry *Fimbristylis puberula var. puberula*	Sedges	Extirpated	1924			SX	G5T5
Hairy Skullcap *Scutellaria elliptica var. elliptica*	Other Flowering Plants	Extirpated	1905			SX	G5T5
Heart Sorrel *Rumex hastatulus*	Other Flowering Plants	Historically Confirmed	1914	Endangered		SH	G5
Hiddenfruit Bladderwort *Utricularia geminiscapa*	Other Flowering Plants	Possible but not Confirmed		Rare		S3	G4G5
Hyssop-skullcap *Scutellaria integrifolia*	Other Flowering Plants	Historically Confirmed	1929	Endangered		S1	G5
Illinois Pinweed *Lechea racemulosa*	Other Flowering Plants	Recently Confirmed		Rare		S3	G5
Knotted Spikerush *Eleocharis equisetoides*	Sedges	Extirpated		Threatened		S2	G4

New York Nature Explorer

Common Name	Subgroup	Distribution Status	Year Last Documente	Protection Status		Conservation Rank	
				State	Federal	State	Global
Large Calyx Goosefoot *Chenopodium berlandieri var. macrocalycium*	Other Flowering Plants	Historically Confirmed		Endangered		S1S2	G5T4
Large Grass-leaved Rush *Juncus biflorus*	Rushes	Recently Confirmed		Endangered		S1	G5
Large Marsh-pink *Sabatia dodecandra var. dodecandra*	Other Flowering Plants	Extirpated	1905			SX	G5?T4T5
Large Twayblade *Liparis liliifolia*	Orchids	Possible but not Confirmed		Endangered		S1	G5
Large Yellow-eyed-grass *Xyris smalliana*	Other Flowering Plants	Extirpated		Threatened		S2	G5
Little-leaf Tick-trefoil *Desmodium ciliare*	Other Flowering Plants	Recently Confirmed	1997	Threatened		S2S3	G5
Long-tubercled Spikerush *Eleocharis tuberculosa*	Sedges	Historically Confirmed		Threatened		S2	G5
Low Nutrush *Scleria verticillata*	Sedges	Historically Confirmed		Endangered		S1	G5
Lowland Yellow Loosestrife *Lysimachia hybrida*	Other Flowering Plants	Historically Confirmed		Endangered		S1	G5
Marsh Straw Sedge *Carex hormathodes*	Sedges	Recently Confirmed	2001	Threatened		S2S3	G4G5
Mexican Seaside Goldenrod *Solidago sempervirens var. mexicana*	Asters, Goldenrods and Daisies	Historically Confirmed		Endangered		S1	G5T5?
Midland Sedge *Carex mesochorea*	Sedges	Recently Confirmed	1985	Threatened		S2	G4G5
Mitchell's Sedge *Carex mitchelliana*	Sedges	Recently Confirmed	1992	Endangered		S1S2	G4
Mock Bishop's-weed *Ptilimnium capillaceum*	Other Flowering Plants	Historically Confirmed		Rare		S3	G5
Muhlenberg's Sedge *Carex muehlenbergii var. enervis*	Sedges	Historically Confirmed		Rare		S3	G5T5
Narrow-leaf Feverwort *Triosteum angustifolium*	Other Flowering Plants	Historically Confirmed	1929			SX	G5

New York Nature Explorer

Common Name	Subgroup	Distribution Status	Year Last Documente	Protection Status		Conservation Rank	
				State	Federal	State	Global
Narrow-leaf Sea-blite *Suaeda linearis*	Other Flowering Plants	Historically Confirmed		Endangered		S1	G5
Narrow-leaved Bush-clover *Lespedeza angustifolia*	Other Flowering Plants	Recently Confirmed	1992	Threatened		S2	G5
Narrow-leaved Sedge *Carex amphibola*	Sedges	Historically Confirmed		Endangered		S1	G5
Northern Blazing-star *Liatris scariosa var. novae-angliae*	Asters, Goldenrods and Daisies	Historically Confirmed		Threatened		S2	G5?T3
Northern Bog Aster *Symphyotrichum boreale*	Asters, Goldenrods and Daisies	Historically Confirmed	1865	Threatened		S2	G5
Northern Dwarf Huckleberry *Gaylussacia bigeloviana*	Other Flowering Plants	Historically Confirmed		Endangered		S1S2	G5T4T5
Northern Gama Grass *Tripsacum dactyloides*	Grasses	Recently Confirmed		Threatened		S2	G5
Nuttall's Lobelia *Lobelia nuttallii*	Other Flowering Plants	Extirpated		Rare		S3	G4G5
Nuttall's Milkwort *Polygala nuttallii*	Other Flowering Plants	Recently Confirmed		Threatened		S2	G5
Oakes' Evening-primrose *Oenothera oakesiana*	Other Flowering Plants	Recently Confirmed	2011	Threatened		S2	G4G5Q
Orange Fringed Orchid *Platanthera ciliaris*	Orchids	Historically Confirmed	1934	Endangered		S1	G5
Orange Milkwort *Polygala lutea*	Other Flowering Plants	Possible but not Confirmed	1916	Endangered		S1	G5
Ovate Spikerush *Eleocharis ovata*	Sedges	Recently Confirmed		Endangered		S1S2	G5
Pale Duckweed *Lemna valdiviana*	Other Flowering Plants	Recently Confirmed	2004	Endangered		S1	G5
Pencil-flower *Stylosanthes biflora*	Other Flowering Plants	Extirpated	1886			SX	G5
Persimmon *Diospyros virginiana*	Other Flowering Plants	Recently Confirmed	2005	Threatened		S2	G5

New York Nature Explorer

Common Name	Subgroup	Distribution Status	Year Last Documente	Protection Status		Conservation Rank	
				State	Federal	State	Global
Pickering's Reedgrass *Calamagrostis pickeringii*	Grasses	Recently Confirmed		Rare		S3	G4
Pinebarren Death Camas *Stenanthium leimanthoides*	Other Flowering Plants	Historically Confirmed	1950			SX	G4Q
Pink Milkwort *Polygala incarnata*	Other Flowering Plants	Extirpated	1936			SX	G5
Pink Wild Bean *Strophostyles umbellata*	Other Flowering Plants	Historically Confirmed	1904	Endangered		S1	G5
Possum-haw *Viburnum nudum var. nudum*	Other Flowering Plants	Historically Confirmed		Endangered		S1	G5T5
Prairie Wedgegrass *Sphenopholis obtusata*	Grasses	Historically Confirmed	1926	Endangered		S1	G5
Primrose-leaf Violet *Viola primulifolia*	Other Flowering Plants	Recently Confirmed		Threatened		S2	G5
Purple Milkweed *Asclepias purpurascens*	Other Flowering Plants	Recently Confirmed		Threatened		S2S3	G5?
Rattlebox *Crotalaria sagittalis*	Other Flowering Plants	Recently Confirmed	1991	Endangered		S1	G5
Red Milkweed *Asclepias rubra*	Other Flowering Plants	Possible but not Confirmed	1911			SX	G4G5
Red Pigweed *Chenopodium rubrum*	Other Flowering Plants	Recently Confirmed	1992	Threatened		S2	G5
Red-rooted Flatsedge *Cyperus erythrorhizos*	Sedges	Recently Confirmed		Rare		S3	G5
Reflexed Sedge *Carex retroflexa*	Sedges	Historically Confirmed		Threatened		S2S3	G5
Reticulate Nutrush *Scleria muehlenbergii*	Sedges	Historically Confirmed		Endangered		S1	G5
Reticulated Nutrush *Scleria reticularis*	Sedges	Extirpated		Rare		S3	G4
Retrorse Flatsedge *Cyperus retrorsus var. retrorsus*	Sedges	Recently Confirmed	2003	Endangered		S1	G5T5

New York Nature Explorer

Common Name	Subgroup	Distribution Status	Year Last Documente	Protection Status		Conservation Rank	
				State	Federal	State	Global
Roland's Sea-blite *Suaeda rolandii*	Other Flowering Plants	Historically Confirmed		Endangered		S1	G1G2
Rose Coreopsis *Coreopsis rosea*	Asters, Goldenrods and Daisies	Extirpated		Rare		S3	G3
Rough Avens *Geum virginianum*	Other Flowering Plants	Extirpated		Threatened		S2	G5
Rough Hedge-nettle *Stachys hyssopifolia*	Other Flowering Plants	Historically Confirmed		Threatened		S2	G4G5
Rough Panic Grass *Dichanthelium scabriusculum*	Grasses	Historically Confirmed		Endangered		SH	G4
Rough Rush-grass *Sporobolus clandestinus*	Grasses	Historically Confirmed	1925	Endangered		S1	G5
Round-leaf Boneset *Eupatorium rotundifolium*	Asters, Goldenrods and Daisies	Historically Confirmed		Endangered		SH	G5
Rush Bladderwort *Utricularia juncea*	Other Flowering Plants	Historically Confirmed		Endangered		S1	G5
Rusty Flatsedge *Cyperus odoratus*	Sedges	Recently Confirmed		Rare		S3	G5
Salt-marsh Spikerush *Eleocharis uniglumis var. halophila*	Sedges	Historically Confirmed		Threatened		S2	G4
Salt-meadow Grass *Leptochloa fusca ssp. fascicularis*	Grasses	Recently Confirmed	1995	Endangered		S1	G5T5
Saltmarsh Aster *Symphyotrichum subulatum var. subulatum*	Asters, Goldenrods and Daisies	Recently Confirmed	2004	Threatened		S2	G5T5
Sandplain Gerardia *Agalinis acuta*	Other Flowering Plants	Recently Confirmed	2007	Endangered	Endangered	S1	G1
Sandplain Wild Flax *Linum intercursum*	Other Flowering Plants	Historically Confirmed		Threatened		S2	G4
Scarlet Indian-paintbrush *Castilleja coccinea*	Other Flowering Plants	Possible but not Confirmed		Endangered		S1	G5
Scirpus-like Rush *Juncus scirpoides*	Rushes	Historically Confirmed		Endangered		S1	G5

New York Nature Explorer

Common Name	Subgroup	Distribution Status	Year Last Documente	Protection Status		Conservation Rank	
				State	Federal	State	Global
Screw-stem *Bartonia paniculata ssp. paniculata*	Other Flowering Plants	Extirpated		Endangered		S1	G5T5
Sea-pink *Sabatia stellaris*	Other Flowering Plants	Recently Confirmed	2003	Threatened		S2	G5
Seabeach Amaranth *Amaranthus pumilus*	Other Flowering Plants	Recently Confirmed	2004	Threatened	Threatened	S2	G2
Seabeach Knotweed *Polygonum glaucum*	Other Flowering Plants	Recently Confirmed	2011	Rare		S3	G3
Seaside Bulrush *Bolboschoenus maritimus ssp. paludosus*	Sedges	Recently Confirmed	2011	Threatened		S2	G5
Seaside Gerardia *Agalinis maritima var. maritima*	Other Flowering Plants	Historically Confirmed		Threatened		S2S3	G5T5
Seaside Mallow *Kosteletzkya virginica*	Other Flowering Plants	Extirpated	1867			SX	G5
Seaside Plantain *Plantago maritima var. juncoides*	Other Flowering Plants	Historically Confirmed		Threatened		S2S3	G5T5
Sessile Dodder *Cuscuta compacta*	Other Flowering Plants	Recently Confirmed		Rare		S3	G5
Short-fruit Rush *Juncus brachycarpus*	Rushes	Historically Confirmed		Endangered		S1	G4G5
Silvery Aster *Symphyotrichum concolor var. concolor*	Asters, Goldenrods and Daisies	Historically Confirmed	1928	Endangered		S1	G5T5
Slender Blue Flag *Iris prismatica*	Other Flowering Plants	Historically Confirmed		Threatened		S2	G4G5
Slender Bunchflower *Melanthium latifolium*	Other Flowering Plants	Extirpated				SX	G5
Slender Crabgrass *Digitaria filiformis*	Grasses	Historically Confirmed	1925	Endangered		S1	G5
Slender Knotweed *Polygonum tenue*	Other Flowering Plants	Historically Confirmed		Rare		S3	G5
Slender Marsh-pink *Sabatia campanulata*	Other Flowering Plants	Historically Confirmed		Endangered		S1	G5

New York Nature Explorer

Common Name	Subgroup	Distribution Status	Year Last Documente	Protection Status		Conservation Rank	
				State	Federal	State	Global
Slender Nutrush *Scleria minor*	Sedges	Historically Confirmed		Endangered		S1	G4
Slender Pinweed *Lechea tenuifolia*	Other Flowering Plants	Recently Confirmed	1992	Threatened		S2	G5
Slender Saltmarsh Aster *Symphyotrichum tenuifolium var. tenuifolium*	Asters, Goldenrods and Daisies	Historically Confirmed		Rare		S3	G5
Slender Spikegrass *Chasmanthium laxum*	Grasses	Extirpated	1936	Endangered		S1	G5
Small Floating Bladderwort *Utricularia radiata*	Other Flowering Plants	Recently Confirmed	2004	Threatened		S2	G4
Small White Snakeroot *Ageratina aromatica var. aromatica*	Asters, Goldenrods and Daisies	Recently Confirmed	1991	Endangered		S1	G5T5
Small Whorled Pogonia *Isotria medeoloides*	Orchids	Historically Confirmed	1918	Endangered	Threatened	S1	G2
Small-flowered Pearlwort *Sagina decumbens ssp. decumbens*	Other Flowering Plants	Possible but not Confirmed		Endangered		S1	G5T5
Smartweed Dodder *Cuscuta polygonorum*	Other Flowering Plants	Recently Confirmed	1990	Endangered		S1	G5
Smooth Bur-marigold *Bidens laevis*	Asters, Goldenrods and Daisies	Historically Confirmed		Threatened		S2	G5
Smooth Tick-trefoil *Desmodium laevigatum*	Other Flowering Plants	Possible but not Confirmed	1906	Endangered		SH	G5
Soapwort Gentian *Gentiana saponaria*	Other Flowering Plants	Historically Confirmed	1928	Endangered		S1	G5
Southern Bluets *Houstonia purpurea var. calycosa*	Other Flowering Plants	Historically Confirmed	1897	Endangered		SH	G5T5
Southern Yellow Flax *Linum medium var. texanum*	Other Flowering Plants	Historically Confirmed	1936	Threatened		S2	G5T5
Spearwort *Ranunculus pusillus*	Other Flowering Plants	Extirpated	1905			SX	G5
Spotted Pondweed *Potamogeton pulcher*	Other Flowering Plants	Historically Confirmed		Threatened		S2	G5

New York Nature Explorer

Common Name	Subgroup	Distribution Status	Year Last Documente	Protection Status		Conservation Rank	
				State	Federal	State	Global
Spring Ladies'-tresses *Spiranthes vernalis*	Orchids	Historically Confirmed		Endangered		S1	G5
St. Andrew's Cross *Hypericum hypericoides ssp. multicaule*	Other Flowering Plants	Recently Confirmed	1990	Endangered		S1	G5T4
Stargrass *Aletris farinosa*	Other Flowering Plants	Recently Confirmed	2010	Threatened		S2	G5
Stiff Cowbane *Oxypolis rigidior*	Other Flowering Plants	Historically Confirmed	1961	Endangered		SH	G5
Stiff Tick-trefoil *Desmodium obtusum*	Other Flowering Plants	Historically Confirmed		Endangered		S1	G4G5
Stiff Yellow Flax *Linum striatum*	Other Flowering Plants	Recently Confirmed		Rare		S3	G5
Stiff-leaf Goldenrod *Oligoneuron rigidum var. rigidum*	Asters, Goldenrods and Daisies	Historically Confirmed	1899	Threatened		S2	G5T5
Straw Sedge *Carex straminea*	Sedges	Historically Confirmed		Endangered		S1	G5
Swamp Aster *Eurybia radula*	Asters, Goldenrods and Daisies	Historically Confirmed	1886	Endangered		SH	G5
Swamp Cottonwood *Populus heterophylla*	Other Flowering Plants	Historically Confirmed		Threatened		S2	G5
Swamp Lousewort *Pedicularis lanceolata*	Other Flowering Plants	Historically Confirmed	1903	Threatened		S2	G5
Swamp Smartweed *Persicaria setacea*	Other Flowering Plants	Historically Confirmed	1938	Endangered		S1S2	G5
Swamp Sunflower *Helianthus angustifolius*	Asters, Goldenrods and Daisies	Historically Confirmed	1951	Threatened		S2	G5
Sweetbay Magnolia *Magnolia virginiana*	Other Flowering Plants	Recently Confirmed	1998	Endangered		S1	G5
Terrestrial Starwort *Callitriche terrestris*	Other Flowering Plants	Possible but not Confirmed		Threatened		S2S3	G5
Thicket Sedge *Carex abscondita*	Sedges	Historically Confirmed		Endangered		S1	G4G5

