



DEPT OF BLDGS 121324290

Job Number



ES714225828

Scan Code

BUREAU OF WATER & SEWER OPERATIONS

**SITE CONNECTION PROPOSAL FORM**

**VALID FOR TWO (2) YEARS**

[SC M-366 / 12 ] Ph-1



**A. PROJECT DATA:**

Borough of MANHATTAN Building Dept. No (s) 121324290  
Tax Block 702 Lot (s) P/O 10 Zoning C6-4 Map No. 8b/8d  
Project Location 501 West 30th Street  
Applicant PHILIP HABIB & ASSOCIATES/ Sue McCoy  
Address 102 MADISON AVENUE, NY, NY Zip 10016 Phone ( 212 ) 929-5656  
Owner ERY Tenant LLC  
Address 60 Columbus Circle , NY, NY Zip 10019 Phone ( 212 ) 801-3476

**B. PROJECT USE:**

TYPE: ☐ 1, 2, 3, Family ☐ Multiple Dwelling ☒ Commercial 1,700,000 SF (OFFICE)  
Number of Buildings 1 Total Number of Dwelling Units \_\_\_\_\_  
Ownership: ☒ Fee Simple ☐ Condominium ☐ Home Owner Association ☐ Other.....

**C. SITE CONNECTIONS REQUESTED:**

Total Developed Site Storm Flow 17.43 cfs

Allow. Storm Flow to the Sewers 1.0 cfs

\* ☐ Detention ☐ Retention

	<u>Sanitary</u>	<u>Storm</u>	<u>Comb.</u>	<u>Drywells</u>
No. Requested	<u>2</u>	<u>2</u>	<u>2</u>	<u>XXXXXXX</u>
Size	<u>8"</u>	<u>16"</u>	<u>16"</u>	<u>XXXXXXX</u>
Material (s)	<u>DIP</u>	<u>DIP</u>	<u>DIP</u>	<u>XXXXXXX</u>
Total Q (s)	<u>1.13</u>	<u>0.50</u>	<u>1.62</u>	<u>XXXXX</u>

Note: The property owner is responsible for plugging all inactive pre-existing sewer connections

**D. CONNECTION INFO:**

- ☐ Connection to exist:  
☐ Spur ☐ Riser ☐ Curb Connection
- ☐ Proposed New Riser
- ☐ Fold Spur in
- ☒ Drill in
- ☐ M.H. Conn. ☐ Exist. ☐ Prop.
- ☐ Reuse Plugged Connections

**E. PRIVATE SEWER/DRAIN DATA:**

- P.D. Plan No. N/A Date Approved N/A Expiration Date N/A
- Date Construction Permit Was Issued N/A
- Date Sewer Was Accepted By DEP N/A
- Sanitary Discharge Tributary to:

		Location
Private Sewage Treatment Plant	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	_____
Private Pumping Station	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	_____
Private Sewer	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	_____

**F. LOCATION PLAN:**

- ☐ As Shown Below ☒ See Attached Location Plan Attachment "F" (8 1/2 x 14 Size)

\* Storm flow of 17.43 cfs will be restricted to 1.00 cfs by means of detention facilities and controlled flow devices.

**G. SUPPORT DOCUMENTS:**

- |   |                                     |  |
|---|-------------------------------------|--|
| *1. Site Plan – 6 copies with hydraulic calculations  | <input checked="" type="checkbox"/> |  |
| *2. Survey – 3 copies with watercourse note           | <input checked="" type="checkbox"/> |  |
| *3. Tentative Lot Number Request Form – Attached      |                                     | Not Applicable <input checked="" type="checkbox"/> |
| **4. Owner's Consent for STP/PS Connection – Attached |                                     | Not Applicable <input checked="" type="checkbox"/> |
| 5. Department of Health Approval – Attached           |                                     | Not Applicable <input checked="" type="checkbox"/> |
| 6. Department of Buildings Amendment – Attached       |                                     | Not Applicable <input checked="" type="checkbox"/> |
| ***7. Condo/HOA Prospectus or Affidavit – Attached    |                                     | Not Applicable <input checked="" type="checkbox"/> |
| 8. Industrial Waste Approval – Attached               |                                     | Not Applicable <input checked="" type="checkbox"/> |
| 9. Associated Mapping/Demapping Action – Attached     |                                     | Not Applicable <input checked="" type="checkbox"/> |
| 10. Builders Pavement Plan – Attached                 |                                     | Not Applicable <input checked="" type="checkbox"/> |
| 11. Boring Logs – Attached                            |                                     | Not Applicable <input checked="" type="checkbox"/> |
| 12. Other (Specify)                                   |                                     | Attached   |

