Exhibit J-2

Tracking Milestones and Commitment Milestones

Exhibit J-3

Phased TCO Process

General

It is sometimes desirable or necessary to phase or stagger the completion and occupancy of large scale, complicated, or multi-stakeholder, commercial projects on a space by space, partial floor, grouped floor, or partial building "Phased Occupancy" basis, where each defined "Phase" is permitted to be completed and occupied prior to work being completed in a later phase.

Goals

This Exhibit J-5 defines the general goals for a modification of the Port Authority Manual, Process and Procedures Guide, including but not limited to Section III C.10 Types of Authorized Occupancies, (the "PA Manual") that will jointly be developed to define the technical requirements and the process and procedures to enable the Phased Occupancy approach described above. The modification to the PA Manual shall achieve the following goals:

A. To allow "Tenant Fitout" work to occur simultaneously with "Base Building" core & shell work, thereby allowing simultaneous construction work to progress such that the issuance of a Base Building Temporary Permit to Occupy (TPTO) and the issuance of a Tenant Fitout TPTO may occur simultaneously or as close in time as practical.

B. To allow Core & Shell work and Tenant Fitout work to be completed and obtain their respective Permit to Occupy (PTO) for Phased Occupancy areas while other portions of the building may still be under construction.

C. To develop an "Equivalency Review" process that will facilitate the implementation of interim solutions, or alternate temporary designs, to the permanent Life Safety Systems, to allow Phased Occupancy while the completion of the balance of the permanent Life Safety Systems is still in process. This would include a plan to "swing over" the interim solutions to the full permanent Life Safety System upon its completion.

D. To develop a streamlined process for submission and review of requests for Phased Occupancy, and to establish a reasonable time period, commensurate with the complexity of the phased configuration, for review of Phased Occupancy requests.

General Principles:

1. Phased Occupancy will be subject to the review of the Port Authority for code compliance and/or the Equivalency Review.

2. A "Phasing Plan" consisting of a detailed narrative, design documents (signed and sealed) and the anticipated date of occupancy for that Phase, will be required as a TCA submission for each request for Phased Occupancy. The Phasing Plan must clearly describe the boundaries of the Phase, any proposed exiting and the extent of the permanent Base Building Life Safety Systems that will be made operational. However, the goal is not to resubmit full TCA packages that have been previously reviewed. "Phasing Plans" will be submitted under the Design Development / Code Compliance Package (e.g., TCA WTC 2000.00 for Tower 2). The Phasing Plan review, approval, and resolution of all open review comments are required prior to requests for inspections associated with any phased occupancy.

3. Each completed Phase must be code compliant, including but not limited to the requirements for fire alarm, fire protection, life safety, exiting, access for the physically disabled, light and ventilation, and emergency response. The responsibility for compliance with all applicable codes and regulations required for Phased Occupancy shall remain with the A/E of Record for the Base Building and/or Tenant Fitout work.

4. Insofar as the TCA applications for the entire building will likely already have been Fully and/or Conditionally Approved by the Port Authority well in advance of requests for Phased Occupancy, and in order to streamline the administration of the Phased Occupancy request, the Phasing Plan will not include any drawings, specifications, or calculations that have already been approved for the entire building, and are not affected or changed by the Phased Occupancy request.

5. Approval of Phased Occupancy requests shall not be subject to completion or approval of infrastructure from other projects that are not part of the building or structure requesting Phased Occupancy approval.

6. Approval of Phased Occupancy requests shall not be subject to completion of non-Life Safety systems and non-code compliance issues.

7. Approval of Phased Occupancy requests for a TPTO for the core and shell portion of the Phased Occupancy area shall follow the requirements stipulated in the NYC Department of Buildings' "Technical Policy and Procedure Notice No. 12/88", and NYC Department of Buildings "Temporary Certificate of Occupancy for Hi-Rise Class 'E' Buildings Memorandum" dated September 4, 1986.

8. Approval of Phased Occupancy requests shall not be subject to completion of redundant systems mandated by the Protective Design Narrative. Where interim solutions to life safety systems are used either as an equivalency or temporary solution for Phased Occupancy prior to the entire Base Building Life Safety Systems being operational, those temporary systems shall not be subject to the redundancy or hardening requirements of the Protective Design Narrative. Once the entire Base Building Life Safety Systems are completed, the full Protective Design Narrative requirements shall be completed.

9. In order to facilitate concurrent completion of Base Building Core & Shell work and Tenant Fitout work, a process that will enable "progress" inspections of the work as it is completed will be developed. The goal being to incrementally "sign-off" areas/floors as they are completed. Final acceptance by the PA shall be based on the testing of the fully completed system

   To facilitate an expedited and efficient approval process, the PA participation in on site audits will be focused on only those items pertaining to life safety related systems and code compliance issues. Items related to temporary "means and methods" necessary to support construction activities (e.g., hoists, temporary electric, temporary plumbing, etc) would not be subject to PA inspection or review unless it is a Temporary installation in the occupied area

10. To facilitate an expedited and efficient approval process, and to keep the inspecting parties abreast of the progress of the work, the PA shall receive, review and comment on inspection results on a monthly basis. This monthly submission by the respective AOR/EOR would be required and would contain the documentation that was produced in the previous month. All required reports must be provided and critical outstanding comments must be resolved prior to the issuance of the Temporary Permit to Occupy by the PA

11. Prior to the scheduling of a Partial Final Inspection, all Rider comments for this work must be satisfied; A/E of Record must provide all required certifications as to the completion of the work in the Phase / area Involved.

12. All Fire Alarm, Fire Protection and Life Safety requirements must be completed, inspected, tested, and certified by the Architect/Engineer of Record in the partial occupancy area, and all plans, as required by all applicable Laws and regulations, and by the PA Manual (e.g., Fire Protection Plan, Evacuation Plan, Tenant Protection Plan) must be submitted to the PA. Upon satisfactory completion of construction activities as defined in the approved Phased Occupancy diagrams (excluding minor outstanding non-life safety and non-code compliance related punch list items), and acceptance ~~by~~ of the A/E of Record Certifications, and satisfactory PA inspections, the Temporary Permit to Occupy / Use the Phased Occupancy area will be issued.

13. If the interim solutions or alternate temporary designs to the permanent Life Safety Systems are implemented to allow Phased Occupancy, the "swing over" plan from the interim solutions to the full permanent Life Safety System upon its completion shall be identified and shall be a part of the Phasing Plan submittal. After the "swing over" is complete, the testing of the fully completed permanent system will be required prior to the issuance of the Final Permit to Occupy.

14. Temporary Permit to Occupy must be issued by the PA for partial areas for all packages in the area of occupancy

15. The access to and within the completed Phase must be separated from the construction areas so that occupants are not required to be in or go through the construction area. The construction staging areas must be kept separate from the required entrances and exits of the completed Phases and any occupied areas.

EXHIBIT K, K-2, K-3 AND K-HUB

East Bathtub Space Allocation Concept Design

To the extent of any conflict or inconsistency between (i) Exhibit K-2 and Exhibit K, Exhibit K-2 shall control, (ii) Exhibit K-3 and Exhibit K, Exhibit K-3 shall control, and (iii) Exhibit K-HUB and Exhibit K, Exhibit K-HUB shall control.

EXHIBIT K

EAST BATHTUB SPACE ALLOCATION CONCEPT DESIGN

Exhibit K includes

[see Attached List]

DRAWING NO.	TITLE	ISSUE DATE
ARCHITECTURAL SERIES		
K-A0.00	DRAWING INDEX	NOV.16, 2006
K-A0.01	LEVEL B4 (EL 237')	OCT. 4, 2006
K-A0.02	LEVEL B3 (EL 254')	OCT. 4, 2006
K-A0.03	LEVEL B2 (EL 276')	OCT. 4, 2006
K-A0.04	LEVEL B2M (EL 285')	OCT. 4, 2006
K-A0.05	LEVEL B1 (EL 296')	OCT. 4, 2006
K-A0.06	LEVEL B1M (EL 310')	NOV. 1, 2006
K-A0.07	GROUND LEVEL (EL 326')	OCT. 4, 2006
K-A0.08	LEVEL L2 (EL 346')	OCT. 4, 2006
K-A0.09	LEVEL L3 (EL 366')	OCT. 4, 2006
K-A0.10	LEVEL L4 (EL 386')	OCT. 4, 2006
K-A0.11	LEVEL L5 (EL 404')	OCT. 4, 2006
K-A1.01	LEVEL B4 (EL 237') NORTH PLAN	OCT. 4, 2006
K-A1.02	LEVEL B4 (EL 237') SOUTH PLAN	OCT. 4, 2006
K-A1.03	LEVEL B3 (EL 254') NORTH PLAN	OCT. 4, 2006
K-A1.04	LEVEL B3 (EL 254') SOUTH PLAN	OCT. 4, 2006
K-A1.05	LEVEL B2 (EL 276') NORTH PLAN	OCT. 4, 2006
K-A1.06	LEVEL B2 (EL 276') SOUTH PLAN	OCT. 4, 2006
K-A1.07	LEVEL B2M (EL 285') NORTH PLAN	OCT. 4, 2006
K-A1.08	LEVEL B2M (EL 285') SOUTH PLAN	OCT. 4, 2006
K-A1.09	LEVEL B1 (EL 296') NORTH PLAN	OCT. 4, 2006
K-A1.10	LEVEL B1 (EL 296') SOUTH PLAN	OCT. 4, 2006
K-A1.11	LEVEL B1M (EL 310') NORTH PLAN	NOV. 1, 2006
K-A1.12	LEVEL B1M (EL 310') SOUTH PLAN	OCT. 4, 2006
K-A1.13	GROUND LEVEL (EL 326') NORTH PLAN	OCT. 4, 2006
K-A1.14	GROUND LEVEL (EL 326') SOUTH PLAN	OCT. 4, 2006
K-A1.15	LEVEL L2 (EL 346') NORTH PLAN	OCT. 4, 2006
K-A1.16	LEVEL L2 (EL 346') SOUTH PLAN	OCT. 4, 2006
K-A1.17	LEVEL L3 (EL 366') NORTH PLAN	OCT. 4, 2006
K-A1.18	LEVEL L3 (EL 366') SOUTH PLAN	OCT. 4, 2006
K-A1.19	LEVEL L4 (EL 386') NORTH PLAN	OCT. 4, 2006
K-A1.20	LEVEL L4 (EL 386') SOUTH PLAN	OCT. 4, 2006
K-A1.21	LEVEL L5 (EL 404') NORTH PLAN	OCT. 4, 2006
K-A1.22	LEVEL L5 (EL 404') SOUTH PLAN	OCT. 4, 2006
K-A2.01	NORTH-SOUTH SITE SECTION	OCT. 4, 2006
K-A2.20	NORTH-SOUTH PART SECTION	OCT. 4, 2006
K-A2.30	WEST-EAST PART SECTION	OCT. 4, 2006
K-A2.31	WEST-EAST PART SECTION	OCT. 4, 2006
K-A3.01.1	MAXIMUM BUILDING ENVELOPE PLAN	NOV. 16, 2006
K-A3.02.1	MAXIMUM BUILDING ENVELOPE ELEVATION	NOV. 16, 2006
K-A3.03	RESPONSE TO PA COMMENTS & OPEN ISSUES	NOV. 6, 2006
K-0.00	SUPPLEMENTAL DRAWING INDEX	NOV. 16, 2006
STRUCTURAL SERIES		
K-S0.01	LEVEL B4 (El 237')	OCT. 4, 2006
K-S0.02	LEVEL B3 (El 254')	OCT. 4, 2006
K-S0.03	LEVEL B2 (El 276')	OCT. 4, 2006
K-S0.04	LEVEL B2M (El 285')	OCT. 4, 2006
K-S0.05	LEVEL B1 (El 296')	OCT. 4, 2006
K-S0.06	LEVEL B1M (El 310')	OCT. 4, 2006
K-S0.07	GROUND LEVEL (El 326')	OCT. 4, 2006
K-S0.08	LEVEL L2 (El 346')	OCT. 4, 2006
K-S0.09	LEVEL L3 (El 366')	OCT. 4, 2006
K-S0.10	LEVEL L4 (El 386')	OCT. 4, 2006
K-S3.01	SUPERSTRUCTURE ELEVATIONS	OCT. 4, 2006
K-S4.01	SHEARWALL ELEVATIONS	OCT. 4, 2006
K-S4.02	SHEARWALL ELEVATIONS	OCT. 4, 2006
K-S4.03	SHEARWALL ELEVATIONS	OCT. 4, 2006
MECHANICAL SERIES		
K-M0.01	LEVEL B4 (EL 237')	OCT. 4, 2006
K-M0.01.1	T-2 LEVEL 237'	OCT. 4, 2006
K-M0.02	LEVEL B3 (EL 254')	OCT. 4, 2006
K-M0.03	LEVEL B2 (EL 276')	OCT. 4, 2006

K-M0.05	LEVEL B1 (EL 296')	OCT. 4, 2006
K-M0.06	LEVEL B1M (EL 310')	OCT. 4, 2006
K-M0.07	GROUND LEVEL (EL 326')	OCT. 4, 2006
K-M0.08	LEVEL L2 (EL 346')	OCT. 4, 2006
K-M0.09	LEVEL L3 (EL 366')	OCT. 4, 2006
K-M0.10	LEVEL L4 (EL 386')	OCT. 4, 2006
K-M1.02	TOWER 2 AIR RISER DIAGRAM	OCT. 4, 2006
K-M1.03	TOWER 3 AIR RISER DIAGRAM	OCT. 4, 2006
K-M1.04	TOWER 4 AIR RISER DIAGRAM	OCT. 4, 2006
K-M.T2	WTC-T2 404' LEVEL MER	OCT. 4, 2006
K-M.T3.T4	WTC-T3 & T4 386' LEVEL MER	OCT. 4, 2006
K-M.T3.T4.1	WTC-T3 & T4 LEVEL 386' MEZZ	OCT. 4, 2006

ELECTRICAL & PLUMBING SERIES

K- E/PFP0.01	LEVEL B4 (EL 237')	OCT. 4, 2006
K- E/PFP0.02	LEVEL B3 (EL 254')	OCT. 4, 2006
K- E/PFP0.03	LEVEL B2 (EL 276')	OCT. 4, 2006
K- E/PFP0.05	LEVEL B1 (EL 296')	OCT. 4, 2006
K- E/PFP0.06	LEVEL B1M (EL 310')	OCT. 4, 2006
K- E/PFP0.07	GROUND LEVEL (EL 326')	OCT. 4, 2006
K- E/PFP0.08	LEVEL L2 (EL 346')	OCT. 4, 2006
K- E/PFP0.09	LEVEL L3 (EL 366')	OCT. 4, 2006
K- E/PFP0.10	LEVEL L4 (EL 386')	OCT. 4, 2006

EGRESS SERIES

K-LS0.01	LEVEL B4 (EL 237')	OCT. 4, 2006
K-LS0.02	LEVEL B3 (EL 254')	OCT. 4, 2006
K-LS0.03	LEVEL B2 (EL 276')	OCT. 4, 2006
K-LS0.04	LEVEL B2M (EL 285')	OCT. 4, 2006
K-LS0.05	LEVEL B1 (EL 296')	OCT. 4, 2006
K-LS0.06	LEVEL B1M (EL 310')	OCT. 4, 2006
K-LS0.07	GROUND LEVEL (EL 326')	OCT. 4, 2006
K-LS0.08	LEVEL L2 (EL 346')	OCT. 4, 2006
K-LS0.09	LEVEL L3 (EL 366')	OCT. 4, 2006
K-LS0.10	LEVEL L4 (EL 386')	OCT. 4, 2006
K-LS0.11	LEVEL L5 (EL 404')	OCT. 4, 2006

UTILITY & POE SERIES

K-C0.01	EAST BATHTUB POE LOCATION PLAN	OCT. 4, 2006
K-C0.02	UTILITY & POE COORDINATION PLAN	OCT. 4, 2006
K-C0.03	EAST BATHTUB POE	OCT. 4, 2006

EXHIBIT K-2

[see attached]

EXHIBIT K-3

[see attached]

K-HUB

[see attached]

EXHIBIT L

East Bathtub Roles and Responsibilities Matrix

Structural Scope Diagrams

L-A0.01	Level B4 (EL 237')	September 28, 2006
L-A0.02	Level B3 (EL 254')	September 28, 2006
L-A0.03	Level B2 (EL 276')	September 28, 2006
L-A0.05	Level B1 (EL 296')	September 28, 2006
L-A0.07	Ground Level (EL 326')	September 28, 2006

Matrix

Design & Construction Roles and Responsibilities Matrix dated December 15, 2010 attached hereto.

DESIGN & CONSTRUCTION ROLES AND RESPONSIBILITIES MATRIX

PARCEL		PROGRAM AREA	CORE AND SHELL					TENANT FIT-OUT	
			STRUCTURE / ENCLOSURE			BASE BUILDING FIT-OUT			
			DESIGN		CONSTRUCTION	DESIGN	CONSTRUCTION	DESIGN	CONSTRUCTION
			PRIMARY	SECONDARY					
A	TOWER 2 PARCEL	COMMERCIAL	SPI		SPI	SPI	SPI		
		RETAIL		RETAIL		RETAIL	SPI/RETAIL	RETAIL	RETAIL
		HUB		PA		PA	SPI/PA		
		VSC SERVICE ROADWAY				PA	SPI/PA		
		COMMERCIAL PARKING				SPI	SPI	RETAIL	RETAIL
		PA PARKING							
		MTA							
		COMMON		PA / RETAIL		SPI/PA/RETAIL	SPI/PA/RETAIL		
B	HUB PARCEL	COMMERCIAL	PA	SPI	PA	SPI	SPI		
		RETAIL		RETAIL		RETAIL	RETAIL	RETAIL	RETAIL
		HUB		PA		PA	PA		
		TOUR BUS PARKING / VSC SERVICE ROADWAY		PA		PA	PA	PA	PA
		COMMERCIAL PARKING		SPI		SPI	SPI	RETAIL	RETAIL
		PA PARKING							
		MTA		PA/MTA		PA/MTA	PA/MTA	PA/MTA	PA/MTA
		COMMON		SPI / RETAIL		SPI/PA/RETAIL	PA		
C	TOWER 3 PARCEL	COMMERCIAL	SPI		SPI	SPI	SPI		
		RETAIL		RETAIL		RETAIL	SPI/RETAIL	RETAIL	RETAIL
		HUB		PA		PA	SPI/PA		
		VSC SERVICE ROADWAY				PA	SPI/PA		
		COMMERCIAL PARKING				SPI	SPI	RETAIL	RETAIL
		PA PARKING		SPI		SPI	SPI	RETAIL	RETAIL
		MTA		PA/MTA		PA/MTA	PA/MTA	PA/MTA	PA/MTA
		COMMON		PA / RETAIL		SPI/PA/RETAIL	SPI		
D	TOWER 4 PARCEL	COMMERCIAL	SPI		SPI	SPI	SPI		
		RETAIL		RETAIL		RETAIL	RETAIL	RETAIL	RETAIL
		HUB		PA		PA	PA		
		VSC SERVICE ROADWAY							
		COMMERCIAL PARKING							
		PA PARKING		SPI		SPI	SPI	RETAIL	RETAIL
		MTA							
		COMMON		PA / RETAIL		SPI/PA/RETAIL	SPI		

ADDITIONAL ROLES & RESPONSIBILITIES NOTES:

1. THE TERM "DESIGN" INCLUDES ALL NECESSARY DESIGN, DOCUMENTATION (DRAWINGS & SPECIFICATIONS ETC.) & CONSTRUCTION ADMINISTRATION SERVICES TO COMPLETE THE ASSOCIATED SCOPE.

2. "CORE AND SHELL" SHALL BE DIVIDED INTO TWO CATEGORIES OF WORK, (a) 'STRUCTURE AND ENCLOSURE' WHICH INCLUDES ALL STRUCTURAL FRAMING, SLABS AND ABOVE GRADE EXTERIOR ENCLOSURE, (b) 'BASE BUILDING FIT-OUT' WHICH INCLUDES ALL ELEMENTS OF CORE AND SHELL CONSTRUCTION OTHER THAN 'STRUCTURE AND ABOVE GRADE EXTERIOR ENCLOSURE'.

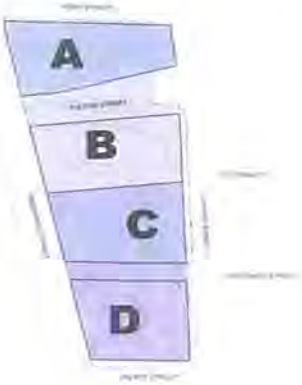
3. THE PA SHALL BE RESPONSIBLE FOR THE DESIGN AND CONSTRUCTION OF THE TEMPORARY AND PERMANENT UNDERPINNING STRUCTURE FOR THE MTA #1 SUBWAY AND ALL PROGRAM AREAS LOCATED BELOW AND ADJACENT TO THE SUBWAY ZONE.

4. THE PA SHALL BE RESPONSIBLE FOR THE DESIGN AND CONSTRUCTION OF THE VEHICLE SECURITY CENTER AND THE SOUTH BATHTUB.

5. REFER TO THE NOTES INCLUDED IN THE STRUCTURAL SCOPE DIAGRAMS FOR EXTENT OF RESPONSIBILITIES OF THE PRIMARY AND SECONDARY DESIGNER WITHIN EACH STAKEHOLDER'S SCOPE LIMITS.

6. THE PA, ALONG WITH INPUT FROM SPI AND OTHER STAKEHOLDERS, SHALL DESIGN THE STREETS, SIDEWALKS AND COMMON UTILITIES OF THE EAST BATHTUB SITE. THE PA SHALL BE RESPONSIBLE FOR THE DESIGN DOCUMENTATION AND CONSTRUCTION OF STREETS, SIDEWALKS AND COMMON UTILITIES.

7. STAKEHOLDERS (HUB, RETAIL, VSC & PARKING) MEP SCOPE OF WORK, AS MUTUALLY AGREED AND AS DOCUMENTED ON STAKEHOLDER'S DRAWINGS, THAT IS LOCATED WITHIN EACH TOWER'S CONTRACT SCOPE LIMITS SHALL BE SPI'S CONSTRUCTION REPOSIBILITY AND SHALL BE PERFORMED BY BASE BUILDING CONTRACTORS UNLESS SPECIFICALLY STATED TO THE CONTRARY ELSEWHERE IN THE CONTRACT DOCUMENTS.



8. FOLLOWING ARE THE CONDITIONS THAT WILL APPLY TO THE PERFORMANCE OF THE PARKING FIT OUT CONSTURCTION WORK BY THE PORT AUTHORITY

(A) ALTHOUGH THE PORT AUTHORITY HAS NOT YET SELECTED A CONTRACTOR TO PERFORM THE RETAIL CONSTRUCTION OR THE PARKING FIT OUT CONSTRUCTION WORK, THE DESIGN COORDINATION OF ITEMS OF WORK TO BE EMBEDDED IN CONCRETE STRUCTURE (INCLUDING FOR THE TOWER 2 PROJECT, THE TOWER 3 PROJECT AND WORLD TRADE CENTER TRANSPORTATION HUB (WTC HUB) PROJECT) MUST BE UNDERTAKEN PROMPTLY. THE PORT AUTHORITY SHALL HIRE, FOR PURPOSES OF PERFORMING MEP TRADE COORDINATION WORK, THE MEP TRADE CONTRACTORS ALREADY SELECTED BY THE SILVERSTEIN LESSEES, SO AS TO ENABLE TRADE COORDINATION FOR THE COMMERCIAL PARKING AND THE PORT AUTHORITY PARKING TO OCCUR WHILE THE REST OF THE TRADE COORDINATION IS TAKING PLACE. SUCH HIRING WILL BE DONE IN ACCORDANCE WITH THE STAKEHOLDER CHANGE ORDER (PIN) PROCESS CURRENTLY IN PLACE AND WILL BE SIMILAR TO THE PROCESS USED WHEN THE SILVERSTEIN LESSEES PERFORM MEP COORDINATION WORK IN THE TOWER 4 PROJECT ON BEHALF OF THE PORT AUTHORITY.

(B) THE SILVERSTEIN LESSEES SHALL HAVE THE RIGHT TO AUDIT THE MEP DESIGN COORDINATION PROCESS FOR THE PARKING PROGRAM, AND ALL MEP COORDINATION DRAWINGS FOR PARKING FIT OUT WORK SHALL BE SUBJECT TO THE REASONABLE APPROVAL OF THE SILVERSTEIN LESSEES PRIOR TO FINAL SIGN-OFF AND RELEASE FOR CONSTRUCTION.

(C) THE COORDINATION PROCESS DESCRIBED HEREIN SHALL NOT RESULT IN ANY DIMINUTION OF THE PARKING PROGRAM THAT AFFECTS THE COMMERCIAL PARKING PROGRAM CAPACITY OR FUNCTIONALITY AS SHOWN ON THE PARKING 100% CONSTRUCTION DRAWINGS. IN ADDITION, THE PORT AUTHORITY WILL WORK WITH THE SILVERSTEIN LESSEES TO EVALUATE OPERATIONAL STRATEGIES TO MAXIMIZE REVENUES FOR, AND THE NUMBER OF AVAILABLE PARKING SPACES TO, BOTH PARTIES; PROVIDED, HOWEVER, THAT THE SILVERSTEIN LESSEE'S ACKNOWLEDGE THAT THE PORT AUTHORITY'S ABILITY TO DO SO MAY BE LIMITED AS A RESULT OF THE POTENTIAL TENANCY OF THE GSA (OR OTHER TENANTS) IN TOWER 1. IT BEING UNDERSTOOD, HOWEVER, THAT SUCH LIMITATION SHALL RELATE ONLY TO THE PORT AUTHORITY'S DESIGNATED PARKING AREAS AND NOT THE PARKING AREAS DESIGNED FOR THE SILVERSTEIN LESSEES.

(D) SUPPLEMENTING THE PROVISIONS OF THE EXHIBIT J CONSTRUCTION PARTNERSHIP, THE PARKING FIT OUT CONSTRUCTION WORK SHALL BE DEEMED TO BE A PROJECT UNDER DEVELOPMENT, AND THE SCHEDULE THEREFOR SHALL BE COMPLETED AND INCORPORATED INTO THE IMS NO LATER THAN THE IMS UPDATE HAVING A SCHEDULE DATA DATE OF DECEMBER 1, 2010. THE SCHEDULE FOR THE PARKING FIT OUT WORK SHALL CONTAIN THE FOLLOWING COMMITMENT MILESTONES: (i) SUBSTANTIAL COMPLETION OF AUGUST 1, 2013, AND OBTAINING OF A TCO NO LATER THAN OCTOBER 1, 2013, PROVIDED, HOWEVER, THAT COMPLIANCE WITH THE FOREGOING COMMITMENT MILESTONES SHALL BE CONDITIONED UPON THE SILVERSTEIN LESSEES GRANTING TO THE CONTRACTOR PERFORMING THE PARKING FIT OUT CONSTRUCTION WORK ACCESS TO THE PORTIONS OF THE PARKING FACILITY THAT WILL BE LOCATED BELOW TOWER 4 NO LATER THAN JANUARY 1, 2012, AND BELOW TOWERS 2 AND 3 NO LATER THAN AUGUST 1, 2012. ANY UNDEFINED CAPITALIZED TERMS USED IN THIS SUBPARAGRAPH (D) SHALL HAVE THE MEANINGS ASCRIBED TO THEM IN THE EXHIBIT J CONSTRUCTION PARTNERSHIP.

(E) IF BY MAY 1, 2011 THE PORT AUTHORITY HAS NOT EXECUTED A FINAL CONTRACT WITH THE GENERAL CONTRACTOR FOR THE RETAIL DEVELOPMENT THAT INCLUDES THE SCOPE DESCRIBED ABOVE AND REQUIRES TIMELY SATISFACTION OF THE COMMITMENT MILESTONES DESCRIBED IN SUBPARAGRAPH (D) ABOVE, THE PORT AUTHORITY SHALL NO LONGER HAVE THE RIGHT TO PERFORM THE PARKING FIT OUT CONSTRUCTION WORK, AND THE SILVERSTEIN LESSEES SHALL PERFORM SAID WORK, WHICH WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE MDA (INCLUDING THE PROVISIONS OF EXHIBIT J AND EXHIBIT O THEREOF).

EXCEPT AS OTHERWISE PROVIDED HEREIN, ANY UNDEFINED CAPITALIZED TERM USED HEREIN SHALL HAVE THE MEANING ASCRIBED TO IT IN THAT CERTAIN AMENDED AND RESTATED MASTER DEVELOPMENT AGREEMENT FOR TOWERS 2/3/4 OF THE WORLD TRADE CENTER DATED AS OF DECEMBER 16, 2010 (TOGETHER WITH ALL EXHIBITS AND SCHEDULES THERETO, AND AS THE SAME MAY BE AMENDED, THE "MDA").

EXHIBIT M

Logistics and Site Access Exhibit

[see attached]

EXHIBIT N

[INTENTIONALLY OMITTED]

EXHIBIT O

Cost Allocation/Reimbursement Methodology for Construction with the East Bathtub

[see attached]

EXHIBIT O

COST ALLOCATION/REIMBURSEMENT METHODOLOGY FOR CONSTRUCTION WITHIN THE EAST BATHTUB

There are four major stakeholders in the East Bathtub – PATH, other PA interests (PA *qua* owner of 1 WTC, portion of parking), Retail, and Silverstein/Office Lessees. This document is intended to detail the basic principles for cost allocation during and up through completion of the core and shell, when one stakeholder performs work within the East Bathtub on behalf of another stakeholder. The starting point for the allocation methodology is subcontractor *trade costs,* which in all cases shall be competitively bid on an open book basis. However, the final value of the work performed – and the payment to be made by one stakeholder to another -- shall be determined by multiplying the allocated trade costs by a uniform project multiplier. There will be two uniform project multipliers which shall be used to calculate the total value of the work.

- Design & Build Multiplier of 1.75
- Build Only Multiplier of 1.65*

Program space for the Silverstein Lessees, Retail and PA/PATH will have to be built within the construction work limits for Towers 2, 3 and 4, as shown on the approved East Bathtub Space Allocation Concept Design attached as Exhibit K to the Master Development Agreement. On all levels, this work consists of creating "shell" space – basic structure including structural openings for elevators, escalators and MEP shafts and risers – that is located within the superstructure of the office towers, but *not* building out any MEP systems or fit-out work (each party being responsible for the cost and construction of its own MEP and fit-out work). Design (when included) shall consist of design development documents, construction documents and full collaboration with Stakeholder and Stakeholder's consultants. However, the cost reimbursement principles are unavoidably somewhat different for the different levels – below grade, at grade, and above grade – due to the different space-sharing conditions.

ADMINISTRATIVE PROCEDURES

A. Bidding Process.

- All bid packages for subcontractor work will call for break out trade cost pricing for any and all work performed for each stakeholder.

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* The "Build Only" multiplier shall apply where the stakeholder sponsoring the work provides the stakeholder performing the construction with fully coordinated 100% construction documents ("CD's"). Further the stakeholder sponsoring the work must also supply construction administration services customarily provided by design professionals, e.g., shop drawing review, field inspection and signoff, etc. By contrast where the "Design & Build" approach is followed, the stakeholder sponsoring the work must provide a conceptual design to the stakeholder who will complete the design and perform the construction.

- Each stakeholder will be able to review and approve the scope documents and bidding materials relating to the work being performed on that stakeholder's behalf prior to issuance.

- Each stakeholder must agree on cost sharing methodology (i.e. direct cost – 100%, shared allocated by area, shared allocated by MEP load), which methodology shall be based upon the principles contained herein.

- Each stakeholder may participate in the bid review and scope review sessions to the extent that the discussions involve work being bid/performed on that stakeholder's behalf.

- Each stakeholder must approve the cost allocation included in the subcontract before the award, which cost allocation shall be based upon the principles contained herein.

B. Change Orders

- All Stakeholders must be advised of any change order with the potential to increase or decrease the stakeholder's allocated cost share of any subcontract package. The cost of change orders will be allocated based on the principles below, except that cost premiums, in excess of 5% of the original cost of work, associated with any change orders as a result of design omissions when a Stakeholder designs and builds for another Stakeholder utilizing the "Design & Build" approach and multiplier detailed above shall be the responsibility of the Stakeholder engaged in the design and construction.

- All Stakeholders with financial interest in a change order may participate in the review and negotiation of such change orders.

C. Requisition and Draw Process

- Stakeholders have the right to participate in the subcontractor pencil copy meetings where the completion percentages and draw requests are developed.

- Stakeholders have the right to review all requisitions in which they have a participating financial interest, though approval rights over such requisitions will be limited to items in which a stakeholder has a financial interest.

- Any disputes arising from the review process shall not disrupt the timing of the monthly payment cycle. Any adjustments resulting from the resolution of a disputed item shall be reconciled in the next payment cycle following such resolution. Any such disputes shall be resolved in accordance with Article 9 of the Master Development Agreement.

- Any reduction or adjustment in retention amounts held on a trade contract shall be made at the sole discretion of the stakeholder responsible for the construction and shall be made in keeping with the terms of the applicable trade contract. However, in no case shall the final payment of retention (or any payments of retention below 2%) be made without the approval of all Stakeholders with a financial interest in the work being performed pursuant to that trade contract.