New York Nature Explorer

Common Name	Subgroup	Distribution Status	Year Last Documente	Protection Status		Conservation Rank	
				State	Federal	State	Global
Thickleaf Orach *Atriplex dioica*	Other Flowering Plants	Possible but not Confirmed		Endangered		S1	G4?
Tiny Blue-curls *Trichostema setaceum*	Other Flowering Plants	Historically Confirmed		Endangered		S1	G5
Tooth-cup *Rotala ramosior*	Other Flowering Plants	Historically Confirmed		Threatened		S2	G5
Trailing Bush-clover *Lespedeza repens*	Other Flowering Plants	Recently Confirmed		Rare		S3	G5
Trinerved White Boneset *Eupatorium album var. subvenosum*	Asters, Goldenrods and Daisies	Historically Confirmed		Threatened		S2S3	G5T4
Troublesome Sedge *Carex molesta*	Sedges	Historically Confirmed		Threatened		S2S3	G4
Twisted Spikerush *Eleocharis tortilis*	Sedges	Extirpated	1903			SX	G5
Variable Sedge *Carex polymorpha*	Sedges	Historically Confirmed	1927			SX	G3
Velvety Bush-clover *Lespedeza stuevei*	Other Flowering Plants	Historically Confirmed	1918	Threatened		S2	G4?
Violet Bush-clover *Lespedeza frutescens*	Other Flowering Plants	Possible but not Confirmed		Rare		S3	G5
Violet Wood-sorrel *Oxalis violacea*	Other Flowering Plants	Historically Confirmed		Threatened		S2S3	G5
Virginia Bunchflower *Melanthium virginicum*	Other Flowering Plants	Historically Confirmed	1871	Endangered		SH	G5
Virginia False Gromwell *Onosmodium virginianum*	Other Flowering Plants	Extirpated		Endangered		S1	G4
Virginia Ground-cherry *Physalis virginiana var. virginiana*	Other Flowering Plants	Historically Confirmed	1894	Endangered		SH	G5T5
Virginia Snakeroot *Endodeca serpentaria*	Other Flowering Plants	Historically Confirmed	1915	Threatened		S2	G4
Virginia Three-seeded Mercury *Acalypha virginica*	Other Flowering Plants	Historically Confirmed		Endangered		S1	G5

New York Nature Explorer

Common Name	Subgroup	Distribution Status	Year Last Documente	Protection Status		Conservation Rank	
				State	Federal	State	Global
Walter's Sedge *Carex striata var. brevis*	Sedges	Historically Confirmed		Rare		S3	G4G5T4?
Water-horehound *Lycopus amplectens*	Other Flowering Plants	Historically Confirmed		Threatened		S2	G5
Water-thread Pondweed *Potamogeton diversifolius*	Other Flowering Plants	Historically Confirmed		Endangered		S1	G5
Weak Rush *Juncus debilis*	Rushes	Recently Confirmed	2004	Endangered		S1	G5
Weak Stellate Sedge *Carex seorsa*	Sedges	Historically Confirmed				S4	G4
Whip Nutrush *Scleria triglomerata*	Sedges	Recently Confirmed	1992	Endangered		S1	G5
White Milkweed *Asclepias variegata*	Other Flowering Plants	Historically Confirmed	1928	Endangered		S1	G5
White-edge Sedge *Carex debilis var. debilis*	Sedges	Recently Confirmed	1987	Threatened		S2	G5T5
Whorled Milkweed *Asclepias verticillata*	Other Flowering Plants	Historically Confirmed		Rare		S3	G5
Wild Comfrey *Cynoglossum virginianum var. virginianum*	Other Flowering Plants	Historically Confirmed		Endangered		SH	G5T5
Wild Lupine *Lupinus perennis*	Other Flowering Plants	Historically Confirmed		Rare		S3	G5
Wild Pink *Silene caroliniana ssp. pensylvanica*	Other Flowering Plants	Recently Confirmed	2008	Threatened		S2	G5T4T5
Woodland Agrimony *Agrimonia rostellata*	Other Flowering Plants	Historically Confirmed	1928	Threatened		S2	G5
Woodland Rush *Juncus subcaudatus*	Rushes	Recently Confirmed	1986	Endangered		S1	G5
Yellow Flatsedge *Cyperus flavescens*	Sedges	Recently Confirmed	2002	Endangered		S1	G5
Yellow Giant-hyssop *Agastache nepetoides*	Other Flowering Plants	Historically Confirmed	1928	Threatened		S2S3	G5

Common Name	Subgroup	Distribution Status	Year Last Documente	Protection Status		Conservation Rank	
				State	Federal	State	Global
Yellow Harlequin *Corydalis flavula*	Other Flowering Plants	Historically Confirmed		Rare		S3	G5

Plant: Conifers

Atlantic White Cedar *Chamaecyparis thyoides*	Conifers	Recently Confirmed	1992	Threatened		S2	G4
Virginia Pine *Pinus virginiana*	Conifers	Historically Confirmed		Endangered		S1	G5

Plant: Ferns and Fern Allies

Blunt-lobe Grape Fern *Botrychium oneidense*	Ferns	Historically Confirmed		Threatened		S2S3	G4
Carolina Clubmoss *Pseudolycopodiella caroliniana*	Clubmosses	Recently Confirmed	1992	Endangered		S1	G5T4
Woolly Lip-fern *Cheilanthes lanosa*	Ferns	Possible but not Confirmed		Endangered		SH	G5

This list only includes records from the databases of the NY Natural Heritage Program, the second NYS Breeding Bird Atlas Project, and the NY Amphibian and Reptile Atlas Project. This list is not a definitive statement about the presence or absence of all plants and animals, including rare or state-listed species, or of all significant natural communities.

Appendix Document H
Generator Specifications

aggreko
Manufacturing Technical Dept.
Birch Road, Dumbarton, G82 2RF
Tel: 0044 (0)1389 742214
Fax: 0044 (0)1389 742554

EQUIPMENT DATA SHEET		No.	G080323
Gas Generating Set		Rev.	H
50 Hz	1120kW / 1400kVA	Date	15/06/2011
60 Hz	1300kW / 1625kVA	Page	1 of 2

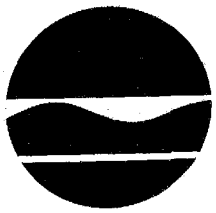
1	Model	Ref	NHC20/QSK60 Gas G-Drive	
2	Part Number	Ref	611002	
3	Specification	Ref	G32.0048	
4	Installation Drawing	Ref	A050228	
5	Maximum Ambient Before Derate	°C (°F)	35 (95)	35 (95)
6	Electrical Output	Hz	50	60
	ISO 8528-1			
	- Continuous Power (COP)	kW (kVA)	1120 (1400)	1300 (1625)
	Single Step load application	%	30	30
7	Alternator			
	Class F Temp. Rise (105°C)			
	- Three phase	kW (kVA)	1156 (1445)	1352 (1690)
	- Single phase	kW (kVA)	-	
	Ends Out		6	
	Make & Type		Cummins Generator Technologies PE734C2 Leroy Somer LSA 50.2 VL10	
	Regulation	%	±0.5	
8	Circuit Breaker			
	Make & Type		Merlin Gerin NW25	
	Number of poles		4	
	Rating	Amps	2500	
	Trip Unit Type		Micrologic 5.0	
	Overload Protection Range	Amps	1000 - 2500 (Adjustable by selector)	
	Short Circuit Protection Range	Amps	1500 - 25000(Adjustable by selector)	
9	Load Terminals			
	Type		Busbar M12	
10	Gas Energy Input (LHV) ISO 3046/1			
	100%	kW	3130	4021
	90%	kW	2850	3664
	75%	kW	2417	3104
	50%	kW	1717	2218
11	Engine Gas Supply Pressures			
	Minimum Pressure @ 50 LHV (MJ/kg)	Mbar	180	240
	Maximum Pressure	Mbar	500	500
	Engine Calibration Protection Settings			
	Over- Pressure Shutdown Threshold	Mbar	482	482
	Under-Pressure Shutdown Threshold	Mbar	35	35
	MP Gas Train Supply Pressure Range	Bar	2 – 6	2 – 6
	Minimum Methane Index		61	75

aggreko

12	Exhaust Emissions			
	Specific Load		100% Load ± 2%	
	NOx - Oxides of Nitrogen		489 mg/nm^3 for 1.0g/hp-hr NOx Cal	307 mg/nm^3 for 1.0g/hp-hr NOx Cal
	CH_4 – Methane (affected by gas composition)		1330 mg/nm^3	1192 mg/nm^3
	CO - Carbon Monoxide		676 mg/nm^3	766 mg/nm^3
13	Exhaust Silencer			
	Make & Type		Universal Silencers	
	Certificate	Yes	M-10408 (per Nelson Burgess)	
	Permissible back pressure	mm (ins) Hg	6.35 (0.25")	
14	Noise			
	Sound Power	dBA (Lw)	104 (Est)	107 (Est)
	Sound Pressure at 1 metre	dBA	87	90
	Sound Pressure at 7 metres	dBA	80	84
	Sound Pressure at 15 metres	dBA	73	77
15	Engine			
	Make & Type		Cummins QSK60 Gas	
	Cylinders & Form		V16 60°	
	Aspiration		Turbocharged & Low Temperature Aftercooled	
	Governor Type		Electronic	
	Make & Model		Cummins MCM700	
	Steady State frequency	%	±1 (±0.5Hz)	
	Battery Voltage	Volts	24	
16	Overall Dimensions			
	- Length	Metres (feet)	6.06 (20' 0")	
	- Width	Metres (feet)	2.44 (8' 0")	
	- Height	Metres (feet)	2.60 (8' 6")	
	*Refer to Installation Drawing for overall dimensions with Gas Ancillaries Module installed			
17	Weight			
	- Containerised Genset Only	Kg (lbs)	20650 (45525)	
	- With Pre-Filled Gas Ancillary Module (GAM)	Kg (lbs)	26840 (59172)	
	- With Dry Gas Ancillary Module (GAM)	Kg (lbs)	26420 (58246)	
18	Capacities			
	- Lube oil total	Litres (US gall)	380 (83.6)	
	- Coolant			
	Jacket Water (JW)		480 (126)	
	Low Temp. Aftercooler (LTA)		200 (52)	

Appendix Document I
Title V Air Permit

New York State Department of Environmental Conservation
Division of Environmental Permits
SUNY @ Stony Brook, 50 Circle Road
Stony Brook, New York 11790-3409
Telephone (631) 444-0361
Facsimile (631) 444-0360
Website: www.dec.state.ny.us



Denise M. Sheehan
Commissioner

October 27, 2006

Mr. Pasquale Assalone
Nassau County Bay Park STP
P.O. Box 148
East Rockaway, NY 11518-0148

RE: Permit No.: 1-2820-00652/00055

Dear Permittee:

In conformance with the requirements of the State Uniform Procedures Act (Article 70, ECL) and its implementing regulations (6 NYCRR, Part 621) we are enclosing your permit. Please read all conditions carefully.

If you are unable to comply with any conditions, please contact us at the above address .

Sincerely,

Roger Evans

Roger Evans
Permit Administrator

RE/ls
Enclosure

New York State Department of Environmental Conservation
Facility DEC ID: 1282000652

PERMIT
Under the Environmental Conservation Law (ECL)

IDENTIFICATION INFORMATION

Permit Type: Air Title V Facility
Permit ID: 1-2820-00652/00055
Effective Date: 10/26/2006 Expiration Date: 10/25/2011

Permit Issued To: NASSAU COUNTY
1 WEST ST
MINEOLA, NY 11501

Facility: NASSAU COUNTY SD #2 BAY PARK STP
FOURTH AVE
EAST ROCKAWAY, NY 11518

Contact: PASQUALE ASSALONE
NASSAU CO BAY PARK STP
PO BOX 148
EAST ROCKAWAY, NY 11518-0148

Description:
The facility is a 70 million gallon per day sewage treatment plant which services portions of Nassau County, New York. The plant operates four 3,600 KW engine generators which can burn natural gas, digester gas, or fuel oil. The engines are used to provide the electric power for the processes and equipment such as aeration tank blowers and main sewage pumps. The plant also operates four 750 HP boilers to produce hot water required for the central chillers and space heating. The boilers can burn natural gas, digester gas, or fuel oil. Several other emission points associated with the treatment of sewage are located at the facility. The corresponding processes include primary screening, grit removal, primary settling tanks, aeration tanks, final settling tanks, sludge thickening, and sludge dewatering. Most of the processes are controlled through an odor control system.

By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the ECL, all applicable regulations, the General Conditions specified and any Special Conditions included as part of this permit.

Permit Administrator: ROGER EVANS
NYSDEC - SUNY @ STONY BROOK
50 CIRCLE RD
STONY BROOK, NY 11790-3409

Authorized Signature: Roger Evans Date: 10 / 27 / 06

New York State Department of Environmental Conservation
Facility DEC ID: 1282000652

Notification of Other State Permittee Obligations

Item A: Permittee Accepts Legal Responsibility and Agrees to Indemnification

The permittee expressly agrees to indemnify and hold harmless the Department of Environmental Conservation of the State of New York, its representatives, employees, and agents ("DEC") for all claims, suits, actions, and damages, to the extent attributable to the permittee's acts or omissions in connection with the permittee's undertaking of activities in connection with, or operation and maintenance of, the facility or facilities authorized by the permit whether in compliance or not in compliance with the terms and conditions of the permit. This indemnification does not extend to any claims, suits, actions, or damages to the extent attributable to DEC's own negligent or intentional acts or omissions, or to any claims, suits, or actions naming the DEC and arising under article 78 of the New York Civil Practice Laws and Rules or any citizen suit or civil rights provision under federal or state laws.

Item B: Permittee's Contractors to Comply with Permit

The permittee is responsible for informing its independent contractors, employees, agents and assigns of their responsibility to comply with this permit, including all special conditions while acting as the permittee's agent with respect to the permitted activities, and such persons shall be subject to the same sanctions for violations of the Environmental Conservation Law as those prescribed for the permittee.

Item C: Permittee Responsible for Obtaining Other Required Permits

The permittee is responsible for obtaining any other permits, approvals, lands, easements and rights-of-way that may be required to carry out the activities that are authorized by this permit.

Item D: No Right to Trespass or Interfere with Riparian Rights

This permit does not convey to the permittee any right to trespass upon the lands or interfere with the riparian rights of others in order to perform the permitted work nor does it authorize the impairment of any rights, title, or interest in real or personal property held or vested in a person not a party to the permit.

PAGE LOCATION OF CONDITIONS

DEC GENERAL CONDITIONS
****** General Provisions ******

For the purpose of your Title V permit, the following section contains state-only enforceable terms and conditions

GENERAL CONDITIONS - Apply to ALL Authorized Permits.

Condition 1: Facility Inspection by the Department
Applicable State Requirement: ECL 19-0305

Item 1.1:
The permitted site or facility, including relevant records, is subject to inspection at reasonable hours and intervals by an authorized representative of the Department of Environmental Conservation (the Department) to determine whether the permittee is complying with this permit and the ECL. Such representative may order the work suspended pursuant to ECL 71-0301 and SAPA 401(3).

Item 1.2:
The permittee shall provide a person to accompany the Department's representative during an inspection to the permit area when requested by the Department.

Item 1.3:
A copy of this permit, including all referenced maps, drawings and special conditions, must be available for inspection by the Department at all times at the project site or facility. Failure to produce a copy of the permit upon request by a Department representative is a violation of this permit.

Condition 2: Relationship of this Permit to Other Department Orders and Determinations
Applicable State Requirement: ECL 3-0301.2(m)

Item 2.1:
Unless expressly provided for by the Department, issuance of this permit does not modify, supersede or rescind any order or determination previously issued by the Department or any of the terms, conditions or requirements contained in such order or determination.

Condition 3: Applications for Permit Renewals and Modifications
Applicable State Requirement: 6NYCRR 621.13

Item 3.1:
The permittee must submit a separate written application to the Department for renewal, modification or transfer of this permit. Such application must include any forms or supplemental information the Department requires. Any renewal, modification or transfer granted by the Department must be in writing.

Item 3.2:
The permittee must submit a renewal application at least 180 days before expiration of permits for Title V Facility Permits, or at least 30 days before expiration of permits for State Facility Permits.

Item 3.3:
Permits are transferrable with the approval of the department unless specifically prohibited by the statute,

regulation or another permit condition. Applications for permit transfer should be submitted prior to actual transfer of ownership.

Condition 4: Permit Modifications, Suspensions and Revocations by the Department
Applicable State Requirement: 6NYCRR 621.14

Item 4.1:
The Department reserves the right to modify, suspend, or revoke this permit in accordance with 6NYCRR Part 621. The grounds for modification, suspension or revocation include:

a) materially false or inaccurate statements in the permit application or supporting papers;
b) failure by the permittee to comply with any terms or conditions of the permit;
c) exceeding the scope of the project as described in the permit application;
d) newly discovered material information or a material change in environmental conditions, relevant technology or applicable law or regulations since the issuance of the existing permit;
e) noncompliance with previously issued permit conditions, orders of the commissioner, any provisions of the Environmental Conservation Law or regulations of the Department related to the permitted activity.

****** Facility Level ******

Condition 5: Submission of Applications for Permit Modification or Renewal-REGION 1 HEADQUARTERS
Applicable State Requirement: 6NYCRR 621.5(a)

Item 5.1:
Submission of applications for permit modification or renewal are to be submitted to:

NYSDEC Regional Permit Administrator
Region 1 Headquarters
Division of Environmental Permits
SUNY Campus, Loop Road, Building 40
Stony Brook, NY 11790-2356
(631) 444-0365

New York State Department of Environmental Conservation
Permit ID: 1-2820-00652/00055 Facility DEC ID: 1282000652

Permit Under the Environmental Conservation Law (ECL)

ARTICLE 19: AIR POLLUTION CONTROL - TITLE V PERMIT

IDENTIFICATION INFORMATION

Permit Issued To: NASSAU COUNTY
1 WEST ST
MINEOLA, NY 11501

Facility: NASSAU COUNTY SD #2 BAY PARK STP
FOURTH AVE
EAST ROCKAWAY, NY 11518

Authorized Activity By Standard Industrial Classification Code:
4952 - SEWERAGE SYSTEMS

Permit Effective Date: 10/26/2006 Permit Expiration Date: 10/25/2011

PAGE LOCATION OF CONDITIONS

NOTE: * preceding the condition number indicates capping.