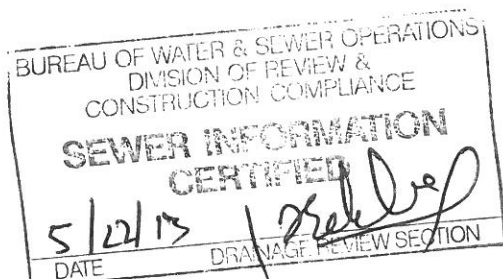
- \* Requires PE/RA Stamp and Original Signature (L.S. for Survey)  
\*\* Must Be Notarized and have Corporate Seal  
\*\*\* Must be Notarized

**SEWER INFORMATION CERTIFIED BY DEP**

- |   |  |   | <u>PUBLIC</u>                    | <u>PRIVATE</u> |
|---|--|---|----------------------------------|----------------|
| 1. There <del>(is)</del> (is not) a sanitary sewer fronting the property available for connections. | SIZE                                   |   |                                  |                |
| 2. There <del>(is)</del> (is not) a storm sewer fronting the property available for connections.    | SIZE                                   |   |                                  |                |
| 3. There (is) <del>(is not)</del> a combined sewer fronting the property available for connections. | SIZE                                   | 7'-6" x 10'-3" x                        |                                  |                |
| 4. Sanitary discharge tributary to:   |  |   |                                  |                |
| City Treatment Plant -  | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> YES | Location <u>North River wpcd</u> |                |
| Private Sewage Treatment Plant -  | <input checked="" type="checkbox"/> NO | <input type="checkbox"/> YES            |                                  |                |
| Private Pumping Station -   | <input checked="" type="checkbox"/> NO | <input type="checkbox"/> YES            |                                  |                |
| 5. Distance to, and location of nearest allowable drainage plan sewer:                              |  |   |                                  |                |
| a) Sanitary Outlet  | <u>N/A</u>                             |   |                                  |                |
| b) Storm Outlet   | <u>N/A</u>                             |   |                                  |                |
| c) Combined Outlet  | <u>N/A</u>                             |   |                                  |                |

**CERTIFICATION, RESTRICTIONS, SPECIAL CONDITIONS:**

- Certified in accordance with Phase-1 of Master Plan SCMP-566/MP approved on 12/31/12.
- No sewer connection permits will be issued until the Building Department or applicable authority certifies that the storm flow detention facilities have been satisfactorily built.