D. Close Out Process

- The trade cost final close out will be upon acceptance of the work by all Stakeholders on whose behalf work is being performed pursuant to that contract.

E. Schedule

- All of the above procedures must take place in time frames in keeping with the bid and award schedule set by the party doing construction, and the parties will agree on time periods for such stakeholder input. Any delays that may result are subject to adjudication and resolution pursuant to the procedures set forth in the Master Development Agreement.

COST ALLOCATION PRINCIPLES

Set forth below are detailed principles for allocation on a level-by-level basis of cost for the various levels of office towers and sub-grade in the East Bathtub. The goal is to charge stakeholders occupying space where one stakeholder predominates (e.g., the retail within the office towers) for the incremental cost their space imposes on the other stakeholder.

Below Grade Shared Levels (B1 thru B4 & mezzanines)

- *Structure* including floor slabs, core walls and columns -- costs on each level to be allocated on a pro-rata basis determined by the percentage of gross area of program space (excluding common areas) on that level belonging to each stakeholder.

- *Structure for common areas* (e.g. service corridors) -- costs to be allocated on a pro-rata basis determined by the percentage of gross area of program space on the balance of that floor belonging to each stakeholder. Loading dock areas to be allocated based on designed vehicle usage for the current loading dock design and/or other joint analyses.

- *Stairs:* structure, enclosure and stair MEP systems – costs to be allocated based on designed egress usage by each stakeholder.

- Demising Walls: partitions separating two stakeholders' program areas – costs to be split equally between the stakeholders.

- Partitions separating common areas (e.g., corridors) and an exclusive stakeholder area shall be a dedicated cost to the stakeholder.

- *Doors to a stakeholder's program area* are a dedicated cost to the stakeholder (including doors in shared partitions.) *Partitions within a stakeholder's program area* are a dedicated cost to the stakeholder.

Above Grade Retail Levels where Retail is Sole Stakeholder Occupying Floor Area

Retail will reimburse Silverstein for the entire cost of the following:

- *Structure:* entire structure on these levels including floor slabs, columns, and core elements (including core walls, but excluding base building elevator systems, and equipment that does not service that floor.).

- *Curtain wall/envelope enclosing each floor, including louvers:* Retail shall pay the entire cost of exterior enclosure on these levels. The designers of the towers shall have final approval of the curtain wall , but such designers shall, however, work to assure that the cost of retail curtain wall is not substantially greater than the cost of areas enclosing the balance of the podium, including areas allocable to Office Lessees. Further the differences, if any, between podium and tower curtain walls and related improvements will be commensurate with other class A mixed use projects in Manhattan. Retail will have the opportunity to review and reasonably approve curtain wall materials, but only to ensure the functionality of that exterior enclosure for the retail display and merchandising.

- *Stairs:* all stair related elements including structure, enclosures, and stair MEP systems regardless of stair design egress usage.

- All dedicated retail vertical transportation systems (passenger & service elevators, escalators) to the extent constructed by Silverstein as approved by Retail.

- All partitions, demising walls (including walls between retail and an "open to below" void extending down to the office lobby) and doors.

- All base building MEP services for the retail floors and all base building MEP risers passing through the floors.

- If some portion of a retail-exclusive level is taken up by an "open to below" area that is the upper portion of the office lobby, the exterior enclosure including the ceiling, columns/structure within that portion of

the space shall be the cost responsibility of the office Stakeholder. The interior enclosure shall be the responsibility of the Retail Stakeholder.

Above Grade Mechanical Levels and Above Grade Shared Floors

- *Structure, excluding structure of common areas:* including floor slabs, core walls and columns costs to be allocated on a pro-rata basis determined by the percentage of gross area of program space (excluding common areas) on that level belonging to each stakeholder.

- *Structure for common areas* (e.g. service corridors) -- costs to be allocated on a pro-rata basis determined by the percentage of gross area of program space on the balance of that floor belonging to each stakeholder.

- *Stairs:* structure, enclosure and stair MEP systems – costs to be allocated based on designed egress usage by each stakeholder.

- *Curtain wall, core elements and demising partitions in core* – costs (excluding cost of elevator systems that do not service that level) to be allocated on a pro-rata basis determined by the percentage of gross area of program space, (excluding common areas) on that level, belonging to each stakeholder.

- Demising Walls: partitions separating two stakeholders' program areas – costs to be split equally between the stakeholders.

- Partitions separating common areas (e.g., corridors) and an exclusive stakeholder area shall be a dedicated cost to the stakeholder.

- *Doors to a stakeholder's program area* are a dedicated cost to the stakeholder (including doors in shared partitions.) *Partitions within a stakeholder's program area* are a dedicated cost to the stakeholder.

- All base building MEP services to the level to be allocated on a pro-rata basis determined by the percentage of gross floor area of program space (excluding common areas) on that level belonging to each stakeholder.

Ground Floor Level

- *Structure including floor slabs, core walls, columns* costs to be allocated on a pro-rata basis determined by the percentage of gross area of program space (excluding common areas) on the ground level belonging to each stakeholder. For the purposes of this agreement, the office lobby is defined as an exclusive Office Lessee area and, other than the allocation of structure under this section, the costs to construct the office lobbies are to be borne by the Office Lessee.

- *Structure of Common areas (e.g. service corridors)* costs to be allocated on a pro-rata basis determined by the percentage of gross area of program space (other than common areas) belonging to each stakeholder.

- *Stairs:* structure, enclosure and stair MEP systems – costs to be based on designed egress usage by each stakeholder.

- Demising Walls: partitions separating two stakeholders' program areas – costs to be split equally between the stakeholders.

- Partitions separating common areas (e.g., corridors) and an exclusive stakeholder area shall be a dedicated cost to the stakeholder.

- *Doors to a stakeholder's program area* are a dedicated cost to the stakeholder (including doors in shared partitions.) *Partitions within a stakeholder's program area* are a dedicated cost to the stakeholder.

- *Transit Entrances*: -- all costs of transit entrances to be reimbursed by PATH.

- *Building Enclosure:* entire Retail storefront/enclosure (including Retail stairs) to be allocated to Retail; building façade enclosing PATH shafts to be reimbursed by PATH; building façade enclosing Office Lobby to be allocated to Silverstein; building façade enclosing common elements (e.g. shared stairs) to be allocated on designed egress usage. Retail will have the opportunity to review and reasonably approve curtain wall materials, . but only to ensure the functionality of that exterior enclosure for the retail display and merchandising. The designers of the towers shall have final approval of the curtain wall , but such designers shall, however, work to assure that the cost of retail curtain wall is not substantially greater than the cost of areas enclosing the balance of the podium, including areas allocable to Office Lessees. Further the differences, if any, between podium and tower curtain walls and related improvements will be commensurate with other class A mixed use projects in Manhattan.

Other Principles

- There is no obligation to perform work on behalf of another stakeholder beyond the scope defined in the Master Development Agreement. However, if a stakeholder requests such additional work by another stakeholder, and the other stakeholder agrees to perform the work, the multiplier shall be the uniform multiplier indicated above.

- The cost allocation methodology set forth above is based on the plans approved as Exhibit K to the Master Development Agreement and related documents. In the event that, subsequent to the adoption of the Master Development Agreement, PA, PATH or Retail require structural changes

in order to accommodate special requirements of Retail or PATH, or if any Stakeholder wishes to re-allocate responsibility for certain work to Silverstein for any other reason, and in the event Silverstein agrees to such changes, the cost premiums, if any, attributable to such changes will be paid or reimbursed to Silverstein by Retail, PATH, or any other PA-controlled entity, as appropriate (or offset against Silverstein's obligations under this Exhibit to pay or reimburse that Stakeholder for any costs). Silverstein will not be required to perform any additional work for another Stakeholder or its affiliates until all payments and reimbursements owed to Silverstein by that Stakeholder (including affiliates) have been paid and are current pursuant to the terms of this Exhibit and the other provisions of the Master Development Agreement, irrespective of the status of any third-party financial obligations to the Stakeholder desiring to have Silverstein perform additional work.

- Each stakeholder will be responsible for paying all Port Authority fees and other similar fees relating its program areas. In the case of common areas or if one stakeholder does work for another stakeholder, all such fees actually paid by the stakeholder performing the work shall be allocated based on the relative square footage of the stakeholders' program areas.

- In the event that, subsequent to the adoption of the Master Development Agreement, Silverstein requires structural changes in order to accommodate special requirements of Silverstein or if Silverstein wishes to re-allocate responsibility for certain work to the PA (including Retail, PATH, or any other PA-controlled entity) for any other reason, and in the event that the PA agrees to such changes, the cost premiums, if any, attributable to such changes will be paid or reimbursed to the PA by Silverstein (or offset against the PA's obligations under this Exhibit to pay or reimburse Silverstein for any costs). The PA will not be required to perform any additional work for Silverstein or its affiliates until all payments and reimbursements owed to the PA by Silverstein (including affiliates) have been paid and are current pursuant to the terms of this Exhibit and other provisions of the Master Development Agreement, irrespective of the status of any third-party financial obligations to Silverstein.

- Any cost premiums (to the extent reasonably identified) solely attributable to hardening required by PATH and Retail security standards, but not required to comply with Office Tower security standards, shall be reimbursed to Silverstein by PATH and/or Retail, as appropriate.

- PA and Silverstein will agree on a financial plan for payment requisitions, timely payment of required reimbursement payments, and periodic cost reconciliation.

- Nothing contained herein shall increase the $140 million obligation as provided in Paragraph C.2 of Exhibit D.

- As used in this Exhibit, the term "SPI" or "Silverstein" shall mean the Silverstein Lessees or the applicable Silverstein Lessee, as the case may be.

SUPPLEMENT TO EXHIBIT O

Any undefined capitalized term used herein shall have the meaning ascribed to it in that certain Amended and Restated Master Development Agreement for Towers 2/3/4 of The World Trade Center dated as of December 16, 2010 (together with all exhibits and schedules thereto, and as the same may be amended, the "MDA"). In the event of a conflict between the terms of Exhibit O of the MDA and the terms of this Supplement, the terms of this Supplement shall control, govern and prevail and the contradicted and/or inconsistent provisions of Exhibit O shall be deemed amended and superseded accordingly.

1. Cost Allocation Approval Procedures. Attached hereto as Exhibit O-1 and incorporated by reference into this Supplement are the Cost Allocation Approval Procedures agreed to among the parties to the MDA (the "Cost Allocation Approval Procedures").

2. Warrantee Issues.

(a) If a stakeholder performs work ("Performing Stakeholder") on behalf of another stakeholder ("Benefitting Stakeholder"), Benefitting Stakeholder shall have, during the applicable warranty period, direct access to the trade contractor that performed such work with respect to any issues related to warrantees provided by such trade contractor. If Benefitting Stakeholder shall not be satisfied with the response of such trade contractor, Benefitting Stakeholder shall notify Performing Stakeholder thereof, and Performing Stakeholder shall use commercially reasonable efforts to cause its general contractor or construction manager, as applicable, working in conjunction with the applicable trade contractor, to resolve such warranty-related issues.

(b) Prior to performing any work on behalf of a Benefitting Stakeholder, each Performing Stakeholder performing such work shall ensure that such Benefitting Stakeholder is a third party beneficiary with respect to the obligations of such Performing Stakeholder's general contractor or construction manager, as applicable, and all relevant trade contractors with respect to such work. Each of the Silverstein Lessees hereby represents (as to itself only), and the Port Authority hereby acknowledges, that all Benefitting Stakeholders on whose behalf such Silverstein Lessee has performed (or has, as of the date of the MDA, agreed to perform) work are third party beneficiaries under (i) the construction management agreement or general contractor agreement, as applicable with respect to each of the Tower 2 Project, the Tower 3 Project and the Tower 4 Project and (ii) all trade contracts entered into as of the date of the MDA with respect to each of the Tower 2 Project, the Tower 3 Project and the Tower 4 Project.

(c) All warrantees with respect to work performed by Performing Stakeholder on behalf of Benefitting Stakeholder shall have a specified period of duration, which (i) shall be mutually acceptable to Performing Stakeholder and Benefitting Stakeholder, (ii) in the case of work relating to MEP systems and equipment, shall run through a specified date certain and (iii) in the case of all other work, shall run through a date that is defined by reference to the specifications for such work and shall not be shorter than the warranty period set forth in such specifications.

3. System Completion. With respect to any MEP system constructed by Performing Stakeholder on behalf of Benefitting Stakeholder that includes equipment and requires commissioning, Performing Stakeholder's trade contractors shall provide any start-up and commissioning assistance at the time such systems are started up and commissioned, whether or not Performing Stakeholder has installed (or partially installed) such MEP system. In all other instances and with respect to all other systems (or partial systems) constructed by Performing Stakeholder on behalf of Benefitting Stakeholder (including any MEP system that does not include equipment), a "layup" or "mothballing" procedure mutually agreed to by Performing Stakeholder and Benefitting Stakeholder shall be used. Upon acceptance by Benefitting Stakeholder of such mothballed systems (or partial systems), Performing Stakeholder and Performing Stakeholder's trade contractor shall have no further obligation to Benefitting Stakeholder with respect to such systems (or partial systems), other than warrantee obligations as set forth in Section 2 above.

4. Indemnification and Hold Harmless. The indemnification obligations contained in Section 7.1(a) of the MDA shall be deemed to apply to Losses arising out of work performed by a Silverstein Lessee in its capacity as a Performing Stakeholder. The indemnification obligations contained in Section 7.2(a) of the MDA shall be deemed to apply to Losses arising out of work performed by the Port Authority, PATH or the Retail Lessee in its capacity as a Performing Stakeholder. Except as expressly set forth in this Section 4, the provisions of Article 7 of the MDA remain unmodified.

5. Base Building Schedule Delay, Scope Gaps, Contractor Coordination and Logistics. With respect to base building work that is performed by Performing Stakeholder and shared by Performing Stakeholder and Benefitting Stakeholder, Benefitting Stakeholder shall not be responsible for the costs of any change order arising by virtue of schedule delay, gaps in scope, coordination of contractors or logistics, unless and to the extent such change order is directed by Benefitting Stakeholder or such delay, scope gap, lack of contractor coordination or logistics problem is caused by the acts or omissions of Benefitting Stakeholder.

6. T2 and T3 MEP Bidding and Procurement. With respect to any Tower 2 or Tower 3 MEP system constructed by Performing Stakeholder on behalf of Benefitting Stakeholder (the "T2/T3 MEP Work"), a mutually agreed upon representative of Performing Stakeholder shall make available in a meeting with a mutually agreed upon representative of Benefitting Stakeholder the entire subcontractor scope and bid values with respect to the MEP trades. Without limiting the applicability of the Cost Allocation Approval Procedures to other work performed by a Performing Stakeholder on behalf of a Benefitting Stakeholder, approval for the T2/T3 MEP Work shall follow the procedures contained in the Cost Allocation Approval Procedures.

7. Waivers of Lien. Performing Stakeholder shall obtain partial and final waivers of lien with respect to work performed on behalf of Benefitting Stakeholder and make copies of said waivers of lien available to Benefitting Stakeholder at monthly requisition review meetings. Said waivers of lien with respect to work performed on behalf of Benefitting Stakeholder shall be no different in form and substance from the waivers of lien obtained by Performing Stakeholder with respect to work performed on its own behalf. Copies of said waivers of lien

with respect to work performed on behalf of Benefitting Stakeholder shall be provided to Benefitting Stakeholder upon request.

8. Technical Documentation. With respect to any work performed by Performing Stakeholder on behalf of Benefitting Stakeholder, Performing Stakeholder shall provide to Benefitting Stakeholder (i) all technical documentation required to be provided by a trade contractor performing such work under its trade contract, and (ii) such other documentation reasonably required by Benefitting Stakeholder and customarily provided by a trade contractor performing such work, including but not limited to as-built drawings, owner's manuals and warrantees.

9. Payment is Not Acceptance. The making of any payment by Benefitting Stakeholder to Performing Stakeholder on account of work performed by Performing Stakeholder on behalf of Benefitting Stakeholder shall not constitute an approval or acceptance by Benefitting Stakeholder of the work covered by such payment.

EXHIBIT O-1

(Cost Allocation Approval Procedures)

Cost Allocation Approval Procedures

The following procedures shall be followed in approving the cost allocations and in making a commitment for reimbursement by one stakeholder to another for work performed by one stakeholder on behalf of another in accordance with the provisions of the Master Development Agreement Section 2.3.

In accordance with Exhibit O (Costs Allocation/Reimbursement Methodology for Construction within the East Bathtub) the following trade contract bidding and award process shall be followed to insure an open book process that allows each stakeholder to provide their input and participate in the portions of the trade contract awards associated with the work to be performed on their behalf.

The following documents shall be used in each of the procurement steps for each of the trade contract awards that include cost allocated items of work:

- Cost Allocation Bid Response Form
- Cost Allocation Bid Worksheet
- Trade Contract Award Approval Form
- Trade Contract Allocated Requisition Form

Contract Document Preparation and Bidding Phase

1. Prior to putting a trade contract bid package out to bid, a Cost Allocation Bid Response Form will be developed that defines the work items that will be required to be broken out of the base bid by each bidder as part of their bid response. The Bid Response Form will be supplemented, where necessary, with sketches and diagrams that will clarify the scope. Also, a corresponding Cost Allocation Bid Work Sheet shall be prepared for use in analyzing the bid responses received. In preparing these forms, draft copies of each will be provided to each stakeholder for their review and comment. Each stakeholder shall review the scope of the work for each work item listed in the Bid Response Form. The stakeholders shall also review the allocation methodology identified for each work item in the Bid Worksheet. Written comments shall be provided by the stakeholders within two (2) weeks of receipt of the draft forms. Once the stakeholder input is incorporated into the Cost Allocation Bid Response Form it will be provided to the Construction Manager for incorporation into the trade bid package. The Worksheet does not go into the bid package. It is used by the stakeholders in analyzing the responses received.

2. Upon receipt of sealed bids by the Construction Manager a bid opening meeting will be scheduled and each stakeholder representative will be invited to attend. The bids will be opened in the presence of the stakeholder representatives who attend the opening and a photocopy of each Cost Allocation Bid Response Form received will be provided to the stakeholder representatives at the meeting.

3. Subsequently, for each Bid Response Form received the bid values will be entered into a Cost Allocation Bid Worksheet for each bidder. The Worksheet will allocate the bid values based on the agreed allocation methodologies and provide the total value allocable to each stakeholder for each of the bids received. These Worksheets will be distributed to each of the stakeholder representatives.

4. Copies of any Bid Addendums will be provided to the stakeholders as they are issued. Should an addendum require a revision to the Bid Response Form or Worksheet the revised forms will be provided to the stakeholders for their review and comment.

Contract Award Phase

1. Stakeholder representatives will be invited to bid review meetings conducted by the Construction Managers with each of the bidders who have submitted a competitive bid. A review of the individual work items that were priced by the bidder can be done at that time and will provide the stakeholder representatives the opportunity to participate in the evaluation of the items priced and request clarifications or ask questions.

2. If bidders are requested to provide revised pricing for the allocated work items based on the bid review meetings, copies of the revised pricing and the corresponding revised Cost Allocation Bid Worksheets will be provided to the stakeholder representatives. This will be repeated for all bid revisions that may occur as a result of the bid review process.

3. When the Construction Manager reaches the completion of their bid evaluation and negotiations with the bidders he will advise the stakeholders and seek the concurrence of the stakeholders of the final values for the Cost Allocated Work items prior to making the final award. The Construction Manager will provide a summary of the bid process as it relates to the cost allocated items of work showing the original bid values and the final negotiated values with any applicable scope or schedule clarifications or qualifications. A final Trade Contract Award Approval Form will be prepared and distributed to the stakeholder representatives showing the final values of the Work Item and the allocated share to each of the stakeholders.

4. Each stakeholder representative shall indicate approval of the allocated trade cost values by signing the Trade Cost Award Approval Form. Stakeholder approval shall be provided within three (3) business days so as not to delay the trade contract award. The approval signature shall be a commitment by the stakeholder for responsibility for reimbursing to the stakeholder performing the work the allocated trade cost plus the appropriate multiplier.

Construction Phase

1. Upon award of the trade contract, the Trade Contractor shall provide the Construction Manager with a detailed line item Schedule of Values (SOV) for the entire value of the contract award. The SOV shall include the allocated work items for the exact value as they appeared on the approved Trade Cost Award Approval Form. However, an individual work item may now be broken down into several line items that correspond to the construction sequence for the installation of the work, but the total value of the work item shall not differ from the total approved values. The proposed SOV will be provided to the stakeholders with a two (2) week review and comment period before it is finalized between the Construction Manager and the Trade Contractor.

2. Each month the Trade Contractor shall submit a requisition to the Construction Manager indicating the percentage completion for each item in the SOV on a work-in-place basis. The corresponding allocated work line items will then be entered into the Trade Contract Allocated Requisition Form for the work completed that period. The stakeholder representatives will be invited to participate in a site walk-thru and a "pencil requisition" meeting with the Construction Manager to verify that the work being billed for that period has been completed and the percentage completion values are correct.

3. Upon stakeholder approval of each of the Trade Contract Allocated Requisition forms, a total trade value of work completed for each stakeholder will be determined for that billing period and an invoice will be created including applying the appropriate total project cost multiplier. The invoice shall then be sent to the stakeholder for payment, or shall be entered into to the Talley Sheet as a credit to the stakeholder performing the work. Once the Talley Sheet obligation value has been exhausted, the invoice will be sent to the stakeholder for payment.

Cost Allocation Bid Response Form

*** EXAMPLE – all values are for demonstration purposes only ***

World Trade Center Rev. Date: July 16, 2007
Project: Tower 4
Trade Contract: Excavation & Foundations

Instructions to Bidders: The cost for certain items of work on the project will be shared between the various stakeholders who will occupy portions of the podium and below grade levels of the building and these costs need to be identified. The bidder is required to submit the following break-out pricing with their bid. The break-out price for each item should be a complete price for the scope of work identified and be in conformance with the drawings and specifications.

Work Item	Bid Value
1. Excavation required for Parking area bounded approximately by: north site limit line/west site limit line/existing east slurrywall/tower core, including extension to base of parking ramp. Excavation required from existing rock elevation at el. 240 to accommodate a finished SOG at el. 239.	$ 250,000
2. Foundation for the footing/grade beam supporting edge of Parking ramp and the retaining wall under ramp, including excavation and reinforced concrete footing with dowels. Also includes compacted fill under ramp.	$ 50,000
3. Foundation for the following concrete walls including excavation, line drilling, rock anchors and reinforced concrete footing with dowels. Exclude work at column footings.	
a.) Concrete Wall ASW 6 at column line 410 between 4L and south foundation wall.	$ 630,000
b.) Concrete Walls ASW 7.1/7.2/7.3 at east edge of parking ramp, including perpendicular "wing walls".	$ 450,000
4. Foundation for the following stair enclosure concrete walls including excavation, line drilling and reinforced concrete footing with dowels.	
a.) Stair BX near column lines 4J/401.	$ 200,000
b.) Stair BY near column line 4PA/4P7.	$ 200,000
5. Slab on Grade installation including but not limited to concrete slab, reinforcing steel and mesh, underslab drainage system, gravel bed, vapor barrier, concrete sump pits, etc. for a complete system. Includes rock trenching for underslab drainage and MEP lines as shown on the composite trenching drawing no. GT-DP-1.	$ 1,500,000
6. Saw cutting of shear keys in perimeter existing slurry walls for the following below grade slab levels, includes drilling and installation of dowels. See drawing S4-00.	
a.) Shear key at Level B1M.	$ 30,000
b.) Shear key at Level B1.	$ 160,000
c.) Shear key at Level B2.	$ 160,000
d.) Shear key at Level B3.	$ 160,000
e.) Shear key at Level B3M.	$ 50,000
7. Preparation of top of existing slurry wall at Ground floor level to receive structural slab, includes saw cutting and removal of concrete safety barrier wall as indicated on drawings. See drawing S4-00.	$ 275,000
Total:	$

Bidder Information

Firm Name: XYZ Foundations

Contact Name: Mr. XYZ

Signature: XYZ **Date:** Sept. 5, 2007

Cost Allocation Bid Worksheet

World Trade Center
Project: Tower 4
Trade Contract: Excavation & Foundations

**** EXAMPLE -- all values are for demonstration purposes only. ****

Sept. 5, 2007

Bidder: XYZ Foundations

Work Item	Allocation Method	Estimate Value	Subcontractor Bid	SPI		RETAIL		PARKING		PA - HUB		VSC & BUS PARKING		STREETS & INFRASTRUCTURE		ITEM TOTALS	
				$	%	$	%	$	%	$	%	$	%	$	%	$	%
1. Excavation at Parking Area.	PARK	$225,000	$250,000	0	0.00%	0	0.00%	250,000	100.00%	0	0.00%	0	0.00%	0	0.00%	250,000	100.00%
2. Footing/Grade Beam at Parking Ramp	PARK	$45,000	$50,000	0	0.00%	0	0.00%	50,000	100.00%	0	0.00%	0	0.00%	0	0.00%	50,000	100.00%
3. Concrete Wall Foundations																	
a.) Concrete Wall ASW 6	PAHUB	$750,000	$630,000	0	0.00%	0	0.00%	0	0.00%	630,000	100.00%	0	0.00%	0	0.00%	630,000	100.00%
b.) Concrete Wall ASW 7.1/7.2/7.3	PAHUB	$425,000	$450,000	0	0.00%	0	0.00%	0	0.00%	450,000	100.00%	0	0.00%	0	0.00%	450,000	100.00%
4. Stair Enclosure Wall Foundations																	
a.) Stair BX	STBG	$175,000	$200,000	2,000	1.00%	196,480	98.24%	760	0.38%	760	0.38%	0	0.00%	0	0.00%	200,000	100.00%
b.) Stair BY	STBG	$200,000	$200,000	2,000	1.00%	196,480	98.24%	760	0.38%	760	0.38%	0	0.00%	0	0.00%	200,000	100.00%
5. Slab on Grade	B4GSF	$1,450,000	$1,500,000	687,600	45.84%	58,200	3.88%	751,650	50.11%	2,550	0.17%	0	0.00%	0	0.00%	1,500,000	100.00%
6. Shear Keys																	
a.) Level B1M	B1MGSF	$25,000	$30,000	1,485	4.95%	23,067	76.89%	0	0.00%	5,448	18.16%	0	0.00%	0	0.00%	30,000	100.00%
b.) Level B1	B1GSF	$150,000	$160,000	57,984	36.24%	70,912	44.32%	528	0.33%	30,576	19.11%	0	0.00%	0	0.00%	160,000	100.00%
c.) Level B2	B2GSF	$150,000	$160,000	24,848	15.53%	114,256	71.41%	464	0.29%	20,432	12.77%	0	0.00%	0	0.00%	160,000	100.00%
d.) Level B3	B3GSF	$150,000	$160,000	87,680	54.80%	38,528	24.08%	17,008	10.63%	176	0.11%	16,608	10.38%	0	0.00%	160,000	100.00%
e.) Level B3M	B3MGSF	$50,000	$50,000	0	0.00%	50,000	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	50,000	100.00%
7. Prepare Top of Slurry Wall	GRDGSF	$250,000	$275,000	109,670	39.88%	102,890	37.40%	1,430	0.52%	45,238	16.45%	28	0.01%	15,785	5.74%	275,000	100.00%
Allocated Bid Totals:			**$4,115,000**	**$973,267**		**$850,773**		**$1,072,600**		**$1,185,940**		**$16,636**		**$15,785**		**$4,115,000**	
Allocated Estimate Totals:		$4,045,000		$983,844		$401,298		$760,853		$2,168,840		$17,555		$21,156			

Notes: 1. Allocation Methods and allocation percentages are defined in the Master Cost Allocation Codes and Percentages table dated Aug. 31, 2007 based on the 100% DD design documents.
2. Estimate values are based on the 100% SD estimate dated May 9, 2007.

Trade Contract Award Approval Form

World Trade Center
Project: Tower 4
Trade Contract: Excavation & Foundations

**** EXAMPLE – all values are for demonstration purposes only ****

October 1, 2007

Bidder: XYZ Foundations

Work Item	Allocation Method	Final Award Vaule	SPI		RETAIL		PARKING		PA - HUB		VSC & BUS PARKING		STREETS & INFRASTRUCTURE		ITEM TOTALS	
			$	%	$	%	$	%	$	%	$	%	$	%	$	%
1. Excavation at Parking Area.	PARK	$250,000	0	0.00%	0	0.00%	250,000	100.00%	0	0.00%	0	0.00%	0	0.00%	250,000	100.00%
2. Footing/Grade Beam at Parking Ramp	PARK	$50,000	0	0.00%	0	0.00%	50,000	100.00%	0	0.00%	0	0.00%	0	0.00%	50,000	100.00%
3. Concrete Wall Foundations																
a.) Concrete Wall ASW 6	PAHUB	$630,000	0	0.00%	0	0.00%	0	0.00%	630,000	100.00%	0	0.00%	0	0.00%	630,000	100.00%
b.) Concrete Wall ASW 7.1/7.2/7.3	PAHUB	$450,000	0	0.00%	0	0.00%	0	0.00%	450,000	100.00%	0	0.00%	0	0.00%	450,000	100.00%
4. Stair Enclosure Wall Foundations																
a.) Stair DX	STBG	$200,000	2,000	1.00%	196,480	98.24%	760	0.38%	760	0.38%	0	0.00%	0	0.00%	200,000	100.00%
b.) Stair BY	STBG	$200,000	2,000	1.00%	196,480	98.24%	760	0.38%	760	0.38%	0	0.00%	0	0.00%	200,000	100.00%
5. Slab on Grade	B4GSF	$1,500,000	687,500	45.84%	58,200	3.88%	751,850	50.11%	2,550	0.17%	0	0.00%	0	0.00%	1,500,000	100.00%
6. Shear Keys																
a.) Level B1M	B1MGSF	$30,000	1,485	4.95%	23,067	76.89%	0	0.00%	5,448	18.16%	0	0.00%	0	0.00%	30,000	100.00%
b.) Level B1	B1GSF	$160,000	57,984	36.24%	70,912	44.32%	528	0.33%	30,576	19.11%	0	0.00%	0	0.00%	160,000	100.00%
c.) Level B2	B2GSF	$160,000	24,848	15.53%	114,256	71.41%	464	0.29%	20,432	12.77%	0	0.00%	0	0.00%	160,000	100.00%
d.) Level B3	B3GSF	$160,000	87,680	54.80%	38,528	24.08%	17,008	10.63%	176	0.11%	16,608	10.38%	0	0.00%	160,000	100.00%
e.) Level B3M	B3MGSF	$50,000	0	0.00%	50,000	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	50,000	100.00%
7. Prepare Top of Slurry Wall	GRDGSF	$275,000	109,870	39.99%	102,850	37.40%	1,430	0.52%	45,238	16.45%	28	0.01%	15,785	5.74%	275,000	100.00%
Allocated Contract Totals:		$4,115,000	$973,267		$850,773		$1,072,600		$1,185,940		$16,636		$15,785		$4,115,000	

Note: Allocation Methods and allocation percentages are defined in the Master Cost Allocation Codes and Percentages table dated Aug. 31, 2007 based on the 100% DD design documents.

Approvals

Approval constitutes stakeholder agreement and commitment to reimburse SPI for the allocated trade cost values indicated for the scope of work included in the trade contract award plus the appropriate total project cost multiplier.