FEDERALLY ENFORCEABLE CONDITIONS
****** Facility Level ******

NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS
The items listed below are not subject to the annual compliance certification requirements under Title V. Permittees may also have other obligations under regulations of general applicability.

Item A: **Emergency Defense - 6NYCRR Part 201-1.5**

An emergency constitutes an affirmative defense to an action brought for noncompliance with emissions limitations or permit conditions for all facilities in New York State.

(a) The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

(1) An emergency occurred and that the facility owner and/or operator can identify the cause(s) of the emergency;
(2) The equipment at the permitted facility causing the emergency was at the time being properly operated;
(3) During the period of the emergency the facility owner and/or operator took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and
(4) The facility owner and/or operator notified the Department within two working days after the event occurred. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

(b) In any enforcement proceeding, the facility owner and/or operator seeking to establish the occurrence of an emergency has the burden of proof.

(c) This provision is in addition to any emergency or upset provision contained in any applicable requirement.

Item B: **Public Access to Recordkeeping for Title V Facilities - 6NYCRR Part 201-1.10(b)**
The Department will make available to the public any permit application, compliance plan, permit, and monitoring and compliance certification report pursuant to Section 503(e) of the Act, except for information entitled to confidential treatment pursuant to 6NYCRR Part 616 - Public Access to records and Section 114(c) of the Act.

Item C: **Timely Application for the Renewal of Title V Permits - 6 NYCRR Part**

201-6.3(a)(4)
Owners and/or operators of facilities having an issued Title V permit shall submit a complete application at least 180 days, but not more than eighteen months, prior to the date of permit expiration for permit renewal purposes.

Item D: **Certification by a Responsible Official - 6 NYCRR Part 201-6.3(d)(12)**
Any application, form, report or compliance certification required to be submitted pursuant to the federally enforceable portions of this permit shall contain a certification of truth, accuracy and completeness by a responsible official. This certification shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Item E: **Requirement to Comply With All Conditions - 6 NYCRR Part 201-6.5(a)(2)**
The permittee must comply with all conditions of the Title V facility permit. Any permit non-compliance constitutes a violation of the Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

Item F: **Permit Revocation, Modification, Reopening, Reissuance or Termination, and Associated Information Submission Requirements - 6 NYCRR Part 201-6.5(a)(3)**
This permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

Item G: **Cessation or Reduction of Permitted Activity Not a Defense - 6NYCRR Part 201-6.5(a)(5)**
It shall not be a defense for a permittee in an enforcement action to claim that a cessation or reduction in the permitted activity would have been necessary in order to maintain compliance with the conditions of this permit.

Item H: **Property Rights - 6 NYCRR Part 201-6.5(a)(6)**

This permit does not convey any property rights of any sort or any exclusive privilege.

Item I: **Severability - 6 NYCRR Part 201-6.5(a)(9)**

If any provisions, parts or conditions of this permit are found to be

invalid or are the subject of a challenge, the remainder of this permit shall continue to be valid.

Item J: Permit Shield - 6 NYCRR Part 201-6.5(g)

All permittees granted a Title V facility permit shall be covered under the protection of a permit shield, except as provided under 6 NYCRR Subpart 201-6. Compliance with the conditions of the permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that such applicable requirements are included and are specifically identified in the permit, or the Department, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the major stationary source, and the permit includes the determination or a concise summary thereof. Nothing herein shall preclude the Department from revising or revoking the permit pursuant to 6 NYCRR Part 621 or from exercising its summary abatement authority. Nothing in this permit shall alter or affect the following:

i. The ability of the Department to seek to bring suit on behalf of the State of New York, or the Administrator to seek to bring suit on behalf of the United States, to immediately restrain any person causing or contributing to pollution presenting an imminent and substantial endangerment to public health, welfare or the environment to stop the emission of air pollutants causing or contributing to such pollution;

ii. The liability of a permittee of the Title V facility for any violation of applicable requirements prior to or at the time of permit issuance;

iii. The applicable requirements of Title IV of the Act;

iv. The ability of the Department or the Administrator to obtain information from the permittee concerning the ability to enter, inspect and monitor the facility.

Item K: Reopening for Cause - 6 NYCRR Part 201-6.5(i)

This Title V permit shall be reopened and revised under any of the following circumstances:

i. If additional applicable requirements under the Act become applicable where this permit's remaining term is three or more years, a reopening shall be completed not later than 18 months after promulgation of the applicable requirement. No such reopening is

required if the effective date of the requirement is later than the date on which this permit is due to expire, unless the original permit or any of its terms and conditions has been extended by the Department pursuant to the provisions of Part 201-6.7 and Part 621.

ii. The Department or the Administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

iii. The Department or the Administrator determines that the Title V permit must be revised or reopened to assure compliance with applicable requirements.

iv. If the permitted facility is an "affected source" subject to the requirements of Title IV of the Act, and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit.

Proceedings to reopen and issue Title V facility permits shall follow the same procedures as apply to initial permit issuance but shall affect only those parts of the permit for which cause to reopen exists.

Reopenings shall not be initiated before a notice of such intent is provided to the facility by the Department at least thirty days in advance of the date that the permit is to be reopened, except that the Department may provide a shorter time period in the case of an emergency.

Item L: **Permit Exclusion - ECL 19-0305**

The issuance of this permit by the Department and the receipt thereof by the Applicant does not and shall not be construed as barring, diminishing, adjudicating or in any way affecting any legal, administrative or equitable rights or claims, actions, suits, causes of action or demands whatsoever that the Department may have against the Applicant for violations based on facts and circumstances alleged to have occurred or existed prior to the effective date of this permit, including, but not limited to, any enforcement action authorized pursuant to the provisions of applicable federal law, the Environmental Conservation Law of the State of New York (ECL) and Chapter III of the Official Compilation of the Codes, Rules and Regulations of the State of New York (NYCRR). The issuance of this permit also shall not in any way affect pending or future enforcement actions under the Clean Air Act brought by the United States or any person.

Item M: **Federally Enforceable Requirements - 40 CFR 70.6(b)**
All terms and conditions in this permit required by the Act or any applicable requirement, including any provisions designed to limit a facility's potential to emit, are enforceable by the Administrator and citizens under the Act. The Department has, in this permit, specifically designated any terms and conditions that are not required under the Act or under any of its applicable requirements as being enforceable under only state regulations.

MANDATORY FEDERALLY ENFORCEABLE PERMIT CONDITIONS SUBJECT TO ANNUAL CERTIFICATIONS AT ALL TIMES

The following federally enforceable permit conditions are mandatory for all Title V permits and are subject to annual compliance certification requirements at all times.

Condition 1: **Acceptable Ambient Air Quality**
Effective between the dates of 10/26/2006 and 10/25/2011

Applicable Federal Requirement: 6NYCRR 200.6

Item 1.1:
Notwithstanding the provisions of 6 NYCRR Chapter III, Subchapter A, no person shall allow or permit any air contamination source to emit air contaminants in quantities which alone or in combination with emissions from other air contamination sources would contravene any applicable ambient air quality standard and/or cause air pollution. In such cases where contravention occurs or may occur, the Commissioner shall specify the degree and/or method of emission control required.

Condition 2: **Fees**
Effective between the dates of 10/26/2006 and 10/25/2011

Applicable Federal Requirement: 6NYCRR 201-6.5(a)(7)

Item 2.1:
The owner and/or operator of a stationary source shall pay fees to the Department consistent with the fee schedule authorized by ECL 72-0302.

Condition 3: **Recordkeeping and reporting of compliance monitoring**
Effective between the dates of 10/26/2006 and 10/25/2011

Applicable Federal Requirement: 6NYCRR 201-6.5(c)

Item 3.1:
The following information must be included in any required compliance monitoring records and reports:

(i) The date, place, and time of sampling or measurements;

(ii) The date(s) analyses were performed;

(iii)The company or entity that performed the analyses;

(iv) The analytical techniques or methods used including quality assurance and quality control procedures if required;

(v) The results of such analyses including quality assurance data where required; and

(vi) The operating conditions as existing at the time of sampling or measurement.

Any deviation from permit requirements must be clearly identified in all records and reports. Reports must be certified by a responsible official, consistent with Section 201-6.3 of this Part 201.

Condition 4: Monitoring, Related Recordkeeping, and Reporting Requirements.
Effective between the dates of 10/26/2006 and 10/25/2011

Applicable Federal Requirement: 6NYCRR 201-6.5(c)(2)

Item 4.1:
Compliance monitoring and recordkeeping shall be conducted according to the terms and conditions contained in this permit and shall follow all quality assurance requirements found in applicable regulations. Records of all monitoring data and support information must be retained for a period of at least 5 years from the date of the monitoring, sampling, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

Condition 5: Compliance Certification
Effective between the dates of 10/26/2006 and 10/25/2011

Applicable Federal Requirement: 6NYCRR 201-6.5(c)(3)(ii)

Item 5.1:
The Compliance Certification activity will be performed for the Facility.

Item 5.2:
Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES
Monitoring Description:
To meet the requirements of this facility permit with respect to reporting, the permittee must:

Submit reports of any required monitoring at a minimum frequency of every 6 months, based on a calendar year reporting schedule. These reports shall be submitted to the Department within 30 days after the end of a reporting period. All instances of deviations from permit

requirements must be clearly identified in such reports. All required reports must be certified by the responsible official for this facility.

Notify the Department and report permit deviations and incidences of noncompliance stating the probable cause of such deviations, and any corrective actions or preventive measures taken. Where the underlying applicable requirement contains a definition of prompt or otherwise specifies a time frame for reporting deviations, that definition or time frame shall govern. Where the underlying applicable requirement fails to address the time frame for reporting deviations, reports of deviations shall be submitted to the permitting authority based on the following schedule:

(1) For emissions of a hazardous air pollutant (as identified in an applicable regulation) that continue for more than an hour in excess of permit requirements, the report must be made within 24 hours of the occurrence.

(2) For emissions of any regulated air pollutant, excluding those listed in paragraph (1) of this section, that continue for more than two hours in excess of permit requirements, the report must be made within 48 hours.

(3) For all other deviations from permit requirements, the report shall be contained in the 6 month monitoring report required above.

(4) This permit may contain a more stringent reporting requirement than required by paragraphs (1), (2) or (3) above. If more stringent reporting requirements have been placed in this permit or exist in applicable requirements that apply to this facility, the more stringent reporting requirement shall apply.

If above paragraphs (1) or (2) are met, the source must notify the permitting authority by telephone during normal business hours at the Regional Office of jurisdiction for this permit, attention Regional Air Pollution Control Engineer (RAPCE) according to the timetable listed in paragraphs (1) and (2) of this section. For deviations and incidences that must be reported outside of normal business hours, on weekends, or holidays, the DEC Spill Hotline phone number at 1-800-457-7362 shall be used. A written notice, certified by a responsible official consistent with 6 NYCRR Part 201-6.3(d)(12), must be submitted within 10 working days of an occurrence for deviations reported under (1) and (2). All deviations reported under paragraphs (1) and (2) of this section must also be identified in the 6 month monitoring report required above.

The provisions of 6 NYCRR 201-1.4 shall apply if the permittee seeks to have a violation excused unless otherwise limited by regulation. In order to have a violation of a federal regulation (such as a new source performance standard or national emissions standard for hazardous air pollutants) excused, the specific federal regulation must provide for an affirmative defense during start-up, shutdowns, malfunctions or upsets. Notwithstanding any recordkeeping and reporting requirements in 6 NYCRR 201-1.4, reports of any deviations shall not be on a less frequent basis than the reporting periods described in paragraphs (1) and (4) above.

In the case of any condition contained in this permit with a reporting requirement of "Upon request by regulatory agency" the permittee shall include in the semiannual report, a statement for each such condition that the monitoring or recordkeeping was performed as required or requested and a listing of all instances of deviations from these requirements.

In the case of any emission testing performed during the previous six month reporting period, either due to a request by the Department, EPA, or a regulatory requirement, the permittee shall include in the semiannual report a summary of the testing results and shall indicate whether or not the Department or EPA has approved the results.

All semiannual reports shall be submitted to the Administrator (or his or her representative) as well as two copies to the Department (one copy to the regional air pollution control engineer (RAPCE) in the regional office and one copy to the Bureau of Quality Assurance (BQA) in the DEC central office). Mailing addresses for the above referenced persons are contained in the monitoring condition for 6 NYCRR Part 201-6.5(e), contained elsewhere in this permit.

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 1/30/2007.
Subsequent reports are due every 6 calendar month(s).

Condition 6: Compliance Certification
Effective between the dates of 10/26/2006 and 10/25/2011

Applicable Federal Requirement: 6NYCRR 201-6.5(e)

Item 6.1:
The Compliance Certification activity will be performed for the Facility.

Item 6.2:
Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES
Monitoring Description:

Compliance certifications shall contain the following information:
- the identification of each term or condition of the permit that is the basis of the certification;
- the compliance status;
- whether compliance was continuous or intermittent;
- the method(s) used for determining the compliance status of the facility, currently and over the reporting period consistent with the monitoring and related recordkeeping and reporting requirements of this permit;
- such other facts as the Department may require to determine the compliance status of the facility as specified in any special permit terms or conditions; and
- such additional requirements as may be specified elsewhere in this permit related to compliance certification.

Compliance certifications shall be submitted annually. Certification reports are due 30 days after the anniversary date of four consecutive calendar quarters. The first report is due 30 days after the calendar quarter that occurs just prior to the permit anniversary date, unless another quarter has been acceptable by the Department.

All compliance certifications shall be submitted to the Administrator (or his or her representative) as well as two copies to the Department (one copy to the regional air pollution control engineer (RAPCE) in the regional office and one copy to the Bureau of Compliance Monitoring and Enforcement (BCME) in the DEC central office). Please send annual compliance certifications to Chief of the Stationary Source Compliance Section, the Region 2 EPA representative for the Administrator, at the following address:

USEPA Region 2
Air Compliance Branch
290 Broadway
New York, NY 10007-1866

The address for the RAPCE is as follows:

NYSDEC
SUNY Campus
Building 40
Stony Brook, NY 11790-2356

The address for the BCME is as follows:

NYSDEC
Bureau of Compliance Monitoring
and Enforcement
50 Wolf Road
Albany, NY 12233-3258

Reporting Requirements: ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 1/30/2007.
Subsequent reports are due on the same day each year

Condition 7: Compliance Certification
Effective between the dates of 10/26/2006 and 10/25/2011

Applicable Federal Requirement: 6NYCRR 202-2.1

Item 7.1:
The Compliance Certification activity will be performed for the Facility.

Item 7.2:
Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES
Monitoring Description:
Emission statements shall be submitted on or before April 15th each year for emissions of the previous calendar year.

Monitoring Frequency: ANNUALLY
Reporting Requirements: ANNUALLY (CALENDAR)
Reports due by April 15th for previous calendar year

Condition 8: Recordkeeping requirements
Effective between the dates of 10/26/2006 and 10/25/2011

Applicable Federal Requirement: 6NYCRR 202-2.5

Item 8.1:
(a) The following records shall be maintained for at least five years:

(1) a copy of each emission statement submitted to the department; and

(2) records indicating how the information submitted in the emission statement was determined, including any calculations, data, measurements, and estimates used.

(b) These records shall be made available at the facility to the representatives of the department upon request during normal business hours.

Condition 9: Open Fires Prohibited at Industrial and Commercial Sites

Effective between the dates of 10/26/2006 and 10/25/2011

Applicable Federal Requirement: 6NYCRR 215

Item 9.1:
No person shall burn, cause, suffer, allow or permit the burning in an open fire of garbage, refuse, rubbish for salvage, or rubbish generated by industrial or commercial activities.

MANDATORY FEDERALLY ENFORCEABLE PERMIT CONDITIONS SUBJECT TO ANNUAL CERTIFICATIONS ONLY IF APPLICABLE

The following federally enforceable permit conditions are mandatory for all Title V permits and are subject to annual compliance certification requirements only if effectuated during the reporting period. [NOTE: The corresponding annual compliance certification for those conditions not effectuated during the reporting period shall be specified as "not applicable".]

Condition 10: Maintenance of Equipment
Effective between the dates of 10/26/2006 and 10/25/2011

Applicable Federal Requirement: 6NYCRR 200.7

Item 10.1:
Any person who owns or operates an air contamination source which is equipped with an emission control device shall operate such device and keep it in a satisfactory state of maintenance and repair in accordance with ordinary and necessary practices, standards and procedures, inclusive of manufacturer's specifications, required to operate such device effectively.

Condition 11: Recycling and Salvage
Effective between the dates of 10/26/2006 and 10/25/2011

Applicable Federal Requirement: 6NYCRR 201-1.7

Item 11.1:
Where practical, any person who owns or operates an air contamination source shall recycle or salvage air contaminants collected in an air cleaning device according to the requirements of the ECL.

Condition 12: Prohibition of Reintroduction of Collected Contaminants to the air
Effective between the dates of 10/26/2006 and 10/25/2011

Applicable Federal Requirement: 6NYCRR 201-1.8

Item 12.1:
No person shall remove, handle or cause to be handled, collected air contaminants from an air cleaning device for recycling, salvage or disposal in a manner that would reintroduce them to the outdoor atmosphere.

Condition 13: Exempt Sources - Proof of Eligibility
Effective between the dates of 10/26/2006 and 10/25/2011

Applicable Federal Requirement: 6NYCRR 201-3.2(a)

Item 13.1:
The owner and/or operator of an emission source or unit that is eligible to be exempt may be required to certify that it operates within the specific criteria described in this Subpart. The owner or operator of any such emission source must maintain all required records on-site for a period of five years and make them available to representatives of the department upon request. Department representatives must be granted access to any facility which contains emission sources or units subject to this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other State and Federal air pollution control requirements, regulations, or law.