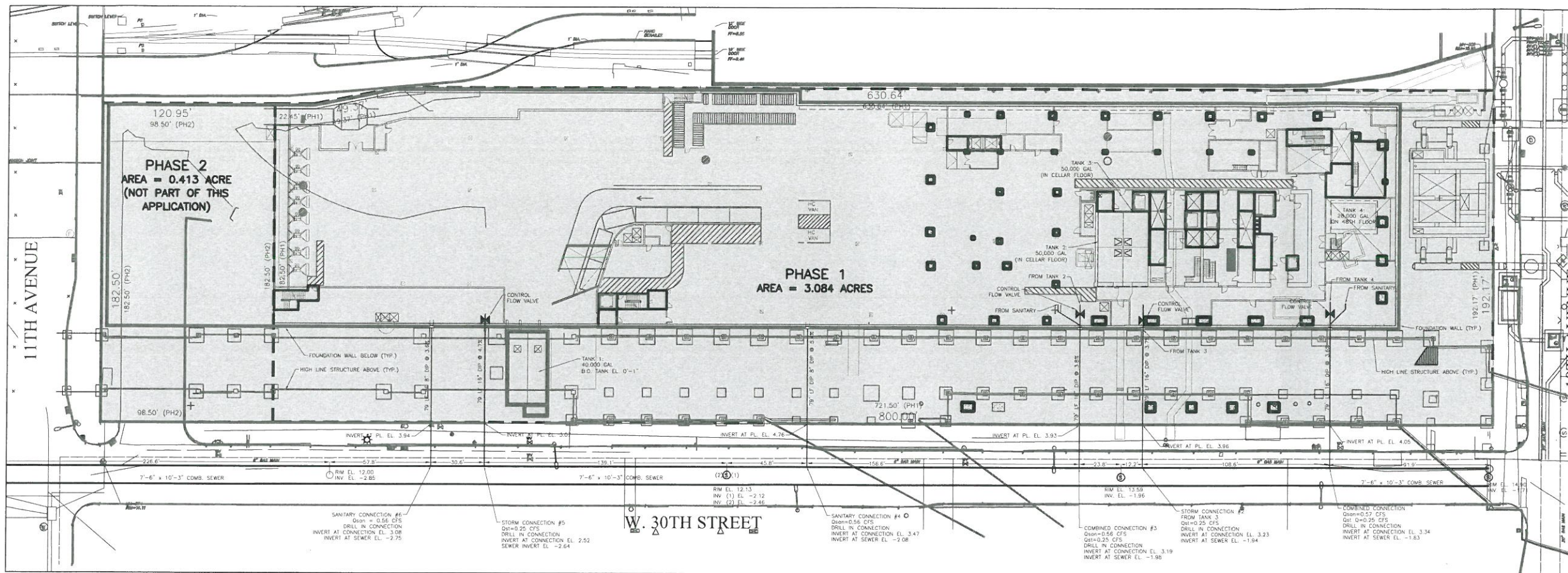
THIS CERTIFICATION IS VALID FOR TWO (2) YEARS ONLY

NO SEWER CONNECTION PERMITS WILL BE ISSUED UNTIL LOCAL LAW 103-89 REQUIREMENTS ARE MET TO THE SATISFACTION OF THE DEPARTMENT OF BUILDINGS.

**ADDITIONAL INFORMATION, COMMENTS BY DEP OFFICE:**

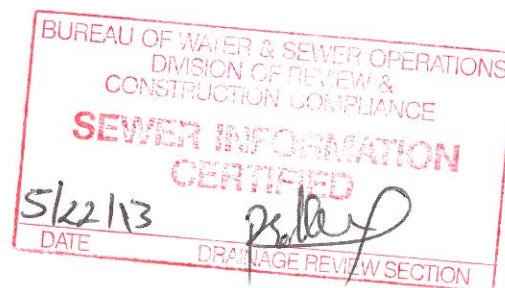
1. Topo Map No. \_\_\_\_\_ Watercourse shown: ☐ YES ☐ NO  
2. Comments:





STORM FLOW OF 17.43 CFS WILL BE RESTRICTED TO 1.00 CFS  
BY MEANS OF DETENTION FACILITIES AND CONTROLLED FLOW DEVICES

501 W. 30TH STREET  
BLOCK 702  
P/O LOT 10

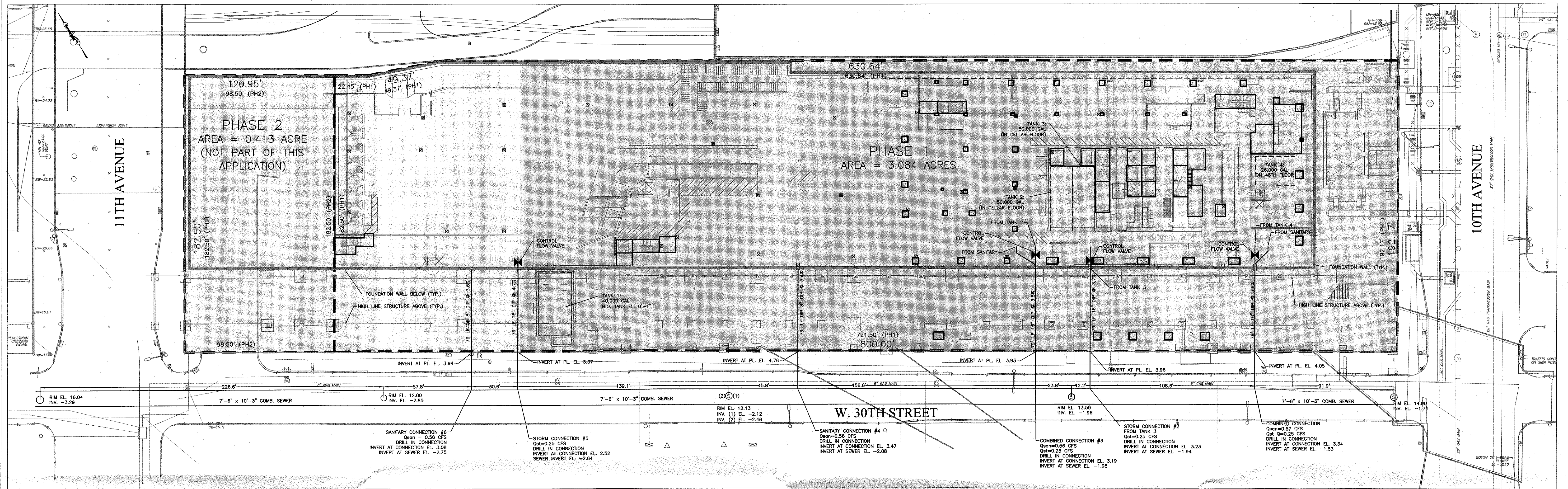


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FOR TWO (2) YEARS ONLY



ATTACHMENT F  
SCM-366/12 Phase 1





PER APPROVED SITE CONNECTION MASTER PLAN SCM-366/12MP:

**SITE INFORMATION**  
DOB NUMBER 121324290  
ADDRESS 501 W. 30TH STREET  
LOT PART OF 10  
BLOCK 702  
ZONING C6-4

PHASE 1 LOT AREA = 134,354 SQ. FT. = 3.084 ACRES

TOTAL SANITARY DISCHARGE:  
 $Q_{san} = 4 \times (785 \times \text{AREA} \times 150) / (7.48 \times 86400) = 2.25 \text{ CFS}$

TOTAL ALLOWABLE STORM DISCHARGE (To W. 30th Street):  
 $Q = 0.10 \times 0.60 \times 5.95 \times 3.084 \text{ ACRES} = 1.10 \text{ CFS}$

ADJUSTED ALLOWABLE STORM DISCHARGE = 1.0 CFS\*

ACTUAL DEVELOPED FLOW  
ROOF AREA (0.95):

$$Q = CIA$$
$$Q1 = 0.95 \times 5.95 \times 3.084 = 17.43 \text{ CFS}$$

TOTAL ACTUAL STORM DISCHARGE:

**SIZE OF DETENTION TANK 1**  
TRIBUTARY AREA 32,000 SF

Cw, WEIGHTED C= 0.95

STORM DURATION IN MINUTES T FOR MAXIMUM DETENTION VOLUME:  
 $t = 0.23 \times (Cw \times At / Qrr)^{0.5} - 15 = 65.20 \text{ min}$

REQUIRED DETENTION VOLUME V IN CUBIC FEET:

$$V = (0.19 \times Cw \times At / (t+15) - 57Qrr) \times t = 3,767 \text{ CU FT (28,179 GALLONS)}$$

STORM DISCHARGE FROM DETENTION TANKS WILL BE RESTRICTED TO 0.25 CFS

DETENTION TANK WITH TOTAL CAPACITY OF 5,347 CUBIC FEET (40,000 GALLONS) IS PROVIDED

**SIZE OF DETENTION TANK 2**  
TRIBUTARY AREA 43,000 SF

Cw, WEIGHTED C= 0.95

STORM DURATION IN MINUTES T FOR MAXIMUM DETENTION VOLUME:  
 $t = 0.23 \times (Cw \times At / Qrr)^{0.5} - 15 = 77.97 \text{ min}$

REQUIRED DETENTION VOLUME V IN CUBIC FEET:

$$V = (0.19 \times Cw \times At / (t+15) - 57Qrr) \times t = 5,398 \text{ CU FT (40,379 GALLONS)}$$

STORM DISCHARGE FROM DETENTION TANKS WILL BE RESTRICTED TO 0.25 CFS

DETENTION TANK WITH TOTAL CAPACITY OF 6,684 CUBIC FEET (50,000 GALLONS) IS PROVIDED

**SIZE OF DETENTION TANK 3**  
TRIBUTARY AREA 39,354 SF

Cw, WEIGHTED C= 0.95

STORM DURATION IN MINUTES T FOR MAXIMUM DETENTION VOLUME:  
 $t = 0.23 \times (Cw \times At / Qrr)^{0.5} - 15 = 73.94 \text{ min}$