Approved by: _____ (SPI Stakeholder)

Approved by: _____ (Retail & Parking Stakeholder)

Approved by: _____ (PA-Hub, VSC & Bus Parking, Streets & Infrastructure Stakeholder)

Monthly Trade Contract Allocated Requisition Form

Requisition No.: 02
Requisition Period: March 1 - March 31, 2008

World Trade Center
Project: Tower 4
Trade Contract: Excavation & Foundation

Trade Contractor: XYZ Foundations

**** EXAMPLE - all values are for demonstration purposes only ****

TRADE BREAKDOWN		Work Completed							STAKEHOLDER ALLOCATION													
Description Of Contract Work	Scheduled Value	Percent Complete Thru Current Period	Work in Place Billed to Date	Retention	Billed to Date Less Retention	Work Previously Billed	Current Invoice	Allocation Code	SPI Amount	SPI Percent	Retail Amount	Retail Percent	PA - Parking Amount	PA - Parking Percent	PA - Hub Amount	PA - Hub Percent	VCS & Bus Parking Amount	VCS & Bus Parking Percent	Streets & Infrastructure Amount	Streets & Infrastructure Percent	Total Amount	Total Allocated %
Excavation in Parking Area	$ 250,000	25%	$ 62,500	$ 6,250	56,250.00	-	56,250.00	PARK	-	0.00%	-	0.00%	56,250.00	100.00%	-	0.00%	-	0.00%	-	0.00%	56,250.00	100%
Footing / Grade Beam at Parking Ramp	$ 50,000	20%	$ 10,000	$ 1,000	9,000.00	225.00	8,775.00	PARK	-	0.00%	-	0.00%	8,775.00	100.00%	-	0.00%	-	0.00%	-	0.00%	8,775.00	100%
Shearwall Foundations: Shearwall ASW 5	$ 630,000	15%	$ 94,500	$ 9,450	85,050.00	4,500.00	80,550.00	PAHUB	-	0.00%	-	0.00%	-	0.00%	80,550.00	100.00%	-	0.00%	-	0.00%	80,550.00	100%
Shearwall Foundations: Shearwall ASW 7	$ 450,000	10%	$ 45,000	$ 4,500	40,500.00	2,250.00	38,250.00	PAHUB	-	0.00%	-	0.00%	-	0.00%	38,250.00	100.00%	-	0.00%	-	0.00%	38,250.00	100%
Stair Enclosure Wall Foundations: Stair BX	$ 200,000	0%	$ -	$ -	-	-	-	STBG	-	0.00%	-	0.00%	-	4.12%	-	7.12%	-	0.07%	-	0.00%	-	#DIV/0!
Stair Enclosure Wall Foundations: Stair BY	$ 200,000	5%	$ 10,000	$ 1,000	9,000.00	1,800.00	7,200.00	STBG	569.88	9.35%	5,715.00	79.40%	296.64	4.12%	512.64	7.12%	5.04	0.07%	-	0.00%	7,200.00	100%
Slab On Grade	$ 1,500,000	10%	$ 150,000	$ 15,000	135,000.00	7,200.00	127,800.00	B4GSF	56,583.52	45.94%	4,958.64	3.88%	64,040.56	50.11%	217.28	0.17%	-	0.00%	-	0.00%	127,800.00	100%
Shear Keys: Level B1M	$ 30,000	15%	$ 4,500	$ 450	4,050.00	180.00	3,870.00	B1MGSF	181.57	4.93%	2,975.64	80.85%	-	0.00%	702.79	19.09%	-	0.00%	-	0.00%	3,670.00	100%
Shear Keys: Level B1	$ 160,000	5%	$ 8,000	$ 800	7,200.00	180.00	7,020.00	B1GSF	2,544.05	36.24%	3,111.26	44.32%	23.17	0.33%	1,341.52	19.11%	-	0.00%	-	0.00%	7,020.00	100%
Shear Keys: Level B2	$ 160,000	5%	$ 8,000	$ 800	7,200.00	180.00	7,020.00	B2GSF	1,090.21	15.53%	5,012.08	71.41%	20.38	0.29%	896.45	12.77%	-	0.00%	-	0.00%	7,020.00	100%
Shear Keys: Level B3	$ 160,000	5%	$ 8,000	$ 800	7,200.00	450.00	6,750.00	B3GSF	3,697.00	54.80%	1,625.40	24.08%	717.53	10.63%	7.43	0.11%	700.65	10.38%	-	0.00%	6,750.00	100%
Shear Keys: Level B3M	$ 50,000	5%	$ 2,500	$ 250	2,250.00	450.00	1,800.00	B3MGSF	-	0.00%	1,800.00	100.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	1,800.00	100%
Prepare Top of Slurry Wall	$ 275,000	10%	$ 27,500	$ 2,750	24,750.00	5,400.00	19,350.00	GRDGSF	7,716.78	39.88%	7,236.90	37.40%	100.02	0.52%	3,183.08	16.45%	1.94	0.01%	1,110.69	5.74%	19,350.00	100%
Total Base Contract	$ 4,115,000		$ 430,500	$ 43,050	$ 387,450	$ 22,815	$ 364,635		74,494.00		32,437.53		130,223.89		126,661.17		707.63		1,110.69		364,635.00	
Change Order #001	40,000	5%	$ 2,000	$ 200	1,800.00	0	1,800.00	GRDGSF	717.84	39.88%	673.20	37.40%	9.36	0.52%	296.10	16.45%	0.18	0.01%	103.32	5.74%	1,800.00	100%
Change Order #002	15,000	2%	$ 300	$ 30	270.00	0	270.00	PAHUB	-	0.00%	-	0.00%	-	0.00%	270.00	100.00%	-	0.00%	-	0.00%	270.00	100%
Total Change Orders	55,000		2,300	230	2,070	0	2,070		717.84		673.20		9.36		566.10		0.18		103.32		2,070.00	
Total Adjusted Contract	4,170,000		432,800	43,280	389,520	22,815	366,705		75,211.84		33,110.83		130,233.24		126,227.27		707.81		1,214.01		366,705.00	
Stakeholder Totals									75,211.84		163,344.08						128,149.08				366,705.00	

Note: Allocation Methods and allocation percentages are defined in the Master Cost Allocation Codes and Percentages table dated Aug. 31, 2007 based on the 100% DD design documents.

Approved by: _____ (SPI Stakeholder)

Approved by: _____ (Retail & Parking Stakeholder)

Approved by: _____ (PA-Hub, VSC & Bus Parking, Streets & Infrastructure Stakeholder)

EXHIBIT P

Project Development Budgets
(For Tower 4, Tower 3, Tower 3 Podium and Tower 2 structure to grade)

[see attached]

WORLD TRADE CENTER: TOWER 4 SPI BUDGET
EXHIBIT P

1
2
3

Notes:
(1)
(2)
(3)
(4)
(5) For Fuel Cells
(6) Tower 4 Tenant Improvements & Leasing Commissions Include PA + NYC lease terms.
(7) Budget Attributable to SPI Office Only

WORLD TRADE CENTER: TOWER 3 SPI BUDGET

EXHIBIT P

1
2
3
4 HARD COSTS
5
6
7
8
9

(5) For Fuel Cells Only
(8) Budget Attributed to SPI Office Only

WORLD TRADE CENTER: TOWER 3 to 6th FLOOR (7th FLOOR ROOF)
T3 PODIUM PERIOD COSTS

DECEMBER 16, 2010

	BASE BUILDING COMPONENTS TO SUPPORT INTERIM PODIUM OPTIONS - TRADE COSTS				
	SPI	Retail / Parking	HUB / VSC / SURI	TOTAL	Podium Cap Costs
Excavation & Foundation	[redacted]				
Structural Frame					
Roofing & Waterproofing					
Exterior Wall					
Interior Partitions & Finishes					
Specialties					
Equipment & Furnishings					
Vertical Transportation					
Plumbing					
Fire Protection					
HVAC					
Electrical					
Hoist & Sidewalk Bridge					
Site Utilities					
Site Work					
Base Bldg MEP's in Congested Areas					
Subtotal					
Contingency - Podium Scope [redacted]					
Total Trade Costs	$				
General Conditions [redacted]					
Construction Contingency [redacted]					
CM Fee [redacted]					
Bonding [redacted]					
Developer Contingency [redacted]					
Total Podium Hard Costs	$				
Re-Design A/E Costs					
Podium Cap Design Costs					
Construction Administration Costs					
Testing & Inspection					
Insurance Monitoring / Misc Other Podium Costs					
Soft Cost Contingency [redacted]					
TOTAL PODIUM COSTS	$				

Both parties reserve the right to correct any errors and omissions in the above budget during the period from the 12/16/2010 Closing Date to the T4 Liberty Bond Closing Date.

WORLD TRADE CENTER: TOWER 2 STRUCTURE-TO-GRADE
EXHIBIT P

	ESTIMATED COST	ALLOCATED COSTS 2 WTC LLC TRADE	NON-TRADE (@ 50%)	HUB / VSC / SURI	Retail / Parking
Trade Costs	[redacted]				
Turner Direct Trade Work Estimate					
Other Hard Costs					
General Conditions					
Design & Construction Contingency - [redacted]					
Sub Contractors Bonds - [redacted]					
CM Fee					
Temp Utility Consumption (Elec. & Water)					
EEO & MWBE Monitoring					
Subtotal Trade & Other Hard Costs					
Developers Contingency [redacted]					
Stakeholder Multiplier on Trade Costs - [redacted]					
Total Hard Costs					
Design & Testing Consultants					
Construction Admin Phase - Structure To Grade					
Structure To Grade A/E Re-Design Fees					
Testing & Inspection					
Subtotal Design & Testing Consultants					
Other Soft Costs					
Builders Risk / Terrorism / Advisory					
Legal					
General Accounting / Audits					
Accounting & Document Control Systems					
Design & Construction Field Office					
Initial Operation Expenses (100% 2WTC LLC)					
Subtotal Design & Other Soft Costs					
Soft Cost Contingency [redacted]					
Total Soft Costs					
Total Hard & Soft Costs					
Total Allocated Costs					
Total Project Budget					
Project Costs Excluded From 200M Project Budget					
Commercial Electrical PDC Premium					
Adjusted Project Budget					

EXHIBIT Q

Insurance Policies

[see attached]

EXHIBIT Q
INSURANCE POLICIES

Carrier	Policy Numbers
ACE	SWTC 00274P, REFVP0185, REFP0185
Allianz	CLP3001091, CLP3001140
Chubb (Federal Insurance)	6593994
COP Re	710879201
Great Lakes	710879401
Gulf	GA2403811
Hartford	GX 0000546
Houston Casualty	710894301, 7108789014
Industrial Risk Insurers	31-3-89984
Lexington	8750352
Lloyds	710899101
QBE	710879401
Royal & Sun Alliance	RTE 464346
Royal Indemnity	RHG 319800, RHD 319802
Royal Speciality	RHD 319801
SR International	710875501
SR UK	710905101
St. Paul	144SP0922
TIG Insurance	XPT 39239030
Tokio Marine	FDP 4320631
Travelers Insurance	KTXEMB123D5782, KTXUMB123D579401, KTXCMB123D580101, KTXCMB123D581301, KTXCMB123D582501, KTCMB-123D587-2-01
Twin City Fire Insurance	KG 0002846
Wausau (Liberty Mutual Group)	YSMQCZ91423529021, YSC-291-423529-001, MQC-291-423529-012
Württ	711137001
XL	XLPRP 1112801, RBFP01087
Zurich North America	ERP 3514947-00, EPP351494700

EXHIBIT R

[INTENTIONALLY OMITTED]

EXHIBIT S

[INTENTIONALLY OMITTED]

EXHIBIT T

[INTENTIONALLY OMITTED]

EXHIBIT U

[INTENTIONALLY OMITTED]

EXHIBIT V

[INTENTIONALLY OMITTED]

EXHIBIT W

[INTENTIONALLY OMITTED]

EXHIBIT X

[INTENTIONALLY OMITTED]

EXHIBIT Y

[INTENTIONALLY OMITTED]

EXHIBIT Z

[INTENTIONALLY OMITTED]

EXHIBIT AA

[INTENTIONALLY OMITTED]

EXHIBIT BB

[INTENTIONALLY OMITTED]

EXHIBIT CC

[INTENTIONALLY OMITTED]

EXHIBIT DD

VSC Criteria

[see attached]

EXHIBIT EE-1

WTC Tower 2 Structure to Grade Work Plan

[see attached]

EXHIBIT EE-1.1

Architectural, Structural and MEP design drawings

[see attached]

Exhibit EE-1.2

(Costs included in the Structure to Grade Estimate)

Project Budget

Tower 2 - Structure To Grade
250 Greenwich Street
New York, New York

	ESTIMATED COST	ALLOCATED COSTS			
		2 WTC LLC		HUB/VSC/SURI	Retail/Parking
		TRADE	NON-TRADE (@ 50%)		
Hard Costs					
Trade Costs	[redacted]				
Turner Direct Trade Work Estimate					
Other Hard Costs					
General Conditions					
Design & Construction Contingency - [redacted]					
Sub Contractors Bonds - [redacted]					
CM Fee					
Temp Utility Consumption (Elec. & Water)					
EEO & MWBE Monitoring					
Subtotal Trade & Other Hard Costs					
Developers Contingency [redacted]					
Stakeholder Multiplier on Trade Costs - [redacted]					
Total Hard Costs					
Soft Costs					
Design & Testing Consultants					
Construction Admin Phase - Structure To Grade					
Structure To Grade A/E Re-Design Fees					
Testing & Inspection					
Subtotal Design & Testing Consultants					
Other Soft Costs					
Builders Risk / Terrorism / Advisory					
OCIP					
Legal					
General Accounting / Audits					
Acounting & Document Control Systems					
Design & Construction Field Office					
Initial Operation Expenses [redacted] 2WTC LLC)					
Subtotal Design & Other Soft Costs					
Soft Cost Contingency [redacted]					
Total Soft Costs					
TOTAL HARD & SOFT COSTS					
TOTAL ALLOCATED COSTS					
TOTAL PROJECT BUDGET					
Project Costs Excluded From 200M Project Budget					
Commerical Electrical PDC Premium					
ADJUSTED PROJECT BUDGET					

Project Budget

Tower 2 - Structure To Grade
250 Greenwich Street
New York, New York

Soft Cost Detail Breakdown

Construction Administration Phase - Structure To Grade

Architect of Record - AAI
Structural Engineer - CSG
MEP Engineer - JBB
Blast Engineer - WAI
Code Consultant - CCI
Security Consultant - DVS
LEED Consultant - SDK
Civil Consultant - PHA
Geotech Consultant - MRCE
EMF Shielding Consultant - Vitatech
Integrity Monitoring - Thacher
Scheduling Services
Miscellaneous Consultants
Various Additional Services

Subtotal

Reimbursables - 5%

Total Construction Admin Phase - Structure To Grade & Reimb.

A/E Redesign - Structure To Grade

Architect of Record - AAI
Structural Engineer - CSG
MEP Engineer - JBB
Blast Engineer - WAI
Code Consultant - CCI
Security Consultant - DVS
LEED Consultant - SDK
Civil Consultant - PHA
Geotech Consultant - MRCE
EMF Shielding Consultant - Vitatech

Subtotal

Reimbursables - 5%

Total A/E Redesign - Structure To Grade & Reimb.

Testing & Inspection

Concrete/Steel/Fireproofing
Reinforcing & Placement Inspections
Foundation Field Inspection
Foundation Blast Monitoring
MEP Commissioning

Subtotal

Reimbursable Expenses - 5%

Testing & Inspection & Reimb.

Other Soft Cost Detail Breakdown

Design & Construction Field Office

Rent
Utilities
Printing & Shipping
Office Supplies
IT support
Misc Expenses

Total Design & Construction Field Office

Turner

Tower 2 – World Trade Center
200 Greenwich Street
New York, New York

ESTIMATE - DRAFT for Review
July 15, 2010

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Turner Construction Company

Tower 2 World Trade Center
200 Greenwich Street
New York, New York
ESTIMATE - 7/15/2010 DRAFT for Review

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[redacted]

BUILDING SYSTEM

EXCAVATION & FOUNDATIONS

STRUCTURAL FRAME

ROOFING AND WATERPROOFING

EXTERIOR WALL

INTERIOR PARTITIONS & FINISHES

SPECIALTIES & EQUIPMENT

EQUIPMENT & FURNISHINGS

VERTICAL TRANSPORTATION

PLUMBING

FIRE PROTECTION

H.V.A.C.

ELECTRICAL

SUBTOTAL:

SITE WORK

HOISTING & PUBLIC PROTECTION

DEMOLITION, ABATEMENT & JOINING

TOTAL: DIRECT COST

DESIGN & CONSTRUCTION CONTINGENCY (10%)

SUBTOTAL:

SUBCONTRACTOR BONDS
TURNER BOND
GENEAL LIABILITY INSURANCE
GENERAL CONDITIONS

FEE

SUBTOTAL:

ESCALATION

TOTAL CONSTRUCTION COST

COST TO DATE NOT INCLUDED ABOVE
EXCAVATION AND FOUNDATION - HALMAR CONTRACT
CURTAIN WALL - PERMASTEELISA
SITE UTILITES - FCV
ELEVATORS - OTIS
STEEL - HELMARK

Turner Construction Company

Tower 2 World Trade Center
200 Greenwich Street
New York, New York
ESTIMATE - 7/15/2010 DRAFT for Review

T:\NY\Estimating\estfiles\13700\13780 WTC Tower 2\WTC T2 Estimate 2010-06-01 Progress Set\Estimate\2010-07-15 Estimate w Allocations\[2010-07-15 T2 WTC Estimate Update w Allocations.xlsm]Estimate

								Percentages						Cost Breakouts					
Ranking	BUILDING SYSTEM	Quantity	Unit	Unit Cost	Estimate	Intermediate Totals	Code	SPI	PAH	PARK	VSC	S & RI	RETAIL	SPI	PAH	PARK	VSC	S & RI	RETAIL
001	EXCAVATION & FOUNDATIONS																		
002	Excavation & Foundation																		
003	Halmar's Adjusted Remaining Contract																		
004	Dead man for Guy Cables																		
005	Pads on B4 Level																		
006	Tie Down Beams																		
007	Remove debris from underground contractors																		
008	Concrete for LR1200 Base																		
009	Shappiro Design Cost																		
010	Subtotal: Excavation & Foundation																		
011																			
012	EXCAVATION & FOUNDATIONS																		
013																			
014	STRUCTURAL FRAME																		
015	Superstructure Concrete																		
016	Concrete 1st Round Base Bid																		
017	Subtotal: Superstructure Concrete																		
018																			
019	Raise Concrete Shear Walls																		
020	Raise Shear Walls Above Grade																		
021	Raise Transit Hall Stair to provide access above to Roof																		
022	Raise SW Corner of Core to Elevation 24'-7"																		
023	Subtotal: Raise Concrete Shear Walls																		
024																			
025	Install Curtain Wall Embeds																		
026	Install Day-2 Curtain Wall Embeds (Assume 1 Embed Every 5 feet)																		
027	Pour Ground Floor Curb for Day-2 Curtainwall Embeds																		
028	Subtotal: Install Curtain Wall Embeds																		
029																			
030	Protection Slab																		
031	Temporary Concrete Protection Slab Over Waterproofing																		
032	Subtotal: Protection Slab																		
033																			
034	Encase ConEd Conduit																		
035	Encase Conduit from ConEd Splice Chamber to PDCs																		
036	Subtotal: Encase ConEd Conduit																		
037																			
038	Misc Concrete Items Requested at Bid																		
039	Waterproofing at Water Tank																		
040	Comeback to Infill Four (4'x 4') Openings																		
041	Subtotal: Misc Concrete Items Requested at Bid																		
042																			
043	Temporary Concrete Cover																		
044	Level 1 Temporary Concrete Cover to Infill Opening																		
045	Level B1 Temporary Concrete Cover to Infill Opening																		
046	Level B3 Temporary Concrete Cover to Infill Opening																		
047	Subtotal: Temporary Concrete Cover																		
048																			
049	Concrete Curb at Perimeter Slurry Wall Drains																		
050	Level B1M - Perimeter Drainage Curb																		
051	Level B1 - Perimeter Drainage Curb																		
052	Level B2 - Perimeter Drainage Curb																		
053	Level B3 - Perimeter Drainage Curb																		
054	Level B4 - Perimeter Drainage Curb																		
055	Subtotal: Concrete Curb at Perimeter Slurry Wall Drains																		
056																			
057	Concrete Housekeeping Pads																		
058	Level 1 - Mech 4" Equipment Pads																		
059	Level B1M - Mech 4" Equipment Pads																		
060	Level B1 - Mech 4" Equipment Pads																		
061	Level B2 - Mech 4" Equipment Pads																		
062	Level B3 - Mech 4" Equipment Pads																		
063	Level B4 - Mech 4" Equipment Pads																		
064	Level B2 - Spot Network - Mech 4" Equipment Pads																		
065	Subtotal: Concrete Housekeeping Pads																		
066																			
067	Miscellaneous Concrete																		
068	Level 1 - Plaza Level																		
069	Temporary CIP Concrete Trench Drain at Plaza Perimeter																		
070	Site Perimeter Curb																		
071	Concrete Platform at Stair Tower Egress																		
072	Level B1M																		
073	Level B1																		
074	Level B2																		
075	PA Water Tanks																		
076	Spot Network Service Switchboard Roof																		
077	Spot Network Transformer Vault Compartments																		

Turner Construction Company

Tower 2 World Trade Center
200 Greenwich Street
New York, New York
ESTIMATE - 7/15/2010 DRAFT for Review

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Ranking	BUILDING SYSTEM	Unit	Intermediate		Percentages						Cost Breakouts					
078	Level B3															
079	Concrete Curb 8" High (Arch Plan Note 22)															
080	Level B4															
081	Concrete Curb 8" High (Arch Plan Note 22)															
082	**Subtotal: Miscellaneous Concrete**															
083																
084	**Structural Steel**															
085	Leveled 1st Round Structural Steel Bid															
086	Temporary Roof Over Stairs															
087	**Subtotal: Structural Steel**															
088																
089	**Storage and Truck Loading**															
090	Storage and Truck Loading Charge (Helmark Contract)															
091	Additional Stabilization Plates															
092	**Subtotal: Storage and Truck Loading**															
093																
094	**Misc Structural Steel**															
095	Level 1 Temporary Slab Infill															
096	Metal Decking															
097	Misc Framing for Concrete Cover															
098	Level B1 Temporary Slab Infill															
099	Metal Decking															
100	Misc Framing for Concrete Cover															
101	Level B3 Temporary Slab Infill															
102	Metal Decking															
103	Misc Framing for Concrete Cover															
104	Added Framing to Raise Roof Over Exposed Rebar at Stairs															
105	**Subtotal: Misc Structural Steel**															
106																
107	**Stair Cast In Steel Nosing**															
108	Furnish and Install Steel Embeds in Stair Nosing															
109	**Subtotal: Stair Cast In Steel Nosing**															
110																
111	**Fireproofing**															
112	Level 2 - Spray on Fireproofing at Transit Hall															
113	**Subtotal: Fireproofing**															
114																
115	**Spray Thermal Insulation**															
116	Level 1															
117	Level B1M															
118	Level B1															
119	Level B2															
120	Level B3															
121	Level B4															
122	**Subtotal: Spray Thermal Insulation**															
123																
124	**STRUCTURAL FRAME**															
125																
126	**ROOFING AND WATERPROOFING**															
127	**Roofing**															
128	Level 2 - Roof															
129	TPO Roof over Transit Hall															
130	TPO Roof over Core															
131	Insulation Tapered to Drains															
132	Drainage Mat															
133	Roof Hatch (3' x 3')															
134	Roof Penetrations															
135	Comeback to Close Opening from Hoist															
136	Gutters and Leaders															
137																
138	TPO Roof over Stair Towers															
139	Insulation Tapered to Drains															
140	Drainage Mat															
141	Roof Penetrations															
142	Gutters and Leaders															
143																
144	Level 1 - Plaza Level															
145	Temp Waterproofing and Insulation within Parcel Line															
146	Temp Waterproofing and Insulation outside Parcel Line															
147	Concrete Protection Slab															
148	Insulation															
149	Infill Fin Tube Trench with Rigid Styrofoam															
150	**Subtotal: Roofing**															
151																
152	**Column Covers to Prevent Water Entry**															
153	Aluminum Cap Above Exposed Columns															
154	Wood Blocking and Membrane															

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				Percentages					Cost Breakouts					
Ranking	BUILDING SYSTEM	Unit	Intermediate											
155	**Subtotal: Temp Stainless Steel Cap Above Exposed Columns**													
156														
157	**Interior Waterproofing**													
158	Level 1 - Transit Hall WP and Insulation (Area In Scope Only)													
159	B1 Level - PA Water Tank Waterproofing													
160	B1 Level - Pit Waterproofing													
161	B2 Level - Water Tank Waterproofing													
162	B2 Level - Spot Network Transformer Vault Waterproofing													
163	B2 Level - Spot Network Service Switchboard Roof Waterproofing													
164	B3 Level - Fire Water Tank Waterproofing													
165	B4 Level - Pit Waterproofing													
166	Mechanical Room Waterproofing													
167	**Subtotal: Interior Waterproofing**													
168														
169	**Temp Waterproofing**													
170	PDC Room Waterproofing													
171	B2 Level - Loose Laid EPDM Membrane with Protection Board													
172	Spot Network Room Waterproofing													
173	B1 Level - Loose Laid EPDM Membrane with Protection Board													
174	AC Room Waterproofing													
175	B4 Level - 12' x 12' Scaffold Type Shed w/ Membrane													
176	Misc Waterproofing													
177	Additional 1,000 sf Scaffold Type Shed w/ Membrane													
178	Maintenance and Modifications to Waterproofing													
179	Provide 6-2" electric pumps and 500 lf of hose													
180	**Subtotal: Temp Waterproofing**													
181														
182	ROOFING AND WATERPROOFING													
183														
184	EXTERIOR WALL													
185	Curtain Wall													
186	Ground Floor Embeds and Layout Drawings (Permasteelisa Contract)													
187	Install Level 2 Day-2 Curtainwall Embeds													
188	**Subtotal: Curtain Wall**													
189														
190	**Metal Siding Panels**													
191	Exterior Stud Wall w/ Painted Siding Panels at Transit Hall													
192	Exterior Stud Wall w/ Painted Siding Panels at Stair Towers													
193	Exterior Stud Wall w/ Painted Siding Panels Building Core Walls													
194	Exterior Stud Wall Around Stair Tower at Transit Hall 2nd Floor													
195	Engineered Steel Stud System													
196	Exterior Sheathing													
197	Vapor Barrier													
198	Insulation													
199	Aluminum Base Flashing													
200	Misc Structural Framing to Brace Wall at Transit Hall													
201	Painted Aluminum Fascia with Gravel Stop at Transit Hall													
202	Painted Aluminum Soffit at Transit Hall													
203	Painted Aluminum Fascia with Gravel Stop at Stair Towers													
204	Painted Aluminum Soffit at Stair Towers													
205														
206	Exterior Doors (Including Hardware and Installation)													
207	Exterior Doors Integral to Painted Metal Panels													
208	Exterior Hollow Metal Door and Frames													
209	**Subtotal: Metal Siding Panels**													
210														
211	**Transit Hall 2nd Level Stair Tower Enclosure**													
212	Exterior Stud Wall w/ Painted Siding Panels at Transit Hall Stairs													
213	Painted Aluminum Fascia with Gravel Stop at Transit Hall Stairs													
214	Painted Aluminum Soffit at Transit Hall Stairs													
215	**Subtotal: Transit Hall 2nd Level Stair Tower Enclosure**													
216														
217	**Aluminum Storefront System**													
218	Storefront Doors at Transit Hall Entrance by EFCO													
219	Storefront Door Hardware													
220	Kalwall System													
221	**Subtotal: Aluminum Storefront System**													
222														
223	**Paint Exposed Steel**													
224	TNEMEC Primer and Paint at Exposed Columns													
225	Tall Columns (36' High)													
226	Short Columns (12' High)													
227	**Subtotal: Paint Exposed Steel**													
228														
229	**Rebar Box-Out Above Core Walls**													
230	Plywood Box Out 8'-6" High Braced to Exposed Rebar													
231	White EPDM Membrane Cover													

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Ranking	BUILDING SYSTEM	Unit	Intermediate		Percentages						Cost Breakouts					
232	Relocations due to field conditions	[redacted]														
233	**Subtotal: Rebar Box-Out Above Core Walls**															
234																
235	**Louver Wall at HUB Shaft**															
236	Louver Wall with 800 SF Area															
237	Exterior Stud Framing and Metal Panel Top and Bottom															
238	Misc Structural Framing to Support Louver Wall															
239	Painted Aluminum Fascia with Gravel Stop at Transit Hall															
240	**Subtotal: Louver Wall at HUB Shaft**															
241																
242	**Ductwork Enclosure at Roof Level**															
243	L2 Roof															
244	L1 Roof															
245	**Subtotal: Ductwork Enclosure at Roof Level**															
246																
247	**Canopy Over Transit Hall Entrance**															
248	Level 2 Overhang Above Transit Hall Entrance															
249	Painted Gyp Sheathing Soffit Above Transit Hall Entrance															
250	**Subtotal: Canopy Over Transit Entrance**															
251																
252	**Temp Exterior Doors (Including Hardware and Installation)**															
253	Alt Egress Temp Doors at Ground Level															
254	**Subtotal: Temp Exterior Doors**															
255																
256	**EXTERIOR WALL**															
257																
258	**INTERIOR PARTITIONS & FINISHES**															
259	**Partitions**															
260	Temp Thermal Wall Partitions - 2-1/2" 20ga. Metal stud w/ 2" ri															
261	Level 1															
262	Level B1M															
263	Level B1															
264	Level B2															
265	Level B3															
266	Level B4															
267	Level 1 - GWB Furring at Transit Lobby															
268	Level B4 - 8' high chain link fence															
269																
270	Temp Partitions at Open Shafts (2-HR Rated Masonry Assemb															
271	Level 1															
272	Level B1M															
273	Level B1															
274	Level B2															
275	Level B3															
276	Level B4															
277																
278	Level B2 Temporary Bathroom Enclosure															
279	Level B2 Temporary Bathroom Platform															
280	Level B2 Temporary Bathroom Interior Partitions															
281	Level B2 Temp Bathroom Ceiling/Roof															
282																
283	Temp Infill at Shear Wall Openings (2-HR Rated Assembly)															
284	Level 1															
285	Level B1M															
286	Level B1															
287	Level B2															
288	Level B3															
289	Level B4															
290																
291	CMU Wall - 8" CMU Solid filled															
292	Level 1															
293	Level B1M															
294	Level B1															
295	Level B2															
296	Level B3															
297	Level B4															
298	Level B2 Spot Network Service Switchboard Partitions															
299																
300	Slurry Wall Liner Wall 8" CMU Wall with Bituminous WP															
301	Level 1															
302	Level B1M															
303	Level B1															
304	Level B2 (Spot Network Room Allow 100 LF)															
305	Level B3															
306	Level B4															
307																
308	Firestopping at Rated Masonry Walls															

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Ranking	BUILDING SYSTEM	Unit	Intermediate		Percentages						Cost Breakouts					
309	Firestopping at Top of Wall	[redacted]														
310	CMU Wall - 8" CMU Solid filled															
311	Temp Partitions at Open Shafts															
312	Slurry Wall Liner Wall															
313	Smoke Seal at Vertical Joints															
314	CMU Wall - 8" CMU Solid filled															
315	Temp Partitions at Open Shafts															
316	Slurray Wall Liner Wall															
317																
318	**OSHA & Finish Work Protection (GSF)**															
319	Level 1															
320	Level B1M															
321	Level B1															
322	Level B2															
323	Level B3															
324	Level B4															
325	Remove and Replace Protection as required for work															
326	**Subtotal: Partitions**															
327																
328	**Install Doors, Frames, and Hardware**															
329	Exterior HM Doors & HM Frames - Single															
330	Level 1															
331	Interior HM Doors & HM Frames - Single															
332	Level 1															
333	Level B1M															
334	Level B1															
335	Level B2															
336	Level B3															
337	Level B4															
338																
339	Interior HM Doors & HM Frames - Double															
340	Level 1															
341	Level B1M															
342	Level B1															
343	Level B2															
344	Level B3															
345	Level B4															
346																
347	Below Grade Stair Hollow Metal and Hardware															
348																
349	Level B2 Temp Bathroom Doors - Single															
350	Temp Construction Door - Single HM Door and Frame															
351	Exterior HM Doors & HM Frames - Double															
352	**Subtotal: Install Doors, Frames, and Hardware**															
353																
354	**Furnish Doors & Hardware**															
355	Exterior Doors/Frames/Hardware - Single															
356	Level 1															
357	Interior Door/Frames/Hardware - Single															
358	Level 1															
359	Level B1M															
360	Level B1															
361	Level B2															
362	Level B3															
363	Level B4															
364																
365	Interior Doors/Frames/Hardware - Double															
366	Level 1															
367	Level B1M															
368	Level B1															
369	Level B2															
370	Level B3															
371	Level B4															
372																
373	Below Grade Stair Hollow Metal and Hardware															
374																
375	Level B2 Temp Bathroom Doors - Single															
376	Temp Construction Door - Single HM Door and Frame															
377	Exterior HM Doors & HM Frames - Double															
378	**Subtotal: Furnish Doors and Hardware**															
379																
380	**Flooring and Base**															
381	Sealed Concrete Flooring - Mothball Space															
382	Level 1															
383	Level B1M															
384	Level B1															
385	Level B2															