Condition 14: Trivial Sources - Proof of Eligibility
Effective between the dates of 10/26/2006 and 10/25/2011

Applicable Federal Requirement: 6NYCRR 201-3.3(a)

Item 14.1:
The owner and/or operator of an emission source or unit that is listed as being trivial in this Part may be required to certify that it operates within the specific criteria described in this Subpart. The owner or operator of any such emission source must maintain all required records on-site for a period of five years and make them available to representatives of the department upon request. Department representatives must be granted access to any facility which contains emission sources or units subject to this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other State and Federal air pollution control requirements, regulations, or law.

Condition 15: Standard Requirement - Provide Information
Effective between the dates of 10/26/2006 and 10/25/2011

Applicable Federal Requirement: 6NYCRR 201-6.5(a)(4)

Item 15.1:
The owner and/or operator shall furnish to the department, within a reasonable time, any information that the department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the department copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to the administrator along with a claim of confidentiality, if the administrator initiated the request for information or otherwise has need of it.

Condition 16: General Condition - Right to Inspect
Effective between the dates of 10/26/2006 and 10/25/2011

Applicable Federal Requirement: 6NYCRR 201-6.5(a)(8)

Item 16.1:
The department or an authorized representative shall be allowed upon presentation of credentials and other documents as may be required by law to:

(i) enter upon the permittee's premises where a facility subject to the permitting requirements of this Subpart is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;

(ii) have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;

(iii) inspect at reasonable times any emission sources, equipment (including monitoring and air pollution control equipment), practices, and operations regulated or required under the permit; and

(iv) sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

Condition 17: Standard Requirements - Progress Reports
Effective between the dates of 10/26/2006 and 10/25/2011

Applicable Federal Requirement: 6NYCRR 201-6.5(d)(5)

Item 17.1:
Progress reports consistent with an applicable schedule of compliance are to be submitted at least semiannually, or at a more frequent period if specified in the applicable requirement or by the department. Such progress reports shall contain the following:

(i) dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when such activities, milestones or compliance were achieved; and

(ii) an explanation of why any dates in the schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

Condition 18: Off Permit Changes
Effective between the dates of 10/26/2006 and 10/25/2011

Applicable Federal Requirement: 6NYCRR 201-6.5(f)(6)

Item 18.1:
No permit revision will be required for operating changes that contravene an express permit term, provided that such changes would not violate applicable requirements as defined under this Part or contravene federally enforceable monitoring (including test methods), recordkeeping, reporting, or compliance certification permit terms and conditions. Such changes may be made without requiring a permit revision, if the changes are not modifications under any provision of title I of the act and the changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or in terms of total emissions) provided that the facility provides the administrator and the department with written notification as required below in advance of the proposed changes within a minimum of seven days. The facility owner or operator, and the department shall attach each such

notice to their copy of the relevant permit.

(i) For each such change, the written notification required above shall include a brief description of the change within the permitted facility, the date on which the change will occur, any change in emissions, and any permit term or condition that is no longer applicable as a result of the change.

(ii) The permit shield described in section 6 NYCRR 201-6.6 shall not apply to any change made pursuant to this paragraph.

Condition 19: Required Emissions Tests
Effective between the dates of 10/26/2006 and 10/25/2011

Applicable Federal Requirement: 6NYCRR 202-1.1

Item 19.1:
For the purpose of ascertaining compliance or non-compliance with any air pollution control code, rule or regulation, the commissioner may require the person who owns such air contamination source to submit an acceptable report of measured emissions within a stated time. Such person shall bear the cost of measurement and preparing the report of measured emissions. Failure of such person to submit a report acceptable to the commissioner within the time stated shall be sufficient reason for the commissioner to suspend or deny a certificate to operate.

Condition 20: Visible Emissions Limited
Effective between the dates of 10/26/2006 and 10/25/2011

Applicable Federal Requirement: 6NYCRR 211.3

Item 20.1:
Except as permitted by a specific part of this Subchapter and for open fires for which a restricted burning permit has been issued, no person shall cause or allow any air contamination source to emit any material having an opacity equal to or greater than 20 percent (six minute average) except for one continuous six-minute period per hour of not more than 57 percent opacity.

Condition 21: Compliance Certification
Effective between the dates of 10/26/2006 and 10/25/2011

Applicable Federal Requirement: 6NYCRR 211.3

Item 21.1:
The Compliance Certification activity will be performed for the Facility.

Item 21.2:
Compliance Certification shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL DEVICE PARAMETERS AS SURROGATE
Monitoring Description:
Except as permitted by a specific part of Title 6 of the NYCRR, no

person shall cause or allow any air contamination source to emit any material having an opacity equal to or greater than 20 percent (six minute average) except for one continuous six-minute period per hour of not more than 57 percent opacity.

Operators of air contamination sources that are not exempt from permitting and where a continuous opacity monitor is not utilized for measuring smoke emissions, shall be required to perform the following:

1) Observe the stack(s) or vent(s) once per day for visible emissions. This observation(s) must be conducted during daylight hours except during adverse weather conditions (fog, rain, or snow).

2) The results of each observation must be recorded in a bound logbook or other format acceptable to the Department. The following data must be recorded for each stack:

- weather condition
- was a plume observed?

This logbook must be retained at the facility for five (5) years after the date of the last entry.

3) If the operator observes any visible emissions (other than steam - see below) two consecutive days, then a Method 9 analysis (based upon a 6-minute mean) of the affected emission point(s) must be conducted within two (2) business days of such occurrence. The results of the Method 9 analysis must be recorded in the logbook. The operator must contact the Regional Air Pollution Control Engineer within one (1) business day of performing the Method 9 analysis if the opacity standard is contravened. Upon notification, any corrective actions or future compliance schedules shall be presented to the Department for acceptance.

** NOTE ** Steam plumes generally form after leaving the top of the stack (this is known as a detached plume). The distance between the stack and the beginning of the detached plume may vary, however, there is (normally) a distinctive distance between the plume and stack. Steam plumes are white in color and have a billowy consistency. Steam plumes dissipate within a short distance of the stack (the colder the air the longer the steam plume will last) and leave no dispersion trail downwind of the stack.

Parameter Monitored: OPACITY
Upper Permit Limit: 57 percent
Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: ONE CONTINUOUS 6-MINUTE PERIOD PER HOUR
Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 22: Accidental release provisions.
Effective between the dates of 10/26/2006 and 10/25/2011

Applicable Federal Requirement: 40CFR 68

Item 22.1:
If a chemical is listed in Tables 1,2,3 or 4 of 40 CFR §68.130 is present in a process in quantities greater than the threshold quantity listed in Tables 1,2,3 or 4, the following requirements will apply:

a) The owner or operator shall comply with the provisions of 40 CFR Part 68 and;

b) The owner or operator shall submit at the time of permit issuance (if not previously submitted) one of the following, if such quantities are present:

1) A compliance schedule for meeting the requirements of 40 CFR Part 68 by the date provided in 40 CFR §68.10(a) or,

2) A certification statement that the source is in compliance with all requirements of 40 CFR Part 68, including the registration and submission of the Risk Management Plan. Information should be submitted to:

Risk Management Plan Reporting Center
C/O CSC
8400 Corporate Dr
Carrollton, Md. 20785

Condition 23: Recycling and Emissions Reduction
Effective between the dates of 10/26/2006 and 10/25/2011

Applicable Federal Requirement: 40CFR 82, Subpart F

Item 23.1:
The permittee shall comply with all applicable provisions of 40 CFR Part 82.

The following conditions are subject to annual compliance certification requirements for Title V permits only.

Condition 24: Emission Unit Definition
Effective between the dates of 10/26/2006 and 10/25/2011

Applicable Federal Requirement: 6NYCRR 201-6

Item 24.1:
The facility is authorized to perform regulated processes under this permit for:
Emission Unit: U-BOILR
Emission Unit Description:
The plant operates four identical package boilers to produce hot water for space conditioning and process heating. The boilers were manufactured by Cleaver Brooks (Model # CB-750) and were installed in 1995-96. Flue gas recirculation (FRG) systems, which reduces the flame temperature and thus NOx emissions, and low NOx burners to further reduce NOx emissions are installed on each boiler. Each boiler is equipped with a dedicated emission point.

Building(s): MNBLDG

Item 24.2:
The facility is authorized to perform regulated processes under this permit for:
Emission Unit: U-ENGIN
Emission Unit Description:
The Bay Park STP operates four 3,600 KW (5,030 bhp) engine generators to produce electric power. The engines are manufactured by Cooper-Bessemer (Model LSVB-12-GDT) and were installed in 1989. The engines incorporate Cleanburn (TM) modifications to reduce NOx emissions and catalytic oxidizers to reduce VOC and CO emissions. Catalytic oxidizers are only operated on engines burning natural gas or distillate fuel oil. Each engine is equipped with a dedicated emission point.

Building(s): GENBLDG

Item 24.3:
The facility is authorized to perform regulated processes under this permit for:
Emission Unit: U-SCRUB
Emission Unit Description:
The plant employs thirteen scrubbers to control odors from the process operations. The scrubbers are all either vertical or horizontal packed-bed wet scrubbers. NaOH and NaOCl are continuously added to neutralize and oxidize the sulfur compounds.

Building(s): AERATKOCB
DESLDGFAC
GRITBLD
INFBLD
PRIMBLD
SCREENEXT
THICKENBLD

Condition 25: Compliance Certification

Effective between the dates of 10/26/2006 and 10/25/2011

Applicable Federal Requirement: 6NYCRR 201-6.5(c)(3)

Item 25.1:
The Compliance Certification activity will be performed for the Facility.

Item 25.2:
Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES
Monitoring Description:

To meet the requirements of this facility permit with respect to reporting, the permittee must:

Submit reports of any required monitoring at a minimum frequency of every 6 months, based on a calendar year reporting schedule. These reports shall be submitted to the Department within 30 days after the end of a reporting period. All instances of deviations from permit requirements must be clearly identified in such reports. All required reports must be certified by the responsible official for this facility.

In the case of any condition contained in this permit with a reporting requirement of "Upon request by regulatory agency" the permittee shall include in the semiannual report, a statement for each such condition that the monitoring or recordkeeping was performed as required or requested and a listing of all instances of deviations from these requirements.

In the case of any emission testing performed during the previous six month reporting period, either due to a request by the Department, EPA, or a regulatory requirement, the permittee shall include in the semiannual report a summary of the testing results and shall indicate whether or not the Department or EPA has approved the results.

All semiannual reports shall be submitted to the Administrator (or his or her representative) as well as two copies to the Department (one copy to the regional air pollution control engineer (RAPCE) in the regional office and one copy to the Bureau of Compliance Monitoring and Enforcement (BCME) in the DEC central office). Mailing addresses for the above referenced persons are contained in the monitoring condition for 6 NYCRR Part 201-6.5(e), contained elsewhere in this permit.

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 1/30/2007.

Subsequent reports are due every 6 calendar month(s).

Condition 26: Facility Permissible Emissions
Effective between the dates of 10/26/2006 and 10/25/2011

Applicable Federal Requirement: 6NYCRR 201-7

Item 26.1:
The sum of emissions from the emission units specified in this permit shall not equal or exceed the following
Potential To Emit (PTE) rate for each regulated contaminant:

CAS No: 000630-08-0 Name: CARBON MONOXIDE	PTE:	367,800	pounds per year
CAS No: 0NY210-00-0 Name: OXIDES OF NITROGEN	PTE:	488,200	pounds per year
CAS No: 0NY998-00-0 Name: VOC	PTE:	139,000	pounds per year

Condition 27: Capping Monitoring Condition
Effective between the dates of 10/26/2006 and 10/25/2011

Applicable Federal Requirement: 6NYCRR 201-7

Item 27.1:
Under the authority of 6 NYCRR Part 201-7, this condition contains an emission cap for the purpose of limiting emissions from the facility, emission unit or process to avoid being subject to the following applicable requirement(s) that the facility, emission unit or process would otherwise be subject to:

40CFR 52-A.21

Item 27.2:
Operation of this facility shall take place in accordance with the approved criteria, emission limits, terms, conditions and standards in this permit.

Item 27.3:
The owner or operator of the permitted facility must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility regulated by this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations or law.

Item 27.4:
On an annual basis, unless otherwise specified below, beginning one year after the granting of an emissions cap, the responsible official shall provide a certification to the Department that the facility

has operated all emission units within the limits imposed by the emission cap. This certification shall include a brief summary of the emissions subject to the cap for that time period and a comparison to the threshold levels that would require compliance with an applicable requirement.

Item 27.5:
The emission of pollutants that exceed the applicability thresholds for an applicable requirement, for which the facility has obtained an emissions cap, constitutes a violation of Part 201 and of the Act.

Item 27.6:
The Compliance Certification activity will be performed for the Facility.

Regulated Contaminant(s):
CAS No: 0NY210-00-0 OXIDES OF NITROGEN

Item 27.7:
Compliance Certification shall include the following monitoring:

Capping: Yes
Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS
Monitoring Description:
Plant emissions from engines and boilers will be calculated on a monthly basis. NOx emissions will be calculated using stack test data, monthly fuel usage, and monthly power usage. Each month's NOx emissions will be included in a summary spreadsheet. The following equation shall be used to calculate annual NOx emissions on a facility-wide basis:

$A(0.02) + B(100) + C(2.36) + D(1.49) + E(18.6) < 488{,}200$ pounds of NOx per year.

where:
For boilers:
A: 12-month rolling total of oil fired in gals/yr
B: 12-month rolling total of natural gas and/or digester gas fired in mcf/yr

For engines:
C: 12-month rolling total BHP on natural gas
D: 12-month rolling total BHP on digester gas
E: 12-month rolling total BHP on oil

Work Practice Type: PROCESS MATERIAL THRUPUT
Process Material: NUMBER 2 OIL
Upper Permit Limit: 488,200 pounds per year
Reference Test Method: NA
Monitoring Frequency: MONTHLY
Averaging Method: ANNUAL MAXIMUM ROLLED MONTHLY

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 1/30/2007.
Subsequent reports are due every 6 calendar month(s).

Condition 28: Capping Monitoring Condition
Effective between the dates of 10/26/2006 and 10/25/2011

Applicable Federal Requirement: 6NYCRR 201-7

Item 28.1:
Under the authority of 6 NYCRR Part 201-7, this condition contains an emission cap for the purpose of limiting emissions from the facility, emission unit or process to avoid being subject to the following applicable requirement(s) that the facility, emission unit or process would otherwise be subject to:

40CFR 52-A.21

Item 28.2:
Operation of this facility shall take place in accordance with the approved criteria, emission limits, terms, conditions and standards in this permit.

Item 28.3:
The owner or operator of the permitted facility must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility regulated by this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations or law.

Item 28.4:
On an annual basis, unless otherwise specified below, beginning one year after the granting of an emissions cap, the responsible official shall provide a certification to the Department that the facility has operated all emission units within the limits imposed by the emission cap. This certification shall include a brief summary of the emissions subject to the cap for that time period and a comparison to the threshold levels that would require compliance with an applicable requirement.

Item 28.5:
The emission of pollutants that exceed the applicability thresholds for an applicable requirement, for which the facility has obtained an emissions cap, constitutes a violation of Part 201 and of the Act.

Item 28.6:
The Compliance Certification activity will be performed for the Facility.

Regulated Contaminant(s):
CAS No: 000630-08-0 CARBON MONOXIDE

Item 28.7:
Compliance Certification shall include the following monitoring:

Capping: Yes
Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS
Monitoring Description:
Parameter emission calculations: Emissions from engines and boilers will be calculated on a monthly basis. CO emissions will be calculated using stack test data, monthly fuel usage, and monthly power usage. Each month's CO emissions will be included in a summary spreadsheet.

Work Practice Type: PROCESS MATERIAL THRUPUT
Process Material: NUMBER 2 OIL
Upper Permit Limit: 183.9 tons per year
Reference Test Method: NA
Monitoring Frequency: MONTHLY
Averaging Method: ANNUAL MAXIMUM ROLLED MONTHLY
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 1/30/2007.
Subsequent reports are due every 6 calendar month(s).

Condition 29: Capping Monitoring Condition
Effective between the dates of 10/26/2006 and 10/25/2011

Applicable Federal Requirement: 6NYCRR 201-7

Item 29.1:
Under the authority of 6 NYCRR Part 201-7, this condition contains an emission cap for the purpose of limiting emissions from the facility, emission unit or process to avoid being subject to the following applicable requirement(s) that the facility, emission unit or process would otherwise be subject to:

6NYCRR 231-1

Item 29.2:
Operation of this facility shall take place in accordance with the approved criteria, emission limits, terms, conditions and standards in this permit.

Item 29.3:
The owner or operator of the permitted facility must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility regulated by this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations or law.

Item 29.4:
On an annual basis, unless otherwise specified below, beginning one year after the granting of an emissions cap, the responsible official shall provide a certification to the Department that the facility has operated all emission units within the limits imposed by the emission cap. This certification shall include a brief summary of the emissions subject to the cap for that time period and a comparison to the threshold levels that would require compliance with an applicable requirement.

Item 29.5:
The emission of pollutants that exceed the applicability thresholds for an applicable requirement, for which the facility has obtained an emissions cap, constitutes a violation of Part 201 and of the Act.

Item 29.6:
The Compliance Certification activity will be performed for the Facility.

Regulated Contaminant(s):
CAS No: 0NY998-00-0 VOC .

Item 29.7:
Compliance Certification shall include the following monitoring:

Capping: Yes
Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS
Monitoring Description:
Parameter emission calculations: VOC emissions from engines and boilers will be calculated on a monthly basis. VOC emissions will be calculated using stack test data, monthly fuel usage, and monthly power usage. Each month's VOC emissions will be included in a summary spreadsheet.