REQUIRED DETENTION VOLUME V IN CUBIC FEET:

$$V = (0.19 \times Cw \times At / (t+15) - 57Qrr) \times t = 4,852 \text{ CU FT (36,295 GALLONS)}$$

STORM DISCHARGE FROM DETENTION TANKS WILL BE RESTRICTED TO 0.25 CFS

DETENTION TANK WITH TOTAL CAPACITY OF 6,684 CUBIC FEET (50,000 GALLONS) IS PROVIDED

**SIZE OF DETENTION TANK 4**  
TRIBUTARY AREA 20,000 SF

Cw, WEIGHTED C= 0.95

STORM DURATION IN MINUTES T FOR MAXIMUM DETENTION VOLUME:  
 $t = 0.23 \times (Cw \times At / Qrr)^{0.5} - 15 = 48.40 \text{ min}$

REQUIRED DETENTION VOLUME V IN CUBIC FEET:

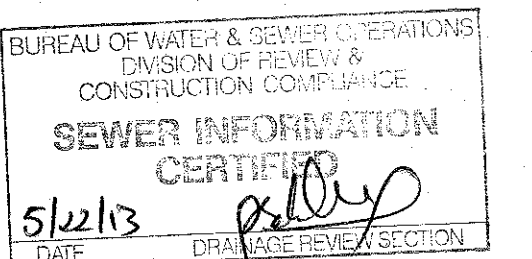
$$V = (0.19 \times Cw \times At / (t+15) - 57Qrr) \times t = 2,066 \text{ CU FT (15,454 GALLONS)}$$

STORM DISCHARGE FROM DETENTION TANKS WILL BE RESTRICTED TO 0.25 CFS

DETENTION TANK WITH TOTAL CAPACITY OF 3,475 CUBIC FEET (26,000 GALLONS) IS PROVIDED

#### SUMMARY:

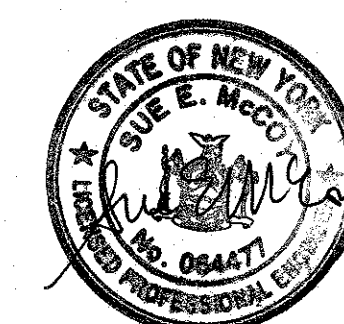
TANK	TRIBUTARY AREA (SF)	REQUIRED DETENTION VOLUME		DETENTION VOLUME PROVIDED	
		CUBIC FEET	GALLONS	CUBIC FEET	GALLONS
1	32,000	3,767	28,179	5,347	40,000
2	43,000	5,398	40,379	6,684	50,000
3	39,354	4,852	36,295	6,684	50,000
4	20,000	2,066	15,454	3,475	26,000
TOTAL	134,354	16,083	120,307	22,190	166,000