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Ranking	BUILDING SYSTEM		Percentages	Cost Breakouts
386	Level B3	[redacted]	[redacted]	[redacted]
387	Level B4	[redacted]	[redacted]	[redacted]
388	Painted Concrete Flooring	[redacted]	[redacted]	[redacted]
389	Level 1	[redacted]	[redacted]	[redacted]
390	Level B1M	[redacted]	[redacted]	[redacted]
391	Level B1	[redacted]	[redacted]	[redacted]
392	Level B2	[redacted]	[redacted]	[redacted]
393	Level B3	[redacted]	[redacted]	[redacted]
394	Level B4	[redacted]	[redacted]	[redacted]
395	Mechanical Room Waterproofing	[redacted]	[redacted]	[redacted]
396	Level 1	[redacted]	[redacted]	[redacted]
397	Level B1M	[redacted]	[redacted]	[redacted]
398	Level B1	[redacted]	[redacted]	[redacted]
399	Level B2	[redacted]	[redacted]	[redacted]
400	Level B3	[redacted]	[redacted]	[redacted]
401	Level B4	[redacted]	[redacted]	[redacted]
402		[redacted]	[redacted]	[redacted]
403	Base	[redacted]	[redacted]	[redacted]
404	4" Rubber/Vinyl	[redacted]	[redacted]	[redacted]
405	Level 1	[redacted]	[redacted]	[redacted]
406	Level B1M	[redacted]	[redacted]	[redacted]
407	Level B1	[redacted]	[redacted]	[redacted]
408	Level B2	[redacted]	[redacted]	[redacted]
409	Level B3	[redacted]	[redacted]	[redacted]
410	Level B4	[redacted]	[redacted]	[redacted]
411	**Subtotal: Flooring and Base**	[redacted]	[redacted]	[redacted]
412		[redacted]	[redacted]	[redacted]
413	**Ceilings**	[redacted]	[redacted]	[redacted]
414	Exposed Ceilings	[redacted]	[redacted]	[redacted]
415	Level 1	[redacted]	[redacted]	[redacted]
416	Level B1M	[redacted]	[redacted]	[redacted]
417	Level B1	[redacted]	[redacted]	[redacted]
418	Level B2	[redacted]	[redacted]	[redacted]
419	Level B3	[redacted]	[redacted]	[redacted]
420	Level B4	[redacted]	[redacted]	[redacted]
421	Fire Rated GWB Ceiling under Escalators	[redacted]	[redacted]	[redacted]
422	**Subtotal: Ceilings**	[redacted]	[redacted]	[redacted]
423		[redacted]	[redacted]	[redacted]
424	**Wall Finishes**	[redacted]	[redacted]	[redacted]
425	Painted CMU	[redacted]	[redacted]	[redacted]
426	Level 1	[redacted]	[redacted]	[redacted]
427	Level B1M	[redacted]	[redacted]	[redacted]
428	Level B1	[redacted]	[redacted]	[redacted]
429	Level B2	[redacted]	[redacted]	[redacted]
430	Level B3	[redacted]	[redacted]	[redacted]
431	Level B4	[redacted]	[redacted]	[redacted]
432	Misc Paint Touch-up	[redacted]	[redacted]	[redacted]
433	Level 1	[redacted]	[redacted]	[redacted]
434	Level B1M	[redacted]	[redacted]	[redacted]
435	Level B1	[redacted]	[redacted]	[redacted]
436	Level B2	[redacted]	[redacted]	[redacted]
437	Level B3	[redacted]	[redacted]	[redacted]
438	Level B4	[redacted]	[redacted]	[redacted]
439	**Subtotal: Wall Finishes**	[redacted]	[redacted]	[redacted]
440		[redacted]	[redacted]	[redacted]
441	**Millwork and Finish Carpentry**	[redacted]	[redacted]	[redacted]
442	Misc. Millwork	[redacted]	[redacted]	[redacted]
443	**Subtotal: Millwork and Finish Carpentry**	[redacted]	[redacted]	[redacted]
444		[redacted]	[redacted]	[redacted]
445	**Interior Glazing**	[redacted]	[redacted]	[redacted]
446	Vestibule Entrance to Transit Hall	[redacted]	[redacted]	[redacted]
447	Interior Glazed Office Fronts	[redacted]	[redacted]	[redacted]
448	Glass Handrails	[redacted]	[redacted]	[redacted]
449	Door Sidelight / Vision Panel Glazing Allowance (GSF)	[redacted]	[redacted]	[redacted]
450	**Subtotal: Interior Glazing**	[redacted]	[redacted]	[redacted]
451		[redacted]	[redacted]	[redacted]
452	**Miscellaneous Iron**	[redacted]	[redacted]	[redacted]
453	Level 2 - Roof Level	[redacted]	[redacted]	[redacted]
454	Galv. Steel Roof Rail over Transit Hall	[redacted]	[redacted]	[redacted]
455	Signage Screen	[redacted]	[redacted]	[redacted]
456	Level 1 - Plaza Level	[redacted]	[redacted]	[redacted]
457	Galv. Steel Platforms Stairs, Handrails at Egress Stair (On Elevatio	[redacted]	[redacted]	[redacted]
458	Galv. Steel Platforms, Stairs, Handrails at New Alt Egress (Not Sho	[redacted]	[redacted]	[redacted]
459	Galv. Steel Ramp and Handrails to Cover Plaza Level Stair (Note 3	[redacted]	[redacted]	[redacted]
460	Galv. Steel Balustrade and Handrail (Note 37)	[redacted]	[redacted]	[redacted]
461	Ornogril Anti Clime Site Fence	[redacted]	[redacted]	[redacted]
462	Vertical Support Tube Steel	[redacted]	[redacted]	[redacted]

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463		Galv. Steel Trench Drain Cover at Plaza	[redacted]		
464		Embedded angles at Mechanical Trench			
465		Level B1 - SS Hatches at Storm Water Tanks (Not Shown)			
466		Level B1 - SS Ladders at PA Tanks (Not Shown)			
467		Level B2 - SS Hatches at Storm Water Tanks			
468		Level B2 - SS Ladders at Storm Water Tanks			
469		Level B4 - Sump Pit Grating & Frame			
470					
471		Railings at Steps			
472		Level B1 - Railing at Stairs to 1st Floor Bulkheads			
473		Level B2			
474		Level B3			
475		Level B4			
476					
477		Core Stairwell Handrails			
478		Stair Handrails at Above Grade Stairs (Transit Hall)			
479		Stair Handrails at Below Grade Stairs (By Others)			
480					
481		Steel Corner Guards			
482		Level 1			
483		Level 1M			
484		Level B1			
485		Level B2			
486		Level B3			
487		Level B4			
488					
489		Steel Angle Bracing at CMU Wall			
490		Level 1			
491		Level B1M			
492		Level B1			
493		Level B2			
494		Level B3			
495		Level B4			
496					
497		Steel Angle Ledge Inside Core Wall for Future Access			
498		Level 1			
499		Level B1M			
500		Level B1			
501		Level B2			
502		Level B3			
503		Level B4			
504					
505		Miscellaneous Metals (GSF)			
506		Level 1			
507		Level B1M			
508		Level B1			
509		Level B2			
510		Level B3			
511		Level B4			
512					
513		Spot Network Components			
514		Michelman Vault Doors			
515		Michelman Vault Louvers			
516		**Subtotal: Miscellaneous Iron**			
517					
518		**EMF Shielding**			
519		Shielding Required for Retails Space Adjacent to PDC Rooms			
520		Shielding Required for SPI Space Adjacent to Spot Networks			
521		**Subtotal: EMF Shielding**			
522					
523		**Ornamental Metal**			
524		Ornamental Metal			
525		Ornamental Rails			
526		**Subtotal: Ornamental Metal**			
527					
528		**INTERIOR PARTITIONS & FINISHES**			
529					
530		**SPECIALTIES & EQUIPMENT**			
531		**Miscellaneous Specialties**			
532		Miscellaneous Specialties (GSF)			
533		Level 1			
534		Level B1M			
535		Level B1			
536		Level B2			
537		Level B3			
538		Level B4			
539					

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540	Corner Guards	[redacted]	[redacted]	[redacted]
541	Wall Protection Rails*	[redacted]	[redacted]	[redacted]
542	Fire Extinguishers & Cabinets	[redacted]	[redacted]	[redacted]
543	Visual Display Boards	[redacted]	[redacted]	[redacted]
544	Pantry Equipment	[redacted]	[redacted]	[redacted]
545	Louvers	[redacted]	[redacted]	[redacted]
546	**Subtotal: Miscellaneous Specialties**	[redacted]	[redacted]	[redacted]
547		[redacted]	[redacted]	[redacted]
548	**Toilet Partitions and Accessories**	[redacted]	[redacted]	[redacted]
549	Shower Curtains	[redacted]	[redacted]	[redacted]
550	Curtain Rods	[redacted]	[redacted]	[redacted]
551	Grab Bars	[redacted]	[redacted]	[redacted]
552	Hooks	[redacted]	[redacted]	[redacted]
553	Paper Towel Dispenser w/ Waste Receptacle	[redacted]	[redacted]	[redacted]
554	Paper Towel Dispenser @ Lab Sinks	[redacted]	[redacted]	[redacted]
555	Soap Dispenser	[redacted]	[redacted]	[redacted]
556	Mirrors	[redacted]	[redacted]	[redacted]
557	Sanitary Napkin Disposal	[redacted]	[redacted]	[redacted]
558	Toilet Seat Cover Dispenser	[redacted]	[redacted]	[redacted]
559	Toilet Partitions	[redacted]	[redacted]	[redacted]
560	**Subtotal: Toilet Partitions and Accessories**	[redacted]	[redacted]	[redacted]
561		[redacted]	[redacted]	[redacted]
562	**Signage / Directories**	[redacted]	[redacted]	[redacted]
563	Graphics & Signage at 2nd Floor Roof Allowance	[redacted]	[redacted]	[redacted]
564	Level 1	[redacted]	[redacted]	[redacted]
565	Level B1M	[redacted]	[redacted]	[redacted]
566	Level B1	[redacted]	[redacted]	[redacted]
567	Level B2	[redacted]	[redacted]	[redacted]
568	Level B3	[redacted]	[redacted]	[redacted]
569	Level B4	[redacted]	[redacted]	[redacted]
570	**Subtotal: Signage / Directories**	[redacted]	[redacted]	[redacted]
571		[redacted]	[redacted]	[redacted]
572	**SPECIALTIES & EQUIPMENT**	[redacted]	[redacted]	[redacted]
573		[redacted]	[redacted]	[redacted]
574	**EQUIPMENT & FURNISHINGS**	[redacted]	[redacted]	[redacted]
575	**Window Treatment**	[redacted]	[redacted]	[redacted]
576	Window Shades	[redacted]	[redacted]	[redacted]
577	**Subtotal: Window Treatments**	[redacted]	[redacted]	[redacted]
578		[redacted]	[redacted]	[redacted]
579	**Miscellaneous Equipment**	[redacted]	[redacted]	[redacted]
580	Projection Screens	[redacted]	[redacted]	[redacted]
581	**Subtotal: Miscellaneous Equipment**	[redacted]	[redacted]	[redacted]
582		[redacted]	[redacted]	[redacted]
583	**FF&E**	[redacted]	[redacted]	[redacted]
584	Furniture	[redacted]	[redacted]	[redacted]
585	Shelving	[redacted]	[redacted]	[redacted]
586	**Subtotal: FF&E**	[redacted]	[redacted]	[redacted]
587		[redacted]	[redacted]	[redacted]
588	**EQUIPMENT & FURNISHINGS**	[redacted]	[redacted]	[redacted]
589		[redacted]	[redacted]	[redacted]
590	**VERTICAL TRANSPORTATION**	[redacted]	[redacted]	[redacted]
591	**Vertical Transportation**	[redacted]	[redacted]	[redacted]
592	Elevator Layout Drawings and Inserts (Otis Contract)	[redacted]	[redacted]	[redacted]
593	**Subtotal: Vertical Transportation**	[redacted]	[redacted]	[redacted]
594		[redacted]	[redacted]	[redacted]
595	**VERTICAL TRANSPORTATION**	[redacted]	[redacted]	[redacted]
596		[redacted]	[redacted]	[redacted]
597	**PLUMBING**	[redacted]	[redacted]	[redacted]
598		[redacted]	[redacted]	[redacted]
599	**Underground Plumbing**	[redacted]	[redacted]	[redacted]
600	Underground Sanitary & Vent Piping	[redacted]	[redacted]	[redacted]
601	Sanitary Waste & Vent Piping	[redacted]	[redacted]	[redacted]
602	Overtime Work	[redacted]	[redacted]	[redacted]
603	Additional Testing	[redacted]	[redacted]	[redacted]
604	Floor Drains @ Level B4	[redacted]	[redacted]	[redacted]
605	Excavation/Backfill	[redacted]	[redacted]	[redacted]
606	Underground Storm Drainage Piping	[redacted]	[redacted]	[redacted]
607	Storm Water Piping	[redacted]	[redacted]	[redacted]
608	Slurry Wall Drains @ Level B4	[redacted]	[redacted]	[redacted]
609	Excavation/Backfill	[redacted]	[redacted]	[redacted]
610	**Subtotal: Underground Plumbing**	[redacted]	[redacted]	[redacted]
611		[redacted]	[redacted]	[redacted]
612	**Sewerage Ejector Pumps**	[redacted]	[redacted]	[redacted]
613	Level B4 Duplex Sewage Ejector Pump EJ-1,-2	[redacted]	[redacted]	[redacted]
614	Level B4 Simplex Sewage Ejector Pump for Retail Pit	[redacted]	[redacted]	[redacted]
615	**Subtotal: Sewerage Ejector Pumps**	[redacted]	[redacted]	[redacted]
616		[redacted]	[redacted]	[redacted]

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Ranking	BUILDING SYSTEM	[redacted]	Percentages	Cost Breakouts
617	**Domestic Water Distribution**			
618	Incoming Domestic CW Service Work			
619	2" Water Meter			
620	8" Water Meter			
621	2" Backflow Preventer			
622	8" Backflow Preventer			
623	Domestic Water Suction Tank - Steel (15,000 gals)			
624	High/Mid Zone House Tanks - Steel (2 @ total of 18,000 gals)			
625	Triplex Low Zone House Pumps			
626	Hose Bibs			
627	Domestic Cold Water Piping to Hose Bibs			
628	Insulation			
629	Domestic Hot Water and Hot Water Circulation Piping			
630	Domestic Water Valves & Specialties			
631	Connect to HUB Domestic Water Service Valved Outlet			
632	DEP Duplex Pumps (7.5 hp ea)			
633	CW Piping			
634	Insulation			
635	Backflow Preventer			
636	Cooling Tower Make-up Pumps			
637	**Subtotal: Domestic Water Distribution**			
638				
639	**Sanitary Drainage & Vent Piping System**			
640	Sanitary House Trap			
641	Sanitary & Vent Piping			
642	Below Grade			
643	Sanitary Waste & Vent Piping			
644	Cleanouts			
645	Floor Drains			
646	Trap Primers			
647	Fresh Air Intake Piping			
648	SD Piping (Sump Discharge)			
649	**Subtotal: Sanitary Drainage & Vent Piping System**			
650				
651	**Storm Drainage System**			
652	Storm House Trap			
653	Storm Water Tank - Concrete (80,000 gals)			
654	Sewage Ejector Pits			
655	Sump Pits			
656	Sand Interceptors			
657	Elevator Sump Pumps SP-3 @ Column lines 208/2C on Level B4			
658	Storm Water Filtration Pumping System			
659	Storm Water Filtration System			
660	Storm Piping Distribution			
661	Below Grade Above Ground			
662	Storm Water Piping			
663	Insulation for Horizontal Pipe			
664	Slurry Wall Drains			
665	Area Drains			
666	Temporary Roof and Plaza Drains			
667	Cleanouts			
668	Trench Drain @ Plaza - Cast in Place Concrete w/Dome Drain & Heavy D			
669	Floor Drain Body			
670	Cast in Place Concrete Trench			
671	Steel Grating - Heavy Duty			
672	Gutters @ Stairwells			
673	Splash Block			
674	**Subtotal: Storm Drainage System**			
675				
676	**Natural Gas Piping System**			
677	Incoming Natural Gas Service and Piping Work			
678	**Subtotal: Natural Gas Piping System**			
679				
680	**General Plumbing Work Items**			
681	Rigging & Hoisting			
682	Engineering, Layout & Shop Drawings			
683	Start-up & Testing			
684	Pressure Testing & Disinfection of Piping			
685	Layout & Shop Drawings			
686	System Identification			
687	Sleeves & Fire Stopping			
688	Seismic Restraints/Vibration Isolation			
689	Commissioning			
690	MEP Coordination			
691	Overtime			
692	3rd Party Commissioning Agent			
693	**Subtotal: General Plumbing Work Items**			

Ranking	BUILDING SYSTEM
694	
695	**Additional Scope and Allowances**
696	Heat Tracing of all Domestic CW piping (Furnish only)
697	Makeup Water for HVAC Condenser System (allowance)
698	CW Piping (assume 275 lf)
699	Insulation
700	Backflow Preventer
701	Capped & Valved Outlet
702	Elevator Sump Pump @ Retail
703	Roof Drainage System on Core
704	Roof Drains @ 2nd Floor
705	Storm Water Piping
706	Insulation for Horizontal Pipe
707	Sleeves for Day 2
708	Revised sketches for Floors P2-B1 and P2-B4 received via email on 6/
709	Deleted CW Piping/Insulation
710	Added DEP Makeup Water Piping/Insulation
711	Added Temp Storm Water Piping/Insulation on Horizontal
712	Temporary Plumbing (allowance)
713	Temporary Sanitary Drainage of Elevator Pits
714	Sanitary Waste Risers (1)
715	Sanitary Horizontal Piping
716	Utilize Permanent Sump/Ejector Pumps
717	4 Year Warranty & Maintenance/Service
718	Temporary Toilets
719	Water Closets (10 men/2 women)
720	Urinal Trough
721	Sinks (1 men/1 women)
722	CW Piping
723	CW Piping Risers (1)
724	CW Piping Horizontal
725	Insulation
726	Heat Tracing of CW Piping
727	Backflow Preventer
728	Sanitary Waste & Vent Piping
729	Sanitary Waste & Vent Risers (1)
730	Sanitary Horizontal Piping
731	Temp Ejector Pump
732	Temporary Water/Sanitary Drainage for Hose Bibs/Barrels
733	CW Piping Riser
734	CW Horizontal Piping
735	Insulation
736	Heat Tracing of CW Piping
737	Hose Bibs
738	Barrels
739	Sanitary Waste & Vent Risers
740	Sanitary Horizontal Piping
741	Portable Eyewash Station w/20 Refill Cartridges
742	Additional Vent, Ejector Discharge, and Sump Discharge Piping
743	**Subtotal: Additional Scope and Allowances**
744	
745	**Base Building Congested Area**
746	Furnish and Install Congested Area Distribution
747	**Subtotal: Base Building Congested Area**
748	
749	**PLUMBING**
750	
751	**FIRE PROTECTION**
752	
753	**Wet Sprinkler Heads & Piping**
754	Floor Control Valve Assemblies
755	Sprinkler Heads
756	Sprinkler Main Piping
757	Drain Piping
758	Insulation
759	Sprinkler Valves & Specialties
760	Connections to Existing FSP & Drain Risers
761	Pressure Reducing Valves
762	**Subtotal: Wet Sprinkler Heads & Piping**
763	
764	**General Fire Protection Work Items**
765	Factory Mutual Premium
766	Rigging, Hoisting & Delivery
767	Seismic Restraints
768	Hydraulic Calculations, Layout & Shop Drawings
769	Testing & Inspections
770	Sleeves & Firestopping

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		Percentages	Cost Breakouts
Ranking	BUILDING SYSTEM		
771	System Identification		
772	Commissioning		
773	MEP Coordination		
774	Overtime		
775	3rd Party Commissioning Agent		
776	Heat Tracing		
777	**Subtotal: General Fire Protection Work Items**		
778			
779	**Additional Scope and Allowances**		
780	Sprinkler Heads @ Room B4-24 (not shown)		
781	Sprinkler Heads @ East Corridor on Level B4 (not shown)		
782	Sprinkler Main Piping for feed from the FSP risers along column line 2(		
783	Specialty Fire Suppression Systems		
784	Preaction System @ PDC & Battery Rooms on Level B3 (7,550 gsf		
785	Preaction Main Piping		
786	Preaction Sprinkler Heads w/Branch Piping		
787	Dry Sprinkler System		
788	FM-200		
789	Deluge Systems		
790	CO2 Fire Suppression System		
791	Additional Sprinkler Heads for Permanent System (allowance)		
792	Sleeves for Day 2		
793	Temporary Fire Protection (allowance)		
794	Temporary Standpipe Risers (2 for Construction)		
795	Permanent Below Grade Standpipe Risers and Siamese		
796	Fire Extinguishers (50 lb)		
797	Monthly Inspections		
798	Recharge Fire Extinguisher (2)		
799	Additional Fire Sprinklers Heads for Temporary Bathroom		
800	Additional Sprinkler Heads for Temporary Coverage on Level B4		
801	**Subtotal: Additional Scope and Allowances**		
802			
803	**Base Building Congested Area**		
804	Furnish and Install Congested Area Distribution		
805	**Subtotal: Base Building Congested Area**		
806			
807	FIRE PROTECTION		
808			
809	H.V.A.C.		
810			
811	**Heating Plant**		
812	Steam System		
813	Steam Unit Heater UH-B4-1 @ Level B4 Temp. Space Awaiting		
814	Electric Unit Heater @ Level B1 T2 House Trap Room		
815	Electric Unit Heater @ Level B1 T2 Steam Service POE Room		
816			
817	Hot Water Piping System		
818	**Subtotal: Heating Plant**		
819			
820	**Temporary Cooling Plant**		
821	Condenser Water System		
822	Fluid Coolers (3 sets @ 38 tons ea)		
823	CW Pumps (2 @ 15 hp ea)		
824	Variable Speed Drives (2 @ 15 hp ea)		
825	CW Chemical Treatment System		
826	Glycol Makeup Water System		
827	Condenser Water Mains & Risers		
828	Condenser Water Branch Piping to AC Unit		
829	Condenser Water Branch Piping to PAC Units		
830	Condensate Drain Piping (allowance0		
831	Insulation		
832	Glycol Solution (assume 40%)		
833	AC Unit Connection		
834	PAC Unit Connections		
835	Riser Valves for Condenser Water Risers		
836	Branch Valves to PAC Units		
837	Branch Valves to AC Unit		
838	Branch Valves to Fluid Coolers (3")		
839	CWS&R Valves & Misc. Specialties		
840	Capped & Valved Outlet		
841	Heat Tracing of Condenser Water Piping		
842	**Subtotal: Temporary Cooling Plant**		
843			
844	**Air Distribution**		
845	Air Conditioning Unit AC-B4-1 @ Level B4 (16,000 cfm) assume 84 tor		
846	Supply Fan		
847	Variable Speed Drive (25 hp)		

Ranking	BUILDING SYSTEM	Percentages	Cost Breakouts
848	Cooling Coil		
849	Double Wall Galvanized Ductwork		
850	Galvanized Ductwork		
851	Insulation		
852	Fire/Smoke Dampers as shown		
853	Grilles, Registers, & Diffusers - Large		
854	Capped Duct		
855			
856	H&V Unit V-G-1 Below Grade		
857	Supply Fan		
858	Motor Starter (2 HP)		
859	Particulate/Gas Phase Filtration on Drwg. M8.01		
860	Duct Mounted Reheat Coil		
861	Sound Trap ST-5-6		
862	Galvanized Ductwork @ 1st Floor Exposed to Weather		
863	Galvanized Ductwork		
864	Insulation		
865	Fire/Smoke Dampers as shown		
866	Grilles, Registers, & Diffusers - Large		
867	Wire Mesh Screens		
868			
869	H&V Unit V-5-1 Commercial Park		
870	Supply Fan		
871	Variable Speed Drives (60 HP)		
872	Particulate/Gas Phase Filtration on Drwg. M8.01		
873	Sound Trap		
874	Galvanized Ductwork @ 1st Floor Exposed to Weather		
875	Galvanized Ductwork		
876	Insulation		
877	Fire/Smoke Dampers as shown		
878	Grilles, Registers, & Diffusers		
879	Capped Duct		
880	**Subtotal: Air Distribution**		
881			
882	**Supplemental Cooling Systems**		
883	Water Cooled Packaged Air Conditioning Units @ PDC Rooms (8 @ a		
884	Water Cooled Packaged Air Conditioning Units @ Battery Rooms (4 @		
885	Condensate Pumps		
886	Galvanized Ductwork		
887	Insulation		
888	Grilles, Registers & Diffusers		
889	Fire/Smoke Dampers as shown		
890	Wire Mesh Screens		
891	**Subtotal: Supplemental Cooling Systems**		
892			
893	**Ventilation Systems**		
894	Battery Room Exhaust		
895	Battery Room Exhaust Fans E-G-1,-G-2 (2 @ 400 cfm ea)		
896	Motor Starters		
897	Sound Trap		
898	Galvanized Ductwork @ 1st Floor Exposed to Weather		
899	Galvanized Ductwork		
900	Insulation		
901	Fire/Smoke Dampers as shown		
902	Grilles, Registers, & Diffusers		
903			
904	Ejector Pump Room Exhaust		
905	Ejector Pump Room Exhaust Fan E-G-3 (800 cfm)		
906	Motor Starter		
907	Sound Trap		
908	Galvanized Ductwork @ 1st Floor Exposed to Weather		
909	Galvanized Ductwork		
910	Insulation		
911	Fire/Smoke Dampers as shown		
912	Grilles, Registers, & Diffusers		
913			
914	Commercial Car Park Exhaust		
915	Commercial Car Park Exhaust Fans E-5-4,-5-12 (2 @ 25,000 cfm ea)		
916	Variable Speed Drives (2 @ 20 hp ea)		
917	Sound Trap ST-5-11,-5-12 (2 @ 22,500 cfm ea)		
918	Galvanized Ductwork @ 1st Floor Exposed to Weather		
919	Galvanized Ductwork		
920	Insulation		
921	Fire/Smoke Dampers as shown		
922	Grilles, Registers, & Diffusers		
923	Capped Duct		
924			

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Ranking	BUILDING SYSTEM	Unit	Intermediate		Percentages						Cost Breakouts					
925	MER Exhaust E-76-1			[redacted]												
926	**Subtotal: Ventilation**															
927																
928	**Emergency Generator System**															
929	Emergency Generator System 200KW w/ Built-In Fuel Oil Storage Tank															
930	Generator Exhaust															
931	Muffler Installation															
932	Calcium Silicate															
933	Automatic Dampers															
934	Intake & Discharge Plenum															
935	Sound Attenuators															
936	Generator Exhaust Louvers															
937	**Subtotal: Emergency Generator System**															
938																
939	**Life Safety Fuel Oil System**															
940	Install Life Safety Fuel Oil Storage Tank 15,000 gals															
941	Furnish Life Safety Fuel Oil Storage Tank 15,000 gals															
942	Duplex Fuel Oil Pump Sets															
943	Fuel Oil Filtration System															
944	Fuel Oil Specialties															
945	Fuel Oil Supply & Return Piping															
946	Fuel Oil Fill & Vent Piping															
947	Fuel Oil Initial Fill up for Testing															
948	Fuel Oil Connections															
949	**Subtotal: Life Safety Fuel Oil System**															
950																
951	**Temporary Heating & Cooling**															
952	Temporary Heating & Cooling (assume not required)															
953	**Subtotal: Temporary Heating & Cooling**															
954																
955	**Automatic Temperature Controls**															
956	Temporary DDC Temperature Control System															
957	**Subtotal: Temporary DDC Temperature Control System**															
958																
959	**General HVAC Work Items**															
960	Rigging & Hoisting															
961	Testing and Balancing															
962	Seismic Restraints/Vibration Isolation															
963	Sleeves & Fire Stopping															
964	Permits & Fees															
965	Commissioning															
966	MEP Coordination															
967	Overtime															
968	3rd Party Commissioning Agent															
969	Painting of Ductwork/Piping															
970	Concrete Equipment Pads															
971	**Subtotal: General HVAC Work Items**															
972																
973	**Additional Scope and Allowances**															
974	Electric Unit Heater @ Level B1 T2 Water Meter Room															
975	Duplex Steam Condensate Pump Set w/Receiver															
976	Low Pressure Steam & Condensate Return Piping (allowance)															
977	Low Pressure Steam & Condensate Return Piping to AC-B4-1/UH-															
978	Insulation															
979	Steam & Condensate Specialties															
980	AC Unit Connection															
981	H&V Unit Connections															
982	UH Connections															
983	Connect to HUB Existing Steam & Condensate Return Piping															
984	Heating Coil - Steam for AC-B4-1, V-G-1, V-S-1															
985	Stainless Steel Premium for Ductwork @ 1st Floor Exposed to Weathe															
986	Battery Room Exhaust Fans E-G-1,-G-2 Premium for Explosion Proof															
987	Extend (7) Existing 10" sleeves for Life Safety Fuel Oil System through															
988	Temporary Ventilation															
989	Floor Circulation Fans (16 @ 2 hp ea) based on Dayton Model # 5k															
990	Galvanized Ductwork															
991	Installation and Support of Core MEP Duct Risers due to Day 2 conges															
992	Galvanized Ductwork															
993	Insulation															
994	Horizontal Ductwork															
995	Insulation															
996	Capped Ductwork															
997	Scaffolding for Shafts															
998	Sleeves for Day 2															
999	Spot Network Vault Ventilation															
1000	Additional Scope for Spot Network (i.e. AC unit, ductwork, etc.)															
1001	Additional Control Scope															

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Ranking	BUILDING SYSTEM		Percentages	Cost Breakouts
1002	Additional Misc. Equipment Changes	[redacted]		
1003	Provide ALD's for Core Venting (added per 7/13 email from JBB)			
1004	Provide ALD's for Shaft Vent (added per 7/13 email from JBB)			
1005				
1006	**Subtotal: Additional Scope and Allowances**			
1007				
1008	**Base Building Congested Area**			
1009	Furnish and Install Congested Area Distribution			
1010	**Subtotal: Base Building Congested Area**			
1011				
1012	**H.V.A.C.**			
1013				
1014	**ELECTRICAL**			
1015				
1016	**Underground Electrical**			
1017	Underground Electric Work Contract Value			
1018	Underground Electric Overtime Allowance			
1019	**Subtotal: Underground Electrical**			
1020				
1021	**Power and Distribution**			
1022	B4			
1023	Empty Conduit to Tower 3 & 4 2x6 5" RGS			
1024	B3			
1025	Empty Conduit to Tower 3 & 4 2x6 5" RGS			
1026	Empty Conduit to Tower 3 & 4 2x3 5" RGS			
1027	Con Ed Feeders from B1 4-5" RGS 2 active 750 kcmil & 2 spare Hc			
1028	Con Ed Feeders from B1 8-5" RGS 4 active 750 kcmil & 4 spare Ve			
1029	Con Ed Feeders from B1 8-5" RGS 2 active 750 kcmil & 6 spare Ve			
1030	Feeders from PDC-A to B, PDC-G to H 1-5" RGS 750 kcmil			
1031	Furnish Only SPI PDC A, B, C, D, E, F, G, H and Ancillary Equipme			
1032	SPI PDC "A" Install Only			
1033	SPI PDC "B" Install Only			
1034	SPI PDC "C" Install Only			
1035	SPI PDC "D" Install Only			
1036	SPI PDC "E" Install Only			
1037	SPI PDC "F" Install Only			
1038	SPI PDC "G" Install Only			
1039	SPI PDC "H" Install Only			
1040	Delivery and Rigging of SPI PDC's			
1041	Terminations at Potheads			
1042	Meter Cubicle to Meter Pan 7-#10 1" EMT			
1043	To Con Edison Totalizer 5-#12 3/4" EMT			
1044	Terminations for Above Metering			
1045	B3 Substation Mimic & Control System			
1046	Mimic and Control Panels Install Only			
1047	Cabling for Mimic and Control Panels 30-#12AWG in 1 1/2" RGS			
1048	125v d. c. power to Mimic and Control Panels 3-#12AWG in 3/4" FF			
1049	Short Circuit & Coordination Study			
1050	B3 Substation Control Power Supply			
1051	Feeder to AC Transfer Switches from DS-LC#7 3-600 in 3 1/2" RGS			
1052	Feeder between AC transfer switches A & B 3-600 in 3 1/2" RGS			
1053	AC Transfer Switch ATS-A & B Install Only			
1054	Feeders to Battery Chargers 3-2/0 in 1 1/2" RGS			
1055	Battery Chargers Install Only			
1056	Feeder Battery Charger to batteries 4 sets of 2-350 in 2" FRE			
1057	Batteries Strings Install Only			
1058	Feeder Battery String to d.c. Disconnect 4 sets of 2-350 in 2" FRE			
1059	d. c. Disconnect Switch Install Only			
1060	Feeder d. c. Disconnect to d. c. Transfer Switch ATS-C & D 4 sets			
1061	Feeders between d. c. Transfer Switches ATS-C & D 4 sets of 2-35			
1062	d. c. Transfer Switches ATS-C & D Install Only			
1063	Feeders from d. c. Transfer Switches ATS-C & D to d. c. Panels A			
1064	d. c. Panelboards A & B Install Only			
1065	Feeders d. c. Panels A & B to Sub Panels A thru H 2 sets 2-300 in			
1066	d.c Panelboards A thru H Install Only			
1067	d.c. Circuits to Switchgear Circuit Breakers for Control Power 30-#8 in 2 1			
1068	2 1/2" FRE			
1069	#8 AWG			
1070	Normal Power Riser			
1071	Utility Feed 800A 4W From SS-B4 to DP-B3			
1072	DP-B3 800A 480/277V			
1073	Feeder 100A 4W DP-B3 to PP-HT-B3			
1074	PP-HT-B3 100A 480/277V			
1075	Feeder 70A 4W DP-B3 to LP-B3			
1076	LP-B3 100A 480/277V			
1077	Feeder 65A 4W DP-B3 to XFMR			
1078	XFMR 45 kVA			