Work Practice Type: PROCESS MATERIAL THRUPUT
Process Material: NUMBER 2 OIL
Upper Permit Limit: 69.5 tons per year
Reference Test Method: NA
Monitoring Frequency: MONTHLY
Averaging Method: ANNUAL MAXIMUM ROLLED MONTHLY
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 1/30/2007.
Subsequent reports are due every 6 calendar month(s).

Condition 30: Periodic stack testing required.
Effective between the dates of 10/26/2006 and 10/25/2011

Applicable Federal Requirement: 6NYCRR 202-1.1

Item 30.1: Stack test is required at least once during the permit term (five years). Stack test shall be performed on one of the four Cooper-Bessemer (model LSVB-12-GDT) engines. The following contaminants shall be tested: Oxides of Nitrogen (NOx), Carbon Monoxide (CO), and Volatile Organic Compounds (VOC's). Stack tests shall be performed following NYSDEC approved protocols and witnessed by a NYSDEC representative.

Condition 31: Compliance Certification
Effective between the dates of 10/26/2006 and 10/25/2011

Applicable Federal Requirement: 6NYCRR 225-1.2(a)(2)

Item 31.1:
The Compliance Certification activity will be performed for the Facility.

Item 31.2:
Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS
Monitoring Description:
No person shall sell, offer for sale, purchase or use any distillate oil which has a sulfur content greater than the limit presented below. A log of the sulfur content in oil per delivery must be maintained on site for a minimum of five years after the date of the last entry.

Work Practice Type: PARAMETER OF PROCESS MATERIAL
Process Material: DISTILLATES - NUMBER 1 AND NUMBER 2 OIL
Parameter Monitored: SULFUR CONTENT
Upper Permit Limit: 0.37 percent by weight
Reference Test Method: ASTM-4294
Monitoring Frequency: PER DELIVERY
Averaging Method: MAXIMUM - NOT TO BE EXCEEDED AT ANY TIME (INSTANTANEOUS/DISCRETE OR GRAB)
Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 32: Compliance Certification
Effective between the dates of 10/26/2006 and 10/25/2011

Applicable Federal Requirement: 6NYCRR 227-2.4(f)(2)

Item 32.1:
The Compliance Certification activity will be performed for the Facility.

Item 32.2:
Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES
Monitoring Description:
Fuel usage for the four Cooper Bessemer engines is limited to 500,000 gallons per year. With this limit, NOx emissions on a system-wide average basis are accepted as an alternative method to comply with current NOx RACT emission limits. Fuel usage records shall be kept on site and reported in compliance reports.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION
Averaging Method: ANNUAL TOTAL
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.

The initial report is due 1/30/2007.
Subsequent reports are due every 6 calendar month(s).

Condition 33: Compliance Certification
Effective between the dates of 10/26/2006 and 10/25/2011

Applicable Federal Requirement: 40CFR 52.21, Subpart A

Item 33.1:
The Compliance Certification activity will be performed for the Facility.

Regulated Contaminant(s):
CAS No: 000630-08-0 CARBON MONOXIDE

Item 33.2:
Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS
Monitoring Description:
Parameter emission calculations: Emissions from engines and boilers will be calculated on a monthly basis. CO emissions will be calculated using stack test data, monthly fuel usage, and monthly power usage. Each month's CO emissions will be included in a summary spreadsheet.

Work Practice Type: PROCESS MATERIAL THRUPUT
Process Material: NUMBER 2 OIL
Upper Permit Limit: 183.9 tons per year
Reference Test Method: NA
Monitoring Frequency: MONTHLY
Averaging Method: ANNUAL MAXIMUM ROLLED MONTHLY
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 1/30/2007.
Subsequent reports are due every 6 calendar month(s).

Condition 34: Compliance Certification
Effective between the dates of 10/26/2006 and 10/25/2011

Applicable Federal Requirement: 40CFR 52.21, Subpart A

Item 34.1:
The Compliance Certification activity will be performed for the Facility.

Regulated Contaminant(s):
CAS No: 0NY210-00-0 OXIDES OF NITROGEN

Item 34.2:
Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS
Monitoring Description:

Plant emissions from engines and boilers will be calculated on a monthly basis. NOx emissions will be calculated using stack test data, monthly fuel usage, and monthly power usage. Each month's NOx emissions will be included in a summary spreadsheet. The following equation shall be used to calculate annual NOx emissions on a facility-wide basis:

A(0.02) + B(100) + C(2.36) + D(1.49) + E(18.6) < 488,200 pounds of NOx per year.

where:

For boilers:
A: 12-month rolling total of oil fired in gals/yr
B: 12-month rolling total of natural gas and/or digester gas fired in mcf/yr

For engines:
C: 12-month rolling total BHP on natural gas
D: 12-month rolling total BHP on digester gas
E: 12-month rolling total BHP on oil

Work Practice Type: PROCESS MATERIAL THRUPUT
Process Material: NUMBER 2 OIL
Manufacturer Name/Model Number: NA
Upper Permit Limit: 488,200 pounds per year
Reference Test Method: NA
Monitoring Frequency: MONTHLY
Averaging Method: ANNUAL MAXIMUM ROLLED MONTHLY
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 1/30/2007.
Subsequent reports are due every 6 calendar month(s).

Condition 35: EPA Region 2 address.
Effective between the dates of 10/26/2006 and 10/25/2011

Applicable Federal Requirement: 40CFR 60.4, NSPS Subpart A

Item 35.1:
All requests, reports, applications, submittals, and other communications to the Administrator pursuant to this part shall be submitted in duplicate to the following address:

Director, Division of Enforcement and Compliance Assistance
USEPA Region 2

290 Broadway, 21st Floor
New York, NY 10007-1886

Copies of all correspondence to the administrator pursuant to this part shall also be submitted to the NYSDEC Regional Office issuing this permit (see address at the beginning of this permit) and to the following address:

NYSDEC
Bureau of Quality Assurance
625 Broadway
Albany, NY 12233-3258

Condition 36: Recordkeeping requirements.
Effective between the dates of 10/26/2006 and 10/25/2011

Applicable Federal Requirement: 40CFR 60.7(b), NSPS Subpart A

Item 36.1:
Affected owners or operators shall maintain records of occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.

Condition 37: Opacity standard compliance testing.
Effective between the dates of 10/26/2006 and 10/25/2011

Applicable Federal Requirement: 40CFR 60.11, NSPS Subpart A

Item 37.1:
The following conditions shall be used to determine compliance with the opacity standards:

1) observations shall be conducted in accordance with Reference Method 9, in Appendix A of 40 CFR Part 60(or an equivalent method approved by the Administrator including continuous opacity monitors);

2) the opacity standards apply at all times except during periods of start up, shutdown, and malfunction; and

3) all other applicable conditions cited in section 60.11 of this part.

Condition 38: Circumvention.
Effective between the dates of 10/26/2006 and 10/25/2011

Applicable Federal Requirement: 40CFR 60.12, NSPS Subpart A

Item 38.1:

No owner or operator subject to the provisions of this part shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere.

****** Emission Unit Level ******

Condition 39: Emission Point Definition By Emission Unit
Effective between the dates of 10/26/2006 and 10/25/2011

Applicable Federal Requirement: 6NYCRR 201-6

Item 39.1:
The following emission points are included in this permit for the cited Emission Unit:

Emission Unit: U-BOILR

Emission Point: 00031
Height (ft.): 42 Diameter (in.): 24
NYTMN (km.): 4498.723 NYTME (km.): 613.033 Building: MNBLDG

Emission Point: 00032
Height (ft.): 42 Diameter (in.): 24
NYTMN (km.): 4498.723 NYTME (km.): 613.033 Building: MNBLDG

Emission Point: 00033
Height (ft.): 42 Diameter (in.): 24
NYTMN (km.): 4498.723 NYTME (km.): 613.033 Building: MNBLDG

Emission Point: 00034
Height (ft.): 42 Diameter (in.): 24
NYTMN (km.): 4498.723 NYTME (km.): 613.033 Building: MNBLDG

Item 39.2:
The following emission points are included in this permit for the cited Emission Unit:

Emission Unit: U-ENGIN

Emission Point: 00023
Height (ft.): 52 Diameter (in.): 30
NYTMN (km.): 4498.723 NYTME (km.): 613.033 Building: GENBLDG

Emission Point: 00024
Height (ft.): 52 Diameter (in.): 30

NYTMN (km.): 4498.723 NYTME (km.): 613.033 Building: GENBLDG

Emission Point: 00025
Height (ft.): 52 Diameter (in.): 30
NYTMN (km.): 4498.723 NYTME (km.): 613.033 Building: GENBLDG

Emission Point: 00026
Height (ft.): 52 Diameter (in.): 30
NYTMN (km.): 4498.723 NYTME (km.): 613.033 Building: GENBLDG

Item 39.3:
The following emission points are included in this permit for the cited Emission Unit:

Emission Unit: U-SCRUB

Emission Point: 00001
Height (ft.): 37 Length (in.): 144 Width (in.): 96
NYTMN (km.): 4498.723 NYTME (km.): 613.033 Building: THICKENBLD

Emission Point: 00002
Height (ft.): 12 Diameter (in.): 24
NYTMN (km.): 4495.223 NYTME (km.): 613.033 Building: THICKENBLD

Emission Point: 00003
Height (ft.): 36 Diameter (in.): 24
NYTMN (km.): 4498.723 NYTME (km.): 613.033 Building: GRITBLD

Emission Point: 00004
Height (ft.): 36 Diameter (in.): 24
NYTMN (km.): 4498.723 NYTME (km.): 613.033 Building: GRITBLD

Emission Point: 00005
Height (ft.): 34 Diameter (in.): 22
NYTMN (km.): 4498.723 NYTME (km.): 613.033 Building: INFBLD

Emission Point: 00019
Height (ft.): 23 Diameter (in.): 42
NYTMN (km.): 4498.723 NYTME (km.): 613.033 Building: PRIMBLD

Emission Point: 00020
Height (ft.): 23 Diameter (in.): 42
NYTMN (km.): 4498.723 NYTME (km.): 613.033 Building: PRIMBLD

Emission Point: 00021
Height (ft.): 43 Length (in.): 180 Width (in.): 72
NYTMN (km.): 4498.723 NYTME (km.): 613.033 Building: DESLDGFAC

Emission Point: 00022
Height (ft.): 43 Length (in.): 180 Width (in.): 72
NYTMN (km.): 4498.723 NYTME (km.): 613.033 Building: DESLDGFAC

Emission Point: 00027
Height (ft.): 35 Diameter (in.): 24
NYTMN (km.): 4498.723 NYTME (km.): 613.033 Building: SCREENEXT

Emission Point: 00028
Height (ft.): 36 Diameter (in.): 48
NYTMN (km.): 4498.723 NYTME (km.): 613.033 Building: AERATKOCB

Emission Point: 00029
Height (ft.): 36 Diameter (in.): 48
NYTMN (km.): 4498.723 NYTME (km.): 613.033 Building: AERATKOCB

Emission Point: 00030
Height (ft.): 36 Diameter (in.): 48
NYTMN (km.): 4498.723 NYTME (km.): 613.033 Building: AERATKOCB

Condition 40: Process Definition By Emission Unit
Effective between the dates of 10/26/2006 and 10/25/2011

Applicable Federal Requirement: 6NYCRR 201-6

Item 40.1:
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-BOILR
Process: B01 Source Classification Code: 1-03-007-01
Process Description:
Combustion of digester gas for hot water production.

Emission Source/Control: S0031 - Combustion
Design Capacity: 31.4 million Btu per hour

Item 40.2:
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-BOILR
Process: B02 Source Classification Code: 1-02-006-02
Process Description:
Combustion of natural gas for hot water production.

Emission Source/Control: S0031 - Combustion
Design Capacity: 31.4 million Btu per hour

Item 40.3:

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-BOILR
Process: B03 Source Classification Code: 1-02-005-02
Process Description: Combustion of fuel oil for hot water production.

Emission Source/Control: S0031 - Combustion
Design Capacity: 31.4 million Btu per hour

Item 40.4:
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-BOILR
Process: B04 Source Classification Code: 1-03-007-01
Process Description:
Combustion of digester gas for hot water production.

Emission Source/Control: S0032 - Combustion
Design Capacity: 31.4 million Btu per hour

Item 40.5:
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-BOILR
Process: B05 Source Classification Code: 1-02-006-02
Process Description:
Combustion of natural gas for hot water production.

Emission Source/Control: S0032 - Combustion
Design Capacity: 31.4 million Btu per hour

Item 40.6:
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-BOILR
Process: B06 Source Classification Code: 1-02-005-02
Process Description: Combustion of fuel oil for water production.

Emission Source/Control: S0032 - Combustion
Design Capacity: 31.4 million Btu per hour

Item 40.7:
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-BOILR
Process: B07 Source Classification Code: 1-03-007-01
Process Description:
Combustion of digester gas for hot water production.

Emission Source/Control: S0033 - Combustion
Design Capacity: 31.4 million Btu per hour

Item 40.8:
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-BOILR
Process: B08 Source Classification Code: 1-02-006-02
Process Description:
Combustion of natural gas for hot water production.

Emission Source/Control: S0033 - Combustion
Design Capacity: 31.4 million Btu per hour

Item 40.9:
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-BOILR
Process: B09 Source Classification Code: 1-02-005-02
Process Description: Combustion of fuel oil for hot water production.

Emission Source/Control: S0033 - Combustion
Design Capacity: 31.4 million Btu per hour

Item 40.10:
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-BOILR
Process: B10 Source Classification Code: 1-03-007-01
Process Description:
Combustion of digester gas for hot water production.

Emission Source/Control: S0034 - Combustion
Design Capacity: 31.4 million Btu per hour

Item 40.11:
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-BOILR
Process: B11 Source Classification Code: 1-02-006-02
Process Description:
Combustion of natural gas for hot water production.

Emission Source/Control: S0034 - Combustion
Design Capacity: 31.4 million Btu per hour

Item 40.12:
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-BOILR
Process: B12 Source Classification Code: 1-02-005-02
Process Description: Combustion of fuel gas for hot water production.

Emission Source/Control: S0034 - Combustion
Design Capacity: 31.4 million Btu per hour

Item 40.13:
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-ENGIN
Process: E01 Source Classification Code: 2-03-007-02
Process Description:
Combustion of digester gas in engine to produce electricity. Distillate fuel oil is used as a pilot fuel at a ratio of approximately 1.5%. When operating in this mode, catalytic oxidizers cannot be used because the control equipment experiences fouling from siloxane which is a component of the digester gas.

Emission Source/Control: S0023 - Combustion
Design Capacity: 3,600 kilowatts

Item 40.14:
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-ENGIN
Process: E02 Source Classification Code: 2-01-002-02
Process Description:
Combustion of natural gas in engine to produce electricity. Distillate fuel oil is used as a pilot fuel at a ratio of approximately 1.5%.

Emission Source/Control: S0023 - Combustion
Design Capacity: 3,600 kilowatts

Item 40.15:
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-ENGIN
Process: E03 Source Classification Code: 2-01-001-02
Process Description:
Combustion of distillate fuel oil in engine to produce electricity. This fuel mode is only utilized during fuel switches, testing, preventive maintenance, repairs and emergencies.

Emission Source/Control: S0023 - Combustion
Design Capacity: 3,600 kilowatts

Item 40.16:
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-ENGIN
Process: E04 Source Classification Code: 2-03-007-02
Process Description:
Combustion of digester gas in engine to produce electricity. Distillate fuel oil is used as a pilot fuel at a ratio of approximately 1.5%. When operating in this mode, catalytic oxidizers cannot be used because the control equipment experiences fouling from siloxane which is a component of the digester gas.

Emission Source/Control: S0024 - Combustion
Design Capacity: 3,600 kilowatts

Item 40.17:
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-ENGIN
Process: E05 Source Classification Code: 2-01-002-02
Process Description:
Combustion of natural gas in engine to produce electricity. Distillate fuel oil is used as a pilot fuel at a ratio of approximately 1.5%.

Emission Source/Control: S0024 - Combustion
Design Capacity: 3,600 kilowatts

Item 40.18:
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-ENGIN
Process: E06 Source Classification Code: 2-01-001-02
Process Description:
Combustion of distillate fuel oil in engine to produce electricity. This fuel mode is only utilized during fuel switches, testing, preventive maintenance, repairs and emergencies.

Emission Source/Control: S0024 - Combustion
Design Capacity: 3,600 kilowatts

Item 40.19:
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-ENGIN

Process: E07 Source Classification Code: 2-03-007-02
Process Description:
Combustion of digester gas in engine to produce electricity. Distillate fuel oil is used as a pilot fuel at a ratio of approximately 1.5%. When operating in this mode, catalytic oxidizers cannot be used because the control equipment experiences fouling from siloxane which is a component of the digester gas.

Emission Source/Control: S0025 - Combustion
Design Capacity: 3,600 kilowatts

Item 40.20:
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-ENGIN
Process: E08 Source Classification Code: 2-01-002-02
Process Description:
Combustion of natural gas in engine to produce electricity. Distillate fuel oil is used as a pilot fuel at a ratio of approximately 1.5%.

Emission Source/Control: S0025 - Combustion
Design Capacity: 3,600 kilowatts

Item 40.21:
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-ENGIN
Process: E09 Source Classification Code: 2-01-001-02
Process Description:
Combustion of distillate fuel oil in engine to produce electricity. This fuel mode is only utilized during fuel switches, testing, preventive maintenance, repairs and emergencies.