THIS CERTIFICATION IS VALID FOR TWO (2) YEARS ONLY

\* 0.10 CFS TO BE TRANSFERRED TO PHASE 2 TO MEET MINIMUM FLOW REQUIREMENTS

STORM FLOW OF 17.43 CFS WILL BE RESTRICTED TO 1.00 CFS BY MEANS OF DETENTION FACILITIES AND CONTROLLED FLOW DEVICES

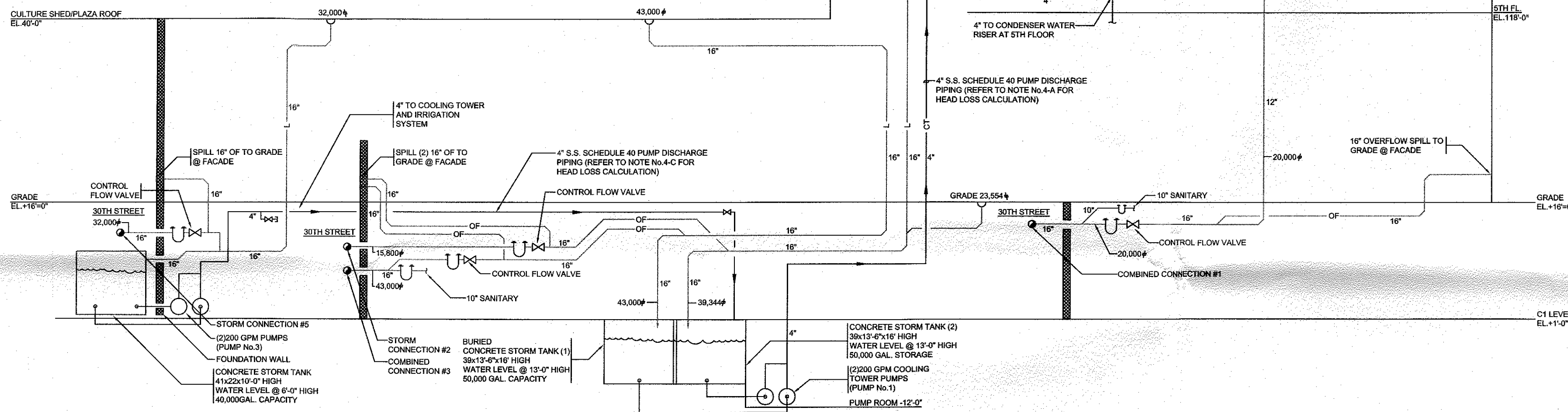


3	4/30/2013	DEP COMMENTS	
2	3/28/2013	DEP COMMENTS	
1	2/27/2013	DEP COMMENTS	
REV.	DATE	DESCRIPTION	APPROVED
OWNER: <b>THE RELATED COMPANIES</b> 60 COLUMBUS CIRCLE NEW YORK, NY 10019			
PROJECT: <b>HUDSON YARDS EASTERN RAIL YARDS - SOUTH</b> BOROUGH OF MANHATTAN			
TITLE: <b>SITE CONNECTION PROPOSAL SCM-366/12 PHASE 1</b>			
DOB, NO. 121324290	SCALE 1" = 30'	DATE 04/30/2013	SHEET 1 OF 2

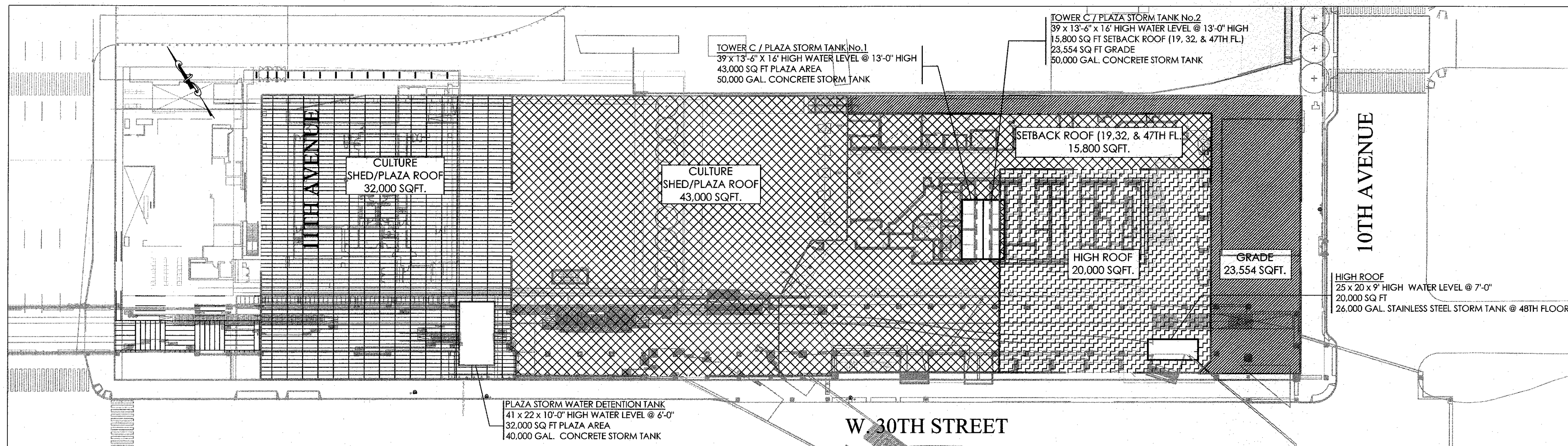


# C.T. WATER MAKE-UP PUMPING SYSTEM

1. COOLING TOWER MAKE-UP PUMPS ARRANGED FOR ALTERNATING OPERATION.
2. COOLING TOWER MAKE-UP PUMPS HAVE A RATED CAPACITY OF 200 GPM AT A CONSTANT RATE. THEY PROVIDE WATER MAKE-UP FOR EVAPORATION, DRIFT, & BLOWDOWN WATER REQUIREMENTS AT COOLING TOWER.
3. REFER TO PUMP CURVES ENCLOSED.
4. PUMP HEAD CALCULATIONS:  
A. MAIN C.T. MAKE-UP PUMPS AT C1 LEVEL (200 GPM) (PUMP No.1)  
STATIC = 807 FT.  
FRICTION LOSS = 9 FT. (4" AT 400 GPM HAS 2.50 FT./100. TOTAL DEVELOPED LENGTH INCLUDING FITTINGS 250 FT. = 7FT. + 2 FT. (MIN LOSSES @ 24" CONDENSER RISER) = 9 FT.)  
RESIDUAL = 54 FT.  
(20-25 PSI)  
T.D.H. = 870 FT.  
NOTE: 4" SUPPLY TO 5TH FLOOR M.E.R. FOR CONNECTION TO 24" CONDENSER WATER RISER.  
B. 48TH FLOOR C.T. MAKE-UP PUMPS (200 GPM) (PUMP No.2)  
STATIC = 45 FT.  
FRICTION LOSS = 7 FT. (4" AT 400 GPM HAS 2.50 FT./100. TOTAL DEVELOPED LENGTH INCLUDING FITTINGS 250 FT. = 7FT.)  
RESIDUAL = 54 FT.  
(20-25 PSI)  
T.D.H. = 106 FT.  
C. CULTURE SHED/PLAZA C.T. MAKE-UP PUMPS (200 GPM) (PUMP No.3)  
STATIC = 45 FT.  
FRICTION LOSS = 7 FT. (4" AT 400 GPM HAS 2.50 FT./100. TOTAL DEVELOPED LENGTH INCLUDING FITTINGS 250 FT. = 7FT.)  
RESIDUAL = 54 FT.  
(20-25 PSI)  
T.D.H. = 106 FT.
5. PUMP OPERATION BASED ON WATER LEVEL WITHIN COOLING TOWER EQUALIZATION PAN.
6. 24" CONDENSER WATER PIPING IS SCHEDULE 40 STEEL PIPE WITH WELDED FITTINGS.



**1 - RISER DIAGRAM**  
N.T.S.



**2- DENTENION TANK DRAINAGE AREAS**  
N.T.S.

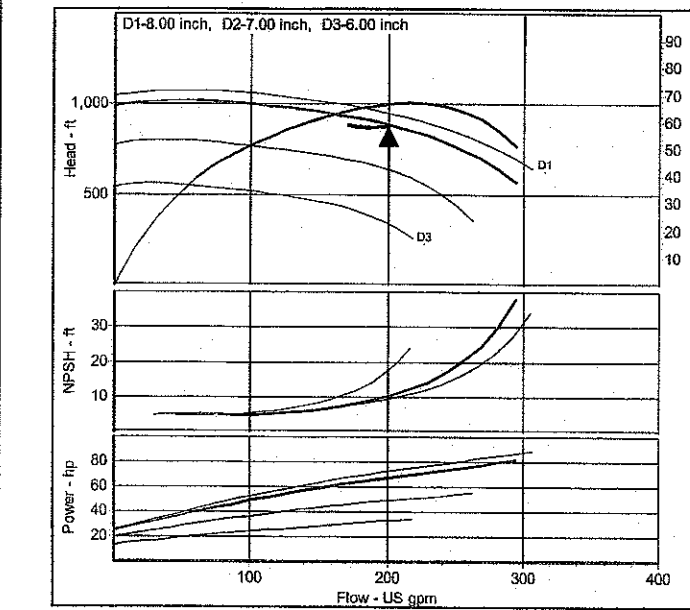


G. A. Fleet Associates  
25 Calvert St. Harrison, NY  
Kenneth L. Conover  
Phone: 914-281-7000  
Fax: kconover@gaft.net

Project: Hudson Yards Tower C  
Quote No.: US-2013-437  
Type: TWT - Horizontal Split Case Multi-Stage  
Pump Model: Peerless - C100A  
Nom. Speed: 3500 RPM, 60 Hz Electric  
Impeller Dia: 7.80 inch  
Curve No.: 2852003  
Market: Water

Customer: *Low Zone*  
*COOLING TOWER MAKE-UP*  
*PUMPS LOCATED ON C-1 LG*

Contact: Thursday, March 07, 2013  
Phone: 914-281-7000  
Fax: 914-281-7000  
Date: Thursday, March 07, 2013  
Impeller No.: 28700000  
Fluid: Water  
Temperature: 68 °F  
Viscosity: 1.007 cSt  
Sp. Gravity: 1.000  
Your Ref.:



Duty Flow	200 US gpm
Duty Head	870 ft
Imp. Dia.	7.8 inch
Power Required	67.2 hp
NPSH Required	10.2 ft
Efficiency	66.7 %
Peak Power	82.1 hp
Closed Valve Head	883.3 ft
Tolerance	Hyd Inst.
	Peerless Std

Comments:  
Perf. curve represents typical perf. vs. head to field. Perf. curve tests are performed in accordance with H.I. Std.

**3 - PUMP CURVE FOR PUMP #1**

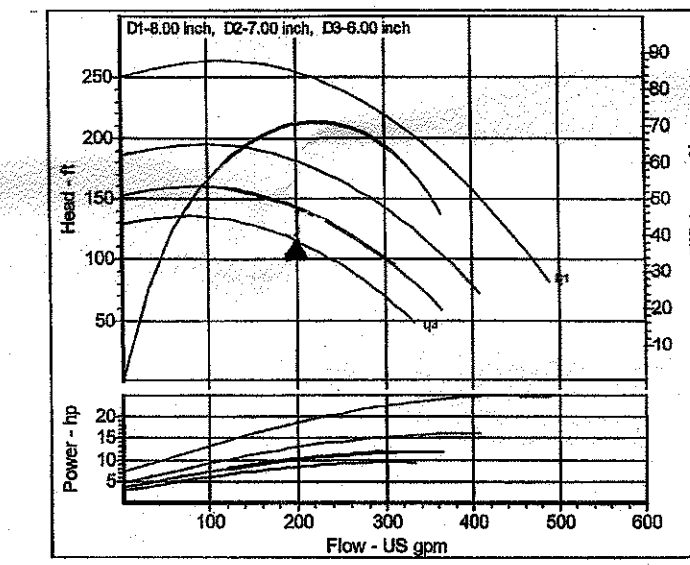


G. A. Fleet Associates  
25 Calvert St. Harrison, NY  
Kenneth L. Conover  
Phone: 914-281-7000  
Fax: kconover@gaft.net

Project: Hudson Yards Tower C  
Quote No.: US-2013-437  
Type: C - End Suction Close Coupled General Purpose  
Pump Model: Peerless - C200A  
Nom. Speed: 3500 RPM, 60 Hz Electric  
Impeller Dia: 8.43 inch  
Curve No.: 3115004  
Market: Water

Customer: *High Zone*  
*COOLING TOWER MAKE-UP*  
*PUMPS LOCATED ON 48TH FL*

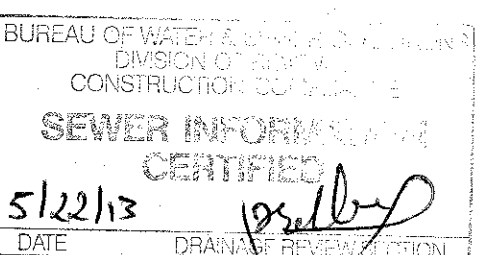
Contact: Monday, March 25, 2013  
Phone: 914-281-7000  
Fax: 914-281-7000  
Date: Monday, March 25, 2013  
Impeller No.: 31150000  
Fluid: Water  
Temperature: 68 °F  
Viscosity: 1.007 cSt  
Sp. Gravity: 1.000  
Your Ref.:



Duty Flow	200 US gpm
Duty Head	106 ft
Imp. Dia.	8.43 inch
Power Required	15.2 hp
NPSH Required	15.9 ft
Efficiency	70.8 %
Peak Power	17.8 hp
Closed Valve Head	162.8 ft
Tolerance	Hyd Inst.
	Peerless Std

Comments:  
Perf. curve represents typical perf. vs. head to field. Perf. curve tests are performed in accordance with H.I. Std.

**4 - PUMP CURVE FOR PUMP #2 & #3**



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REV.	DATE	DESCRIPTION	APPROVED
3	4/30/2013	DEP COMMENTS	
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DOB. NO. 121324290	SCALE N.T.S.	DATE 04/30/2013	SHEET 2 OF 2