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Ranking	BUILDING SYSTEM	[redacted]			
1079	Feeder 175A 4W XFMR to UP-B3				
1080	UP-B3 225A 208/120V				
1081	Feeder SS-B4 200A to ATS P1 & P2				
1082	Feeders 200A ATS-P1 & P2 to EDP1-B3 & EDP2-B3				
1083	EDP1-B3 200A 480/277V				
1084	EDP2-B3 200A 480/277V				
1085	Feeder 100A 4W EDP1-B3 to ELP-B3				
1086	ELP-B3 100A 480/277V				
1087	Feeder 70A SS-B4 to ATS-FS				
1088	XFMR, Fuse Cut-Outs & Circuits to FACP & DGP's				
1089	Emergency Temporary Power Riser				
1090	Emergency Feed from Generator 400A 4W to EMDP-B3				
1091	EMDP-B3 400A 480/277V				
1092	Emer. Feeder MDP-B3 200A to ATS P1 & P2				
1093	Emer. Feeder MDP-B3 70A to ATS-FA				
1094	100A Fused Disconnect Switch, Painted Red				
1095	ATS P1 & P2 200A w/Maint. Bypass				
1096	ATS FA 70A w/Maint. Bypass				
1097	Control Wiring Between Generator & ATS's 12-#12AWG in 1" EMT				
1098	Emergency Genset Exterior Enclosure 190 kVA / 150kW				
1099	East Bathtub PDC Premium Allocation Adjustment				
1100	**Subtotal: Power and Distribution**				
1101					
1102	**Lighting**				
1103	B4				
1104	F2				
1105	F2A				
1106	F2A Add for Emergency				
1107	F3				
1108	Ceiling Mounted Occupancy Sensors				
1109	Light Switches				
1110	Digital Override Switch				
1111	Exit Light				
1112	Do Not Exit Light				
1113	Lighting Horn Strobe				
1114	Timer Switch				
1115	Branch Wiring EMT Conduit & Wire				
1116	Core Lighting				
1117	B3				
1118	F2				
1119	F2A				
1120	F2A Add for Emergency				
1121	F3				
1122	Ceiling Mounted Occupancy Sensors				
1123	Light Switches				
1124	Digital Override Switch				
1125	Exit Light				
1126	Do Not Exit Light				
1127	Lighting Horn Strobe				
1128	Timer Switch				
1129	Branch Wiring EMT Conduit & Wire				
1130	Core Lighting				
1131	B2				
1132	F2				
1133	F2A				
1134	F2A Add for Emergency				
1135	F3				
1136	Ceiling Mounted Occupancy Sensors				
1137	Light Switches				
1138	Digital Override Switch				
1139	Exit Light				
1140	Do Not Exit Light				
1141	Lighting Horn Strobe				
1142	Timer Switch				
1143	Branch Wiring EMT Conduit & Wire				
1144	Core Lighting				
1145	B1				
1146	F2				
1147	F2A				
1148	F2A Add for Emergency				
1149	F3				
1150	Ceiling Mounted Occupancy Sensors				
1151	Light Switches				
1152	Digital Override Switch				
1153	Exit Light				
1154	Do Not Exit Light				
1155	Lighting Horn Strobe				

Ranking	BUILDING SYSTEM	Percentages	Cost Breakouts
1156	Timer Switch	[redacted]	[redacted]
1157	Branch Wiring EMT Conduit & Wire	[redacted]	[redacted]
1158	Core Lighting	[redacted]	[redacted]
1159	Ground Level	[redacted]	[redacted]
1160	F2 in MER	[redacted]	[redacted]
1161	F2 Add for Emergency	[redacted]	[redacted]
1162	2FAD Soffit Lights (3 Fixtures per Entrance)	[redacted]	[redacted]
1163	F3	[redacted]	[redacted]
1164	Ceiling Mounted Occupancy Sensors	[redacted]	[redacted]
1165	Light Switches	[redacted]	[redacted]
1166	Digital Override Switch	[redacted]	[redacted]
1167	Exit Light	[redacted]	[redacted]
1168	Do Not Exit Light	[redacted]	[redacted]
1169	Lighting Horn Strobe	[redacted]	[redacted]
1170	Timer Switch	[redacted]	[redacted]
1171	Roof Lighting (Additional F3 Fixtures at L2 Roof)	[redacted]	[redacted]
1172	Exterior Lighting (Additional F3 Fixtures at Perimeter)	[redacted]	[redacted]
1173	Branch Wiring EMT Conduit & Wire	[redacted]	[redacted]
1174	Core Lighting	[redacted]	[redacted]
1175	**Subtotal: Lighting**	[redacted]	[redacted]
1176		[redacted]	[redacted]
1177	**Lighting Control System**	[redacted]	[redacted]
1178	Lighting Controls - Allowance	[redacted]	[redacted]
1179	**Subtotal: Lighting Control System**	[redacted]	[redacted]
1180		[redacted]	[redacted]
1181	**Convenience Power**	[redacted]	[redacted]
1182	B4	[redacted]	[redacted]
1183	Emergency Duplex Receptacle	[redacted]	[redacted]
1184	Dedicated Duplex Receptacle	[redacted]	[redacted]
1185	Duplex Receptacle	[redacted]	[redacted]
1186	GFI Duplex Receptacle	[redacted]	[redacted]
1187	Duplex Receptacle at Circ Fans (4 per level)	[redacted]	[redacted]
1188	Branch Wiring EMT Conduit & Wire	[redacted]	[redacted]
1189	B3	[redacted]	[redacted]
1190	Emergency Duplex Receptacle	[redacted]	[redacted]
1191	Dedicated Duplex Receptacle	[redacted]	[redacted]
1192	Duplex Receptacle	[redacted]	[redacted]
1193	GFI Duplex Receptacle	[redacted]	[redacted]
1194	Duplex Receptacle at Circ Fans (4 per level)	[redacted]	[redacted]
1195	Branch Wiring EMT Conduit & Wire	[redacted]	[redacted]
1196	B2	[redacted]	[redacted]
1197	Emergency Duplex Receptacle	[redacted]	[redacted]
1198	Dedicated Duplex Receptacle	[redacted]	[redacted]
1199	Duplex Receptacle	[redacted]	[redacted]
1200	GFI Duplex Receptacle	[redacted]	[redacted]
1201	Duplex Receptacle at Circ Fans (4 per level)	[redacted]	[redacted]
1202	Branch Wiring EMT Conduit & Wire	[redacted]	[redacted]
1203	B1	[redacted]	[redacted]
1204	Emergency Duplex Receptacle	[redacted]	[redacted]
1205	Dedicated Duplex Receptacle	[redacted]	[redacted]
1206	Duplex Receptacle	[redacted]	[redacted]
1207	GFI Duplex Receptacle	[redacted]	[redacted]
1208	Duplex Receptacle at Circ Fans (4 per level)	[redacted]	[redacted]
1209	Branch Wiring EMT Conduit & Wire	[redacted]	[redacted]
1210	Ground Level	[redacted]	[redacted]
1211	Emergency Duplex Receptacle	[redacted]	[redacted]
1212	Dedicated Duplex Receptacle	[redacted]	[redacted]
1213	Duplex Receptacle	[redacted]	[redacted]
1214	GFI Duplex Receptacle	[redacted]	[redacted]
1215	GFI Duplex Receptacle on Roof	[redacted]	[redacted]
1216	Branch Wiring EMT Conduit & Wire	[redacted]	[redacted]
1217	**Subtotal: Convenience Power**	[redacted]	[redacted]
1218		[redacted]	[redacted]
1219	**Equipment Connections**	[redacted]	[redacted]
1220	B4	[redacted]	[redacted]
1221	DEP Pump 7 1/2 HP to Panel EDP2-B3	[redacted]	[redacted]
1222	Sump Pumps 20 HP to Panel EDP2-B3	[redacted]	[redacted]
1223	AC-B4-1 to Panel DP-B3	[redacted]	[redacted]
1224	Outside Air Fan 2 HP to Panel DP-B3	[redacted]	[redacted]
1225	Ejector Pumps 10 HP to Panel EDP2-B3	[redacted]	[redacted]
1226	Sump Pumps 10 HP to Panel EDP2-B3	[redacted]	[redacted]
1227	Circulation Fans, 4 per Floor, 2 HP Each	[redacted]	[redacted]
1228	B3	[redacted]	[redacted]
1229	PAC-3B-1 17FLA to Panel DP-B3	[redacted]	[redacted]
1230	PAC-Standby 17FLA to Panel DP-B3	[redacted]	[redacted]
1231	PAC-3B-3 17FLA to Panel DP-B3	[redacted]	[redacted]
1232	PAC-3B-9 16FLA to panel UP-B3	[redacted]	[redacted]

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Ranking	BUILDING 3YSTEM	Percentages	Cost Breakouts
		[redacted]	[redacted]
1233	PAC-3B-11, 12, 13,14 11 FLA to panel UP-B3 for Battery Rooms		
1234	Air Compressor 1/4 HP		
1235	CW Pump 15 HP to Panel DP-B3		
1236	PAC-3B-5 17FLA to Panel DP-B3		
1237	PAC-B3-11 16 FLA to Panel UP-B3		
1238	PAC-B3-7 17FLA to Panel DP-B3		
1239	1/20 HP Small Ventilator		
1240	Circulation Fans, 4 per Floor, 2 HP Each		
1241	B2		
1242	Water Heater 1/4 HP		
1243	Air Compressor 1/2 HP		
1244	Pre-Heater 1/4 HP		
1245	CP-B2-1 1 HP		
1246	Pumps 75 HP		
1247	Circulation Fans, 4 per Floor, 2 HP Each		
1248	B1		
1249	Motors 5 kW Unit Heaters		
1250	Motor 15 HP		
1251	Circulation Fans, 4 per Floor, 2 HP Each		
1252	Ground		
1253	Dry Coolers 10 HP to DP-B3		
1254	Battery Exhaust 1 HP to DP-B3		
1255	E-5-4 20 HP to EDP1-B3		
1256	E-5-12 20 HP to EDP1-B3		
1257	Car Park Vent 20 HP to EDP1-B3		
1258	Systems-All Levels		
1259	Heat Trace Install Only		
1260	Fire & Smoke Damper Power		
1261	**Subtotal: Equipment Connections**		
1262			
1263	**Telephone & Data**		
1264	IT Allowance None Shown based on Fit-Out Area		
1265	Cat 6 Wire for Ethernet Switch at Each Substation in 3/4" EMT		
1266	Terminate, Test and Label Cat 6 Cables		
1267	Ethernet Switches		
1268	Riser Cable & Conduits		
1269	Telephone / Data Equipment		
1270	Telephone / Data Riser Wiring		
1271	**Subtotal: Telephone & Data**		
1272			
1273	**Fire Alarm**		
1274	Fire Alarm System		
1275	B4		
1276	Area Smoke Detector		
1277	Speaker Strobe		
1278	Tamper Switches		
1279	Flow Switches		
1280	Manual Pull Station		
1281	Fire Warden Station		
1282	Strobe		
1283	Speaker		
1284	Fire Alarm Cable and Conduit		
1285	Data Gathering Panel		
1286	Fire Alarm Control Panel		
1287	FA System Program, Certify, Test and Commission - 400 Hrs.		
1288	B3		
1289	Area Smoke Detector		
1290	Speaker Strobe		
1291	Tamper Switches		
1292	Flow Switches		
1293	Manual Pull Station		
1294	Fire Warden Station		
1295	Strobe		
1296	Speaker		
1297	Fire Alarm Cable and Conduit		
1298	Data Gathering Panel		
1299	Fire Alarm Control Panel		
1300	FA System Program, Certify, Test and Commission - 400 Hrs.		
1301	B2		
1302	Area Smoke Detector		
1303	Speaker Strobe		
1304	Tamper Switches		
1305	Flow Switches		
1306	Manual Pull Station		
1307	Fire Warden Station		
1308	Strobe		
1309	Speaker		

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Ranking	BUILDING SYSTEM	Quantity	Unit	Unit Cost	Estimate	Intermediate Totals	Code	Percentages						Cost Breakouts					
								SPI	PAH	PARK	VSC	S & RI	RETAIL	SPI	PAH	PARK	VSC	S & RI	RETAIL
1310	Fire Alarm Cable and Conduit	[redacted]																	
1311	Data Gathering Panel																		
1312	Fire Alarm Control Panel																		
1313	FA System Program, Certify, Test and Commission - 400 Hrs.																		
1314	B1																		
1315	Area Smoke Detector																		
1316	Speaker Strobe																		
1317	Tamper Switches																		
1318	Flow Switches																		
1319	Manual Pull Station																		
1320	Fire Warden Station																		
1321	Strobe																		
1322	Speaker																		
1323	Fire Alarm Cable and Conduit																		
1324	Data Gathering Panel																		
1325	Fire Alarm Control Panel																		
1326	FA System Program, Certify, Test and Commission - 400 Hrs.																		
1327	Ground																		
1328	Area Smoke Detector																		
1329	Speaker Strobe																		
1330	Tamper Switches																		
1331	Flow Switches																		
1332	Manual Pull Station																		
1333	Fire Warden Station																		
1334	Strobe																		
1335	Speaker																		
1336	Fire Alarm Cable and Conduit																		
1337	Data Gathering Panel																		
1338	Fire Alarm Control Panel																		
1339	FA System Program, Certify, Test and Commission - 400 Hrs.																		
1340	Monitor at WTC Tower 7																		
1341	**Subtotal: Fire Alarm**																		
1342																			
1343	**Security**																		
1344	Security Card Reader Allowance																		
1345	Security Camera Allowance - Exterior and Interior, Average																		
1346	Security System, Head End and Connections, Allowance																		
1347	Monitor at WTC Tower 7																		
1348	Testing and Commissioning 200 Hours																		
1349	Wiring																		
1350	**Subtotal: Security**																		
1351																			
1352	**Close Circuit Television System**																		
1353	Close Circuit Television System																		
1354	Wiring																		
1355	**Subtotal: Close Circuit Television System**																		
1356																			
1357	**Grounding**																		
1358	MGB																		
1359	Connections to MGBs, 500 kcmil in 1 1/4" RGS																		
1360	Ground Terminal Boxes Allowance																		
1361	MGB																		
1362	Cadweld to Steel																		
1363	Ground Cable																		
1364	Testing																		
1365	Excavation & Backfill																		
1366	Halo Ground, Substation Rooms, 2 1/2" x 1/4" Copper Bus, Include																		
1367	Connections to Halo Ground, Allowance, 2 per substation																		
1368	Connections to Ground system, Allowance 4 per room																		
1369	**Subtotal: Grounding**																		
1370																			
1371	**Lightning Protection System**																		
1372	Lightning Protection																		
1373	**Subtotal: Lightning Protection System**																		
1374																			
1375	**Spot Network**																		
1376	Spot Network																		
1377	Install Spot Network & Vertical Distribution																		
1378	Furnish 2500 kVA Transformer Cast Coil																		
1379	Furnish 4000 A Network Protectors																		
1380	Furnish 5000A Network Bus and Connections																		
1381	Furnish Substations 5000A 480/277V LV Draw-Out Power Breaker																		
1382	Lighting & Lighting Controls in Spot Network Rooms																		
1383	Mechanical Connections for Ventilation & A/C in Spot Network Roo																		
1384	Fire Alarm System Devices in Spot Network Rooms																		
1385	**Subtotal: Spot Network**																		
1386																			

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Ranking	BUILDING SYSTEM	Percentages	Cost Breakouts
1387	**Temporary Power & Light**		
1388	Temporary Light and Power from Narrative		
1389	Temp Power General		
1390	Heat Trace Temp Water Riser		
1391	Ejector Pump, bathroom, B-2		
1392	Equipment Connection Spay-On Fire Protection Pump Ground Floc		
1393	Feeder Temp Power 1200A 4W		
1394	Temp Switchboard 480/277V 1,200A		
1395	Temp Lighting, Metal Halide		
1396	General Power at each Column Assume 3B per Floor		
1397	Welder Connections, Assume 60A, 100 LF		
1398	Jump Welder Connections		
1399	Allowance for Site Lighting & Street Lighting Maintenance		
1400	Light Stanchions, 1,000W, Quartz Halogen		
1401	Extension Cords 40 Foot		
1402	Temp Bathroom on B-2, Lighting, Water Htr, Space Heater and Hea		
1403	Phone lines for Office Shanties & Trailers - Assume 25 pair CAT 3		
1404	Temp Heaters 10 kW Furnish and Install		
1405	Sump Pump Power Drop at Elevator Pits, 120V GFCI, 100LF, Inclu		
1406	Removal of All Temp Power Allow 20 M-D		
1407	Removal of Temporary Spot Network, Allow 120 M-D		
1408	Temporary Light		
1409	Temporary Light in Mothball Areas - Metal Halide		
1410	Temporary Lighting in N.I.C. Areas - Metal Halide		
1411	**Subtotal: Temporary Power & Light**		
1412			
1413	**Testing and Commissioning**		
1414	Commissioning		
1415	**Subtotal: Testing and Commissioning**		
1416			
1417	**Seismic & Vibration Isolation**		
1418	Seismic		
1419	**Subtotal: Seismic & Vibration Isolation**		
1420			
1421	**PA System**		
1422	PA System		
1423	**Subtotal: PA System**		
1424			
1425	**General Work Items**		
1426	General Work Items		
1427	Fire Stopping		
1428	Filing and Permits		
1429	Electrical Identification		
1430	Rigging Hoisting		
1431	Power Monitoring System		
1432	Factory Testing		
1433	UPS System		
1434	A/V System		
1435	Clock System		
1436	LEED Requirement Premiums		
1437	Expansion Fittings		
1438	Heat Trace - Install Only		
1439	Temporary Heat		
1440	Excavation and Backfill		
1441	Subto Short Circuit & Coordination Study		
1442	**Subtotal: General Work Items**		
1443			
1444	**Base Building Congested Area**		
1445	Furnish and Install Congested Area Distribution		
1446	**Subtotal: Base Building Congested Area**		
1447			
1448	**ELECTRICAL**		
1449			
1450	**SUBTOTAL:**		
1451			
1452	**SITE WORK**		
1453	Site Work		
1454	Level 1 Concrete Sidewalk Over Structural Slab Below		
1455	Waterproofing over structural slab below		
1456	Infill Site to Grade Level		
1457			
1458			
1459	**Site Utilities**		
1460	Site Utilities (FCV Remaining Contract Work)		
1461	Modification to Sewer		
1462	Re-excavate and backfill Church St services		
1463	**Subtotal: Site Utilities**		

[redacted]

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	Ranking	BUILDING SYSTEM	[redacted]
1464			
1465		SITE WORK	
1466			
1467		HOISTING & PUBLIC PROTECTION	
1468		Hoisting & Public Protection	
1469		Rack and Pinion Dual Hoist Car	
1470		Setup	
1471		Rental (10 Months)	
1472		Bridge from Hoist Car to Slab Edge	
1473		Weatherproof Enclosure Above Hoist	
1474		Misc Modifications and Repairs to Platforms	
1475			
1476		Work Platform Inside Core to Build PA Shaft Masonry Walls	
1477		Level 1	
1478		Level B1M	
1479		Level B1	
1480		Level B2	
1481		Level B3	
1482		Level B4	
1483			
1484		Work Platform to Install Areas Drains Below Core Roof	
1485			
1486		Subtotal: Hoisting & Public Protection	
1487		GENERAL LIABILITY INSURANCE - OCIP	
1488		HOISTING & PUBLIC PROTECTION	
1489			
1490		DEMOLITION, ABATEMENT & JOINING	
1491		Demolition	
1492		Demolition & Relocation	
1493		Subtotal: Demolition	
1494			
1495		DEMOLITION, ABATEMENT & JOINING	
1496			
1497			
1498		TOTAL: DIRECT COST	
1499			
1500		DESIGN & CONSTRUCTION CONTINGENCY (10%)	
1501			
1502			
1503		SUBTOTAL:	
1504			
1505			
1506		SUBCONTRACTOR BONDS	
1507		TURNER BOND	
1508		GENEAL LIABILITY INSURANCE	
1509		GENERAL CONDITIONS	
1510			
1511		FEE	
1512			
1513		SUBTOTAL:	
1514			
1515		ESCALATION	
1516			
1517			
1518		TOTAL CONSTRUCTION COST	
1519			
1520		COST TO DATE NOT INCLUDED ABOVE	
1521		EXCAVATION AND FOUNDATION - HALMAR CONTRACT	
1522		CURTAIN WALL - PERMASTEELISA	
1523		SITE UTILITES - FCV	
1524		ELEVATORS - OTIS	
1525		STEEL - HELMARK	

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ASSUMPTIONS & QUALIFICATIONS
July 15, 2010

[redacted]

TURNER CONSTRUCTION COMPANY

Tower 2 World Trade Center
Progress Issue Architectural and MEPF Documents Issued June 1, 2010.
200 Greenwich Street
New York, New York
July 1st, 2010

No.	DRAWING DESCRIPTION	DATE	COMMENTS
	GENERAL		
A0-004	Abbreviations Legends and Symbols	6/1/2010	
A0-006	Wall & Partition Type Schedule	6/1/2010	
A0-007	Door Schedule and Details	6/1/2010	
A0-010	Room Finish Schedule	6/1/2010	
A0-011	Room Finish Schedule	6/1/2010	
A0-500	Code Notes	6/1/2010	
	ARCHITECTURAL		
A1-003	Gridlines Setting Out Plan	6/1/2010	
A2-0B4	Basement Level B4 Floor Plan	6/1/2010	
A2-0B3	Basement Level B3 Floor Plan	6/1/2010	
A2-0B2	Basement Level B2 Floor Plan	6/1/2010	
A2-0B1	Basement Level B1 Floor Plan	6/1/2010	
A2-B1M	Basement Level B1M Floor Plan	6/1/2010	
A2-001	1st Floor Plan (Lobby/Retail)	6/1/2010	
A2-002A	2nd Floor Plan (Roof)	6/1/2010	
A4-030	Water Tank Details	6/1/2010	
A4-040	Loading Dock Details	6/1/2010	
A4-046	Loading Dock Sections	6/1/2010	
A4-101	Typical Sump Pit Details	6/1/2010	
A4-102	Typical Below Grade Details	6/1/2010	
A4-200	Typical Details	6/1/2010	
A5-120	Partial Building Sections	6/1/2010	
A5-121	Partial Building Sections	6/1/2010	
A5-122	Partial Wall Sections at Podium	6/1/2010	
A5-123	Partial Wall Sections at Podium	6/1/2010	
A5-124	Partial Wall Sections at Podium	6/1/2010	
A5-125	Partial Wall Sections at Podium	6/1/2010	
A5-126	Partial Wall Sections at Podium	6/1/2010	
A5-127	Slurry Wall Elevation and Poe Matrix	6/1/2010	
A6-001	Stair BE & A Sections	6/1/2010	
A6-002	Stair BA & A Intermediate Landings Detail Plan	6/1/2010	
A6-003	Stair BG, BB & B Section	6/1/2010	
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Turner

World Trade Center Tower 2
200 Greenwich Street
~~5/4/2010~~ Rev. #1: 5/11/10
Superstructure Concrete Bid Package

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A4 212	CORE PLAN DETAILSCORE PLAN DETAILS	9/15/2008	2
A4-213	CORE PLAN DETAILS	9/15/2008	2
A4-214	CORE PLAN DETAILS	9/15/2008	2
A4-215	CORE PLAN DETAILS	9/15/2008	3
A4-216	CORE PLAN AND SECTION DETAILS	9/15/2008	3
A4-217	CORE PLAN DETAILS	9/15/2008	3
A4-218	SERVICE ELEVATOR LOBBY PLAN	9/15/2008	2
A4-220	CORE PRIMARY ELECT. CLOSET, SECONDARY TELE ROOM PLANS, SECTION DETAILS TYPICAL FLOOR	9/15/2008	3
A4-251	CORE SECTION DETAILS	9/15/2008	6
A4-252	CORE SECTION DETAILS	9/15/2008	6
A4-255	CORE SECTION DETAILS	9/15/2008	3
A4-260	CORE SECTION DETAILS	9/15/2008	3
A4-270	CORE SECTION DETAILS	9/15/2008	3

A4-300	MISCELLANEOUS METALS	9/15/2008	3
A4-301	MISCELLANEOUS DETAILS	9/15/2008	2
A4-401	INTERIOR WATERPROOFING DETAILS	9/15/2008	4
A4-510	PERIMETER PLAN DETAILS	9/15/2008	3
A4-511	PERIMETER PLAN DETAILS	9/15/2008	3
A4-512	PERIMETER PLAN DETAILS	9/15/2008	3
A4-513	PERIMETER PLAN DETAILS	9/15/2008	3
A4-514	PERIMETER PLAN DETAILS	9/15/2008	3
A4-515	PERIMETER PLAN DETAILS	9/15/2008	3
A4-516	PERIMETER PLAN DETAILS	9/15/2008	2
A4-520	PERIMETER PLAN DETAILS	9/15/2008	3
A4-521	PERIMETER PLAN DETAILS	9/15/2008	3
A4-522	PERIMETER PLAN DETAILS	9/15/2008	3
A4-523	PERIMETER PLAN DETAILS	9/15/2008	3
	BUILDING ELEVATIONS & SECTIONS		
A5-001	WEST AND SOUTH BUILDING ELEVATIONS	9/15/2008	4
A5-002	EAST AND NORTH BUILDING ELEVATIONS	9/15/2008	4
A5-003	BUILDING SECTIONS	9/15/2008	5
A5-020	WEST PARTIAL PODIUM ELEVATION (GREENWICH STREET)	9/15/2008	4
A5-021	SOUTH PARTIAL TOWER ELEVATION (FULTON STREET)	9/15/2008	4
A5-022	SOUTH PARTIAL PODIUM ELEVATION (FULTON STREET)	9/15/2008	4
A5-023	EAST PARTIAL ELEVATION PODIUM (CHURCH STREET)	9/15/2008	4
A5-024	EAST PARTIAL TOWER ELEVATION (CHURCH STREET)	9/15/2008	4
A5-025	NORTH PARTIAL PODIUM ELEVATION (VESEY STREET)	9/15/2008	4
A5-026	NORTH PARTIAL PODIUM ELEVATION TOWER (VESEY STREET)	9/15/2008	4
A5-100	NORTH/SOUTH PARTIAL BUILDING SECTION TOWER BASE	9/15/2008	4
A5-102	EAST/WEST PARTIAL BUILDING SECTION RETAIL AND MECHANICAL	9/15/2008	4
A5-103	EAST/WEST PARTIAL BUILDING SECTION TRADING AND	9/15/2008	4
A5-120	**PARTIAL BUILDING SECTIONS**	**12/16/2008**	**5**
A5-121	**PARTIAL BUILDING SECTIONS**	**12/16/2008**	**5**
A5-122	PARTIAL WALL SECTIONS AT PODIUM	9/15/2008	3
A5-123	PARTIAL WALL SECTIONS AT PODIUM	9/15/2008	2
A5-124	PARTIAL WALL SECTIONS AT PODIUM	9/15/2008	2
A5-125	PARTIAL WALL SECTIONS AT PODIUM	9/15/2008	2
A5-126	PARTIAL WALL SECTIONS AT PODIUM	9/15/2008	2
A5-127	SLURRY WALL ELEVATION AND POE MATRIX	12/16/2008	1
A5-130	WEST PARTIAL EXTERIOR WALL SECTIONS AT PODIUM	9/15/2008	3
A5-131	WEST PARTIAL EXTERIOR WALL SECTIONS AT PODIUM	9/15/2008	3
A5-132	WEST PARTIAL EXTERIOR WALL SECTIONS AT PODIUM	9/15/2008	3
A5-133	SOUTH PARTIAL EXTERIOR WALL SECTIONS AT PODIUM	9/15/2008	3
A5-134	SOUTH PARTIAL EXTERIOR WALL SECTIONS AT PODIUM	9/15/2008	3
A5-135	SOUTH PARTIAL EXTERIOR WALL SECTIONS AT PODIUM	9/15/2008	3
A5-136	SOUTH PARTIAL EXTERIOR WALL SECTIONS AT PODIUM	9/15/2008	3
A5-137	SOUTH PARTIAL EXTERIOR WALL SECTIONS AT PODIUM	9/15/2008	3
A5-138	SOUTH PARTIAL EXTERIOR WALL SECTIONS AT PODIUM	9/15/2008	3
A5-139	SOUTH PARTIAL EXTERIOR WALL SECTIONS AT PODIUM	9/15/2008	3
A5-140	EAST PARTIAL EXTERIOR WALL SECTIONS AT PODIUM	9/15/2008	3
A5-141	EAST PARTIAL EXTERIOR WALL SECTIONS AT PODIUM	9/15/2008	3
A5-142	NORTH PARTIAL EXTERIOR WALL SECTIONS AT PODIUM	9/15/2008	3
A5-143	NORTH PARTIAL EXTERIOR WALL SECTIONS AT PODIUM	9/15/2008	3
A5-144	NORTH PARTIAL EXTERIOR WALL SECTIONS AT PODIUM	9/15/2008	3
	VERTICAL TRANSPORTATION (ELEVATORS, ESCALATORS,STAIRS,		
A6-001	STAIR BE & A SECTION	9/15/2008	5
A6-002	STAIR BA AND A INTERMEDIATE LANDINGS DETAIL PLAN	9/15/2008	3
A6-003	STAIR BG, BB & B SECTION	9/15/2008	5

A6-004	STAIR B & G INTERMEDIATE LANDINGS DETAIL PLAN	9/15/2008	3
A6-005	STAIR BC SECTION	9/15/2008	5
A6-006	STAIR C SECTION AND INTERMEDIATE LANDINGS DETAIL PLAN	9/15/2008	5
A6-007	STAIR BD & D SECTION	9/15/2008	5
A6-008	STAIR BD & D & L INTERMEDIATE LANDINGS DETAIL PLAN	9/15/2008	3
A6-009	STAIR BF & F SECTION	9/15/2008	5
A6-010	STAIR BF & F INTERMEDIATE LANDINGS DETAIL PLAN	9/15/2008	3
A6-011	STB4-04 SECTIONS AND INTERMEDIATE LANDINGS DETAIL PLAN	9/15/2008	5
A6-018	MISCELLANEOUS STAIR/LADDER SECTIONS	9/15/2008	3
A6-050	TYPICAL CONCRETE STAIR DETAILS	9/15/2008	5
A6-052	TYPICAL STAIR MARKING DETAILS	9/15/2008	5
A6-055	MISCELLENEOUS STAIR DETAILS	9/15/2008	3
A6-060	TYPICAL STEEL STAIR DETAILS	9/15/2008	5
A6-061	TYPICAL STAIR DETAILS	9/15/2008	5
A6-065	SECURITY GATE SECTIONS	9/15/2008	3
A6-066	SECURITY GATE SECTIONS	9/15/2008	3
A6-100	ESCALATOR ES1-ES2 PLANS, SECTIONS, DETAILS	9/15/2008	5
A6-200	ELEVATOR SECTIONS BANK B	9/15/2008	5
A6-201	ELEVATOR SECTIONS BANK C	9/15/2008	5
A6-202	ELEVATOR SECTIONS BANK D	9/15/2008	5
A6-203	ELEVATOR SECTIONS BANK E	9/15/2008	5
A6-210	ELEVATOR SECTIONS - SERVICE ELEVATOR SE-2	9/15/2008	5
A6-211	ELEVATOR SECTIONS - SERVICE ELEVATOR SE-4	9/15/2008	6
A6-212	ELEVATOR SECTIONS - SERVICE ELEVATOR SE-1	9/15/2008	3
A6-220	ELEVATOR SECTIONS - A1 AND H1	9/15/2008	6
A6-222	ELEVATOR HALL ELEVATIONS	9/15/2008	4
A6-225	BANK A TYPICAL CAB PLANS AND ELEVATIONS	9/15/2008	6
A6-226	BANK A ELEVATOR SHAFT DETAILS	9/15/2008	6
A6-230	PASSENGER ELEVATORS, TYPICAL CAB PLANS AND ELEVATIONS	9/15/2008	5
A6-231	ELEVATOR H1 CAB LAYOUT AND ELEVATIONS; SERVICE ELEVATOR CAB LAYOUTS	9/15/2008	6
A6-235	ELEVATOR TYPICAL CAB DETAILS	9/15/2008	5
A6-240	L1 LIFT PLANS, SECTIONS, ELEVATIONS, DETAILS	9/15/2008	6
A6-241	L1 ELEVATOR DETAIL	9/15/2008	6
A6-242	L1 ELEVATOR SECTION DETAILS	9/15/2008	6
A6-250	ELEVATOR HALL DETAILS	9/15/2008	6
A6-251	ELEVATOR HALL DETAILS	9/15/2008	6
A6-252	ELEVATOR HALL DETAILS	9/15/2008	4
A6-253	ELEVATOR HALL DETAILS	9/15/2008	4
	ROOFING DETAILS		
A7-001	TYPICAL ROOF DETAILS	9/15/2008	5
A7-002	TYPICAL ROOF DETAILS	9/15/2008	5
A7-003	TYPICAL ROOF DETAILS	9/15/2008	2
A7-004	TYPICAL ROOF DETAILS	9/15/2008	2
A8	**BUILDING ENVELOPE (STOREFRONTS, CLADDING, CANOPY &**		
A8-001	CLADDING KEY ELEVATIONS	9/15/2008	4
A8-002	PERFORMANCE MOCK-UP TOWER	9/15/2008	4
A8-007	EXTERIOR WALL PERSPECTIVES	9/15/2008	3
A8-010	EXTERIOR WALL ZONE 1-LOBBY	9/15/2008	4
A8-011	EXTERIOR WALL ZONE 1, 1A - LOBBY/RETAIL	9/15/2008	3
A8-012	EXTERIOR WALL - ZONE 1A - RETAIL	9/15/2008	3
A8-013	EXTERIOR WALL - ZONE 1A - RETAIL	9/15/2008	3
A8-014	EXTERIOR WALL - ZONE 1A - RETAIL	9/15/2008	3
A8-015	EXTERIOR WALL ZONE 1, 1A - LOBBY/RETAIL	9/15/2008	3