Emission Source/Control: S0025 - Combustion
Design Capacity: 3,600 kilowatts

Item 40.22:
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-ENGIN
Process: E10 Source Classification Code: 2-03-007-02
Process Description:
Combustion of digester gas in engine to produce electricity. Distillate fuel oil is used as a pilot fuel at a ratio of approximately 1.5%. When operating in this mode, catalytic oxidizers cannot be used because the control equipment experiences fouling from

siloxane which is a component of the digester gas.

Emission Source/Control: S0026 - Combustion
Design Capacity: 3,600 kilowatts

Item 40.23:
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-ENGIN
Process: E11 Source Classification Code: 2-01-002-02
Process Description:
Combustion of natural gas in engine to produce electricity. Distillate fuel oil is used as a pilot fuel at a ratio of approximately 1.5%.

Emission Source/Control: S0026 - Combustion
Design Capacity: 3,600 kilowatts

Item 40.24:
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-ENGIN
Process: E12 Source Classification Code: 2-01-001-02
Process Description:
Combustion of distillate fuel oil in engine to produce electricity. This fuel mode is only utilized during fuel switches, testing, preventive maintenance, repairs and emergencies.

Emission Source/Control: S0026 - Combustion
Design Capacity: 3,600 kilowatts

Item 40.25:
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-SCRUB
Process: P01 Source Classification Code: 3-01-820-02
Process Description:
The dissolved air flotation sludge thickeners are used in the sludge thickening process. Two scrubbers are used for this process and are vented to the same emission point.

Emission Source/Control: 00001 - Control
Control Type: WET SCRUBBER

Emission Source/Control: 00002 - Control
Control Type: WET SCRUBBER

Emission Source/Control: S0001 - Process

Item 40.26:
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-SCRUB
Process: P02 Source Classification Code: 3-01-820-02
Process Description:
The grit chambers are utilized in the grit removal process. Two scrubbers are used for this process.

Emission Source/Control: 00003 - Control
Control Type: WET SCRUBBER

Emission Source/Control: 00004 - Control
Control Type: WET SCRUBBER

Emission Source/Control: S0002 - Process

Item 40.27:
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-SCRUB
Process: P03 Source Classification Code: 3-01-820-02
Process Description:
The influent screening channels and the influent gate chamber are a part of the screening process. One scrubber is used for this process.

Emission Source/Control: 00005 - Control
Control Type: WET SCRUBBER

Emission Source/Control: S0003 - Process

Emission Source/Control: S0004 - Process

Item 40.28:
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-SCRUB
Process: P04 Source Classification Code: 3-01-820-02
Process Description:
The primary settling tanks are used in the primary sedimentation process. Two scrubbers are used for this process.

Emission Source/Control: 00019 - Control
Control Type: WET SCRUBBER

Emission Source/Control: 00020 - Control
Control Type: WET SCRUBBER

Emission Source/Control: S0005 - Process

Item 40.29:
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-SCRUB
Process: P05 Source Classification Code: 3-01-820-02
Process Description:
The belt filter presses are utilized in the sludge dewatering process. Two scrubbers are used for this process.

Emission Source/Control: 00021 - Control
Control Type: WET SCRUBBER

Emission Source/Control: 00022 - Control
Control Type: WET SCRUBBER

Emission Source/Control: S0006 - Process

Item 40.30:
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-SCRUB
Process: P06 Source Classification Code: 3-01-820-02
Process Description:
The aeration process includes the following odor controlled areas: FST influent channel, RAS lifts, and RAS wet well which are treated by the scrubber for the Emission Point 00027.

Emission Source/Control: 00027 - Control
Control Type: WET SCRUBBER

Emission Source/Control: S0007 - Process

Emission Source/Control: S0008 - Process

Emission Source/Control: S0009 - Process

Item 40.31:
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-SCRUB
Process: P07 Source Classification Code: 3-01-820-02
Process Description:

Aeration tank No. 1 is part of the aeration process and is covered to mitigate odor issues. All process air is vented to odor control scrubbers.

Emission Source/Control: 00028 - Control
Control Type: WET SCRUBBER

Emission Source/Control: 00029 - Control
Control Type: WET SCRUBBER

Emission Source/Control: 00030 - Control
Control Type: WET SCRUBBER

Emission Source/Control: S0010 - Process

Item 40.32:
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-SCRUB
Process: P08 Source Classification Code: 3-01-820-02
Process Description:
Aeration tank No. 2 is part of the aeration process and is covered to mitigate odor issues. All process air is vented to odor control scrubbers.

Emission Source/Control: 00028 - Control
Control Type: WET SCRUBBER

Emission Source/Control: 00029 - Control
Control Type: WET SCRUBBER

Emission Source/Control: 00030 - Control
Control Type: WET SCRUBBER

Emission Source/Control: S0011 - Process

Item 40.33:
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-SCRUB
Process: P09 Source Classification Code: 3-01-820-02
Process Description:
Aeration tank No. 3 is part of the aeration process and is covered to mitigate odor issues. All process air is vented to odor control scrubbers.

Emission Source/Control: 00028 - Control

Control Type: WET SCRUBBER

Emission Source/Control: 00029 - Control
Control Type: WET SCRUBBER

Emission Source/Control: 00030 - Control
Control Type: WET SCRUBBER

Emission Source/Control: S0012 - Process

Item 40.34:
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-SCRUB
Process: P10 Source Classification Code: 3-01-820-02
Process Description:
Aeration tank No. 4 is part of the aeration process and is covered to mitigate odor issues. All process air is vented to odor control scrubbers.

Emission Source/Control: 00028 - Control
Control Type: WET SCRUBBER

Emission Source/Control: 00029 - Control
Control Type: WET SCRUBBER

Emission Source/Control: 00030 - Control
Control Type: WET SCRUBBER

Emission Source/Control: S0013 - Process

Item 40.35:
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-SCRUB
Process: P11 Source Classification Code: 3-01-820-02
Process Description:
The following are covered area sources and are part of the aeration process: Aeration tank influent and effluent channels.

Emission Source/Control: 00028 - Control
Control Type: WET SCRUBBER

Emission Source/Control: 00029 - Control
Control Type: WET SCRUBBER

Emission Source/Control: 00030 - Control

Control Type: WET SCRUBBER

Emission Source/Control: S0036 - Process

Item 40.36:
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-SCRUB
Process: P12 Source Classification Code: 3-01-820-02
Process Description:
Final sedimentation tank No. 1 is part of the secondary sedimentation process and is an open source.

Emission Source/Control: S0014 - Process

Item 40.37:
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-SCRUB
Process: P13 Source Classification Code: 3-01-820-02
Process Description:
Final sedimentation tank No. 2 is part of the secondary sedimentation process and is an open source.

Emission Source/Control: S0015 - Process

Item 40.38:
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-SCRUB
Process: P14 Source Classification Code: 3-01-820-02
Process Description:
Final sedimentation tank No. 3 is part of the secondary sedimentation process and is an open source.

Emission Source/Control: S0016 - Process

Item 40.39:
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-SCRUB
Process: P15 Source Classification Code: 3-01-820-02
Process Description:
Final sedimentation tank No. 4 is part of the secondary sedimentation process and is an open source.

Emission Source/Control: S0017 - Process

Item 40.40:
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-SCRUB
Process: P16 Source Classification Code: 3-01-820-02
Process Description:
Final sedimentation tank No. 5 is part of the secondary sedimentation process and is an open source.

Emission Source/Control: S0018 - Process

Item 40.41:
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-SCRUB
Process: P17 Source Classification Code: 3-01-820-02
Process Description:
Final sedimentation tank No. 6 is part of the secondary sedimentation process and is an open source.

Emission Source/Control: S0019 - Process

Item 40.42:
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-SCRUB
Process: P18 Source Classification Code: 3-01-820-02
Process Description:
Final sedimentation tank No. 7 is part of the secondary sedimentation process and is an open source.

Emission Source/Control: S0020 - Process

Item 40.43:
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-SCRUB
Process: P19 Source Classification Code: 3-01-820-02
Process Description:
Final sedimentation tank No. 8 is part of the secondary sedimentation process and is an open source.

Emission Source/Control: S0021 - Process

Item 40.44:
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-SCRUB

Process: P20 Source Classification Code: 3-01-820-02
Process Description:
Final sedimentation tank No. 9 is part of the secondary sedimentation process and is an open source.

Emission Source/Control: S0022 - Process

Item 40.45:
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-SCRUB
Process: P21 Source Classification Code: 3-01-820-02
Process Description:
Final sedimentation tank No. 10 is part of the secondary sedimentation process and is an open source.

Emission Source/Control: S0035 - Process

Item 40.46:
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-SCRUB
Process: P22 Source Classification Code: 3-01-820-02
Process Description:
The final effluent screening channel is an open source which is covered but not odor controlled. It is included in the secondary process.

Emission Source/Control: S0037 - Process

Item 40.47:
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-SCRUB
Process: P23 Source Classification Code: 3-01-820-02
Process Description:
Aeration tank No. 5 is part of the aeration process and is covered to mitigate odor issues. All process air is vented to odor control scrubbers.

Emission Source/Control: 00028 - Control
Control Type: WET SCRUBBER

Emission Source/Control: 00029 - Control
Control Type: WET SCRUBBER

Emission Source/Control: 00030 - Control

Control Type: WET SCRUBBER

Emission Source/Control: S0038 - Process

Condition 41: Emission Unit Permissible Emissions
Effective between the dates of 10/26/2006 and 10/25/2011

Applicable Federal Requirement: 6NYCRR 201-7

Item 41.1:
The sum of emissions from all regulated processes specified in this permit for the emission unit cited shall not exceed the following Potential to Emit (PTE) rates for each regulated contaminant:

Emission Unit: U-ENGIN

CAS No: 0NY210-00-0
Name: OXIDES OF NITROGEN
PTE(s): 55.73 pounds per hour
488,200 pounds per year

Condition 42: Process Permissible Emissions
Effective between the dates of 10/26/2006 and 10/25/2011

Applicable Federal Requirement: 6NYCRR 201-7

Item 42.1:
The sum of emissions from the regulated process cited shall not exceed the following Potential to Emit (PTE) rates for each regulated contaminant:

Emission Unit: U-ENGIN Process: E01

CAS No: 0NY210-00-0
Name: OXIDES OF NITROGEN
PTE(s): 9 grams per brake horsepower-hour
55.73 pounds per hour
488,200 pounds per year

Emission Unit: U-ENGIN Process: E02

CAS No: 0NY210-00-0
Name: OXIDES OF NITROGEN
PTE(s): 55.73 pounds per hour
488,200 pounds per year

Emission Unit: U-ENGIN Process: E03

CAS No: 0NY210-00-0

Name: OXIDES OF NITROGEN
PTE(s): 9 grams per brake horsepower-hour
55.73 pounds per hour
488,200 pounds per year

Emission Unit: U-ENGIN Process: E04

CAS No: 0NY210-00-0
Name: OXIDES OF NITROGEN
PTE(s): 9 grams per brake horsepower-hour
55.73 pounds per hour
488,200 pounds per year

Emission Unit: U-ENGIN Process: E05

CAS No: 0NY210-00-0
Name: OXIDES OF NITROGEN
PTE(s): 9 grams per brake horsepower-hour
55.73 pounds per hour
488,200 pounds per year

Emission Unit: U-ENGIN Process: E06

CAS No: 0NY210-00-0
Name: OXIDES OF NITROGEN
PTE(s): 9 grams per brake horsepower-hour
55.73 pounds per hour
488,200 pounds per year

Emission Unit: U-ENGIN Process: E07

CAS No: 0NY210-00-0
Name: OXIDES OF NITROGEN
PTE(s): 9 grams per brake horsepower-hour
55.73 pounds per hour
488,200 pounds per year

Emission Unit: U-ENGIN Process: E08

CAS No: 0NY210-00-0
Name: OXIDES OF NITROGEN
PTE(s): 9 grams per brake horsepower-hour
55.73 pounds per hour
488,200 pounds per year

Emission Unit: U-ENGIN Process: E09

CAS No: 0NY210-00-0
Name: OXIDES OF NITROGEN
PTE(s): 9 grams per brake horsepower-hour
55.73 pounds per hour
488,200 pounds per year

Emission Unit: U-ENGIN Process: E10

CAS No: 0NY210-00-0
Name: OXIDES OF NITROGEN
PTE(s): 9 grams per brake horsepower-hour
55.73 pounds per hour
488,200 pounds per year

Emission Unit: U-ENGIN Process: E11

CAS No: 0NY210-00-0
Name: OXIDES OF NITROGEN
PTE(s): 9 grams per brake horsepower-hour
55.73 pounds per hour
488,200 pounds per year

Emission Unit: U-ENGIN Process: E12

CAS No: 0NY210-00-0
Name: OXIDES OF NITROGEN
PTE(s): 9 grams per brake horsepower-hour
55.73 pounds per hour
488,200 pounds per year

Condition 43: Compliance Certification
Effective between the dates of 10/26/2006 and 10/25/2011

Applicable Federal Requirement: 6NYCRR 227-1.3

Item 43.1:
The Compliance Certification activity will be performed for:

Emission Unit: U-BOILR

Item 43.2:
Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES
Monitoring Description:
Operators of oil-fired boilers which are not exempt from permitting and where a continuous opacity monitor is not utilized for measuring smoke emissions, shall be required to perform the following:

1) Observe the stack for each boiler which is operating on oil once per day for visible emissions. This observation(s) must be conducted during daylight hours except during adverse weather conditions (fog, rain, or snow).

2) The results of each observation must be recorded in a bound logbook or other format acceptable to the Department. The following data must be recorded for each stack:

- weather condition
- was a plume observed?

This logbook must be retained at the facility for five (5) years after the date of the last entry.

3) If the operator observes any visible emissions (other than steam - see below) two consecutive days firing oil (the firing of other fuels in between days of firing oil does not count as an interruption in the consecutive days of firing oil), then a Method 9 analysis (based upon a 6-minute mean) of the affected emission point(s) must be conducted within two (2) business days of such occurrence. The results of the Method 9 analysis must be recorded in the logbook. The operator must contact the Regional Air Pollution Control Engineer within one (1) business day of performing the Method 9 analysis if the opacity standard is contravened. Upon notification, any corrective actions or future compliance schedules shall be presented to the Department for acceptance.

** NOTE ** Steam plumes generally form after leaving the top of the stack (this is known as a detached plume). The distance between the stack and the beginning of the detached plume may vary, however, there is (normally) a distinctive distance between the plume and stack. Steam plumes are white in color and have a billowy consistency. Steam plumes dissipate within a short distance of the stack (the colder the air the longer the steam plume will last) and leave no dispersion trail downwind of the stack.

Monitoring Frequency: DAILY
Reporting Requirements: ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 1/30/2007.
Subsequent reports are due every 12 calendar month(s).

Condition 44: Compliance Certification
Effective between the dates of 10/26/2006 and 10/25/2011

Applicable Federal Requirement: 6NYCRR 227-2.4(d)

Item 44.1:
The Compliance Certification activity will be performed for:

Emission Unit: U-BOILR

Item 44.2:
Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES
Monitoring Description:
A boiler tune-up shall be performed annually. The owner or operator of a small boiler shall maintain a log (in the format acceptable to the Department) containing the following information: (1) The date which the equipment was adjusted; and (2) The name, title, and affiliation of the person who adjusted the equipment.

Monitoring Frequency: ANNUALLY
Reporting Requirements: ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 1/30/2007.
Subsequent reports are due every 12 calendar month(s).

Condition 45: Applicability of General Provisions of 40 CFR 60 Subpart A
Effective between the dates of 10/26/2006 and 10/25/2011

Applicable Federal Requirement: 40CFR 60, NSPS Subpart A

Item 45.1:
This Condition applies to Emission Unit: U-BOILR

Item 45.2:
This emission source is subject to the applicable General Provisions of 40 CFR 60. The facility owner is responsible for reviewing these general provisions in detail and complying with all applicable technical, administrative and reporting requirements.

Condition 46: Compliance with Standards and Maintenance Requirements
Effective between the dates of 10/26/2006 and 10/25/2011

Applicable Federal Requirement: 40CFR 60.11(d), NSPS Subpart A

Item 46.1:
This Condition applies to Emission Unit: U-BOILR

Item 46.2:
At all times, including periods of startup, shutdown, and malfunction, owners and operators of this

facility shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Department and the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source

Condition 47: Applicability of this Subpart to this emission source
Effective between the dates of 10/26/2006 and 10/25/2011

Applicable Federal Requirement: 40CFR 60.40c, NSPS Subpart Dc

Item 47.1:
This Condition applies to Emission Unit: U-BOILR

Item 47.2:
This emission source is subject to the applicable General Provisions of 40 CFR 60 Subpart Dc. The facility owner is responsible for reviewing these general provisions in detail and complying with all applicable technical, administrative and reporting requirements.

Condition 48: Compliance Certification
Effective between the dates of 10/26/2006 and 10/25/2011

Applicable Federal Requirement: 40CFR 60.42c(d), NSPS Subpart Dc

Item 48.1:
The Compliance Certification activity will be performed for:

Emission Unit: U-BOILR

Item 48.2:
Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS
Monitoring Description:
On or after the date on which the initial performance test is completed or required to be completed under section 60.8 of this part, no owner or operator of an affected facility that combusts oil shall combust oil with a sulfur content in excess of 0.5 percent by weight.

Work Practice Type: PARAMETER OF PROCESS MATERIAL
Process Material: NUMBER 2 OIL
Parameter Monitored: SULFUR CONTENT
Upper Permit Limit: 0.50 percent by weight
Monitoring Frequency: PER DELIVERY
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 1/30/2007.

Subsequent reports are due every 6 calendar month(s).

Condition 49: Enforceablity.
Effective between the dates of 10/26/2006 and 10/25/2011

Applicable Federal Requirement: 40CFR 60.42c(i), NSPS Subpart Dc

Item 49.1:
This Condition applies to Emission Unit: U-BOILR

Item 49.2:
The sulfur dioxide emission limits, percentage reductions, and fuel oil sulfur limitations shall apply at all times, including periods of startup, shutdown, and malfunction.

Condition 50: Compliance Certification
Effective between the dates of 10/26/2006 and 10/25/2011

Applicable Federal Requirement: 40CFR 60.43c(c), NSPS Subpart Dc

Item 50.1:
The Compliance Certification activity will be performed for:

Emission Unit: U-BOILR

Regulated Contaminant(s):
CAS No: 0NY075-00-0 PARTICULATES

Item 50.2:
Compliance Certification shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL DEVICE PARAMETERS AS SURROGATE
Monitoring Description:
On and after the date on which the initial performance test is completed or required to be completed under §60.8 of this part, whichever date comes first, no owner or operator of an affected facility that combusts coal, wood or oil and has a heat input capacity of 30 million BTU per hour or greater shall cause to be discharged into the atmosphere from an affected facility any gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more thatn 27 percent opacity.

Parameter Monitored: OPACITY
Upper Permit Limit: 20.0 percent
Monitoring Frequency: CONTINUOUS
Averaging Method: 6 MINUTE AVERAGE
Reporting Requirements: ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.

The initial report is due 1/30/2007.
Subsequent reports are due every 12 calendar month(s).

Condition 51: Compliance Certification
Effective between the dates of 10/26/2006 and 10/25/2011

Applicable Federal Requirement: 6NYCRR 227-1.3

Item 51.1:
The Compliance Certification activity will be performed for:

Emission Unit: U-ENGIN

Item 51.2:
Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES
Monitoring Description:

Operators of oil-fired internal combustion engines which are not exempt from permitting and where a continuous opacity monitor is not utilized for measuring smoke emissions, shall be required to perform the following:

1) Observe the stack for each internal combustion engine which is operating on oil once per day for visible emissions. This observation(s) must be conducted during daylight hours except during adverse weather conditions (fog, rain, or snow).

2) The results of each observation must be recorded in a bound logbook or other format acceptable to the Department. The following data must be recorded for each stack:

- weather condition
- was a plume observed?

This logbook must be retained at the facility for five (5) years after the date of the last entry.

3) If the operator observes any visible emissions (other than steam - see below) two consecutive days firing oil (the firing of other fuels in between days of firing oil does not count as an interruption in the consecutive days of firing oil), then a Method 9 analysis (based upon a 6-minute mean) of the affected emission point(s) must be conducted within two (2) business days of such occurrence. The results of the Method 9 analysis must be recorded in the logbook. The operator must contact the Regional Air Pollution Control Engineer within one (1) business day of performing the Method 9 analysis if the opacity standard is contravened. Upon notification, any corrective actions or

future compliance schedules shall be presented to the Department for acceptance.

** NOTE ** Steam plumes generally form after leaving the top of the stack (this is known as a detached plume). The distance between the stack and the beginning of the detached plume may vary, however, there is (normally) a distinctive distance between the plume and stack. Steam plumes are white in color and have a billowy consistency. Steam plumes dissipate within a short distance of the stack (the colder the air the longer the steam plume will last) and leave no dispersion trail downwind of the stack.

Monitoring Frequency: DAILY
Reporting Requirements: ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 1/30/2007.
Subsequent reports are due every 12 calendar month(s).

STATE ONLY ENFORCEABLE CONDITIONS
****** Facility Level ******

NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS
This section contains terms and conditions which are not federally enforceable. Permittees may also have other obligations under regulations of general applicability

Item A: **General Provisions for State Enforceable Permit Terms and Condition - 6 NYCRR Part 201-5**

Any person who owns and/or operates stationary sources shall operate and maintain all emission units and any required emission control devices in compliance with all applicable Parts of this Chapter and existing laws, and shall operate the facility in accordance with all criteria, emission limits, terms, conditions, and standards in this permit. Failure of such person to properly operate and maintain the effectiveness of such emission units and emission control devices may be sufficient reason for the Department to revoke or deny a permit.

The owner or operator of the permitted facility must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility regulated by this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations or law.

STATE ONLY APPLICABLE REQUIREMENTS
The following conditions are state applicable requirements and are not subject to compliance certification requirements unless otherwise noted or required under 6 NYCRR Part 201.

Condition 52: **Contaminant List**
Effective between the dates of 10/26/2006 and 10/25/2011

Applicable State Requirement: ECL 19-0301

Item 52.1:
Emissions of the following contaminants are subject to contaminant specific requirements in this permit(emission limits, control requirements or compliance monitoring conditions).

CAS No: 000630-08-0
Name: CARBON MONOXIDE

CAS No: 0NY210-00-0
Name: OXIDES OF NITROGEN

CAS No: 0NY075-00-0
Name: PARTICULATES

CAS No: 0NY998-00-0
Name: VOC

Condition 53: Unavoidable noncompliance and violations
Effective between the dates of 10/26/2006 and 10/25/2011

Applicable State Requirement: 6NYCRR 201-1.4

Item 53.1:
At the discretion of the commissioner a violation of any applicable emission standard for necessary scheduled equipment maintenance, start-up/shutdown conditions and malfunctions or upsets may be excused if such violations are unavoidable. The following actions and recordkeeping and reporting requirements must be adhered to in such circumstances.

(a) The facility owner and/or operator shall compile and maintain records of all equipment maintenance or start-up/shutdown activities when they can be expected to result in an exceedance of any applicable emission standard, and shall submit a report of such activities to the commissioner's representative when requested to do so in writing or when so required by a condition of a permit issued for the corresponding air contamination source except where conditions elsewhere in this permit which contain more stringent reporting and notification provisions for an applicable requirement, in which case they supercede those stated here. Such reports shall describe why the violation was unavoidable and shall include the time, frequency and duration of the maintenance and/or start-up/shutdown activities and the identification of air contaminants, and the estimated emission rates. If a facility owner and/or operator is subject to continuous stack monitoring and quarterly reporting requirements, he need not submit reports for equipment maintenance or start-up/shutdown for the facility to the commissioner's representative.

(b) In the event that emissions of air contaminants in excess of any emission standard in 6 NYCRR Chapter III Subchapter A occur due to a malfunction, the facility owner and/or operator shall report such malfunction by telephone to the commissioner's representative as soon as possible during normal working hours, but in any event not later than two working days after becoming aware that the malfunction occurred. Within 30 days thereafter, when requested in writing by the commissioner's representative, the facility owner and/or operator shall submit a written report to the commissioner's representative describing the malfunction, the corrective action taken, identification of air contaminants, and an estimate of the emission rates. These reporting requirements are superceded by conditions elsewhere in this permit which contain reporting and notification provisions for applicable requirements more stringent than those above.

(c) The Department may also require the owner and/or operator to include in reports described under (a) and (b) above an estimate of the maximum ground level concentration of each air contaminant emitted and the effect of such emissions depending on the deviation of the malfunction

and the air contaminants emitted.

(d) In the event of maintenance, start-up/shutdown or malfunction conditions which result in emissions exceeding any applicable emission standard, the facility owner and/or operator shall take appropriate action to prevent emissions which will result in contravention of any applicable ambient air quality standard. Reasonably available control technology, as determined by the commissioner, shall be applied during any maintenance, start-up/shutdown or malfunction condition subject to this paragraph.

(e) In order to have a violation of a federal regulation (such as a new source performance standard or national emissions standard for hazardous air pollutants) excused, the specific federal regulation must provide for an affirmative defense during start-up, shutdowns, malfunctions or upsets.

Condition 54: Air pollution prohibited
Effective between the dates of 10/26/2006 and 10/25/2011

Applicable State Requirement: 6NYCRR 211.2

Item 54.1:
No person shall cause or allow emissions of air contaminants to the outdoor atmosphere of such quantity, characteristic or duration which are injurious to human, plant or animal life or to property, or which unreasonably interfere with the comfortable enjoyment of life or property. Notwithstanding the existence of specific air quality standards or emission limits, this prohibition applies, but is not limited to, any particulate, fume, gas, mist, odor, smoke, vapor, pollen, toxic or deleterious emission, either alone or in combination with others.

Condition 55: Compliance Demonstration
Effective between the dates of 10/26/2006 and 10/25/2011

Applicable State Requirement: 6NYCRR 231-1

Item 55.1:
The Compliance Demonstration activity will be performed for the Facility.

Regulated Contaminant(s):
CAS No: 0NY998-00-0 VOC

Item 55.2:
Compliance Demonstration shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS
Monitoring Description:
Parameter emission calculations: VOC emissions from engines and boilers will be calculated on a monthly basis. VOC emissions will be calculated using stack test data, monthly fuel usage, and monthly power usage. Each month's VOC emissions will be included in a summary spreadsheet.

Work Practice Type: PROCESS MATERIAL THRUPUT
Process Material: NUMBER 2 OIL
Upper Permit Limit: 69.5 tons per year
Reference Test Method: NA
Monitoring Frequency: MONTHLY
Averaging Method: ANNUAL MAXIMUM ROLLED MONTHLY
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 1/30/2007.
Subsequent reports are due every 6 calendar month(s).

Appendix Document J
Title V Permit Renewal Application

(fold #2)

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF ENVIRONMENTAL PERMITS
NYSDEC REGION 1 HEADQUARTERS
SUNY @ STONY BROOK|50 CIRCLE RD
STONY BROOK NY 11790

Richard Cotugno
NASSAU COUNTY DEPT OF PUBLIC WORKS
1194 PROSPECT AVE
WESTBURY, NY 11590-2723

(fold #1) -- staple here

NOTICE OF RECEIPT OF APPLICATION

The Division of Environmental Permits has received the application referenced below. The material submitted is being reviewed by staff, and you will be advised in writing regarding the department's findings. In all future communications, please refer to the Application ID number.

Application ID: 1-2820-00652/00055

Date Received: May 09, 2011

Applicant: NASSAU COUNTY

Facility: NASSAU COUNTY SD #2 BAY PARK ST

Description: renew title V permit

DEC Contact: MARK CARRARA

EDWARD P. MANGANO
COUNTY EXECUTIVE

SHILA SHAH-GAVNOUDIAS, P.E.
COMMISSIONER

COUNTY OF NASSAU
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590-2723

May 6, 2011

CERTIFIED MAIL

Mr. Roger Evans
Regional Permit Administrator
NYS Department of Environmental Conservation
SUNY Stony Brook
50 Circle Road
Stony Brook, New York 11790-3409

Re: **Bay Park Sewage Treatment Plant**
Title V Renewal Application
DEC ID: 1-2820-000652

Dear Mr. Evans:

Enclosed please find two copies of the application for renewal of the Title V Air Permit for the Nassau County Department of Public Works' Bay Park Sewage Treatment Plant located in East Rockaway, New York.

The enclosed application package consists of the following:

- Application Forms
- Attachment 1 - P.E. Certification
- Attachment 2 - List of Exempt Activities
- Attachment 3 - Method of Compliance Form
- Attachment 4 - Emission Plot Plan

Should you have any questions or comments concerning the above, please contact me at (516) 571-6889.

Very truly yours,

Richard Cotugno
Superintendent of Sewage Plants
Unit Head of Environmental Operations

Enc.
c: Commissioner Shila Shah-Gavnoudias, NCDPW
Deputy Commissioner Richard P. Millet, NCDPW
Joseph Davenport, NCDPW
Pasquale Assalone, NCDPW
Ajay Shah, NYSDEC – Region 1
Flavio Dobran, NYSDEC – Region 1
BCME, NYSDEC – Albany

NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS

BAY PARK SEWAGE TREATMENT PLANT

APPLICATION FOR RENEWAL
TITLE V AIR PERMIT

DEC ID: 1-2820-00652
APPLICATION ID: 1-2820-00652/00055

APPLICATION FORMS

New York State Department of Environmental Conservation
Air Permit Application

DEC ID: 1282000652 Application ID: 128200065200055 Renewal Number: 2

Facility: Nassau County; Bay Park Sewage Treatment Plant

Section I - Certification

Title V Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information [required pursuant to 6NYCRR 201-6.3(d)] I believe the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Responsible Official	Richard Cotugno	Title	Superintendent of Sewage Plants; Unit Head of Environmental Operations
Signature	Richard Cotugno	Date	5/6/2011

State Facility Certification

I certify that this facility will be operated in conformance with all provisions of existing regulations.

Responsible Official	Richard Cotugno	Title	Superintendent of Sewage Plants; Unit Head of Environmental Operations
Signature	Richard Cotugno	Date	5/6/2011

New York State Department of Environmental Conservation
Air Permit Application

DEC ID: 1282000652 **Application ID:** 128200065200055 **Renewal Number:** 2

Facility: Nassau County; Bay Park Sewage Treatment Plant

Section II - Certification

Permit Type:	Air Title V Facility (ATV)
	RENEWAL
General Permit Title:	

☐ Application involves the construction of new facility ☐ Application involves the construction of new emission unit(s)

Owner / Firm

Name	NASSAU COUNTY DEPARTMENT OF PUBLC WORKS						
Street	1194 PROSPECT AVENUE						
City	WESTBURY	**State**	NY	**Country**	USA	**Zip**	11590 2723
Owner Classification	Municipal					**Taxpayer ID**	116000463

Facility

Name	NASSAU COUNTY; BAY PARK SEWAGE TREATMENT PLANT				
Address	2 MARJORIE LANE				
City	EAST ROCKAWAY	**Zip**	11518	2020	

Owner / Firm Contact Mailing Address

Name	PASQUALE ASSALONE	Phone No.	516-571-7110
Affiliation		Fax No.	516-571-7134
Title			
Street	BAY PARK SEWAGE TREATMENT PLANT		
	2 MARJORIE LANE		
City	EAST ROCKAWAY	**State**	NY **Country** USA **Zip** 11518 2020

Project Description

Application for renewal of Air Title V facility.

DEC ID: 1282000652 Application ID: 128200065200055 Renewal Number: 2

Facility: Nassau County; Bay Park Sewage Treatment Plant

Section III - Facility Information

Classification

[X] UTILITY

Affected States

CONNECTICUT	NEW JERSEY	PENNSYLVANIA

SIC Codes

4952

Facility Description

The facility is a 70 million gallon per day sewage treatment plant which services portions of Nassau County, New York. The plant operates four 3,600 kW engine generators which can burn natural gas, digester gas, or fuel oil. The engines are used to provide power internally to the unit processes and equipment such as aeration tank blowers and main sewage pumps. The plant also operates four boilers rated at 750 Hp to produce hot water required for the central chillers and space heating. The boilers can burn natural gas, digester gas or fuel oil. Several other emission points associated with the treatment of sewage are located at the facility. These processes include primary screening, grit removal, primary settling tanks, aeration tanks, final settling tanks, sludge thickening and sludge dewatering. Most of the processes are controlled through an odor control system. Additionally, the plant employs thirteen packed bed wet scrubbers to control odors from the process operations. NaOH and NaOCl are continuously added to neutralize sulfur compounds.

The engines incorporate Clean-Burn® modifications to reduce NOx emissions and catalytic oxidizers to reduce CO emissions. The boilers are designed with low NOx burners and flue recirculation to reduce NOx emissions.

Compliance Statements (Title V Only)

I certify that as of the date of this application the facility is in compliance with all applicable requirements [✓] YES [ ] NO

If one or more emission units at the facility are not in compliance with all applicable requirements at the time of signing this application (the "NO" box must be checked), the non-complying units must be identified in the "Compliance Plan" block of Section IV of this form along with the compliance plan information required. For all emission units at this facility that are operating in compliance with all applicable requirements complete the following:

[✓] **This facility will continue to be operated and maintained in such a manner as to assure compliance for the duration of the permit, except those units referenced in the compliance plan portion of Section IV of this application.**

[✓] **For all emission units, subject to any applicable requirements that will become effective during the term of the permit, this facility will meet all such requirements on a timely basis.**

[✓] **Compliance certification reports will be submitted at least once per year. Each report will certify compliance status with respect to each requirement, and the method used to determine status.**

Facility Applicable Federal Regulations

Title	Type	Part	Sub Part	Section	Sub Division	Parag	Sub Parag	Clause	Sub Clause	Item
40	CFR	60	A	11						
40	CFR	60	A	12						
40	CFR	60	A	4						
40	CFR	60	A	7	b					
40	CFR	68								
40	CFR	82	F							
6	NYCRR	200		6						
6	NYCRR	200		7						
6	NYCRR	201	1	7						
6	NYCRR	201	3	2	a					
6	NYCRR	201	3	3	a					
6	NYCRR	201	6	5	a	4				
6	NYCRR	201	6	5	a	7				

DEC ID: 1282000652 Application ID: 128200065200055 Renewal Number: 2

Facility: Nassau County; Bay Park Sewage Treatment Plant

Section III - Facility Information
Facility Applicable Federal Regulations

Title	Type	Part	Sub Part	Section	Sub Division	Parag	Sub Parag	Clause	Sub Clause	Item
6	NYCRR	201	6	5	a	8				
6	NYCRR	201	6	5	c					
6	NYCRR	201	6	5	c	2				
6	NYCRR	201	6	5	c	3				
6	NYCRR	201	6	5	c	3	ii			
6	NYCRR	201	6	5	d	5				
6	NYCRR	201	6	5	e					
6	NYCRR	201	6	5	f	6				
6	NYCRR	202	1	1						
6	NYCRR	202	2	1						
6	NYCRR	202	2	5						
6	NYCRR	225	1	2	a	2				
6	NYCRR	201	6							

Facility State Only Requirements

Title	Type	Part	Sub Part	Section	Sub Division	Parag	Sub Parag	Clause	Sub Clause	Item
6	NYCRR	201	1	4						
	ECL	19	0301							

DEC ID: 1282000652 Application ID: 128200065200055 Renewal Number: 2

Facility: Nassau County; Bay Park Sewage Treatment Plant

Section III - Facility Information
Facility Compliance Certification

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Parag	Sub Parag	Clause	Sub Clause	Item
40	CFR	52	A	21						

[X] Applicable Federal Requirement

Description

Plant emissions from engines and boilers will be calculated on a monthly basis. NOx emissions will be calculated using stack test data, monthly fuel usage and monthly power usage. Each month's NOx emissions will be included in a summary spreadsheet. The following equation shall be used to calculate annual NOx emissions on a facility-wide basis:

A(0.02) + B(100) + C(2.36) +E(18.6) < 488,200 pounds of NOx per year.

where:

For boilers:
A: 12-month rolling total of oil fired in gals/yr
B: 12-month rolling total of natural gas and/or digester gas fired in mcf/yr

For engines:
C: 12-month rolling total BHP on natural gas
D: 12-month rolling total BHP on digester gas
E: 12-month rolling total BHP on oil

Contaminants

Capping	CAS No.	Contaminant Name
[ ]	0NY210-00-0	OXIDES OF NITROGEN

Monitoring Information

[X] WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method
03	007	NUMBER 2 OIL	NA

Parameter Code	Parameter Description	Manufacturer Name/Model Number

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description
488,200		1	pounds per year

Averaging Method	Code	17	Desc	ANNUAL MAXIMUM ROLLED MONTHLY
Monitoring Freq	Code	05	Desc	MONTHLY
Reporting Reqs	Code	14	Desc	SEMI-ANNUALLY (CALENDAR)

DEC ID: 1282000652 Application ID: 128200065200055 **Renewal Number: 2**

Facility: Nassau County; Bay Park Sewage Treatment Plant

Section III - Facility Information
Facility Compliance Certification

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Parag	Sub Parag	Clause	Sub Clause	Item
40	CFR	52	A	21						

[X] Applicable Federal Requirement

Description

Parametric emission calculation: Emissions from engines and boilers will be calculated on a monthly basis. CO emissions will be calculated using stack test data, monthly fuel usage, and monthly power usage. Each month's CO emissions will be included in a summary spreadsheet.

Contaminants

Capping	CAS No.	Contaminant Name
[ ]	000630-08-0	CARBON MONOXIDE

Monitoring Information

[X] WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method
03	007	NUMBER 2 OIL	NA

Parameter Code	Parameter Description	Manufacturer Name/Model Number

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description
183.9		38	tons per year

Averaging Method	Code	17	Desc	ANNUAL MAXIMUM ROLLED MONTHLY
Monitoring Freq	Code	05	Desc	MONTHLY
Reporting Reqs	Code	14	Desc	SEMI-ANNUALLY (CALENDAR)

DEC ID: 1282000652 Application ID: 128200065200055 **Renewal Number: 2**

Facility: Nassau County; Bay Park Sewage Treatment Plant

Section III - Facility Information
Facility Compliance Certification

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Parag	Sub Parag	Clause	Sub Clause	Item
6	NYCRR	201	7							

[X] Applicable Federal Requirement

Capped Regulations

Title	Type	Part	Sub Part	Section	Sub Division	Parag	Sub Parag	Clause	Sub Clause	Item
6	NYCRR	231	1							

Description

Parametric emission calculation: VOC emissions from engines and boilers will be calculated on a monthly basis. VOC emissions will be calculated using stack test data, monthly fuel usage, and monthly power usage. Each month's VOC emissions will be included in a summary spreadsheet.

Contaminants

Capping	CAS No.	Contaminant Name
[✓]	0NY998-00-0	VOC

Monitoring Information

[X] WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method
03	007	NUMBER 2 OIL	NA

Parameter Code	Parameter Description	Manufacturer Name/Model Number

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description
69.5		38	tons per year

Averaging Method	Code	17	Desc	ANNUAL MAXIMUM ROLLED MONTHLY
Monitoring Freq	Code	05	Desc	MONTHLY
Reporting Reqs	Code	14	Desc	SEMI-ANNUALLY (CALENDAR)

DEC ID: 1282000652 Application ID: 128200065200055 Renewal Number: 2

Facility: Nassau County; Bay Park Sewage Treatment Plant

Section III - Facility Information
Facility Compliance Certification

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Parag	Sub Parag	Clause	Sub Clause	Item
6	NYCRR	201	7							

[X] Applicable Federal Requirement

Capped Regulations

Title	Type	Part	Sub Part	Section	Sub Division	Parag	Sub Parag	Clause	Sub Clause	Item
40	CFR	52	A	21						

Description

Plant emissions from engines and boilers will be calculated on a monthly basis. NOx emissions will be calculated using stack test data, monthly fuel usage and monthly power usage. Each month's NOx emissions will be included in a summary spreadsheet. The following equation shall be used to calculate annual NOx emissions on a facility-wide basis:

A(0.02) + B(100) + C(2.36) +E(18.6) < 488,200 pounds of NOx per year.

where:

For boilers:
A: 12-month rolling total of oil fired in gals/yr
B: 12-month rolling total of natural gas and/or digester gas fired in mcf/yr

For engines:
C: 12-month rolling total BHP on natural gas
D: 12-month rolling total BHP on digester gas
E: 12-month rolling total BHP on oil

Contaminants

Capping	CAS No.	Contaminant Name
[✓]	0NY210-00-0	OXIDES OF NITROGEN

Monitoring Information

[X] WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method
03	007	NUMBER 2 OIL	NA

Parameter Code	Parameter Description	Manufacturer Name/Model Number

Limit Upper	Limit Lower		Limit Units Code	Limit Units Description
488,200			1	pounds per year
Averaging Method	Code	17	Desc	ANNUAL MAXIMUM ROLLED MONTHLY
Monitoring Freq	Code	05	Desc	MONTHLY
Reporting Reqs	Code	14	Desc	SEMI-ANNUALLY (CALENDAR)

DEC ID: 1282000652 Application ID: 128200065200055 Renewal Number: 2

Facility: Nassau County; Bay Park Sewage Treatment Plant

Section III - Facility Information
Facility Compliance Certification

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Parag	Sub Parag	Clause	Sub Clause	Item
6	NYCRR	201	7							

[X] Applicable Federal Requirement

Capped Regulations

Title	Type	Part	Sub Part	Section	Sub Division	Parag	Sub Parag	Clause	Sub Clause	Item
40	CFR	52	A	21						

Description

Parametric emission calculation: Emissions from engines and boilers will be calculated on a monthly basis. CO emissions will be calculated using stack test data, monthly fuel usage, and monthly power usage. Each month's CO emissions will be included in a summary spreadsheet.

Contaminants

Capping	CAS No.	Contaminant Name
[✓]	000630-08-0	CARBON MONOXIDE

Monitoring Information

[X] WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method
03	007	NUMBER 2 OIL	NA

Parameter Code	Parameter Description	Manufacturer Name/Model Number

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description
183.9		38	tons per year

Averaging Method	Code	17	Desc	ANNUAL MAXIMUM ROLLED MONTHLY
Monitoring Freq	Code	05	Desc	MONTHLY
Reporting Reqs	Code	14	Desc	SEMI-ANNUALLY (CALENDAR)

DEC ID: 1282000652 Application ID: 128200065200055 Renewal Number: 2

Facility: Nassau County; Bay Park Sewage Treatment Plant

Section III - Facility Information
Facility Compliance Certification

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Parag	Sub Parag	Clause	Sub Clause	Item
6	NYCRR	231	1							

[X] Applicable Federal Requirement

Description

Parametric emission calculation: VOC emissions from engines and boilers will be calculated on a monthly basis. VOC emissions will be calculated using stack test data, monthly fuel usage, and monthly power usage. Each month's VOC emissions will be included in a summary spreadsheet.

Contaminants

Capping	CAS No.	Contaminant Name
[ ]	00NY998-00-0	VOC

Monitoring Information

[X] WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method
03	007	NUMBER 2 OIL	NA

Parameter Code	Parameter Description	Manufacturer Name/Model Number

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description
69.5		38	tons per year

Averaging Method	Code	17	Desc	ANNUAL MAXIMUM ROLLED MONTHLY
Monitoring Freq	Code	05	Desc	MONTHLY
Reporting Reqs	Code	14	Desc	SEMI-ANNUALLY (CALENDAR)

Facility Emissions Summary

CAS Number	Contaminant Name	PTE (lbs/yr)	PTE Range	Actual (lbs/yr)
000076-13-1	1,1,2-TRICHLORO-1,2,2-TRIFLURO ETHANE		A	
000120-82-1	1,2,4-TRICHLOROBENZENE		Y	
000075-07-0	ACETALDEHYDE		Y	
000107-02-8	ACROLEIN		Y	
000071-43-2	BENZENE		Y	
000098-06-6	BENZENE, (1,1-DIMETHYLETHYL)-		A	
000135-98-8	BENZENE, (1-METHYLPROPYL)-		A	
000095-63-6	BENZENE, 1,2,4-TRIMETHYL-		A	
000108-67-8	BENZENE, 1,3,5-TRIMETHYL-		A	
000106-46-7	BENZENE, 1,4-DICHLORO-		Y	
000099-87-6	BENZENE, 1-METHYL-4-(1-DIMETHYLETHYL)-		A	

DEC ID: 1282000652 Application ID: 128200065200055 Renewal Number: 2

Facility: Nassau County; Bay Park Sewage Treatment Plant

Section III - Facility Information

Facility State Only Requirements

CAS Number	Contaminant Name	PTE (lbs/yr)	PTE Range	Actual (lbs/yr)
000104-51-8	BENZENE, BUTYL-		A	
000095-50-1	BENZENE, 1,2-DICHLORO		A	
000541-73-1	BENZENE, 1,3-DICHLORO		A	
000630-08-0	CARBON MONOXIDE	367,800		
000108-90-7	CHLOROBENZENE		Y	
000067-66-3	CHLOROFORM		Y	
000075-09-2	DICHLOROMETHANE		Y	
000156-59-2	ETHENE, 1,2-DICHLORO-		A	
000100-41-4	ETHYLBENZENE		Y	
000050-00-0	FORMALDEHYDE		Y	
0NY100-00-0	HAP		C	
000087-68-3	HEXACLOROBUTADIENE		Y	
007439-92-1	LEAD		Y	
000074-87-3	METHYL CHLORIDE		Y	
000091-20-3	NAPHTHALENE		Y	
000103-65-1	N-PROPYLBENZENE		A	
0NY210-00-0	OXIDES OF NITROGEN	488,200		
000106-43-4	PARA-CHLOROTOLUENE		A	
0NY075-00-0	PARTICULATES		C	
000127-18-4	PERCHLOROETHYLENE		Y	
0NY075-00-5	PM-10		B	
000078-87-5	PROPANE, 1,2-DICHLORO		Y	
007446-09-5	SULFUR DIOXIDE		C	
000108-88-3	TOLUENE		Y	
012002-48-1	TRICHLOROBENZENE $C_6H_3Cl_3$		A	
000079-01-6	TRICHLOROETHYLENE		Y	
0NY998-00-0	VOC	139,000		
001330-20-7	XYLENE, M, O & P MIXT.		Y	

DEC ID: 1282000652 Application ID: 128200065200055 Renewal Number: 2

Facility: Nassau County; Bay Park Sewage Treatment Plant

Section IV - Emission Unit Information

Emission Unit Description

Emission Unit	UBOILR

The plant operates four identical package boilers to produce hot water for space conditioning and process heating. The boilers were manufactured by Cleaver-Brooks (Model CB-750) and were installed in 1995-96. Flue gas re-circulation (FGR) systems which reduce the flame temperature and thus NOx emissions, and low NOx burners to further reduce NOx emissions are installed on each boiler. Each boiler is equipped with a dedicated emission point.

Building

Building	Building Name	Length	Width	Orient.
MNBLDG	MAIN BUILDING - CENTRAL HEATING FACILITY			

Emission Point

Emission Unit	UBOILR	Emission Pt.	00031			
Ground Elev (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp (°F)	Cross Section	
					Length (in)	Width (in)
12	42	8	24			
Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (KM)	NYTM (N) (KM)	Building	Distance to Property Line	Date of Removal
		613.033	4498.723	MNBLDG		

Emission Unit	UBOILR	Emission Pt.	00032			
Ground Elev (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp (°F)	Cross Section	
					Length (in)	Width (in)
12	42	8	24			
Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (KM)	NYTM (N) (KM)	Building	Distance to Property Line	Date of Removal
		613.033	4498.723	MNBLDG		

Emission Unit	UBOILR	Emission Pt.	00033			
Ground Elev (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp (°F)	Cross Section	
					Length (in)	Width (in)
12	42	8	24			
Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (KM)	NYTM (N) (KM)	Building	Distance to Property Line	Date of Removal
		613.033	4498.723	MNBLDG		

Emission Unit	UBOILR	Emission Pt.	00034			
Ground Elev (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp (°F)	Cross Section	
					Length (in)	Width (in)
12	42	8	24			
Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (KM)	NYTM (N) (KM)	Building	Distance to Property Line	Date of Removal
		613.033	4498.723	MNBLDG		

DEC ID: 1282000652 Application ID: 128200065200055 Renewal Number: 2

Facility: Nassau County; Bay Park Sewage Treatment Plant

Section IV - Emission Unit Information

Emission Source / Control

Emission Unit	UBOILR	Emission Source	S0031	
Source Type	Date of Construction	Date of Operation	Date of Removal	Manufacturer's Name/Model Number
C				Hot water boiler manufactured by Cleaver-Brooks (Model CB-750)
Design Capacity	31.4	Units Code	25	Desc mm Btu per hour
Control Type	Code		Desc	
Waste Feed	Code		Desc	
Waste Type	Code		Desc	

Emission Unit	UBOILR	Emission Source	S0032	
Source Type	Date of Construction	Date of Operation	Date of Removal	Manufacturer's Name/Model Number
C				Hot water boiler manufactured by Cleaver-Brooks (Model CB-750)
Design Capacity	31.4	Units Code	25	Desc mm Btu per hour
Control Type	Code		Desc	
Waste Feed	Code		Desc	
Waste Type	Code		Desc	

Emission Unit	UBOILR	Emission Source	S0033	
Source Type	Date of Construction	Date of Operation	Date of Removal	Manufacturer's Name/Model Number
C				Hot water boiler manufactured by Cleaver-Brooks (Model CB-750)
Design Capacity	31.4	Units Code	25	Desc mm Btu per hour
Control Type	Code		Desc	
Waste Feed	Code		Desc	
Waste Type	Code		Desc	

Emission Unit	UBOILR	Emission Source	S0034	
Source Type	Date of Construction	Date of Operation	Date of Removal	Manufacturer's Name/Model Number
C				Hot water boiler manufactured by Cleaver-Brooks (Model CB-750)
Design Capacity	31.4	Units Code	25	Desc mm Btu per hour
Control Type	Code		Desc	
Waste Feed	Code		Desc	
Waste Type	Code		Desc	

DEC ID: 1282000652 Application ID: 128200065200055 Renewal Number: 2

Facility: Nassau County; Bay Park Sewage Treatment Plant

Section IV - Emission Unit Information

Process Information

Emission Unit	UBOILR	Process	B01		
Source Classification Code (SCC)	Total Thruput		Thruput Quantity Units		
	Quantity / Hr	Quantity / Yr	Code	Description	
10300701					
☐ Confidential	Operating Schedule		Building	Floor / Location	
☐ Operating at Maximum Capacity	Hrs / Day	Days / Yr			
☐ Activity w/ Insignificant Emission			MNBLDG		

Description

Combustion of digester gas for hot water production.

Emission Point Identifier(s)
00031

Emission Source / Control Identifier(s)
S0031

Emission Unit	UBOILR	Process	B02		
Source Classification Code (SCC)	Total Thruput		Thruput Quantity Units		
	Quantity / Hr	Quantity / Yr	Code	Description	
10200602					
☐ Confidential	Operating Schedule		Building	Floor / Location	
☐ Operating at Maximum Capacity	Hrs / Day	Days / Yr			
☐ Activity w/ Insignificant Emission			MNBLDG		

Description

Combustion of natural gas for hot water production.

Emission Point Identifier(s)
00031

Emission Source / Control Identifier(s)
S0031

Section IV - Emission Unit Information

Process Information

Emission Unit	UBOILR	Process	B03		
Source Classification Code (SCC)	Total Thruput		Thruput Quantity Units		
	Quantity / Hr	Quantity / Yr	Code	Description	
10200502					
☐ Confidential	Operating Schedule		Building	Floor / Location	
☐ Operating at Maximum Capacity	Hrs / Day	Days / Yr			
☐ Activity w/ Insignificant Emission			MNBLDG		

Description

Combustion of fuel oil for hot water production.

Emission Point Identifier(s)
00031

Emission Source / Control Identifier(s)
S0031

Emission Unit	UBOILR	Process	B04		
Source Classification Code (SCC)	Total Thruput		Thruput Quantity Units		
	Quantity / Hr	Quantity / Yr	Code	Description	
10300701					
☐ Confidential	Operating Schedule		Building	Floor / Location	
☐ Operating at Maximum Capacity	Hrs / Day	Days / Yr			
☐ Activity w/ Insignificant Emission			MNBLDG		

Description

Combustion of digester gas for hot water production.

Emission Point Identifier(s)
00032

Emission Source / Control Identifier(s)
S0032