A8-020	EXTERIOR WALL ZONE 2 - PODIUM	9/15/2008	4
A8-021	EXTERIOR WALL ZONE 2 - PODIUM	9/15/2008	4
A8-022	EXTERIOR WALL ZONE 2 - PODIUM	9/15/2008	4
A8-023	EXTERIOR WALL DETAILS ZONE 2 - PODIUM	9/15/2008	4
A8-024	EXTERIOR WALL ZONE 2 - PODIUM	9/15/2008	4
A8-025	EXTERIOR WALL ZONE 2 - PODIUM	9/15/2008	4
A8-026	EXTERIOR WALL ZONE 2 - PODIUM	9/15/2008	4
A8-027	EXTERIOR WALL ZONE 2 - PODIUM	9/15/2008	4
A8-100	EXTERIOR WALL DETAILS ZONE 1 LOBBY	9/15/2008	4
A8-101	GRILLE DETAILS	9/15/2008	3
A8-102	EXTERIOR WALL SECTIONS	9/15/2008	3
A8-103	EXTERIOR WALL DETAILS	9/15/2008	3
A8-104	F.O VENTS & FILL ALARM PANEL DETAILS	9/15/2008	2
A8-110	TYPICAL ENTRANCE DETAILS AND DOOR SCHEDULE	9/15/2008	3
A8-111	EXTERIOR ENTRANCE DETAILS	9/15/2008	3
A8 112	EXTERIOR ENTRANCE DETAILS	9/15/2008	3
A8-113	EXTERIOR ENTRANCE DETAILS	9/15/2008	2
A8-114	EXTERIOR ENTRANCE DETAILS	9/15/2008	2
A8-115	EXTERIOR ENTRANCE DETAILS	9/15/2008	2
A8-116	EXTERIOR EXIT DETAILS	9/15/2008	3
A8-117	REVOLVING DOOR DETAILS	9/15/2008	2
A8-200	EXTERIOR WALL DETAILS ZONE 2 - PODIUM	9/15/2008	4
A8-201	EXTERIOR WALL DETAILS ZONE 2 - PODIUM	9/15/2008	4
A8-202	EXTERIOR WALL DETAILS ZONE 2 PODIUM	4/25/2008	3
A8-210	12TH FLOOR GENERATOR EXHAUST FLUE EAST FACADE	9/15/2008	2
A8-700	EXTERIOR WALL TYPICAL DETAILS	9/15/2008	4
A8-701	ROOF PLENUM DETAILS	9/15/2008	3
A8-702	ROOF PLENUM DETAILS	9/15/2008	3
A9	**FINISHES**		
A9-0B4	BASEMENT LEVEL B4 REFLECTED CEILING PLAN	12/16/2008	4
A9-0B3	BASEMENT LEVEL B3 REFLECTED CEILING PLAN	12/16/2008	4
A9-0B2	BASEMENT LEVEL B2 REFLECTED CEILING PLAN	12/16/2008	4
A9-0B1	BASEMENT LEVEL B1 REFLECTED CEILING PLAN	12/16/2008	4
A9-0B1M	BASEMENT LEVEL B1M REFLECTED CEILING PLAN	12/16/2008	4
A9-001	BASEMENT LEVEL B1 PART FLOOR PLAN (LOBBY/RETAIL)	9/15/2008	2
A9-010	B1 LEVEL LOBBY ELEVATIONSB1 LEVEL LOBBY ELEVATIONS	9/15/2008	2
A9-011	B1 LEVEL LOBBY DETAILS	9/15/2008	2
A9-100	1ST FLOOR PLAN (LOBBY / RETAIL)	9/15/2008	3
A9-101	1ST FLOOR CORE PLAN	9/15/2008	3
A9-101_A	1ST FLOOR LEVEL LOBBY PLAN A	9/15/2008	3
A9-101_B	1ST FLOOR LEVEL LOBBY PLAN B	9/15/2008	3
A9-101_C	1ST FLOOR LEVEL LOBBY PLAN C	9/15/2008	3
A9-101_D	1ST FLOOR LEVEL LOBBY PLAN D	9/15/2008	3
A9-102_A	1ST FLOOR LEVEL REFLECTED CEILING LOBBY PLAN A	9/15/2008	3
A9-102_B	1ST FLOOR LEVEL REFLECTED CEILING LOBBY PLAN B	9/15/2008	3
A9-102_C	1ST FLOOR LEVEL REFLECTED CEILING LOBBY PLAN C	9/15/2008	3
A9-102_D	1ST FLOOR LEVEL REFLECTED CEILING LOBBY PLAN D	9/15/2008	3
A9-110	FIRST FLOOR LEVEL LOBBY ELEVATIONS	9/15/2008	3
A9-111	FIRST FLOOR LEVEL LOBBY ELEVATIONS	9/15/2008	3
A9-112	FIRST FLOOR LEVEL LOBBY ELEVATIONS	9/15/2008	3
A9-113	FIRST FLOOR LEVEL LOBBY ELEVATIONS	9/15/2008	3
A9-114	FIRST FLOOR LEVEL LOBBY ELEVATIONS	9/15/2008	3

A9-115	FIRST FLOOR LEVEL LOBBY ELEVATIONS	9/15/2008	3
A9-116	FIRST FLOOR LEVEL LOBBY ELEVATIONS	9/15/2008	3
A9-117	FIRST FLOOR LEVEL LOBBY ELEVATIONS	9/15/2008	3
A9-118	FIRST FLOOR LEVEL LOBBY ELEVATIONS	9/15/2008	3
A9-119	FIRST FLOOR LEVEL LOBBY ELEVATIONS	9/15/2008	3
A9-120	FIRST FLOOR LEVEL LOBBY ELEVATIONS	9/15/2008	2
A9-121	FIRST FLOOR LEVEL LOBBY ELEVATIONS	9/15/2008	2
A9-122	TRADING ELEVATOR SHAFT LOBBY FINISHES	9/15/2008	2
A9-130	WEST (LOWER) LOBBY DETAILS	9/15/2008	3
A9-131	WEST (LOWER) LOBBY DETAILS	9/15/2008	3
A9-132	LOBBY DETAILS	9/15/2008	3
A9-135	NORTH/SOUTH LOBBY DETAILS	9/15/2008	3
A9-136	NORTH/SOUTH LOBBY DETAILS	9/15/2008	3
A9-137	LOBBY PERIMETER CEILING DETAILS	9/15/2008	3
A9-138	LOBBY CEILING DETAILS	9/15/2008	1
A9-140	LOBBY DETAILS	9/15/2008	3
A9-141	UPPER/LIFT LOBBY DETAILS	9/15/2008	3
A9-142	EAST (UPPER) LOBBY DETAILS	9/15/2008	3
A9-143	EAST (UPPER) LOBBY DETAILS	9/15/2008	2
A9-146	LOBBY DETAILS	9/15/2008	2
A9-147	CORE LOBBY DETAILS	9/15/2008	3
A9-148	LOBBY DOORS	9/15/2008	2
A9-149	LOBBY DOORS	9/15/2008	2
A9-150	LOBBY DESK RECEPTION DESK LAYOUT	9/15/2008	2
A9-151	LOWER LOBBY (WEST) RECEPTION DESK	9/15/2008	2
A9-152	UPPER LOBBY (EAST) RECEPTION DESK	9/15/2008	2
A9-153	LOBBY DESK DETAILS	9/15/2008	2
A9-154	LOBBY SECURITY GATE DETAILS	9/15/2008	1
A9-620	TYPICAL RESTROOM SECTIONS & DETAILS	9/15/2008	3
A9-621	RESTROOM SECTIONS & DETAILS	9/15/2008	3
A9-650	B.O.H. SUITES PLANS AND DETAILS	9/15/2008	3
A9-700	REFLECTED CEILING PLANS BASEMENT LEVELS B4 & B3	12/16/2008	4
A9-701	REFLECTED CEILING PLANS BASEMENT LEVELS B2 & B1	12/16/2008	4
A9-710	LOCKER ROOM TOILET & RESTROOM ELEVATIONS @ BASEMENT	12/16/2008	3
A9-711	MILLWORK ELEVATIONS BASEMENT LEVELS	12/16/2008	3
A9-712	MILLWORK ELEVATIONS BASEMENT LEVELS	12/16/2008	1
A9-720	BOH TYPICAL WASHROOM & MILLWORK DETAILS	12/16/2008	2
A9-900	MTA "E" PLATFORM ALTERATIONS & FINISHES	12/16/2008	5
A9-901	MTA "E" PLATFORM ALTERATIONS & FINISHES CAISSON DETAILS	12/16/2008	3
A9-902	E TRAIN PLATFORM ALTERATIONS PHASING MATRIX	12/16/2008	3
A9-903	MTA "E" PLATFORM ALTERATIONS AND FINISHES	12/16/2008	2
	GRAPHICS DRAWINGS		
GS-100	SIGN LOCATION PLANS - TOWER 2 - LEVEL B4	4/25/2008	1
GS-101	SIGN LOCATION PLANS - TOWER 2 - LEVEL B3	4/25/2008	1
GS-102	SIGN LOCATION PLANS - TOWER 2 - LEVEL B2	4/25/2008	1
GS-103	SIGN LOCATION PLANS - TOWER 2 - LEVEL B1	4/25/2008	1
GS-104	SIGN LOCATION PLANS - TOWER 2 - LEVEL B1M	4/25/2008	1
GS-105	SIGN LOCATION PLANS - TOWER 2 - LEVEL 1	4/25/2008	1
GS-106	SIGN LOCATION PLANS - TOWER 2 - LEVEL 2	4/25/2008	1
GS-200	TECHNICAL PLANS - TOWER 2 - COLORS / FONTS /	4/25/2008	1
GS-201	TECHNICAL PLANS - TOWER 2 - SIGN TYPE SERIES A1 - A2	4/25/2008	1
GS-202	TECHNICAL PLANS - TOWER 2 - SIGN TYPE SERIES A3	4/25/2008	1
GS-203	TECHNICAL PLANS - TOWER 2 - SIGN TYPE SERIES A5	4/25/2008	1

GS-204	TECHNICAL PLANS - TOWER 2 - SIGN TYPE SERIES A6	4/25/2008	1
GS-205	TECHNICAL PLANS - TOWER 2 - SIGN TYPE SERIES A7	4/25/2008	1
GS-206	TECHNICAL PLANS - TOWER 2 - SIGN TYPE SERIES A8	4/25/2008	1
GS-207	TECHNICAL PLANS - TOWER 2 - SIGN TYPE SERIES A10	4/25/2008	1
GS-208	TECHNICAL PLANS - TOWER 2 - SIGN TYPE SERIES A11	4/25/2008	1
GS-209	TECHNICAL PLANS - TOWER 2 - SIGN TYPE SERIES A12	4/25/2008	1
GS-210	TECHNICAL PLANS - TOWER 2 - SIGN TYPE SERIES A13	4/25/2008	1
GS-211	TECHNICAL PLANS - TOWER 2 - SIGN TYPE SERIES A19	4/25/2008	1
GS-212	TECHNICAL PLANS - TOWER 2 - SIGN TYPE SERIES SAFETY PATTERN	4/25/2008	1
GS-213	TECHNICAL PLANS - TOWER 2 - SIGN TYPE SERIES B2	4/25/2008	1
GS-214	TECHNICAL PLANS - TOWER 2 - SIGN TYPE SERIES E	4/25/2008	1
GS-215	TECHNICAL PLANS - TOWER 2 - SIGN TYPE SERIES G	4/25/2008	1
GS-216	TECHNICAL PLANS - TOWER 2 - SIGN TYPE SERIES H	4/25/2008	1
GS-217	TECHNICAL PLANS - TOWER 2 - SIGN TYPE SERIES P	4/25/2008	1
GS-218	TECHNICAL PLANS - TOWER 2 - SIGN TYPE SERIES S1	4/25/2008	1
GS-219	TECHNICAL PLANS - TOWER 2 - SIGN TYPE SERIES S2	4/25/2008	1
GS-220	TECHNICAL PLANS - TOWER 2 - SIGN TYPE SERIES T - LOCAL LAW 26	4/25/2008	1
GS-221	TECHNICAL PLANS - TOWER 2 - SIGN TYPE SERIES T - LOCAL LAW 26	4/25/2008	1
	CIVIL DRAWINGS		
C-100	EAST BATHTUB WTC TOWER 2 GENERAL NOTES & LEGEND FOR SITE/UTILI	~~4/25/2008~~ **8/11/2008**	~~2~~ **3**
C-110	EAST BATHTUB WTC TOWER 2 SITE CONNECTION PROPOSAL BL. 58 LOT 1	~~4/25/2008~~ **3/24/2009**	~~2~~ **3**
C-120	EAST BATHTUB WTC TOWER 2 UTILITY/P.O.E. COORDINATION PLAN	~~4/25/2008~~ **3/24/2009**	~~2~~ **4**
C-130	EAST BATHTUB WTC TOWER 2 WATERMAIN RELOCATION PLAN	~~4/25/2008~~ **8/11/2008**	1
	GEOTECHNICAL DRAWINGS		
	(see Bulletin #6)		
	STRUCTURAL DRAWINGS		
S1-B3A	FRAMING PLAN LEVEL B3 LOADING DOCK PART PLAN	~~12/16/2008~~ **1/26/2009**	~~5~~ **7**
S1-01A	FOUNDATION PLAN / ARRANGEMENT AT E PLATFORM	~~12/16/2008~~ **6/5/2009**	~~11~~ **14**
S1-03	FRAMING PLAN LEVEL 03 - RETAIL	8/1/2008	7
S1-04	FRAMING PLAN LEVEL 04 - RETAIL / MECH	8/1/2008	9
S1-05	FRAMING PLAN LEVEL 05 MECH	8/1/2008	9
S1-05M	FRAMING PLAN LEVEL 05M - MECH MEZZ	8/1/2008	3
S2-B4A	INTERMEDIATE CORE FRAMING PLAN BETWEEN B4 & B3	8/1/2008	2
S2-B3A	INTERMEDIATE CORE FRAMING PLAN BETWEEN B3 & B2	8/1/2008	2
S2-01E	CORE FRAMING PLAN INTERMEDIATE LEVELS 01A, 01B, 02E &	8/1/2008	6
S2-02	CORE FRAMING PLAN LEVELS 02 - 03	8/1/2008	7
S2-04	CORE FRAMING PLAN LEVEL 04	8/1/2008	7
S2-04E	CORE FRAMING PLAN INTERMEDIATE LEVEL 04, 06-09 & 11-13	8/1/2008	7
S2-05	CORE FRAMING PLAN LEVEL 05	8/1/2008	7
S2-05M	CORE FRAMING PLAN INTERMEDIATE LEVEL 05	8/1/2008	4
S3-20	WIND FRAME CONNECTION DETAILS	8/1/2008	3
S4-101A	SHEARWALL ELEVATIONS T2/1 (PART 1/3) - GEOMETRY	8/1/2008	8
S4-101A-R	SHEARWALL ELEVATIONS T2/1 (PART 1/3) - REINFORCING	8/1/2008	4
S4-102A	SHEARWALL ELEVATIONS T2/2 (PART 1/3) - GEOMETRY	8/1/2008	8

S4-102A-R	SHEARWALL ELEVATIONS T2/2 (PART 1/3) - REINFORCING	8/1/2008	4
S4-103A	SHEARWALL ELEVATIONS T2/3 (PART 1/3) - GEOMETRY	8/1/2008	8
S4-103A-R	SHEARWALL ELEVATIONS T2/3 (PART 1/3) - REINFORCING	8/1/2008	4
S4-104A	SHEARWALL ELEVATIONS T2/4 (PART 1/3) - GEOMETRY	8/1/2008	8
S4-104A-R	SHEARWALL ELEVATIONS T2/4 (PART 1/3) - REINFORCING	8/1/2008	4
S4-105A	SHEARWALL ELEVATIONS T2/5 (PART1/3) - GEOMETRY	8/1/2008	7
S4-105A-R	SHEARWALL ELEVATIONS T2/5 (PART 1/3) - REINFORCING	8/1/2008	4
S4-106A	SHEARWALL ELEVATIONS T2/6 (PART 1/3) - GEOMETRY	8/1/2008	7
S4-106A-R	SHEARWALL ELEVATIONS T2/6 (PART 1/3) - REINFORCING	8/1/2008	4
S5-02	COLUMN DETAIL LEVEL B4	12/16/2008	3
S5-10	ABOVE GRADE COLUMN SCHEDULE	8/1/2008	4
S6-21	TYPICAL ABOVE GRADE STRUCTURAL DETAILS 2	8/1/2008	6
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Turner

World Trade Center Tower 2
200 Greenwich Street
5/11/2010
STRUCTURAL STEEL BID PACKAGE

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A1-003	GRIDLINES SETTING OUT PLAN	4/21/2010	8
	FLOOR PLANS		
A2-0B4	BASEMENT LEVEL B4 FLOOR PLAN	4/21/2010	12
	FLOOR CORE PLANS		
A3-0B4	BASEMENT LEVEL B4 FLOOR CORE PLAN	4/21/2010	9
A3-1B4_A	BASEMENT LEVEL B4 - QUADRANT PLAN A	4/21/2010	7
A3-1B4_B	BASEMENT LEVEL B4 - QUADRANT PLAN B	4/21/2010	7
A3-1B4_C	BASEMENT LEVEL B4 - QUADRANT PLAN C	4/21/2010	8

A3-1B4_D	BASEMENT LEVEL B4 - QUADRANT PLAN D	4/21/2010	7
	CORE SECTIONS & INTERIOR DETAILS		
A4-100	TYPICAL ELEVATOR / SUMP PIT DETAILS	4/21/2010	8
A4-101	TYPICAL SUMP PIT DETAILS	4/21/2010	5
A4-102	TYPICAL BELOW GRADE DETAILS	4/21/2010	5
	BUILDING ELEVATIONS & SECTIONS		
A5-120	PARTIAL BUILDING SECTIONS	4/21/2010	6
A5-121	PARTIAL BUILDING SECTIONS	4/21/2010	6
	GEOTECHNICAL DRAWINGS		
GT-DP-1	UNDER SLAB GROUNDWATER DRAIN, TRENCH PLAN	4/21/2010	10
GT-DP-2	UNDER SLAB GROUNDWATER DRAIN, PIPE PLAN	4/21/2010	10
GT-DP-3	UNDER SLAB GROUNDWATER DRAIN, SECTIONS AND DETAILS	4/21/2010	7
	STRUCTURAL DRAWINGS		
S0-21	BELOW GRADE LOADING DIAGRAM	4/21/2010	8
FS-100	FOUNDATION PLAN LEVEL B4	4/21/2010	14
FS-101	SHEARWALL FOOTING DETAILS	4/21/2010	9
FS-102	AUXILIARY SHEAR WALL FOOTING DETAILS	4/21/2010	10
FS-200	TYPICAL FOUNDATION DETAILS 1	4/21/2010	11
FS-201	TYPICAL FOUNDATION DETAILS 2	4/21/2010	11
FS-300	FOUNDATIONS SECTIONS 1	4/21/2010	11
FS-301	FOUNDATION SECTIONS 2	4/21/2010	2
FS-400	SHEARWALL FOUNDATION ELEVATIONS 1	4/21/2010	10
FS-401	SHEARWALL FOUNDATION ELEVATIONS 2	4/21/2010	10
S1-B3	FRAMING PLAN LEVEL B3	4/21/2010	13
S1-B2	FRAMING PLAN LEVEL B2	4/21/2010	13
S1-B1	FRAMING PLAN LEVEL B1	4/21/2010	13
S1-B1M	FRAMING PLAN LEVEL B1M	4/21/2010	13
S1-01	FRAMING PLAN LEVEL 01 GROUND FLOOR	4/21/2010	14
S1-02	FRAMING PLAN LEVEL 02 RETAIL	4/21/2010	10
S1-200	T2 / HUB INTERFACE B1 THRU 1ST FL PART PLAN	4/21/2010	0
S1-201	T2 / HUB INTERFACE FOUNDATION THRU B2 PART PLAN	4/21/2010	0
S2-B3	CORE FRAMING PLAN LEVEL B3	4/21/2010	9
S2-B2	CORE FRAMING PLAN LEVEL B2	4/21/2010	10
S2-B2E	CORE FRAMING PLAN INTERMEDIATE LEVELS B2, B3 & B4	4/21/2010	8
S2-B1	CORE FRAMING PLAN LEVEL B1	4/21/2010	12
S2-B1E	CORE FRAMING PLAN INTERMEDIATE LEVEL B1	4/21/2010	11
S2-01	CORE FRAMING PLAN LEVEL 01 GROUND FLOOR LEVEL	4/21/2010	11
S2-01 ALT	TEMPORARY CORE FRAMING PLAN LEVEL 01	4/21/2010	0
S3-00	BELOW GRADE ELEVATIONS 1	4/21/2010	10
S3-01	STEEL DETAILS (A-FRAMES)	4/21/2010	4
S3-02	STEEL DETAILS (SLOPING COLUMNS)	4/21/2010	4
S3-10A	SOUTH TOWER WIND FRAME ELEVATION (PART 1 / 2)	4/21/2010	8
S3-11A	NORTH TOWER WIND FRAME ELEVATION (PART 1 / 2)	4/21/2010	8
S3-12A	WEST TOWER WIND FRAME ELEVATION (PART 1/2)	4/21/2010	8
S3-13A	EAST TOWER WIND FRAME ELEVATION (PART 1/2)	4/21/2010	7
S3-14	WIND FRAME ELEVATION - PODIUM	4/21/2010	12
S4-B4	SHEARWALL PLAN - LEVEL B4 / FOUNDATION - B1M	4/21/2010	12
S4-B4A	AUXILIARY SHEARWALL PLAN LEVEL B4 / FOUNDATION -	4/21/2010	10
S4-01	SHEARWALL PLAN -LEVELS 01 - 05	4/21/2010	8
S4-100	SHEARWALL ELEVATIONS T2 BELOW GRADE GEOMETRY	4/21/2010	12
S4-100-R	SHEARWALL ELEVATIONS T2 BELOW GRADE	4/21/2010	6
S4-100A	SHEARWALL ELEVATIONS T2 BELOW GRADE GEOMETRY	4/21/2010	12
S4-100A-R	SHEARWALL ELEVATIONS T2 BELOW GRADE	4/21/2010	6
S4-125	AUXILIARY SHEARWALL ELEVATIONS T2/ASW1	4/21/2010	11
S5-00	BELOW GRADE COLUMN SCHEDULE	4/21/2010	12

S5-01	TYPICAL BELOW GRADE COLUMN DETAILS	4/21/2010	12
S5-11	ABOVE GRADE COLUMN DETAILS 1	4/21/2010	6
S5-12	ABOVE GRADE COLUMN DETAILS 2	4/21/2010	7
S6-00	TYPICAL BELOW GRADE STRUCTURAL DETAILS 1	4/21/2010	12
S6-01	TYPICAL BELOW GRADE STRUCTURAL DETAILS 2	4/21/2010	11
S6-02	TYPICAL BELOW GRADE STRUCTURAL DETAILS 3	4/21/2010	11
S6-20	TYPICAL ABOVE GRADE STRUCTURAL DETAILS 1	4/21/2010	8
S6-24	TYPICAL ABOVE GRADE STRUCTURAL DETAILS 5	4/21/2010	9
S6-26	TYPICAL ABOVE GRADE STRUCTURAL DETAILS 7 (LEVEL 2)	4/21/2010	0
S6-27	TYPICAL ABOVE GRADE STRUCTURAL DETAILS 8	4/21/2010	0
S7-00	BELOW GRADE SECTIONS 1	4/21/2010	11
S7-01	BELOW GRADE SECTIONS 2	4/21/2010	7
S7-05	BELOW GRADE SECTIONS 5	4/21/2010	0
S8-00	TYPICAL BELOW GRADE STAIR DETAILS	4/21/2010	9
S8-01	STAIR BA/BE PARTIAL SECTION	4/21/2010	8
S8-03	STAIR BB/BG PARTIAL SECTION	4/21/2010	8
S8-05	STAIR BC PARTIAL SECTION	4/21/2010	8
S8-07	STAIR BD PARTIAL SECTION	4/21/2010	8
S8-09	STAIR BF & F PARTIAL SECTION	4/21/2010	8
S8-11	STAIR ST B4-04 PARTIAL SECTION	4/21/2010	6
S8-51	STAIR WALL ELEVATIONS 2	4/21/2010	2
S8-52	STAIR WALL ELEVATIONS 3	4/21/2010	3
S8-53	STAIR WALL ELEVATIONS 4	4/21/2010	3
S9-00	TYPICAL BELOW GRADE SLAB KEY DETAILS	4/21/2010	12
	ELECTRICAL DRAWINGS		
E2-B4	BASEMENT LEVEL B4 ELECTRICAL PLAN	4/21/2010	12
E7-02	ELECTRICAL DETAILS SHEET NO. 2	4/21/2010	7
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PU0-00	GENERAL NOTES, KEY TO SYMBOLS AND DRAWING INDEX	4/21/2010	2
PU2-B4-1	UNDERGROUND PLUMBING PLAN	4/21/2010	11
PU2-B4-2	SPI COMMERCIAL PARKING UNDERGROUND PLUMBING PLAN	4/21/2010	7
PU5-01	SANITARY UNDERGROUND RISER DIAGRAM	4/21/2010	3
PU5-02	STORM WATER UNDERGROUND RISER DIAGRAM	4/21/2010	2
PU7-01	PLUMBING DETAILS / EQUIPMENT SCHEDULE	4/21/2010	2

ADDITIONAL DRAWINGS FOR REFERANCE			
Drawing	**Title**	**Date**	**Revision**
A0-004	ABBREVIATIONS, LEGENDS AND SYMBOLS	9/15/2008	8
A0-006	WALL & PARTITION TYPE SCHEDULE	9/15/2008	7
A1-001	LOCATION PLAN	12/16/2008	6
	FLOOR PLANS		
A2-0B4	BASEMENT LEVEL B4 FLOOR PLAN	4/24/2009	11
A2-0B3	BASEMENT LEVEL B3 FLOOR PLAN	4/24/2009	9
A2-0B3A	BASEMENT LEVEL B3 LOADING DOCK FLOOR PLAN	12/16/2008	7
A2-0B2	BASEMENT LEVEL B2 FLOOR PLAN	12/16/2008	8
A2 0B1	BASEMENT LEVEL B1 FLOOR PLAN	12/16/2008	8
A2-0B1M	BASEMENT LEVEL B1M FLOOR PLAN	12/16/2008	10
A2-001	1ST FLOOR PLAN (LOBBY / RETAIL)	9/15/2008	5
A2-002	2ND FLOOR PLAN (RETAIL)	9/15/2008	5
	FLOOR CORE PLANS		
A3-0B4	BASEMENT LEVEL B4 FLOOR CORE PLAN	12/16/2008	8
A3-0B3	BASEMENT LEVEL B3 FLOOR CORE PLAN	12/16/2008	7
A3-0B2	BASEMENT LEVEL B2 FLOOR CORE PLAN	12/16/2008	7

A3-0B1	BASEMENT LEVEL B1 FLOOR CORE PLAN	12/16/2008	7
A3-001	1ST FLOOR CORE PLAN	9/15/2008	6
A3-002	2ND FLOOR CORE PLAN	9/15/2008	6
A3-1B4_A	BASEMENT LEVEL B4 - QUADRANT PLAN A	12/16/2008	6
A3-1B4_B	BASEMENT LEVEL B4 - QUADRANT PLAN B	12/16/2008	6
A3-1B4_C	BASEMENT LEVEL B4 - QUADRANT PLAN C	12/16/2008	7
A3-1B4_D	BASEMENT LEVEL B4 - QUADRANT PLAN D	12/16/2008	6
A3-1B3_A	BASEMENT LEVEL B3 - QUADRANT PLAN A	12/16/2008	6
A3-1B3_B	BASEMENT LEVEL B3 - QUADRANT PLAN B	12/16/2008	6
A3-1B3_C	BASEMENT LEVEL B3 - QUADRANT PLAN C	12/16/2008	6
A3-1B3_D	BASEMENT LEVEL B3 - QUADRANT PLAN D	12/16/2008	6
A3-1B3_E	BASEMENT LEVEL B3 - FLOOR PLAN QUADRANT E	12/16/2008	5
A3-1B2_A	BASEMENT LEVEL B2 - QUADRANT PLAN A	12/16/2008	5
A3-1B2_B	BASEMENT LEVEL B2 - QUADRANT PLAN B	12/16/2008	6
A3-1B2_C	BASEMENT LEVEL B2 - QUADRANT PLAN C	12/16/2008	5
A3-1B2_D	BASEMENT LEVEL B2 - QUADRANT PLAN D	12/16/2008	6
A3-1B1_A	BASEMENT LEVEL B1 - QUADRANT PLAN A	12/16/2008	6
A3-1B1_B	BASEMENT LEVEL B1 - QUADRANT PLAN B	12/16/2008	6
A3-1B1_C	BASEMENT LEVEL B1 - QUADRANT PLAN C	12/16/2008	6
A3-1B1_D	BASEMENT LEVEL B1 - QUADRANT PLAN D	12/16/2008	6
A3-1B1M_A	BASEMENT LEVEL B1M - PLAN A	12/16/2008	8
A3-1B1M_B	BASEMENT LEVEL B1M - PLAN B	12/16/2008	8
A3-101_A	1ST FLOOR LEVEL - QUADRANT PLAN A	9/15/2008	5
A3-101_B	1ST FLOOR LEVEL - QUADRANT B	9/15/2008	4
A3-101_C	1ST FLOOR LEVEL - QUADRANT C	9/15/2008	5
A3-101_D	1ST FLOOR LEVEL - QUADRANT D	9/15/2008	4
A3-102_A	2ND FLOOR PLAN - DETAIL PLAN A	9/15/2008	5
A3-102_B	2ND FLOOR PLAN - DETAIL PLAN B	9/15/2008	3
	CORE SECTIONS & INTERIOR DETAILS		
A4-030	WATER TANK DETAILS	12/16/2008	3
A4-031	FUEL OIL TANK ROOM DETAILS	12/16/2008	3
A4-032	MISCELLANEOUS BELOW GRADE STAIRS & RAMPS	12/16/2008	3
A4-040	LOADING DOCK DETAILS	12/16/2008	3
A4-046	LOADING DOCK SECTIONS	12/16/2008	3
A4-047	BELOW GRADE LOADING DOCK ELEVATIONS / DETAILS AND	12/16/2008	4
A4-100	TYPICAL ELEVATOR / SUMP PIT DETAILS	12/16/2008	7
A4-101	TYPICAL SUMP PIT DETAILS	12/16/2008	4
A4-102	TYPICAL BELOW GRADE DETAILS	12/16/2008	4
A4-150	FLOOR BUILD UP DETAILS	9/15/2008	4
A4-151	FLOOR BUILD UP DETAILS	9/15/2008	4
A4-200	TYPICAL DETAILS	9/15/2008	4
A4-201	TYPICAL FLOOR SLAB DETAILS	9/15/2008	3
A4-205	CORE PLAN DETAILS	9/15/2008	4
A4-206	CORE PLAN DETAILS	9/15/2008	3
A4-207	CORE PLAN DETAILS	9/15/2008	3
A4-208	CORE PLAN DETAILS	9/15/2008	3
A4-209	CORE PLAN DETAILS	9/15/2008	3
A4-210	CORE PLAN DETAILS	9/15/2008	2
A4-211	CORE PLAN DETAILS	9/15/2008	2
A4 212	CORE PLAN DETAILSCORE PLAN DETAILS	9/15/2008	2
A4-213	CORE PLAN DETAILS	9/15/2008	2
A4-214	CORE PLAN DETAILS	9/15/2008	2
A4-215	CORE PLAN DETAILS	9/15/2008	3
A4-216	CORE PLAN AND SECTION DETAILS	9/15/2008	3

A4-217	CORE PLAN DETAILS	9/15/2008	3
A4-218	SERVICE ELEVATOR LOBBY PLAN	9/15/2008	2
A4-220	CORE PRIMARY ELECT. CLOSET, SECONDARY TELE ROOM PLANS,	9/15/2008	3
A4-251	CORE SECTION DETAILS	9/15/2008	6
A4-252	CORE SECTION DETAILS	9/15/2008	6
A4-255	CORE SECTION DETAILS	9/15/2008	3
A4-260	CORE SECTION DETAILS	9/15/2008	3
A4-270	CORE SECTION DETAILS	9/15/2008	3
A4-300	MISCELLANEOUS METALS	9/15/2008	3
A4-301	MISCELLANEOUS DETAILS	9/15/2008	2
A4-500	PERIMETER PLAN DETAILS LEVELS 14-18	9/15/2008	4
A4-501	PERIMETER PLAN DETAILS LEVELS 19 AND 20	9/15/2008	3
A4-502	PERIMETER PLAN DETAILS AT LEVEL 40	9/15/2008	3
A4-503	PERIMETER PLAN DETAILS	9/15/2008	4
A4-504	PERIMETER PLAN DETAILS	9/15/2008	4
A4-505	PERIMETER PLAN DETAILS	9/15/2008	3
A4-506	PERIMETER PLAN DETAILS	9/15/2008	3
A4-510	PERIMETER PLAN DETAILS	9/15/2008	3
A4-511	PERIMETER PLAN DETAILS	9/15/2008	3
A4-512	PERIMETER PLAN DETAILS	9/15/2008	3
A4-513	PERIMETER PLAN DETAILS	9/15/2008	3
A4-514	PERIMETER PLAN DETAILS	9/15/2008	3
A4-515	PERIMETER PLAN DETAILS	9/15/2008	3
A4-516	PERIMETER PLAN DETAILS	9/15/2008	2
A4-520	PERIMETER PLAN DETAILS	9/15/2008	3
A4-521	PERIMETER PLAN DETAILS	9/15/2008	3
A4-522	PERIMETER PLAN DETAILS	9/15/2008	3
A4-523	PERIMETER PLAN DETAILS	9/15/2008	3
	BUILDING ELEVATIONS & SECTIONS		
A5-001	WEST AND SOUTH BUILDING ELEVATIONS	9/15/2008	4
A5-002	EAST AND NORTH BUILDING ELEVATIONS	9/15/2008	4
A5-003	BUILDING SECTIONS	9/15/2008	5
A5-020	WEST PARTIAL PODIUM ELEVATION (GREENWICH STREET)	9/15/2008	4
A5-021	SOUTH PARTIAL TOWER ELEVATION (FULTON STREET)	9/15/2008	4
A5-022	SOUTH PARTIAL PODIUM ELEVATION (FULTON STREET)	9/15/2008	4
A5-023	EAST PARTIAL ELEVATION PODIUM (CHURCH STREET)	9/15/2008	4
A5-024	EAST PARTIAL TOWER ELEVATION (CHURCH STREET)	9/15/2008	4
A5-025	NORTH PARTIAL PODIUM ELEVATION (VESEY STREET)	9/15/2008	4
A5-026	NORTH PARTIAL PODIUM ELEVATION TOWER (VESEY STREET)	9/15/2008	4
A5-100	NORTH/SOUTH PARTIAL BUILDING SECTION TOWER BASE	9/15/2008	4
A5-101	NORTH/SOUTH PARTIAL BUILDING SECTION SKYLOBBY & TOWER	9/15/2008	4
A5-102	EAST/WEST PARTIAL BUILDING SECTION RETAIL AND MECHANICAL	9/15/2008	4
A5-120	PARTIAL BUILDING SECTIONS	12/16/2008	5
A5-121	PARTIAL BUILDING SECTIONS	12/16/2008	5
A5-122	PARTIAL WALL SECTIONS AT PODIUM	9/15/2008	3
A5-123	PARTIAL WALL SECTIONS AT PODIUM	9/15/2008	2
A5-124	PARTIAL WALL SECTIONS AT PODIUM	9/15/2008	2
A5-125	PARTIAL WALL SECTIONS AT PODIUM	9/15/2008	2
A5-126	PARTIAL WALL SECTIONS AT PODIUM	9/15/2008	2
A5-127	SLURRY WALL ELEVATION AND POE MATRIX	12/16/2008	1
A5-130	WEST PARTIAL EXTERIOR WALL SECTIONS AT PODIUM	9/15/2008	3
A5-131	WEST PARTIAL EXTERIOR WALL SECTIONS AT PODIUM	9/15/2008	3
A5-132	WEST PARTIAL EXTERIOR WALL SECTIONS AT PODIUM	9/15/2008	3
A5-133	SOUTH PARTIAL EXTERIOR WALL SECTIONS AT PODIUM	9/15/2008	3
A5-134	SOUTH PARTIAL EXTERIOR WALL SECTIONS AT PODIUM	9/15/2008	3
A5-135	SOUTH PARTIAL EXTERIOR WALL SECTIONS AT PODIUM	9/15/2008	3

A5-136	SOUTH PARTIAL EXTERIOR WALL SECTIONS AT PODIUM	9/15/2008	3
A5-137	SOUTH PARTIAL EXTERIOR WALL SECTIONS AT PODIUM	9/15/2008	3
A5-138	SOUTH PARTIAL EXTERIOR WALL SECTIONS AT PODIUM	9/15/2008	3
A5-139	SOUTH PARTIAL EXTERIOR WALL SECTIONS AT PODIUM	9/15/2008	3
A5-140	EAST PARTIAL EXTERIOR WALL SECTIONS AT PODIUM	9/15/2008	3
A5-141	EAST PARTIAL EXTERIOR WALL SECTIONS AT PODIUM	9/15/2008	3
A5-142	NORTH PARTIAL EXTERIOR WALL SECTIONS AT PODIUM	9/15/2008	3
A5-143	NORTH PARTIAL EXTERIOR WALL SECTIONS AT PODIUM	9/15/2008	3
	VERTICAL TRANSPORTATION (ELEVATORS, ESCALATORS,STAIRS, RAILINGS & MISCELLANEOUS METALS)		
A6-001	STAIR BE & A SECTION	9/15/2008	5
A6-002	STAIR BA AND A INTERMEDIATE LANDINGS DETAIL PLAN	9/15/2008	3
A6-003	STAIR BG, BB & B SECTION	9/15/2008	5
A6-004	STAIR B & G INTERMEDIATE LANDINGS DETAIL PLAN	9/15/2008	3
A6-005	STAIR BC SECTION	9/15/2008	5
A6-006	STAIR C SECTION AND INTERMEDIATE LANDINGS DETAIL PLAN	9/15/2008	5
A6-007	STAIR BD & D SECTION	9/15/2008	5
A6-008	STAIR BD & D & L INTERMEDIATE LANDINGS DETAIL PLAN	9/15/2008	3
A6-009	STAIR BF & F SECTION	9/15/2008	5
A6-010	STAIR BF & F INTERMEDIATE LANDINGS DETAIL PLAN	9/15/2008	3
A6-011	STB4-04 SECTIONS AND INTERMEDIATE LANDINGS DETAIL PLAN	9/15/2008	5
A6-018	MISCELLANEOUS STAIR/LADDER SECTIONS	9/15/2008	3
A6-050	TYPICAL CONCRETE STAIR DETAILS	9/15/2008	5
A6-052	TYPICAL STAIR MARKING DETAILS	9/15/2008	5
A6-055	MISCELLENEOUS STAIR DETAILS	9/15/2008	3
A6-060	TYPICAL STEEL STAIR DETAILS	9/15/2008	5
A6-061	TYPICAL STAIR DETAILS	9/15/2008	5
A6-065	SECURITY GATE SECTIONS	9/15/2008	3
A6-066	SECURITY GATE SECTIONS	9/15/2008	3
A6-100	ESCALATOR ES1-ES2 PLANS, SECTIONS, DETAILS	9/15/2008	5
A6-200	ELEVATOR SECTIONS BANK B	9/15/2008	5
A6-201	ELEVATOR SECTIONS BANK C	9/15/2008	5
A6-202	ELEVATOR SECTIONS BANK D	9/15/2008	5
A6-203	ELEVATOR SECTIONS BANK E	9/15/2008	5
A6-210	ELEVATOR SECTIONS - SERVICE ELEVATOR SE-2	9/15/2008	5
A6-211	ELEVATOR SECTIONS - SERVICE ELEVATOR SE-4	9/15/2008	6
A6-212	ELEVATOR SECTIONS - SERVICE ELEVATOR SE-1	9/15/2008	3
A6-220	ELEVATOR SECTIONS - A1 AND H1	9/15/2008	6
A6-222	ELEVATOR HALL ELEVATIONS	9/15/2008	4
A6-225	BANK A TYPICAL CAB PLANS AND ELEVATIONS	9/15/2008	6
A6-226	BANK A ELEVATOR SHAFT DETAILS	9/15/2008	6
A6-230	PASSENGER ELEVATORS, TYPICAL CAB PLANS AND ELEVATIONS	9/15/2008	5
A6-231	ELEVATOR H1 CAB LAYOUT AND ELEVATIONS; SERVICE ELEVATOR CAB LAYOUTS	9/15/2008	6
A6-235	ELEVATOR TYPICAL CAB DETAILS	9/15/2008	5
A6-240	L1 LIFT PLANS, SECTIONS, ELEVATIONS, DETAILS	9/15/2008	6
A6-241	L1 ELEVATOR DETAIL	9/15/2008	6
A6-242	L1 ELEVATOR SECTION DETAILS	9/15/2008	6
A6-250	ELEVATOR HALL DETAILS	9/15/2008	6
A6-251	ELEVATOR HALL DETAILS	9/15/2008	6
A6-252	ELEVATOR HALL DETAILS	9/15/2008	4
A6-253	ELEVATOR HALL DETAILS	9/15/2008	4
	ROOFING DETAILS		

A7-001	TYPICAL ROOF DETAILS	9/15/2008	5
A7-002	TYPICAL ROOF DETAILS	9/15/2008	5
A7-003	TYPICAL ROOF DETAILS	9/15/2008	2
A7-004	TYPICAL ROOF DETAILS	9/15/2008	2
	BUILDING ENVELOPE		
A8-001	CLADDING KEY ELEVATIONS	9/15/2008	4
A8-010	EXTERIOR WALL ZONE 1-LOBBY	9/15/2008	4
A8-011	EXTERIOR WALL ZONE 1, 1A - LOBBY/RETAIL	9/15/2008	3
A8-012	EXTERIOR WALL - ZONE 1A - RETAIL	9/15/2008	3
A8-013	EXTERIOR WALL - ZONE 1A - RETAIL	9/15/2008	3
A8-014	EXTERIOR WALL - ZONE 1A - RETAIL	9/15/2008	3
A8-015	EXTERIOR WALL ZONE 1, 1A - LOBBY/RETAIL	9/15/2008	3
A8-020	EXTERIOR WALL ZONE 2 - PODIUM	9/15/2008	4
A8-021	EXTERIOR WALL ZONE 2 - PODIUM	9/15/2008	4
A8-022	EXTERIOR WALL ZONE 2 - PODIUM	9/15/2008	4
A8-023	EXTERIOR WALL DETAILS ZONE 2 - PODIUM	9/15/2008	4
A8-024	EXTERIOR WALL ZONE 2 - PODIUM	9/15/2008	4
A8-025	EXTERIOR WALL ZONE 2 - PODIUM	9/15/2008	4
A8-026	EXTERIOR WALL ZONE 2 - PODIUM	9/15/2008	4
A8-027	EXTERIOR WALL ZONE 2 - PODIUM	9/15/2008	4
A8-100	EXTERIOR WALL DETAILS ZONE 1 LOBBY	9/15/2008	4
A8-101	GRILLE DETAILS	9/15/2008	3
A8-102	EXTERIOR WALL SECTIONS	9/15/2008	3
A8-103	EXTERIOR WALL DETAILS	9/15/2008	3
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TURNER CONSTRUCTION COMPANY
WORLD TRADE CENTER
TOWER 2

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UNDERGROUND PLUMBING DOUCMENT LIST

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TURNER CONSTRUCTION COMPANY
WORLD TRADE CENTER
TOWER 2

Updated: 05/11/10

UNDERGROUND ELECTRIC LIST

Turner Project Manual			
Pages	**Description**	**Date**	**Revision**
735	Project Manual	5/1/2010	2
Tower 2 100% CD 4/25/08			
Section	**Title (Pages)**	**Date**	**Revision**
00001	PROJECT TITLE PAGE (1)	12/16/2009	--
00010	TABLE OF CONTENTS (5)	4/14/2009	--
00015	LIST OF DRAWINGS (1)	4/14/2009	--
00020	LIST OF SCHEDULES AND FORMS (3)	4/25/2008	--
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01352	LEED GREEN BUILDING REQUIREMENTS (7)	4/25/2008	0
01400	QUALITY REQUIREMENTS (8)	4/25/2008	0
01570	CONSTRUCTION WASTE MANAGEMENT (6)	4/25/2008	0
01572	EROSION AND SEDIMENTATION CONTROL (6)	4/25/2008	0
01575	PEST CONTROL (3)	4/25/2008	0
01700	EXECUTION AND CLOSEOUT REQUIREMENTS (4)	4/25/2008	0
02000	SITE WORK STANDARD SPECIFICATIONS AND DRAWINGS (4)	4/25/2008	0
02810	SITE IRRIGATION	4/14/2009	0
02200	EXCAVATION, FILLING AND GRADING (10)	4/25/2008	1
02240	DEWATERING FOR SITE WORK (2)	4/25/2008	0
02260	ROCK EXCAVATION (8)	4/25/2008	2
02269	ROCK ANCHORS (11)	4/25/2008	1
02270	EROSION AND SEDIMENT CONTROL (4)	4/25/2008	0
02280	SHEETING FOR UTILITY TRENCHES (1)	4/25/2008	0
02301	EARTHWORK FOR SITE WORK (3)	4/25/2008	0
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02360	DRILLED CAISSONS (10)	4/25/2008	0
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~~SKA 5088 B~~	~~T2 UTILITY / POE SLURRY WALL ELEVATION (VESEY STREET)~~	~~8/11/08~~	~~1~~
~~SKA 5088 C~~	~~T2 UTILITY / POE SLURRY WALL ELEVATION (VESEY STREET)~~	~~8/11/08~~	~~1~~
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~~SKA 5088 E~~	~~T2 UTILITY / POE SLURRY WALL ELEVATION (CHURCH STREET)~~	~~8/11/08~~	~~1~~
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~~C-1173~~	~~Vesey Street Profiles~~	~~6/16/2008~~	~~0~~

~~SK-3004~~	~~Slurry Wall Composite Utility Section Plan~~	~~6/26/2008~~	~~0~~
~~SK-3005~~	~~Overall Utilities Diagram Sitewide POE~~	~~6/26/2008~~	~~0~~
~~SK-ECS~~	~~Empire City Subway Manhole Details, Scope of Work and Specifications~~	~~8/6/2008~~	~~0~~
~~Drawing 1 of 1~~	~~Vesey St. Plan and Profiles~~	~~11/22/2006~~	~~0~~
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~~C-7101~~	~~Subdrain Details~~	~~5/12/2008~~	~~0~~
~~SK-3007~~	~~Vesey Street Site Connection Plan~~	~~7/17/2008~~	~~1~~
~~SK-3006~~	~~Site Connection Profiles and Details~~	~~7/17/2008~~	~~0~~
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	~~Water main relocation as built~~	~~10/3/2008~~	~~0~~
~~sketch WM-2~~	~~Vesey Street water main as-built~~	~~7/11/2008~~	~~0~~
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S8-05	STAIR BC PARTIAL SECTION	4/21/2010	8
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IR-001	Tower 2 Irrigation Plan	4/14/2009	1
IR-002	Tower 2 Irrigation Details	4/14/2009	1

Estimate Item	Difference Pricing/added scope for Primary PDCs (from estimate)	Original Cost	Added Costs
A	Battery room exhaust including electrical connections	[redacted]	
B	Added mimic panel		
C	Added B3 substation and control power work		
D	Installation of new PDC cabinets		
E	Added feeders and concrete encasement		
F	Added CMU walls and Equipment pads		
G	PAC added cost, battery unit room and wiring		
H	Added Con Ed metering installation		
	Sub Total		
		Total Labor	[redacted]

T&H Proposal Item	Difference Pricing/added scope for Primary PDCs (assumes 8 feeders) (equipment only)	Original Cost	Added Cost
I	Con end metering cubicle	[redacted]	
H	Incoming service cubicle		
	Main breaker cubicle		
L	Con Edison G&T Device with cubicle (4 total)		
	Customer G&T Device (4 total)		
J	Mimic control and annunicator		
N	Advisory board drawings		
	Con Ed witness testing		
K	Con Ed EO-2022 battery system		
	Breakers - towers 2, 3, 4 and spare		
	Short circuit coordination study		
	Start up services		
	Training		
	Key Interlock		
	Factory witness testing		
	O&Ms		
	Delivery		
	Sub Total		
		Total Equipment	[redacted]

Original Silverstein PDC	[redacted]
Premimum Cost for Upgrade to Con Ed PDCs	
Total PDC Cost	

Turner Construction Company

Tower 2 World Trade Center
250 Greenwich Street
New York, New York
ESTIMATE - 7/1/2010 DRAFT for Review - Updated 7/13/2010

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Ranking	BUILDING SYSTEM	Quantity	Unit	Unit Cost	Estimate	Intermediate Totals	Code	Percentages SPI	PAH	PARK	VSC	S & RI	RETAIL	Cost Breakouts SPI	PAH	PARK	VSC	S & RI	RETAIL
001	EXCAVATION & FOUNDATIONS																		
002	Excavation & Foundation																		
003	Halmar's Adjusted Remaining Contract																		
004	Dead man for Guy Cables																		
005	Pads on B4 Level																		
006	Tie Down Beams																		
007	Remove debris from underground contractors																		
008	Concrete for LR1200 Base																		
009	Shappiro Design Cost																		
010	Subtotal: Excavation & Foundation																		
011																			
012	EXCAVATION & FOUNDATIONS																		
013																			
014	STRUCTURAL FRAME																		
015	Superstructure Concrete																		
016	Concrete 1st Round Base Bid																		
017	Subtotal: Superstructure Concrete																		
018																			
019	Raise Concrete Shear Walls																		
020	Raise Shear Walls Above Grade																		
021	Raise Transit Hall Stair to provide access above to Roof																		
022	Raise SW Corner of Core to Elevation 24'-7"																		
023	Subtotal: Raise Concrete Shear Walls																		
024																			
025	Install Curtain Wall Embeds																		
026	Install Day-2 Curtain Wall Embeds (Assume 1 Embed Every 5 feet)																		
027	Pour Ground Floor Curb for Day-2 Curtainwall Embeds																		
028	Subtotal: Install Curtain Wall Embeds																		
029																			
030	Protection Slab																		
031	Temporary Concrete Protection Slab Over Waterproofing																		
032	Subtotal: Protection Slab																		
033																			
034	Encase ConEd Conduit																		
035	Encase Conduit from ConEd Space Chamber to PDCs																		
036	Subtotal: Encase ConEd Conduit																		
037																			
038	Misc Concrete Items Requested at Bid																		
039	Waterproofing at Water Tank																		
040	Cumeback to Infill Four (4'x 4') Openings																		
041	Subtotal: Misc Concrete Items Requested at Bid																		
042																			
043	Temporary Concrete Cover																		
044	Level 1 Temporary Concrete Cover to Infill Opening																		
045	Level B1 Temporary Concrete Cover to Infill Opening																		
046	Level B3 Temporary Concrete Cover to Infill Opening																		
047	Subtotal: Temporary Concrete Cover																		
048																			
049	Concrete Curb at Perimeter Slurry Wall Drains																		
050	Level B1M - Perimeter Drainage Curb																		
051	Level B1 - Perimeter Drainage Curb																		
052	Level B2 - Perimeter Drainage Curb																		
053	Level B3 - Perimeter Drainage Curb																		
054	Level B4 - Perimeter Drainage Curb																		
055	Subtotal: Concrete Curb at Perimeter Slurry Wall Drains																		
056																			
057	Concrete Housekeeping Pads																		
058	Level 1 - Mech 4" Equipment Pads																		
059	Level B1M - Mech 4" Equipment Pads																		
060	Level B1 - Mech 4" Equipment Pads																		
061	Level B2 - Mech 4" Equipment Pads																		
062	Level B3 - Mech 4" Equipment Pads																		
063	Level B4 - Mech 4" Equipment Pads																		
064	Level B2 - Spot Network - Mech 4" Equipment Pads																		
065	Subtotal: Concrete Housekeeping Pads																		
066																			
067	Miscellaneous Concrete																		
068	Level 1 - Plaza Level																		
069	Temporary CIP Concrete Trench Drain at Plaza Perimeter																		
070	Site Perimeter Curb																		
071	Concrete Platform at Stair Tower Egress																		
072	Level B1M																		
073	Level B1																		
074	Level B2																		
075	PA Water Tanks																		
076	Spot Network Service Switchboard Roof																		
077	Spot Network Transformer Vault Compartments																		

Turner Construction Company

Tower 2 World Trade Center
200 Greenwich Street
New York, New York
ESTIMATE - 7/1/2010 DRAFT for Review - Updated 7/12/2010

Ranking	BUILDING SYSTEM	Quantity	Unit	Unit Cost	Estimate	Intermediate Totals	Code	Percentages SPI	PAH	PARK	VSC	S & RI	RETAIL	Cost Breakouts SPI	PAH	PARK	VSC	S & RI	RETAIL
232	Relocations due to field conditions																		
233	Subtotal: Rebar Box-Out Above Core Walls																		
234																			
235	Louver Wall at HUB Shaft																		
236	Louver Wall with 600 SF Area																		
237	Exterior Stud Framing and Metal Panel Top and Bottom																		
238	Misc Structural Framing to Support Louver Wall																		
239	Painted Aluminum Fascia with Gravel Stop at Transit Hall																		
240	Subtotal: Louver Wall at HUB Shaft																		
241																			
242	Ductwork Enclosure at Roof Level																		
243	L2 Roof																		
244	L1 Roof																		
245	Subtotal: Ductwork Enclosure at Roof Level																		
246																			
247	Canopy Over Transit Hall Entrance																		
248	Level 2 Overhang Above Transit Hall Entrance																		
249	Painted Gyp Sheathing Soffit Above Transit Hall Entrance																		
250	Subtotal: Canopy Over Transit Entrance																		
251																			
252	Temp Exterior Doors (Including Hardware and Installation)																		
253	All Egress Temp Doors at Ground Level																		
254	Subtotal: Temp Exterior Doors																		
255																			
256	EXTERIOR WALL																		
257																			
258	INTERIOR PARTITIONS & FINISHES																		
259	Partitions																		
260	Temp Thermal Wall Partitions - 2-1/2" 20ga Metal stud w/ 2" rigid insul, v																		
261	Level 1																		
262	Level B1M																		
263	Level B1																		
264	Level B2																		
265	Level B3																		
266	Level B4																		
267	Level 1 - GWB Furring at Transit Lobby																		
268	Level B4 - 8' high chain link fence																		
269																			
270	Temp Partitions at Open Shafts (2-HR Rated Masonry Assembly)																		
271	Level 1																		
272	Level B1M																		
273	Level B1																		
274	Level B2																		
275	Level B3																		
276	Level B4																		
277																			
278	Level B2 Temporary Bathroom Enclosure																		
279	Level B2 Temporary Bathroom Platform																		
280	Level B2 Temporary Bathroom Interior Partitions																		
281	Level B2 Temp Bathroom Ceiling/Roof																		
282																			
283	Temp Infill at Shear Wall Openings (2-HR Rated Assembly)																		
284	Level 1																		
285	Level B1M																		
286	Level B1																		
287	Level B2																		
288	Level B3																		
289	Level B4																		
290																			
291	CMU Wall - 8" CMU Solid filled																		
292	Level 1																		
293	Level B1M																		
294	Level B1																		
295	Level B2																		
296	Level B3																		
297	Level B4																		
298	Level B2 Spot Network Service Switchboard Partitions																		
299																			
300	Slurry Wall Liner Wall 8" CMU Wall with Bituminous WP																		
301	Level 1																		
302	Level B1M																		
303	Level B1																		
304	Level B2 (Spot Network Room Allow 100 LF)																		
305	Level B3																		
306	Level B4																		
307																			
308	OSHA & Finish Work Protection (GSF)																		

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								SPI	PAH	PARK	VSC	S & RI	RETAIL	SPI	PAH	PARK	VSC	S & RI	RETAIL
309	Level 1																		
310	Level B1M																		
311	Level B1																		
312	Level B2																		
313	Level B3																		
314	Level B4																		
315	Remove and Replace Protection as required for work																		
316	Subtotal: Partitions																		
317																			
318	Install Doors, Frames, and Hardware																		
319	Exterior HM Doors & HM Frames - Single																		
320	Level 1																		
321	Interior HM Doors & HM Frames - Single																		
322	Level 1																		
323	Level B1M																		
324	Level B1																		
325	Level B2																		
326	Level B3																		
327	Level B4																		
328																			
329	Interior HM Doors & HM Frames - Double																		
330	Level 1																		
331	Level B1M																		
332	Level B1																		
333	Level B2																		
334	Level B3																		
335	Level B4																		
336																			
337	Below Grade Stair Hollow Metal and Hardware																		
338																			
339	Level B2 Temp Bathroom Doors - Single																		
340	Temp Construction Door - Single HM Door and Frame																		
341	Exterior HM Doors & HM Frames - Double																		
342	Subtotal: Install Doors, Frames, and Hardware																		
343																			
344	Furnish Doors & Hardware																		
345	Exterior Doors/Frames/Hardware - Single																		
346	Level 1																		
347	Interior Door/Frames/Hardware - Single																		
348	Level 1																		
349	Level B1M																		
350	Level B1																		
351	Level B2																		
352	Level B3																		
353	Level B4																		
354																			
355	Interior Doors/Frames/Hardware - Double																		
356	Level 1																		
357	Level B1M																		
358	Level B1																		
359	Level B2																		
360	Level B3																		
361	Level B4																		
362																			
363	Below Grade Stair Hollow Metal and Hardware																		
364																			
365	Level B2 Temp Bathroom Doors - Single																		
366	Temp Construction Door - Single HM Door and Frame																		
367	Exterior HM Doors & HM Frames - Double																		
368	Subtotal: Furnish Doors and Hardware																		
369																			
370	Flooring and Base																		
371	Sealed Concrete Flooring - Mothball Space																		
372	Level 1																		
373	Level B1M																		
374	Level B1																		
375	Level B2																		
376	Level B3																		
377	Level B4																		
378	Painted Concrete Flooring																		
379	Level 1																		
380	Level B1M																		
381	Level B1																		
382	Level B2																		
383	Level B3																		
384	Level B4																		
385	Mechanical Room Waterproofing																		

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Ranking	BUILDING SYSTEM	Quantity	Unit	Unit Cost	Estimate	Intermediate Totals	Code	Percentages SPI	PAH	PARK	VSC	S & RI	RETAIL	Cost Breakouts SPI	PAH	PARK	VSC	S & RI	RETAIL
848	Motor Starter (2 HP)																		
849	Particulate/Gas Phase Filtration on Drwg M8.01																		
850	Duct Mounted Reheat Coil																		
851	Sound Trap ST-5-6																		
852	Galvanized Ductwork @ 1st Floor Exposed to Weather																		
853	Galvanized Ductwork																		
854	Insulation																		
855	Fire/Smoke Dampers as shown																		
856	Grilles, Registers, & Diffusers - Large																		
857	Wire Mesh Screens																		
858																			
859	H&V Unit V-5-1 Commercial Park																		
860	Supply Fan																		
861	Variable Speed Drives (60 HP)																		
862	Particulate/Gas Phase Filtration on Drwg M8.01																		
863	Sound Trap																		
864	Galvanized Ductwork @ 1st Floor Exposed to Weather																		
865	Galvanized Ductwork																		
866	Insulation																		
867	Fire/Smoke Dampers as shown																		
868	Grilles, Registers, & Diffusers																		
869	Capped Duct																		
870	Subtotal: Air Distribution																		
871																			
872	Supplemental Cooling Systems																		
873	Water Cooled Packaged Air Conditioning Units @ PDC Rooms (8 @ a																		
874	Water Cooled Packaged Air Conditioning Units @ Battery Rooms (4 @																		
875	Condensate Pumps																		
876	Galvanized Ductwork																		
877	Insulation																		
878	Grilles, Registers & Diffusers																		
879	Fire/Smoke Dampers as shown																		
880	Wire Mesh Screens																		
881	Subtotal: Supplemental Cooling Systems																		
882																			
883	Ventilation Systems																		
884	Battery Room Exhaust																		
885	Battery Room Exhaust Fans E-G-1,-G-2 (2 @ 400 cfm ea)																		
886	Motor Starters																		
887	Sound Trap																		
888	Galvanized Ductwork @ 1st Floor Exposed to Weather																		
889	Galvanized Ductwork																		
890	Insulation																		
891	Fire/Smoke Dampers as shown																		
892	Grilles, Registers, & Diffusers																		
893																			
894	Ejector Pump Room Exhaust																		
895	Ejector Pump Room Exhaust Fan E-G-3 (800 cfm)																		
896	Motor Starter																		
897	Sound Trap																		
898	Galvanized Ductwork @ 1st Floor Exposed to Weather																		
899	Galvanized Ductwork																		
900	Insulation																		
901	Fire/Smoke Dampers as shown																		
902	Grilles, Registers, & Diffusers																		
903																			
904	Commercial Car Park Exhaust																		
905	Commercial Car Park Exhaust Fans E-5-11,-5-12 (2 @ 25,000 cfm ea)																		
906	Variable Speed Drives (2 @ 20 hp ea)																		
907	Sound Trap ST-5-11,-5-12 (2 @ 22,500 cfm ea)																		
908	Galvanized Ductwork @ 1st Floor Exposed to Weather																		
909	Galvanized Ductwork																		
910	Insulation																		
911	Fire/Smoke Dampers as shown																		
912	Grilles, Registers, & Diffusers																		
913	Capped Duct																		
914																			
915	MER Exhaust E-70-1																		
916	Subtotal: Ventilation																		
917																			
918	Emergency Generator System																		
919	Emergency Generator System 200KW w/ Built-In Fuel Oil Storage Tank																		
920	Generator Exhaust																		
921	Muffler Installation																		
922	Calcium Silicate																		
923	Automatic Dampers																		
924	Intake & Discharge Plenum																		

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Ranking	BUILDING SYSTEM	Quantity	Unit	Unit Cost	Estimate	Intermediate Totals	Code	Percentages SPI	PAN	PARK	VSC	S A RI	RETAIL	Cost Breakouts SPI	PAN	PARK	VSC	S A RI	RETAIL
925	Sound Attenuators																		
926	Generator Exhaust Louvers																		
927	Subtotal: Emergency Generator System																		
928																			
929	Life Safety Fuel Oil System																		
930	Install Life Safety Fuel Oil Storage Tank 15,000 gals																		
931	Furnish Life Safety Fuel Oil Storage Tank 15,000 gals																		
932	Duplex Fuel Oil Pump Sets																		
933	Fuel Oil Filtration System																		
934	Fuel Oil Specialties																		
935	Fuel Oil Supply & Return Piping																		
936	Fuel Oil Fill & Vent Piping																		
937	Fuel Oil Initial Fill up for Testing																		
938	Fuel Oil Connections																		
939	Subtotal: Life Safety Fuel Oil System																		
940																			
941	Temporary Heating & Cooling																		
942	Temporary Heating & Cooling (assume not required)																		
943	Subtotal: Temporary Heating & Cooling																		
944																			
945	Automatic Temperature Controls																		
946	Temporary DDC Temperature Control System																		
947	Subtotal: Temporary DDC Temperature Control System																		
948																			
949	General HVAC Work Items																		
950	Rigging & Hoisting																		
951	Testing and Balancing																		
952	Seismic Restraints/Vibration Isolation																		
953	Sleeves & Fire Stopping																		
954	Permits & Fees																		
955	Commissioning																		
956	MEP Coordination																		
957	Overtime																		
958	3rd Party Commissioning Agent																		
959	Painting of Ductwork/Piping																		
960	Concrete Equipment Pads																		
961	Subtotal: General HVAC Work Items																		
962																			
963	Additional Scope and Allowances																		
964	Electric Unit Heater @ Level B1 T2 Water Meter Room																		
965	Duplex Steam Condensate Pump Set w/Receiver																		
966	Low Pressure Steam & Condensate Return Piping (allowance)																		
967	Low Pressure Steam & Condensate Return Piping to AC-B4-1/UH-1																		
968	Insulation																		
969	Steam & Condensate Specialties																		
970	AC Unit Connection																		
971	H&V Unit Connections																		
972	UH Connections																		
973	Connect to HUB Existing Steam & Condensate Return Piping																		
974	Heating Coil - Steam for AC-B4-1, V-G-1, V-S-1																		
975	Stainless Steel Premium for Ductwork @ 1st Floor Exposed to Weathe																		
976	Gallery Room Exhaust Fans E-G-1,-G-2 Premium for Explosion Proof																		
977	Extend (7) Existing 10" sleeves for Life Safety Fuel Oil System through																		
978	Temporary Ventilation																		
979	Floor Circulation Fans (10 @ 2 hp ea) based on Dayton Model 6 5K																		
980	Galvanized Ductwork																		
981	Installation and Support of Core MEP Duct Risers due to Day 2 conges																		
982	Galvanized Ductwork																		
983	Insulation																		
984	Horizontal Ductwork																		
985	Insulation																		
986	Capped Ductwork																		
987	Scaffolding for Shafts																		
988	Sleeves for Day 2																		
989	Spot Network Vault Ventilation																		
990	Additional Scope for Spot Network (i.e. AC unit, ductwork, etc.)																		
991	Additional Control Scope																		
992	Additional Misc. Equipment Changes																		
993	Subtotal: Additional Scope and Allowances																		
994																			
995	Base Building Congested Area																		
996	Furnish and Install Congested Area Distribution																		
997	Subtotal: Base Building Congested Area																		
998																			
999	H.V.A.C.																		
1000																			
1001	ELECTRICAL																		

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								SPI	PAH	PARK	VSC	S A RI	RETAIL	SPI	PAH	PARK	VSC	S A RI	RETAIL
1002																			
1003	Underground Electrical																		
1004	Underground Electric Work Contract Value																		
1005	Underground Electric Overtime Allowance																		
1006	Subtotal: Underground Electrical																		
1007																			
1008	Power and Distribution																		
1009	B4																		
1010	Empty Conduit to Tower 3 & 4 2x6 5" RGS																		
1011	B3																		
1012	Empty Conduit to Tower 3 & 4 2x6 5" RGS																		
1013	Empty Conduit to Tower 3 & 4 2x3 5" RGS																		
1014	Con Ed Feeders from B1 4-5" RGS 2 active 750 kcmil & 2 spare Hr																		
1015	Con Ed Feeders from B1 8-5" RGS 4 active 750 kcmil & 4 spare Vc																		
1016	Con Ed Feeders from B1 8-5" RGS 2 active 750 kcmil & 6 spare Vc																		
1017	Feeders from PDC-A to B, PDC-G to H 1-5" RGS 750 kcmil																		
1018	Furnish Only SPI PDC A, B, C, D, E, F, G, H and Ancillary Equipmt																		
1019	SPI PDC "A" Install Only																		
1020	SPI PDC "B" Install Only																		
1021	SPI PDC "C" Install Only																		
1022	SPI PDC "D" Install Only																		
1023	SPI PDC "E" Install Only																		
1024	SPI PDC "F" Install Only																		
1025	SPI PDC "G" Install Only																		
1026	SPI PDC "H" Install Only																		
1027	Delivery and Rigging of SPI PDC's																		
1028	Terminations at Pothead																		
1029	Meter Cubicle to Meter Pan 7-#10 1" EMT																		
1030	To Con Edison Totalizer 5-#12 3/4" EMT																		
1031	Terminations for Above Metering																		
1032	B3 Substation Music & Control Systems																		
1033	Music and Control Panels Install Only																		
1034	Cabling for Music and Control Panels 30-#12AWG in 1 1/2" RGS																		
1035	125v d. c. power to Music and Control Panels 3-#12AWG in 3/4" FI																		
1036	Short Circuit & Coordination Study																		
1037	B3 Substation Control Power Supply																		
1038	Feeder to AC Transfer Switches from DS-LC87 3-600 in 3 1/2" RG:																		
1039	Feeder between AC transfer switches A & B 3-000 in 3 1/2" RGS																		
1040	AC Transfer Switch ATS-A & B Install Only																		
1041	Feeders to Battery Chargers 3/2/0 in 1 1/2" RGS																		
1042	Battery Chargers Install Only																		
1043	Feeder Battery Charger to batteries 4 sets of 2-350 in 2" FRE																		
1044	Batteries Strings Install Only																		
1045	Feeder Battery String to d.c. Disconnect 4 sets of 2-350 in 2" FRE																		
1046	d. c. Disconnect Switch Install Only																		
1047	Feeder d. c. Disconnect to d. c. Transfer Switch ATS-C & D 4 sets																		
1048	Feeders between d. c. Transfer Switches ATS-C & D 4 sets of 2-35																		
1049	d. c. Transfer Switches ATS-C & D Install Only																		
1050	Feeders from d. c. Transfer Switches ATS-C & D to d. c. Panels A																		
1051	d. c. Panelboards A & B Install Only																		
1052	Feeders d. c. Panels A & B to Sub Panels A thru H 2 sets 2-300 in																		
1053	d. c. Panelboards A thru H Install Only																		
1054	d. c. Circuits to Switchgear Circuit Breakers for Control Power 30-#8 in 2 1/																		
1055	2 1/2" FRE																		
1056	#8 AWG																		
1057	Normal Power Riser																		
1058	Utility Feed 600A 4W From SS-B4 to DP-B3																		
1059	DP-B3 600A 480/277V																		
1060	Feeder 100A 4W DP-B3 to PP-HT-B3																		
1061	PP-HT-B3 100A 480/277V																		
1062	Feeder 70A 4W DP-B3 to LP-B3																		
1063	LP-B3 100A 480/277V																		
1064	Feeder 65A 4W DP-B3 to XFMR																		
1065	XFMR 45 kVA																		
1066	Feeder 175A 4W XFMR to UP-B3																		
1067	UP-B3 225A 208/120V																		
1068	Feeder SS-B4 200A to ATS P1 & P2																		
1069	Feeders 200A ATS-P1 & P2 to EDP1-B3 & EDP2-B3																		
1070	EDP1-B3 200A 480/277V																		
1071	EDP2-B3 200A 480/277V																		
1072	Feeder 100A 4W EDP1-B3 to ELP-B3																		
1073	ELP-B3 100A 480/277V																		
1074	Feeder 70A SS-B4 to ATS-FS																		
1075	XFMR, Fuse Cut-Outs & Circuits to FACP & DCP's																		
1076	Emergency Temporary Power Riser																		
1077	Emergency Feed from Generator 400A 4W to EMDP-B3																		
1078	EMDP-B3 400A 480/277V																		

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1156	Lighting Horn Strobe	[redacted]																	
1157	Timer Switch																		
1158	Roof Lighting (Additional F3 Fixtures at L2 Roof)																		
1159	Exterior Lighting (Additional F3 Fixtures at Perimeter)																		
1160	Branch Wiring EMT Conduit & Wire																		
1161	Core Lighting																		
1162	Subtotal: Lighting																		
1163																			
1164	Lighting Control System																		
1165	Lighting Controls - Allowance																		
1166	Subtotal: Lighting Control System																		
1167																			
1168	Convenience Power																		
1169	B4																		
1170	Emergency Duplex Receptacle																		
1171	Dedicated Duplex Receptacle																		
1172	Duplex Receptacle																		
1173	GFI Duplex Receptacle																		
1174	Duplex Receptacle at Circ Fans (4 per level)																		
1175	Branch Wiring EMT Conduit & Wire																		
1176	B3																		
1177	Emergency Duplex Receptacle																		
1178	Dedicated Duplex Receptacle																		
1179	Duplex Receptacle																		
1180	GFI Duplex Receptacle																		
1181	Duplex Receptacle at Circ Fans (4 per level)																		
1182	Branch Wiring EMT Conduit & Wire																		
1183	B2																		
1184	Emergency Duplex Receptacle																		
1185	Dedicated Duplex Receptacle																		
1186	Duplex Receptacle																		
1187	GFI Duplex Receptacle																		
1188	Duplex Receptacle at Circ Fans (4 per level)																		
1189	Branch Wiring EMT Conduit & Wire																		
1190	B1																		
1191	Emergency Duplex Receptacle																		
1192	Dedicated Duplex Receptacle																		
1193	Duplex Receptacle																		
1194	GFI Duplex Receptacle																		
1195	Duplex Receptacle at Circ Fans (4 per level)																		
1196	Branch Wiring EMT Conduit & Wire																		
1197	Ground Level																		
1198	Emergency Duplex Receptacle																		
1199	Dedicated Duplex Receptacle																		
1200	Duplex Receptacle																		
1201	GFI Duplex Receptacle																		
1202	GFI Duplex Receptacle on Roof																		
1203	Branch Wiring EMT Conduit & Wire																		
1204	Subtotal: Convenience Power																		
1205																			
1206	Equipment Connections																		
1207	B4																		
1208	DEP Pump 7 1/2 HP to Panel EDP2-B3																		
1209	Sump Pumps 20 HP to Panel EDP2-B3																		
1210	AC-B4-1 to Panel DP-B3																		
1211	Outside Air Fan 2 HP to Panel DP-B3																		
1212	Ejector Pumps 10 HP to Panel EDP2-B3																		
1213	Sump Pumps 10 HP to Panel EDP2-B3																		
1214	Circulation Fans, 4 per Floor, 2 HP Each																		
1215	B3																		
1216	PAC-3B-1 17FLA to Panel DP-B3																		
1217	PAC-Standby 17FLA to Panel DP-B3																		
1218	PAC-3B-3 17FLA to Panel DP-B3																		
1219	PAC-3B-9 16FLA to panel UP-B3																		
1220	Air Compressor 1/4 HP																		
1221	CW Pump 15 HP to Panel DP-B3																		
1222	PAC-3B-5 17FLA to Panel DP-B3																		
1223	PAC-B3-11 16 FLA to Panel UP-B3																		
1224	PAC-B3-7 17FLA to Panel DP-B3																		
1225	1/20 HP Small Ventilator																		
1226	Circulation Fans, 4 per Floor, 2 HP Each																		
1227	B2																		
1228	Water Heater 1/4 HP																		
1229	Air Compressor 1/2 HP																		
1230	Pre-Heater 1/4 HP																		
1231	CP-B2-1 1 HP																		
1232	Pumps 75 HP																		

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								SPI	PAH	PARK	VSC	S & RI	RETAIL	SPI	PAH	PARK	VSC	S & RI	RETAIL
1233	Circulation Fans, 4 per Floor, 2 HP Each																		
1234	B1																		
1235	Motors 5 kW Unit Heaters																		
1236	Motor 15 HP																		
1237	Circulation Fans, 4 per Floor, 2 HP Each																		
1238	Ground																		
1239	Dry Coolers 10 HP to DP-B3																		
1240	Battery Exhaust 1 HP to DP-B3																		
1241	E-S-4 20 HP to EDP1-B3																		
1242	E-S-12 20 HP to EDP1-B3																		
1243	Car Park Vent 20 HP to EDP1-B3																		
1244	Systems-All Levels																		
1245	Heat Trace Install Only																		
1246	Fire & Smoke Damper Power																		
1247	Subtotal: Equipment Connections																		
1248																			
1249	Telephone & Data																		
1250	IT Allowance None Shown based on Fit-Out Area																		
1251	Cat 6 Wire for Ethernet Switch at Each Substation in 3/4" EMT																		
1252	Terminate, Test and Label Cat 6 Cables																		
1253	Ethernet Switches																		
1254	Riser Cable & Conduits																		
1255	Telephone / Data Equipment																		
1256	Telephone / Data Riser Wiring																		
1257	Subtotal: Telephone & Data																		
1258																			
1259	Fire Alarm																		
1260	Fire Alarm System																		
1261	B4																		
1262	Area Smoke Detector																		
1263	Speaker Strobe																		
1264	Tamper Switches																		
1265	Flow Switches																		
1266	Manual Pull Station																		
1267	Fire Warden Station																		
1268	Strobe																		
1269	Speaker																		
1270	Fire Alarm Cable and Conduit																		
1271	Data Gathering Panel																		
1272	Fire Alarm Control Panel																		
1273	FA System Program, Certify, Test and Commission - 400 Hrs																		
1274	B3																		
1275	Area Smoke Detector																		
1276	Speaker Strobe																		
1277	Tamper Switches																		
1278	Flow Switches																		
1279	Manual Pull Station																		
1280	Fire Warden Station																		
1281	Strobe																		
1282	Speaker																		
1283	Fire Alarm Cable and Conduit																		
1284	Data Gathering Panel																		
1285	Fire Alarm Control Panel																		
1286	FA System Program, Certify, Test and Commission - 400 Hrs																		
1287	B2																		
1288	Area Smoke Detector																		
1289	Speaker Strobe																		
1290	Tamper Switches																		
1291	Flow Switches																		
1292	Manual Pull Station																		
1293	Fire Warden Station																		
1294	Strobe																		
1295	Speaker																		
1296	Fire Alarm Cable and Conduit																		
1297	Data Gathering Panel																		
1298	Fire Alarm Control Panel																		
1299	FA System Program, Certify, Test and Commission - 400 Hrs																		
1300	B1																		
1301	Area Smoke Detector																		
1302	Speaker Strobe																		
1303	Tamper Switches																		
1304	Flow Switches																		
1305	Manual Pull Station																		
1306	Fire Warden Station																		
1307	Strobe																		
1308	Speaker																		
1309	Fire Alarm Cable and Conduit																		

OPTION PRICING #1

TURNER
TOWERS 2,3&4 Primary Power
Power located at Tower #2 to feed Towers 2,3 &4
Owner: Silversteen
CM: Turner
GC
(8) MV PDC'S

ITEM H

ITEM I

ITEM J

ITEM K

ITEM L

ITEM M

ITEM N

UNIT #	DESCRIPTION	QTY	UNIT	TOTAL
1	INCOMING SERVICE CUBICLE	8	[redacted]	
2	CON EDISON METERING CUBICLE	6		
3	MAIN BREAKER CUBICLE	6		
4	FEEDER TOWER #2	8		
5	FEEDER TOWER #3	8		
6	FEEDER TOWER #4	8		
7	SPARE	8		
	MIMIC CONTROL AND ANNUINCIATOR PANEL	8		
	CON ED EO-2022 BATTERY SYSTEM	1		
	CON ED G&T DEVICE WITH STORAGE CUBICLE	5		
	CUSTOMER G&T DEVICE WITH STORAGE CUBICLE	5		
	SUB TOTAL #1			
	MISC ITEMS REQUIRED FOR A COMPLETE PROJECT			
A	**SHORT CIRCUIT AND COORDINATION STUDY**	1		
B	ADVISORY BOARD DRAWINGS	1		
C	**START UP SERVICES**	1		
D	TRAINING	1		
E	**KEY INTERLOCK SCHEME**	1		
F	***FACTORY WITNESS TESTING***	1		
G	OPERATION AND MAINTENANCE MANUALS	1		
H	DELIVERY TO SITE	1		
I	THIRD PARTY NETA TESTING BY INSTALLING CONTRACTOR (NOT INCLUDED)	0		
J	UNLOADING RIGGING INTO PLACE BY INSTALLING CONTRACTOR (NOT INCLUDED)	0		
	SUB TOTAL #2			

EXHIBIT EE-2

WTC Tower 3 Interim Podium Capping Plan

[see attached]

Exhibit EE-2.1

Capped Podium Building Construction Schedule

Exhibit EE-2.2

Restart Logistics Plan

Exhibit EE-2.3

Mothballed Logistics Plan

Exhibit EE-2.5

Drawing of SWOCC Area

EXHIBIT FF

New Mutual Release

[see attached]

2010 MUTUAL RELEASE AGREEMENT

THIS 2010 MUTUAL RELEASE AGREEMENT (this "2010 Mutual Release"), dated as of December 16, 2010, is made by and among: THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY, a body corporate and politic, created by compact between the States of New York and New Jersey with the consent of Congress, having its principal office at 225 Park Avenue South, New York, New York 10003 (the "Port Authority"); WTC RETAIL LLC, a Delaware limited liability company, formerly known as Westfield WTC LLC, having its principal office c/o The Port Authority, 225 Park Avenue South, New York, New York 10003 (the "Retail Lessee"); 1 WORLD TRADE CENTER LLC, a Delaware limited liability company, having its principal office c/o The Port Authority, 225 Park Avenue South, New York, New York 10003 ("1 WTC"); THE PORT AUTHORITY TRANS-HUDSON CORPORATION, a New York/New Jersey corporation ("PATH" and, together with the Port Authority, and the Retail Lessee 1 WTC, the "PA Parties"); and 2 WORLD TRADE CENTER LLC, a Delaware limited liability company ("2 WTC"), 3 WORLD TRADE CENTER LLC, a Delaware limited liability company ("3 WTC"), 4 WORLD TRADE CENTER LLC, a Delaware limited liability company ("4 WTC"), WORLD TRADE CENTER PROPERTIES LLC, a Delaware limited liability company ("WTC Prop"), 1 WTC HOLDINGS LLC, a Delaware limited liability company ("1 WTC HOLDINGS"), 2 WTC HOLDINGS LLC, a Delaware limited liability company ("2 WTC HOLDINGS"), 3 WTC HOLDINGS LLC, a Delaware limited liability company, formerly known as 5 WTC HOLDINGS LLC ("3 WTC HOLDINGS"), 4 WTC HOLDINGS LLC, a Delaware limited liability company ("4 WTC HOLDINGS"), SILVERSTEIN PROPERTIES, INC., a New York corporation ("SPI"), SILVERSTEIN EAST WTC FACILITY MANAGER LLC, a Delaware limited liability company ("SP Facility"), WTC REDEVELOPMENT LLC, a Delaware limited liability company ("SP Redevelopment"), SILVERSTEIN WTC MGMT. CO. LLC, a Delaware limited liability company ("SP Mgmt"), SILVERSTEIN WTC MGMT. CO. II LLC, a Delaware limited liability company ("SP Mgmt II"), SILVERSTEIN WTC PROPERTIES LLC, a Delaware limited liability company, formerly known as Silverstein WTC Manager LLC which, in turn, is formerly known as Silverstein WTC Associates LLC ("SP Prop"), SILVERSTEIN WTC LLC, a Delaware limited liability company ("SP WTC"),

SILVERSTEIN FREEDOM TOWER DEVELOPMENT LLC, a Delaware limited liability company ("SP FTD"), SILVERSTEIN 2/3/4 WTC REDEVELOPMENT LLC, a Delaware limited liability company ("2/3/4 WTC"), SPRING WORLD INC., a Delaware corporation ("Spring Sub"), SPRING WTC HOLDINGS INC., a Delaware corporation ("Spring Parent"), WTC MANAGEMENT AND DEVELOPMENT LLC, a Delaware limited liability company ("WTC Manager"), SILVERSTEIN WTC MANAGEMENT AND DEVELOPMENT LLC, a Delaware limited liability company ("Silverstein Manager"),WTC INVESTORS LLC, a Delaware limited liability company ("WTC Investors"), WTC INVESTORS MANAGEMENT AND DEVELOPMENT LLC, a Delaware limited liability company ("WTC Investors Mgmt") and the NET LESSEES' ASSOCIATION OF THE WORLD TRADE CENTER, an unincorporated association formed pursuant to the REOA (the "NLA" and, together with 2 WTC, 3 WTC, 4 WTC, WTC Prop, 1 WTC Holdings, 2 WTC Holdings, 3 WTC Holdings, 4 WTC Holdings, SPI, SP Facility, SP Redevelopment SP Mgmt, SP Mgmt II, SP Prop, SP WTC, SP FTD, 2/3/4 WTC, Spring Sub, Spring Parent, WTC Manager, Silverstein Manager, WTC Investors and WTC Investors Mgmt, the "Silverstein Parties"), each having its principal office c/o Silverstein Properties, Inc., 7 World Trade Center, New York, New York 10007. The Silverstein Parties and the PA Parties are collectively referred to as the "Parties".

WITNESSETH:

WHEREAS, following the terrorist attacks of September 11, 2001, certain of the PA Parties and the Silverstein Parties have been engaged in the redevelopment of the portion of the World Trade Center site bounded by Vesey, Church, Liberty and West Streets (the "Redevelopment");

WHEREAS, in connection with the Redevelopment, certain of the PA Parties and Silverstein Parties entered into that certain Master Development Agreement for Towers 2, 3, and 4 of the World Trade Center, made as of November 16, 2006 (the "MDA"), together with numerous other agreements related to the Redevelopment, which allocated rights and responsibilities between and among the PA Parties and the Silverstein Parties (collectively, the "2006 Deal Documents");

WHEREAS, in connection with the execution of the MDA, the PA Parties and the Silverstein Parties executed a mutual release dated as of November 16, 2006 (the "2006 Mutual Release") as one of the 2006 Deal Documents;

WHEREAS, since the execution of the 2006 Mutual Release, certain disputes have arisen between the PA Parties and the Silverstein Parties, including, but not limited to, those claims brought in an arbitration commenced by certain of the Silverstein Parties against the Port Authority by Notice of Arbitration dated November 12, 2008 ("Arbitration One") and in an arbitration commenced by certain of the Silverstein Parties against the Port Authority by Notice of Arbitration dated August 4, 2009 ("Arbitration Two"), both brought concerning issues arising in connection with the Redevelopment; and

WHEREAS, the PA Parties and the Silverstein Parties have resolved these disputes and desire to work together collaboratively to complete the Redevelopment of the World Trade Center, and in connection therewith are simultaneously herewith entering into an Amended and Restated MDA and numerous other agreements, including this 2010 Mutual Release, related to the Redevelopment (the "2010 Deal Documents").

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the PA Parties and the Silverstein Parties hereby agree as follows:

1. PA Release of Silverstein. Except as provided in Section 2, each of the Silverstein Parties, and (i) each of their respective shareholders, officers, directors, members, partners, managers, employees, beneficiaries, successors and permitted assigns who, in the case of each of the foregoing, are individuals, and (ii) any intermediate limited liability companies whose sole involvement of any kind and at any time in or with the World Trade Center is as a holding company through which one or more members directly or indirectly hold their interests in a Silverstein Party, and any members of such limited liability companies who are individuals ((i) and (ii) collectively, the "Individual SP Releasees" and, collectively with the Silverstein Parties, the "SP Group"), is hereby released by each of the PA Parties from all known and unknown claims, causes of action, suits, actions, arbitrations, inquiries, litigations, proceedings, controversies, wrongdoings, disputes,

governmental or regulatory investigations, liabilities, damages, costs, obligations, judgments, contracts, covenants, commitments, promises, and demands, in each case at law, in equity or otherwise (collectively, "Claims") that any of the PA Parties has or may have, as of the date of this 2010 Mutual Release, against any member of the SP Group (collectively, "SP Released Claims").

2. Exceptions to SP Released Claims. All releases under this 2010 Mutual Release in favor of any member of the SP Group shall be void ab initio if such member hereafter participates in or causes to be asserted any Claim against any member of the PA Group pursuant to, relating to, or arising from or under any of the PA Released Claims. In addition to the foregoing, the SP Released Claims shall not include any of the following:

(a) Claims regarding enforcement of this 2010 Mutual Release or any of the 2010 Deal Documents; and

(b) Claims to which a third party would be subrogated by virtue of any insurance policy, to the extent, if any, that the release of such Claims would impair subrogation and, as a result, diminish insurance coverage or recovery; and

(c) Claims of the Retail Lessee arising prior to December 23, 2003, or of any Westfield WTC LLC ("Westfield") related entity arising prior to, on or after December 23, 2003, or arising out of the April 2005 Stipulation between Zurich American Insurance Company ("Zurich") and certain Silverstein Parties (the "Stipulation") and all related commitments or agreements on the part of the carriers excess to Zurich to be bound by the Stipulation, that any Westfield Entity may pursue directly or through, or with the cooperation (as named plaintiff or otherwise) of, the Retail Lessee or any other PA Party.

3. Silverstein Release of PA. Except as provided in Section 4, each of the PA Parties, their successors and assigns, and each of their respective individual shareholders, officers, directors, commissioners, members, partners, managers, direct and indirect owners and affiliates, employees, subsidiaries, beneficiaries, from time to time, (collectively, the "Individual PA Releasees" and, collectively with the PA Parties, the "PA Group"), is hereby released by each of the SP Group from:

(a) all known and unknown Claims that any member of the SP Group has or may have, as of the date of this 2010 Mutual Release, against any member of the PA Group; and

(b) all future Claims that any member of the SP Group may have against any member of the PA Group and/or any of its current or future affiliates pursuant to, relating to, or arising from, or in connection with, any matter relating to the performance or future performance by the PA Group under Sections 2.3 and 6.15 of the Freedom Tower Development Agreement by and between 1 World Trade Center LLC and Silverstein Freedom Tower Developer LLC dated as of November 16, 2006, including but not limited to Claims related to any future transaction between any of the PA Parties and/or any of their affiliates and The Durst Organization and any affiliates thereof (collectively with the Claims released in Section 3(a), the "PA Released Claims").

4. Exception to PA Released Claims. All releases under this 2010 Mutual Release in favor of any member of the PA Group shall be void ab initio if such member hereafter asserts any Claim against any member of the SP Group pursuant to, relating to, or arising from or under any of the SP Released Claims. In addition to the foregoing, the PA Released Claims shall not include any of the following:

(a) Claims regarding the enforcement of this 2010 Mutual Release or any of the 2010 Deal Documents; and

(b) Claims to which a third party would be subrogated by virtue of any insurance policy, to the extent, if any, that the release of such Claims would impair subrogation and, as a result, diminish insurance coverage or recovery.

5. Covenant Not to Sue. Each of the PA Parties hereby agrees never to sue or arbitrate with any of the Silverstein Parties, and each of the Silverstein Parties hereby agrees never to sue or arbitrate with any of the PA Parties, in each case for or based upon any Claim released hereunder.

6. Defense. This 2010 Mutual Release may be treated as a full-and-complete defense to, and, subject to the Port Authority Legislation, as defined below, used as a basis for an injunction against, any action, suit or other proceeding that may be instituted, prosecuted or attempted in breach

of this 2010 Mutual Release. "Port Authority Legislation" shall mean the concurrent legislation of the State of New York and the State of New Jersey set forth at Chapter 301 of the Laws of New York of 1950, as amended by Chapter 938 of the Laws of New York of 1974 (McKinney's Unconsolidated Laws Sec. 7101-7112) and Chapter 204 of the Laws of New Jersey of 1951 (N.J.S.A. 32:1-157 to 32:1-168) as amended from time to time.

7. No Admission. Nothing contained in this 2010 Mutual Release shall be construed at any time as an admission by any of the PA Parties or any of the Silverstein Parties.

8. No Prior Transfer of Claims. Each of the Parties represents and warrants to the others that it has not transferred, assigned or otherwise conveyed any of its rights, title or interest in or to any of the Claims released by this 2010 Mutual Release.

9. Representations and Warranties.

(a) The Silverstein Parties represent and warrant to the PA Parties that (i) each Silverstein Party's execution, delivery and performance of this 2010 Mutual Release have been duly authorized by all necessary action, and (ii) this 2010 Mutual Release has been duly executed and delivered by each Silverstein Party and, assuming this 2010 Mutual Release constitutes the valid and binding obligation of the PA Parties, is the valid and binding obligation of each Silverstein Party, enforceable against such Party in accordance with its terms.

(b) The PA Parties represent and warrant to the Silverstein Parties that (i) each PA Party's execution, delivery and performance of this Mutual Release have been duly authorized by all necessary action, and (ii) this Mutual Release has been duly executed and delivered by each PA Party and, assuming this Mutual Release constitutes the valid and binding obligation of the Silverstein Parties, is the valid and binding obligation of each PA Party, enforceable against such Party in accordance with its terms.

(c) The Silverstein Parties represent and warrant that the Silverstein Parties are all of the entities in which Larry A. Silverstein, any member of his family or any trust for the benefit of any of them has had or now has a direct or indirect interest and that, since July 16, 2001, has had or

now has an ownership interest or economic interest in any portion of the World Trade Center (which, for avoidance of doubt, does not include 7 World Trade Center or the site therefor, to which this mutual release is inapplicable) or that has performed any work or provided materials or services of any kind in connection with the redevelopment of any portion of the World Trade Center.

(d) The PA Parties represent and warrant that the PA Parties are all of the entities in which the Port Authority has had or now has a direct or indirect interest and that, since July 16, 2001, has had or now has an ownership interest or economic interest in any portion of the World Trade Center or that has performed any work or provided materials or services of any kind in connection with the redevelopment of any portion of the World Trade Center.

10. Joint Drafting. Each of the Parties hereby acknowledges and agrees that it has been represented by counsel of its own choosing in connection with the execution and delivery of this 2010 Mutual Release, and any ambiguity in or dispute about the meaning of any term or provision of this 2010 Mutual Release shall not be construed against any of the Parties, but shall be construed as if this 2010 Mutual Release were jointly drafted.

11. No Mutual Mistake. Each of the Parties acknowledges and agrees that this 2010 Mutual Release fully and finally settles all Claims released hereunder, and shall not be subject to any claim of mutual mistake or mistake of facts.

12. Binding Effect; Assignment. This 2010 Mutual Release shall be binding upon each of the Parties and upon their respective successors and permitted assigns; provided, however, that no rights or obligations under this 2010 Mutual Release may be assigned or transferred by any of the Silverstein Parties without the express prior written consent of the Port Authority, and no rights or obligations under this 2010 Mutual Release may be assigned or transferred by any of the PA Parties without the express prior written consent of SPI.

13. No Third-Party Beneficiaries. Nothing in this 2010 Mutual Release is intended or shall be construed to confer upon or give to any person, other than the Parties, the Individual PA

Releasees and the Individual SP Releasees, any rights or remedies under or by reason of this 2010 Mutual Release.

14. Amendment. This 2010 Mutual Release may be amended or modified only by a written instrument signed by all of the Parties.

15. Severability. If a court of competent jurisdiction finds any provision of this 2010 Mutual Release to be invalid or unenforceable as to any person or circumstance, (a) such finding shall not render that provision invalid or unenforceable as to any other person or circumstance, and (b) any such invalid or unenforceable provision shall be deemed modified to the minimum extent required to cause it to be enforceable and valid; provided, however, that if any such provision cannot be so modified, it shall be stricken and all other provisions of this 2010 Mutual Release shall remain valid and enforceable.

16. Expenses. Each of the Parties agrees that, in the event of a dispute or any legal action taken to enforce or construe the terms of this 2010 Mutual Release, the prevailing party in such dispute or legal action shall be entitled to recover its costs and expenses, including reasonable attorneys' fees, in addition to any other relief awarded in such dispute or legal action.

17. Entire Agreement. This 2010 Mutual Release constitutes the entire agreement between or among the Parties, and supersedes any prior agreements or understandings between or among them, relating to the subject matter of this 2010 Mutual Release.

18. Remedies; Waivers. The rights and remedies of the Parties under this 2010 Mutual Release shall be cumulative and are not exclusive of any rights or remedies otherwise existing at law or in equity. Neither the failure nor any delay in exercising any right, power or privilege under this 2010 Mutual Release will operate as a waiver of such right, power or privilege, and no single or partial exercise of any such right, power or privilege will preclude any other or further exercise of such right, power or privilege or the exercise of any other right, power or privilege. To the maximum extent permitted by applicable law: (a) no waiver of any right or remedy under this 2010 Mutual Release shall be effective unless in a writing signed by the Party to be bound thereby; (b) no

waiver that may be given by any such Party will be applicable, except in the specific instance for which such waiver is given; and (c) no notice to or demand on any such Party will be deemed to be a waiver of any obligation or right of such Party to take further action without notice or demand as provided in this 2010 Mutual Release.

19. Counterparts. This 2010 Mutual Release may be executed and delivered in counterparts, each of which, when so executed and delivered, shall be deemed an original, but such counterparts shall together constitute but one and the same instrument.

20. Governing Law; Consent to Jurisdiction. This 2010 Mutual Release shall be governed by, and construed in accordance with, the laws of the State of New York without regard to the choice of law rules for the State of New York. Without limiting the generality of the foregoing, with respect to any claim or notice arising hereunder, all Parties (and, with respect to the Port Authority, subject to the terms of the Port Authority Legislation), to the maximum extent permitted by applicable law, irrevocably and unconditionally submit to the jurisdiction of the New York State Supreme Court, County of New York, in connection with any proceedings commenced regarding this 2010 Mutual Release, and all Parties irrevocably submit to the jurisdiction of said court for the determination of all issues in such proceedings, without regard to choice of law principles and irrevocably waive (and, with respect to the Port Authority, subject to the terms of the Port Authority Legislation) to the maximum extent permitted by law, any objection to venue or inconvenient forum.

21. Disclaimer of Personal Liability. Neither the Commissioners of the Port Authority nor the shareholders, members, directors or partners of the Port Authority, nor any officer, agent, or employee of the Port Authority shall be charged personally by any party hereto with any liability or held liable to them under any term or provision of this 2010 Mutual Release, or because of its execution or attempted execution, or because of any breach or attempted or alleged breach thereof.

22. Rules of Construction. The definitions in this 2010 Mutual Release shall apply equally to both the singular and plural forms of the terms defined. Whenever the context may require, any pronoun shall include the corresponding masculine, feminine and neuter forms. The

words "include," "includes" and "including" shall be deemed to be followed by the phrase "but not limited to" and any list of examples following such term shall in no way restrict or limit the generality of the word or provision in respect of which such examples are provided. Words such as "herein," "hereof," "hereto," "hereby" and "hereunder" refer to this 2010 Mutual Release, taken as a whole. Except as otherwise expressly provided herein: (a) any reference in this 2010 Mutual Release to any agreement shall mean such agreement as amended, restated, supplemented or otherwise modified from time to time; and (b) any reference in this 2010 Mutual Release to any law shall include corresponding provisions of any successor law and any regulations and rules promulgated pursuant to such law or such successor law. Neither the captions to Sections or subdivisions thereof shall be deemed to be a part of this 2010 Mutual Release.

[Remainder of this page intentionally left blank]

EXECUTION

IN WITNESS WHEREOF, each of the Parties hereto has caused this Mutual Release to be duly executed by its authorized representative as of the date first written above.

THE PA PARTIES:

The Port Authority of New York and New Jersey

By:_____
Name:
Title:

WTC Retail LLC

By:_____
Name:
Title:

1 World Trade Center LLC

By:_____
Name:
Title:

The Port Authority Trans-Hudson Corporation

By:_____
Name:
Title:

THE SILVERSTEIN PARTIES:

2 World Trade Center LLC

By:_____
Name:
Title:

3 World Trade Center LLC

By:_____
Name:
Title:

4 World Trade Center LLC

By:_____
Name:
Title:

World Trade Center Properties LLC

By:_____
Name:
Title:

Silverstein Properties, Inc.

By:_____
Name:
Title:

Silverstein WTC Facility Manager LLC

By:_____
Name:
Title:

Silverstein WTC Mgmt. Co. LLC

By:_____
Name:
Title:

1 WTC Holdings LLC

By:_____
Name:
Title:

2 WTC Holdings LLC

By:_____
Name:
Title:

3 WTC Holdings LLC

By:_____
Name:
Title:

4 WTC Holdings LLC

By:_____
Name:
Title:

WTC Redevelopment LLC

By:_____
Name:
Title:

Silverstein WTC Properties LLC

By:_____
Name:
Title:

Silverstein WTC LLC

By:_____
Name:
Title:

2/3/4 WTC Redevelopment LLC

By:_____
Name:
Title:

Spring World Inc.

By:_____
Name:
Title:

Spring WTC Holdings Inc.

By:_____
Name:
Title:

WTC Investors LLC

By:_____
Name:
Title:

The Net Lessees Association

By:_____
Name:
Title: