Torres Rojas, Genara

From: dmorris@tectonicengineering.com
Sent: Thursday, August 07, 2014 9:59 AM
To: Duffy, Daniel; American, Heavyn-Leigh
Cc: Torres Rojas, Genara; Van Duyne, Sheree
Subject: Freedom of Information Online Request Form

Information:

First Name: David
Last Name: Morris
Company: Tectonic Engineering
Mailing Address 1: 160 Pehle Avenue, Suite 306
Mailing Address 2:
City: Saddle Brook
State: NJ
Zip Code: 07663
Email Address: dmorris@tectonicengineering.com
Phone: 2018430403
Required copies of the records: Yes

List of specific record(s):
Request for a copy of the Additional AE Services for WTC Streets, Utilities and Infrastructure awarded to Downtown Sreetscape Partners on 12312014 associated with reference number TCC0700001.

THE PORT AUTHORITY OF NY & NJ

FOI Administrator

December 31, 2014

Mr. David Morris
Tectonic Engineering
160 Pehle Avenue, Suite 306
Saddle Brook, NJ 07663

Re: Freedom of Information Reference No. 15195

Dear Mr. Morris:

This is in response to your August 7, 2014 request, which has been processed under the Port Authority's Freedom of Information Code (the "Code", copy enclosed) for "a copy of the Additional AE Services for WTC Streets, Utilities and Infrastructure awarded to Downtown Sreetscape Partners on 12312014 associated with reference number TCC0700001."

Material responsive to your request and available under the Code can be found on the Port Authority's website at http://www.panynj.gov/corporate-information/foi/15195-C.pdf. Paper copies of the available records are available upon request.

Certain portions of the material responsive to your request are exempt from disclosure pursuant to exemptions (1) and (4) of the Code.

Please refer to the above FOI reference number in any future correspondence relating to your request.

Very truly yours,

Daniel D. Duffy
FOI Administrator

Enclosure

225 Park Avenue South, 17th FL
New York, NY 10003
T: 212 435 3642 F: 212 435 7555

THE PORT AUTHORITY OF NY & NJ

February 20, 2014

Downtown Streetscape Partners
100 Broadway, 4th Floor
New York, NY 10006

Attention: Jessica M. Forse, P.E.
Project Manager

SUBJECT: DSP CHANGE ORDER # CO-13-004 – ADDITIONAL ARCHITECTURAL AND ENGINEERING SERVICES FOR UPDATES TO THE PHASE III – LIBERTY PARK FINAL DESIGN FOR SPI MODIFICATIONS

Reference 1: Performance of Expert Professional Architectural and Engineering Services for the World Trade Center, Streets, Utilities and Related Infrastructure Design (P.A. Agreement No. TCC0700001 and P.O. No. TCP0700001)

Reference 2: Notice to Proceed, Dated December 9, 2013

Dear Ms. Forse:

The Authority hereby accepts your revised proposal dated February 14, 2014, which is attached hereto and incorporated into the referenced agreement by reference, for providing additional Architectural and Engineering services for updates to the Phase III – Liberty Park Final Design for SPI Modifications. This revised proposal incorporates services provided and authorized in the initial December 9, 2013 Notice to Proceed.

Total compensation for the performance of the above-mentioned services shall not exceed the amount of **$385,565**. The Consultant shall employ, to every extent possible, the most cost effective methods of performing the Scope of Services as defined in the attached. This includes, but is not limited to, utilizing appropriate staff as needed (i.e. combining management and technical efforts) and tracking hours of technical staff. This notification shall serve as agreement that the Consultant's additional services have reached 100% completion, and that no further charges shall be applied to this Change Order.

The previously authorized total amount for the referenced agreement is increased from **$25,326,500 to $25,712,065.**

The average Downtown Streetscape Partners multiplier for the aforementioned work is **2.36.**

115 Broadway
6th Floor
New York, NY 10006

The above referenced agreement remains in full force and the performance of the requested additional services is subject to the terms and conditions of such referenced agreement.

Upon receipt by the Authority of a copy of this letter executed by a principal of your firm, you are authorized to proceed with performance of the requested additional services.

Any questions relating to the performance of the subject services may be directed to Charlie Bontempo, telephone (212) 435-5131.

Sincerely,

Carla Bonacci, AIA, PP
Assistant Director
WTC Construction Department

Accepted:
Downtown Streetscape Partners

Jessica M. Forse, P.E., Project Manager Date 2/25/14

Table 1: WTC Streets, Utilities, and Related Infrastructure Design
CO-13-004 SPI Updates
Fee Proposal - Summary
1/21/2014 -Revised 2/18/2014

Firm		TASK A		TASK B		TASK C		TASK D		TASK E		TASK F		TASK G		TASK H		TASK I		Total	
		Hrs	Cost	Hrs	Cost	Hrs	Cost	Hrs	Cost	Hrs	Cost	Hrs	Cost	Hrs	Cost	Hrs	Cost	Hrs	Cost	Hrs	Cost
Edwards and Kelcey Engineers, Inc.		0		140		132		460		24		0		0		0		0		756	
	Labor		$ -		$ 15,669.20		$ 13,188.27		$ 44,829.22		$ 2,331.80		$ -		$ -		$ -		$ -		$76,018.50
	Fee		$ -		$ 1,566.92		$ 1,318.83		$ 4,482.92		$ 233.18		$ -		$ -		$ -		$ -		$7,601.85
	Total		$ -		$ 17,236.12		$ 14,507.10		$ 49,312.14		$ 2,564.98		$ -		$ -		$ -		$ -		$83,620.35
DMJM Harris		0		0		0		500		0		0		0		0		0		500	
	Labor		$ -		$ -		$ -		$ 67,725.00		$ -		$ -		$ -		$ -		$ -		$67,725.00
	Fee		$ -		$ -		$ -		$ 6,772.50		$ -		$ -		$ -		$ -		$ -		$6,772.50
	Total		$ -		$ -		$ -	0	$ 74,497.50		$ -		$ -		$ -		$ -		$ -		$74,497.50
EDAW Landscape		0		0		424		930		0		0		0		0		0		1354	
	Labor		$ -		$ 7,104.02		$ 39,486.41		$ 91,328.14		$ -		$ -		$ -		$ -		$ -		$137,918.57
	Fee		$ -		$ 710.40		$ 3,948.64		$ 9,132.81		$ -		$ -		$ -		$ -		$ -		$13,791.86
	Total		$ -		$ 7,814.43		$ 43,435.05		$ 100,460.95		$ -		$ -		$ -		$ -		$ -		$151,710.42
STV, Inc.		0		0		0		480		0		0		0		0		0		480	
	Labor		$ -		$ -		$ -		$ 44,403.76		$ -		$ -		$ -		$ -		$ -		$44,403.76
	Fee		$ -		$ -		$ -		$ 4,440.38		$ -		$ -		$ -		$ -		$ -		$4,440.38
	Total		$ -		$ -		$ -		$ 48,844.14		$ -		$ -		$ -		$ -		$ -		$48,844.14
T H Engineers, P.C.		0		0		0		200		0		0		0		0		0		200	
	Labor		$ -		$ -		$ -		$ 12,412.00		$ -		$ -		$ -		$ -		$ -		$12,412.00
	Fee		$ -		$ -		$ -		$ 1,241.20		$ -		$ -		$ -		$ -		$ -		$1,241.20
	Total		$ -		$ -		$ -		$ 13,653.20		$ -		$ -		$ -		$ -		$ -		$13,653.20
Medina Consultants				0		0		0						0		0		0		0	
	Labor				$ -		$ -		$ -						$ -						$0.00
	Fee				$ -		$ -		$ -						$ -						$0.00
	Total		-		$ -		$ -		$ -		$ -		$ -		$ -						$0.00
Two Twelve Harakawa, Inc		0		0		0		0		0		0		0		0		0		0	
	Labor		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$0.00
	Fee		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$0.00
	Total		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$0.00
SAIC																					
	Labor																				$0.00
	Fee																				$0.00
	Total		$ -		$ -		$ -		$ -		$ -		$ -		$ -						$0.00
Weidlinger Associates, Inc.																					
	Labor																				$0.00
	Fee																				$0.00
	Total		$ -		$ -		$ -		$ -		$ -		$ -		$ -						$0.00
EPM, Inc.																					
	Labor																				$0.00
	Fee																				$0.00
	Total		$ -		$ -		$ -		$ -		$ -		$ -		$ -						$0.00
Fisher Marantz Stone		0		0		0		90		0		0		0		0		0		90	
	Labor		$ -		$ -		$ -		$ 12,036.00		$ -		$ -		$ -		$ -		$ -		$12,036.00
	Fee		$ -		$ -		$ -		$ 1,203.60		$ -		$ -		$ -		$ -		$ -		$1,203.60
	Total		$ -		$ -		$ -		$ 13,239.60		$ -		$ -		$ -		$ -		$ -		$13,239.60
Subtotal																					
	Labor		$0.00		$22,773.22		$52,674.68		$272,734.12		$2,331.80		$0.00		$0.00		$0.00		$0.00		$350,513.82
	Fee		$0.00		$2,277.32		$5,267.47		$27,273.41		$233.18		$0.00		$0.00		$0.00		$0.00		$35,051.38
	Total		$0.00		$25,050.55		$57,942.15		$300,007.53		$2,564.98		$0.00		$0.00		$0.00		$0.00		$385,565.21
Direct Expenses																					
	Total	0	$0.00	140	$25,050.55	556	$57,942.15	2,660	$300,007.53	24	$2,564.98	0	$0.00	0	$0.00	0	$0.00	0	$0.00	3,380	$385,565.21

Table 1: WTC Streets, Utilities, and Related Infrastructure Design
CO-13-004 SPI Updates
Edwards and Kelcey
Fee Proposal
1/21/2014 - Revised 2/18/14

	Project Manager	Architect/QA	Engineer IV	Engineer IV	Engineer II	Irrigation Des	Total
	$98.30	$85.00	$46.88	$45.19	$35.00	$30.00	
Task A: Project Schedule							
Hours	0	0	0	0	0	0	0
Direct Labor	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
w/ Multiplier 2.15	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
10 % Profit	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task A Total	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task B: Meetings and Management							
Hours	0	40	100	0	0	0	140
Direct Labor	$0.00	$2,600.00	$4,688.00	$0.00	$0.00	$0.00	$7,288.00
w/ Multiplier 2.15	$0.00	$5,590.00	$10,079.20	$0.00	$0.00	$0.00	$15,669.20
10 % Profit	$0.00	$559.00	$1,007.92	$0.00	$0.00	$0.00	$1,566.92
Task B Total	$0.00	$6,149.00	$11,087.12	$0.00	$0.00	$0.00	$17,236.12
Task C: Develop Liberty Park Layout Alternatives							
Hours	0	0	100	32	0	0	132
Direct Labor	$0.00	$0.00	$4,688.00	$1,446.08	$0.00	$0.00	$6,134.08
w/ Multiplier 2.15	$0.00	$0.00	$10,079.20	$3,109.07	$0.00	$0.00	$13,188.27
10 % Profit	$0.00	$0.00	$1,007.92	$310.91	$0.00	$0.00	$1,318.83
Task C Total	$0.00	$0.00	$11,087.12	$3,419.98	$0.00	$0.00	$14,507.10
Task D: Design Update to Contract Documents							
Hours	0	80	60	200	40	80	460
Direct Labor	$0.00	$5,200.00	$2,812.80	$9,038.00	$1,400.00	$2,400.00	$20,850.80
w/ Multiplier 2.15	$0.00	$11,180.00	$6,047.52	$19,431.70	$3,010.00	$5,160.00	$44,829.22
10 % Profit	$0.00	$1,118.00	$604.75	$1,943.17	$301.00	$516.00	$4,482.92
Task D Total	$0.00	$12,298.00	$6,652.27	$21,374.87	$3,311.00	$5,676.00	$49,312.14
Task E: Construction Cost Estimate							
Hours	0	0		24	0	0	24
Direct Labor	$0.00	$0.00	$0.00	$1,084.56	$0.00	$0.00	$1,084.56
w/ Multiplier 2.15	$0.00	$0.00	$0.00	$2,331.80	$0.00	$0.00	$2,331.80
10 % Profit	$0.00	$0.00	$0.00	$233.18	$0.00	$0.00	$233.18
Task E Total	$0.00	$0.00	$0.00	$2,564.98	$0.00	$0.00	$2,564.98
Task F:							
Hours	0	0	0	0	0	0	0
Direct Labor	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
w/ Multiplier 2.15	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
10 % Profit	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task F Total	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task G:							
Hours	0	0	0	0	0	0	0
Direct Labor	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
w/ Multiplier 2.15	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
10 % Profit	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task G Total	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task H:							
Hours	0	0	0	0	0	0	0
Direct Labor	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
w/ Multiplier 2.15	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
10 % Profit	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task H Total	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task I:							
Hours	0	0	0	0	0	0	0
Direct Labor	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
w/ Multiplier 2.15	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
10 % Profit	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task I Total	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Total Cost	$0.00	$18,447.00	$28,826.51	$27,359.83	$3,311.00	$5,676.00	$83,620.35

Table 1: WTC Streets, Utilities, and Related Infrastructure Design
CO-13-004 SPI Updates
DMJM
Fee Proposal
1/21/2014 - Revised 2/18/14

	Engineer VII	Engineer VI	Engineer V	Engineer IV	Scheduler	Engineer II	Total
	$75.00	$65.00	$55.00	$45.00	$42.50	$34.50	
Task A: Project Schedule							
Hours	0	0	0	0	0	0	0
Direct Labor	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
w/ Multiplier 2.15	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
10 % Profit	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task A Total	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task B: Meetings and Management							
Hours	0	0	0	0	0	0	0
Direct Labor	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
w/ Multiplier 2.15	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
10 % Profit	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task B Total	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task C: Develop Liberty Park Layout Alternatives							
Hours	0	0	0	0	0	0	0
Direct Labor	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
w/ Multiplier 2.15	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
10 % Profit	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task C Total	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task D: Design Update to Contract Documents							
Hours	0	400	100	0	0	0	500
Direct Labor	$0.00	$26,000.00	$5,500.00	$0.00	$0.00	$0.00	$31,500.00
w/ Multiplier 2.15	$0.00	$55,900.00	$11,825.00	$0.00	$0.00	$0.00	$67,725.00
10 % Profit	$0.00	$5,590.00	$1,182.50	$0.00	$0.00	$0.00	$6,772.50
Task D Total	$0.00	$61,490.00	$13,007.50	$0.00	$0.00	$0.00	$74,497.50
Task E: Construction Cost Estiamte							
Hours	0	0	0	0	0	0	0
Direct Labor	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
w/ Multiplier 2.15	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
10 % Profit	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task E Total	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task F:							
Hours	0	0	0	0	0	0	0
Direct Labor	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
w/ Multiplier 2.15	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
10 % Profit	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task F Total	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task G:							
Hours	0	0	0	0	0	0	0
Direct Labor	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
w/ Multiplier 2.15	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
10 % Profit	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task G Total	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task H:							
Hours	0	0	0	0	0	0	0
Direct Labor	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
w/ Multiplier 2.15	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
10 % Profit	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task H Total	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task I:							
Hours							0
Direct Labor	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
w/ Multiplier 2.15	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
10 % Profit	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task I Total	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Total Cost	$0.00	$61,490.00	$13,007.50	$0.00	$0.00	$0.00	$74,497.50

Table 1: WTC Streets, Utilities, and Related Infrastructure Design
CQ-13-004 SPI Updates
EDAW
Fee Proposal
1/21/2014 - Revised 2/18/14

	Joe Brown	Design Manager	Sr Land Architect	Architect	Land Architect	Total
	$184.25	$55.29	$43.27	$55.00	$33.00	
Task A: Project Schedule						
Hours	0	0	0	0	0	0
Direct Labor	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
w/ Multiplier 2.28	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
10 % Profit	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task A Total	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task B: Meetings and Management						
Hours	0	12	16	8	40	0
Direct Labor	$0.00	$663.48	$692.32	$440.00	$1,320.00	$3,115.80
w/ Multiplier 2.28	$0.00	$1,512.73	$1,578.49	$1,003.20	$3,009.60	$7,104.02
10 % Profit	$0.00	$151.27	$157.85	$100.32	$300.96	$710.40
Task B Total	$0.00	$1,664.01	$1,736.34	$1,103.52	$3,310.56	$7,814.43
Task C: Develop Liberty Park Layout Alternatives						
Hours	0	40	100	64	220	424
Direct Labor	$0.00	$2,211.60	$4,327.00	$3,520.00	$7,260.00	$17,318.60
w/ Multiplier 2.28	$0.00	$5,042.45	$9,865.56	$8,025.60	$16,552.80	$39,486.41
10 % Profit	$0.00	$504.24	$986.56	$802.56	$1,655.28	$3,948.64
Task C Total	$0.00	$5,546.69	$10,852.12	$8,828.16	$18,208.08	$43,435.05
Task D: Design Update to Contract Documents						
Hours	0	180	200	150	400	930
Direct Labor	$0.00	$9,952.20	$8,654.00	$8,250.00	$13,200.00	$40,056.20
w/ Multiplier 2.28	$0.00	$22,691.02	$19,731.12	$18,810.00	$30,096.00	$91,328.14
10 % Profit	$0.00	$2,269.10	$1,973.11	$1,881.00	$3,009.60	$9,132.81
Task D Total	$0.00	$24,960.12	$21,704.23	$20,691.00	$33,105.60	$100,460.95
Task E: Construction Cost Estimate						
Hours	0	0	0	0	0	0
Direct Labor	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
w/ Multiplier 2.28	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
10 % Profit	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task E Total	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task F:						
Hours	0	0	0	0	0	0
Direct Labor	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
w/ Multiplier 2.28	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
10 % Profit	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task F Total	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task G:						
Hours	0	0	0	0	0	0
Direct Labor	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
w/ Multiplier 2.28	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
10 % Profit	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task G Total	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task H:						
Hours	0	0	0	0	0	0
Direct Labor	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
w/ Multiplier 2.28	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
10 % Profit	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task H Total	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task I:						
Hours	0	0	0	0	0	0
Direct Labor	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
w/ Multiplier 2.28	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
10 % Profit	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task I Total	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Total Cost	$0.00	$32,170.82	$34,292.69	$30,622.68	$54,624.24	$151,710.42

2.28

Table 1: WTC Streets, Utilities, and Related Infrastructure Design
CO-13-004 SPI Updates
STV
Fee Proposal
1/21/2014 - Revised 2/18/14

	Sr Cost Estimator	Cost Estimator	Engineer VI	Sr Engineer	Sr CADD	Engineer	Total
	$89.92	$47.32	$58.90	$43.71	$38.00	$30.00	
Task A: Project Schedule							
Hours				0	0	0	0
Direct Labor	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
w/ Multiplier 2.23	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
10 % Profit	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task A Total	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task B: Meetings and Management							
Hours	0	0	0	0	0	0	0
Direct Labor	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
w/ Multiplier 2.23	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
10 % Profit	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task B Total	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task C: Develop Liberty Park Layout Alternatives							
Hours	0	0	0	0	0	0	0
Direct Labor	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
w/ Multiplier 2.23	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
10 % Profit	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task C Total	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task D: Design Update to Contract Documents							
Hours	0	0	80	0	400	0	480
Direct Labor	$0.00	$0.00	$4,712.00	$0.00	$15,200.00	$0.00	$19,912.00
w/ Multiplier 2.23	$0.00	$0.00	$10,507.76	$0.00	$33,898.00	$0.00	$44,403.76
10 % Profit	$0.00	$0.00	$1,050.78	$0.00	$3,389.80	$0.00	$4,440.38
Task D Total	$0.00	$0.00	$11,558.54	$0.00	$37,285.60	$0.00	$48,844.14
Task E: Construction Cost Estimate							
Hours	0	0	0	0	0	0	0
Direct Labor	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
w/ Multiplier 2.23	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
10 % Profit	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task E Total	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task F:							
Hours	0	0	0	0	0	0	0
Direct Labor	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
w/ Multiplier 2.23	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
10 % Profit	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task F Total	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task G:							
Hours	0	0	0	0	0	0	0
Direct Labor	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
w/ Multiplier 2.23	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
10 % Profit	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task G Total	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task H:							
Hours	0	0					0
Direct Labor	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
w/ Multiplier 2.23	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
10 % Profit	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task G Total	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task I:							
Hours							0
Direct Labor	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
w/ Multiplier 2.23	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
10 % Profit	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task I Total	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Total Cost	$0.00	$0.00	$11,558.54	$0.00	$37,285.60	$0.00	$48,844.14

Table 1: WTC Streets, Utilities, and Related Infrastructure Design
CO-13-004 SPI Updates
IH ENGINEERS
Fee Proposal
1/21/2014 - Revised 2/18/14

	CADD Operator	CADD Operator				Total
	$29.00	$35.00				
Task A: Project Schedule						
Hours	0	0	0	0	0	0
Direct Labor	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
w/ Multiplier 2.14	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
10 % Profit	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task A Total	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task B: Meetings and Management						
Hours	0	0	0	0	0	0
Direct Labor	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
w/ Multiplier 2.14	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
10 % Profit	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task B Total	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task C: Develop Liberty Park Layout Alternatives						
Hours	0	0	0	0	0	0
Direct Labor	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
w/ Multiplier 2.14	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
10 % Profit	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task C Total	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task D: Design Update to Contract Documents						
Hours	200	0	0	0	0	200
Direct Labor	$5,800.00	$0.00	$0.00	$0.00	$0.00	$5,800.00
w/ Multiplier 2.14	$12,412.00	$0.00	$0.00	$0.00	$0.00	$12,412.00
10 % Profit	$1,241.20	$0.00	$0.00	$0.00	$0.00	$1,241.20
Task D Total	$13,653.20	$0.00	$0.00	$0.00	$0.00	$13,653.20
Task E: Construction Cost Estimate						
Hours	0	0	0	0	0	0
Direct Labor	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
w/ Multiplier 2.14	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
10 % Profit	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task E Total	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task F:						
Hours	0	0	0	0	0	0
Direct Labor	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
w/ Multiplier 2.14	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
10 % Profit	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task F Total	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task G:						
Hours	0	0	0	0	0	0
Direct Labor	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
w/ Multiplier 2.14	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
10 % Profit	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task G Total	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task H:						
Hours	0	0	0	0	0	0
Direct Labor	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
w/ Multiplier 2.14	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
10 % Profit	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task H Total	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task I:						
Hours	0	0	0	0	0	0
Direct Labor	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
w/ Multiplier 2.14	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
10 % Profit	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task I Total	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Total Cost	$13,653.20	$0.00	$0.00	$0.00	$0.00	$13,653.20

Table 1: WTC Streets, Utilities, and Related Infrastructure Design
CO-13-004 SPI Updates
FISHER MORANTZ AND STONE
Fee Proposal
1/21/2014 - Revised 2/18/14

	Principal	Associate	Sr Designer	Designer			Total
	$96.21	$87.50	$60.00	$45.00	$0.00	$0.00	
Task A: Project Schedule							
Hours	0	0	0	0	0	0	0
Direct Labor	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
w/ Multiplier 2.55	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
10 % Profit	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task A Total	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task B: Meetings and Management							
Hours	0	0	0	0	0	0	0
Direct Labor	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
w/ Multiplier 2.55	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
10 % Profit	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task B Total	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task C: Develop Liberty Park Layout Alternatives							
Hours	0	0	0	0	0	0	0
Direct Labor	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
w/ Multiplier 2.55	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
10 % Profit	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task C Total	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task D: Design Update to Contract Documents							
Hours	0	8	22	60	0	0	90
Direct Labor	$0.00	$700.00	$1,320.00	$2,700.00	$0.00	$0.00	$4,720.00
w/ Multiplier 2.55	$0.00	$1,785.00	$3,366.00	$6,885.00	$0.00	$0.00	$12,036.00
10 % Profit	$0.00	$178.50	$336.60	$688.50	$0.00	$0.00	$1,203.60
Task D Total	$0.00	$1,963.50	$3,702.60	$7,573.50	$0.00	$0.00	$13,239.60
Task E: Construction Cost Estiamte							
Hours	0	0	0	0	0	0	0
Direct Labor	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
w/ Multiplier 2.55	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
10 % Profit	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task E Total	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task F:							
Hours	0	0	0	0	0	0	0
Direct Labor	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
w/ Multiplier 2.55	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
10 % Profit	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task F Total	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task G:							
Hours	0	0	0	0	0	0	0
Direct Labor	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
w/ Multiplier 2.55	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
10 % Profit	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task G Total	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task H:							
Hours	0	0	0	0	0	0	0
Direct Labor	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
w/ Multiplier 2.55	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
10 % Profit	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task H Total	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task I:							
Hours	0	0	0	0	0	0	0
Direct Labor	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
w/ Multiplier 2.55	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
10 % Profit	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task I Total	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Total Cost	$0.00	$1,963.50	$3,702.60	$7,573.50	$0.00	$0.00	$13,239.60

THE PORT AUTHORITY OF NY & NJ

Downtown Streetscape Partners

A Joint Venture of
Edwards and Kelcey / DMJM Harris / EDAW

Revised Pricing and Compensation

February 15, 2007

Performance of Expert Professional Architectural and Engineering Services for the World Trade Center

Streets, Utilities and Related Infrastructure Design

Manpower Hours/Costs
SUMMARY

FIRM:

EDWARDS AND KELCEY / DMJM / EDAW JV	A1	A2	B1	B2	C	D1	D2	E	F	G	H	I1	I2	J	DIRECT TECHNICAL SALARIES SUBTOTALS	MULT.	TOTAL MANPOWER	OUT-OF-POCKET EXPENSE	TOTALS
FIRMS	PRELIM. DESIGN PROJECT SCHEDULE	FINAL DESIGN PROJECT SCHEDULE	PRELIM. DESIGN PHASE MEETINGS	FINAL DESIGN PHASE MEETINGS	REVIEW AVAILABLE DOCUMENTS	PRELIM. DGN PHASE FIELD VERIFIC. & SURVEY	FINAL DGN PHASE FIELD VERIFIC. & SURVEY	DESIGN CRITERIA SUMMARIES	PRELIM. DESIGN	VALUE ENGRNG	FINAL DESIGN & CONTRACT DOCUMENTS	PRELIM. COST EST & CONSTRUCT SCHED	FINAL COST ESTIMATE & CONSTRUCT SCHED	POST AWARD DUTIES					
	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs		Costs	Costs	Costs
EDWARDS AND KELCEY ENGINEERS, INC.	$ 2,845	$ 2,077	$ 37,079	$ 99,578	$ 9,221	$ 6,585	$ 3,748	$ 5,810	$ 308,425	$ 8,774	$ 194,549	$ 6,594	$ 8,103	$ 122,787	$ 816,155	2.45	$ 1,999,580	$ 681,000	$ 2,680,580
DMJM HARRIS	$ -	$ -	$ 8,672	$ 20,235	$ 6,189	$ -	$ -	$ 5,341	$ 77,299	$ 4,326	$ 89,480	$ 6,840	$ 13,680	$ 51,295	$ 283,357	2.45	$ 694,226	$ -	$ 694,226
STV, INC.	$ -	$ -	$ 9,453	$ 17,448	$ 4,884	$ 584	$ 2,335	$ 3,878	$ 375,049	$ 4,684	$ 330,820	$ 1,873	$ 2,810	$ 50,703	$ 804,318	2.45	$ 1,970,580	$ -	$ 1,970,580
EDAW LANDSCAPE	$ 643	$ 643	$ 11,128	$ 29,878	$ 5,546	$ -	$ -	$ 4,261	$ 222,608	$ 5,546	$ 138,804	$ 3,328	$ 5,194	$ 83,527	$ 489,106	2.80	$ 1,369,497	$ -	$ 1,369,497
IH ENGINEERS, PC (MBE)	$ 5,377	$ 12,180	$ -	$ -	$ -	$ -	$ -	$ -	$ 71,789	$ -	$ 104,149	$ 32,034	$ 63,441	$ 54,006	$ 342,936	2.35	$ 805,899	$ -	$ 805,899
MEDINA CONSULTANTS (MBE)	$ -	$ -	$ 1,755	$ 1,755	$ 1,391	$ 24,816	$ 9,601	$ -	$ 73,049	$ -	$ 9,563	$ -	$ -	$ 4,372	$ 126,302	2.50	$ 315,756	$ -	$ 315,756
SAIC	$ -	$ -	$ 8,781	$ 3,113	$ 8,846	$ 9,273	$ -	$ -	$ 49,533	$ -	$ 15,897	$ -	$ -	$ 11,275	$ 104,517	2.63	$ 274,879	$ -	$ 274,879
TWO TWELVE HARAKAWA, INC. (M/WBE)	$ -	$ -	$ 6,836	$ 3,718	$ 3,718	$ -	$ -	$ 9,789	$ 15,225	$ -	$ 14,351	$ -	$ -	$ -	$ 53,637	2.52	$ 135,165	$ -	$ 135,165
WEIDLINGER ASSOCIATES, INC.	$ -	$ -	$ 10,399	$ 4,761	$ 5,377	$ -	$ -	$ 6,227	$ 108,208	$ 2,040	$ 149,323	$ 2,211	$ 3,317	$ -	$ 289,861	2.60	$ 753,639	$ -	$ 753,639
ENVIRONMENTAL PLANNING & MANAGEMENT, INC.	$ -	$ -	$ 747	$ 2,801	$ 1,204	$ -	$ 7,860	$ 1,494	$ 19,806	$ -	$ 22,960	$ 3,251	$ -	$ 5,330	$ 85,453	2.31	$ 151,198	$ -	$ 151,198
Subtotals	$ 8,866	$ 14,880	$ 94,850	$ 183,285	$ 43,976	$ 41,237	$ 23,544	$ 36,799	$ 1,318,969	$ 25,371	$ 1,067,896	$ 56,131	$ 96,545	$ 383,294	$ 3,375,643		$ 8,470,418	$ 681,000	$ 9,151,418

SUMMARY OF COSTS

Total Base Cost:	$	3,375,643
Blended Multiplier:	2.51	
Total Manpwer Cost:	$	8,470,418
Total Out-Of-Pocket Cost:	$	681,000
TOTAL	$	9,151,418

Note: Estimate is based on a 13 month design schedule as presented in the RFP and a two year construction schedule.

Multipliers have been adjusted to exclude project office costs, assumed to be paid by the Port Authority

Primed: 3/9/2007 3:18 PM

File Name: SUMMARY rfp #11746 - Attachment F.xls

Preliminary Design Manpower Hours/Costs
SUMMARY

FIRM: EDWARDS AND KELCEY / DMJM / EDAW JV

FIRMS	A1 PRELIM. DESIGN PROJECT SCHEDULE Costs	B1 PRELIM. DESIGN PHASE MEETINGS Costs	C REVIEW AVAILABLE DOCUMENTS Costs	D1 PRELIM. DGN PHASE FIELD VERIFIC. & SURVEY Costs	E DESIGN CRITERIA SUMMARIES Costs	F PRELIM. DESIGN Costs	G VALUE ENGNG Costs	I1 PRELIM. COST EST & CONSTRUCT SCHED Costs	DIRECT TECHNICAL SALARIES SUBTOTALS Costs	MULT.	TOTAL MANPOWER Costs	PRELIM DESIGN PHASE OUT-OF-POCKET EXPENSE Costs	TOTALS Costs
EDWARDS AND KELCEY ENGINEERS, INC.	$ 2,846	$ 37,079	$ 9,221	$ 6,565	$ 5,810	$ 308,425	$ 8,774	$ 6,594	$ 385,314	2.45	$ 944,018.64	$ 408,600	$ 1,352,618.64
DMJM HARRIS	$ -	$ 8,672	$ 6,189	$ -	$ 5,341	$ 77,299	$ 4,326	$ 6,840	$ 108,667	2.45	$ 266,235.35	$ -	$ 266,235.35
STV, INC.	$ -	$ 9,453	$ 4,684	$ 584	$ 3,878	$ 375,049	$ 4,684	$ 1,873	$ 400,204	2.45	$ 980,500.00	$ -	$ 980,500.00
EDAW LANDSCAPE	$ 643	$ 11,128	$ 5,546	$ -	$ 4,261	$ 222,608	$ 5,546	$ 3,328	$ 253,060	2.80	$ 708,568.85	$ -	$ 708,568.85
IH ENGINEERS, PC (MBE)	$ 5,377	$ -	$ -	$ -	$ -	$ 71,769	$ -	$ 32,034	$ 109,180	2.35	$ 256,572.30	$ -	$ 256,572.30
MEDINA CONSULTANTS (MBE)	$ -	$ 1,755	$ 1,391	$ 24,816	$ -	$ 73,049	$ -	$ -	$ 101,012	2.50	$ 252,529.67	$ -	$ 252,529.67
SAIC	$ -	$ 8,781	$ 6,646	$ 9,273	$ -	$ 49,533	$ -	$ -	$ 74,233	2.63	$ 195,231.64	$ -	$ 195,231.64
TWO TWELVE HARAKAWA, INC. (M/WBE)	$ -	$ 6,836	$ 3,718	$ -	$ 9,789	$ 15,225	$ -	$ -	$ 35,568	2.52	$ 89,630.44	$ -	$ 89,630.44
WEIDLINGER ASSOCIATES, INC.	$ -	$ 10,399	$ 5,377	$ -	$ 6,227	$ 106,206	$ 2,040	$ 2,211	$ 132,460	2.60	$ 344,397.04	$ -	$ 344,397.04
ENVIRONMENTAL PLANNING & MANAGEMENT, INC.	$ -	$ 747	$ 1,204	$ -	$ 1,494	$ 19,806	$ -	$ 3,251	$ 26,502	2.31	$ 61,218.83	$ -	$ 61,218.83
Subtotals	$ 8,866	$ 94,850	$ 43,976	$ 41,237	$ 36,799	$ 1,318,969	$ 25,371	$ 56,131	$ 1,626,199		$ 4,098,902.73	$ 408,600.00	$ 4,507,502.73

SUMMARY OF COSTS

Total Base Cost	$	1,626,199
Blended Multiplier:	2.51	
Total Manpwer Cost	$	4,098,903
Total Out-Of-Pocket Cost	$	408,600
TOTAL	**$**	**4,507,503**

Note: Estimate is based on a 13 month design schedule as presented in the RFP and a two year construction schedule.

Multipliers have been adjusted to exclude project office costs, assumed to be paid by the Port Authority

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Final Design Manpower Hours/Costs
SUMMARY

FIRM:

EDWARDS AND KELCEY / DMJM / EDAW JV	A2	B2	D2	H	I2	J	DIRECT TECHNICAL SALARIES SUBTOTALS	MULT.	TOTAL MANPOWER	FINAL DESIGN PHASE OUT-OF-POCKET EXPENSE	TOTALS
FIRMS	FINAL DESIGN PROJECT SCHEDULE	FINAL DESIGN PHASE MEETINGS	FINAL DGN PHASE FIELD VERIFIC. & SURVEY	FINAL DESIGN & CONTRACT DOCUMENTS	FINAL COST ESTIMATE & CONSTRUCT SCHED	POST AWARD DUTIES					
	Costs	Costs	Costs	Costs	Costs	Costs	Costs		Costs	Costs	Costs
EDWARDS AND KELCEY ENGINEERS, INC.	$ 2,077	$ 99,578	$ 3,748	$ 194,549	$ 8,103	$ 122,787	$ 430,841	2.45	$ 1,055,561.51	$ 272,400	$ 1,327,961.51
DMJM HARRIS	$ -	$ 20,235	$ -	$ 89,480	$ 13,680	$ 51,295	$ 174,690	2.45	$ 427,990.48	$ -	$ 427,990.48
STV, INC.	$ -	$ 17,446	$ 2,335	$ 330,820	$ 2,810	$ 50,703	$ 404,114	2.45	$ 990,080.17	$ -	$ 990,080.17
EDAW LANDSCAPE	$ 643	$ 29,878	$ -	$ 136,804	$ 5,194	$ 63,527	$ 236,046	2.80	$ 660,927.79	$ -	$ 660,927.79
IH ENGINEERS, PC (MBE)	$ 12,160	$ -	$ -	$ 104,149	$ 63,441	$ 54,006	$ 233,756	2.35	$ 549,327.16	$ -	$ 549,327.16
MEDINA CONSULTANTS (MBE)	$ -	$ 1,755	$ 9,601	$ 9,563	$ -	$ 4,372	$ 25,291	2.50	$ 63,226.52	$ -	$ 63,226.52
SAIC	$ -	$ 3,113	$ -	$ 15,897	$ -	$ 11,275	$ 30,284	2.63	$ 79,647.83	$ -	$ 79,647.83
TWO TWELVE HARAKAWA, INC. (M/WBE)	$ -	$ 3,718	$ -	$ 14,351	$ -	$ -	$ 18,069	2.52	$ 45,534.63	$ -	$ 45,534.63
WEIDLINGER ASSOCIATES, INC.	$ -	$ 4,761	$ -	$ 149,323	$ 3,317	$ -	$ 157,401	2.60	$ 409,241.56	$ -	$ 409,241.56
ENVIRONMENTAL PLANNING & MANAGEMENT, INC.	$ -	$ 2,801	$ 7,860	$ 22,960	$ -	$ 5,330	$ 38,951	2.31	$ 89,977.31	$ -	$ 89,977.31
Subtotals	$ 14,880	$ 183,285	$ 23,544	$ 1,067,896	$ 96,545	$ 363,294	$ 1,749,444		$ 4,371,514.96	$ 272,400.00	$ 4,643,914.96

SUMMARY OF COSTS

Total Base Cost:	$	1,749,444
Blended Multiplier:	2.51	
Total Manpwer Cost:	$	4,371,515
Total Out-Of-Pocket Cost:	$	272,400
TOTAL	**$**	**4,643,915**

Note: Estimate is based on a 13 month design schedule as presented in the RFP and a two year construction schedule.

Multipliers have been adjusted to exclude project office costs, assumed to be paid by the Port Authority

Total Manpower Hours
SUMMARY

FIRM:

EDWARDS AND KELCEY / DMJM / EDAW JV	A1	A2	B1	B2	C	D1	D2	E	F	G	H	I1	I2	J	TOTAL MANPOWER HOURS
FIRMS	PRELIM. DESIGN PROJECT SCHEDULE	FINAL DESIGN PROJECT SCHEDULE	PRELIM. DESIGN PHASE MEETINGS	FINAL DESIGN PHASE MEETINGS	REVIEW AVAILABLE DOCUMENTS	PRELIM. DESGN PHASE FIELD VERIFICAT. & SURVEY	FINAL DESGN PHASE FIELD VERIFICAT. & SURVEY	DESIGN CRITERIA SUMMARIES	PRELIMINARY DESIGN	VALUE ENGINEERING	FINAL DESIGN & CONTRACT DOCUMENTS	PRELIM. COST EST & CONSTRUCT SCHED	FINAL COST ESTIMATE & CONSTRUCT SCHED	POST AWARD DUTIES	
	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours
EDWARDS AND KELCEY ENGINEERS, INC.	32	24	460	1,200	144	104	56	88	6,500	144	3,820	88	120	1,926	14,706
DMJM HARRIS	-	-	168	392	120	-	-	104	1,520	80	1,810	120	240	960	5,514
STV, INC.	-	-	140	260	80	8	32	80	10,870	80	9,455	32	48	1,240	22,325
EDAW LANDSCAPE	8	8	152	388	80	-	-	64	3,610	80	2,880	48	80	1,085	8,483
IH ENGINEERS, PC (MBE)	140	320	-	-	-	-	-	-	2,430	-	3,510	840	1,660	2,004	10,904
MEDINA CONSULTANTS (MBE)	-	-	32	32	48	1,084	416	-	2,590	-	350	-	-	160	4,712
SAIC	-	-	133	46	112	138	-	-	743	-	240	-	-	169	1,581
TWO TWELVE HARAKAWA, INC. (M/WBE)	-	-	184	96	96	-	-	276	496	-	488	-	-	-	1,636
WEIDLINGER ASSOCIATES, INC.	-	-	136	64	80	-	-	88	1,880	24	2,580	32	48	-	4,932
ENVIRONMENTAL PLANNING & MANAGEMENT, INC.	-	-	16	60	24	-	216	32	508	-	576	80	-	128	1,640
Subtotals	180	352	1,421	2,538	784	1,334	720	732	31,147	408	25,709	1,240	2,196	7,672	76,433

Note: Estimate is based on a 13 month design schedule as presented in the RFP and a two year construction schedule.

Final Design / Post Award
Manpower Hours
SUMMARY

FIRM:

EDWARDS AND KELCEY / DMJM / EDAW JV	A2	B2	D2	H	I2	J	TOTAL MANPOWER HOURS
FIRMS	FINAL DESIGN PROJECT SCHEDULE	FINAL DESIGN PHASE MEETINGS	FINAL DESGN PHASE FIELD VERIFICATION & SURVEY	FINAL DESIGN & CONTRACT DOCUMENTS	FINAL COST ESTIMATE & CONSTRUCT SCHED	POST AWARD DUTIES	
	Hours	Hours	Hours	Hours	Hours	Hours	Hours
EDWARDS AND KELCEY ENGINEERS, INC.	24	1,200	56	3,820	120	1,926	7,146
DMJM HARRIS	-	392	-	1,810	240	960	3,402
STV, INC.	-	260	32	9,455	48	1,240	11,035
EDAW LANDSCAPE	8	388	-	2,880	80	1,085	4,441
IH ENGINEERS, PC (MBE)	320	-	-	3,510	1,660	2,004	7,494
MEDINA CONSULTANTS (MBE)	-	32	416	350	-	160	958
SAIC	-	46	-	240	-	169	455
TWO TWELVE HARAKAWA, INC. (M/WBE)	-	96	-	488	-	-	584
WEIDLINGER ASSOCIATES, INC.	-	64	-	2,580	48	-	2,692
ENVIRONMENTAL PLANNING & MANAGEMENT, INC.	-	60	216	576	-	128	980
Subtotals	352	2,538	720	25,709	2,196	7,672	39,187

Note: Estimate is based on a 13 month design schedule as presented in the RFP and a two year construction schedule.

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Preliminary Design Manpower Hours
SUMMARY

FIRM:

EDWARDS AND KELCEY / DMJM / EDAW JV	A1	B1	C	D1	E	F	G	I1	TOTAL MANPOWER HOURS
FIRMS	PRELIM. DESIGN PROJECT SCHEDULE	PRELIM. DESIGN PHASE MEETINGS	REVIEW AVAILABLE DOCUMENTS	PRELIM. DESGN PHASE FIELD VERIFICATION & SURVEY	DESIGN CRITERIA SUMMARIES	PRELIMINARY DESIGN	VALUE ENGINEERING	PRELIM. COST EST & CONSTRUCT SCHED	
	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours
EDWARDS AND KELCEY ENGINEERS, INC.	32	460	144	104	88	6,500	144	88	7,560
DMJM HARRIS	-	168	120	-	104	1,520	80	120	2,112
STV, INC.	-	140	80	8	80	10,870	80	32	11,290
EDAW LANDSCAPE	8	152	80	-	64	3,610	80	48	4,042
IH ENGINEERS, PC (MBE)	140	-	-	-	-	2,430	-	840	3,410
MEDINA CONSULTANTS (MBE)	-	32	48	1,084	-	2,590	-	-	3,754
SAIC	-	133	112	138	-	743	-	-	1,126
TWO TWELVE HARAKAWA, INC. (M/WBE)	-	184	96	-	276	496	-	-	1,052
WEIDLINGER ASSOCIATES, INC.	-	136	80	-	88	1,880	24	32	2,240
ENVIRONMENTAL PLANNING & MANAGEMENT, INC.	-	16	24	-	32	508	-	80	660
Subtotals	180	1,421	784	1,334	732	31,147	408	1,240	37,246

Note: Estimate is based on a 13 month design schedule as presented in the RFP and a two year construction schedule.

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File Name: HOURS SUMMARY rfp #11746 - Attachment F.xls

Out-Of-Pocket Expenses
SUMMARY

FIRM:

EDWARDS AND KELCEY / DMJM / EDAW JV	A1	A2	B1	B2	C	D1	D2	E	F	G	H	I1	I2	J	OUT-OF-POCKET EXPENSE
FIRMS	PRELIM. DESIGN PROJECT SCHEDULE	FINAL DESIGN PROJECT SCHEDULE	PRELIM. DESIGN PHASE MEETINGS	FINAL DESIGN PHASE MEETINGS	REVIEW AVAILABLE DOCUMENTS	PRELIM. DGN PHASE FIELD VERIFIC. & SURVEY	FINAL DGN PHASE FIELD VERIFIC. & SURVEY	DESIGN CRITERIA SUMMARIES	PRELIM. DESIGN	VALUE ENGRNG	FINAL DESIGN & CONTRACT DOCUMENTS	PRELIM. COST EST & CONSTRUCT SCHED	FINAL COST ESTIMATE & CONSTRUCT SCHED	POST AWARD DUTIES	
	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs
1. Reproductions/Printing	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 30,000	$ -	$ 50,000	$ -	$ -	$ 48,000	$ 128,000
2. Mailing/Deliveries	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 10,000	$ -	$ 10,000	$ -	$ -	$ 20,000	$ 40,000
3. General Presentation Materials/Production	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 15,000	$ -	$ 5,000	$ -	$ -	$ -	$ 20,000
4. Special Graphics:	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 90,000	$ -	$ -	$ -	$ -	$ -	$ 90,000
4.1. Site Model	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
4.2. 2-Minute Animation	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
4.3. Renderings	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
5. Expense Allowances:	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
5.1. Arborist	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 4,000	$ -	$ 4,000	$ -	$ -	$ 16,000	$ 24,000
5.2. Corrosion Report	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 24,000	$ -	$ -	$ -	$ -	$ -	$ 24,000
5.3. Hazardous Materials Testing (By PA)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
5.4. Architectural Lighting	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 24,000	$ -	$ 12,000	$ -	$ -	$ -	$ 36,000
5.5. Prev. Wage Rates (Survey)	$ -	$ -	$ -	$ -	$ -	$ 3,600	$ 2,400	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 6,000
5.6. Record Research (ROW)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,000	$ -	$ -	$ -	$ -	$ -	$ 3,000
5.7. Travel (Special Long Distance)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 5,000	$ -	$ 5,000	$ -	$ -	$ -	$ 10,000
6. Project Office Allowance	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
6.1. Office Space Rental (anticipated duration of entire design contract, approx. 18 months)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 100,000	$ -	$ 100,000	$ -	$ -	$ -	$ 200,000
6.2. Office Equipment (e.g., phone system, fax machines, computers, supplies, etc.)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 100,000	$ -	$ -	$ -	$ -	$ -	$ 100,000
Subtotals	$ -	$ -	$ -	$ -	$ -	$ 3,600	$ 2,400	$ -	$ 405,000	$ -	$ 186,000	$ -	$ -	$ 84,000	$ 681,000

Note: Estimate is based on a 13 month design schedule as presented in the RFP and a two year construction schedule.

Multipliers have been adjusted to exclude project office costs, assumed to be paid by the Port Authority

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Preliminary Design Out-Of-Pocket Expenses
SUMMARY

FIRM:

EDWARDS AND KELCEY / DMJM / EDAW JV	A1	B1	C	D1	E	F	G	I1	PRELIM DESIGN PHASE OUT-OF-POCKET EXPENSE
FIRMS	PRELIM. DESIGN PROJECT SCHEDULE	PRELIM. DESIGN PHASE MEETINGS	REVIEW AVAILABLE DOCUMENTS	PRELIM. DGN PHASE FIELD VERIFIC. & SURVEY	DESIGN CRITERIA SUMMARIES	PRELIM. DESIGN	VALUE ENGNG	PRELIM. COST EST & CONSTRUCT SCHED	
	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs
1. Reproductions/Printing	$ -	$ -	$ -	$ -	$ -	$ 30,000	$ -	$ -	$ 30,000
2. Mailing/Deliveries	$ -	$ -	$ -	$ -	$ -	$ 10,000	$ -	$ -	$ 10,000
3. General Presentation Materials/Production	$ -	$ -	$ -	$ -	$ -	$ 15,000	$ -	$ -	$ 15,000
4. Special Graphics:	$ -	$ -	$ -	$ -	$ -	$ 90,000	$ -	$ -	$ 90,000
4.1. Site Model	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
4.2. 2-Minute Animation	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
4.3. Renderings	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
5. Expense Allowances:	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
5.1. Arborist	$ -	$ -	$ -	$ -	$ -	$ 4,000	$ -	$ -	$ 4,000
5.2. Corrosion Report	$ -	$ -	$ -	$ -	$ -	$ 24,000	$ -	$ -	$ 24,000
5.3. Hazardous Materials Testing (By PA)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
5.4. Architectural Lighting	$ -	$ -	$ -	$ -	$ -	$ 24,000	$ -	$ -	$ 24,000
5.5. Prev. Wage Rates (Survey)	$ -	$ -	$ -	$ 3,600	$ -	$ -	$ -	$ -	$ 3,600
5.6. Record Research (ROW)	$ -	$ -	$ -	$ -	$ -	$ 3,000	$ -	$ -	$ 3,000
5.7. Travel (Special Long Distance)	$ -	$ -	$ -	$ -	$ -	$ 5,000	$ -	$ -	$ 5,000
6. Project Office Allowance	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
6.1. Office Space Rental (anticipated duration of entire design contract, approx. 18	$ -	$ -	$ -	$ -	$ -	$ 100,000	$ -	$ -	$ 100,000
6.2. Office Equipment (e.g., phone system, fax machines, computers, supplies, etc.)	$ -	$ -	$ -	$ -	$ -	$ 100,000	$ -	$ -	$ 100,000
Subtotals	$ -	$ -	$ -	$ 3,600	$ -	$ 405,000	$ -	$ -	$ 408,600.00

Note: Estimate is based on a 13 month design schedule as presented in the RFP and a two year construction schedule.

Multipliers have been adjusted to exclude project office costs, assumed to be paid by the Port Authority

Final Design Out-Of-Pocket Expenses
SUMMARY

FIRM:

EDWARDS AND KELCEY / DMJM / EDAW JV	A2	B2	D2	H	I2	J	FINAL DESIGN PHASE OUT-OF-POCKET EXPENSE
FIRMS	FINAL DESIGN PROJECT SCHEDULE	FINAL DESIGN PHASE MEETINGS	FINAL DGN PHASE FIELD VERIFIC. & SURVEY	FINAL DESIGN & CONTRACT DOCUMENTS	FINAL COST ESTIMATE & CONSTRUCT SCHED	POST AWARD DUTIES	
	Costs	Costs	Costs	Costs	Costs	Costs	Costs
1. Reproductions/Printing	$ -	$ -	$ -	$ 50,000	$ -	$ 48,000	$ 98,000
2. Mailing/Deliveries	$ -	$ -	$ -	$ 10,000	$ -	$ 20,000	$ 30,000
3. General Presentation Materials/Production	$ -	$ -	$ -	$ 5,000	$ -	$ -	$ 5,000
4. Special Graphics:	$ -	$ -	$ -	$ -	$ -	$ -	$ -
4.1. Site Model	$ -	$ -	$ -	$ -	$ -	$ -	$ -
4.2. 2-Minute Animation	$ -	$ -	$ -	$ -	$ -	$ -	$ -
4.3. Renderings	$ -	$ -	$ -	$ -	$ -	$ -	$ -
5. Expense Allowances:	$ -	$ -	$ -	$ -	$ -	$ -	$ -
5.1. Arborist	$ -	$ -	$ -	$ 4,000	$ -	$ 16,000	$ 20,000
5.2. Corrosion Report	$ -	$ -	$ -	$ -	$ -	$ -	$ -
5.3. Hazardous Materials Testing (By PA)	$ -	$ -	$ -	$ -	$ -	$ -	$ -
5.4. Architectural Lighting	$ -	$ -	$ -	$ 12,000	$ -	$ -	$ 12,000
5.5. Prev. Wage Rates (Survey)	$ -	$ -	$ 2,400	$ -	$ -	$ -	$ 2,400
5.6. Record Research (ROW)	$ -	$ -	$ -	$ -	$ -	$ -	$ -
5.7. Travel (Special Long Distance)	$ -	$ -	$ -	$ 5,000	$ -	$ -	$ 5,000
6. Project Office Allowance	$ -	$ -	$ -	$ -	$ -	$ -	$ -
6.1. Office Space Rental (anticipated duration of entire design contract, approx. 18 months)	$ -	$ -	$ -	$ 100,000	$ -	$ -	$ 100,000
6.2. Office Equipment (e.g., phone system, fax machines, computers, supplies, etc.)	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Subtotals	$ -	$ -	$ 2,400	$ 186,000	$ -	$ 84,000	$ 272,400.00

Note: Estimate is based on a 13 month design schedule as presented in the RFP and a two year construction schedule.

Multipliers have been adjusted to exclude project office costs, assumed to be paid by the Port Authority

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Task Manpower Hours/Costs

FIRM:

EDWARDS AND KELCEY / DMJM / EDAW JV	A1				
FIRMS	PRELIMINARY DESIGN PROJECT SCHEDULE	MULT.	TOTAL MANPOWER	OUT-OF-POCKET EXPENSE	TOTALS
	Costs		Costs	Costs	Costs
EDWARDS AND KELCEY ENGINEERS, INC.	$ 2,846	2.45	$ 6,973	$ -	$ 6,973
DMJM HARRIS	$ -	2.45	$ -	$ -	$ -
STV, INC.	$ -	2.45	$ -	$ -	$ -
EDAW LANDSCAPE	$ 643	2.80	$ 1,800	$ -	$ 1,800
IH ENGINEERS, PC (MBE)	$ 5,377	2.35	$ 12,636	$ -	$ 12,636
MEDINA CONSULTANTS (MBE)	$ -	2.50	$ -	$ -	$ -
SAIC	$ -	2.63	$ -	$ -	$ -
TWO TWELVE HARAKAWA, INC. (M/WBE)	$ -	2.52	$ -	$ -	$ -
WEIDLINGER ASSOCIATES, INC.	$ -	2.60	$ -	$ -	$ -
ENVIRONMENTAL PLANNING & MANAGEMENT, INC.	$ -	2.31	$ -	$ -	$ -
Subtotals	$ 8,866		$ 21,409	$ -	$ 21,409

Task Manpower Hours/Costs

FIRM:

EDWARDS AND KELCEY / DMJM / EDAW JV	A2	MULT.	TOTAL MANPOWER	OUT-OF-POCKET EXPENSE	TOTALS
FIRMS	FINAL DESIGN PROJECT SCHEDULE				
	Costs		Costs	Costs	Costs
EDWARDS AND KELCEY ENGINEERS, INC.	$ 2,077	2.45	$ 5,088	$ -	$ 5,088
DMJM HARRIS	$ -	2.45	$ -	$ -	$ -
STV, INC.	$ -	2.45	$ -	$ -	$ -
EDAW LANDSCAPE	$ 643	2.80	$ 1,800	$ -	$ 1,800
IH ENGINEERS, PC (MBE)	$ 12,160	2.35	$ 28,576	$ -	$ 28,576
MEDINA CONSULTANTS (MBE)	$ -	2.50	$ -	$ -	$ -
SAIC	$ -	2.63	$ -	$ -	$ -
TWO TWELVE HARAKAWA, INC. (M/WBE)	$ -	2.52	$ -	$ -	$ -
WEIDLINGER ASSOCIATES, INC.	$ -	2.60	$ -	$ -	$ -
ENVIRONMENTAL PLANNING & MANAGEMENT, INC.	$ -	2.31	$ -	$ -	$ -
Subtotals	$ 14,880		$ 35,464	$ -	$ 35,464

Task Manpower Hours/Costs

FIRM:

EDWARDS AND KELCEY / DMJM / EDAW JV	B1	MULT.	TOTAL MANPOWER	OUT-OF-POCKET EXPENSE	TOTALS
FIRMS	PRELIM. DESIGN PHASE MEETINGS				
	Costs		Costs	Costs	Costs
EDWARDS AND KELCEY ENGINEERS, INC.	$ 37,079	2.45	$ 90,843	$ -	$ 90,843
DMJM HARRIS	$ 8,672	2.45	$ 21,247	$ -	$ 21,247
STV, INC.	$ 9,453	2.45	$ 23,159	$ -	$ 23,159
EDAW LANDSCAPE	$ 11,128	2.80	$ 31,159	$ -	$ 31,159
IH ENGINEERS, PC (MBE)	$ -	2.35	$ -	$ -	$ -
MEDINA CONSULTANTS (MBE)	$ 1,755	2.50	$ 4,388	$ -	$ 4,388
SAIC	$ 8,781	2.63	$ 23,093	$ -	$ 23,093
TWO TWELVE HARAKAWA, INC. (M/WBE)	$ 6,836	2.52	$ 17,227	$ -	$ 17,227
WEIDLINGER ASSOCIATES, INC.	$ 10,399	2.60	$ 27,038	$ -	$ 27,038
ENVIRONMENTAL PLANNING & MANAGEMENT, INC.	$ 747	2.31	$ 1,725	$ -	$ 1,725
Subtotals	$ 94,850		$ 239,880	$ -	$ 239,880

Task Manpower Hours/Costs

FIRM:

EDWARDS AND KELCEY / DMJM / EDAW JV	B2	MULT.	TOTAL MANPOWER	OUT-OF-POCKET EXPENSE	TOTALS
FIRMS	FINAL DESIGN PHASE MEETINGS				
	Costs		Costs	Costs	Costs
EDWARDS AND KELCEY ENGINEERS, INC.	$ 99,578	2.45	$ 243,966	$ -	$ 243,966
DMJM HARRIS	$ 20,235	2.45	$ 49,577	$ -	$ 49,577
STV, INC.	$ 17,446	2.45	$ 42,742	$ -	$ 42,742
EDAW LANDSCAPE	$ 29,878	2.80	$ 83,659	$ -	$ 83,659
IH ENGINEERS, PC (MBE)	$ -	2.35	$ -	$ -	$ -
MEDINA CONSULTANTS (MBE)	$ 1,755	2.50	$ 4,388	$ -	$ 4,388
SAIC	$ 3,113	2.63	$ 8,186	$ -	$ 8,186
TWO TWELVE HARAKAWA, INC. (M/WBE)	$ 3,718	2.52	$ 9,370	$ -	$ 9,370
WEIDLINGER ASSOCIATES, INC.	$ 4,761	2.60	$ 12,378	$ -	$ 12,378
ENVIRONMENTAL PLANNING & MANAGEMENT, INC.	$ 2,801	2.31	$ 6,470	$ -	$ 6,470
Subtotals	$ 183,285		$ 460,735	$ -	$ 460,735

Task Manpower Hours/Costs

FIRM:

EDWARDS AND KELCEY / DMJM / EDAW JV	C				
FIRMS	REVIEW AVAILABLE DOCUMENTS	MULT.	TOTAL MANPOWER	OUT-OF-POCKET EXPENSE	TOTALS
	Costs		Costs	Costs	Costs
EDWARDS AND KELCEY ENGINEERS, INC.	$ 9,221	2.45	$ 22,590	$ -	$ 22,590
DMJM HARRIS	$ 6,189	2.45	$ 15,163	$ -	$ 15,163
STV, INC.	$ 4,684	2.45	$ 11,475	$ -	$ 11,475
EDAW LANDSCAPE	$ 5,546	2.80	$ 15,530	$ -	$ 15,530
IH ENGINEERS, PC (MBE)	$ -	2.35	$ -	$ -	$ -
MEDINA CONSULTANTS (MBE)	$ 1,391	2.50	$ 3,479	$ -	$ 3,479
SAIC	$ 6,646	2.63	$ 17,479	$ -	$ 17,479
TWO TWELVE HARAKAWA, INC. (M/WBE)	$ 3,718	2.52	$ 9,370	$ -	$ 9,370
WEIDLINGER ASSOCIATES, INC.	$ 5,377	2.60	$ 13,980	$ -	$ 13,980
ENVIRONMENTAL PLANNING & MANAGEMENT, INC.	$ 1,204	2.31	$ 2,782	$ -	$ 2,782
Subtotals	$ 43,976		$ 111,847	$ -	$ 111,847

Task Manpower Hours/Costs

FIRM:

EDWARDS AND KELCEY / DMJM / EDAW JV	D1	MULT.	TOTAL MANPOWER	OUT-OF-POCKET EXPENSE	TOTALS
FIRMS	PRELIM. DGN PHASE FIELD VERIFIC. & SURVEY				
	Costs		Costs	Costs	Costs
EDWARDS AND KELCEY ENGINEERS, INC.	$ 6,565	2.45	$ 16,084	$ 3,600	$ 19,684
DMJM HARRIS	$ -	2.45	$ -	$ -	$ -
STV, INC.	$ 584	2.45	$ 1,430	$ -	$ 1,430
EDAW LANDSCAPE	$ -	2.80	$ -	$ -	$ -
IH ENGINEERS, PC (MBE)	$ -	2.35	$ -	$ -	$ -
MEDINA CONSULTANTS (MBE)	$ 24,818	2.50	$ 62,039	$ -	$ 62,039
SAIC	$ 9,273	2.63	$ 24,388	$ -	$ 24,388
TWO TWELVE HARAKAWA, INC. (M/WBE)	$ -	2.52	$ -	$ -	$ -
WEIDLINGER ASSOCIATES, INC.	$ -	2.60	$ -	$ -	$ -
ENVIRONMENTAL PLANNING & MANAGEMENT, INC.	$ -	2.31	$ -	$ -	$ -
Subtotals	$ 41,237		$ 103,942	$ 3,600	$ 107,542

Task Manpower Hours/Costs

FIRM:

EDWARDS AND KELCEY / DMJM / EDAW JV	D2	MULT.	TOTAL MANPOWER	OUT-OF-POCKET EXPENSE	TOTALS
FIRMS	FINAL DGN PHASE FIELD VERIFIC. & SURVEY				
	Costs		Costs	Costs	Costs
EDWARDS AND KELCEY ENGINEERS, INC.	$ 3,748	2.45	$ 9,182	$ 2,400	$ 11,582
DMJM HARRIS	$ -	2.45	$ -	$ -	$ -
STV, INC.	$ 2,335	2.45	$ 5,722	$ -	$ 5,722
EDAW LANDSCAPE	$ -	2.80	$ -	$ -	$ -
IH ENGINEERS, PC (MBE)	$ -	2.35	$ -	$ -	$ -
MEDINA CONSULTANTS (MBE)	$ 9,601	2.50	$ 24,003	$ -	$ 24,003
SAIC	$ -	2.63	$ -	$ -	$ -
TWO TWELVE HARAKAWA, INC. (M/WBE)	$ -	2.52	$ -	$ -	$ -
WEIDLINGER ASSOCIATES, INC.	$ -	2.60	$ -	$ -	$ -
ENVIRONMENTAL PLANNING & MANAGEMENT, INC.	$ 7,860	2.31	$ 18,157	$ -	$ 18,157
Subtotals	$ 23,544		$ 57,063	$ 2,400	$ 59,463

Task Manpower Hours/Costs

FIRM:

EDWARDS AND KELCEY / DMJM / EDAW JV	E				
FIRMS	DESIGN CRITERIA SUMMARIES	MULT.	TOTAL MANPOWER	OUT-OF-POCKET EXPENSE	TOTALS
	Costs		Costs	Costs	Costs
EDWARDS AND KELCEY ENGINEERS, INC.	$ 5,810	2.45	$ 14,235	$ -	$ 14,235
DMJM HARRIS	$ 5,341	2.45	$ 13,085	$ -	$ 13,085
STV, INC.	$ 3,878	2.45	$ 9,502	$ -	$ 9,502
EDAW LANDSCAPE	$ 4,261	2.80	$ 11,930	$ -	$ 11,930
IH ENGINEERS, PC (MBE)	$ -	2.35	$ -	$ -	$ -
MEDINA CONSULTANTS (MBE)	$ -	2.50	$ -	$ -	$ -
SAIC	$ -	2.63	$ -	$ -	$ -
TWO TWELVE HARAKAWA, INC. (M/WBE)	$ 9,789	2.52	$ 24,667	$ -	$ 24,667
WEIDLINGER ASSOCIATES, INC.	$ 6,227	2.60	$ 16,191	$ -	$ 16,191
ENVIRONMENTAL PLANNING & MANAGEMENT, INC.	$ 1,494	2.31	$ 3,451	$ -	$ 3,451
Subtotals	$ 36,799		$ 93,060	$ -	$ 93,060

Task Manpower Hours/Costs

FIRM:

EDWARDS AND KELCEY / DMJM / EDAW JV	F				
FIRMS	PRELIMINARY DESIGN	MULT.	TOTAL MANPOWER	OUT-OF-POCKET EXPENSE	TOTALS
	Costs		Costs	Costs	Costs
EDWARDS AND KELCEY ENGINEERS, INC.	$ 308,425	2.45	$ 755,642	$ 405,000	$ 1,160,642
DMJM HARRIS	$ 77,299	2.45	$ 189,383	$ -	$ 189,383
STV, INC.	$ 375,049	2.45	$ 918,870	$ -	$ 918,870
EDAW LANDSCAPE	$ 222,608	2.80	$ 623,301	$ -	$ 623,301
IH ENGINEERS, PC (MBE)	$ 71,769	2.35	$ 168,656	$ -	$ 168,656
MEDINA CONSULTANTS (MBE)	$ 73,049	2.50	$ 182,624	$ -	$ 182,624
SAIC	$ 49,533	2.63	$ 130,272	$ -	$ 130,272
TWO TWELVE HARAKAWA, INC. (M/WBE)	$ 15,225	2.52	$ 38,367	$ -	$ 38,367
WEIDLINGER ASSOCIATES, INC.	$ 106,206	2.60	$ 276,136	$ -	$ 276,136
ENVIRONMENTAL PLANNING & MANAGEMENT, INC.	$ 19,806	2.31	$ 45,751	$ -	$ 45,751
Subtotals	$ 1,318,969		$ 3,329,001	$ 405,000	$ 3,734,001

Task Manpower Hours/Costs

FIRM:

EDWARDS AND KELCEY / DMJM / EDAW JV	G				
FIRMS	VALUE ENGINEERING	MULT.	TOTAL MANPOWER	OUT-OF-POCKET EXPENSE	TOTALS
	Costs		Costs	Costs	Costs
EDWARDS AND KELCEY ENGINEERS, INC.	$ 8,774	2.45	$ 21,497	$ -	$ 21,497
DMJM HARRIS	$ 4,326	2.45	$ 10,600	$ -	$ 10,600
STV, INC.	$ 4,684	2.45	$ 11,475	$ -	$ 11,475
EDAW LANDSCAPE	$ 5,546	2.80	$ 15,530	$ -	$ 15,530
IH ENGINEERS, PC (MBE)	$ -	2.35	$ -	$ -	$ -
MEDINA CONSULTANTS (MBE)	$ -	2.50	$ -	$ -	$ -
SAIC	$ -	2.63	$ -	$ -	$ -
TWO TWELVE HARAKAWA, INC. (M/WBE)	$ -	2.52	$ -	$ -	$ -
WEIDLINGER ASSOCIATES, INC.	$ 2,040	2.60	$ 5,304	$ -	$ 5,304
ENVIRONMENTAL PLANNING & MANAGEMENT, INC.	$ -	2.31	$ -	$ -	$ -
Subtotals	$ 25,371		$ 64,405	$ -	$ 64,405

Task Manpower Hours/Costs

FIRM:

EDWARDS AND KELCEY / DMJM / EDAW JV	H				
FIRMS	FINAL DESIGN & CONTRACT DOCUMENTS	MULT.	TOTAL MANPOWER	OUT-OF-POCKET EXPENSE	TOTALS
	Costs		Costs	Costs	Costs
EDWARDS AND KELCEY ENGINEERS, INC.	$ 194,549	2.45	$ 476,644	$ 186,000	$ 662,644
DMJM HARRIS	$ 89,480	2.45	$ 219,226	$ -	$ 219,226
STV, INC.	$ 330,820	2.45	$ 810,510	$ -	$ 810,510
EDAW LANDSCAPE	$ 136,804	2.80	$ 383,052	$ -	$ 383,052
IH ENGINEERS, PC (MBE)	$ 104,149	2.35	$ 244,751	$ -	$ 244,751
MEDINA CONSULTANTS (MBE)	$ 9,563	2.50	$ 23,907	$ -	$ 23,907
SAIC	$ 15,897	2.63	$ 41,810	$ -	$ 41,810
TWO TWELVE HARAKAWA, INC. (M/WBE)	$ 14,351	2.52	$ 36,165	$ -	$ 36,165
WEIDLINGER ASSOCIATES, INC.	$ 149,323	2.60	$ 388,240	$ -	$ 388,240
ENVIRONMENTAL PLANNING & MANAGEMENT, INC.	$ 22,960	2.31	$ 53,037	$ -	$ 53,037
Subtotals	$ 1,067,896		$ 2,677,341	$ 186,000	$ 2,863,341

Task Manpower Hours/Costs

FIRM:

EDWARDS AND KELCEY / DMJM / EDAW JV	I1				
FIRMS	PRELIM. COST EST & CONSTRUCT SCHED	MULT.	TOTAL MANPOWER	OUT-OF-POCKET EXPENSE	TOTALS
	Costs		Costs	Costs	Costs
EDWARDS AND KELCEY ENGINEERS, INC.	$ 6,594	2.45	$ 16,155	$ -	$ 16,155
DMJM HARRIS	$ 6,840	2.45	$ 16,758	$ -	$ 16,758
STV, INC.	$ 1,873	2.45	$ 4,590	$ -	$ 4,590
EDAW LANDSCAPE	$ 3,328	2.80	$ 9,318	$ -	$ 9,318
IH ENGINEERS, PC (MBE)	$ 32,034	2.35	$ 75,280	$ -	$ 75,280
MEDINA CONSULTANTS (MBE)	$ -	2.50	$ -	$ -	$ -
SAIC	$ -	2.63	$ -	$ -	$ -
TWO TWELVE HARAKAWA, INC. (M/WBE)	$ -	2.52	$ -	$ -	$ -
WEIDLINGER ASSOCIATES, INC.	$ 2,211	2.60	$ 5,749	$ -	$ 5,749
ENVIRONMENTAL PLANNING & MANAGEMENT, INC.	$ 3,251	2.31	$ 7,509	$ -	$ 7,509
Subtotals	$ 56,131		$ 135,359	$ -	$ 135,359

Task Manpower Hours/Costs

FIRM:

EDWARDS AND KELCEY / DMJM / EDAW JV	12				
FIRMS	FINAL COST ESTIMATE & CONSTRUCT SCHED	MULT.	TOTAL MANPOWER	OUT-OF-POCKET EXPENSE	TOTALS
	Costs		Costs	Costs	Costs
EDWARDS AND KELCEY ENGINEERS, INC.	$ 8,103	2.45	$ 19,853	$ -	$ 19,853
DMJM HARRIS	$ 13,680	2.45	$ 33,516	$ -	$ 33,516
STV, INC.	$ 2,810	2.45	$ 6,885	$ -	$ 6,885
EDAW LANDSCAPE	$ 5,194	2.80	$ 14,542	$ -	$ 14,542
IH ENGINEERS, PC (MBE)	$ 63,441	2.35	$ 149,086	$ -	$ 149,086
MEDINA CONSULTANTS (MBE)	$ -	2.50	$ -	$ -	$ -
SAIC	$ -	2.63	$ -	$ -	$ -
TWO TWELVE HARAKAWA, INC. (M/WBE)	$ -	2.52	$ -	$ -	$ -
WEIDLINGER ASSOCIATES, INC.	$ 3,317	2.60	$ 8,624	$ -	$ 8,624
ENVIRONMENTAL PLANNING & MANAGEMENT, INC.	$ -	2.31	$ -	$ -	$ -
Subtotals	$ 96,545		$ 232,506	$ -	$ 232,506

Task Manpower Hours/Costs

FIRM:

EDWARDS AND KELCEY / DMJM / EDAW JV	J				
FIRMS	POST AWARD DUTIES	MULT.	TOTAL MANPOWER	OUT-OF-POCKET EXPENSE	TOTALS
	Costs		Costs	Costs	Costs
EDWARDS AND KELCEY ENGINEERS, INC.	$ 122,787	2.45	$ 300,829	$ 84,000	$ 384,829
DMJM HARRIS	$ 51,295	2.45	$ 125,672	$ -	$ 125,672
STV, INC.	$ 50,703	2.45	$ 124,222	$ -	$ 124,222
EDAW LANDSCAPE	$ 63,527	2.80	$ 177,875	$ -	$ 177,875
IH ENGINEERS, PC (MBE)	$ 54,006	2.35	$ 126,914	$ -	$ 126,914
MEDINA CONSULTANTS (MBE)	$ 4,372	2.50	$ 10,929	$ -	$ 10,929
SAIC	$ 11,275	2.63	$ 29,652	$ -	$ 29,652
TWO TWELVE HARAKAWA, INC. (M/WBE)	$ -	2.52	$ -	$ -	$ -
WEIDLINGER ASSOCIATES, INC.	$ -	2.60	$ -	$ -	$ -
ENVIRONMENTAL PLANNING & MANAGEMENT, INC.	$ 5,330	2.31	$ 12,313	$ -	$ 12,313
Subtotals	$ 363,294		$ 908,406	$ 84,000	$ 992,406

Attachment F - Elements of Pricing and Compensation Proposal

Manpower Hours/Costs

FIRM: Edwards and Kelcey Engineers, Inc.

Multiplier: 2.45

A1 = PRELIMINARY DESIGN PROJECT SCHEDULE; A2 = FINAL DESIGN PROJECT SCHEDULE; B1 = PRELIMINARY DESIGN PHASE MEETINGS; B2 = FINAL DESIGN PHASE MEETINGS; C = REVIEW AVAILABLE DOCUMENTS

TITLE / POSITION (NOTE TO PREPARER - DO NOT MODIFY FORMULAS IN THIS WORK SHEET)	Base Rate	A1 Hours	A1 Total D.T.L.	A1 Total Labor	A2 Hours	A2 Total D.T.L.	A2 Total Labor	B1 Hours	B1 Total D.T.L.	B1 Total Labor	B2 Hours	B2 Total D.T.L.	B2 Total Labor	C Hours	C Total D.T.L.	C Total Labor
PROJECT MANAGER	$ 96.15	24	$ 2,308	$ 5,654	16	$ 1,538	$ 3,769	240	$ 23,076	$ 56,536	680	$ 65,382	$ 160,186	40	$ 3,846	$ 9,423
	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
INFRASTRUCTURE DESIGN MANAGER	$ 67.31	8	$ 539	$ 1,319	8	$ 539	$ 1,319	180	$ 12,116	$ 29,684	480	$ 32,309	$ 79,157	40	$ 2,692	$ 6,596
	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
ENGINEER VII (CMOG)	$ 81.25	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
ENGINEER VII	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
ENGINEER VI	$ 54.85	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
ENGINEER V	$ 47.15	0	$ -	$ -	0	$ -	$ -	40	$ 1,887	$ 4,623	40	$ 1,887	$ 4,623	40	$ 1,887	$ 4,623
	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
ENGINEER IV	$ 38.75	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
ENGINEER III	$ 33.24	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
ENGINEER II	$ 27.70	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
ENGINEER TECH IV	$ 33.13	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	24	$ 795	$ 1,948
	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
ENGINEER TECH III	$ 30.85	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
ENGINEER TECH II	$ 22.67	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
TECH TYPIST	$ 17.10	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
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	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Totals		32	$ 2,846	$ 6,973	24	$ 2,077	$ 5,088	460	$ 37,079	$ 90,843	1,200	$ 99,578	$ 243,966	144	$ 9,221	$ 22,590

D1 = PRELIMINARY DESIGN PHASE FIELD VERIFICATION & SURVEY; D2 = FINAL DESIGN PHASE FIELD VERIFICATION & SURVEY; E = DESIGN CRITERIA SUMMARIES; F = PRELIMINARY DESIGN; G = VALUE ENGINEERING

TITLE / POSITION	D1 Hours	D1 Total D.T.L.	D1 Total Labor	D2 Hours	D2 Total D.T.L.	D2 Total Labor	E Hours	E Total D.T.L.	E Total Labor	F Hours	F Total D.T.L.	F Total Labor	G Hours	G Total D.T.L.	G Total Labor
PROJECT MANAGER	24	$ 2,308	$ 5,654	16	$ 1,538	$ 3,769	24	$ 2,308	$ 5,654	600	$ 57,690	$ 141,341	24	$ 2,308	$ 5,654
	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
INFRASTRUCTURE DESIGN MANAGER	24	$ 1,615	$ 3,958	16	$ 1,077	$ 2,639	24	$ 1,615	$ 3,958	1,000	$ 67,310	$ 164,910	40	$ 2,692	$ 6,596
	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
ENGINEER VII (CMOG)	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	60	$ 4,888	$ [illegible]	0	$ -	$ -
	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
ENGINEER VII	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
ENGINEER VI	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
ENGINEER V	56	$ 2,642	$ 6,473	24	$ 1,132	$ 2,774	40	$ 1,887	$ 4,623	1,300	$ 61,300	$ 150,220	40	$ 3,774	$ 9,247
	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
ENGINEER IV	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	328	$ 12,720	$ 31,165	0	$ -	$ -
	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
ENGINEER III	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	1,790	$ 59,425	$ 145,242	0	$ -	$ -
	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
ENGINEER II	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
ENGINEER TECH IV	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	1,480	$ 48,833	$ 117,882	0	$ -	$ -
	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
ENGINEER TECH III	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
ENGINEER TECH II	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
TECH TYPIST	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
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	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Totals	104	$ 6,565	$ 16,084	56	$ 3,746	$ 9,182	88	$ 5,810	$ 14,235	[illegible]	$ 300,439	$ 736,842	144	$ 8,774	$ 21,497

Number of Prelim. Drawings: [illegible]

H = FINAL DESIGN & CONTRACT DOCUMENTS; I1 = PRELIMINARY DESIGN COST ESTIMATING AND CONSTRUCTION SCHEDULE; I2 = FINAL DESIGN COST ESTIMATING AND CONSTRUCTION SCHEDULE; J = POST AWARD DUTIES

TITLE / POSITION	H Hours	H Total D.T.L.	H Total Labor	I1 Hours	I1 Total D.T.L.	I1 Total Labor	I2 Hours	I2 Total D.T.L.	I2 Total Labor	J Hours	J Total D.T.L.	J Total Labor	TOTALS Hours	TOTALS Total D.T.L.	TOTALS Total Labor
PROJECT MANAGER	500	$ 48,075	$ 117,784	40	$ 3,846	$ 9,423	40	$ 3,846	$ 9,423	678	$ [illegible]	$ [illegible]	[illegible]	$ [illegible]	$ 694,076
	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
INFRASTRUCTURE DESIGN MANAGER	720	$ 48,463	$ 118,735	24	$ 1,615	$ 3,958	24	$ 1,615	$ 3,958	400	$ 26,924	$ 65,964	2,984	$ 201,122	$ 492,750
	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
ENGINEER VII (CMOG)	60	$ 4,888	$ [illegible]	0	$ -	$ -	0	$ -	$ -	60	$ 4,908	$ [illegible]	248	$ 14,794	$ [illegible]
	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
ENGINEER VII	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
ENGINEER VI	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
ENGINEER V	650	$ 30,665	$ 75,129	24	$ 1,132	$ 2,774	56	$ 2,642	$ 6,473	128	$ 6,061	$ 14,474	2,360	$ [illegible]	$ 271,822
	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
ENGINEER IV	780	$ 7,956	$ 19,489	0	$ -	$ -	0	$ -	$ -	640	$ 20,658	$ 50,587	848	$ 26,776	$ 63,148
	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
ENGINEER III	860	$ 30,631	$ 75,046	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	3,340	$ [illegible]	$ 383,644
	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
ENGINEER II	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
ENGINEER TECH IV	120	$ 22,851	$ 56,420	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	3,184	$ 72,980	$ [illegible]
	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
ENGINEER TECH III	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
ENGINEER TECH II	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
TECH TYPIST	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
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	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Totals	[illegible]	$ 194,643	$ 476,844	88	$ 6,594	$ 16,164	120	$ 8,100	$ 19,836	1,928	$ 151,797	$ [illegible]	14,796	$ 618,156	$ 1,509,580

Number of Contract Drawings: [illegible]

ASSUMED NUMBER OF DRAWINGS [illegible]

Attachment F - Elements of Pricing and Compensation Proposal

Manpower Hours/Costs

FIRM: Edwards and Kelcey Engineers, Inc.

Description of Expense	A1 PRELIMINARY DESIGN PROJECT SCHEDULE	A2 FINAL DESIGN PROJECT SCHEDULE	B1 PRELIMINARY DESIGN PHASE MEETINGS	B2 FINAL DESIGN PHASE MEETINGS	C REVIEW AVAILABLE DOCUMENTS	D1 PRELIM DESIGN PHASE FIELD VERIFICATION & SURVEY	D2 FINAL DESIGN PHASE FIELD VERIFICATION & SURVEY	E DESIGN CRITERIA SUMMARIES	F PRELIMINARY DESIGN	G VALUE ENGINEERING	H FINAL DESIGN & CONTRACT DOCUMENTS	I1 PRELIM COST EST AND CONSTRUCT SCHEDULE	I2 FINAL COST EST AND CONSTRUCT SCHEDULE	J POST AWARD DUTIES	TOTALS
NOTE TO PREPARER - DO NOT MODIFY FORMULAS IN THIS WORK SHEET	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs
1. Reproductions/Printing	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
2. Mailing/Deliveries	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 30,000	$ -	$ 50,000	$ -	$ -	$ 48,000	$ 128,000
3. General Presentation Materials/Production	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
4. Special Graphics:	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 10,000	$ -	$ 10,000	$ -	$ -	$ 20,000	$ 40,000
4.1. Site Model	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
4.2. 2-Minute Animation	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 15,000	$ -	$ 5,000	$ -	$ -	$ -	$ 20,000
4.3. Renderings	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
5. Expense Allowances:	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 90,000	$ -	$ -	$ -	$ -	$ -	$ 90,000
5.1. Arborist	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
5.2. Corrosion Report	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
5.3. Hazardous Materials Testing (By PA)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
5.4. Architectural Lighting	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
5.5. Prev. Wage Rates (Survey)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 4,000	$ -	$ 4,000	$ -	$ -	$ 16,000	$ 24,000
5.6. Record Research (ROW)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 24,000	$ -	$ -	$ -	$ -	$ -	$ 24,000
5.7. Travel (Special Long Distance)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
6. Project Office Allowance	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 24,000	$ -	$ 12,000	$ -	$ -	$ -	$ 36,000
6.1. Office Space Rental (anticipated duration of entire design contract, approx. 18 months)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 6,000
6.2. Office Equipment (e.g., phone system, fax machines, computers, supplies, etc.)	$ -	$ -	$ -	$ -	$ -	$ 3,600	$ 2,400	$ -	$ 3,000	$ -	$ -	$ -	$ -	$ -	$ 3,000
	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 5,000	$ -	$ 5,000	$ -	$ -	$ -	$ 10,000
	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
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	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 100,000	$ -	$ 100,000	$ -	$ -	$ -	$ 200,000
	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 100,000	$ -	$ -	$ -	$ -	$ -	$ 100,000
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	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Totals	$ -	$ -	$ -	$ -	$ -	$ 3,600	$ 2,400	$ -	$ 405,000	$ -	$ 186,000	$ -	$ -	$ 84,000	$ 681,000

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File Name: Attachment F EK Total.xls

Attachment F - Elements of Pricing and Compensation Proposal

Manpower Hours/Costs

FIRM: Edwards and Kelcey Engineers, Inc.

TITLE / POSITION	Multiplier	A1 PRELIMINARY DESIGN PROJECT SCHEDULE		A2 FINAL DESIGN PROJECT SCHEDULE		B1 PRELIMINARY DESIGN PHASE MEETINGS		B2 FINAL DESIGN PHASE MEETINGS		C REVIEW AVAILABLE DOCUMENTS		D1 PRELIM DESIGN PHASE FIELD VERIFICATION & SURVEY		D2 FINAL DESIGN PHASE FIELD VERIFICATION & SURVEY	
		Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total
NOTE TO PREPARER - DO NOT MODIFY FORMULAS IN THIS WORK SHEET. IT IS GENERATED FROM THE FOLLOWING DATA ENTRY SHEETS.	2.45														
Total Man Hours and Costs		32	$ 2,646	24	$ 2,077	480	$ 37,079	1,200	$ 99,574	144	$ 8,221	104	$ 6,563	56	$ 3,748
Total Labor Costs			$ 6,973		$ 5,088		$ 90,843		$ 243,966		$ 22,590		$ 16,084		$ 9,182
Total Out-of-Pocket Costs			$ -		$ -		$ -		$ -		$ -		$ 3,600.00		$ 2,400.00
Totals		32	$ 6,973	24	$ 5,088	480	$ 90,843	1,200	$ 243,966	144	$ 22,590	104	$ 19,684	56	$ 11,582
ASSUMED NUMBER OF DRAWINGS															

TITLE / POSITION	E DESIGN CRITERIA SUMMARIES		F PRELIMINARY DESIGN		G VALUE ENGINEERING		H FINAL DESIGN & CONTRACT DOCUMENTS		I1 PRELIM COST ESTIMATING AND CONSTRUCTION SCHEDULE		I2 FINAL COST ESTIMATING AND CONSTRUCTION SCHEDULE		J POST AWARD DUTIES		TOTALS	
	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total
NOTE TO PREPARER - DO NOT MODIFY FORMULAS IN THIS WORK SHEET. IT IS GENERATED FROM THE FOLLOWING DATA ENTRY SHEETS.																
Total Man Hours and Costs	88	$ 5,810	6,500	$ 308,425	144	$ 8,774	3,620	$ 194,548	88	$ 8,594	120	$ 8,103	1,920	$ 122,787	14,706	$ 816,155
Total Labor Costs		$ 14,238		$ 756,642		$ 21,497		$ 476,644		$ 16,153		$ 19,853		$ 300,829		$ 1,998,580
Total Out-of-Pocket Costs		$ -		$ 405,000		$ -		$ 186,000		$ -		$ -		$ 64,000		$ 681,000
Totals	88	$ 14,238	6,500	$ 1,160,642	144	$ 21,497	3,620	$ 662,644	88	$ 16,153	120	$ 19,853	1,920	$ 364,829	14,706	$ 2,680,580
ASSUMED NUMBER OF DRAWINGS	Number of Prelim. Drawings		100		Number of Contract Drawings		184									

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File Name: Attachment F EK Total.xls

Manpower Hours/Costs

		A1			A2			B1			B2		
DHJM Hourly	Multiplier	PRELIMINARY DESIGN PROJECT SCHEDULE			FINAL DESIGN PROJECT SCHEDULE			PRELIMINARY DESIGN PHASE MEETINGS			FINAL DESIGN PHASE MEETINGS		
TITLE / POSITION	2.45	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor
NOTE TO PREPARER - DO NOT MODIFY FORMULAS IN THIS WORK SHEET	Base Rate												
Project Manager	$ 53.09	0	$ -	$ -	0	$ -	$ -	120	$ 6,304	$ 15,891	280	$ 14,848	$ 35,370
Principal Engineer	$ 58.13	0	$ -	$ -	0	$ -	$ -	24	$ 1,373	$ 3,342	56	$ 3,087	$ 7,354
Project Engineer	$ 46.17	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Senior Engineer	$ 41.07	0	$ -	$ -	0	$ -	$ -	24	$ [illegible]	$ 2,415	56	$ 2,800	$ 5,825
Engineer	$ 34.24	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Senior CADD Drafter	$ 43.73	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
CADD Drafter	$ 27.33	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Project Controls Manager	$ 37.80	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Senior Scheduler	$ 43.15	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Scheduler	$ 32.18	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Senior Estimator	$ 45.60	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Estimator	$ 30.40	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Document Control Technician	$ 28.65	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Totals		0	$ -	$ -	0	$ -	$ -	168	$ 8,471	$ 21,267	397	$ 20,265	$ 48,577

	C			D1			D2			E		
	REVIEW AVAILABLE DOCUMENTS			PRELIMINARY DESIGN PHASE FIELD VERIFICATION & SURVEY			FINAL DESIGN PHASE FIELD VERIFICATION & SURVEY			DESIGN CRITERIA SUMMARIES		
TITLE / POSITION	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor
Project Manager	40	$ 2,121	$ 5,157	0	$ -	$ -	0	$ -	$ -	24	$ 1,273	$ 3,116
Principal Engineer	40	$ 2,395	$ 5,400	0	$ -	$ -	0	$ -	$ -	40	$ 2,325	$ 5,400
Project Engineer	40	$ 1,683	$ 4,284	0	$ -	$ -	0	$ -	$ -	40	$ 1,683	$ 4,284
Senior Engineer	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Engineer	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Senior CADD Drafter	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
CADD Drafter	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Project Controls Manager	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Senior Scheduler	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Scheduler	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Senior Estimator	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Estimator	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Document Control Technician	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Totals	120	$ 6,199	$ 15,750	0	$ -	$ -	0	$ -	$ -	104	$ 5,341	$ 13,885

	F			G			H		
	PRELIMINARY DESIGN			VALUE ENGINEERING			FINAL DESIGN & CONTRACT DOCUMENTS		
TITLE / POSITION	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor
Project Manager	480	$ 25,484	$ 64,448	40	$ 2,121	$ 5,157	640	$ 33,939	$ 82,181
Principal Engineer	220	$ 12,139	$ 29,714	40	$ 2,325	$ 5,400	360	$ 19,845	$ 48,603
Project Engineer	270	$ 10,845	$ 26,101	0	$ -	$ -	360	$ 16,769	$ 41,074
Senior Engineer	0	$ -	$ -	0	$ -	$ -	180	$ 7,397	$ 18,111
Engineer	360	$ 15,825	$ 47,508	0	$ -	$ -	0	$ -	$ -
Senior CADD Drafter	270	$ 11,561	$ 28,367	0	$ -	$ -	270	$ 11,557	$ 28,287
CADD Drafter	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Project Controls Manager	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Senior Scheduler	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Scheduler	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Senior Estimator	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Estimator	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Document Control Technician	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Totals	1,110	$ 77,299	$ 189,343	80	$ 4,226	$ 14,006	1,810	$ 83,446	$ 219,225

	I1			I2			J			TOTALS		
	PRELIMINARY DESIGN COST ESTIMATING AND CONSTRUCTION SCHEDULE			FINAL DESIGN COST ESTIMATING AND CONSTRUCTION SCHEDULE			POST AWARD DUTIES					
TITLE / POSITION	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor
Project Manager	0	$ -	$ -	0	$ -	$ -	640	$ 33,939	$ 82,181	2,234	$ 113,469	$ 280,249
Principal Engineer	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	760	$ 43,000	$ 105,351
Project Engineer	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	480	$ 39,738	$ 75,302
Senior Engineer	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	270	$ 10,470	$ 26,141
Engineer	0	$ -	$ -	0	$ -	$ -	320	$ 11,200	$ 42,301	680	$ 28,880	$ 60,350
Senior CADD Drafter	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	540	$ 23,876	$ 58,583
CADD Drafter	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Project Controls Manager	120	$ 6,640	$ 16,750	240	$ 13,680	$ 33,516	0	$ -	$ -	360	$ 20,520	$ 50,214
Senior Scheduler	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Scheduler	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Senior Estimator	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Estimator	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Document Control Technician	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Totals	120	$ 6,240	$ 16,750	240	$ 13,680	$ 33,516	960	$ 51,396	$ 124,572	5,544	$ 262,237	$ 654,226

Number of Prelim. Drawings

Number of Contract Drawings

ASSUMED NUMBER OF [illegible]

Attachment F - Elements of Pricing and Compensation Proposal

Manpower Hours/Costs

FIRM:

DMJM Harris

Description of Expense	A1	A2	B1	B2	C	D1	D2	E	F	G	H	I1	I2	J	TOTALS
	PRELIMINARY DESIGN PROJECT SCHEDULE	FINAL DESIGN PROJECT SCHEDULE	PRELIMINARY DESIGN PHASE MEETINGS	FINAL DESIGN PHASE MEETINGS	REVIEW AVAILABLE DOCUMENTS	PRELIM DESIGN PHASE FIELD VERIFICATION & SURVEY	FINAL DESIGN PHASE FIELD VERIFICATION & SURVEY	DESIGN CRITERIA SUMMARIES	PRELIMINARY DESIGN	VALUE ENGINEERING	FINAL DESIGN & CONTRACT DOCUMENTS	PRELIM COST EST AND CONSTRUCT SCHEDULE	FINAL COST EST AND CONSTRUCT SCHEDULE	POST AWARD DUTIES	
NOTE TO PREPARER - DO NOT MODIFY FORMULAS IN THIS WORK SHEET	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs
	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
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Totals	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

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File Name: Attachment F - DMJM.xls

Attachment F - Elements of Pricing and Compensation Proposal

Manpower Hours/Costs

FIRM: DMJM Harris

TITLE / POSITION	Multiplier	A1 PRELIMINARY DESIGN PROJECT SCHEDULE		A2 FINAL DESIGN PROJECT SCHEDULE		B1 PRELIMINARY DESIGN PHASE MEETINGS		B2 FINAL DESIGN PHASE MEETINGS		C REVIEW AVAILABLE DOCUMENTS		D1 PRELIM DESIGN PHASE FIELD VERIFICATION & SURVEY		D2 FINAL DESIGN PHASE FIELD VERIFICATION & SURVEY		E DESIGN CRITERIA SUMMARIES		F PRELIMINARY DESIGN		G VALUE ENGINEERING		H FINAL DESIGN & CONTRACT DOCUMENTS		I1 PRELIM COST ESTIMATING AND CONSTRUCTION SCHEDULE		I2 FINAL COST ESTIMATING AND CONSTRUCTION SCHEDULE		J POST AWARD DUTIES		TOTALS	
		Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total
NOTE TO PREPARER - DO NOT MODIFY FORMULAS IN THIS WORK SHEET. IT IS GENERATED FROM THE FOLLOWING DATA ENTRY SHEETS.	2.43																														
Total Man Hours and Costs		0	$ -	0	$ -	168	$ 8,672	392	$ 20,235	120	$ 6,189	0	$ -	0	$ -	104	$ 5,341	1,520	$ 77,289	80	$ 4,326	1,810	$ 89,480	120	$ 6,840	240	$ 13,680	980	$ 51,295	5,514	$ 283,357
Total Labor Costs			$ -		$ -		$ 21,247		$ 49,577		$ 15,163		$ -		$ -		$ 13,085		$ 189,383		$ 10,800		$ 219,226		$ 16,756		$ 33,516		$ 125,672		$ 694,229
Total Out-of-Pocket Costs			$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Totals		0	$ -	0	$ -	168	$ 21,247	392	$ 49,577	120	$ 15,163	0	$ -	0	$ -	104	$ 13,085	1,520	$ 189,383	80	$ 10,800	1,810	$ 219,226	120	$ 16,756	240	$ 33,516	980	$ 125,672	5,514	$ 694,229
ASSUMED NUMBER OF DRAWINGS																Number of Prelim. Drawings		14		Number of Contract Drawings			28								

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File Name: Attachment F - DMJM.xls

Attachment F - Elements of Pricing and Compensation Proposal

Manpower Hours/Costs

Print:

STV INCORPORATED	Multiplier	A1			A2			B1			B2			C		
TITLE / POSITION	2.44	PRELIMINARY DESIGN PROJECT SCHEDULE			FINAL DESIGN PROJECT SCHEDULE			PRELIMINARY DESIGN PHASE MEETINGS			FINAL DESIGN PHASE MEETINGS			REVIEW AVAILABLE DOCUMENTS		
WRITE TO PREPARER - DO NOT MODIFY FORMULAS IN THIS WORK SHEET	Base Rate	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor
	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
VIII Principal Engineer	$ 72.86	0	$ -	$ -	0	$ -	$ -	100	$ 7,288	$ 17,880	180	$ 13,136	$ 32,184	40	$ 2,914	$ 7,162
VI Assistant Project Manager	$ 53.87	0	$ -	$ -	0	$ -	$ -	40	$ 2,195	$ 5,279	80	$ 4,308	$ 10,558	0	$ -	$ -
V Sr. Engineer II	$ 44.11	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	40	$ 1,764	$ 4,323
IV Sr. Engineer I	$ 38.84	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
III Engineer	$ 31.80	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
III Jr. Engineer	$ 26.48	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
N/A Technical Typist	$ 22.48	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Totals		0	$ -	$ -	0	$ -	$ -	140	$ 9,483	$ 23,159	260	$ 17,444	$ 42,742	80	$ 4,678	$ 11,485

ASSUMED NUMBER OF DRAWINGS?

STV INCORPORATED	D1			D2			E			F			G		
TITLE / POSITION	PRELIMINARY DESIGN PHASE FIELD VERIFICATION & SURVEY			FINAL DESIGN PHASE FIELD VERIFICATION & SURVEY			DESIGN CRITERIA SUMMARIES			PRELIMINARY DESIGN			VALUE ENGINEERING		
	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor
	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
VIII Principal Engineer	8	$ 583	$ 1,430	32	$ 2,332	$ 5,721	40	$ 2,914	$ 7,162	700	$ 51,000	$ 125,161	40	$ 2,914	$ 7,162
VI Assistant Project Manager	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	320	$ 17,237	$ 42,330	0	$ -	$ -
V Sr. Engineer II	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	1,560	$ 68,368	$ 167,602	40	$ 1,764	$ 4,323
IV Sr. Engineer I	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	500	$ 19,420	$ 46,563	0	$ -	$ -
III Engineer	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	2,400	$ 76,352	$ 187,376	0	$ -	$ -
III Jr. Engineer	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	5,000	$ 132,343	$ 324,237	0	$ -	$ -
N/A Technical Typist	0	$ -	$ -	0	$ -	$ -	40	$ 899	$ 2,200	400	$ 8,991	$ 21,466	0	$ -	$ -
Totals	8	$ 583	$ 1,430	32	$ 2,332	$ 5,721	80	$ 3,813	$ 9,362	10,879	$ 375,843	$ 913,670	80	$ 4,678	$ 11,485

Number of Prelim. Drawings: [illegible]

STV INCORPORATED	H			I1			I2			J			TOTALS		
TITLE / POSITION	FINAL DESIGN & CONTRACT DOCUMENTS			PRELIMINARY DESIGN COST ESTIMATING AND CONSTRUCTION SCHEDULE			FINAL DESIGN COST ESTIMATING AND CONSTRUCTION SCHEDULE			POST AWARD DUTIES					
	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor
	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
VIII Principal Engineer	600	$ 43,718	$ 107,231	16	$ 1,166	$ 2,861	24	$ 1,749	$ 4,291	200	$ 14,580	$ 35,760	1,980	$ 144,300	$ 354,096
VI Assistant Project Manager	320	$ 17,237	$ 42,330	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	760	$ 40,937	$ 100,277
V Sr. Engineer II	1,600	$ 70,574	$ 172,906	16	$ 706	$ 1,729	24	$ 1,059	$ 2,594	240	$ 10,586	$ 25,936	3,540	$ 154,821	$ 379,311
IV Sr. Engineer I	200	$ 7,829	$ 19,420	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	700	$ 27,790	$ 67,989
III Engineer	2,500	$ 79,750	$ 195,394	0	$ -	$ -	0	$ -	$ -	800	$ 25,321	$ 62,525	5,700	$ 181,636	$ 445,437
III Jr. Engineer	4,000	$ 105,900	$ 258,470	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	9,000	$ 238,289	$ 583,807
N/A Technical Typist	236	$ 5,305	$ 13,005	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	676	$ 15,195	$ 38,664
Totals	9,456	$ 330,629	$ 810,518	32	$ 1,872	$ 4,590	48	$ 2,808	$ 6,885	1,240	$ 50,763	$ 124,227	22,335	$ 554,515	$ 1,370,000

Number of Contract Drawings: [illegible]

File Name: Attachment F STV Total.xls

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Attachment F - Elements of Pricing and Compensation Proposal

Manpower Hours/Costs

FIRM:

STV INCORPORATED	A1	A2	B1	B2	C	D1	D2	E	F	G	H	I1	I2	J	TOTALS
Description of Expense	PRELIMINARY DESIGN PROJECT SCHEDULE	FINAL DESIGN PROJECT SCHEDULE	PRELIMINARY DESIGN PHASE MEETINGS	FINAL DESIGN PHASE MEETINGS	REVIEW AVAILABLE DOCUMENTS	PRELIM DESIGN PHASE FIELD VERIFICATION & SURVEY	FINAL DESIGN PHASE FIELD VERIFICATION & SURVEY	DESIGN CRITERIA SUMMARIES	PRELIMINARY DESIGN	VALUE ENGINEERING	FINAL DESIGN & CONTRACT DOCUMENTS	PRELIM COST EST AND CONSTRUCT SCHEDULE	FINAL COST EST AND CONSTRUCT SCHEDULE	POST AWARD DUTIES	
NOTE TO PREPARER - DO NOT MODIFY FORMULAS IN THIS WORK SHEET	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs
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File Name: Attachment F STV Total.xls

Attachment F - Elements of Pricing and Compensation Proposal

Manpower Hours/Costs

FIRM: STV INCORPORATED

TITLE / POSITION	Multiplier	A1 PRELIMINARY DESIGN PROJECT SCHEDULE		A2 FINAL DESIGN PROJECT SCHEDULE		B1 PRELIMINARY DESIGN PHASE MEETINGS		B2 FINAL DESIGN PHASE MEETINGS		C REVIEW AVAILABLE DOCUMENTS		D1 PRELIM DESIGN PHASE FIELD VERIFICATION & SURVEY		D2 FINAL DESIGN PHASE FIELD VERIFICATION & SURVEY		E DESIGN CRITERIA SUMMARIES		F PRELIMINARY DESIGN		G VALUE ENGINEERING		H FINAL DESIGN & CONTRACT DOCUMENTS		I1 PRELIM COST ESTIMATING AND CONSTRUCTION SCHEDULE		I2 FINAL COST ESTIMATING AND CONSTRUCTION SCHEDULE		J POST AWARD DUTIES		TOTALS	
		Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total
NOTE TO PREPARER - DO NOT MODIFY FORMULAS IN THIS WORK SHEET. IT IS GENERATED FROM THE FOLLOWING DATA ENTRY SHEETS.	2.45																														
		0	$ -	0	$ -	140	$ 9,453	280	$ 17,448	80	$ 4,984	6	$ 584	32	$ 2,338	80	$ 3,678	10,870	$ 375,049	80	$ 4,864	9,456	$ 330,820	32	$ 1,873	48	$ 2,810	1,240	$ 80,703	22,325	$ 804,318
Total Man Hours and Costs			$ -		$ -		$ 23,158		$ 42,742		$ 11,475		$ 1,430		$ 5,722		$ 9,002		$ 918,370		$ 11,475		$ 910,510		$ 4,590		$ 6,885		$ 124,222		$ 1,870,883
Total Labor Costs			$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Total Out-of-Pocket Costs			$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Totals		0	$ -	0	$ -	140	$ 23,158	280	$ 42,742	80	$ 11,475	6	$ 1,430	32	$ 8,722	80	$ 9,863	10,870	$ 918,370	80	$ 11,475	9,456	$ 910,510	32	$ 4,590	48	$ 6,885	1,240	$ 124,222	22,325	$ 1,870,883
ASSUMED NUMBER OF DRAWINGS																Number of Prelim. Drawings		100		Number of Contract Drawings			192								

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File Name: Attachment F STV Total.xls

Attachment F - Elements of Pricing and Compensation Proposal

Manpower Hours/Costs

FIRM:

EDAW Landscape	Multiplier	A1			A2			B1			B2			C			D1			D2			E			F			G			H			I1			I2			J			TOTALS		
TITLE / POSITION	2.80	PRELIMINARY DESIGN PROJECT SCHEDULE			FINAL DESIGN PROJECT SCHEDULE			PRELIMINARY DESIGN PHASE MEETINGS			FINAL DESIGN PHASE MEETINGS			REVIEW AVAILABLE DOCUMENTS			PRELIMINARY DESIGN PHASE FIELD VERIFICATION & SURVEY			FINAL DESIGN PHASE FIELD VERIFICATION & SURVEY			DESIGN CRITERIA SUMMARIES			PRELIMINARY DESIGN			VALUE ENGINEERING			FINAL DESIGN & CONTRACT DOCUMENTS			PRELIMINARY DESIGN COST ESTIMATING AND CONSTRUCTION SCHEDULE			FINAL DESIGN COST ESTIMATING AND CONSTRUCTION SCHEDULE			POST AWARD DUTIES					
NOTE TO PREPARER - DO NOT MODIFY FORMULAS IN THIS WORK SHEET	Base Rate	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor
	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Urban Design Manager	$ 80.38	8	$ 643	$ 1,800	8	$ 643	$ 1,800	120	$ 9,643	$ 27,001	327	$ 26,287	$ 73,603	40	$ 3,214	$ 9,000	0	$ -	$ -	0	$ -	$ -	24	$ 1,929	$ 5,400	1,140	$ 91,618	$ 256,509	40	$ 3,214	$ 9,000	540	$ 43,394	$ 121,504	24	$ 1,929	$ 5,400	24	$ 1,929	$ 5,400	340	$ 27,322	$ 76,503	[illegible]	$ 213,754	$ 598,521
	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Design Manager	$ 58.30	0	$ -	$ -	0	$ -	$ -	20	$ 1,190	$ 3,336	20	$ 1,190	$ 3,335	40	$ 2,332	$ 6,530	0	$ -	$ -	0	$ -	$ -	40	$ 2,332	$ 6,530	1,280	$ 73,480	$ 205,744	40	$ 2,332	$ 6,530	600	$ 37,896	$ 106,109	24	$ 1,399	$ 3,916	56	$ 3,265	$ 9,143	480	$ 27,986	$ 78,361	[illegible]	$ 139,333	$ 429,332
	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Urban Designer	$ 78.56	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	600	$ 47,136	$ 131,981	0	$ -	$ -	120	$ 9,427	$ 26,396	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	[illegible]	$ 56,563	$ 158,377
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Sr Landscape Architect	$ 48.18	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
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Landscape Architect	$ 30.00	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	270	$ 8,100	$ 22,681	0	$ -	$ -	1,360	$ 40,801	$ 114,404	0	$ -	$ -	0	$ -	$ -	240	$ 7,200	$ 20,161	[illegible]	$ 66,602	$ 188,243
	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Principal Irrigation/Water Engineer	$ 57.52	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	40	$ 2,301	$ 6,443	0	$ -	$ -	20	$ 1,150	$ 3,221	0	$ -	$ -	0	$ -	$ -	6	$ 345	$ 966	66	$ 3,796	$ 10,630
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Irrigation Engineer	$ 33.49	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	80	$ 2,679	$ 7,502	0	$ -	$ -	0	$ -	$ -	19	$ 674	$ 1,888	99	$ 3,314	$ 9,280
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Technical Typist	$ 26.59	0	$ -	$ -	0	$ -	$ -	12	$ 319	$ 893	16	$ 425	$ 1,191	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	60	$ 1,595	$ 4,467	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	88	$ 2,340	$ 6,552
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Totals		8	$ 643	$ 1,800	8	$ 643	$ 1,800	152	$ 11,153	$ 31,153	363	$ 29,976	$ 83,936	80	$ 5,546	$ 15,530	0	$ -	$ -	0	$ -	$ -	64	$ 4,261	$ 11,930	3,330	$ 222,635	$ 623,381	80	$ 5,546	$ 15,530	2,880	$ 136,894	$ 383,302	48	$ 3,329	$ 9,320	80	$ 5,194	$ 14,543	1,085	$ 63,527	$ 177,875	9,445	$ 483,196	$ 1,353,457

Number of Prelim. Drawings [illegible]

Number of Contract Drawings [illegible]

ASSUMED NUMBER OF DRAWINGS [illegible]

Attachment F - Elements of Pricing and Compensation Proposal

Manpower Hours/Costs

FIRM: EDAW Landscape

Description of Expense	A1 PRELIMINARY DESIGN PROJECT SCHEDULE	A2 FINAL DESIGN PROJECT SCHEDULE	B1 PRELIMINARY DESIGN PHASE MEETINGS	B2 FINAL DESIGN PHASE MEETINGS	C REVIEW AVAILABLE DOCUMENTS	D1 PRELIM DESIGN PHASE FIELD VERIFICATION & SURVEY	D2 FINAL DESIGN PHASE FIELD VERIFICATION & SURVEY	E DESIGN CRITERIA SUMMARIES	F PRELIMINARY DESIGN	G VALUE ENGINEERING	H FINAL DESIGN & CONTRACT DOCUMENTS	I1 PRELIM COST EST AND CONSTRUCT SCHEDULE	I2 FINAL COST EST AND CONSTRUCT SCHEDULE	J POST AWARD DUTIES	TOTALS
NOTE TO PREPARER - DO NOT MODIFY FORMULAS IN THIS WORK SHEET	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs
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File Name: Attachment F EDAW.xls

Attachment F - Elements of Pricing and Compensation Proposal

Manpower Hours/Costs

FIRM: EDAW Landscape

TITLE / POSITION	Multiplier	A1 PRELIMINARY DESIGN PROJECT SCHEDULE		A2 FINAL DESIGN PROJECT SCHEDULE		B1 PRELIMINARY DESIGN PHASE MEETINGS		B2 FINAL DESIGN PHASE MEETINGS		C REVIEW AVAILABLE DOCUMENTS		D1 PRELIM DESIGN PHASE FIELD VERIFICATION & SURVEY		D2 FINAL DESIGN PHASE FIELD VERIFICATION & SURVEY		E DESIGN CRITERIA SUMMARIES		F PRELIMINARY DESIGN		G VALUE ENGINEERING		H FINAL DESIGN & CONTRACT DOCUMENTS		I1 PRELIM COST ESTIMATING AND CONSTRUCTION SCHEDULE		I2 FINAL COST ESTIMATING AND CONSTRUCTION SCHEDULE		J POST AWARD DUTIES		TOTALS	
NOTE TO PREPARER - DO NOT MODIFY FORMULAS IN THIS WORK SHEET. IT IS GENERATED FROM THE FOLLOWING DATA ENTRY SHEETS.	2.80	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total
Total Man Hours and Costs		6	$ 843	-	$ 843	152	$ 11,128	368	$ 28,976	60	$ 5,546	0	$ -	0	$ -	64	$ 4,261	3,910	$ 222,608	80	$ 5,649	2,880	$ 139,604	48	$ 3,326	80	$ 5,194	1,085	$ 63,537	8,483	$ 489,106
Total Labor Costs			$ 1,800		$ 1,800		$ 31,198		$ 83,959		$ 13,530		$ -		$ -		$ 11,830		$ 623,301		$ 15,530		$ 383,062		$ 9,316		$ 14,542		$ 177,675		$ 1,308,497
Total Out-of-Pocket Costs			$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Totals		6	$ 1,800	6	$ 1,800	152	$ 31,198	368	$ 83,959	60	$ 13,530	0	$ -	0	$ -	64	$ 11,830	3,910	$ 623,301	80	$ 15,530	2,880	$ 383,062	48	$ 9,316	80	$ 14,542	1,085	$ 177,675	8,483	$ 1,308,497
ASSUMED NUMBER OF DRAWINGS																Number of Prelim. Drawings		100		Number of Contract Drawings		184									

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File Name: Attachment F EDAW.xls

Attachment F - Elements of Pricing and Compensation Proposal

Manpower Hours/Costs

Firm:

IH ENGINEERS, PC (MBE)	Multiplier	A1			A2			B1			B2		
TITLE / POSITION	2.36	PRELIMINARY DESIGN PROJECT SCHEDULE			FINAL DESIGN PROJECT SCHEDULE			PRELIMINARY DESIGN PHASE MEETINGS			FINAL DESIGN PHASE MEETINGS		
NOTE TO PREPARER - DO NOT MODIFY FORMULAS IN THIS BLANK SHEET	Base Rate	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor
ENGINEER/ARCHITECT IV	$ 60.90	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
ENGINEER/ARCHITECT III	$ 46.65	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
ENGINEER/ARCHITECT II	$ 33.31	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
ENGINEER/ARCHITECT I	$ 22.90	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
SENIOR CAD OPERATOR	$ 29.79	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
CAD OPERATOR	$ 23.79	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
TECH TYPIST	$ 20.79	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
LANDSCAPE ARCHITECT	$ 29.89	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
DOCUMENT CONTROL TECHNICIAN	$ 25.65	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
SENIOR SCHEDULER	$ 42.73	80	$ 3,395	$ 8,029	120	$ 5,130	$ 12,264	0	$ -	$ -	0	$ -	$ -
SCHEDULER	$ 35.15	60	$ 2,613	$ 6,006	200	$ 7,030	$ 16,321	0	$ -	$ -	0	$ -	$ -
SENIOR ESTIMATOR	$ 43.60	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
ESTIMATOR	$ 30.40	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Totals		140	$ 5,977	$ 13,834	320	$ 12,160	$ 28,574	0	$ -	$ -	0	$ -	$ -
ASSUMED NUMBER OF DRAWINGS													

TITLE / POSITION	C			D1			D2			E			F		
	REVIEW AVAILABLE DOCUMENTS			PRELIMINARY DESIGN PHASE FIELD VERIFICATION & SURVEY			FINAL DESIGN PHASE FIELD VERIFICATION & SURVEY			DESIGN CRITERIA SUMMARIES			PRELIMINARY DESIGN		
	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor
ENGINEER/ARCHITECT IV	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
ENGINEER/ARCHITECT III	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
ENGINEER/ARCHITECT II	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	[illegible]	$ 35,972	$ 84,533
ENGINEER/ARCHITECT I	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
SENIOR CAD OPERATOR	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
CAD OPERATOR	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
TECH TYPIST	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
LANDSCAPE ARCHITECT	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	270	$ 8,086	$ 19,024
DOCUMENT CONTROL TECHNICIAN	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	[illegible]	$ 27,702	$ 65,108
SENIOR SCHEDULER	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
SCHEDULER	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
SENIOR ESTIMATOR	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
ESTIMATOR	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Totals	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	[illegible]	$ 71,180	$ 168,886

Number of Prelim. Drawings [illegible]

TITLE / POSITION	G			H			I1			I2			J			TOTALS		
	VALUE ENGINEERING			FINAL DESIGN & CONTRACT DOCUMENTS			PRELIMINARY DESIGN COST ESTIMATING AND CONSTRUCTION SCHEDULE			FINAL DESIGN COST ESTIMATING AND CONSTRUCTION SCHEDULE			POST AWARD DUTIES					
	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor
ENGINEER/ARCHITECT IV	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
ENGINEER/ARCHITECT III	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
ENGINEER/ARCHITECT II	0	$ -	$ -	1,080	$ 35,972	$ 84,533	0	$ -	$ -	0	$ -	$ -	240	$ 11,324	$ 29,612	3,300	$ 68,269	$ 166,879
ENGINEER/ARCHITECT I	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
SENIOR CAD OPERATOR	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
CAD OPERATOR	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
TECH TYPIST	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
LANDSCAPE ARCHITECT	0	$ -	$ -	1,360	$ 40,478	$ 95,118	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	1,680	$ 48,371	$ 114,141
DOCUMENT CONTROL TECHNICIAN	0	$ -	$ -	1,080	$ 27,708	$ 65,100	0	$ -	$ -	0	$ -	$ -	1,664	$ 42,667	$ 109,303	3,834	$ 88,098	$ 230,801
SENIOR SCHEDULER	0	$ -	$ -	0	$ -	$ -	120	$ 5,130	$ 12,088	280	$ 11,970	$ 28,130	0	$ -	$ -	640	$ 34,798	$ 69,788
SCHEDULER	0	$ -	$ -	0	$ -	$ -	180	$ 5,624	$ 13,216	340	$ 11,954	$ 28,088	0	$ -	$ -	780	$ 27,417	$ 64,430
SENIOR ESTIMATOR	0	$ -	$ -	0	$ -	$ -	296	$ 12,788	$ 30,865	320	$ 23,717	$ 56,723	0	$ -	$ -	800	$ 30,469	$ 68,728
ESTIMATOR	0	$ -	$ -	0	$ -	$ -	280	$ 8,512	$ 20,003	320	$ 15,808	$ 37,148	0	$ -	$ -	420	$ 24,320	$ 57,182
Totals	0	$ -	$ -	3,519	$ 104,148	$ 244,731	846	$ 32,894	$ 76,288	#	$ 63,443	$ 149,080	2,004	$ 54,990	$ 129,914	15,804	$ 542,956	$ 989,879

Number of Contract Drawings [illegible]

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File Name: Attachment F IH Eng Total.xls

Attachment F - Elements of Pricing and Compensation Proposal

Manpower Hours/Costs

FIRM:

IH ENGINEERS, PC (MBE)

Description of Expense	A1	A2	B1	B2	C	D1	D2	E	F	G	H	I1	I2	J	TOTALS
	PRELIMINARY DESIGN, PROJECT SCHEDULE	FINAL DESIGN PROJECT SCHEDULE	PRELIMINARY DESIGN PHASE MEETINGS	FINAL DESIGN PHASE MEETINGS	REVIEW AVAILABLE DOCUMENTS	PRELIM DESIGN PHASE FIELD VERIFICATION & SURVEY	FINAL DESIGN PHASE FIELD VERIFICATION & SURVEY	DESIGN CRITERIA SUMMARIES	PRELIMINARY DESIGN	VALUE ENGINEERING	FINAL DESIGN & CONTRACT DOCUMENTS	PRELIM COST EST AND CONSTRUCT SCHEDULE	FINAL COST EST AND CONSTRUCT SCHEDULE	POST AWARD DUTIES	
NOTE TO PREPARER - DO NOT MODIFY FORMULAS IN THIS WORK SHEET	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs
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Totals	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

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File Name: Attachment F IH Eng Total.xls

Attachment F - Elements of Pricing and Compensation Proposal

Manpower Hours/Costs

FIRM: IH ENGINEERS, PC (MBE)

TITLE / POSITION	Multiplier	A1 PRELIMINARY DESIGN PROJECT SCHEDULE		A2 FINAL DESIGN PROJECT SCHEDULE		B1 PRELIMINARY DESIGN PHASE MEETINGS		B2 FINAL DESIGN PHASE MEETINGS		C REVIEW AVAILABLE DOCUMENTS		D1 PRELIM DESIGN PHASE FIELD VERIFICATION & SURVEY		D2 FINAL DESIGN PHASE FIELD VERIFICATION & SURVEY		E DESIGN CRITERIA SUMMARIES		F PRELIMINARY DESIGN		G VALUE ENGINEERING		H FINAL DESIGN & CONTRACT DOCUMENTS		I1 PRELIM COST ESTIMATING AND CONSTRUCTION SCHEDULE		I2 FINAL COST ESTIMATING AND CONSTRUCTION SCHEDULE		J POST AWARD DUTIES		TOTALS	
		Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total
NOTE TO PREPARER - DO NOT MODIFY FORMULAS IN THIS WORK SHEET. IT IS GENERATED FROM THE FOLLOWING DATA ENTRY SHEETS.	2.35																														
		140	$ 5,377	320	$ 12,160	0	$ -	0	$ -	0	$ -	0	$ -	0	$ -	0	$ -	2,430	$ 71,788	0	$ -	3,310	$ 104,149	840	$ 32,034	1,860	$ 83,441	2,004	$ 94,009	10,904	$ 342,938
Total Man Hours and Costs			$ 12,638		$ 28,576		$ -		$ -		$ -		$ -		$ -		$ -		$ 168,656		$ -		$ 244,751		$ 75,280		$ 149,066		$ 120,914		$ 805,899
Total Labor Costs			$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Total Out-of-Pocket Costs																															
Totals		140	$ 13,638	320	$ 28,576	0	$ -	0	$ -	0	$ -	0	$ -	0	$ -	0	$ -	2,430	$ 168,656	0	$ -	3,310	$ 244,751	840	$ 75,280	1,860	$ 149,066	2,004	$ 120,914	10,904	$ 805,899
ASSUMED NUMBER OF DRAWINGS																Number of Prelim. Drawings		0		Number of Contract Drawings		0									

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File Name: Attachment F IH Eng Total.xls

Attachment F - Elements of Pricing and Compensation Proposal

Manpower Hours/Costs

FIRM:

Mastins Consultants (MBE)	Multiplier	A1 PRELIMINARY DESIGN PROJECT SCHEDULE			A2 FINAL DESIGN PROJECT SCHEDULE			B1 PRELIMINARY DESIGN PHASE MEETINGS			B2 FINAL DESIGN PHASE MEETINGS			C REVIEW AVAILABLE DOCUMENTS			D1 PRELIMINARY DESIGN PHASE FIELD VERIFICATION & SURVEY			D2 FINAL DESIGN PHASE FIELD VERIFICATION & SURVEY			E DESIGN CRITERIA SUMMARIES			F PRELIMINARY DESIGN			G VALUE ENGINEERING			H FINAL DESIGN & CONTRACT DOCUMENTS			I PRELIMINARY DESIGN COST ESTIMATING AND CONSTRUCTION SCHEDULE			J FINAL DESIGN COST ESTIMATING AND CONSTRUCTION SCHEDULE			K POST AWARD DUTIES			TOTALS		
TITLE / POSITION	2.55																																														
(TITLE TO CORRESPOND WITH WORK SHEET) DO NOT MODIFY FORMULAS IN THIS WORK SHEET	Base Rate	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor
Project Manager	$ 54.08	0	$ -	$ -	0	$ -	$ -	32	$ 1,730	$ 4,389	32	$ 1,730	$ 4,389	0	$ -	$ -	0	$ -	$ -	40	$ 2,164	$ 5,489	0	$ -	$ -	0	$ -	$ -	60	$ 3,245	$ 12,570	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	224	$ 12,109	$ 30,719
Project Engineer	$ 34.65	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Project Surveyor	$ 30.02	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	24	$ 720	$ 1,849	24	$ 720	$ 1,849	16	$ 480	$ 1,233	0	$ -	$ -	0	$ -	$ -	120	$ 3,602	$ 9,252	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	40	$ 1,201	$ 3,110
Senior Engineer	$ 27.18	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	36	$ 978	$ 2,513	36	$ 978	$ 2,513	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Engineer	$ 21.80	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	80	$ 1,744	$ 4,318	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Senior Surveyor	$ 30.02	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	240	$ 7,201	$ 18,062	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	720	$ 19,806	$ 49,268
Survey Technician	$ 27.06	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Principal Technician	$ 24.27	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	720	$ 17,486	$ 44,321	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	1,120	$ 27,215	$ 69,799
Party Chief	$ 29.60	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Technicians Person	$ 19.80	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	480	$ 9,507	$ 24,297	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	360	$ 7,128	$ 18,216
Technician	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
CAD Drafter	$ 27.32	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Totals								32	$ 1,730	$ 4,389	32	$ 1,730	$ 4,389	24	$ 720	$ 1,849	24	$ 720	$ 1,849	40	$ 2,164	$ 5,489	0	$ -	$ -	0	$ -	$ -	60	$ 3,245	$ 12,570	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	224	$ 12,109	$ 30,719
ESTIMATED NUMBER OF DRAWINGS								32	$ 1,730	$ 4,389	32	$ 1,730	$ 4,389	24	$ 720	$ 1,849	24	$ 720	$ 1,849	40	$ 2,164	$ 5,489	0	$ -	$ -	0	$ -	$ -	60	$ 3,245	$ 12,570	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	224	$ 12,109	$ 30,719

Number of Prelim. Drawings: 0 — Number of Contract Drawings: 0

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File Name: Attachment F MasJvb

Attachment F - Elements of Pricing and Compensation Proposal

Manpower Hours/Costs

FIRM:

Medina Consultants (MBE)	A1	A2	B1	B2	C	D1	D2	E	F	G	H	I1	I2	J	TOTALS
Description of Expense	PRELIMINARY DESIGN PROJECT SCHEDULE	FINAL DESIGN PROJECT SCHEDULE	PRELIMINARY DESIGN PHASE MEETINGS	FINAL DESIGN PHASE MEETINGS	REVIEW AVAILABLE DOCUMENTS	PRELIM DESIGN PHASE FIELD VERIFICATION & SURVEY	FINAL DESIGN PHASE FIELD VERIFICATION & SURVEY	DESIGN CRITERIA SUMMARIES	PRELIMINARY DESIGN	VALUE ENGINEERING	FINAL DESIGN & CONTRACT DOCUMENTS	PRELIM COST EST AND CONSTRUCT SCHEDULE	FINAL COST EST AND CONSTRUCT SCHEDULE	POST AWARD DUTIES	
NOTE TO PREPARER - DO NOT MODIFY FORMULAS IN THIS WORK SHEET	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs
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Totals	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

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File Name: Attachment F Med.xls

Attachment F - Elements of Pricing and Compensation Proposal

Manpower Hours/Costs

FIRM: Medina Consultants (MBE)		A1 PRELIMINARY DESIGN PROJECT SCHEDULE		A2 FINAL DESIGN PROJECT SCHEDULE		B1 PRELIMINARY DESIGN PHASE MEETINGS		B2 FINAL DESIGN PHASE MEETINGS		C REVIEW AVAILABLE DOCUMENTS		D1 PRELIM DESIGN PHASE FIELD VERIFICATION & SURVEY		D2 FINAL DESIGN PHASE FIELD VERIFICATION & SURVEY		E DESIGN CRITERIA SUMMARIES		F PRELIMINARY DESIGN		G VALUE ENGINEERING		H FINAL DESIGN & CONTRACT DOCUMENTS		I1 PRELIM COST ESTIMATING AND CONSTRUCTION SCHEDULE		I2 FINAL COST ESTIMATING AND CONSTRUCTION SCHEDULE		J POST AWARD DUTIES		TOTALS	
TITLE / POSITION	Multiplier	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total
NOTE TO PREPARER - DO NOT MODIFY FORMULAS IN THIS WORK SHEET. IT IS GENERATED FROM THE FOLLOWING DATA ENTRY SHEETS.	2.50																														
		0	$ -	0	$ -	32	$ 1,755	32	$ 1,755	48	$ 1,381	1,084	$ 24,818	416	$ 9,601	0	$ -	2,880	$ 73,048	0	$ -	360	$ 9,360	0	$ -	0	$ -	160	$ 4,372	4,712	$ 126,302
Total Man Hours and Costs																															
			$ -		$ -		$ 4,388		$ 4,388		$ 3,479		$ 62,038		$ 24,003		$ -		$ 182,624		$ -		$ 23,907		$ -		$ -		$ 10,620		$ 315,756
Total Labor Costs																															
			$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Total Out-of-Pocket Costs																															
		0	$ -	0	$ -	32	$ 4,388	32	$ 4,388	48	$ 3,479	1,084	$ 62,038	416	$ 24,003	0	$ -	2,880	$ 182,624	0	$ -	360	$ 23,907	0	$ -	0	$ -	160	$ 10,620	4,712	$ 315,756
Totals																															
ASSUMED NUMBER OF DRAWINGS																Number of Prelim. Drawings		0		Number of Contract Drawings		0									

File Name: Attachment F Med.xls

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Attachment F - Elements of Pricing and Compensation Proposal

Manpower Hours/Costs

FIRM:

Science Applications International Corporation (SAIC)	Multiplier	A1			A2			B1			B2			C		
TITLE / POSITION	2.63	PRELIMINARY DESIGN PROJECT SCHEDULE			FINAL DESIGN PROJECT SCHEDULE			PRELIMINARY DESIGN PHASE MEETINGS			FINAL DESIGN PHASE MEETINGS			REVIEW AVAILABLE DOCUMENTS		
NOTE TO PREPARER: DO NOT MODIFY FORMULAS IN THIS WORK SHEET	Base Rate	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor
Entry Level Prog Analyst	$ 37.18	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Entry Level Prog Manager	$ 44.46	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Entry Level Prog Specialist	$ 43.75	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Programmer/Analyst I	$ 29.36	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	16	$ 683	$ 1,796
Programmer/Analyst II	$ 46.75	0	$ -	$ -	0	$ -	$ -	8	$ 234	$ 613	0	$ -	$ -	16	$ 748	$ 1,967
Programmer/Analyst III	$ 54.88	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Project Manager I	$ 58.75	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Project Manager II	$ 96.80	0	$ -	$ -	0	$ -	$ -	32	$ 2,140	$ 5,629	16	$ 1,204	$ 3,167	40	$ 2,676	$ 7,037
Project Manager III	$ 78.73	0	$ -	$ -	0	$ -	$ -	14	$ 1,226	$ 3,229	6	$ 514	$ 1,514	0	$ -	$ -
Specialist I	$ 94.82	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Specialist II	$ 94.73	0	$ -	$ -	0	$ -	$ -	80	$ 6,179	$ 13,920	20	$ 1,296	$ 3,408	40	$ 2,589	$ 6,810
Specialist III	$ 73.60	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
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	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Totals					0	$ -	$ -	143	$ 8,781	$ 23,093	46	$ 3,113	$ 8,186	112	$ 6,646	$ 17,479

TITLE / POSITION	D1			D2			E			F			G		
	PRELIMINARY DESIGN PHASE FIELD VERIFICATION & SURVEY			FINAL DESIGN PHASE FIELD VERIFICATION & SURVEY			DESIGN CRITERIA SUMMARIES			PRELIMINARY DESIGN			VALUE ENGINEERING		
	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor
Entry Level Prog Analyst	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Entry Level Prog Manager	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Entry Level Prog Specialist	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Programmer/Analyst I	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Programmer/Analyst II	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	40	$ 1,870	$ 4,918	0	$ -	$ -
Programmer/Analyst III	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Project Manager I	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Project Manager II	34	$ 1,605	$ 4,222	0	$ -	$ -	0	$ -	$ -	188	$ 11,337	$ 29,816	0	$ -	$ -
Project Manager III	24	$ 1,842	$ 4,843	0	$ -	$ -	0	$ -	$ -	144	$ 11,049	$ 29,060	0	$ -	$ -
Specialist I	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Specialist II	80	$ 5,828	$ 15,322	0	$ -	$ -	0	$ -	$ -	288	$ 24,822	$ 65,282	0	$ -	$ -
Specialist III	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	6	$ 454	$ 1,194	0	$ -	$ -
	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
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	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Totals	138	$ 8,273	$ 24,393	0	$ -	$ -	0	$ -	$ -	743	$ 49,835	$ 130,372	0	$ -	$ -

Number of Prelim. Drawings [illegible]

Number of Contract Drawings [illegible]

TITLE / POSITION	H			I1			I2			J			TOTALS		
	FINAL DESIGN & CONTRACT DOCUMENTS			PRELIMINARY DESIGN COST ESTIMATING AND CONSTRUCTION SCHEDULE			FINAL DESIGN COST ESTIMATING AND CONSTRUCTION SCHEDULE			POST AWARD DUTIES					
	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor
Entry Level Prog Analyst	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Entry Level Prog Manager	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Entry Level Prog Specialist	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Programmer/Analyst I	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	18	$ 633	$ 1,665
Programmer/Analyst II	16	$ 748	$ 1,967	0	$ -	$ -	0	$ -	$ -	8	$ 421	$ 1,107	98	$ 4,001	$ 10,523
Programmer/Analyst III	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Project Manager I	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Project Manager II	48	$ 3,711	$ 9,760	0	$ -	$ -	0	$ -	$ -	22	$ 7,140	$ 9,628	302	$ 24,314	$ 63,943
Project Manager III	40	$ 3,069	$ 8,072	0	$ -	$ -	0	$ -	$ -	32	$ 2,468	$ 6,486	294	$ 20,297	$ 53,379
Specialist I	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Specialist II	130	$ 8,415	$ 22,132	0	$ -	$ -	0	$ -	$ -	92	$ 5,990	$ 15,753	837	$ 54,162	$ 142,467
Specialist III	8	$ 454	$ 1,194	0	$ -	$ -	0	$ -	$ -	4	$ 300	$ 796	18	$ 1,210	$ 3,182
	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
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	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Totals	346	$ 15,857	$ 41,716	0	$ -	$ -	0	$ -	$ -	162	$ 11,379	$ 29,952	1,641	$ 104,617	$ 274,679

ASSUMED NUMBER OF DRAWINGS [illegible]

Attachment F - Elements of Pricing and Compensation Proposal

Manpower Hours/Costs

FIRM:

Science Applications International Corporation (SAIC)	A1	A2	B1	B2	C	D1	D2	E	F	G	H	I1	I2	J	TOTALS
Description of Expense	PRELIMINARY DESIGN PROJECT SCHEDULE	FINAL DESIGN PROJECT SCHEDULE	PRELIMINARY DESIGN PHASE MEETINGS	FINAL DESIGN PHASE MEETINGS	REVIEW AVAILABLE DOCUMENTS	PRELIM DESIGN PHASE FIELD VERIFICATION & SURVEY	FINAL DESIGN PHASE FIELD VERIFICATION & SURVEY	DESIGN CRITERIA SUMMARIES	PRELIMINARY DESIGN	VALUE ENGINEERING	FINAL DESIGN & CONTRACT DOCUMENTS	PRELIM COST EST AND CONSTRUCT SCHEDULE	FINAL COST EST AND CONSTRUCT SCHEDULE	POST AWARD DUTIES	
NOTE TO PREPARER - DO NOT MODIFY FORMULAS IN THIS WORK SHEET	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs
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Totals	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

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File Name: Attachment F SAIC.xls

Attachment F - Elements of Pricing and Compensation Proposal

Manpower Hours/Costs

FIRM: Science Applications International Corporation (SAIC)

TITLE / POSITION	Multiplier	A1 PRELIMINARY DESIGN PROJECT SCHEDULE		A2 FINAL DESIGN PROJECT SCHEDULE		B1 PRELIMINARY DESIGN PHASE MEETINGS		B2 FINAL DESIGN PHASE MEETINGS		C REVIEW AVAILABLE DOCUMENTS		D1 PRELIM DESIGN PHASE FIELD VERIFICATION & SURVEY		D2 FINAL DESIGN PHASE FIELD VERIFICATION & SURVEY		E DESIGN CRITERIA SUMMARIES		F PRELIMINARY DESIGN		G VALUE ENGINEERING		H FINAL DESIGN & CONTRACT DOCUMENTS		I1 PRELIM COST ESTIMATING AND CONSTRUCTION SCHEDULE		I2 FINAL COST ESTIMATING AND CONSTRUCTION SCHEDULE		J POST AWARD DUTIES		TOTALS	
		Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total
NOTE TO PREPARER - DO NOT MODIFY FORMULAS IN THIS WORK SHEET. IT IS GENERATED FROM THE FOLLOWING DATA ENTRY SHEETS.	2.63																														
Total Man Hours and Costs		0	$ -	0	$ -	133	$ 6,781	48	$ 3,113	112	$ 5,846	138	$ 9,275	0	$ -	0	$ -	743	$ 49,533	0	$ -	240	$ 15,897	0	$ -	0	$ -	169	$ 11,275	1,581	$ 104,317
Total Labor Costs			$ -		$ -		$ 23,063		$ 6,168		$ 17,479		$ 24,349		$ -		$ -		$ 130,272		$ -		$ 41,810		$ -		$ -		$ 29,652		$ 274,679
Total Out-of-Pocket Costs			$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Totals		0	$ -	0	$ -	133	$ 29,843	48	$ 9,186	112	$ 17,479	138	$ 24,365	0	$ -	0	$ -	743	$ 130,272	0	$ -	240	$ 41,810	0	$ -	0	$ -	169	$ 29,652	1,581	$ 274,679
ASSUMED NUMBER OF DRAWINGS																	Number of Prelim. Drawings	0			Number of Contract Drawings	0								

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File Name: Attachment F SAIC.xls

Attachment F - Elements of Pricing and Compensation Proposal

Manpower Hours/Costs

FIRM:

212 Harakawa, Inc. (WBE)	Multiplier	A1			A2			B1			B2			C			D1			D2			E			F			G			H			I1			I2			J			TOTALS		
TITLE / POSITION	2.52	PRELIMINARY DESIGN PROJECT SCHEDULE			FINAL DESIGN PROJECT SCHEDULE			PRELIMINARY DESIGN PHASE MEETINGS			FINAL DESIGN PHASE MEETINGS			REVIEW AVAILABLE DOCUMENTS			PRELIMINARY DESIGN PHASE FIELD VERIFICATION & SURVEY			FINAL DESIGN PHASE FIELD VERIFICATION & SURVEY			DESIGN CRITERIA SUMMARIES			PRELIMINARY DESIGN			VALUE ENGINEERING			FINAL DESIGN & CONTRACT DOCUMENTS			PRELIMINARY DESIGN COST ESTIMATING AND CONSTRUCTION SCHEDULE			FINAL DESIGN COST ESTIMATING AND CONSTRUCTION SCHEDULE			POST AWARD DUTIES					
	Base Rate	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor
Creative Director	$ 75.00	0	$ -	$ -	0	$ -	$ -	24	$ 1,800	$ 4,536	16	$ 1,200	$ 3,024	16	$ 1,200	$ 3,024	0	$ -	$ -	0	$ -	$ -	36	$ 2,700	$ 6,804	40	$ 3,000	$ 7,560	0	$ -	$ -	32	$ 2,400	$ 6,048	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	164	$ 12,300	$ 30,996
Senior Associate/Project Manager	$ 48.15	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Junior Associate/Project Manager	$ 35.32	0	$ -	$ -	0	$ -	$ -	80	$ 2,825	$ 7,120	40	$ 1,413	$ 3,560	40	$ 1,413	$ 3,560	0	$ -	$ -	0	$ -	$ -	80	$ 2,825	$ 7,120	80	$ 2,825	$ 7,120	0	$ -	$ -	40	$ 1,413	$ 3,560	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	360	$ 12,714	$ 32,039
Senior Designer	$ 27.64	0	$ -	$ -	0	$ -	$ -	80	$ 2,211	$ 5,571	40	$ 1,105	$ 2,786	40	$ 1,105	$ 2,786	0	$ -	$ -	0	$ -	$ -	120	$ 3,316	$ 8,357	80	$ 2,211	$ 5,571	0	$ -	$ -	40	$ 1,105	$ 2,786	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	400	$ 11,054	$ 27,857
Designer	$ 26.56	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	120	$ 3,187	$ 8,032	0	$ -	$ -	60	$ 1,594	$ 4,016	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	180	$ 4,781	$ 12,049
Junior Designer	$ 17.70	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	24	$ 425	$ 1,070	120	$ 2,124	$ 5,352	0	$ -	$ -	180	$ 3,186	$ 8,028	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	324	$ 5,734	$ 14,450
CADD Production	$ 34.70	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	8	$ 278	$ 700	40	$ 1,388	$ 3,498	0	$ -	$ -	120	$ 4,164	$ 10,494	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	168	$ 5,830	$ 14,692
Team Manager	$ 30.58	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	8	$ 245	$ 617	16	$ 489	$ 1,233	0	$ -	$ -	16	$ 489	$ 1,233	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	40	$ 1,223	$ 3,083
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Totals		0	$ -	$ -	0	$ -	$ -	184	$ 6,836	$ 17,227	96	$ 3,718	$ 9,370	96	$ 3,718	$ 9,370	0	$ -	$ -	0	$ -	$ -	276	$ 9,789	$ 24,667	496	$ 15,224	$ 38,367	0	$ -	$ -	488	$ 14,351	$ 36,165	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	1,636	$ 53,637	$ 135,166

ASSUMED NUMBER OF DRAWINGS

Number of Prelim. Drawings: 11

Number of Contract Drawings: 15

File Name: Attachment F 212.xls

Printed: 3/8/2007 3:35 PM

Attachment F - Elements of Pricing and Compensation Proposal

Manpower Hours/Costs

FIRM:

212 Harakawa, Inc. (WBE)

Description of Expense	A1	A2	B1	B2	C	D1	D2	E	F	G	H	I1	I2	J	TOTALS
	PRELIMINARY DESIGN PROJECT SCHEDULE	FINAL DESIGN PROJECT SCHEDULE	PRELIMINARY DESIGN PHASE MEETINGS	FINAL DESIGN PHASE MEETINGS	REVIEW AVAILABLE DOCUMENTS	PRELIM DESIGN PHASE FIELD VERIFICATION & SURVEY	FINAL DESIGN PHASE FIELD VERIFICATION & SURVEY	DESIGN CRITERIA SUMMARIES	PRELIMINARY DESIGN	VALUE ENGINEERING	FINAL DESIGN & CONTRACT DOCUMENTS	PRELIM COST EST AND CONSTRUCT SCHEDULE	FINAL COST EST. AND CONSTRUCT SCHEDULE	POST AWARD DUTIES	
NOTE TO PREPARER - DO NOT MODIFY FORMULAS IN THIS WORK SHEET	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs
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File Name: Attachment F 212.xls

Attachment F - Elements of Pricing and Compensation Proposal

Manpower Hours/Costs

FIRM: 212 Harakawa, Inc.

TITLE / POSITION	Multiplier	A1 PRELIMINARY DESIGN PROJECT SCHEDULE		A2 FINAL DESIGN PROJECT SCHEDULE		B1 PRELIMINARY DESIGN PHASE MEETINGS		B2 FINAL DESIGN PHASE MEETINGS		C REVIEW AVAILABLE DOCUMENTS		D1 PRELIM DESIGN PHASE FIELD VERIFICATION & SURVEY		D2 FINAL DESIGN PHASE FIELD VERIFICATION & SURVEY		E DESIGN CRITERIA SUMMARIES		F PRELIMINARY DESIGN		G VALUE ENGINEERING		H FINAL DESIGN & CONTRACT DOCUMENTS		I1 PRELIM COST ESTIMATING AND CONSTRUCTION SCHEDULE		I2 FINAL COST ESTIMATING AND CONSTRUCTION SCHEDULE		J POST AWARD DUTIES		TOTALS	
	2.52	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total
Total Man Hours and Costs		0	$ -	0	$ -	184	$ 6,835	96	$ 3,718	96	$ 3,718	0	$ -	0	$ -	276	$ 9,769	496	$ 15,225	0	$ -	488	$ 14,351	0	$ -	0	$ -	0	$ -	1,636	$ 53,637
Total Labor Costs			$ -		$ -		$ 17,227		$ 9,370		$ 9,370		$ -		$ -		$ 24,667		$ 38,367		$ -		$ 36,166		$ -		$ -		$ -		$ 135,165
Total Out-of-Pocket Costs			$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Totals		0	$ -	0	$ -	184	$ 17,237	96	$ 9,370	96	$ 9,370	0	$ -	0	$ -	276	$ 24,667	496	$ 38,367	0	$ -	488	$ 36,166	0	$ -	0	$ -	0	$ -	1,636	$ 135,165
ASSUMED NUMBER OF DRAWINGS																Number of Prelim. Drawings		11		Number of Contract Drawings		10									

manhours x 2.51 MP $ 134,629

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File Name: Attachment F 212.xls

Attachment F - Elements of Pricing and Compensation Proposal

Manpower Hours/Costs

Firm:

Weidlinger Associates Inc.	Multiplier	A1			A2			B1			B2			C			D1			D2			E			F			G			H			I1			I2			J			TOTALS		
TITLE / POSITION	2.60	PRELIMINARY DESIGN PROJECT SCHEDULE			FINAL DESIGN PROJECT SCHEDULE			PRELIMINARY DESIGN PHASE MEETINGS			FINAL DESIGN PHASE MEETINGS			REVIEW AVAILABLE DOCUMENTS			PRELIMINARY DESIGN PHASE FIELD VERIFICATION & SURVEY			FINAL DESIGN PHASE FIELD VERIFICATION & SURVEY			DESIGN CRITERIA SUMMARIES			PRELIMINARY DESIGN			VALUE ENGINEERING			FINAL DESIGN & CONTRACT DOCUMENTS			PRELIMINARY DESIGN COST ESTIMATING AND CONSTRUCTION SCHEDULE			FINAL DESIGN COST ESTIMATING AND CONSTRUCTION SCHEDULE			POST AWARD DUTIES					
NOTE TO PREPARER - DO NOT MODIFY FORMULAS IN THIS WORK SHEET	Base Rate	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor
Principal Engineer	$ 85.00	0	$ -	$ -	0	$ -	$ -	56	$ 4,760	$ 12,376	24	$ 2,040	$ 5,304	8	$ 680	$ 1,768	0	$ -	$ -	0	$ -	$ -	40	$ 3,400	$ 8,840	160	$ 13,600	$ 35,360	24	$ 2,040	$ 5,304	300	$ 25,500	$ 66,300	16	$ 1,360	$ 3,536	24	$ 2,040	$ 5,304	0	$ -	$ -	652	$ 55,420	$ 144,092
Blast analyst--I	$ 77.90	0	$ -	$ -	0	$ -	$ -	56	$ 4,362	$ 11,342	24	$ 1,870	$ 4,861	24	$ 1,870	$ 4,861	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	300	$ 23,370	$ 60,762	0	$ -	$ -	450	$ 35,055	$ 91,143	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	854	$ 66,527	$ 172,969
Blast analyst--II	$ 64.60	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	24	$ 1,550	$ 4,031	0	$ -	$ -	0	$ -	$ -	24	$ 1,550	$ 4,031	300	$ 19,380	$ 50,388	0	$ -	$ -	450	$ 29,070	$ 75,582	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	798	$ 51,551	$ 134,032
Blast analyst--III	$ 45.60	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	440	$ 20,064	$ 52,166	0	$ -	$ -	270	$ 12,312	$ 32,011	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	710	$ 32,376	$ 84,178
Protective designer--I	$ 53.20	0	$ -	$ -	0	$ -	$ -	24	$ 1,277	$ 3,320	16	$ 851	$ 2,213	24	$ 1,277	$ 3,320	0	$ -	$ -	0	$ -	$ -	24	$ 1,277	$ 3,320	200	$ 10,640	$ 27,664	0	$ -	$ -	250	$ 13,300	$ 34,580	16	$ 851	$ 2,213	24	$ 1,277	$ 3,320	0	$ -	$ -	578	$ 30,750	$ 79,949
Protective Designer--II	$ 43.70	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	160	$ 6,992	$ 18,179	0	$ -	$ -	250	$ 10,925	$ 28,405	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	410	$ 17,917	$ 46,584
Protective designer--III	$ 39.90	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	160	$ 6,384	$ 16,598	0	$ -	$ -	300	$ 11,970	$ 31,122	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	460	$ 18,354	$ 47,720
CADD Designer	$ 36.10	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	160	$ 5,776	$ 15,018	0	$ -	$ -	310	$ 11,191	$ 29,097	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	470	$ 16,967	$ 44,114
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Totals		0	$ -	$ -	0	$ -	$ -	136	$ 10,399	$ 27,038	64	$ 4,761	$ 12,378	80	$ 5,377	$ 13,981	0	$ -	$ -	0	$ -	$ -	88	$ 6,227	$ 16,191	1,880	$ 106,206	$ 276,135	24	$ 2,040	$ 5,304	2,580	$ 149,323	$ 388,240	32	$ 2,211	$ 5,749	48	$ 3,317	$ 8,624	0	$ -	$ -	4,922	$ 289,861	$ 753,639

Number of Prelim. Drawings [illegible]

Number of Contract Drawings [illegible]

ASSUMED NUMBER OF DRAWINGS

File Name: Attachment_F_WA.xls

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Attachment F - Elements of Pricing and Compensation Proposal

Manpower Hours/Costs

FIRM: Weidlinger Associates Inc.

Description of Expense	A1 PRELIMINARY DESIGN PROJECT SCHEDULE	A2 FINAL DESIGN PROJECT SCHEDULE	B1 PRELIMINARY DESIGN PHASE MEETINGS	B2 FINAL DESIGN PHASE MEETINGS	C REVIEW AVAILABLE DOCUMENTS	D1 PRELIM DESIGN PHASE FIELD VERIFICATION & SURVEY	D2 FINAL DESIGN PHASE FIELD VERIFICATION & SURVEY	E DESIGN CRITERIA SUMMARIES	F PRELIMINARY DESIGN	G VALUE ENGINEERING	H FINAL DESIGN & CONTRACT DOCUMENTS	I1 PRELIM-COST EST AND CONSTRUCT SCHEDULE	I2 FINAL COST EST AND CONSTRUCT SCHEDULE	J POST AWARD DUTIES	TOTALS
NOTE TO PREPARER - DO NOT MODIFY FORMULAS IN THIS WORK SHEET	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs
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File Name: Attachment_F_WA.xls

Attachment F - Elements of Pricing and Compensation Proposal

Manpower Hours/Costs

FIRM: Weidlinger Associates Inc.

TITLE / POSITION	Multiplier	A1 PRELIMINARY DESIGN PROJECT SCHEDULE		A2 FINAL DESIGN PROJECT SCHEDULE		B1 PRELIMINARY DESIGN PHASE MEETINGS		B2 FINAL DESIGN PHASE MEETINGS		C REVIEW AVAILABLE DOCUMENTS		D1 PRELIM DESIGN PHASE FIELD VERIFICATION & SURVEY		D2 FINAL DESIGN PHASE FIELD VERIFICATION & SURVEY		E DESIGN CRITERIA SUMMARIES		F PRELIMINARY DESIGN		G VALUE ENGINEERING		H FINAL DESIGN & CONTRACT DOCUMENTS		M PRELIM COST ESTIMATING AND CONSTRUCTION SCHEDULE		I2 FINAL COST ESTIMATING AND CONSTRUCTION SCHEDULE		J POST AWARD DUTIES		TOTALS	
NOTE TO PREPARER - DO NOT MODIFY FORMULAS IN THIS WORK SHEET. IT IS GENERATED FROM THE FOLLOWING DATA ENTRY SHEETS.	2.80	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total
Total Man Hours and Costs		0	$ -	0	$ -	136	$ 10,389	84	$ 4,701	40	$ 3,377	0	$ -	0	$ -	85	$ 6,227	1,880	$ 106,206	24	$ 2,040	2,580	$ 148,323	32	$ 2,211	48	$ 3,317	0	$ -	4,932	$ 289,661
Total Labor Costs			$ -		$ -		$ 27,038		$ 12,376		$ 13,980		$ -		$ -		$ 16,191		$ 276,136		$ 5,304		$ 388,240		$ 5,748		$ 8,624		$ -		$ 753,639
Total Out-of-Pocket Costs			$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Totals		0	$ -	0	$ -	136	$ 27,038	84	$ 12,376	40	$ 13,980	0	$ -	0	$ -	85	$ 16,191	1,880	$ 276,136	24	$ 5,304	2,580	$ 388,240	32	$ 5,748	48	$ 8,624	0	$ -	4,932	$ 753,639
ASSUMED NUMBER OF DRAWINGS																Number of Prelim. Drawings	0			Number of Contract Drawings	0										

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File Name: Attachment_F_WA.xls

Attachment F - Elements of Pricing and Compensation Proposed

Manpower Hours/Costs

Firm:

Environmental Planning & Management, Inc. (WBE)	Multiplier	A1 PRELIMINARY DESIGN PROJECT SCHEDULE			A2 FINAL DESIGN PROJECT SCHEDULE			B1 PRELIMINARY DESIGN PHASE MEETINGS			B2 FINAL DESIGN PHASE MEETINGS			C REVIEW AVAILABLE DOCUMENTS			D1 PRELIMINARY DESIGN PHASE FIELD VERIFICATION & SURVEY			D2 FINAL DESIGN PHASE FIELD VERIFICATION & SURVEY			E DESIGN CRITERIA SUMMARIES			F PRELIMINARY DESIGN			G VALUE ENGINEERING			H FINAL DESIGN & CONTRACT DOCUMENTS			I1 PRELIMINARY DESIGN COST ESTIMATING AND CONSTRUCTION SCHEDULE			I2 FINAL DESIGN COST ESTIMATING AND CONSTRUCTION SCHEDULE			J POST AWARD DUTIES			TOTALS		
TITLE / POSITION	2.31																																																
ENTER ENGINEERING DO NOT MODIFY FORMULAS IN THIS WORK SHEET	Base Rate	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor	Hours	Total D.T.L.	Total Labor
Environmental		0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Environmental Senior	$ 39.16	0	$ -	$ -	0	$ -	$ -	0	$ 491	$ 807	29	$ 1,808	$ 2,477	24	$ 1,204	$ 2,780	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Environmental Intermediate	$ 45.79	0	$ -	$ -	0	$ -	$ -	0	$ 248	$ 790	38	$ 1,298	$ 3,883	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -
Environmental Junior	$ 30.02	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -	0	$ -	$ -

Attachment F - Elements of Pricing and Compensation Proposal

Manpower Hours/Costs

FIRM: Environmental Planning & Management, Inc. (WBE)

Description of Expense	A1	A2	B1	B2	C	D1	D2	E	F	G	H	I1	I2	J	TOTALS
	PRELIMINARY DESIGN PROJECT SCHEDULE	FINAL DESIGN PROJECT SCHEDULE	PRELIMINARY DESIGN PHASE MEETINGS	FINAL DESIGN PHASE MEETINGS	REVIEW AVAILABLE DOCUMENTS	PRELIM DESIGN PHASE FIELD VERIFICATION & SURVEY	FINAL DESIGN PHASE FIELD VERIFICATION & SURVEY	DESIGN CRITERIA SUMMARIES	PRELIMINARY DESIGN	VALUE ENGINEERING	FINAL DESIGN & CONTRACT DOCUMENTS	PRELIM COST EST AND CONSTRUCT SCHEDULE	FINAL COST EST AND CONSTRUCT SCHEDULE	POST AWARD DUTIES	
NOTE TO PREPARER - DO NOT MODIFY FORMULAS IN THIS WORK SHEET	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs
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File Name: Attachment F EPM.xls

Attachment F - Elements of Pricing and Compensation Proposal

Manpower Hours/Costs

FIRM: Environmental Planning & Management, Inc. (WBE)

TITLE / POSITION	Multiplier	A1 PRELIMINARY DESIGN PROJECT SCHEDULE		A2 FINAL DESIGN PROJECT SCHEDULE		B1 PRELIMINARY DESIGN PHASE MEETINGS		B2 FINAL DESIGN PHASE MEETINGS		C REVIEW AVAILABLE DOCUMENTS		D1 PRELIM DESIGN PHASE FIELD VERIFICATION & SURVEY		D2 FINAL DESIGN PHASE FIELD VERIFICATION & SURVEY		E DESIGN CRITERIA SUMMARIES		F PRELIMINARY DESIGN		G VALUE ENGINEERING		H FINAL DESIGN & CONTRACT DOCUMENTS		I1 PRELIM COST ESTIMATING AND CONSTRUCTION SCHEDULE		I2 FINAL COST ESTIMATING AND CONSTRUCTION SCHEDULE		J POST AWARD DUTIES		TOTALS	
		Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total
NOTE TO PREPARER - DO NOT MODIFY FORMULAS IN THIS WORK SHEET. IT IS GENERATED FROM THE FOLLOWING DATA ENTRY SHEETS.	2.31																														
		0	$ -	0	$ -	18	$ 747	60	$ 2,601	34	$ 1,704	0	$ -	216	$ 7,800	32	$ 1,464	505	$ 18,606	0	$ -	576	$ 22,890	60	$ 3,251	0	$ -	120	$ 3,320	1,640	$ 65,453
Total Man Hours and Costs			$ -		$ -		$ 1,725		$ 6,470		$ 2,782		$ -		$ 19,167		$ 3,451		$ 45,791		$ -		$ 53,037		$ 7,509		$ -		$ 12,313		$ 151,196
Total Labor Costs			$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Total Out-of-Pocket Costs			$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Totals		0	$ -	0	$ -	18	$ 1,725	60	$ 6,470	34	$ 2,782	8	$ -	216	$ 19,167	32	$ 3,451	505	$ 45,791	0	$ -	576	$ 53,037	60	$ 7,509	0	$ -	120	$ 12,313	1,640	$ 151,196
ASSUMED NUMBER OF DRAWINGS																Number of Prelim. Drawings		9		Number of Contract Drawings			0								

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File Name: Attachment F EPM.xls

Item 3

The following elements of the Port Authority's Request for Proposals dated November 27, 2006:

a. Exhibit A entitled "Scope of Work" as revised and attached hereto.
b. Attachment B entitled "Architectural and Engineering Services Agreement." as revised and attached hereto.
c. Attachment C entitled "Federal Transit Administration (FTA) Professional Services Attachment." The Appendix to Attachment C shall be replaced with the attached signed Certifications.
d. Attachment D entitled "United States of America Department of Transportation Federal Transit Administration – Master Agreement for "Lower Manhattan Recovery Grants."
e. Attachment E entitled "U.S. Department of Transportation Federal Transit Administration – LMRO Third Party Contracting Requirements" dated August 21, 2003.
f. Attachment F entitled "Available Documents."

Note: only those RFP elements listed above are included herein.

EXHIBIT A

PERFORMANCE OF EXPERT PROFESSIONAL ARCHITECTURAL AND ENGINEERING SERVICES FOR THE WORLD TRADE CENTER STREETS, UTILITIES AND RELATED INFRASTRUCTURE DESIGN

I. BACKGROUND

The Consultant's services are subject to receipt of funding through the Federal Transit Administration (FTA), and environmental review pursuant to the National Environmental Policy Act (NEPA). All services performed by the Consultant hereunder shall comply with FTA requirements unless otherwise directed by The Port Authority of NY & NJ in writing. The Consultant must be capable of satisfying all FTA requirements.

II. SCOPE OF WORK

The services of the Consultant shall generally consist of preparing a Preliminary Engineering Design (Stage II), Final Design and Contract Documents (Stage III) and performing Post Award Services (Stage IV) for the design of Streets, Utilities and other related infrastructure at the World Trade Center (WTC) site based upon the information contained herein (see Section V. below). Unless noted otherwise, all referenced documents are included herewith and made a part hereof.

The Authority's conceptual design (Stage I) package for the public and private utility relocations, and the Security Concept of Operations document (ConOps) will be provided to the Consultant upon execution of this Agreement, and Notice to Proceed from the Authority. The scope depicted on the General Program Coordination Diagrams shall be the basis of the Consultant's design hereunder.

The Consultant's design services generally shall include, but not be limited to, the following:

- Creating Fulton Street between West and Church Streets; and creating Greenwich Street between Vesey and Liberty Streets as new Rights-of-Way. Both new streets shall be above below-grade habitable space and an existing subway line(s).
- Reconfigure Liberty Street between West Street and Church Street to accommodate two-way vehicular traffic. Parts of the street shall be located above the Vehicle Security Center and within the WTC Memorial site.
- Creating Liberty Park atop the Vehicle Security Center as a public gathering place having pathways, benches, landscaped areas, park lighting, etc. The park shall be adjacent to the St. Nicholas Church site. The church shall be by others.
- New paving and markings; and a new southern curb edge with an adjacent sidewalk for Vesey Street between West Street and Church Street.
- New western curb edge and an adjacent sidewalk for Church Street between Vesey Street and Liberty Street.
- All sidewalk areas designed by the Consultant shall have the appropriate street furnishings, landscaping, and perimeter security protective measures for vehicle interdiction as required in accordance with the Security Performance Criteria (SPC). SPC will be provided upon award of this agreement.

- Permanent traffic measures including signage, signals and barriers.
- Storm sewer drainage system.
- Fire protection/domestic water system such as hydrants.
- Sanitary sewer system
- Street lighting
- Coordinate all work with public and private utility companies for below grade utilities
- Coordinate work with NYSDOT's design for West Street (Route 9A) as appropriate.
- Providing design development information on the Consultant's design(s) as required to facilitate the Authority's NEPA process
- Coordinating with building (electrical, mechanical, plumbing, etc.) and security systems design work being performed by others as appropriate and as required.
- Coordinate work with Saint Nicholas Greek Orthodox Church as appropriate.
- Coordinate work with WTC Vehicular Security Center as appropriate.
- Coordinate work with WTC Transportation Hub as appropriate.
- Coordinate work with WTC Memorial and Museum as appropriate.

The Consultant shall be responsible for all involved disciplines, their coordination and integration except as noted otherwise herein.

III. DESCRIPTION OF CONSULTANT'S TASKS

The Consultant's tasks shall include, but are not limited to the following:

TASK A. PROJECT SCHEDULE

The Consultant shall prepare a schedule for performance of all tasks listed herein. Said schedule shall comply with the Schedule for Submissions as identified in Section IV, and shall provide for meetings (including presentations), submittals, document review by the Authority, and incorporation of Authority comments after submittals and presentations.

TASK B. MEETINGS

Meetings will typically take place at the Authority's Downtown Restoration Program offices located at 115 Broadway, New York, NY or at other locations within the Port District as required.

The Consultant shall participate in the following meetings as required by the Authority:

1. Attend quarterly performance meetings with Authority and others to review status and anticipated services for the upcoming quarter.
2. Schedule and attend an orientation meeting at the beginning of each stage of design with the Authority staff and others as required to assure complete understanding of the status, goals, schedules, and objectives.
3. Attend bi-weekly meetings, which may include providing project status updates/reviews and presentations as appropriate. Prepare and submit agendas for all meetings two (2) work days prior to the meetings.

4. Attend meetings or presentations with Authority staff, state, city authorities, community representatives, or others as required.
5. Submit meeting minutes to the Authority of all meetings (both formal and informal) attended by the Consultant within three business days of the meeting. Incorporate Authority comments as directed and resubmit as final within five (5) work days after receipt of Authority comments. Identify items requiring follow-up action, and implement such follow-up as appropriate. As part of the final meeting minutes, submit a record of follow-up items and actions taken. Meeting minutes and the follow-up action records will be subject to Authority approval. The Consultant shall incorporate Authority comments and resubmit minutes and follow-up action records as final.

TASK C. REVIEW AVAILABLE DOCUMENTS

The Consultant shall review all available documents included herewith or referenced herein, as appropriate.

TASK D. FIELD VERIFICATION AND SURVEY

Verify existing field conditions including taking all appropriate field measurements and inventories. The Consultant shall use 3-D digital imaging to document complicated, unusual and/or dangerous conditions.

1. Review survey and aerial mapping documents for completeness. Prepare a list of areas where additional survey is required, and submit the list for Authority review and comment.
2. Prior to inspection meet with Authority staff to review Authority data relevant to the inspection.
3. Submit copies of completed field findings on inspection reporting forms (which will be provided by the Consultant and approved by the Port Authority) and meet with Authority staff to discuss those findings.
4. Conduct a field inspection and provide layout information for additional borings as required to define the subsurface conditions and test pits as necessary to verify and identify utility locations and alignments.

TASK E. DESIGN CRITERIA SUMMARY

The Consultant's design shall comply with all applicable codes, standards and the latest Authority standards including, but not limited to, those identified herein. The Consultant shall prepare a Design Criteria Summary (DCS) identifying all applicable criteria including loads, material grades, codes and assumptions.

Criteria shall include but are but not be limited to the following:

- Port Authority Tenant Construction Review Manual
- New York State Executive Order 111*
- Port Authority World Trade Center Site Sustainability Guidelines
- Port Authority WTC Sustainable Design Guidelines Reference Manual
- New York State Green Building Tax Code*

- New York City Transit Sustainable Guidelines*
- US DOE/EPA Energy Star Program*
- US Clean Air & Clean Water Acts for any discharges*
- National Institute for Occupational Safety & Health (NIOSH) Guidelines*
- US Green Building Council (USGBC), Leadership in Energy & Environmental Design Guidelines (LEED 2.1) for existing buildings (LEED-EB)*
- Sustainable Buildings Industry Council (SIBC) Guidelines *
- AIA Environmental Resource Guide*
- US Federal & Canadian Guidelines for procurement of Green Materials and for Renewable Energy Resources*
- AASHTO Geometric Design of Highways and Streets*
- LEED – Leadership in Energy and Environmental Design, V 2.1*
- Port Authority's Engineering Department Engineering/Architecture Division Civil Engineering Design Guidelines (CEDG).
- Port Authority's Engineering Department's Engineering/Architecture Design Division Traffic Engineering Traffic Standard Details
- Port Authority's Engineering Department's CAD Standards Current Edition
- Port Authority's Codes, Standard Details and Specifications
- Utility Company's/Owner's standards and requirements. (Private Utility Companies that are expected to be affected include, but are not limited to Consolidated Edison, Verizon, and Keyspan.)*
- New York City Transit standards*
- New York City DDC standards*
- WTC Site Commercial Design Guidelines
- WTC Streets Security Performance Criteria (will be made available after award to the selected Consultant)
- WTC Site Redevelopment Masterplan*
- St. Nicholas Greek Orthodox Church Design/Masterplan*
- Standards and Regulations of New York City Department of Environmental Protection*
- Standards and Regulations of New York City Department of Environmental Protection, Bureau of Water*
- Standards and Regulations of New York City Building Department*
- Standards of New York City Department of Park and Recreation: Tree Planning Guidelines *
- Guidelines and quarantine zones prepared by the Federal and State Department of Agriculture for pest/plant control including the Asian Longhorned Beetle*

- Standards according to the American Standard for Nursery Stock – ANSI-Z60.1-2004*
- Port Authority Standard - Procedure No. C-40 Construction Contract Documents, Current Edition*

* Not included herewith. All other documents listed above are included herewith, or available for review at the Authority's offices.

Upon approval of the DCS the Consultant may proceed with performance of Task F. Preliminary Design.

TASK F. PRELIMINARY DESIGN

The Stage I Report package shall be used as the basis of the Consultant's Preliminary Engineering Package (PEP). The Preliminary Design documents to be prepared by the Consultant shall include, but are not limited to: drawings, calculations, life cycle cost analysis, construction cost estimates, and construction schedules, and presentation materials all subject to approval by the Authority. A complete Preliminary Engineering Package (PEP) shall include design development of all architectural and engineering components up to a 60% level of total design completion. The PEP shall include or provide for the following:

1. General Requirements:
   a. Present the PEP to Authority staff and others (assume two presentations in addition to other presentations that may be required by the services herein).
   b. The PEP shall include but not be limited to drawings, outline specifications, three-dimensional sketches, 3D renderings, sample boards with material selections, alternatives, models, animations, calculations and written reports as required. The format of all submittals shall comply with Authority standards listed in Task E above.
   c. Drawings: All drawings shall be prepared at a final working scale as approved by the Authority. The PEP shall be sufficiently detailed to explain all decisions that have been made giving your reasons therefore, and all options that have been considered to advance the design. Detailing shall be sufficient to allow an accurate cost estimate to be made.
   d. The following items shall be shown on the PEP drawings for all disciplines:
      1) Major demolition and removals
      2) Hazardous material removals
      3) Major construction partitioning or protection plan
      4) General phasing and sequencing of installations
      5) Identify adjacent properties and uses
   f. The PEP documents shall be submitted for Authority review at 50% and 100% levels of completion, as well as for use in the value-engineering workshop.
   g. All presentation material shall be of scale and quality sufficient for public presentations, as approved in advance by the Authority.
   h. Outline Specifications
      1) Develop outline specifications. Describe in detail the key characteristics of each element. Provide a list of standard specifications that apply and identify

specifications that will need to be developed.

2) Provide a listing of all specification sections intended for the project, items requiring long lead-time, mock-up testing and materials that may be sole sourced.

3) Provide catalog cuts and typical details for equipment, furniture, other accessories located within the public areas as appropriate.

4) Provide specification notes to supplement and/or clarify standard specifications.

i. Construction Cost Estimate and Schedules

At a minimum, estimates shall be prepared at 50% and 100% level of the completion of the PEP.

Provide a Construction Schedule, and staging plan, as well as estimates of delivery times for all long lead-time items. Present the schedule in bar chart form using days, weeks or months as appropriate for the unit of time. Schedules shall be provided at 50% and 100% level of completion of the PEP.

j. Evaluate and recommend design and construction sequencing and contract packaging options to allow for fast tracking of Final Design and construction.

k. Prepare a detailed Code Analysis Report to include NYC Department of Environmental Protection, NYC Building Code and NYC Department of Transportation guidelines and standards analyses for the program. The report shall include all life safety requirements, evaluations, calculations, construction classifications, use groups, and engineered analyses required for special conditions.

l. Prepare a separate Assets and Opportunities Report based on the WTC Sustainable Design Guidelines.

m. Construction Staging Plans.

n. Identify long lead-time or sole source items.

o. Incorporate results of Value Engineering Task G.

2. Architectural:

a. Detailed plans to include, but not be limited to, the following:

1) Location of site elements, both existing and new

2) Site traffic (both pedestrian and vehicular) analysis diagrams

3) Location of major or typical new penetrations in any existing structures (e.g. No. 1 Subway, etc.)

4) Allocate space as required for:

- all aspects of fire safety and fire protection configuration
- all aspects of security devices and configuration

5) Assessment of design alternatives addressed in the Basis of Design Report (BDR)

6) Preparation of Exhibit Drawings suitable to accompany legal descriptions for property and easement transfers.

b. Detailed site sections/elevations showing:

1) Grade changes at and around the site
2) Major below-grade program spaces with ceiling and floor conditions
3) Site utilities
4) Typical and Non-Typical Conditions
5) Greenwich Street Elevations looking both east and west

c. Streets, Utilities and Related Infrastructure

1) Design the new streets, utilities and related infrastructure in collaboration with other stake-holders as required.
2) Prepare an overall ADA plan.
3) Develop and incorporate criteria for the Overall Site Design Strategy, listed in Section II, both as part of the Basis of Design Report as listed in Section VI, and into the Conceptual Design and Preliminary Engineering Documents.
4) Coordinate with other elements of the General Program Coordination Diagrams, including proposed and existing infrastructure, the Memorial and Museum, Performing Arts Center, Museum Complex, Path WTC Terminal, St. Nicholas Greek Orthodox Church, and retail and commercial development. Analyze and identify various interface issues, including programming, design, and construction, with these site elements. Prepare design schemes that incorporate and/or respond to such interface considerations.
5) Comply with Sustainable Design Guidelines (SDG) requirements and perform all services required therein, including:
   - Complete studies for certain sustainable design elements such as energy, water, material management, recycled materials, and interior quality.
   - Prepare certain life cycle and cost/benefit analysis as part of sustainable design studies in Preliminary Engineering.
   - Incorporate sustainable design recommendations throughout the project design in compliance with the SDG and Reference Manual.
6) Assist and support the review process by independent commissioning authority as required by the SDG. Coordinate with consultants and other engineering disciplines as required to develop an intelligent, dynamic, and public wayfinding/information/signage system that meets the requirements of the Overall Site Design Strategy.

d. Graphics/Wayfinding/Signage Design:

1) Develop standards manual and signage specifications for typical signage, way-finding directional signage and informational signs, both permanent and temporary based upon standards furnished by the Authority.
2) Develop a Wayfinding system for public signage including a graphic specification controls manual and specifications. Provide preliminary message schedule and signage layout indicating typical sign sizes and messages, Models/Presentation

Materials as approved by the Authority to include but not be limited to the following:

- Color elevations or other representations of significant spaces shall be provided.
- Graphic presentation (drawings and renderings) material shall be in electronic formats for use in various programs such as PowerPoint and other print media as directed by the Authority.
- Sign Location Plans
- Sign Schedule
- Sign Details
- Presentation Drawings

e. Develop streetscape; furnishing options which shall include, but not be limited to, the following:

1) Light poles
2) signage
3) bollards
4) benches
5) floor finishes
6) planters
7) plantings and grassed areas
8) street trees
9) irrigation
10) other park features as outlined in WTC Site Guidelines

f. Models/Presentation Materials as approved by the Authority:

1) Color elevations or other representations of significant spaces shall be provided.
2) Graphic presentation (drawings and renderings) material shall be in electronic formats for use in various programs such as PowerPoint and other print media.
3) 3D computer models and animations and renderings shall be required for the overall project.
4) Architectural Presentation Models shall be required for public display and shall be constructed at architectural scales no less than 1/8"=1'0 minimum for project details and 1/32" min for site models.

3. Civil Engineering Requirements:

a. Removal/reconfiguration of streets to accommodate work hereunder.
b. Horizontal and vertical layout of all streets within the project area.
c. Modification/relocation of all utilities.
d. Drawings shall depict at a minimum the following information:

1) Base drawings shall include but not be limited to existing surface features, topography, utility information, underground building structures, tunnels and subways, and underground program spaces in accordance with latest Authority CAD standards. The horizontal and vertical control datums will be established by the Port Authority.

2) Alignment plans showing horizontal and vertical (profiles) design of all streets within the project area.

3) Pavement design and computations for the streets within the project area. Pavement design for Greenwich Street shall include MTA air duct banks as indicated in the referenced documents.

4) Paving plans depicting limits of full depth pavement and overlay of existing pavement for all streets within the project area.

5) Removal plans depicting limits of streets, sidewalks, and curb being removed.

6) Identification of all utility conflicts/impacts and subsequent design modification/relocation of such, including, but not limited to, storm, sanitary, gas, water, electrical, telephone, fiber optics, traffic and electric control boxes at street level, ventilation shafts and sidewalk grates, hydrants, manholes, horizontal and vertical control datum monuments due to the new alignments or street removals.

7) Location of tie-ins and accommodation for future utility work.

8) Location and design of treatment system for storm water, if deemed necessary.

9) Utility plan and profiles showing the layout of the utility systems, including manholes and catch basins, pipe sizes, inverts materials, and valves.

10) General Site work including grading, drainage, roadway and sidewalk paving

11) Hydrology and hydraulic computations following NYCDEP's format for storm and sanitary designs.

12) Provide sufficient cross sections to depict relationship of all utilities and program spaces/structural hardening requirements, finished street grades.

13) Provide bypass and/or staging plans of utility.

14) Prepare applications and associated drawings, sketches and calculations required for such on behalf of the Authority for applicable permits from New York City and New York State Agencies.

e. Refine the list of standard specifications included in the Authority's Stage I Report (See VI below). Submit any custom specifications required.

f. Coordinate utility modifications/relocations with appropriate New York City and New York State Agencies (i.e. NYSDOT, NYCDOT, NYCDEP, NYCT, etc.) and private utility companies/Owners (i.e. Consolidated Edison, Verizon, Keyspan, etc.)

g. Solicit, address and incorporate comments from various reviewing agencies of the Port Authority Stage I Package as required.

4. Electrical Requirements:

   a. Develop Project Implementation staging.

   b. Participate in ongoing design reviews.

   c. Perform constructability review.

   d. Provide input for the Sustainable Design Guidelines.

   e. Coordinate with other elements of the WTC Site Master Plan, including existing infrastructure, WTC PATH Terminal, the Memorial and Museum, Performing Arts Center, Museum Complex, Path WTC Terminal, St, Nicholas Greek Orthodox Church, and retail and commercial development. Analyze and identify various interface issues, including design and construction with these elements. Prepare design schemes that incorporate and/or respond to such interface considerations.

   f. Provide for all areas:

      1) Power

      2) Street Lighting

      3) Telephone System (Cable and Fiber Optics)

      4) Traffic Management System including monitoring cameras

      5) Corrosion Control System

      6) Graphics/Wayfinding

   g. Design shall be based upon code requirements and actual load requirements with provisions for 25% future load growth included in the feeders, switchgear/switchboards, distribution panels, electrical rooms and closets as spares and spaces.

   h. Electrical Design shall include:

      1) Electrical load calculations (connected load and demand load)

      2) Electrical one-line diagrams, identifying the power sources, loads and feeder sizes; develop the power distribution system.

      3) Riser diagrams.

      4) Block diagrams.

      5) Control diagrams.

      6) Layout of major equipment, such as electrical vaults, switchgear, distribution panels, lighting panels.

      7) Control equipment, including sizes, types and locations.

      8) Equipment location, elevations and details as necessary.

      9) Utility location plans and routings for all power and communications infrastructure required supporting all systems, including the utility and infrastructure connections.

      10) Grounding.

11) Power, control and communication cables management plans, schedules and routes.

12) Major equipment schedule

13) Specifications for all electrical equipment, including creation of custom specifications where applicable.

14) Catalog Cuts of critical equipment

i. Power:

1) Design a complete electrical installation including all conduits, wires auxiliary material and equipment.

2) Both normal and emergency power for all devices and equipment requiring electrical power.

3) [redacted]:

- Life Safety System and Equipment
- Emergency Ventilation
- Access Control and Intrusion Detection System
- CCTV
- Telephone Switch and router equipment
- Lighting
- Radio Systems
- Security Control
- Traffic Management System
- Traffic Control Devices and Equipment
- Vehicle scanning equipment
- Other Critical sub-system and equipment as required

4) [redacted] to [redacted]

5) All electrical rooms and closets, as required, to support the Streets, Utilities and Related Infrastructure and perimeter security protective measures.

6) Each panel board shall be provided with a minimum of [redacted] spare circuit breakers.

7) [redacted]

8) In addition to offices, booths and utility rooms, power receptacles shall also be installed in parking and ramp areas as required, to allow for routine maintenance and house keeping functions.

j. Lighting:

1) Provide lighting systems with lighting levels and uniformity in accordance with the requirements of applicable codes and standards including Illuminating Engineering Society (IES) and the New York State Energy Code.

2) Lighting for exterior (outdoor) areas shall be [redacted]

3) All lighting fixtures shall be [redacted]

4) Design shall include development of lighting level criteria, selection of lighting fixtures and fixture layouts, lighting control routines and determination of the quantities and locations of fixtures to be fed from emergency power.

5) Street lighting

6) Coordinate with NYCDOT and NYSDOT.

5. Environmental Requirements:

The Consultant is to include soil testing, characterization, classification, plans for beneficial soil re-use and disposal, asbestos abatement, lead paint abatement, review of building demolition plans and design of additional health and safety to conform to all applicable regulations and all regulatory agencies comments, plans for ambient air monitoring during building demolitions, development of construction/demolition noise criteria for all on site activity with provisions for monitoring noise levels and compliance with noise criteria.

a. Specifications for beneficial soil re-use and disposal of excess excavated soils.

b. Specifications for soil characterization, classification, re-use and disposal.

c. Specifications for asbestos abatement and lead paint abatement.

d. Plans for ambient air monitoring during demolition.

e. Plans for construction noise monitoring and control.

6. Structural/Geotechnical Requirements:

a. Prepare a report describing the blast and damage mitigation techniques to be utilized for the design of all structural elements, so as to ensure that the SARA requirements are achieved for all required program spaces and adjacencies, including but not limited to public spaces, site infrastructure, program and retail spaces and above grade structures. This report shall also explain the various options that were investigated during the design phases, and shall clearly describe the areas and limits of damage anticipated in the event of a security breach. This report shall be submitted prior to completion of the Stage II effort. Prior to the design of the elements within this report, all security elements that need to be incorporated must be reviewed and approved by the Authority. All such information shall be treated as privileged and confidential information.

b. All structural design must adequately address structural hardening of program elements, including but not limited to public spaces, security zones, perimeter foundation walls and interior walls, and other vital structural elements as identified in the security criteria provided. The Consultant shall be responsible for designing hardening systems to ensure that the design meets all requirements, utilizing the state of the art design and analysis techniques;

c. Develop the scope for additional subsurface investigations, if required for the foundation design. The Authority will contract for field investigations, provide full time inspection and perform laboratory testing as specified by the Consultant. The Consultant shall make site visits to review and update the investigation scope and findings.

d. Prepare staging and sequencing plans so as to minimize disruption of service to active PATH and NYCTA facilities, as well as local adjacent streets and utilities;

e. Plans and sections shall indicate the location of other site elements, both existing and proposed, as depicted in the WTC Site Master Plan.

f. Structural and Geotechnical computations and computer models for conventional design and hardening design;

g. Structural design of at-grade roadway and sidewalk support systems (Liberty, and Greenwich Streets) for both code and other security related requirements;

h. Geotechnical and structural design analyses to [redacted]

7. Traffic Requirements:

a. Coordinate the Liberty Street access and staging area to the below-grade bus facility.

b. Evaluate pedestrian movements.

c. Coordination with NYCDOT and NYSDOT including transmittal of design information in the way of drawings and/or sketches and attendance at coordination meetings as required.

d. Both temporary and permanent traffic control measures such as signals, signs, pavement markings and barriers

e. Analysis documents including preliminary analyses, reports, design drawings

f. Drawings shall be prepared in sufficient detail to include placement and layout of traffic control measures.

g. In developing the traffic signal designs the "Synchro" software package (Traffic Corporation) will be used. As approved by the Authority, the Consultant may be allowed to use the "Vissim" vehicular/pedestrian analysis software

h. Traffic Drawings will depict at a minimum:

1) Liberty Street bus/truck access staging area.

2) Plans for the incorporating signals, signs, pavement markings and barriers into the roadway network.

3) Plans for both vehicle and pedestrian signs within the project area.

4) Plans for Variable Message Signs (VMS) and any signal equipment, including operating diagrams.

8. Security Requirements:

The following shall be considered in the design to mitigate threat and risk concerns related to the protection of life. These shall include but not be limited to:

EXEMPTION 4

TASK G. VALUE ENGINEERING

Participate in a value-engineering workshop consisting of a multi disciplined Value Engineering team led by a Certified Value Specialist (CVS) of the Society of American Value Engineers.

This Task shall be performed concurrently with Task F.

TASK H. FINAL DESIGN AND CONTRACT DOCUMENTS

The Consultant shall not proceed with performance of this task unless so authorized in writing by the Authority.

The commencement of this task is contingent upon the Authority's NEPA Authorization Process, and other internal authorizations, as appropriate. Upon written authorization from the Authority the Consultant shall proceed with performance of this Task.

Prior to the performance of this task the Consultant shall submit its specific Quality Control/Quality Assurance Program for the professional services to be performed in connection with the final design and the preparation of Contract Drawings and Specifications specified herein. Upon completion of the contract documents required hereunder, you shall submit a letter to the Engineer certifying that you have performed the Quality Control/Quality Assurance Program as defined by you at the start of this Task and update the Assets and Opportunities Report, incorporating diagrams and calculations illustrating SDG Criteria has been achieved.

1. Contract Drawings: Prepare a final design and Contract Drawings for work to be performed by a Contractor based on the approved Preliminary Design which shall include, but not be limited to, the appropriate work items contained in the foregoing tasks and shall include, but not be limited to the following:

   a. Base drawings including, but not limited to existing surface features, topography, utility information, underground building structures, tunnels and subways, and underground program spaces based on given Horizontal and Vertical Control Datums in accordance with latest Authority CAD standards.

   b. Alignment plans showing horizontal and vertical (profiles) design of all streets within the project area.

   c. Pavement design for the streets within the project area.

   d. Paving plans depicting limits of full depth pavement and overly of existing pavement for all streets within the project area.

   e. Removal plans depicting limits of streets, sidewalks, and curbs being removed.

   g. Location of tie-ins and accommodation for future utility work

   h. Location and design of treatment system for storm water, if deemed necessary in Stage II.

   i. Utility plan showing the layout of the utility systems, including manholes and catch basins, pipes sizes, inverts materials, and valves, as well as any required utility relocations.

   j. General Site work including grading, drainage, roadway and sidewalk paving, cross sections and details as required..

2. For contract drawings, observe the following signature procedures:

   a. All Consultant Contracts shall have a cover sheet containing the facility name, contract title and contract number. The cover sheet shall have the appropriate places for signature by Authority staff. No other information shall appear on the cover sheet. This will be the only Contract Drawing prepared by the Consultant that will be signed by Authority staff.

   b. Sign and seal all drawings prepared by you.

c. Any subconsultant shall sign and seal its drawings. The Consultant's logo shall appear on each drawing prepared by a subconsultant.

d. All drawings shall be signed and sealed by a Principal of the firm with a New York Professional Engineer, New York Registered Architect License or New York Registered Landscape Architect License as appropriate.

3. Design Calculations and Diagrams: The Consultant shall submit complete design computations and design drawings covering all structural framing and supports, including primary framing members, bracing, foundations, siding, girts, roofing and architectural finishes. The Finite Element Model (FEM) shall be utilized to determine stress levels of all primary structural elements of the program,, and effect of the construction on the primary structural elements of adjacent portions of the existing basement.

   Calculations shall clearly distinguish between new and existing construction. Documents from which existing dimensions and existing member properties were obtained shall be referenced in the calculations.

   All engineering calculation sheets shall be numbered, dated, and indexed. The index sheets shall define the total number of the sheets submitted and shall bear the seal and signature of an experienced engineer holding a Professional Engineer's license in the State of New York and who is familiar with and responsible for the design.

   If computations are submitted in computer print-out form, furnish the following:

   a. Description and proof of adequacy of the program. The description of each program shall include:

      1) The type of problems solved by the program.

      2) The nature and extent of the analysis.

      3) The assumptions made in the program.

      4) Instructions for interpreting the computer output format.

   b. Indicate the design criteria used and the diagrams showing the loading conditions and loading combinations.

   c. The design constants and equations used, including all references.

   d. Submit indexed and clearly identified input and output sheets for the entire structure or for those portions of the structure, which will be sufficient to enable the Authority to evaluate the structure.

   e. Submit a clear diagram of all member forces (axial, shear, bending or other forces, as appropriate) for each loading condition controlling the design.

4. Specifications: Prepare Specifications to include the work specified under subparagraph 2 above in accordance with the following:

   a. Division 1 - Provide the following information for the Authority Standard Division 1 Specifications which will be prepared by Authority staff:

      1) Information specifically related to Conditions and Precautions, Staging, Available Property, Temporary Structures, and other General Provision Requirements of the subject contract.

2) A list of the Contract Drawings.

3) A list of unit price items, where appropriate, with description and estimated quantities for each item.

b. Technical Specifications

1) The Authority has prepared certain standard technical specifications, which will be made available in hard copy as requested by the Consultant. These standard technical specifications must be used by the Consultant and may not be altered or revised in any way by the Consultant. Since these standard Technical Specifications may contain materials and related procedures, which are not appropriate to the specific Contract being proposed, the Contract Drawings must clearly define the materials and scope of work. Division 1 of the Authority's specifications dealing with general provisions, includes the following language:

"In case of a conflict between a requirement of the Contract Drawings and a requirement in Division 1 of the Specifications, the requirement of Division 1 shall control. In case of a conflict between a requirement contained in other Divisions of the Specifications and a requirement of the Contract Drawings, the requirement of the Contract Drawings shall control."

2) The Consultant shall prepare any technical specifications, which are not available from the Authority. Any technical specifications prepared by the Consultant shall be in the same format as the Authority standard technical specifications and the Consultant shall make any changes therein requested by the Authority throughout its various reviews.

3) The Consultant shall comply with the "Instructions to Consultants for Preparation of Port Authority Construction Contract Documents" which will be made available upon commencement of work by the Consultant.

4) Other than hard copies of specifications prepared by the Consultant that are to be submitted to the Authority as noted herein, the Consultant shall submit CD copies of said specifications. One disk copy shall contain the specifications in the format of the original word processing program used by the Consultant, and shall labeled to clearly indicate the contract title, the name of the word processing program used and the revision number of said program. Another disk copy of the software program shall be submitted in ASCII format.

TASK I. COST ESTIMATE AND CONSTRUCTION SCHEDULE

Prepare Construction Cost Estimates for Stages II through IV. Stage IV Construction Cost Estimate shall be based on the final Contract Drawings and Specifications and in accordance with the Authority's "Construction Estimating Guide", a copy of which is available from the Project Manager. Provide an estimate of the time required to complete construction, as well as an estimate of delivery time for all long lead time items. Present the Construction Schedule in bar chart form using days, weeks or months as appropriate for the unit of time.

TASK J. POST AWARD DUTIES

1. Submit your specific Quality Control/Quality Assurance Program for the professional services to be performed in connection with the performance of your Post Award Duties specified hereunder.
2. Review, and approve or disapprove all working drawings, catalog cuts and samples for conformance with the Specifications and Contract Drawings within 10 working days after receipt of said articles from the Contractor, for those articles for which you are Engineer-of-Record. Indicate any corrections and additions as required. Advise the Authority thereof giving the reasons for your decisions. Make all required distributions through final approval. Six copies of each working drawing will be required.
3. In addition to any on-site observations you may require as the Engineer-of-Record, attend, at the request of the Authority, two pre-construction meetings and one field meeting for each month of the construction period.
4. Prepare and submit, at the first pre-construction meeting, an outline list of required contractor's submittals to include but not be limited to, working drawings, catalog cuts, samples, certificates and test reports.
5. Upon completion of construction, modify the Contract Drawings to "as-built" conditions and certify the same. The Authority will furnish the "as-built" information to be verified and incorporated.
6. Evaluate alternative construction details and materials, as requested by the Authority.
7. Make post-award contract changes with detailed estimates and make site inspections as required for the changes.
8. Perform inspection at the source of supply, as well as for tailgate inspections, according to the specification.
9. Inspect any and all field mock-ups.

Compensation for the evaluations and changes referred to in paragraphs 6 and 7 above shall be computed in accordance with the paragraphs of the Agreement relating to compensation and shall not be charged against the estimated cost, provided that none of these items result from non-compensable work.

IV. SCHEDULE AND SUBMISSIONS

Submit the work identified above for review by the Chief Engineer within the number of calendar-days stipulated below after receipt by you of one copy of the Agreement executed by the Authority and direction from the Authority to proceed with the performance of services hereunder.

A. The schedule required under Task A above shall be submitted within **5** calendar days. Authority comments shall be forwarded to you within **5** calendar days thereafter. Incorporate Authority comments and resubmit the schedule as final within **2** calendar days thereafter.

B. Submit a list of value study proposals resulting from the value-engineering workshop within **60** calendar days. Authority comments will be forwarded to you within **10** calendar days after receipt of said submission.

C. Submit a final value engineering report containing all approved cost proposals within **125** calendar days.

D. Submit 30 sets of ozalid prints and one mylar set of 50% complete preliminary design and preliminary cost estimate within **75** calendar days. Authority comments will be forwarded to you within **15** calendar days after receipt of said submission.

E. Submit 30 sets of ozalid prints and one mylar set of 90% complete preliminary design and preliminary cost estimate within **150** calendar days. Authority comments will be forwarded to you within **15** calendar days after receipt of said submission.

F. Submit 30 sets of ozalid prints and one mylar set of the complete preliminary design drawings, design calculations, an estimate of the time required for completion of construction, and a preliminary construction cost estimate within **180** calendar days. Authority comments will be forwarded to you within **15** calendar days after receipt of said submission.

G. Submit your specific Quality Control/Quality Assurance Program for the professional services to be performed in connection with the final design and the preparation of Contract Drawings and Specifications specified herein within **180** calendar days.

H. Submit 30 sets of collated and stapled ozalid prints and one mylar set of 50% complete Contract Drawings, 30 printed sets of Custom Specifications and listng of Standard Technical Specifications, design calculations and information required for Division 1 of the Specifications within **270** calendar days. Authority comments will be forwarded to you within **15** calendar days after receipt of said submission.

I. Submit 30 sets of collated and stapled ozalid prints and one mylar set of 90% complete Contract Drawings, 30 printed sets of Custom Specifications and listng of Standard Technical Specifications, design calculations and information required for Division 1 of the Specifications within **330** calendar days. Authority comments will be forwarded to you within **20** calendar days after receipt of said submission.

J. Submit 30 sets of collated and stapled ozalid prints and one mylar set of 100% complete Contract drawings, thirty printed sets of Technical Specifications, 100% complete design calculations signed and sealed by a licensed Professional Engineer, and a final

construction cost estimate within **365** calendar days. Authority comments will be forwarded to you within **20** calendar days after receipt of said submission.

K. Submit a letter to the Engineer certifying your compliance with the Quality Control/Quality Assurance Program established by you for the preparation of Contract Documents as required herein, along with one set of original mylar tracings of the complete Contract Drawings, reproducible masters of the Technical Specifications and a final construction cost estimate within **390** calendar days.

L. Submit your specific Quality Control/Quality Assurance Program for the professional services to be performed in connection with the performance of your Post Award Duties specified hereunder within **390** calendar days.

M. The completed Contract Drawings and Technical Specifications submitted above will be reviewed by the Authority within **20** calendar days after receipt thereof. The Consultant shall make any changes to the Contract Drawings and Technical Specifications resulting from this review and submit the revised Contract Drawings and Technical Specifications, which will be used for bidding purposes, within **10** calendar days after receipt of the Authority's comments.

V. ADDITIONAL INFORMATION FOR THE PREPARATION OF CONTRACT DOCUMENTS AND CONSTRUCTION COST ESTIMATES

A. Except as otherwise noted herein, the Preparation of Contract Documents shall conform to Port Authority standards, and codes which would be applicable if the Authority were a private corporation. In case of a conflict, the more stringent requirement shall apply.

B. Prepare all Contract Drawings as per Port Authority CAD standards. Contract Drawings reduced to one-half size prints shall, be prepared in such manner as to produce clearly legible drawings. Scales shall be graphical rather than numerical.

C. Meet with the Authority and incorporate Authority comments after submittals.

D. The following additional services shall be provided as part of this Agreement:

1. Answer questions asked of the Authority staff by bidders during the bid period.
2. Prepare Contract addenda including Contract Drawing revisions and engineering calculations, as necessary or as requested by the Chief Engineer, for Authority approval and issuance by the Authority. Furnish originals for final printing.
3. Conform Technical Specifications and Contract Drawings to addenda when directed by the Chief Engineer after award of the Contract.
4. Upon request, assist Authority staff in Items E1, E3 and E4 specified below.

E. Authority staff will:

1. Prepare Information for Bidders, Form of Contract, Division 1 of the Specifications and the Analysis of Bid and Contract Progress Schedule.
2. Meet with Consultant from time to time to review all Specifications, Contract Drawings, construction cost estimates and schedules prepared by him.
3. Review with, and transmit comments from, various Authority Departments to the Consultant for incorporation by him into the Contract Documents.

4. Review addenda with and obtain approval of various Authority Departments.
5. Solicit, receive, open bids, and award Contract or reject bids.

VI. INFORMATION AND MATERIALS PROVIDED BY THE AUTHORITY

The Authority has available for the Consultant's information certain documents specified below. The documents specified under "A" below were not prepared for the purpose of providing information for the Consultant upon the present work but they were prepared for other purposes, and do not form a part of this Agreement. The Authority makes no representation or guarantee as to, and shall not be responsible for, their accuracy, completeness or pertinence, and, in addition, shall not be responsible for the conclusions to be drawn therefrom. They are made available to the Consultant merely for the purpose of providing him with such information as is in the possession of the Authority, whether or not such information may be accurate, complete or pertinent, or of any value to the Consultant.

The documents specified under "B" below were prepared for the subject work and form a part of this Agreement.

Said documents are as follows:

A. Available Documents

1. WTC Redevelopment Projects - Sustainable Design Guidelines Reference Manual
2. World Trade Center Transportation Hub – Project Quality Assurance Plan
3. Permanent WTC PATH Terminal – Final Environmental Impact Statement – May 2005
4. Aerial Mapping of Project Site
5. World Trade Center Vehicular Security Center and Tour Bus Parking Facility
6. Site Survey from Downtown Design Partnership
7. Contract Drawings Bearing the general title "WTC Transportation Hub WTC PATH Terminal and Pedestrian Connections"
8. General Program Coordination Drawings
9. Stage I Report Package (Portions of this report are classified as "Privileged and Confidential.")
    a. Drawings and Specification List
    b. Project Scope
    c. Schedule
    d. Basis of Design Report
    e. Utility Management Plan

B. Other documents

1. World Trade Center Site General Project Plan – Exhibit A Diagram
2. World Trade Center Site Public Infrastructure Program: Security Center & Related Infrastructure Scoping Diagram;

3. Security Concept of Operations (ConOps) prepared by the Lower Manhattan Counter-terrorism Team (LMCAT) (This document is classified as "Privileged and Confidential.")

VII. CONDITIONS AND PRECAUTIONS

A. General

The Consultant shall immediately inform the Authority of any unsafe condition discovered at any time during the course of this work.

Vehicular traffic at the WTC shall always have priority over any and all of the Consultant's operations

B. Work Areas

The Consultant shall limit his inspection work to the areas necessary for the performance of such inspection and shall not interfere with the operation of the facility without first obtaining specific approval from the Chief Engineer.

During all periods of time when he is not performing operations at the work site, the Consultant shall store all equipment being used for the inspection in areas designated by the Chief Engineer and shall provide all security required for such equipment.

The Consultant shall not permit any objects or pieces of equipment to lie unattended on sidewalks, roadways or structures at any time.

C. Work Hours

The Consultant shall perform his work at the site between the hours of 8:00 A.M. and 4:00 P.M., Monday through Friday, unless otherwise directed by the Chief Engineer.

In any case, no work shall be performed at the site on a legal holiday of either the State of New York or the State of New Jersey, unless otherwise directed by the Chief Engineer.

D. Existing PATH Conduits and Substation on Liberty Street Slurry Wall

There are existing conduits containing AC, DC, communications and signal cabling for PATH installed along the Liberty Street slurry wall as indicated in the Stage I Report. The Consultant shall exercise every effort to avoid impacting these conduits and substation with the proposed design and construction.

* * *

ATTACHMENT B
ARCHITECTURAL AND ENGINEERING SERVICES AGREEMENT

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1. GENERAL

The Consultant agrees to provide expert architectural and engineering services for the World Trade Center Streets, Utilities and related infrastructure, as more fully set forth in Exhibit A which is included herewith and made a part hereof.

The Consultant shall at all times comply with all applicable Federal Transit Administration (FTA) regulations, policies, procedures and directives, including, but not limited to, those listed herein. In addition, the Consultant shall comply with all applicable provisions of the agreement entitled "United States of America Department of Transportation Federal Transit Administration - Master Agreement for 'Lower Manhattan Recovery Grants", dated May 16, 2003 as delineated in Attachment D. Failure to comply shall constitute a material breach of this Contract.

In case of a conflict between any provision of this agreement and the FTA requirements, the FTA requirements shall control unless otherwise directed by the Authority.

The Authority does not guarantee the ordering of any services under this Agreement and specifically reserves the right, in its sole discretion, to use any person or firm to perform the type of services required hereunder.

Any services performed for the benefit of the Authority at any time by the Consultant or on the Consultant's behalf, even though in addition to those described herein, even if expressly and duly authorized by the Authority, shall be deemed to be rendered under and subject to this Agreement (unless referable to another express written, duly executed agreement by the same parties), whether such additional services are performed prior to, during or subsequent to the services described herein, and no rights or obligations shall arise out of such additional services.

2. DEFINITIONS

As used herein "Chief Engineer" shall mean the Chief Engineer of the Authority or the Assistant Chief Engineer acting either personally, or through their duly authorized representatives acting within the scope of the particular authority vested in them unless specifically stated to mean acting personally.

As used herein "Director," shall mean the Director, Priority Capital Programs, acting either personally or through his duly authorized representatives acting within the scope of the particular authority vested in them.

"Director of Procurement" shall mean the Director, Procurement, for the time being, or his/her successor in duties, acting personally or through one of his/her authorized representatives.

"Engineer" shall mean the Chief Engineer.

"Project Manager" shall mean the designated Priority Capital Programs Project Manager.

"Contract" and "Agreement" shall be used interchangeably.

"Contractor" shall be used interchangeably with "Consultant".

"Subcontractor" shall be used interchangeably with "Subconsultant".

"FTA" shall mean the United States Department of Transportation, Federal Transit Administration. "FTA" and "Government" shall be used interchangeably.

3. CONTRACT ADMINISTRATION

For the purpose of administering this Agreement, the Director has designated **Mr. Vincent Stellato, Deputy Program Director**, to act as my duly authorized representative. The Project Manager for this project is **Mr. Vito Ranieri**, at **(212) 435-5568** or via e-mail at **vranieri@panynj.gov**.

The Consultant's services shall be performed as expeditiously as possible and at the time or times required by the Director. Time is of the essence in the performance of all services under this Agreement. Notwithstanding anything in this Agreement, Consultant, including Consultant's subconsultants, if any, shall not be responsible hereunder for any delay, default or nonperformance of this Agreement, if and to the extent that such delay, default or nonperformance is caused by an act of God, weather, accident, labor strike, fire, explosion, riot, war, rebellion, terrorist activity, sabotage, flood, epidemic, act of government authority in either its sovereign or contractual capacity, labor, material, equipment or supply shortage, or any other cause beyond the reasonable control of such party.

Upon notice to proceed from the Authority, the Consultant shall perform the services set out in Exhibit A attached hereto and forming a part hereof. This agreement will remain in effect until the completion of final design as determined by the Director.

4. WORK REQUIREMENTS

A. When the services to be performed by the Consultant include the preparation of computer aided design and drafting (CADD) documents, said documents must be submitted in the format of the latest available version of AutoDesk's design CAD software (.dwg) or as directed by the Engineer prior to the performance of specific services and shall be submitted to the Authority on compact disks, or as otherwise required.

B. When the services to be performed by the Consultant included the preparation of Architectural Graphics and said graphics are to be prepared using a system fully compatible with Authority's standard computer system. The graphics shall be prepared using the latest revision of the following software packages, as required: " Adobe Illustrator", " Quark Xpress" " Microsoft Word" and shall be submitted to the Authority on compact disk, or as otherwise required.

C. The Consultant shall meet and consult with Authority staff as requested by the Director connection with the services to be performed herein.

D. Any Contract Drawings, Technical Specifications or other items to be submitted or prepared by the Consultant hereunder shall be subject to the review of the Chief Engineer. The Chief Engineer may disapprove, if in his sole opinion the said items are not in accordance with the requirements of this Agreement, all applicable jurisdictional Codes or Authority standards, sound engineering practice, or are impractical, uneconomical or unsuitable for the purpose that the construction is intended. If any of the said items or any portion thereof are so disapproved, the Consultant shall forthwith revise said items until approved by the Chief Engineer, but the Consultant shall not be compensated under any provision of this Agreement for performance of such revisions. No such approval or disapproval shall relieve the Consultant of its responsibilities under this Agreement.

5. LAWS AND ORDINANCES

In order to effectuate the policy of the Authority, the Consultant shall comply with all provisions of federal, state, municipal, local and departmental laws, ordinances, rules, regulations and orders which would affect the Contract and the performance thereof and those engaged therein if said Contract were being performed for a private corporation, except where stricter requirements are contained in the Specifications or Contract Drawings, in which event the latter requirements shall apply. However, the Consultant shall not apply for any permits, licenses or variances in the name of or on behalf of the Authority, but shall do so in his own name where required by law, regulation or order or by the immediately preceding sentence. Nor shall the Consultant apply for any variance in his own name without first obtaining the approval of the Authority.

In addition, the Consultant shall comply with all applicable provisions of the agreement entitled "United States of America Department of Transportation Federal Transit Administration - Master Agreement for 'Lower Manhattan Recovery Grants", a copy of which is attached hereto as Attachment D.

6. COMPENSATION

A. Total compensation for performance of all services as identified in Exhibit A, should all such services be ordered by the Port Authority, shall not exceed nine million one hundred and fifty one thousand four hundred and eighteen dollars ($9,151,418). Total compensation for the Preliminary Engineering portion of these services as outlined in the letter of acceptance dated March 15, 2007 shall not exceed the amount of four million five hundred seven thousand five hundred three dollars ($ 4,507,503.00). The Consultant shall inform the Director when the Consultant's compensation reaches 80% of such amount. The Consultant shall continue to render services to completion after the point when the Consultant's compensation reaches 100% of such amount. Actual costs under this Agreement shall be defined according to Federal Cost Principles as set out in Part 31 of the Federal Acquisition Regulations (48 CFR Part 31).

Total compensation for performance of the remainder of the services as identified in Exhibit A not outlined above shall not exceed the amount of -four million six hundred forty-three thousand nine hundred fifteen dollars ($ 4,643,915.00). The authorization to proceed with these subsequent services will be set forth in writing by the Authority. The Consultant shall inform the Director when the Consultant's compensation reaches 80% of such amount. The Consultant shall continue to render services to completion after the point when the Consultant's compensation reaches 100% of such amount. Actual costs under this Agreement shall be defined according to Federal Cost Principles as set out in Part 31 of the Federal Acquisition Regulations (48 CFR Part 31).

B. As full compensation for all services and obligations in connection with this Agreement, the Authority will pay the Consultant the total of the amounts computed under subparagraphs B.i., B.ii., B.iii. and B.iv. below, subject to the limits on compensation and provisions set forth in paragraph A. above.

i An amount equal to **2.45** times the actual salaries paid by Edwards and Kelcey Engineers, Inc. and DMJM+Harris, Inc. and an amount equal to **2.80** times the actual salaries paid by EDAW, Inc. to their respective permanent professional and technical personnel but not partners or principals for time actually spent by them in the performance of services

hereunder at Consultant furnished offices, plus an amount equal to the number of hours actually spent by partners and principals in the performance of services hereunder times the billing rate (no multiplier applied) described below but in each case excluding premium payments for overtime work or night work.. Attached hereto is a schedule of actual salaries and titles of permanent professional and technical personnel to be employed by the Consultant, as well as rates customarily billed for partners and principals on projects such as this. Said schedule shall be the basis for determining compensation, subject to audit and shall be updated by the Consultant in writing as required until the services under this Agreement are completed. For compensation purposes under this Agreement, no said salary or amount shall exceed the salary or amount received by said personnel or rate customarily billed for a partner or principal as of the effective date of this Agreement unless the Director has been notified in advance, in writing, of the increased salary, rate or amount and approves the increase. The Authority reserves the right of approval of all personnel, amounts, billing rates and salaries of said personnel performing services under this Agreement. When requesting salary or billing rate adjustments for one or more of its personnel, the Consultant shall submit his/her name, title, current direct hourly rate or billing rate, proposed new direct hourly salary or billing rate, resulting percentage increase, effective date and reason for the requested change setting forth in detail any increased costs to the Consultant of providing the services under this Agreement which has given rise to the request for increased salary. For adjustments submitted after the effective date of this Agreement approval will not be withheld if the Consultant demonstrates compliance with all of the following conditions: that increases in salary, or partner's or principal's billing rate or amount are in a) accordance with the program of periodic merit and cost of living increases normally administered by it, b) are warranted by increased costs of providing services under this Agreement, c) are based upon increases in salaries and billing rates which are generally applicable to all of Consultant's clients and d) are in accordance with the Authority's salary rate increase policy for the current year for Authority employees possessing comparable skills and experience. If during any calendar year, Authority limits are not available to the Consultant in a timely fashion, increases falling within such limits may be approved retroactively, as appropriate.

Notwithstanding the above, the multipliers set forth in the first line of this subparagraph shall be applied only in the case of personnel other than partners or principals who are permanent employees.

ii An amount equal to the premium payments for overtime work actually paid to professional and technical employees for time actually spent by them in the performance of services hereunder when such premium payments have been demonstrated to be in accordance with the Consultant's normal business practice and have been authorized in advance by the Director in writing. The Project Manager shall have the right to authorize and approve premium payments up to a total amount of $1,000 per occasion. Payments above said total amount shall be subject to the prior written authorization of the Director. Such premium payments to supervisory employees, who do not receive such payments in the Consultant's normal business practice, shall not be given under this Agreement.

iii An amount equal to the amounts actually paid to Subconsultants hereunder that have been retained after the written approval by the Director of the Subconsultant and the compensation to be paid the Subconsultant. The Consultant shall submit a copy of the

terms and conditions of the Subconsultant's compensation (including multiplier, if applicable), as well as an estimate of the number of hours required by the Subconsultant to perform the services, as part of any request for approval of the Subconsultant.

iv An amount equal to the out-of-pocket expenses, approved in advance by the Director, necessarily and reasonably incurred and actually paid by the Consultant in the performance of the services hereunder. Out-of-pocket expenses are expenses that are unique to the performance of the services under this Agreement, and generally contemplate the purchase of outside ancillary services, except that for the purpose of this Agreement, out-of-pocket expenses do include amounts for mailing and delivery charges for submittal of drawings, specifications and reports; long distance telephone calls; rentals of equipment; long-distance travel; and meals and lodging on overnight trips.

C. Notwithstanding the above the Authority will pay an amount approved in advance by the Director and computed as follows for the reproduction of submittal drawings, specifications and reports:

i If the Consultant uses its own facilities to reproduce such documents, an amount computed in accordance with the billing rates the Consultant customarily charges for reproduction of such documents on agreements such as this, or

ii If the Consultant uses an outside vendor for the reproduction of such documents, the actual, necessary and reasonable amounts for the reproduction of such documents.

Out-of-pocket expenses do not include expenses that are usually and customarily included as part of the Consultant's overhead. For the purposes of this Agreement out-of-pocket expenses do not include amounts for typing, utilization of computer systems, computer aided design and drafting (CADD), cameras, recording or measuring devices, flashlights and other small, portable equipment, safety supplies, phones, telephone calls, electronic messaging including FAX, Telex and telegrams, or expendable office supplies. Unless otherwise indicated, required insurance is not a reimbursable expense.

The Consultant shall obtain the Director's written approval prior to making expenditures for out-of-pocket expenses in excess of $1,000 per specific expenditure and for all overnight trips which are reimbursable expenditures as set forth above. The Consultant shall substantiate all billings for out-of-pocket expenses in excess of $25 with receipted bills, and provide said receipts with the appropriate billing.

"Salaries paid to employees" or words of similar import shall mean salaries and amounts actually paid (excluding payments or factors for holidays, vacations, sick time, bonuses, profit participations and other similar payments) to professional and technical employees of the Consultant, for time actually spent directly in the performance of technical services hereunder and recorded on daily time records which have been approved by the employee's immediate supervisor, excluding the time of any employee of the Consultant to the extent that, the time of such employee of the Consultant is devoted to typing/word processing, stenographic, clerical or administrative functions. Such functions shall be deemed to be included in the multiplier referred to in subparagraph A above. All such daily time records are to be submitted to the Project Manager for review and approval upon the completion of each workday.

D. The Consultant shall keep, and shall cause any Subconsultants under this Agreement to keep daily records of the time spent in the performance of services hereunder by all persons whose salaries or amounts paid thereto will be the basis for compensation under this Agreement, as well as records of the amounts of such salaries and amounts actually paid for the performance of such services and records and receipts of reimbursable expenditures hereunder, and notwithstanding any other provisions of this Agreement, failure to do so shall be a conclusive and final waiver of any right to compensation for such services or expenses as are otherwise compensable hereunder. The Authority shall have the right to audit all such records.

The Authority shall have the right to inspect the Consultant's records, and those of the Subconsultants, pertaining to any compensation to be paid hereunder, such records to be maintained by the Consultant and the Subconsultants for a period of four (4) years after completion of services to be performed under this Agreement.

E. On or about the fifteenth day of each month, the Consultant shall render a bill for services performed and reimbursable out-of-pocket expenses incurred in the prior month, accompanied by such records and receipts as required, to the Project Manager. Each invoice shall bear the Consultant's taxpayer number and the purchase order number(s) provided by the Project Manager. Upon receipt of the foregoing, the Project Manager will estimate and certify to the Director the approximate amount of compensation earned by the Consultant up to that time. As an aid to the Consultant the Authority shall, within fifteen days after receipt of such certification by the Director, advance to the Consultant by check the sum certified minus all prior payments to the Consultant for the Consultant's account, but subject to the limitation on compensation set forth in item A. above.

7. TERMINATION

If the performance of the Agreement or any portion of it shall, in the opinion of the Director, be materially delayed, whether or not through the fault of the Consultant, by any cause which affects the Consultant's ability to perform the Agreement without affecting to the same degree the Authority's own ability to perform it, either directly or through others, the Authority shall have the right at any time during the existence of such delay to cancel this Agreement as to any portion not yet performed, without prejudice to the rights, liabilities and obligations of the parties under this Agreement arising out of portions already performed, provided, however, that such right of cancellation shall not exist if the delay be due to any wrongful act or omission of the Authority. In the event of such cancellation, no allowance shall be made for anticipated profits.

If at any time it shall be, from the viewpoint of the Authority, impracticable or undesirable in the judgment of the Director, to proceed with or continue the performance of the Agreement or any part thereof, whether or not for reasons beyond the control of the Authority, the Director shall have authority to suspend performance of any part or all of the Agreement until such time as the Director may deem it practicable or desirable to proceed. Moreover, if at any time it shall be, from the viewpoint of the Authority impracticable or undesirable in the judgment of the Director to proceed with or continue the performance of the Agreement or any part thereof whether or not for reasons beyond the control of the Authority, the Director shall have authority to cancel this Agreement as to any or all portions not yet performed and as to any materials not yet installed even though delivered. Such cancellation shall be without prejudice to the rights and obligations of the parties arising out of portions already performed, but no allowance shall be made for anticipated profits.

8. MODIFICATION OF CONTRACT

The entire agreement between the parties is contained herein and no change in or modification, termination or discharge of this Agreement in any form whatsoever shall be valid or enforceable unless it is in writing and signed by the party to be charged therewith, or his duly authorized representative, provided, however, that termination in the manner hereinbefore expressly provided shall be effective as so provided.

9. CONFIDENTIALITY

Without the express written approval of the Director, the Consultant shall keep confidential, and shall require Subconsultants and the Consultant's employees to keep confidential:

A. all information disclosed by the Authority or PATH or its consultants or contractors to the Consultant; or

B. developed by the Consultant or Subconsultants in the performance of services hereunder.

The Consultant may be required to execute, and have the Consultant's employees; Subconsultants and their employees execute non-disclosure agreements as directed by the Authority concerning intellectual property and proprietary information of the Authority, PATH and third persons. Disclosure of any such information shall constitute a material breach of the Agreement. The obligation of confidentiality shall not however pertain to information:

A. which is in the public domain;

B. information lawfully received from a third party; or

C. information, which must be disclosed under law, provided the Authority's General Counsel is given reasonable notice of the legal obligation or legal process.

10. INTERACTION WITH THE MEDIA AND PUBLIC

The Consultant shall not issue or permit to be issued any press release, advertisement, or literature of any kind, which refers to the Authority or the services performed in connection with this Agreement, unless the Consultant first obtains the written approval of the Director. Such approval, may be withheld, if for any reason the Director believes that the publication of such information would be harmful to the public interest or is in any way undesirable.

Under no circumstances shall the Consultant or Subconsultants communicate in any way with any contractors, department, board, agency, commission or other organization or any person whether governmental or private in connection with the services to be performed hereunder, unless required by Law, except upon prior written approval and instructions of the Director, provided, however that data from manufacturers and suppliers of material shall be obtained by the Consultant when the Consultant finds such data necessary unless otherwise instructed by the Director .

11. NO ESTOPPEL OR WAIVER

No certificate, payment (final or otherwise), acceptance of any work nor any other act or omission of the Authority or the Director shall operate to release the Consultant from any obligations under or upon this Agreement, or to estop the Authority from showing at any time

that such certificate, payment, acceptance, act or omission was incorrect or to preclude the Authority from recovering any money paid in excess of that lawfully due, whether under mistake of law or fact or to prevent the recovery of any damages sustained by the Authority.

12. TITLE TO MATERIALS

Mylars of the contract drawings, originals of technical specifications, estimates, reports, records, data, charts, documents, renderings, computations, computer tapes or disks, and other papers of any type whatsoever, whether in the form of writing, figures or delineations, which are prepared or compiled in connection with this Agreement, shall become the property of the Authority, and the Authority shall have the right to use or permit the use of them and any ideas or methods represented by them for any purpose and at any time without other compensation than that specifically provided herein. The Consultant hereby warrants and represents that the Authority will have at all times the ownership and rights provided for in the immediately preceding sentence free and clear of all claims of third persons whether presently existing or arising in the future and whether presently known to either of the parties of this Agreement or not. Notwithstanding the above, Consultant shall not be liable or responsible for any re-use of said documents except for the specific intended use of such documents. This Agreement shall not be construed, however, to require the Consultant to obtain for the Authority the right to use any idea, design, method, material, equipment or other matter which is the subject of a valid patent, unless such patent be owned by the Consultant or one of the Consultant's employees, or Subconsultant or the Subconsultant's employees, in which case such right shall be obtained without additional compensation. Whether or not the Consultant's Proposal is accepted by the Authority, it is agreed that all information of any nature whatsoever which is in any way connected with the services performed in connection with this Agreement, regardless of the form of which has been or may be given by the Consultant or on the Consultant's behalf, whether prior or subsequent to the execution of this Agreement, to the Authority, its Commissioners, officers, agents or employees, is not given in confidence and may be used or disclosed by or on behalf of the Authority without liability of any kind, except as may arise under valid existing or pending patents, if any.

13. PATENT RIGHTS

If research or development is furnished in connection with the performance of this Agreement and if in the course of such research or development patentable subject matter is produced by the Consultant, the Consultant's officers, agents, employees, or Subconsultants, the Authority shall have, without cost or expense to it, an irrevocable, non-exclusive royalty-free license to make, have made, and use, either itself or by anyone on its behalf, such subject matter in connection with any activity now or hereafter engaged in or permitted by the Authority. Promptly upon request by the Authority, the Consultant shall furnish or obtain from the appropriate person a form of license satisfactory to the Authority, but it is expressly understood and agreed that, as between the Authority and the Consultant the license herein provided for shall nevertheless arise for the benefit of the Authority immediately upon the production of said subject matter, and shall not await formal exemplification in a written license agreement as provided for above. Such license agreement may be transferred by the Authority to its successors, immediate or otherwise, in the operation or ownership of any real or personal property now or hereafter owned or operated by the Authority but such license shall not be otherwise transferable.

The Consultant shall promptly and fully inform the Chief Engineer in writing of any patents or patent disputes, whether existing or potential, of which the Consultant has knowledge, relating to any idea, design, method, material, equipment or other matter related to the subject matter of this Agreement or coming to the Consultant's attention in connection with this Agreement.

14. ASSIGNMENT AND SUBCONTRACTS

This Agreement being based upon the Consultant's special qualifications for the services herein contemplated, any assignment, subletting or other transfer of this Agreement or any part hereof or of any moneys due or to become due hereunder without the express consent in writing of the Authority shall be void and of no effect as to the Authority, provided, however, that the Consultant may sublet services to Subconsultants with the expressed consent in writing of the Director. All persons to whom the Consultant sublets services, however, shall be deemed to be the Consultants agents and no subletting or approval thereof shall be deemed to release the Consultant from the Consultant's obligations under this Agreement or to impose any obligation on the Authority to such Subconsultant or give the Subconsultant any rights against the Authority.

15. MINORITY AND WOMEN'S BUSINESS ENTERPRISES (MBE/WBE)

The Authority has a long-standing practice of encouraging Minority Business Enterprises (MBEs) and Women Business Enterprises (WBEs) to seek business opportunities with it, either directly or as Subconsultants or Subcontractors. "Minority-owned business" or "MBE" means a business entity which is at least 51 percent owned by one or more members of one or more minority groups, or, in the case of a publicly held corporation, at least 51 percent of the stock of which is owned by one or more members of one or more minority groups; and whose management and daily business operations are controlled by one or more such individuals who are citizens or permanent resident aliens. "Women-owned business" or "WBE" means a business which is at least 51 percent owned by one or more women; or, in the case of a publicly held corporation, 51 percent of the stock of which is owned by one or more women: and whose management and daily business operations are controlled by one or more women who are citizens or permanent resident aliens.

"Minority group" means any of the following racial or ethnic groups:

A. Black persons having origins in any of the Black African racial groups not of Hispanic origin;

B. Hispanic persons of Puerto Rican, Mexican, Dominican, Cuban, Central or South American culture or origin, regardless of race;

C. Asian and Pacific Islander persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent or the Pacific Islands;

D. American Indian or Alaskan Native persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification

To ensure maximum participation, to the extent feasible and consistent with the Proposer's exercise of good business judgment, the Authority has set an overall combined contract goal of 17 percent participation by MBEs and WBEs for all procurement, subcontracting and ancillary service opportunities associated with this agreement.

To be "certified", the Authority's Business and Job Opportunity Unit must certify a firm.

In order to facilitate the meeting of this goal, the Consultant shall use every good faith effort to utilize Subconsultants who are certified MBEs or WBEs to the maximum extent feasible.

The Authority has a list of certified MBE/WBE service firms, which is available to the Consultant at the Consultant's request. The Consultant will be required to submit to the Authority's Office of Regional & Economic Development – Small Business Programs for certification the names of MBE/WBE firms they propose to use who are not on the list of certified MBE/WBE firms.

16. RISKS ASSUMED BY THE CONSULTANT

The Consultant assumes the following distinct and several risks to the extent arising from the negligent or willful intentional acts or omissions of the Consultant or its subconsultants in the performance of services hereunder:

A. The risk of loss or damage to Authority property arising out of or in connection with the performance of services hereunder;

B. The risk or loss or damage to any property of the Consultant or its subconsultants arising out of or in connection with the performance of services hereunder;

C. The risk of claims, arising out of or in connection with the performance of services hereunder, whether made against the Consultant or its subconsultants or the Authority, for loss or damage to any property of the Consultant's agents, employees, subcontractors, subconsultants, materialmen or others performing services hereunder;

D. The risk of claims, just or unjust, by third persons made against the Consultant or its subconsultants or the Authority on account of injuries (including wrongful death), loss or damage of any kind whatsoever arising in connection with the performance of services hereunder including claims against the Consultant or its subconsultants or the Authority for the payment of workers' compensation, whether such claims are made and whether such injuries, damage and loss are sustained at any time both before and after the completion of services hereunder.

The Consultant shall indemnify the Authority, The City of New York, The Metropolitan Transportation Authority, Con Edison and the Government against all claims described in subparagraphs A through D above and for all expense incurred by it in the defense, settlement or satisfaction thereof, including expenses of attorneys. If so directed, the Consultant shall defend against any claim described in subparagraphs B, C and D above, in which event he shall not without obtaining express advance permission from the General Counsel of the Authority raise any defense involving in any way jurisdiction of the tribunal, immunity of the Authority, governmental nature of the Authority or the provisions of any statues respecting suits against the Authority, such defense to be at the Consultant's cost.

The provisions of this clause shall also be for the benefit of the Commissioners, officers, agents and employees of the Authority, so that they shall have all the rights which they would have under this clause if there were named at each place above at which the Authority is named, including a direct right of action against the Consultant to enforce the foregoing indemnity, except, however, that the Authority may at any time in its sole discretion and without liability on

its part cancel the benefit conferred on any of them by this clause, whether or not the occasion for invoking such benefit has already arisen at the time of such cancellation.

Neither the completion of services hereunder nor the making of payment (final or otherwise) shall release the Consultant from his obligations under this clause. Moreover, neither the enumeration in this clause or the enumeration elsewhere in this Agreement of particular risks assumed by the Consultant or of particular claims for which he is responsible shall be deemed (a) to limit the effect of the provisions of this clause or of any other clause of this Agreement relating to such risks or claims, (b) to imply that he assumes or is responsible for risks or claims only of the type enumerated in this clause or in any other clause of this Agreement, or (c) to limit the risks which he would assume or the claims for which he would be responsible in the absence of such enumerations.

No third party rights are created by the Agreement, except to the extent that the Agreement specifically provides otherwise by use of the words "benefit" or "direct right of action". Inasmuch as the Authority has agreed to indemnify the City of New York against claims of the types described in subparagraph D above made against said city, the Consultant's obligation under subparagraph D above shall include claims by said city against the Authority for such indemnification based upon the Consultant's negligence.

17. INSURANCE TO BE PROCURED BY THE CONSULTANT

COMMERCIAL LIABILITY INSURANCE AND WORKERS' COMPENSATION INSURANCE

A. Commercial Liability Insurance:

1) The Consultant shall take out and maintain at his own expense Commercial General Liability Insurance including but not limited to Premises-Operations, Completed Operations and Independent Contractor coverages in limits of not less than $5,000,000 combined single limit per occurrence for Bodily Injury Liability and Property Damage Liability. And if vehicles are to be used to carry out the performance of this contract, then the Consultant shall also take out, maintain and pay the premiums on Automobile Liability Insurance covering all owned, non-owned and hired autos in not less than $5,000,000 combined single limit per accident for bodily injury and property damage. In addition, the policy shall include the Authority, Port Authority Trans Hudson Corp. (PATH), The City of New York, The Metropolitan Transportation Authority, and Con Edison as an additional insured (except for Professional Liability) and shall contain a provision that the policy may not be canceled, terminated or modified without thirty (30) days written advance notice to the Project Manager as noted below. Moreover, the Commercial General Liability policy shall not contain any provisions (other than a Professional Liability exclusion, if any) for exclusions from liability other than provisions or exclusions from liability forming part of the most up to date ISO form or its equivalent, unendorsed Commercial General Liability Policy. The liability policy (ies) and certificate of insurance shall contain cross-liability language providing severability of interests so that coverage will respond as if separate policies were in force for each insured. Furthermore, the Contractor's insurance shall be primary insurance as respects to the above additional insured (s), its representatives, officials, and employees. Any insurance or self insurance maintained by the above additional insured (s) shall not contribute to any loss or claim. These insurance

requirements shall be in effect for the duration of the contract to include any warrantee/guarantee period.

Further, the certificate of insurance and the liability Policy (ies) shall be specifically endorsed that " *The insurance carrier(s) shall not, without obtaining the express advance permission from the General Counsel of the Port Authority, raise any defense involving in any way the jurisdiction of the tribunal over the person of the Port Authority, the immunity of the Port Authority, its Commissioners, officers, agents or employees, the governmental nature of the Port Authority, or the provisions of any statutes respecting suits against the Port Authority*"

2) Additional Coverages: The Consultant shall have the policy endorsed when required by the Engineer for specific services hereunder and include the additional premium cost thereof as an out-of-pocket expense:

(a) Endorsement to eliminate any exclusions applying to the explosion, collapse, and underground property damage hazards.

(b) Endorsement to eliminate any exclusions on account of ownership, maintenance, operation, use, loading or unloading of watercraft.

(c) Coverage for work within 50 feet of railroad

B. Workers' Compensation Insurance:

1) The Consultant shall take out and maintain Workers' Compensation Insurance in accordance with the requirements of law and Employer's Liability Insurance with limits of not less than $1,000,000 each accident.

2) Additional Coverages: The Consultant shall have the policy endorsed when required by the Engineer for specific services hereunder and include the additional premium cost thereof as an out-of-pocket expense:

a) United States Longshoremen's and Harbor Workers' Compensation Act Endorsement.

b) Coverage B Endorsement - Maritime (Masters or Members of the Crew of Vessels), in limits of not less than $1,000,000 per occurrence.

c) Amendments to Coverage B, Federal Employers' Liability Act in limits of not less than $1,000,000 per occurrence.

C. Professional Liability Insurance – $10 million, covering acts, errors, mistakes, and omissions arising out of the work or services performed by Consultant, or any person employed by Consultant.

D. Compliance:

Prior to commencement of work at the site, the Consultant shall deliver a certificate from its insurer evidencing policies of the above insurance stating the title of this Agreement, the P. A. Agreement number and containing a separate express statement of compliance with each of the requirements above set forth to the Project Manager.

1) Renewal certificates of insurance or policies shall be delivered to the Facility Contract Administrator, Port Authority at least fifteen (15) days prior to the expiration date of each expiring policy. The General Manager, Risk Management must approve the renewal certificate(s) of insurance before work can resume on the facility. If at any time any of the certificates or policies shall become unsatisfactory to the Port Authority, the Contractor shall promptly obtain a new and satisfactory certificate and policy.

2) If at any time the above liability insurance should be canceled, terminated, or modified so that the insurance is not in effect as above required, then, if the Manager shall so direct, the Contractor shall suspend performance of the contract at the premises. If the contract is so suspended, no extension of time shall be due on account thereof. If the contract is not suspended (whether or not because of omission of the Manager to order suspension), then the Authority may, at its option, obtain insurance affording coverage equal to the above required, the cost of such insurance to be payable by the Contractor to the Port Authority.

3) Upon request of the Manager, Risk Management/Treasury, the Consultant shall furnish to the Authority a certified copy of each policy itself, including the provisions establishing premiums.

4) The requirements for insurance procured by the Consultant shall not in any way be construed as a limitation on the nature or extent of the contractual obligations assumed by the Consultant under this contract. The insurance requirements are not a representation by the Authority as to the adequacy of the insurance to protect the Consultant against the obligations imposed on them by law or by this or any other Contract.

18. DISPUTES

To resolve all disputes and to prevent litigation the parties to this Agreement authorize the Chief Engineer to decide all questions of any nature whatsoever arising out of, under, or in connection with, or in any way related to or on account of, this Agreement (including claims in the nature of breach of Contract or fraud or misrepresentation before or subsequent to acceptance of the Consultant's Proposal and claims of a type which are barred by the provisions of this Agreement) and the Chief Engineer's decision shall be conclusive, final and binding on the parties. The Chief Engineer's decision may be based on such assistance as the Chief Engineer may find desirable. The effect of the Chief Engineer's decision shall not be impaired or waived by any negotiations or settlement offers in connection with the question decided, whether or not the Chief Engineer participated therein himself, or by any prior decision of the Engineer or Director or others, which prior decisions shall be deemed subject to review, or by any termination or cancellation of this Agreement.

All such questions shall be submitted in writing by the Consultant to the Chief Engineer for his decision, together with all evidence and other pertinent information in regard to such questions, in order that a fair and impartial decision may be made. In any action against the Authority relating to any such question the Consultant must allege in the Consultant's complaint and prove such submission, which shall be a condition precedent to any such action. No evidence or information shall be introduced or relied upon in such an action that has not been so presented to the Chief Engineer.

This numbered clause shall be governed by and construed in accordance with the law of the State of New York, without giving effect to its choice law provisions.

19. NOTIFICATION OF SECURITY REQUIREMENTS

The Port Authority of New York and New Jersey has facilities, systems, and projects where terrorism or other criminal acts may have a significant impact on life safety and key infrastructures. The Authority reserves the right to impose multiple layers of security requirements on the Consultant, its staff and Subconsultants and their staffs depending upon the level of security required, as determined by the Authority. These security requirements will include but are not limited to the following:

EXEMPTION 4

Should the Authority increase and/or upgrade security requirements, the Consultant will be compensated for the additional cost of such increase and/or upgrade as approved by the Port Authority.

20. PROTECTION OF SECURITY INFORMATION

A. The Contractor, Subcontractors and others requiring access to Confidential and Privileged (C&P) security information and Sensitive Security Information (SSI) shall also be required to implement uniform security procedures regarding the identification, handling, care and storage of C&P security information belonging to the Authority; and SSI as defined in 49 CFR Parts 15 and 1520. Port Authority C&P security information is information that, if subject to unauthorized disclosure, access, alteration, loss or misuse would be detrimental to the public interest and/or might adversely affect, or compromise, public safety or security as it relates to Port Authority property, facilities, systems and/or operations, or which might otherwise adversely affect homeland security.

The Authority has developed requirements and other safeguards that are necessary both to prevent unauthorized disclosure of C&P security information and to control the authorized disclosure of this information for use internally within the Authority and when released by the

EXEMPTION 4

Unauthorized disclosure of SSI may be grounds for a civil penalty and/or other enforcement or corrective action by the United States Department of Transportation and/or the United States Department of Homeland Security against individuals or entities they deem appropriate including but not limited to the Contractor, its Subcontractors and their staffs. Corrective action may include issuance of an order requiring retrieval of SSI to remedy unauthorized disclosure or an order to cease future unauthorized disclosure.

D. The Contractor shall include and require the inclusion of this numbered provision in all subcontracts and contracts for Work, services or supplying materials required for this Contract of every tier.

21. CERTIFICATION OF NO INVESTIGATION (CRIMINAL OR CIVIL ANTI-TRUST), INDICTMENT, CONVICTION, DEBARMENT, SUSPENSION, DISQUALIFICATION AND DISCLOSURE OF OTHER INFORMATION

By signing this Agreement, the Consultant and each person signing on behalf of the Consultant certifies, and in the case of a joint proposal each party thereto certifies as to its own organization, that the Consultant and each parent and/or affiliate of the Consultant has not:

A. been indicted or convicted in any jurisdiction;

B. been suspended, debarred, found not responsible or otherwise disqualified from entering into any agreement with any governmental agency or been denied a government agreement for failure to meet standards related to the integrity of the Consultant;

C. had an agreement terminated by any governmental agency for breach of agreement or for any cause based in whole or in part on an indictment or conviction;

D. ever used a name, trade name or abbreviated name, or an Employer Identification Number different from those inserted in the Proposal;

E. had any business or professional license suspended or revoked or, within the five years prior to proposal opening, had any sanction imposed in excess of $50,000 as a result of any judicial or administrative proceeding with respect to any license held or with respect to any violation of a federal, state or local environmental law, rule or regulation;

F. had any sanction imposed as a result of a judicial or administrative proceeding related to fraud, extortion, bribery, proposal rigging, embezzlement, misrepresentation or anti-trust regardless of the dollar amount of the sanctions or the date of their imposition; and

G. been, and is not currently, the subject of a criminal investigation by any federal, state or local prosecuting or investigative agency and/or a civil anti-trust investigation by any federal, state or local prosecuting or investigative agency.

As used in this section, the terms listed below are defined as follows:

Affiliate - Two or more firms are affiliates if a parent owns more than fifty percent of the voting stock of each of the firms, or a common shareholder or group of shareholders owns more than fifty percent of the voting stock of each of the firms, or if the firms have a common proprietor or general partner.

Agency or Governmental Agency - Any federal, state, city or other local agency, including departments, offices, public authorities and corporations, boards of education and higher education, public development corporations, local development corporations and others.

Investigation - Any inquiries made by any federal, state or local criminal prosecuting agency and any inquiries concerning civil anti-trust investigations made by any federal, state or local governmental agency. Except for inquiries concerning civil anti-trust investigations, the term does not include inquiries made by any civil government agency concerning compliance with any regulation, the nature of which does not carry criminal penalties, nor does it include any background investigations for employment, or Federal, state, and local inquiries into tax returns.

Officer - Any individual who serves as chief executive officer, chief financial officer, or chief operating officer of the consultant by whatever titles known.

Parent - An individual, partnership, joint venture or corporation that owns more than 50% of the voting stock of the consultant.

22. NON-COLLUSIVE PROPOSING, AND CODE OF ETHICS CERTIFICATION, CERTIFICATION OF NO SOLICITATION BASED ON COMMISSION, PERCENTAGE, BROKERAGE, CONTINGENT OR OTHER FEES

By proposing on this Agreement, each Consultant and each person signing on behalf of any Consultant certifies, and in the case of a joint proposal, each party thereto certifies as to its own organization, that:

A. the prices in its proposal have been arrived at independently without collusion, consultation, communication or agreement for the purpose of restricting competition, as to any matter relating to such prices with any other consultant or with any competitor;

B. the prices quoted in its proposal have not been and will not be knowingly disclosed directly or indirectly by the Consultant prior to the official opening of such proposal to any other consultant or to any competitor;

C. no attempt has been made and none will be made by the Consultant to induce any other person, partnership or corporation to submit or not to submit a proposal for the purpose of restricting competition;

D. this organization has not made any offers or agreements or taken any other action with respect to any Authority employee or former employee or immediate family member of either which would constitute a breach of ethical standards under the Code of Ethics dated April 11, 1996 (a copy of which is available upon request to the individual named in the clause hereof entitled "Consultant's Questions"), nor does this organization have any knowledge of any act on the part of an Authority employee or former Authority employee relating either directly or indirectly to this organization which constitutes a breach of the ethical standards set forth in said Code;

E. no person or selling agency other than a bona fide employee or bona fide established commercial or selling agency maintained by the Consultant for the purpose of securing business, has been employed or retained by the Consultant to solicit or secure this Agreement on the understanding that a commission, percentage, brokerage, contingent, or other fee would be paid to such person or selling agency; and

F. the Consultant has not offered, promised or given, demanded or accepted, any undue advantage, directly or indirectly, to or form a public official or employee, political candidate, party or party official, or any private sector employee (including a person who directs or works for a private sector enterprise in any capacity), in order to obtain, retain, or direct business or to secure any other improper advantage in connection with this Agreement. The foregoing certifications shall be deemed to be made by the Consultant as follows:

* if the Consultant is a corporation, such certification shall be deemed to have been made not only with respect to the Consultant itself, but also with respect to each parent, affiliate, director, and officer of the Consultant, as well as, to the best of the certifier's knowledge and belief, each stockholder of the Consultant with an ownership interest in excess of 10%;

* if the Consultant is a partnership, such certification shall be deemed to have been made not only with respect to the Consultant itself, but also with respect to each partner.

Moreover, the foregoing certifications, if made by a corporate Consultant, shall be deemed to have been authorized by the Board of Directors of the Consultant, and such authorization shall be deemed to include the signing and submission of the proposal and the inclusion therein of such certification as the act and deed of the corporation.

In any case where the Consultant cannot make the foregoing certifications, the Consultant shall so state and shall furnish with the signed proposal a signed statement that sets forth in detail the reasons therefor. If the Consultant is uncertain as to whether it can make the foregoing certifications, it shall so indicate in a signed statement furnished with its proposal, setting forth in such statement the reasons for its uncertainty.

Notwithstanding that the Consultant may be able to make the foregoing certifications at the time the proposal is submitted, the Consultant shall immediately notify the Authority in writing during the term of this Agreement of any change of circumstances which might under this clause make it unable to make the foregoing certifications or require disclosure. The foregoing certifications or signed statement shall be deemed to have been made by the Consultant with full knowledge that they would become a part of the records of the Authority and that the Authority will rely on their truth and accuracy in awarding this Agreement. In the event that the Authority should determine at any time prior or subsequent to the award of this Agreement that the Consultant has falsely certified as to any material item in the foregoing certifications or has willfully or fraudulently furnished a signed statement which is false in any material respect, or has not fully and accurately represented any circumstance with respect to any item in the foregoing certifications required to be disclosed, the Authority may determine that the Consultant is not a responsible Consultant with respect to its proposal on the Agreement or with respect to future proposals on Authority agreements and may exercise such other remedies as are provided to it by the Agreement with respect to these matters. In addition, Consultants are advised that knowingly providing a false certification or statement pursuant hereto may be the basis for prosecution for offering a false instrument for filing (see, e.g. New York Penal Law, Section 175.30 et seq.). Consultants are also advised that the inability to make such certification will not in and of itself disqualify a Consultant, and that in each instance the Authority will evaluate the reasons therefor provided by the Consultant. Under certain circumstances the Consultant may be required as a condition of this Agreement award to enter into a Monitoring Agreement under which it will be required to take certain specified actions, including compensating an independent Monitor to be selected by the Port Authority. Said Monitor shall be charged with, among other things, auditing the actions of the Consultant to determine whether its business practices and relationships indicate a level of integrity sufficient to permit it to continue business with the Port Authority.

23. ELIGIBILITY FOR AWARD OF AGREEMENTS – DETERMINATION BY AN AGENCY OF THE STATE OF NEW YORK OR NEW JERSEY CONCERNING ELIGIBILITY TO RECEIVE PUBLIC AGREEMENTS

The Consultant is advised that the Authority has adopted a policy to the effect that in awarding its agreements it will honor any determination by an agency of the State of New York or New Jersey that a consultant is not eligible to propose on or be awarded public agreements because the consultant has been determined to have engaged in illegal or dishonest conduct or to have violated prevailing rate of wage legislation.

The policy permits a consultant whose ineligibility has been so determined by an agency of the State of New York or New Jersey to submit a proposal on an Authority agreement and then to establish that it is eligible to be awarded an agreement on which it has submitted a proposal because (i) the state agency determination relied upon does not apply to the consultant, or (ii) the state agency determination relied upon was made without affording the consultant the notice and hearing to which the consultant was entitled by the requirements of due process of law, or (iii) the state agency determination was clearly erroneous or (iv) the state agency determination relied upon was not based on a finding of conduct demonstrating a lack of integrity or violation of a prevailing rate of wage law.

The full text of the resolution adopting the policy may be found in the Minutes of the Authority's Board of Commissioners meeting of September 9, 1993.

24. NO GIFTS, GRATUITIES, OFFERS OF EMPLOYMENT, ETC.

During the term of this Agreement, the Consultant shall not offer, give or agree to give anything of value either to a Authority employee, agent, job shopper, consultant or other person or firm representing the Authority, or to a member of the immediate family (i.e., a spouse, child, parent, brother or sister) of any of the foregoing, in connection with the performance by such employee, agent, job shopper, consultant or other person or firm representing the Authority of duties involving transactions with the Consultant on behalf of the Authority, whether or not such duties are related to this Agreement or any other Port Authority agreement or matter. Any such conduct shall be deemed a material breach of this Agreement.

As used herein "anything of value" shall include but not be limited to any (a) favors, such as meals, entertainment, transportation (other than that contemplated by the Agreement or any other Authority agreement), etc. which might tend to obligate the Authority employee to the Consultant, and (b) gift, gratuity, money, goods, equipment, services, lodging, discounts not available to the general public, offers or promises of employment, loans or the cancellation thereof, preferential treatment or business opportunity. Such term shall not include compensation contemplated by this Agreement or any other Authority agreement. Where used herein, the term "Authority" shall be deemed to include all subsidiaries of the Port Authority of New York & New Jersey.

The Consultant shall insure that no gratuities of any kind or nature whatsoever shall be solicited or accepted by it and by its personnel for any reason whatsoever from the passengers, tenants, customers or other persons using the Facility and shall so instruct its personnel.

In addition, during the term of this agreement, the Consultant shall not make an offer of employment or use confidential information in a manner proscribed by the Code of Ethics and Financial Disclosure dated April 11, 1996 (a copy of which is available upon request to the Office of the Secretary of the Port Authority).

The Consultant shall include the provisions of this clause in each sub agreement entered into under this Agreement.

25. CONFLICT OF INTEREST

During the term of this agreement, the Consultant shall not participate in any way in the preparation, negotiation or award of any contract (other than a contract for its own services to the Authority) to which it is contemplated the Port Authority may become a party, or participate in any way in the review or resolution of a claim in connection with such a agreement if the Consultant has a substantial financial interest in the consultant or potential contractor of the Authority or if the Consultant has an arrangement for future employment or for any other business relationship with said contractor or potential contractor, nor shall the Consultant at any time take any other action which might be viewed as or give the appearance of conflict of interest on its part. If the possibility of such an arrangement for future employment or for another business arrangement has been or is the subject of a previous or current discussion, or if the Consultant has reason to believe such an arrangement may be the subject of future discussion, or if the Consultant has any financial interest, substantial or not, in a consultant or potential consultant of the Authority, and the Consultant's participation in the preparation, negotiation or award of any agreement with such a consultant or the review or resolution of a claim in connection with such a agreement is contemplated or if the Consultant has reason to believe that

any other situation exists which might be viewed as or give the appearance of a conflict of interest, the Consultant shall immediately inform the Director in writing of such situation giving the full details thereof. Unless the Consultant receives the specific written approval of the Director, the Consultant shall not take the contemplated action which might be viewed as or give the appearance of a conflict of interest. In the event the Director shall determine that the performance by the Consultant of a portion of its services under this Agreement is precluded by the provisions of this numbered paragraph, or a portion of the Consultant's said services is determined by the Director to be no longer appropriate because of such preclusion, then the Director shall have full authority on behalf of both parties to order that such portion of the Consultant's services not be performed by the Consultant, reserving the right, however, to have the services performed by others and any lump sum compensation payable hereunder which is applicable to the deleted work shall be equitably adjusted by the parties. The Consultant's execution of this document shall constitute a representation by the Consultant that at the time of such execution the Consultant knows of no circumstances, present or anticipated, which come within the provisions of this paragraph or which might otherwise be viewed as or give the appearance of a conflict of interest on the Consultant's part. The Consultant acknowledges that the Authority may preclude it from involvement in certain disposition/privatization initiatives or transactions that result from the findings of its evaluations hereunder or from participation in any agreements which result, directly or indirectly, from the services provided by the Consultant hereunder.

In the opinion of the Authority, any entity performing services for the Authority or other WTC stakeholders/owners, such as LMDC, NYSDOT, WTC Net Lessee, responsible for building portions of the WTC site has a potential conflict of interest with the performance of services under this Agreement during its pendancy. However, if the Consultant's desires to enter into such a third party relationship and believes that it can provide a mitigation plan that would address the Authority's perceived conflict of interest, it shall, before entering into such relationship, give written notice of its interest to the Authority and submit such plan for evaluation to the Authority. The Authority will evaluate the submitted mitigation plan and notify the Consultant of its decision. In the event the Authority determines that a conflict of interest exists which in its sole opinion would make such third party relationship inappropriate, the Consultant hereby agrees not to enter into such relationship. This provision is of the essence of this Agreement.

26. NON-LIABILITY OF THE AUTHORITY REPRESENTATIVES

No Commissioner, officer, agent or employee of the Authority shall be charged personally by the Consultant with any liability or held liable to the Consultant under any term or provision of this Agreement, or because of its execution or attempted execution or because of any breach hereof.

27. JURISDICTION

To the maximum extent permitted by applicable law, any legal suit, action or proceeding against any of the parties hereto arising out of or relating to this Agreement shall be instituted in a federal or state court in the County of New York and State of New York, and each party hereby irrevocably submits to the exclusive jurisdiction of any such court in any such suit, action or proceeding. The parties to this Agreement hereby agree to venue in such courts and hereby waive, to the fullest extent permitted by law, any claim that any such action or proceeding was brought in an inconvenient forum.

28. GOVERNING LAW

This Agreement shall be construed and interpreted in accordance with the laws of the State of New York.

29. INTEGRITY MONITOR

In the event that the Port Authority hires an Integrity Monitor in connection with the World Trade Center Site, the Consultant and/or subconsultants will cooperate fully with the Monitor and the Port Authority, including but not limited to providing complete access to all personnel and records related to the performance of this Agreement. Failure to cooperate may result in the termination of this Agreement.

ATTACHMENT C

THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY - FEDERAL TRANSIT ADMINISTRATION REQUIREMENTS FOR PROFESSIONAL SERVICES ATTACHMENT

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1. ORGANIZATIONAL CONFLICT OF INTEREST

A. This Contract may give rise to a potential for an organizational conflict of interest. An organizational conflict of interest exists when the nature of the work to be performed under the contract may, without some form of restriction on future activities; result in an unfair competitive advantage to the Contractor.

i. The Contractor shall have access to confidential and/or sensitive Authority information in the course of contract performance. Additionally, the Contractor may be provided access to proprietary information obtained from other contracted entities during contract performance. The Contractor agrees to protect all such information from disclosure unless so authorized, in writing, by the Authority and to refrain from using such information for any purpose other than that for which it was furnished.

ii. To the extent that the Contractor either (a) uses confidential and/or sensitive Authority information or proprietary information obtained from other Authority contractors to develop any form of document, report, or plan that is determined by the Authority to be the basis, in whole or in part, of any subsequent solicitation issued by the Authority or (b) develops written specifications that are used in any subsequent solicitation issued by the Authority, the Contractor agrees that it shall not be eligible to compete for such subsequent solicitation(s) as a prime or principal contractor or as part of any teaming arrangement unless the Authority provides, in writing, a specific waiver of this restriction. The duration of any restriction imposed under this subparagraph shall not exceed the length of the initial performance period of any subsequently awarded contract for which the Contractor was ineligible to compete.

B. The Contractor, by submitting its bid or proposal, agrees to the above stated conditions and terms and further agrees to perform all duties under the contract and, in doing so, not to enter into contractual agreements with Authority prime contractors and first-tier subcontractors in such a way as to create an organizational conflict of interest.

C. If the Authority determines that the Contractor has violated any term of this numbered clause, the Authority may take any appropriate action available under the law or regulations to obtain redress to include, but not be limited to, requiring the Contractor to terminate any affiliation or contractual arrangement with an Authority prime contractor or first-tier subcontractor at no cost to the Authority; determining the Contractor ineligible to compete for or be awarded any subsequent or "follow-on" contracts that may be based upon the Contractor's actions under this Contract or violations of this numbered clause, or terminating this Contract, in whole or in part.

2. **INCORPORATION OF FEDERAL TRANSIT ADMINISTRATION TERMS**

This Agreement is anticipated to be partially funded by the Federal Transit Administration, pursuant to the Agreement entitled, "United States of America Department of Transportation Federal Transit Administration – Master Agreement for 'Lower Manhattan Recovery Grants", dated May 16, 2003, ("Master Agreement") which is attached hereto and incorporated herein by reference.

All contractual provisions required by DOT, as set forth in FTA Circular 4220.1E as modified by LMRO Third Party Contracting Requirements, dated August 21, 2003, are attached hereto and incorporated herein by reference. Anything to the contrary herein notwithstanding, all FTA-mandated terms shall be deemed to control in the event of a conflict with other provisions contained in this Contract. The Contractor shall not perform any act, fail to perform any act, or refuse to comply with any Authority requests which would cause the Authority to be in violation of the FTA terms and conditions.

Each and every provision required by the FTA to be inserted in this Contract shall be deemed to be inserted herein and the Contract shall be read and enforced as though it were included herein. If any provision of this Contract shall be such as to effect non-compliance with any FTA requirement, such provision shall not be deemed to form part hereof, but the balance of this Contract shall remain in full force and effect.

3. **FEDERAL CHANGES**

The Contractor shall at all times comply with all applicable FTA regulations, policies, procedures and directives, including without limitation those listed directly or by reference in the Master Agreement, as they may be amended or promulgated from time to time during the term of this Contract. Contractor's failure to so comply shall constitute a material breach of this Contract. The most recent Federal laws, regulations, policies, and administrative practices apply to this Contract at any particular time, unless FTA issues a written determination otherwise. All standards or limits within the Master Agreement are minimum requirements, unless modified by the FTA.

4. **NO FEDERAL GOVERNMENT OBLIGATIONS TO THIRD PARTIES**

The Authority and the Contractor acknowledge and agree that, notwithstanding any concurrence by the Federal Government in or approval of the solicitation or award of the underlying contract, absent the express written consent by the Federal Government, the Federal Government is not a party to this Contract and shall not be subject to any obligations or liabilities to the Authority, Contractor, or any other party (whether or not a party to that contract) pertaining to any matter resulting from the underlying contract.

The Contractor agrees to include the above clause in each subcontract financed in whole or in part with Federal Assistance provided by the FTA. It is further agreed that the clause shall not be modified, except to identify the subcontractor who will be subject to its provisions.

5. **CERTIFICATION - DEBARMENT AND SUSPENSION**

This Contract is a covered transaction for purposes of 49 CFR Part 29. As such, the Contractor is required to verify that none of the Contractor, its principals, as defined at 49 CRF 29.995, or affiliates, as defined at 49 CFR 29.905, are excluded or disqualified as defined at 49 CFR 29.940 and 29.945.

The Contractor is required to comply with 49 CFR 29, Subpart C and must include the requirement to comply with 49 CRF 29, Subpart C in any lower tier covered transaction it enters into.

By signing and submitting its bid or proposal, the proposer certifies as follows: The certification in this clause is a material representation of fact relied upon by the Port Authority of New York and New Jersey. If it is later determined that the proposer knowingly rendered an erroneous certification, in addition to remedies available to the Port Authority of New York and New Jersey, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment. The proposer agrees to comply with the requirements of 49 CFR 29, Subpart C while this offer is valid and throughout the period of any contract that may arise from this offer. The proposer further agrees to include a provision requiring such compliance in its lower tier covered transactions.

A. FTA requires that each potential Contractor, for major third party contracts, complete a certification entitled "Certification Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion" for itself and its principals and requires each Subcontractor or Supplier [for Subcontracts and Supplier agreements expected to equal or exceed the Federal procurement small purchase threshold fixed at 10 U.S.C. 253(g) (currently $25,000)] to complete a certification entitled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – Lower Tiered Covered Transactions" for itself and its principals. Copies of the required Certification forms and accompanying instructions are set forth in the Appendix to this Attachment.

B. In the event that the Contractor has certified prior to award that it is not proposed for debarment, debarred, suspended, or voluntarily excluded from covered transactions by any Federal Department or agency and such certification is found to be false, this Contract may be canceled, terminated or suspended by the Authority and the Contractor will be liable for any and all damages incurred by the Authority because of such cancellation, termination or suspension because of such false certification.

C. The Contractor shall obtain certifications from all known potential Subcontractors and Suppliers [for which payments are expected to equal or exceed the Federal procurement small purchase threshold fixed at 10 U.S.C. 253(g) (currently $25,000)] and submit such certifications to the address set forth in E below.

D. Prior to the award of any Subcontracts or Supplier agreements expected to equal or exceed the Federal procurement small purchase threshold fixed at 10 U.S.C. 253(g) (currently $25,000), regardless of tier, any prospective Subcontractor or Supplier who has not previously submitted a certification for this Contract must execute and submit to the Contractor a certification in the form annexed in the Appendix to this Attachment which will be deemed a part of the resulting Subcontract and Supplier agreement.

E. The originals of any Certifications or correspondence relating hereto shall be sent by the Contractor to the Director of Procurement, One Madison Avenue, 7th Floor, New York, NY 10010.

F. The Contractor shall not knowingly enter into any Subcontracts or Supplier agreements with a person that is proposed for debarment, debarred, suspended, declared ineligible or voluntarily excluded from covered transactions.

G. As required by FTA, the Contractor and its Subcontractors or Suppliers required to file the certification have a continuing duty to disclose, and shall provide immediate written notice to the Authority if, at any time, it learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

6. CERTIFICATION - LOBBYING RESTRICTIONS –CONTRACTS EXCEEDING $100,000

A. Definitions. As used in this Clause:
"Agency," as defined in 5 U.S.C. 552(f), includes Federal executive departments and agencies as well as independent regulatory commissions and Government corporations, as defined in 31 U.S.C. 9101(1). As used in the Certification set forth in the Appendix to this Attachment, it also includes any other public agency.

"Covered Federal action" means any of the following Federal actions:

1. The awarding of any Federal contract;
2. The making of any Federal grant;
3. The making of any Federal loan;
4. The entering into of any cooperative agreement; and
5. The extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement. As used in the above referenced Certification, it includes the award of the contract with which it is associated.

"Indian tribe" and "tribal organization" have the meaning provided in Section 4 of the Indian Self Determination and Education Assistance Act (25 U.S.C. 450B). Alaskan natives are included under the definitions of Indian tribes in that Act.

"Influencing or attempting to influence" means making, with the intent to influence, any communication to or appearance before an officer or employees of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with any covered Federal action.

"Local government" means a unit of government in a State and, if chartered, established, or otherwise recognized by a State for the performance of a governmental duty, including a local public authority, a special district, an intrastate district, a council of governments, a sponsor group representative organization, and any other instrumentality of a local government. It also includes a bi-state agency.

"Officer or employee of an agency" includes the following individuals who are employed by an agency:

a. An individual who is appointed to a position in the Government under title 5, United States Code, including a position under a temporary appointment;
b. A member of the uniformed services as defined in section 101(3), title 37, United States Code;
c. A special government employee as defined in Section 202, title 18, United States Code; and
d. An individual who is a member of a Federal advisory committee, as defined by the Federal Advisory Committee Act, Title 5, United States Code Appendix 2.
e. An employee of a bi-state agency.

"Person" means an individual, corporation, company, association, authority, firm, partnership, society, State, and local government, regardless of whether such entity is operated for profit or not for profit. This term excludes an Indian tribe, tribal organization, or any other Indian Organization with respect to expenditures specifically permitted by other Federal law.

"Reasonable Compensation" means, with respect to a regularly employed officer or employee of any person, compensation that is consistent with the normal compensation for such officer or employee for work that is not furnished to, not funded by, or not furnished in cooperation with the Federal Government.

"Reasonable Payment" means, with respect to professional and other technical services, a payment in an amount that is consistent with the amount normally paid for such services in the private sector.

"Recipient" includes all contractors and subcontractors at any tier in connection with a Federal Contract. The term excludes an Indian Tribe, tribal organization, or any other Indian organization with respect to expenditures specifically permitted by other Federal law.

"Regularly Employed" means, with respect to an officer or employee of a person requesting or receiving a Federal Contract, an officer or employee who is employed by such person for at least one hundred and thirty (130) working days within one (1) year immediately preceding the date of the submission that initiates agency consideration of such person for receipt of such contract. An officer or employee who is employed by such person for less than one hundred and thirty (130) working days within one (1) year immediately preceding the date of the submission that initiates agency consideration of such person shall be considered to be regularly employed as soon as he or she is employed by such person for one hundred and thirty (130) working days.
"State" means a State of the United States, the District of Columbia, the Commonwealth of Puerto Rico, a territory or possession of the United States, an agency or instrumentality of a State, and a multi-state, regional, or interstate entity having governmental duties and powers.

B. Prohibition.
1. Section 1352 of title 31, United States Code provides in part that no appropriated funds may be expended by the recipient of a Federal contract, grant, loan, or cooperative agreement to pay any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with any of the following covered Federal actions: the awarding of any Federal contract; the making of any Federal grant; the making of any Federal loan; the entering into of any cooperative agreement; and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement. For the purposes of the Certification included in the Appendix to this Attchment, it includes the award of the associated contract.

2. The prohibition does not apply as follows:

a. Agency and legislative liaison by own employees.

(i) The prohibition on the use of appropriated funds, in subparagraph B.1.) of this Section, does not apply in the case of a payment of reasonable compensation made to an officer or employee of a person requesting or receiving a Federal contract or the contract associated with the

certification if the payment is for agency and legislative liaison activities not directly related to a covered Federal Action.

(ii) For purposes of subparagraph B. 2.) a.(i) of this Section, providing any information specifically requested by an agency or Congress is allowable at any time.

(iii) For purposes of subparagraph B. 2.) a.(i) of this Section, the following agency and legislative liaison activities are allowable at any time only where they are not related to specific solicitation for any covered Federal action.

(a) Discussing with an agency (including individual demonstrations) the qualities and characteristics of the person's products or services, conditions or terms of sales and service capabilities; and,

(b) Technical discussions and other activities regarding the application or adaptation of the person's products or services for an agency's use.

(iv) For purposes of paragraph B. 2)a.(i) of this Section, the following agency and legislative liaison activities are allowable only where they are prior to formal solicitation of any covered Federal action:

(a) Providing any information not specifically requested but necessary for an agency to make an informed decision about initiation of a covered Federal action;

(b) Technical discussions regarding the preparation of an unsolicited proposal prior to its official submission; and

(c) Capability presentations by persons seeking awards from an agency pursuant to the provisions of the Small Business Act, as amended by Public Law 95-507 and other subsequent amendments.

(iv) Only those activities expressly authorized by subparagraph B. 2)a. of this Section are allowable under subparagraph B. 2)a.

b. Professional and technical services by Own Employees.

(i) The prohibition on the use of appropriated funds, in subparagraph B. of this Section, does not apply in the case of a payment of reasonable compensation made to an officer or employee of a person requesting or receiving a Federal contract or an extension, continuation, renewal, amendment, or modification of a Federal contract or the contract associated with the certification

if payment is for professional or technical services rendered directly in the preparation, submission, or negotiation of any bid, proposal, or application for that contract or for meeting requirements imposed by or pursuant to law as a condition for receiving that contract.

(ii) For purposes of subparagraph B. 2.) b. (i) of this Section, "professional and technical services" shall be limited to advice and analysis directly applying any professional or technical discipline. For example, drafting of a legal document accompanying a bid or proposal by a lawyer is allowable. Similarly, technical advice provided by an engineer on the performance or operational capability of a piece of equipment rendered directly in the negotiation of a contract is allowable. However, communications with the intent to influence made by a professional (such as a licensed lawyer) or a technical person (such as a licensed accountant) are not allowable under this Section unless they provided advice and analysis directly applying their professional or technical expertise and unless the advice or analysis is rendered directly and solely in the preparation, submission or negotiation of a covered Federal action. Thus, for example, communications with the intent to influence made by a lawyer that do not provide legal advice or analysis directly and solely related to the legal aspects of his or her client's proposal, but generally advocate one proposal over another are not allowable under this Section because the lawyer is not providing professional legal services. Similarly, communications with the intent to influence made by an engineer providing an engineering analysis prior to the preparation or submission of a bid or proposal are not allowable under this Section since the engineer is providing technical services but not directly in the preparation, submission or negotiation of a covered Federal action.

(iii) Requirements imposed by or pursuant to law as a condition for receiving a covered Federal award include those required by law or regulation, or reasonably expected to be required by law or regulation, and any other requirements in the actual award documents.

(iv) Only those services expressly authorized by subparagraph B. 2.) b. this Section are allowable under subparagraph B. 2.) b.

c. Reporting for Own Employees.

No reporting is required with respect to payments of reasonable compensation made to regularly employed officers or employees of a person.

d. Professional and technical services by Other than Own Employees.

(i) The prohibition on the use of appropriated funds, in subparagraph B. 1.) of this Section, does not apply in the case of any reasonable payment to a person, other than an officer or employee of a person requesting or receiving a covered Federal action, if the payment is for professional or technical services

rendered directly in the preparation, submission, or negotiation of any bid, proposal, or application for that Federal contract or for meeting requirements imposed by or pursuant to law as a condition for receiving that Federal contract.

(ii) For purposes of subparagraph B. 2.) d. (i) of this Section, "professional and technical services" shall be limited to advice and analysis directly applying any professional or technical discipline. For example, drafting of a legal document accompanying a bid or proposal by a lawyer is allowable. Similarly, technical advice provided by an engineer on the performance or operational capability of a piece of equipment rendered directly in the negotiation of a contract is allowable. However, communications with the intent to influence made by a professional
(such as a licensed lawyer) or a technical person (such as a licensed accountant) are not allowable under this Section unless they provided advice and analysis directly applying their professional or technical expertise and unless the advice or analysis is rendered directly and solely in the preparation, submission or negotiation of a covered Federal action. Thus, for example, communications with the intent to influence made by a lawyer that do not provide legal advice or analysis directly and solely related to the legal aspects of his or her client's proposal, but generally advocate one proposal over another are not allowable under this Section because the lawyer is not providing professional legal services. Similarly, communications with the intent to influence made by an engineer providing an engineering analysis prior to the preparation or submission of a bid or proposal are not allowable under this Section since the engineer is providing technical services but not directly in the preparation, submission or negotiation of a covered Federal action.

(iii) Requirements imposed by or pursuant to law as a condition for receiving a covered Federal award include those required by law or regulation, or reasonably expected to be required by law or regulation, and any other requirements in the actual award documents.

(iv) Persons other than officers or employees of a person requesting or receiving a covered Federal action include consultants and trade associations.

(v) Only those services expressly authorized by subparagraph B. 2.) d. of this Section are allowable under subparagraph B. 2.) d.

C. Disclosure.

1. Each person who requests or receives from the Authority a Contract with Federal assistance shall file with the Authority a certification entitled "Certification Regarding Lobbying Pursuant to 31 U.S.C. 1352," as set forth in the Appendix to this Attachment that the person has not made, and will not make, any payment prohibited by subparagraph B. of this Clause.

2. Each person who requests or receives from the Authority a Contract with Federal assistance shall file with the Authority a disclosure form entitled "Disclosure of Lobbying Activities Pursuant to 31 U.S.C. 1352" (Standard Form-LLL), as set forth in the Appendix to this Attachment, if such person has made or has agreed to make any payment using non-appropriated funds (to include profits from any covered Federal action), which would be prohibited under subparagraph B. of this Clause if paid for with appropriated funds.

3. Each person shall file a disclosure form at the end of each calendar quarter in which there occurs any event that requires disclosure or that materially affects the accuracy of the information contained in any disclosure form previously filed by such person under subparagraph C.2) of this Section. An event that materially affects the accuracy of the information reported includes:

a. A cumulative increase of $25,000 or more in the amount paid or expected to be paid for influencing or attempting to influence a covered Federal action; or

b. A change in the person(s) or individual(s) influencing or attempting to influence a covered Federal action; or

c. A change in the officer(s), employee(s), or Member(s) contacted to influence or attempt to influence a covered Federal action.

4. Any person who requests or receives from a person referred to in subparagraph C.1) of this Section a subcontract exceeding $100,000 at any tier under a Federal contract shall file a certification, and a disclosure form, if required, to the next tier above.

5. All disclosure forms, but not certifications, shall be forwarded from tier to tier until received by the person referred to in subparagraph C.1) of this Section. That person shall forward all disclosure forms to the Authority.

D. Agreement.
In accepting any contract resulting from this solicitation, the person submitting the offer agrees not to make any payment prohibited by this Clause.

E. Penalties.
1. Any person who makes an expenditure prohibited under subparagraph A of this Clause shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such expenditure.

2. Any person who fails to file or amend the disclosure form to be filed or amended if required by the Clause, shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

3. Contractors may rely without liability on the representations made by their Subcontractors in the certification and disclosure form.

F. Cost Allowability.

Nothing in this Clause is to be interpreted to make allowable or reasonable any costs which would be unallowable or unreasonable in accordance with Part 31 of the Federal Acquisition Regulation. Conversely, costs made specifically unallowable by the requirements in this Clause will not be made allowable under any of the provisions of Part 31 of the Federal Acquisition Regulation.

7. ACCESS TO RECORDS AND REPORTS

The Contractor agrees to provide the Authority, the FTA Administrator, the Comptroller General of the United States or any of their authorized representatives access to any books, documents, papers and records of the Contractor which are directly pertinent to this Contract for the purposes of making audits, examinations, excerpts and transcriptions. The Contractor also agrees, pursuant to 49 CFR 633.15 to provide the FTA Administrator or his authorized representatives including any PMO Contractor access to the Contractor's records and construction sites pertaining to the project.

The Contractor agrees to provide the Authority, FTA Administrator, the Comptroller General of the United States or any of their duly authorized representatives with access to any books, documents, papers and record of the Contractor which are directly pertinent to this Contract for the purposes of making audits, examinations, excerpts and transcriptions.

The Contractor shall make available records related to the contract to the Authority, the Secretary of Transportation and the Comptroller General or any authorized officer or employee of any of them for the purposes of conducting an audit and inspection.

The Contractor agrees to permit any of the foregoing parties to reproduce by any means whatsoever or to copy excerpts and transcriptions as reasonably needed.

The Contractor agrees to maintain all books, records, accounts and reports required under this Contract for a period of not less than three (3) years after final payment is made by the Authority and all other pending matters are closed, except in the event of litigation or settlement of claims arising from the performance of this Contract, in which case the Contractor agrees to maintain same until the Authority, the FTA Administrator, the Comptroller General, or any of their duly authorized representatives, have disposed of all such litigation, appeals, claims or exceptions related thereto.

This requirement is independent of the Authority's requirements for record retention contained elsewhere in the contract documents.

8. CIVIL RIGHTS

A. Nondiscrimination - In accordance with Title VI of the Civil Rights Act, as amended, 42 U.S.C. § 2000d, section 303 of the Age Discrimination Act of 1975, as amended, 42 U.S.C. § 6102, and section 202 of the Americans with Disabilities Act of 1990, 42 U.S.C. § 12132, the Contractor agrees that it will not discriminate against any employee or applicant for employment because of race, color, creed, national origin, sex, age, or disability. In addition, the Contractor agrees to comply with applicable Federal implementing regulations and other implementing requirements FTA may issue.

B. Equal Employment Opportunity - The following equal employment opportunity requirements apply to the underlying contract:

iii. Race, Color, Creed, National Origin, Sex - In accordance with Title VII of the Civil Rights Act, as amended, 42 U.S.C. § 2000e, and Federal transit laws at 49 U.S.C. § 5332, the Contractor agrees to comply with all applicable equal employment opportunity requirements of U.S. Department of Labor (U.S. DOL) regulations, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor," 41 C.F.R. Parts 60 *et seq.*, (which implement Executive Order No. 11246, "Equal Employment Opportunity," as amended by Executive Order No. 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," 42 U.S.C. § 2000e note), and with any applicable Federal statutes, executive orders, regulations, and Federal policies that may in the future affect construction activities undertaken in the course of the Project. The Contractor agrees to take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, creed, national origin, sex, or age. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. In addition, the Contractor agrees to comply with any implementing requirements FTA may issue.

iv. Age - In accordance with section 4 of the Age Discrimination in Employment Act of 1967, as amended, 29 U.S.C. § 623, the Contractor agrees to refrain from discrimination against present and prospective employees for reason of age. In addition, the Contractor agrees to comply with any implementing requirements FTA may issue.

v. Disabilities - In accordance with section 102 of the Americans with Disabilities Act, as amended, 42 U.S.C. § 12112, the Contractor agrees that it will comply with the requirements of U.S. Equal Employment

Opportunity Commission, "Regulations to Implement the Equal Employment Provisions of the Americans with Disabilities Act," 29 C.F.R. Part 1630, pertaining to employment of persons with disabilities. In addition, the Contractor agrees to comply with any implementing requirements FTA may issue.

C. The Contractor also agrees to include these requirements in each subcontract related to this project, modified only if necessary to identify the affected parties.

9. **SEISMIC SAFETY**

If this is a contract for the construction of new buildings or additions to existing buildings, the Contractor agrees that any new building or addition to an existing building will be constructed in accordance with standards for Seismic Safety required in Department of Transportation Seismic Safety Regulations 49 CFR Part 41 and will certify compliance to the extent required by the regulation. The Contractor also agrees to ensure that all work performed under this Contract including work performed by a subcontractor is in compliance with the standards required by the Seismic Safety Regulations and the certification of compliance. The completed certification of compliance is to be submitted to the Engineer. The seismic safety standards applicable to this Contract are contained in Section 2312 ICBO Uniform Building Code (UBC), as modified by the Appendix to Title 27, Chapter 1 (Volume 7), of the Administrative Code and Charter of the City of New York at RS 9-6 Earthquake Loads.

10. **ENERGY CONSERVATION**

The Contractor agrees to comply with the mandatory energy efficiency standards and policies within the applicable State energy conservation plans issued in compliance with the Energy Policy and Conservation Act, 42 U.S.C. §6321 et seq. The Contractor also agrees to ensure that all work performed under this Contract including work performed by a Subcontractor is in compliance with the requirements of this Section.

11. **CLEAN WATER REQUIREMENTS – CONTRACTS EXCEEDING $100,000**

A. The Contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 USC §1251 et seq.

B. The Contractor agrees to report each violation to the Authority and understands and agrees that the Authority will, in turn, report each violation as required to assure notification to FTA and the appropriate EPA Regional Office.

C. The Contractor also agrees to include the requirements of this Article in all subcontracts exceeding $100,000 issued pursuant to this Contract.

12. CLEAN AIR REQUIREMENTS – CONTRACTS EXCEEDING $100,000

A. The Contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 USC §7401 et seq. The Contractor agrees to report each violation to the Authority and understands and agrees that the Authority will, in turn, report each violation as required to assure notification to FTA and the appropriate EPA Regional Office.

B. The Contractor also agrees to include the requirements of this Clause in all subcontracts exceeding $100,000 issued pursuant to this Contract.

13. FLY AMERICA

The Federal Government will not participate in the costs of international air transportation of any persons involved in or property acquired for the Project unless that air transportation is provided by U.S.-flag air carriers to the extent service by U.S.-flag air carriers is available, in accordance with the International Air Transportation Fair Competitive Practices Act of 1974, as amended, 49 U.S.C. § 40118, and with U.S. GSA regulations, "Use of United States Flag Air Carriers," 41 C.F.R. §§ 301-10.131 through 301-10.143.

14. CONTRACTS INVOLVING FEDERAL PRIVACY ACT REQUIREMENTS

The following requirements apply to the Contractor and its employees that administer any system of records on behalf of the Federal Government under any contract:

A. The Contractor agrees to comply with, and assures the compliance of its employees with, the information restrictions and other applicable requirements of the Privacy Act of 1974, 5 U.S.C. § 552a. Among other things, the Contractor agrees to obtain the express consent of the Federal Government before the Contractor or its employees operate a system of records on behalf of the Federal Government. The Contractor understands that the requirements of the Privacy Act, including the civil and criminal penalties for violation of that Act, apply to those individuals involved, and that failure to comply with the terms of the Privacy Act may result in termination of the underlying contract.

B. The Contractor also agrees to include these requirements in each subcontract to administer any system of records on behalf of the Federal Government financed in whole or in part with Federal assistance provided by FTA.

15. PREFERENCE FOR RECYCLED PRODUCTS

The Contractor agrees to comply with all the requirements of Section 6002 of the Resource Conservation and Recover Act (RCRA), as amended (42.U.S.C. 6962), including but not limited to the regulatory provisions of 40 CFR Part 247, and Executive Order 12873, as they apply to the procurement of the items designated in Subpart B of 40 CFR Part 247.

16. PROGRAM FRAUD AND FALSE OR FRAUDULENT STATEMENTS OR RELATED ACTS.

A. The Contractor acknowledges that the provisions of the Program Fraud Civil Remedies Act of 1986, as amended, 31 U.S.C. § 3801 *et seq.* and U.S. DOT regulations, "Program Fraud Civil Remedies," 49 CFR Part 31, apply to its actions pertaining to this Project. The Contractor certifies or affirms the truthfulness and accuracy of any statement it has made, it makes, it may make, or causes to be made, pertaining to the contract or project. In addition to other penalties that may be applicable, the Contractor further acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification, the Federal Government reserves the right to impose the penalties of the Program Fraud Civil Remedies Act of 1986 on the Contractor to the extent the Federal Government deems appropriate.

B. The Contractor also acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification to the Federal Government under this Contract, financed in whole or in part with Federal assistance, the Federal Government reserves the right to impose the penalties of 18 U.S.C. § 1001 and 49 U.S.C. § 5307(n)(1) on the Contractor, to the extent the Federal Government deems appropriate.

C. The Contractor agrees to include the above two clauses in each subcontract related to this Contract. It is further agreed that the clauses shall not be modified, except to identify the subcontractor who will be subject to the provisions.

17. TRANSIT EMPLOYEE PROTECTIVE REQUIREMENTS

To the extent that FTA determines that transit operations are involved, the Contractor agrees to carry out the transit operations work on the underlying contract in compliance with terms and conditions determined by the U.S. Secretary of Labor to be fair and equitable to protect the interests of employees employed under this Contract and to meet the employee protective requirements of 49 U.S.C. A 5333(b), and U.S. DOL guidelines at 29 C.F.R. Part 215, and any amendments thereto. These terms and conditions are identified in the letter of certification from the U.S. DOL to FTA applicable to the FTA Recipient's project from which Federal assistance is provided to support work on the underlying contract. The Contractor agrees to carry out that work in compliance with the

conditions stated in that U.S. DOL letter. The requirements of this subsection (1), however, do not apply to any contract financed with Federal assistance provided by FTA either for projects for elderly individuals and individuals with disabilities authorized by 49 U.S.C. § 5310(a)(2), or for projects for nonurbanized areas authorized by 49 U.S.C. § 5311. Alternate provisions for those projects are set forth in subsections (b) and (c) of this clause.

Signed Certifications

CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION – LOWER TIER COVERED TRANSACTIONS

1. The prospective lower tier participant,

Edwards and Kelcey Engineers, Inc. certifies by submission of this bid or proposal, that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2. Where the prospective lower tier participation is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

3. A prospective lower tier participant shall provide immediate written notice to the Authority (and the Contractor, if applicable) if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

Executed this day

17th of January, 2007

Edwards and Kelcey

BY: SIGNATURE OF AUTHORIZED OFFICIAL

Michael P. Cavanaugh, PE, Vice President

NAME OF AUTHORIZED OFFICIAL

APPENDIX

CERTIFICATION REGARDING LOBBYING PURSUANT TO 31 U.S.C. 1352

The undersigned MICHAEL P. CAVANAUGH

(name of authorized officer)

certifies, to the best of my knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any public agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement or the award of the contract associated with this certification.

2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any public agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, or the contract associated with this certification, the undersigned shall complete and submit Standard Form LLL, "Disclosure of Lobbying, Activities" in accordance with its instructions.

3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by, 31, U.S. C. § 1352 (as amended by the Lobbying Disclosure Act of 1995). Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

Note: Pursuant to 31 U.S.C § 1352(c)(I)-(2)(A), any person who makes a prohibited expenditure or fails to file or amend a required certification or disclosure form shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such expenditure or failure.

The Contractor certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 31 U.S.C. § 3801, et seq., apply to this certification and disclosure, if any.

Executed this day 17th of JANUARY.
2007.

By: [signature] Signature of Authorized Official

MICHAEL P. CAVANAUGH Official Name and Title of Authorized Official

VICE PRESIDENT
EDWARDS AND KELCEY

STANDARD FORM LLL - DISCLOSURE OF LOBBYING ACTIVITIES PURSUANT TO 31 U.S.C. 1352

1. Type of Federal Action:
[ ] a. contract
b. grant
c. cooperative agreement
d. loan
e. loan guarantee
f. loan insurance

2. Status of Federal Action:
[ ] a. bid//offer/application
b. Initial award
c. post-award

3. Report Type:
[ ] a. initial filing
b. material change
For Material Change Only:
year quarter
date of last report

4. Name and Address of Reporting Entity:
Prime Subawardee
Tier___, *if known:*
Congressional District, *if known:*

5. If Reporting Entity in No.4 is a Subawardee, Enter Name and Address of Prime:
Congressional District, *if known:*

6. Federal Department/Agency:

7. Federal Program Name/Description:
CFDA Number, *if applicable:*

8. Federal Action Number, *if known:*

9. Award Amount, *if known:*
$

10. a. Name and Address of Lobbying Registrant *(if individual, last name, first name, MI):*

b. Individuals Performing Services *(including address if different from No. 10a) (last name, first name, MI):*

11. Information requested through this form is authorized by Title 31 U.S.C. Section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when this transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than $10,000 and not more that $100,000 for such failure.

Signature Michael P. Cavanaugh

Print Name MICHAEL P. CAVANAUGH, PE

Title VICE PRESIDENT

Telephone No. 212.944.2000 Date: 1/17/07

CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION – LOWER TIER COVERED TRANSACTIONS

1. The prospective lower tier participant,

DMJM Harris, certifies by submission of this bid or proposal, that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

3. The prospective lower tier participant shall provide immediate written notice to the Authority (and the Contractor, if applicable) if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

Executed this day 16th of January, 2007.

BY SIGNATURE OF AUTHORIZED OFFICIAL

Ira Levy, Executive Vice President

NAME AND TITLE OF AUTHORIZED OFFICIAL

APPENDIX

CERTIFICATION REGARDING LOBBYING PURSUANT TO 31 U.S.C. 1352

The undersigned Ira Levy, Executive Vice President

(name of authorized officer)

certifies, to the best of my knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any public agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement or the award of the contract associated with this certification.

2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any public agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, or the contract associated with this certification, the undersigned shall complete and submit Standard Form LLL, "Disclosure of Lobbying, Activities" in accordance with its instructions.

3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by, 31, U.S. C. § 1352 (as amended by the Lobbying Disclosure Act of 1995). Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

Note: Pursuant to 31 U.S.C § 1352(c)(1)-(2)(A), any person who makes a prohibited expenditure or fails to file or amend a required certification or disclosure form shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such expenditure or failure.

The Contractor certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 31 U.S.C. § 3801, et seq., apply to this certification and disclosure, if any.

Executed this day 16th of January 2007.

By: Ira Allan Levy Signature of Authorized Official

Ira Levy, Executive Vice President Official Name and Title of Authorized Official

STANDARD FORM LLL - DISCLOSURE OF LOBBYING ACTIVITIES PURSUANT TO 31 U.S.C. 1352

NA

1. Type of Federal Action:
[ ] a. contract.
b. grant
c. cooperative agreement
d. loan
e. loan guarantee
f. loan insurance

2. Status of Federal Action:
[ ] a. bid//offer/application
b. Initial award
c. post-award

3. Report Type:
[ ] a. initial filing
b. material change
For Material Change Only:
year quarter
date of last report

4. Name and Address of Reporting Entity:
Prime Subawardee
Tier___, *if known:*
Congressional District, *if known:*

5. If Reporting Entity in No.4 is a Subawardee, Enter Name and Address of Prime:
Congressional District, *if known:*

6. Federal Department/Agency:

7. Federal Program Name/Description:
CFDA Number, *if applicable:*

8. Federal Action Number, *if known:*

9. Award Amount, *if known:*
$

10. a. Name and Address of Lobbying Registrant, *(if individual, last name, first name, MI):*

b. Individuals Performing Services *(including address if different from No.10a) (last name, first name, MI):*

11. Information requested through this form is authorized by Title 31 U.S.C. Section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when this transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than $10,000 and not more that $100,000 for such failure.

Signature

Print Name Ira Levy

Title Executive Vice President

Telephone No. 212-973-2900 Date: 1/16/2007

CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION – LOWER TIER COVERED TRANSACTIONS

1. The prospective lower tier participant,

EDAW, Inc., certifies by submission of this bid or proposal, that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

3. The prospective lower tier participant shall provide immediate written notice to the Authority (and the Contractor, if applicable) if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

Executed this day 15th of January, 20 07.

Roger Courtenay

BY SIGNATURE OF AUTHORIZED OFFICIAL

Roger Courtenay, Vice President

NAME AND TITLE OF AUTHORIZED OFFICIAL

APPENDIX

CERTIFICATION REGARDING LOBBYING PURSUANT TO 31 U.S.C. 1352

The undersigned Roger Courtenay

(name of authorized officer)

certifies, to the best of my knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any public agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement or the award of the contract associated with this certification.

2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any public agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, or the contract associated with this certification, the undersigned shall complete and submit Standard Form LLL, "Disclosure of Lobbying, Activities" in accordance with its instructions.

3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by, 31, U.S. C. § 1352 (as amended by the Lobbying Disclosure Act of 1995). Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

Note: Pursuant to 31 U.S.C § 1352(c)(I)-(2)(A), any person who makes a prohibited expenditure or fails to file or amend a required certification or disclosure form shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such expenditure or failure.

The Contractor certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 31 U.S.C. § 3801, et seq., apply to this certification and disclosure, if any.

Executed this day 15th of January 20 07.

By: Roger Courtenay Signature of Authorized Official

Roger Courtenay, Vice President Official Name and Title of Authorized Official

CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION – LOWER TIER COVERED TRANSACTIONS

1. The prospective lower tier participant,

STV Incorporated, certifies by submission of this bid or proposal, that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

3. The prospective lower tier participant shall provide immediate written notice to the Authority (and the Contractor, if applicable) if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

Executed this day 15th day of January, 2007

BY SIGNATURE OF AUTHORIZED OFFICIAL

Dominick M. Servedio, P.E. / Chairman, Director

NAME AND TITLE OF AUTHORIZED OFFICIAL

APPENDIX

CERTIFICATION REGARDING LOBBYING PURSUANT TO 31 U.S.C. 1352

The undersigned
Dominick M. Servedio, P.E. / Chairman, Director

(name of authorized officer)

certifies, to the best of my knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any public agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement or the award of the contract associated with this certification.

2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any public agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, or the contract associated with this certification, the undersigned shall complete and submit Standard Form LLL, "Disclosure of Lobbying, Activities" in accordance with its instructions.

3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by, 31, U.S. C. § 1352 (as amended by the Lobbying Disclosure Act of 1995). Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

Note: Pursuant to 31 U.S.C § 1352(c)(I)-(2)(A), any person who makes a prohibited expenditure or fails to file or amend a required certification or disclosure form shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such expenditure or failure.

The Contractor certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 31 U.S.C. § 3801, et seq., apply to this certification and disclosure, if any.

Executed this day 15th of January
20 07.

By: _____ Signature of Authorized Official

Dominick M. Servedio, P.E. / Chairman, Director Official Name and Title of Authorized Official

DISCLOSURE OF LOBBYING ACTIVITIES

Approved by OMB 0348-0046

Complete this form to disclose lobbying activities pursuant to 31 U.S.C. 1352
(see reverse for public burden disclosure)

1. Type of Federal Action:
[A] a. contract
b. grant
c. cooperative agreement
d. loan
e. loan guarantee
f. loan insurance

2. Status of Federal Action:
[A] a. bid/offer/application
b. initial award
c. post-award

3. Report Type:
[A] a. initial filing
b. material change
For Material Change Only:
year_____ quarter_____
date of last report _____

4. Name and Address of Reporting Entity:
☐ Prime ☑ Subawardee
Tier_____, if known

STV Incorporated
225 Park Avenue South
New York, NY 10003

Congressional District, *if known*:

5. If Reporting entity in No. 4 in subawardee, Enter Name and Address of Prime:
Downtown Streetscape Partners
(Edwards and Kelcey, DMJM Harris, and EDAW Landscape)
5 Penn Plaza, 18th Floor
New York, NY 10001

Congressional District, *if known*:

6. Federal Department/Agency:
FTA

7. Federal Program Name/Description:

CFDA Number, *if applicable*_____

8. Federal Action Number, ***if known:***

9. Award Amount, ***if known:***
$

10. a. Name and Address of Lobbying Entity
(if individual, last name, first name, MI):
Various Local and State Professional Societies

b. Individuals Performing Services (including address if *different from No. 10a)*
(last name, first name, MI):

(Attach Continuation Sheet(s) SF-LLL-A, if necessary)

11. Amount of Payment (check all that apply):
$_____ ☐ actual ☐ planned

12. Form of Payment (check all that apply):
☑ a. cash
☐ b. in-kind: specify: nature _____
value _____

13. Type of Payment *(check all that apply)*:
☐ a. retainer
☐ b. one-time fee
☐ c. commission
☐ d. contingent fee
☐ e. deferred
☑ f. other, specify: Dues

14. Brief Description of Services Performed or to be Performed and Data(s) of Service, including officer(s), employee(s), or Member(s) contacted, for Payment indicated in Item 11:

A portion of the dues paid to various local and state professional societies are attributable to lobbying activities conducted by the societies.

(Attach Continuation Sheet(s) SF-LLL-A, if necessary)

15. Continuation Sheet(s) SF-LLL-A attached: ☐ yes ☑ No

16. Information requested through this form is authorized by title 31 U.S.C., section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when this transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

Signature: [signature]
Print Name: Dominick M. Servedio, P.E.
Title Chairman / Director
Telephone No.: 212-777-4400 Date: January 15, 2007

Federal Use Only

Authorized for Local Reproduction
Standard Form - LLL (Rev. 7-97)

F 4.2.01/8.24.00

CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION – LOWER TIER COVERED TRANSACTIONS

1. The prospective lower tier participant,

SCIENCE APPLICATIONS INTERNATIONAL CORPORATION certifies by submission of this bid or proposal, that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

3. The prospective lower tier participant shall provide immediate written notice to the Authority (and the Contractor, if applicable) if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

Executed this day SEVENTEENTH of JANUARY, 2007.

BY SIGNATURE OF AUTHORIZED OFFICIAL

DEBRA BECHKEMMER OPS CONTRACTS DIRECTOR

NAME AND TITLE OF AUTHORIZED OFFICIAL

APPENDIX

CERTIFICATION REGARDING LOBBYING PURSUANT TO 31 U.S.C. 1352

The undersigned DEBRA BECKKEMMER

(name of authorized officer)

certifies, to the best of my knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any public agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement or the award of the contract associated with this certification.

2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any public agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, or the contract associated with this certification, the undersigned shall complete and submit Standard Form LLL, "Disclosure of Lobbying, Activities" in accordance with its instructions.

3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by, 31, U.S. C. § 1352 (as amended by the Lobbying Disclosure Act of 1995). Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

Note: Pursuant to 31 U.S.C § 1352(c)(I)-(2)(A), any person who makes a prohibited expenditure or fails to file or amend a required certification or disclosure form shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such expenditure or failure.

The Contractor certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 31 U.S.C. § 3801, et seq., apply to this certification and disclosure, if any.

Executed this day SEVENTEENTH of JANUARY 2007

By: D Beckkemmer Signature of Authorized Official

DEBRA BECKKEMMER OPS CONTRACTS DIRECTOR Official Name and Title of Authorized Official

STANDARD FORM LLL - DISCLOSURE OF LOBBYING ACTIVITIES PURSUANT TO 31 U.S.C. 1352

1. Type of Federal Action:
[ ] a. contract
b. grant
c. cooperative agreement
d. loan
e. loan guarantee
f. loan insurance

2. Status of Federal Action:
[ ] a. bid//offer/application
b. Initial award
c. post-award

3. Report Type:
[ ] a. initial filing
b. material change
For Material Change Only:
year quarter
date of last report

4. Name and Address of Reporting Entity:
Prime Subawardee
Tier___, *if known:*
Congressional District, *if known:*

5. If Reporting Entity in No.4 is a Subawardee, Enter Name and Address of Prime:
Congressional District, *if known:*

6. Federal Department/Agency:

7. Federal Program Name/Description:
CFDA Number, *if applicable:*

8. Federal Action Number, *if known:*

9. Award Amount, *if known:*
$

10. a. Name and Address of Lobbying Registrant *(if individual, last name, first name, MI):*

b. Individuals Performing Services *(including address if different from No.10a) (last name, first name, MI):*

11. Information requested through this form is authorized by Title 31 U.S.C. Section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when this transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than $10,000 and not more that $100,000 for such failure.

Signature D Rechkemmer
Print Name DEBRA RECHKEMMER
Title OPS CONTRACTS DIRECTOR
Telephone No. 703-676-8406 Date: 01/17/07

Clear all data and reset fields

Go to 'Form Completed'

Clerk of the House of Representatives
Legislative Resource Center
B-106 Cannon Building
Washington, DC 20515

Secretary of the Senate
Office of Public Records
232 Hart Building
Washington, DC 20510

LOBBYING REPORT

Lobbying Disclosure Act of 1995 (Section 5) - **All Filers Are Required to Complete This Page**

1. Registrant name

Organization SAIC

2. Address ☐ Check if different than previously reported

Address1 1919 Pennsylvania Ave. NW Suite 650

City Washington State DC Zip Code 20006 Country USA

3. Principal place of business (if different than line 2)

City State Zip Code Country

City State/Zip or Country

4a. Contact Name Prefix Full Name: Mr. John J. Killeen

b. Telephone number: 202-530-8905

c. E-mail: killeenj@saic.com

5. Senate ID #

6. House ID #

7. Client Name ☒ Self

SAIC

TYPE OF REPORT

8. Year 2005 Midyear (January 1-June30) ☐ OR Year End (July 1-December 31) ☒

9. Check if this filing amends a previously filed version of this report ☐

10. Check if this is a Termination Report ☐ ⇨ Termination Date _____

11. No Lobbying Activity ☐

INCOME OR EXPENSES - Complete Either Line 12 OR Line 13

12. Lobbying Firms

INCOME relating to lobbying activities for this reporting period was:

Less than $10,000 ☐

$10,000 or more ☐ ⇨ $ _____

Provide a good faith estimate, rounded to the nearest $20,000, of all lobbying related income from the client (including all payments to the registrant by any other entity for lobbying activities on behalf of the client).

13. Organizations

EXPENSES relating to lobbying activities for this reporting period were:

Less than $10,000 ☐

$10,000 or more ☒ ⇨ $ 805,000

14. REPORTING METHOD. Check box to indicate expense accounting method. See instructions for description of options.

☒ **Method A.** Reporting amounts using LDA definitions only

☐ **Method B.** Reporting amounts under section 6033(b)(8) of the Internal Revenue Code

☐ **Method C.** Reporting amounts under section 162(e) of the Internal Revenue Code

Form Complete

Printed Name and Title John J. Killeen, Senior Vice President Government Affairs

Registrant Name SAIC Client Name SAIC

LOBBYING ACTIVITY. Select as many codes as necessary to reflect the general issue areas in which the registrant engaged in lobbying on behalf of the client during the reporting period. **Using a separate page for each code,** provide information as requested. Attach additional page(s) as needed.

15. General issue area code BUD - Budget/Appropriations (one per page)

16. Specific lobbying issues

Science, State, Justice, Commerce (HR 2862)
Defense (HR 2863)
Energy and Water (HR 2419)
Foreign Operations (HR 3057)
Homeland Security (HR 2360)
Interior (HR 2361)
Legislative Branch (HR 2985)
Military Quality of Life, Veteran Affairs (HR 2528)
Transportation, Treasury, HUD, Judiciary, District of Columbia (HR 3058)

17. House(s) of Congress and Federal agencies contacted ☐ Check if None

House of Representatives
Senate

18. Name of each individual who acted as a lobbyist in this issue area

Name First Name	Last Name	Suffix	Covered Official Position (if applicable)	New
John J.	Killeen		N/A	☐
Kathryne	Thorpe		N/A	☐
Andrew	Jazwick		N/A	☐
Alfred	Woodbridge		N/A	☐
				☐
				☐
				☐
				☐
				☐

19. Interest of each foreign entity in the specific issues listed on line 16 above ☒ Check if None

Printed Name and Title John J. Killeen, Senior Vice President Government Affairs

Go to 'Form Completed' >

Registrant Name SAIC Client Name SAIC

LOBBYING ACTIVITY. Select as many codes as necessary to reflect the general issue areas in which the registrant engaged in lobbying on behalf of the client during the reporting period. **Using a separate page for each code,** provide information as requested. Attach additional page(s) as needed.

15. General issue area code DEF - Defense (one per page)

16. Specific lobbying issues

FY 06 Intelligence Authorization (HR 2475)
FY 06 National Defense Authorization (HR 1815, S 1042)

17. House(s) of Congress and Federal agencies contacted ☐ Check if None

House of Representatives
Senate

18. Name of each individual who acted as a lobbyist in this issue area

Name First Name	Last Name	Suffix	Covered Official Position (if applicable)	New
John J.	Killeen		N/A	☐
Kathryne	Thorpe		N/A	☐
Andrew	Jazwick		N/A	☐
Alfred	Woodbridge		N/A	☐
Amy	Childers		N/A	☒
				☐
				☐
				☐
				☐

19. Interest of each foreign entity in the specific issues listed on line 16 above ☒ Check if None

Printed Name and Title John J. Killeen, Senior Vice President Government Affairs

Go to 'Form Completed' >

Registrant Name SAIC Client Name SAIC

LOBBYING ACTIVITY. Select as many codes as necessary to reflect the general issue areas in which the registrant engaged in lobbying on behalf of the client during the reporting period. **Using a separate page for each code,** provide information as requested. Attach additional page(s) as needed.

15. General issue area code ENG - Energy/Nuclear (one per page)

16. Specific lobbying issues

Energy Policy Act (HR 6, S 10)

17. House(s) of Congress and Federal agencies contacted ☐ Check if None

House of Representatives
Senate

18. Name of each individual who acted as a lobbyist in this issue area

Name: First Name	Name: Last Name	Name: Suffix	Covered Official Position (if applicable)	New
Kathryne	Thorpe		N/A	☐
				☐
				☐
				☐
				☐
				☐
				☐
				☐
				☐

19. Interest of each foreign entity in the specific issues listed on line 16 above ☒ Check if None

Printed Name and Title John J. Killeen, Senior Vice President Government Affairs

Registrant Name SAIC Client Name SAIC

LOBBYING ACTIVITY. Select as many codes as necessary to reflect the general issue areas in which the registrant engaged in lobbying on behalf of the client during the reporting period. **Using a separate page for each code,** provide information as requested. Attach additional page(s) as needed.

15. General issue area code SCI - Science/Technology (one per page)

16. Specific lobbying issues

NASA Authorization Act of 2005 (HR 3070, S 1281)

17. House(s) of Congress and Federal agencies contacted ☐ Check if None

House of Representatives
Senate

18. Name of each individual who acted as a lobbyist in this issue area

Name: First Name	Name: Last Name	Name: Suffix	Covered Official Position (if applicable)	New
Kathryne	Thorpe		N/A	☐
				☐
				☐
				☐
				☐
				☐
				☐
				☐
				☐

19. Interest of each foreign entity in the specific issues listed on line 16 above ☒ Check if None

Printed Name and Title John J. Killeen, Senior Vice President Government Affairs

Go to 'Form Completed' >

Registrant Name SAIC Client Name SAIC

LOBBYING ACTIVITY. Select as many codes as necessary to reflect the general issue areas in which the registrant engaged in lobbying on behalf of the client during the reporting period. **Using a separate page for each code,** provide information as requested. Attach additional page(s) as needed.

15. General issue area code HOM - Homeland Security (one per page)

16. Specific lobbying issues

FY 06 Department of Homeland Security Authorization (HR 1817)

17. House(s) of Congress and Federal agencies contacted ☐ Check if None

House of Representatives
Senate

18. Name of each individual who acted as a lobbyist in this issue area

Name: First Name	Name: Last Name	Name: Suffix	Covered Official Position (if applicable)	New
John J.	Killeen		N/A	☐
Andrew	Jazwick		N/A	☐
				☐
				☐
				☐
				☐
				☐
				☐
				☐

19. Interest of each foreign entity in the specific issues listed on line 16 above ☒ Check if None

Printed Name and Title John J. Killeen, Senior Vice President Government Affairs

Go to 'Form Completed' >

Registrant Name SAIC Client Name SAIC

LOBBYING ACTIVITY. Select as many codes as necessary to reflect the general issue areas in which the registrant engaged in lobbying on behalf of the client during the reporting period. **Using a separate page for each code,** provide information as requested. Attach additional page(s) as needed.

15. General issue area code GOV - Government Issues (one per page)

16. Specific lobbying issues *Add page to continue specific issues description for this issue*

General Service Administration Modernization Act (HR 2066)

17. House(s) of Congress and Federal agencies contacted ☐ Check if None

House of Representatives
Senate

18. Name of each individual who acted as a lobbyist in this issue area *Add a page to continue adding lobbyists for this issue*

Name First Name	Last Name	Suffix	Covered Official Position (if applicable)	New
John J.	Killeen		N/A	☐
Kathryne	Thorpe		N/A	☐
Amy	Childers		N/A	☒
				☐
				☐
				☐
				☐
				☐
				☐

19. Interest of each foreign entity in the specific issues listed on line 16 above ☒ Check if None

Add a page for a different issue

Printed Name and Title John J. Killeen, Senior Vice President Government Affairs

Go to 'Form Completed' >

Registrant Name SAIC Client Name SAIC

Information Update Page - Complete ONLY where registration information has changed.

20. Client new address

Address

City State Zip Code Country

21. Client new principal place of business (if different than line 20)

City State Zip Code Country

22. New general description of client's business or activities

LOBBYIST UPDATE

23. Name of each previously reported individual who is **no longer** expected to act as a lobbyist for the client

First Name Last Name Suffix First Name Last Name Suffix

1 3

2 4

ISSUE UPDATE

Find the code to select below.

24. General lobbying issues that **no longer** pertain

AFFILIATED ORGANIZATIONS

25. Add the following affiliated organization(s)

Name	Address	Principal place of Business (city and state or country)
	Address C/S/Z Address C/S/Z	City State Country City State

26. Name of each previously reported organization that is **no longer** affiliated with the registrant or client

1 2 3

FOREIGN ENTITIES

27. Add the following foreign entities

Name	Address Street Address City State/Province Country	Principal place of business (city and state or country)	Amount of contribution for lobbying activities	Ownership percentage in client
		City State Country		%

28. Name of each previously reported foreign entity that **no longer** owns, or controls, or is affiliated with the registrant, client or affiliated organization

1 3 5

2 4 6

Add a page for more updates

Printed Name and Title John J. Killeen, Senior Vice President Government Affairs

CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION – LOWER TIER COVERED TRANSACTIONS

1. The prospective lower tier participant,

Weidlinger Associates, Inc., certifies by submission of this bid or proposal, that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

3. The prospective lower tier participant shall provide immediate written notice to the Authority (and the Contractor, if applicable) if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

Executed this day

16th of January, 2007.

BY SIGNATURE OF AUTHORIZED OFFICIAL

Abdol Hagh, PhD, PE, Principal

NAME AND TITLE OF AUTHORIZED OFFICIAL

APPENDIX

CERTIFICATION REGARDING LOBBYING PURSUANT TO 31 U.S.C. 1352

The undersigned

Abdol Hagh, PhD, PE, Principal

(name of authorized officer)

certifies, to the best of my knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any public agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement or the award of the contract associated with this certification.

2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any public agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, or the contract associated with this certification, the undersigned shall complete and submit Standard Form LLL, "Disclosure of Lobbying, Activities" in accordance with its instructions.

3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by, 31, U.S. C. § 1352 (as amended by the Lobbying Disclosure Act of 1995). Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

Note: Pursuant to 31 U.S.C § 1352(c)(I)-(2)(A), any person who makes a prohibited expenditure or fails to file or amend a required certification or disclosure form shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such expenditure or failure.

The Contractor certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 31 U.S.C. § 3801, et seq., apply to this certification and disclosure, if any.

Executed this day 16th of January, 2007.

By: _____ Signature of Authorized Official

Abdol Hagh, PhD, PE, Principal Official Name and Title of Authorized Official

STANDARD FORM LLL - DISCLOSURE OF LOBBYING ACTIVITIES PURSUANT TO 31 U.S.C. 1352

1. Type of Federal Action:
[ ] a. contract
b. grant
c. cooperative agreement
d. loan
e. loan guarantee
f. loan insurance

2. Status of Federal Action:
[ ] a. bid/offer/application
b. Initial award
c. post-award

3. Report Type:
[ ] a. initial filing
b. material change
For Material Change Only:
year quarter
date of last report

4. Name and Address of Reporting Entity:
Prime Subawardee
Tier ___, *if known:*
Congressional District, *if known:*

5. If Reporting Entity in No. 4 is a Subawardee, Enter Name and Address of Prime:
Congressional District, *if known:*

6. Federal Department/Agency:

7. Federal Program Name/Description:
CFDA Number, *if applicable:*

8. Federal Action Number, *if known:*

9. Award Amount, *if known:*
$

10. a. Name and Address of Lobbying Registrant *(if individuals, last name, first name, MI):*

b. Individuals Performing Services *(including address if different from No.10a) (last name, first name, MI):*

11. Information requested through this form is authorized by Title 31 U.S.C. Section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when the transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than $10,000 and not more that $100,000 for such failure.

Signature _____

Print Name Abdol Hagh, PhD, PE

Title Principal

Telephone No. (617) 374-0000

Date: January 16, 2007

Not Applicable

CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION – LOWER TIER COVERED TRANSACTIONS

1. The prospective lower tier participant,

Medina Consultants, P.C., certifies that, as of January 15, 2007, that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

3. The prospective lower tier participant shall provide immediate written notice to the Authority (and the Contractor, if applicable) if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

Executed this day

15th of January, 2007.

BY SIGNATURE OF AUTHORIZED OFFICIAL

Robert Medina, P.E. President

NAME AND TITLE OF AUTHORIZED OFFICIAL

APPENDIX

CERTIFICATION REGARDING LOBBYING PURSUANT TO 31 U.S.C. 1352

The undersigned
Robert Medina, P.E.

(name of authorized officer)

certifies, to the best of my knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any public agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement or the award of the contract associated with this certification.

2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any public agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, or the contract associated with this certification, the undersigned shall complete and submit Standard Form LLL, "Disclosure of Lobbying, Activities" in accordance with its instructions.

3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by, 31, U.S. C. § 1352 (as amended by the Lobbying Disclosure Act of 1995). Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

Note: Pursuant to 31 U.S.C § 1352(c)(I)-(2)(A), any person who makes a prohibited expenditure or fails to file or amend a required certification or disclosure form shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such expenditure or failure. The Contractor certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 31 U.S.C. § 3801, et seq., apply to this certification and disclosure, if any.

Executed this day 15th of January, 2007.

By: _____ Signature of Authorized Official

Robert Medina, PE. President Official Name and Title of Authorized Official

STANDARD FORM LLL - DISCLOSURE OF LOBBYING ACTIVITIES PURSUANT TO 31 U.S.C. 1352

1. Type of Federal Action: (n/a) a. contract b. grant c. cooperative agreement d. loan e. loan guarantee f. loan insurance	**2. Status of Federal Action:** (n/a) a. bid/offer/application b. initial award c. post-award	**3. Report Type:** (n/a) a. initial filing b. material change **For Material Change Only:** year_____ quarter_____ date of last report _____
4. Name and Address of Reporting Entity: Medina Consultants One Edgeview Drive Hackettstown, NJ 07840 **Congressional District**, *if known*:	**5. If Reporting Entity in No. 4 is a Subawardee, Enter Name and Address of Prime:** **Congressional District**, *if known*:	
6. Federal Department/Agency: N/A	**7. Federal Program Name/Description:** N/A CFDA Number, *if applicable*: _____	
8. Federal Action Number, if known:	9. **Award Amount**, *if known:* $	
10. a. Name and Address of Lobbying Registrant *(if individual, last name, first name, MI):* *N/A*	b. **Individuals Performing Services** *(including address if different from No. 10a) (last name, first name, MI):* N/A	
11. Information requested through this form is authorized by title 31 U.S.C. section 1362. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when this transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less that $10,000 and not more than $100,000 for each such failure.	Signature: _____ Print Name: Robert Medina, P.E. Title: President Telephone No.: 908-850-3366 Date: 01/15/07	

APPENDIX

CERTIFICATION REGARDING LOBBYING PURSUANT TO 31 U.S.C. 1352

The undersigned Iftekhar Hossain

(name of authorized officer)

certifies, to the best of my knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any public agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement or the award of the contract associated with this certification.

2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any public agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, or the contract associated with this certification, the undersigned shall complete and submit Standard Form LLL, "Disclosure of Lobbying, Activities" in accordance with its instructions.

3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by, 31, U.S. C. § 1352 (as amended by the Lobbying Disclosure Act of 1995). Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

Note: Pursuant to 31 U.S.C § 1352(c)(I)-(2)(A), any person who makes a prohibited expenditure or fails to file or amend a required certification or disclosure form shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such expenditure or failure.

The Contractor certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 31 U.S.C. § 3801, et seq., apply to this certification and disclosure, if any.

Executed this day 17th of January, 20 07.

By: Iftekhar Hossain Signature of Authorized Official

Iftekhar Hossain, President Official Name and Title of Authorized Official

CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION – LOWER TIER COVERED TRANSACTIONS

1. The prospective lower tier participant,

IH Engineers, P.C., certifies by submission of this bid or proposal, that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

3. The prospective lower tier participant shall provide immediate written notice to the Authority (and the Contractor, if applicable) if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

Executed this day 17th of January, 20 07.

Iftekhar Hossain

BY SIGNATURE OF AUTHORIZED OFFICIAL

Iftekhar Hossain, President

NAME AND TITLE OF AUTHORIZED OFFICIAL

CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION – LOWER TIER COVERED TRANSACTIONS

1. The prospective lower tier participant,

Environmental Planning & Management, Inc., certifies by submission of this bid or proposal, that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

3. The prospective lower tier participant shall provide immediate written notice to the Authority (and the Contractor, if applicable) if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

Executed this day 16th of January, 20 07.

BY SIGNATURE OF AUTHORIZED OFFICIAL

A. Stacey Gogos, President

NAME AND TITLE OF AUTHORIZED OFFICIAL

CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION – LOWER TIER COVERED TRANSACTIONS

1. The prospective lower tier participant,

212. Harakawa, Inc., certifies by submission of this bid or proposal, that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

3. The prospective lower tier participant shall provide immediate written notice to the Authority (and the Contractor, if applicable) if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

Executed this day 17 of January, 20 07.

BY SIGNATURE OF AUTHORIZED OFFICIAL

Ann Harakawa, Principal

NAME AND TITLE OF AUTHORIZED OFFICIAL

APPENDIX

CERTIFICATION REGARDING LOBBYING PURSUANT TO 31 U.S.C. 1352

The undersigned Ann Harakawa

(name of authorized officer)

certifies, to the best of my knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any public agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement or the award of the contract associated with this certification.

2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any public agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, or the contract associated with this certification, the undersigned shall complete and submit Standard Form LLL, "Disclosure of Lobbying, Activities" in accordance with its instructions.

3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by, 31, U.S. C. § 1352 (as amended by the Lobbying Disclosure Act of 1995). Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

Note: Pursuant to 31 U.S.C § 1352(c)(I)-(2)(A), any person who makes a prohibited expenditure or fails to file or amend a required certification or disclosure form shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such expenditure or failure.

The Contractor certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 31 U.S.C. § 3801, et seq., apply to this certification and disclosure, if any.

Executed this day 17 of January, 20 07.

By: _____ Signature of Authorized Official

Ann Harakawa, Principal Official Name and Title of Authorized Official

APPENDIX

CERTIFICATION REGARDING LOBBYING PURSUANT TO 31 U.S.C. 1352

The undersigned A. Stacey Gogos

(name of authorized officer)

certifies, to the best of my knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any public agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement or the award of the contract associated with this certification.

2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any public agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, or the contract associated with this certification, the undersigned shall complete and submit Standard Form LLL, "Disclosure of Lobbying, Activities" in accordance with its instructions.

3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by, 31, U.S. C. § 1352 (as amended by the Lobbying Disclosure Act of 1995). Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

Note: Pursuant to 31 U.S.C § 1352(c)(I)-(2)(A), any person who makes a prohibited expenditure or fails to file or amend a required certification or disclosure form shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such expenditure or failure.

The Contractor certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 31 U.S.C. § 3801, et seq., apply to this certification and disclosure, if any.

Executed this day 16th of January, 20 07.

By: _____ Signature of Authorized Official

A. Stacey Gogos, President Official Name and Title of Authorized Official

STANDARD FORM LLL - DISCLOSURE OF LOBBYING ACTIVITIES PURSUANT TO 31 U.S.C. 1352

1. Type of Federal Action:
[x] a. contract
b. grant
c. cooperative agreement
d. loan
e. loan guarantee
f. loan insurance

2. Status of Federal Action:
[x] a. bid//offer/application
b. Initial award
c. post-award

3. Report Type:
[x] a. initial filing
b. material change
For Material Change Only:
year quarter
date of last report

4. Name and Address of Reporting Entity:
Prime Subawardee
Tier___, *if known:*
Congressional District, *if known:*

5. If Reporting Entity in No.4 is a Subawardee, Enter Name and Address of Prime:
Congressional District, *if known:*

6. Federal Department/Agency:

7. Federal Program Name/Description:
CFDA Number, *if applicable:*

8. Federal Action Number, *if known:*

9. Award Amount, *if known:*
$

10. a. Name and Address of Lobbying Registrant *(if individual, last name, first name, MI):*

b. Individuals Performing Services *(including address if different from No.10a) (last name, first name, MI):*

11. Information requested through this form is authorized by Title 31 U.S.C. Section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when this transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than $10,000 and not more that $100,000 for such failure.

Signature

Print Name A. Stacey Gogos

Title President

Telephone No. 516-328-1194

Date: January 16th, 2007

CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION – LOWER TIER COVERED TRANSACTIONS

1. The prospective lower tier participant,

Corpro Companies Inc., certifies by submission of this bid or proposal, that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

3. The prospective lower tier participant shall provide immediate written notice to the Authority (and the Contractor, if applicable) if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

Executed this day 16 of January, 2007.

Denise K. Patt

BY SIGNATURE OF AUTHORIZED OFFICIAL

Denise K. Patterson, Assistant Secretary

NAME AND TITLE OF AUTHORIZED OFFICIAL

APPENDIX

CERTIFICATION REGARDING LOBBYING PURSUANT TO 31 U.S.C. 1352

The undersigned Denise K. Patterson

(name of authorized officer)

certifies, to the best of my knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any public agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement or the award of the contract associated with this certification.

2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any public agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, or the contract associated with this certification, the undersigned shall complete and submit Standard Form LLL, "Disclosure of Lobbying, Activities" in accordance with its instructions.

3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by, 31, U.S. C. § 1352 (as amended by the Lobbying Disclosure Act of 1995). Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

Note: Pursuant to 31 U.S.C § 1352(c)(I)-(2)(A), any person who makes a prohibited expenditure or fails to file or amend a required certification or disclosure form shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such expenditure or failure.

The Contractor certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 31 U.S.C. § 3801, et seq., apply to this certification and disclosure, if any.

Executed this day 16 of January 20 07

By: Denise K. Patterson Signature of Authorized Official

Denise K. Patterson Official Name and Title of Authorized Official

Assistant Secretary
Corpro Companies, Inc.

ATTACHMENT D

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION
FEDERAL TRANSIT ADMINISTRATION

MASTER AGREEMENT
FOR "LOWER MANHATTAN RECOVERY GRANTS"

For Federal Transit Administration Agreements authorized by the 2001 Emergency Supplemental Appropriations Act for Recovery from and Response to Terrorist Attacks on the United States, Public Law 107-38; the National Defense Authorization Act for Fiscal Year 2002, Public Law 107-107; the Fiscal Year 2002 Department of Defense Appropriations Act, Public Law 107-117; the Fiscal Year 2002 Department of Transportation and Related Agencies Appropriations Act, Public Law 107-206; the Consolidated Appropriations Resolution, 2003, Public Law 208-7; the Robert T. Stafford Disaster Relief and Emergency Assistance Act, Public Law 93-288, 42 U.S.C. § 5121-5206; and/or other Federal enabling legislation

N.B. This Agreement is based on the standard FTA Master Agreement which is incorporated by reference in all FTA grants and cooperative agreements. Inapplicable provisions of that agreement are marked "Not Applicable" in this Agreement and left in place for the benefit of Recipients who also receive funds authorized under the Federal Transit Laws who are familiar with the section numbers.

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UNITED STATES DEPARTMENT OF TRANSPORTATION
FEDERAL TRANSIT ADMINISTRATION

LOWER MANHATTAN RECOVERY MASTER AGREEMENT

The following terms and conditions apply to the Federal assistance authorized by the 2001 Emergency Supplemental Appropriations Act for Recovery from and Response to Terrorist Attacks on the United States, Public Law 107-38; the National Defense Authorization Act for Fiscal Year 2002, Public Law 107-107; the Fiscal Year 2002 Department of Defense Appropriations Act, Public Law 107-117; the Fiscal Year 2002 Department of Transportation and Related Agencies Appropriations Act, Public Law 107-206; the Consolidated Appropriations Resolution, 2003, Public Law 208-7; the Consolidated Appropriations Resolution, 2003, Public Law 208-7; the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act), Public Law 93-288; and/or other Federal enabling legislation administered by FTA.

This Agreement includes a comprehensive listing of requirements applicable to the various Projects that will be funded under the authorities listed above. Not every provision of this Agreement will apply to every Project for which FTA provides Federal financial assistance through a Grant Agreement. The type of Project, the federal statute authorizing financial assistance for the Project, and the legal status of the Recipient as a "State" or "local government" will determine which requirements apply. Requirements that do not apply will not be enforced. The provisions of this Agreement will continue to apply to the Project unless or until modified or superseded by subsequent Federal requirements or Agreements.

Thus, in consideration of the mutual covenants, promises, and representations herein, FTA and the Recipient agree as follows:

Section 1. Definitions.

a. Application means the electronically signed and dated request for Federal financial assistance, including any amendment thereto, with all explanatory, supporting, and supplementary documents filed with and accepted or approved by the FTA by or on behalf of the Recipient.

b. Approval, Authorization, Concurrence, Waiver means a written statement (transmitted electronically or in hard copy) by a Federal Government official authorized to permit the Recipient to perform or omit an action required by this Grant Agreement, which action may not be performed or omitted without such permission. Unless stated otherwise, an approval, authorization, concurrence, or waiver permitting the performance or omission of a specific action does not constitute permission to perform or omit other similar actions. **Oral permissions or interpretations have no legal force or effect.**

c. Approved Project Budget means the most recent statement, approved by the FTA, of the costs of the Project, the maximum amount of Federal assistance for which the Recipient is currently eligible, the specific tasks (including specified contingencies) covered, and the estimated cost of each task. As used in the "Approved Project Budget," the term "Scopes" means categories and the term "Scope Level Codes" means category codes. Although "Scopes" and "Scope Level Codes" generally indicate the type of activities encompassed by the Project, the data listed under "Scopes" and "Scope Level Codes" (for example), do not necessarily reflect, and are not intended to be treated as, prima facie evidence of the precise limits or boundaries of a Project, unless stated otherwise. Consequently, the data listed under "Scopes" and "Scope Level Codes" will not always constitute the precise parameters of the scope of the Project. FTA reserves the right to consider other information in determining the "Scope of the Project" when that term is used for legal purposes.

d. Environmental Protection Agency (EPA) is the Federal agency with primary authority to promulgate and enforce legislation to protect the environment.

e. Federal Government means the United States of America, including any executive department or agency thereof.

f. Federal Transit Administration (FTA) is the Federal agency designated to award funds and oversee implementation of the project. Any reference to the Urban Mass Transportation Administration is deemed a reference to the Federal Transit Administration.

g. Federal Transit Administrator also designates the former Urban Mass Transportation Administrator. Any reference in law, map, regulation, document, paper, or other record of the United States to the Urban Mass Transportation Administrator is deemed a reference to the Federal Transit Administrator.

h. "FEMA" is the Federal entity with primary authority to provide federal assistance following a Presidentially-declared major disaster or emergency. It is part of the Emergency Preparedness and Response Directorate of the Department of Homeland Security.

i. FHWA is the acronym for the Federal Highway Administration, an operating administration of the U.S. Department of Transportation (U.S.DOT).

j. FTA is the acronym for the Federal Transit Administration, an operating administration of the U.S. Department of Transportation (U.S. DOT).

k. Grant Agreement means the instrument by which FTA awards Federal assistance to a specific Recipient to support a particular Project in which FTA does not take an active role or retain substantial control, in accordance with the requirements of 31 U.S.C. § 6304. The Grant Agreement consists of the FTA Award establishing the specific parameters of the Project, an Execution statement signed by the Recipient, and may include other Special Conditions or Requirements. This Master Agreement is incorporated by reference and made part of the Grant Agreement.

l. Local Government includes a public transit authority, as well as a county, municipality, city, town, township, special district, council of governments (whether or not incorporated as a private nonprofit organization under State law), regional or interstate government entity, or any agency or instrumentality thereof. For purposes of the New York Recovery funding program, the Port Authority of New York and New Jersey, the New York Mass Transit Administration, and the City of New York are considered local governments.

m. Lower Manhattan Recovery Office (LMRO) is an FTA office with responsibility for carrying out the Lower Manhattan Recovery projects.

n. Project means the activity or activities (task or tasks) listed in Project Description, the Approved Project Budget, and any modifications stated in the Conditions to the Grant Agreement applicable to the Project.

o. Recipient means the entity that receives Federal assistance directly from FTA to support the Project. The term "Recipient" includes each FTA "Grantee." Except as FTA permits otherwise, the Recipient is the entire legal entity even if only a single organization within that entity is designated as the Recipient in the Grant Agreement. Unless expressly stated otherwise, in the case of a Recipient that is a consortium, partnership, or similar multi-party entity, each participant in, member of, or party to that consortium, partnership, or multi-party entity is treated as a "Recipient" for purposes of compliance with applicable requirements of this Grant Agreement.

p. Secretary means the U.S. DOT Secretary, including his or her duly authorized designee.

q. Subagreement means an agreement through which a Recipient awards financial assistance derived from FTA to the subrecipient as defined below. The term "subagreement" also includes the term "subgrant," but does not include the term "third party subcontract."

r. Subrecipient means any entity that receives Federal assistance awarded by a FTA Recipient, rather than FTA directly. The term "subrecipient" also includes the term "subgrantee," but does not include "third party contractor" or "third party subcontractor."

s. Third Party Contract means a contract or purchase order awarded by the Recipient or subrecipient to a vendor or contractor, financed in whole or in part with Federal assistance awarded by FTA.

t. Third Party Subcontract means a subcontract at any tier entered into by the third party contractor or third party subcontractor, financed in whole or in part with Federal assistance originally derived from FTA.

u. Transit means transportation by a conveyance, either publicly or privately owned, that provides regular and continuing general or special public transportation to the public, but does not include school bus, charter, or sightseeing transportation. The term "transit" also includes "mass transportation" and "public transportation."

Section 2. Project Implementation.

a. General Requirements.

(1) Project Description. The Recipient shall perform the work described in its Application which is incorporated by reference in the approved Grant.

(2) Effective Date. The effective date of this Agreement is the date on which the FTA Authorized Official signs it.

(3) Recipient's Capacity. The Recipient will maintain or acquire sufficient legal, financial, technical, and managerial capacity to plan, manage, and complete the Project, and provide for the use of Project facilities and equipment, to comply with the terms of the Grant Agreement, the Approved Project Budget, the Project schedules, the Recipient's annual certifications and assurances to FTA, and all applicable Federal laws, executive orders, regulations, directives, and published policies governing this Project.

(4) Completion Dates. The Recipient agrees to complete the Project in a timely manner. Milestone dates and other Project completion dates for the Project are to be treated as good faith estimates rather than precise obligations, except where otherwise provided.

b. U.S. DOT Administrative Requirements. The Recipient acknowledges that Federal administrative requirements differ based on the type of entity receiving Federal assistance: A Recipient that is a State or a local government will comply with U.S. DOT regulations, "Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments," 49 C.F.R. Part 18.

c. Application of Federal, State, and Local Laws and Regulations.

(1) Federal Laws and Regulations. Federal law or specific laws authorizing Project approval control Project implementation. Implementing regulations, policies, and related administrative practices applicable on the effective date of this Grant may be modified after the

date when the Recipient executes the Grant Agreement, and might apply to this project. New Federal laws, regulations, policies, and administrative practices may be promulgated after the date when the Recipient executes the Grant Agreement, and might apply to this project. The most recent of such Federal requirements will govern the administration of the Project at any particular time, unless FTA issues a written determination otherwise. All standards or limits within this Lower Manhattan Recovery Master Agreement are minimum requirements, unless modified by FTA.

(2) State, Territorial, and Local Law. In instances when a Federal statute or regulation pre-empts State, local, or territorial law, the Recipient must abide by the Federal statute or regulation. Otherwise, no provision of this Agreement shall require the Recipient to observe or enforce compliance with any provision, perform any other act, or do any other thing in contravention of State, territorial, or local law. If any provision herein would require the Recipient to violate State, territorial, or local law, the Recipient will notify FTA immediately in writing in order that appropriate action may be taken.

d. Recipient's Primary Responsibility to Comply with Federal Requirements. Irrespective of participation by other parties in the Project, and unless notified otherwise in writing by the FTA, the Recipient is ultimately responsible for compliance with all Federal requirements applicable to this Project.

e. Recipient's Responsibility to Extend Federal Requirements to Other Entities. The Recipient is responsible for extending all applicable Federal requirements to all parties participating in the implementation of the Project.

f. No Federal Government Obligations to Third Parties. Absent the Federal Government's express written consent, the Federal Government shall not be subject to any obligations or liabilities to any subrecipient, any third party contractor, or any other person not a party to the Grant Agreement in connection with the performance of the Project. Notwithstanding that the Federal Government may have concurred in or approved any solicitation, subagreement, or third party contract, the Federal Government has no obligations or liabilities to any party, including any subrecipient or any third party contractor.

g. Changes in Project Performance (*i.e.*, Disputes, Breaches, Defaults or Litigation). The Recipient will notify FTA immediately of any change in local law, conditions (such as its legal, financial, or technical capacity), or any other event that may significantly affect the Recipient's ability to perform the Project in accordance with the terms of the Grant Agreement. In addition, the Recipient will notify FTA immediately of any current or prospective major dispute, breach, default, or litigation that may affect the Federal Government's interests in the Project or the Federal Government's administration or enforcement of Federal laws or regulations. The Recipient will inform FTA before naming the Federal Government as a party to litigation for any reason, in any forum.

Section 3. Ethics.

a. Code of Ethics. The Recipient will maintain a written code or standards of conduct that shall govern the performance of its officers, employees, board members, or agents engaged in the award or administration of third party contracts or subagreements supported by Federal assistance. This code or standards of conduct shall provide that the Recipient's officers, employees, board members, or agents may neither solicit nor accept gratuities, favors, or anything of monetary value from any present or potential contractor or subrecipient. The Recipient may set *de minimis* rules where the financial interest is not substantial, or the gift is an unsolicited item of nominal intrinsic value. This code or standards shall also prohibit the Recipient's officers, employees, board members, or agents from using their respective positions for a purpose that constitutes or presents a real or apparent personal or organizational conflict of interest or personal gain. As permitted by State or local law or regulations, the code or standards shall include penalties, sanctions, or other disciplinary actions for violations by the Recipient's officers, employees, board members, or their agents, or by contractors or subrecipients or their agents.

(1) Personal Conflicts of Interest. The Recipient's code or standards of conduct will prohibit the Recipient's employees, officers, board members, or agents from participating in the selection, award, or administration of a third party contract or subagreement supported by Federal funds if a real or apparent conflict of interest would be involved. Such a conflict would arise when any of the following parties has a financial or other interest in the entity selected for award: (a) an employee, officer, board member, or agent; (b) any member of his or her immediate family; (c) his or her partner; or (d) an organization that employs, or intends to employ, any of the above.

(2) Organizational Conflicts of Interest. The Recipient's code or standards of conduct will include procedures for identifying and preventing real and apparent organizational conflicts of interest. An organizational conflict of interest exists when the nature of the work to be performed under a proposed third party contract or subagreement may, without some restrictions on future activities, result in an unfair competitive advantage to the third party contractor or subrecipient or impair its objectivity in performing the contract work.

b. Debarment and Suspension. The Recipient will itself comply, and assure the compliance of each third party contractor and subrecipient at any tier, with Executive Orders Nos. 12549 and 12689, "Debarment and Suspension," 31 U.S.C. § 6101 note, and U.S. DOT regulations, "Governmentwide Debarment and Suspension (Nonprocurement)," within 49 C.F.R. Part 29. Recipients, third party contractors and subrecipients will review the Excluded Parties Listing System at http://epls.arnet.gov before entering into any contracts.

c. Bonus or Commission. The Recipient affirms that it has not paid, and agrees not to pay, any bonus or commission to obtain approval of its Federal assistance application for the Project.

d. Lobbying Restrictions. The Recipient will itself comply and assures the compliance of each third party contractor at any tier and each subrecipient at any tier, with U.S. DOT regulations, "New Restrictions on Lobbying," 49 C.F.R. Part 20, modified as necessary by 31 U.S.C. § 1352.

e. Employee Political Activity. The Recipient will comply with the provisions of the Hatch Act, 5 U.S.C. §§ 1501 - 1508, 7324 - 7326, and U.S. Office of Personnel Management regulations, "Political Activity of State or Local Officers or Employees," 5 C.F.R. Part 151. Note that, in accordance with 23 U.S.C. § 142(g), the Hatch Act does not apply to a nonsupervisory employee of a transit system or of any other agency or entity performing related functions receiving FTA assistance to whom the Hatch Act would otherwise apply.

f. False or Fraudulent Statements or Claims. The Recipient certifies or affirms the truthfulness and accuracy of each statement it has made, it makes, or it may make in connection with the Project covered by the Grant Agreement pursuant to the Program Fraud Civil Remedies Act of 1986, as amended, 31 U.S.C. §§ 3801 *et seq.* and U.S. DOT regulations, "Program Fraud Civil Remedies," 49 C.F.R. Part 31 and 18 U.S.C. § 1001.

Section 4. Federal Financial Assistance.

FTA will provide Federal financial assistance for the Project in an amount up to one hundred percent (100%) of the eligible project costs consistent with the approved Project scope and budget.

Section 5. Local Share.

If the Recipient provides a local share for the Project, the Recipient agrees as follows:

a. Restrictions on the Source of the Local Share. Except as permitted otherwise by Federal law, the Recipient agrees to provide sufficient funds that, together with the Federal financial assistance awarded, will ensure payment of the actual cost of each Project activity covered by the Grant Agreement. The Recipient agrees that no local share funds provided will be derived from receipts from the use of Project facilities or equipment, revenues of the transit system in which such facilities or equipment are used, or other Federal funds, except as permitted by law.

b. Duty to Obtain the Local Share. Unless FTA otherwise approves, the Recipient agrees to complete all proceedings necessary to provide the local share of the Project costs at or before the time those funds are needed to meet Project expenses.

c. Calculation of the Local Share. Unless FTA expressly approves otherwise in writing, the Recipient agrees that the local share will apply to each Project activity in the Grant Agreement.

d. Completion of Project with Local Funds. If the Project expenses exceed the approved Project budget, additional funds to complete the Project must be made available from non-federal sources.

Section 6. Approved Project Budget.

The Recipient will prepare a Project budget which, upon approval by FTA, is designated the

"Approved Project Budget." The Recipient will incur obligations and make disbursements of Project funds only as authorized in the latest Approved Project Budget. The latest Approved Project Budget is incorporated herein by reference and made part the Grant Agreement for the Project.

An amendment to the Approved Project Budget requires the issuance of a formal amendment to the Grant Agreement, except that re-allocation of funds among budget items or fiscal years that does not increase the total amount of the Federal financial assistance awarded may be made in accordance with applicable Federal regulations and directives. Prior FTA approval is required when funds are to be transferred from non-construction to construction categories or vice versa or when, in non-construction grants, cumulative transfers of funds between total direct cost categories exceed ten percent of the total budget.

The Recipient shall obtain prior written approval for any budget revision that would result in the need for additional funds. Award of additional Federal financial assistance requires a new Approved Project Budget.

If a Recipient estimates that it will have unobligated funds remaining after the end of the performance period, the recipient should report this to FTA at the earliest possible time and ask for disposition instructions.

Section 7. Accounting Records.

a. Project Accounts. The Recipient will establish and maintain for the Project either a separate set of accounts, or separate accounts within the framework of an established accounting system, that can be identified with the Project, in accordance with applicable Federal regulations and other requirements that FTA may impose. The Recipient agrees that all checks, payrolls, invoices, contracts, vouchers, orders, or other accounting documents related in whole or in part to the Project shall be clearly identified, readily accessible and available to FTA upon its request, and, to the extent feasible, kept separate from documents not related to the Project.

b. Funds Received or Made Available for the Project. The Recipient will deposit, in a financial institution, all advance Project payments it receives from the Federal Government and record in the Project Account all amounts provided by the Federal Government in support of the Project and all other funds provided for, accruing to, or otherwise received on account of the Project (Project funds) in accordance with applicable Federal regulations and other requirements FTA may impose.

c. Documentation of Project Costs and Program Income. The Recipient will support all costs charged to the Project, including any approved services contributed by the Recipient or others, with properly executed payrolls, time records, invoices, contracts, or vouchers describing in detail the nature and propriety of the charges. The Recipient also will maintain accurate records of all program income derived from implementing the Project, except certain income determined by FTA to be exempt from the general Federal program income requirements.

d. Checks, Orders, and Vouchers. The Recipient will refrain from drawing checks, drafts, or orders for goods or services to be charged against the Project Account until it has received and filed a properly signed voucher describing in proper detail the purpose for the expenditure.

Section 8. Reporting, Record Retention, and Access.

a. Types of Reports. The Recipient will submit to FTA the reports specified in this Agreement, the Lower Manhattan Recovery Program Guidance and any other reports the Federal Government may require.

b. Format Requirements for Reports. All reports and other documents or information intended for public availability developed in the course of the Project and required to be submitted to FTA must be prepared and submitted in electronic and or hard copy formats as FTA may require. Electronic submissions must comply with the electronic accessibility requirements of Subsection 12.g, and Section 15.s of this Lower Manhattan Recovery Master Agreement. FTA may require records to be submitted in other formats.

c. Timing of Filing Reports. The Grantee shall electronically submit financial reports (Financial Status Report) and milestone reports to FTA within thirty (30) calendar days after the end of each quarter of the performance period (normally the Federal fiscal quarter). Reports are due by January 31, April 30, July 31, and December 31, unless notified otherwise in writing by FTA.

d. Record Retention. The Recipient will maintain intact and readily accessible data, documents, reports, records, contracts, and supporting materials relating to the Project as the Federal Government may require during the course of the Project and for three years thereafter from the date of transmission of the final expenditure report.

e. Access to Records of Recipients and Subrecipients. Upon request, the Recipient will permit, and require its Subrecipients to permit, the U.S. Secretary of Transportation, the Comptroller General of the United States, and, to the extent appropriate, the State, or their authorized representatives, to inspect all Project work, materials, payrolls, and other data, and to audit the books, records, and accounts of the Recipient and its Subrecipients pertaining to the Project.

f. Project Closeout. Project closeout does not alter the reporting and record retention requirements of this Section 8 of this Lower Manhattan Recovery Master Agreement.

Section 9. Payments.

a. Recipient's Request for Payment. To obtain a Federal assistance payment for the Project from FTA, the Recipient will:

(1) Submit to FTA all financial and progress reports required to date by this Agreement, and

(2) Identify the source(s) of financial assistance provided for the Project from which the payment is to be derived.

b. Payment by FTA. FTA will make all payments through the Automated Clearing House (ACH) method of payment, regardless of the amount involved but not before execution of this Agreement.

(1) Electronic Clearing House Operation Payments. If payment is made through the FTA Electronic Clearinghouse Operation (ECHO) using an ECHO Control Number, the Recipient will comply with: FTA's ECHO requirements that implement U.S. Department of Treasury Circular 1075, Part 205, "Withdrawal of Cash from the Treasury for Advances Under Federal Grants and Other Programs;" Treasury Financial Manual, Vol. 1, Part 6, Chapter 2000; the ECHO System Operations Manual, "Guidelines for Disbursements" used for FTA Projects; and the requirements of this Subsection 9.b(1). If the Recipient fails to comply with the following requirements of this Subsection 9.b.(1), the Federal Government may revoke the unexpended portion of Federal assistance awarded for the Project.

(a) The Recipient may draw down cash only when an expense is incurred and cash is needed for immediate disbursement required for Project purposes. Unless provided otherwise by Federal law or regulation, the Recipient will expend all Federal funds obtained under the Project for Project purposes no later than three (3) working days after receiving those funds. If the Recipient fails to expend those Federal assistance funds within three (3) working days of their receipt or fails to return those funds to FTA within a reasonable period, or fails to establish procedures to minimize the time elapsing between cash advances and the disbursement, the Federal Government may revoke or temporarily suspend the Recipient's ECHO Control Number and the Recipient's access to the ECHO System. In addition, a Recipient's failure to adhere to these requirements may result in other remedies or penalties authorized by Federal law or regulation.

(b) The Recipient will report its cash disbursements and balances promptly in compliance with Federal requirements.

(c) The Recipient will provide for control and accountability for all Project funds consistent with Federal requirements and procedures for use of the ECHO system.

(d) The Recipient will not draw down funds for a Project in an amount exceeding the sum obligated by the Federal Government or the current available balance for that Project.

(e) The Recipient will draw down funds only for allowable and eligible Project costs.

(f) The Recipient will refrain from drawing down Federal assistance until needed for disbursement.

(g) The Recipient will notify the LMRO when a single draw down will exceed $50 million three days before the drawdown is anticipated.

(h) The Recipient will remit interest to the Federal Government on any Federal assistance prematurely drawn down, irrespective of whether that Federal assistance has been deposited in an interest-bearing account. A debt for any premature draw down of Federal assistance funds does not qualify as a "claim" covered by the Debt Collection Act of 1982, as amended, 31 U.S.C. §§ 3701 through 3720. Thus, the interest provisions of this Subsection 9.b (1)(h) of this Lower Manhattan Recovery Master Agreement, rather than the interest provisions of the Debt Collection Act of 1982, as amended, will determine amount of interest due on any debt for Federal assistance prematurely drawn down. A Recipient that is a State or State instrumentality will remit interest to the Federal Government calculated as provided by U.S. Department of Treasury regulations, "Rules and Procedures for Funds Transfers," 31 C.F.R. Part 205 that implement section 5(b) of the Cash Management Improvement Act of 1990, as amended, 31 U.S.C. § 6503(b). Interest on any debt that a State or state instrumentality may incur for Federal assistance prematurely drawn down does not qualify for the interest exemption of the Debt Collection Act of 1982, as amended, 31 U.S.C. §§ 3701 and 3717.

(2) Requisition. If the requisition method of payment is used, the Recipient will:

(a) Complete and submit the "Payment Information Form - ECHO-ACH Payment System," Revised 10/92, to FTA's Accounting Division, and

(b) Complete and submit Standard Form 270, "Request for Advance or Reimbursement," to the FTA LMRO.

Upon receiving a request for payment and adequate supporting information, FTA will approve payment by direct deposit, provided that the Recipient is in compliance with the requirements of the Grant Agreement, has satisfied FTA that the Federal funds requested are needed in that requisition period, and is making adequate progress toward Project completion. After these requirements have been fulfilled, the Federal Government may reimburse the apparent allowable costs incurred (or to be incurred in the requisition period), not to exceed the maximum amount of Federal funds payable through the Federal fiscal year of that requisition, as set forth in the Approved Project Budget for the Project.

c. Costs Reimbursed. Project costs, to be eligible for Federal participation, must:

(1) Conform to the Project Description, the Approved Project Budget, and all other terms of the Grant Agreement,

(2) Be necessary in order to accomplish the Project,

(3) Be reasonable for the goods or services purchased,

(4) Be actual net costs to the Recipient (*i.e.*, the price paid minus any refunds, rebates, or other items of value received by the Recipient that have the effect of reducing the cost actually incurred, excluding program income),

(5) Be incurred for work performed after the Effective Date of the Grant Agreement, unless

the Federal Government has provided otherwise in writing,

(6) Be satisfactorily documented,

(7) Be treated consistently in accordance with accounting principles and procedures approved by the Federal Government for the Recipient, and with accounting principles and procedures approved by the Recipient for its contractors,

(8) Be eligible under Federal law, regulation, or guidelines for Federal participation,

(9) Comply with the provisions of OMB Circular A-87, Revised, "Cost Principles for State and Local Governments," and

(10) Comply with 44 CFR Subchapter D, Subparts G, H and I and implementing policies and administrative guidance if funding for the Project is authorized by the Stafford Act.

d. Bond Interest and Other Financing Costs. To the extent permitted in writing by FTA, bond interest and other similar financing costs are allowable. FTA's participation in Project interest costs will be limited to an amount that does not exceed the most favorable financing terms reasonably available for the Project at the time of borrowing. For projects funded with FEMA funds, financing costs are not an allowable cost.

e. Excluded Costs:

(1) In determining the amount of Federal assistance FTA will provide, FTA will exclude the following:

(a) Any Project cost incurred by the Recipient before the Effective Date of the Grant Agreement or Amendment thereto, unless otherwise permitted by Federal law or regulation, or unless an authorized FTA official states in writing to the contrary;

(b) Any cost that is not included in the latest Approved Project Budget;

(c) Any cost for goods or services received in connection with a third party contract or other arrangement required to be, but has not been, concurred in or approved in writing by the Federal Government;

(d) Any ordinary governmental or nonproject operating cost;

(e) Any cost ineligible for FTA participation as required by Federal law, regulation, or guidelines for Federal participation.

(2) The Federal Government will not make a final determination about the eligibility of any cost until an audit of the Project has been completed.

f. Federal Claims, Excess Payments, Disallowed Costs, including Interest.

(1) Recipient's Obligation to Pay. Upon notification to the Recipient that specific amounts are owed to the Federal Government, whether for Federal claims for funds recovered from third parties or elsewhere, for excess payments, or for disallowed costs, the Recipient will remit to the Federal Government promptly the amounts owed, including any interest due.

(2) Amount of Interest Due. The Recipient agrees that the amount of interest due depends on whether the Federal Government treats the principal portion of the debt as a Federal claim or as a debt owed to the Federal Government. Thus, Recipient will pay interest calculated as follows:

(a) Federal Claims against the Recipient. The Debt Collection Act of 1982, as amended, 31 U.S.C. §§ 3701 through 3720, exempts State governments and units of general local government from the obligation to pay interest on claims pursued by the Federal Government under that Act, 31 U.S.C. §§ 3701 and 3717. Interest on claims against other parties will be calculated in accordance with the interest provisions of U.S. Treasury/U.S. DOJ regulations, "Standards for the Administrative Collection of Claims," at 31 C.F.R. § 901.9(i).

(b) Excess Payments. A debt for any excess payment does not qualify as a "claim" for purposes of the Debt Collection Act of 1982, as amended, 31 U.S.C. §§ 3701 through 3720; Accordingly, interest on any debt for excess payments does not qualify for the interest exemption for State and local governments at 31 U.S.C. §§ 3701 and 3717. Thus, the Recipient will pay common law prejudgment interest and related charges for excess payments made by the Federal Government, as permitted by U.S. Treasury/U.S. DOJ regulations, "Standards for the Administrative Collection of Claims," at 31 C.F.R. § 901.9(i).

(c) Disallowed Costs. A debt for any disallowed cost does not qualify as a "claim" for purposes of the Debt Collection Act of 1982, as amended, 31 U.S.C. §§ 3701 through 3720; thus the interest exemption for State governments and units of general local government provided by that Act will not apply to interest on the debt for the disallowed cost. Accordingly, a Recipient that is a State government or a unit of general local government agrees that interest on any debt for a disallowed cost does not qualify for the interest exemption for State and local governments at 31 U.S.C. §§ 3701 and 3717. Thus, the Recipient will pay common law prejudgment interest and related charges for excess payments made by the Federal Government, as permitted by 31 C.F.R. § 901(i).

g. De-obligation of Funds. The Recipient agrees that the Federal Government may de-obligate unexpended Federal funds before Project closeout.

h. Duplication of Benefits. Pursuant to Section 312 of the Stafford Act, 42 U.S.C. § 5155, the Recipient is liable to the United States for the receipt of any financial assistance for the Project to the extent such assistance duplicates benefits available to the Recipient from another source, including insurance.

Section 10. Project Completion, Audit, Settlement, and Closeout.

a. Project Completion. Within ninety (90) calendar days following Project completion or termination by the Federal Government, the Recipient will submit a final Financial Status Report (either electronically or on Standard Form 269A), a certification of Project expenses, and third party audit reports, as applicable.

b. Audit Requirements.

(1) Audit of Recipients. The Recipient will have the financial and compliance audits required by the Single Audit Act Amendments of 1996, 31 U.S.C. §§ 7501 *et seq.*, performed in accordance with OMB Circular A-133, "Audits of States, Local Governments, and Non-Profit Organizations," and the OMB A-133 Compliance Supplement provisions for the Department of Transportation, March, 2002, and any further revision or supplement thereto. Project closeout will not alter the Recipient's audit responsibilities. Audits will be conducted in accordance with U.S. General Accounting Office, "Government Auditing Standards."

(2) Audit Costs. Audit costs for Project administration and management are allowable to the extent authorized by OMB Circular A-87, Revised, OMB Circular A-21, Revised, OMB Circular A-122, Revised, or 48 C.F.R. Chapter I, Subpart 31.2, whichever is applicable.

c. Funds Due the Federal Government. The Recipient will remit to the Federal Government any excess payments made to the Recipient, any costs disallowed by the Federal Government, and any amounts recovered by the Recipient from third parties or from other sources, as well as any interest required by Subsection 9.f (2)(b) of this Agreement.

d Project Closeout. Project closeout occurs when FTA notifies the Recipient that FTA has closed out the Project, and then either forwards the final Federal assistance payment or acknowledges that the Recipient has remitted the proper refund. Project closeout by FTA does not invalidate any continuing obligations imposed on the Recipient by the Grant Agreement or by the Federal Government's final notification or acknowledgment.

Section 11. Right of the Federal Government to Terminate.

Upon written notice, the Federal Government may suspend or terminate all or part of the Federal financial assistance provided herein if the Recipient has violated the terms of the Grant Agreement, or if the Federal Government determines that the purposes of the statute authorizing the Project would not be adequately served by the continuation of Federal financial assistance for the Project. Any failure to make reasonable progress on the Project or other violation of the Grant Agreement that endangers substantial performance of the Project shall provide sufficient grounds for the Federal Government to terminate the Grant Agreement. Termination of any Federal financial assistance for the Project will not invalidate obligations properly incurred by the Recipient before the termination date, to the extent those obligations cannot be canceled. If, however, the Federal Government determines that the Recipient has willfully misused Federal assistance funds by failing to make adequate progress, failing to make reasonable and

appropriate use of the Project real property, facilities, or equipment, or has failed to comply with the terms of the Grant Agreement, the Federal Government reserves the right to require the Recipient to refund the entire amount of Federal funds provided for the Project or any lesser amount as the Federal Government may determine. Expiration of any Project time period established for the Project does not, by itself, constitute an expiration or termination of the Grant Agreement.

Section 12. Civil Rights.

The Recipient will comply with all applicable civil rights statutes and implementing regulations including, but not limited to, the following:

a. Nondiscrimination in General. The Recipient will comply, and assures the compliance of each third party contractor at any tier and each subrecipient at any tier under the Project with 42 U.S.C. §5151, which requires the distribution of supplies, the processing of applications, and other relief and assistance activities in an equitable and impartial manner, without discrimination on the grounds of race, color, religion, nationality, sex, age, or economic status, and with 49 U.S.C. §5332, which prohibits discrimination on the basis of race, color, creed, national origin, sex, or age, and prohibits discrimination in employment or business opportunity.

b. Nondiscrimination -- Title VI of the Civil Rights Act. The Recipient will comply, and assures the compliance of each third party contractor and each subrecipient at any tier under the Project, with all requirements prohibiting discrimination on the basis of race, color, or national origin of Title VI of the Civil Rights Act of 1964, as amended, 42 U.S.C. § 2000d *et seq.*, and U.S. DOT regulations, "Nondiscrimination in Federally-Assisted Programs of the Department of Transportation--Effectuation of Title VI of the Civil Rights Act," 49 C.F.R. Part 21.

c. Equal Employment Opportunity. (1) The Recipient will comply, and assures the compliance of each third party contractor at any tier and each subrecipient at any tier, with all requirements of Title VII of the Civil Rights Act of 1964, as amended, 42 U.S.C. § 2000e. Accordingly, the Recipient agrees that it will not discriminate against any employee or applicant for employment because of race, color, creed, sex, disability, age, or national origin. The Recipient will take affirmative action to ensure that applicants are employed and that employees are treated during employment without regard to their race, color, creed, sex, disability, age, or national origin. Such action shall include, but not be limited to, employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship.

(2) Equal Employment Opportunity Requirements for Construction Activities. With respect to activities deemed by the U.S. Department of Labor (U.S. DOL) to qualify as "construction," the Recipient will comply, and assures the compliance of each third party contractor at any tier and each subrecipient at any tier, with all applicable EEO requirements of U.S. DOL regulations, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor," 41 C.F.R. Parts 60 *et seq.*, (which implement Executive Order No. 11246, "Equal Employment Opportunity," as amended by Executive Order No. 11375, "Amending Executive

Order 11246 Relating to Equal Employment Opportunity," 42 U.S.C. § 2000(e) note,) and any Federal statutes, executive orders, regulations, and Federal policies affecting construction undertaken as part of the Project.

d. Contracting with Small and Minority Firms, Women's Business Enterprise and Labor Surplus Area Firms. Pursuant to Executive Order 12432 as implemented by 49 CFR § 18.36(e), Recipient and its subrecipients will take all necessary affirmative steps to assure that minority firms, women's business enterprises, and labor surplus area firms are used when possible.

e. Nondiscrimination on the Basis of Sex. The Recipient will comply with all applicable requirements of Title IX of the Education Amendments of 1972, as amended, 20 U.S.C. §§ 1681 *et seq.*, with U.S. DOT regulations, "Nondiscrimination on the Basis of Sex in Education Programs or Activities Receiving Federal Financial Assistance," 49 C.F.R. Part 25, and with any implementing directives that U.S. DOT or FTA may promulgate, which prohibit discrimination on the basis of sex.

f. Nondiscrimination on the Basis of Age. The Recipient will comply with all applicable requirements of the Age Discrimination Act of 1975, as amended, 42 U.S.C. §§ 6101 *et seq.*, and implementing regulations, which prohibit employment and other discrimination against individuals on the basis of age.

g. Access Requirements for Persons with Disabilities. The Recipient will comply with all applicable requirements of section 504 of the Rehabilitation Act of 1973, as amended, 29 U.S.C. § 794, which prohibits discrimination on the basis of handicaps, with the Americans with Disabilities Act of 1990 (ADA), as amended, 42 U.S.C. §§ 12101 *et seq.*, which requires that accessible facilities and services be made available to persons with disabilities, including any subsequent amendments to that Act, and with the Architectural Barriers Act of 1968, as amended, 42 U.S.C. §§ 4151 *et seq.*, which requires that buildings and public accommodations be accessible to persons with disabilities, including any subsequent amendments to that Act. In addition, the Recipient will comply with all applicable requirements of the following regulations and any subsequent amendments thereto:

(1) U.S. DOT regulations, "Transportation Services for Individuals with Disabilities (ADA)," 49 C.F.R. Part 37;

(2) U.S. DOT regulations, "Nondiscrimination on the Basis of Handicap in Programs and Activities Receiving or Benefiting from Federal Financial Assistance," 49 C.F.R. Part 27;

h. Drug or Alcohol Abuse - Confidentiality and Other Civil Rights Protections. The Recipient will comply with confidentiality and other civil rights protections of the Drug Abuse Office and Treatment Act of 1972, as amended, 21 U.S.C. §§ 1174 *et seq.*, with the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970, as amended, 42 U.S.C. §§ 4581 *et seq.*, and with the Public Health Service Act of 1912, as amended, 42 U.S.C. §§ 290dd-3 and 290ee-3, and any subsequent amendments to these acts.

i. Access to Services for Persons with Limited English Proficiency. The Recipient will comply

with guidance set forth in Executive Order No. 13166,"Improving Access to Services for Persons with Limited English Proficiency," August 11, 2000, 42 U.S.C. § 2000d-1 note, and with the requirements and provisions of U.S. DOT Notice, "DOT Guidance to Recipients on Special Language Services to Limited English Proficient (LEP) Beneficiaries," 66 Fed. Reg. 6733 *et seq.*, January 22, 2001.

j. Environmental Justice. The Recipient will comply with the policies of Executive Order No. 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," 42 U.S.C. § 4321 note.

k. Other Nondiscrimination Statutes. The Recipient will comply with applicable requirements of other nondiscrimination statute(s) that may apply to the Project.

Section 13. Planning and Private Enterprise.

a. Not Applicable.
b. Not Applicable.
c. Infrastructure Investment. During the implementation of the Project, the Recipient will take into consideration the recommendations of Executive Order No. 12803, "Infrastructure Privatization," 31 U.S.C. § 501 note, and Executive Order No. 12893, "Principles for Federal Infrastructure Investments," 31 U.S.C. § 501 note.

Section 14. Preference for United States Products and Services.

a. Not Applicable.
b. Not Applicable.
c. Fly America. The Federal Government will not participate in the costs of international air transportation of any persons involved in or property acquired for the Project unless that air transportation is provided by U.S.-flag air carriers to the extent service by U.S.-flag air carriers is available, in accordance with the International Air Transportation Fair Competitive Practices Act of 1974, as amended, 49 U.S.C. § 40118, and with U.S. GSA regulations, "Use of United States Flag Air Carriers," 41 C.F.R. §§ 301-10.131 through 301-10.143.

Section 15. Procurement.

a. Federal Standards. The Recipient will comply with 49 CFR § 18.36.

b. Not Applicable.
c. FTA Technical Review. The Recipient will permit FTA to review and approve the Recipient's technical specifications and requirements, to the extent FTA believes necessary to ensure proper Project administration.

d. Exclusionary or Discriminatory Specifications. The Recipient will refrain from using any

Federal assistance awarded by FTA to support procurements using exclusionary or discriminatory specifications. 49 CFR §18.36(c).

e. Not Applicable.

f. Clean Air and Clean Water. The Recipient will include in third party contracts and subgrants exceeding $100,000 adequate provisions to ensure that Project participants report the use of facilities placed or likely to be placed on U.S. EPA's "List of Violating Facilities," refrain from using violating facilities, report violations to FTA and the Regional EPA Office, and comply with the inspection and other applicable requirements of:

(1) Section 306 of the Clean Air Act, as amended, 42 U.S.C. § 7414, and other applicable provisions of the Clean Air Act, as amended, 42 U.S.C. §§ 7401 *et seq.*; and

(2) Section 508 of the Federal Water Pollution Control Act, as amended, 33 U.S.C. § 1368, and other provisions of the Federal Water Pollution Control Act, as amended, 33 U.S.C. §§ 1251 *et seq.*

g. Preference for Recycled Products. To the extent applicable, the Recipient will comply with U.S. EPA's "Comprehensive Procurement Guidelines for Products Containing Recovered Materials," 40 C.F.R. Part 247, implementing section 6002 of the Resource Conservation and Recovery Act, as amended, 42 U.S.C. § 6962, and otherwise provide a competitive preference for products and services that conserve natural resources and protect the environment and are energy efficient.

h. Geographic Restrictions. The Recipient will refrain from using any State or local geographic preference, except those expressly mandated or encouraged by Federal statute such as in 42 U.S.C. § 5150, 44 CFR § 206.10, which allows preference to local firms "to the extent feasible and practicable."

i. Architectural, Engineering, Design, or Related Services. Recipients may use competitive proposal procedures for qualifications-based procurement of architectural/engineering (A/E) professional services consistent with 49 CFR §18.36(d)(3)(v).

j. Force Account. Where the total amount of force account work to be performed under the grant is greater than $10,000,000, FTA prior review of the Recipient's force account plan and justification is required. The Recipient is directed to the section of Force Account in the LMRO Program Guidance for further guidance.

k. Award to Other than the Lowest Bidder. A Recipient may award a third party contract to a party other than the lowest bidder, when such an award furthers objectives consistent with the purposes of 49 CFR §18.36 and any implementing directives, circulars, manuals, or other guidance FTA may issue. (See 49 CFR §18.36(b)(8) and §18.36(d)(2)(E).)

l. Not Applicable.

m. Bonding. The Recipient will comply with the requirements in 49 CFR §18.36(h) as may be modified by LMRO Program Guidance issued by FTA.

n. Not Applicable.

o. Access to Third Party Contract Records. The Recipient will require its third party contractors and third party subcontractors to provide access by the FTA, FEMA and the Comptroller General of the United States, or their duly authorized representatives, any books, documents, papers, and records of the contractor which are directly pertinent to that specific contact for the purpose of making audit, examination, excerpts, and transactions, as per 49 CFR 18.36§(i)(10).

p. National Intelligent Transportation Systems Architecture and Standards. The Recipient will use its best efforts to ensure that any Intelligent Transportation System solutions used in its Project do not preclude interface with other Intelligent Transportation Systems in the Region. (See FTA Notice, "FTA National ITS Architecture Policy on Transit Projects" 66 Fed. Reg. 1455 *et seq.*, January 8, 2001 and other FTA Program Guidance that may be issued.)

q. Not Applicable.

r. Neutrality in Labor Relations. To the extent permitted by law, the Recipient will comply with Executive Order No. 13202, "Preservation of Open Competition and Government Neutrality Towards Government Contractors' Labor Relations on Federal and Federally Funded Construction Projects," Executive Order No. 13202, February 17, 2001, as amended by Executive Order No. 13208, April 6, 2001, 41 U.S.C. § 251 note, which among other things, prohibits including requirements for affiliation with a labor organization as a condition for award of any contract or subcontract for construction or construction management services.

s. Electronic and Information Technology. Electronic and information technology procured under this Project will meet the applicable accessibility standards of section 508 of the Rehabilitation Act of 1973, as amended, 29 U.S.C. § 794d, and Architectural and Transportation Barriers Compliance Board regulations, "Electronic and Information Technology Accessibility Standards," 36 C.F.R. Part 1194.

t. Use of Local Firms and Individuals. Pursuant to 42 U.S.C. § 5150 and any implementing regulation, in the expenditure of FEMA funds for debris clearance, distribution of supplies, reconstruction, and other major disaster or emergency assistance activities which may be carried out by contract or agreement with private organizations, firms, or individuals, the Recipient will give preference, to the extent feasible and practicable, to those organizations, firms and individuals residing or doing business primarily in the area affected by a major disaster or emergency.

Section 16. Not Applicable.

Section 17. Patent Rights.

a. General. If any invention, improvement, or discovery of the Recipient or any of its third party contractors is conceived or first actually reduced to practice in the course of or under the Project, and that invention, improvement, or discovery is patentable under the laws of the United States of America or any foreign country, the Recipient will notify FTA immediately and

provide a detailed report.

b. Federal Rights. The rights and responsibilities of the Recipient, and those of each third party contractor at any tier and each subrecipient at any tier, pertaining to that invention, improvement, or discovery will be determined in accordance with applicable Federal laws, regulations, including any waiver thereof.

Section 18. Rights in Data and Copyrights.

a. Definition. The term "subject data" used in this section means recorded information, whether or not copyrighted, that is delivered or specified to be delivered under the Project. Examples include, but are not limited to: computer software, standards, specifications, engineering drawings and associated lists, process sheets, manuals, technical reports, catalog item identifications, and related information. "Subject data" does not include financial reports, cost analyses, or similar information used for Project administration.

b. General Requirement. Except for its own internal use, the Recipient may not publish or reproduce "subject data" whether in whole or in part, in any manner or form, nor may the Recipient authorize others to do so, without the prior written consent of the Federal Government, unless the Federal Government has previously released or approved the release of such data to the public.
c. – h. Requirements condensed into a. & b. above.

Section 19. Use of Real Property, Equipment, and Supplies.

a. Use of Project Property. The Recipient will use Project real property, equipment, and supplies for appropriate Project purposes (which may include joint development purposes that generate program income, both during and after the award period used to support transit activities) for the duration of the useful life of that property, as required by FTA. Should the Recipient unreasonably delay or fail to use Project property during the useful life of that property, the Recipient may be required to return the entire amount of the Federal assistance expended on that property. The Recipient further will notify FTA immediately when any Project property is withdrawn from Project use or when Project property is used in a manner substantially different from the representations the Recipient has made in its Application or the Project Description for the Grant Agreement for the Project.

b. General Federal Requirements. A Recipient that is a State or a local government will comply with property management standards of 49 C.F.R. §§ 18.31 through 18.34, including any amendments thereto, and other applicable guidelines or regulations the Federal Government may issue. In addition, the Recipient will comply with FTA's established reimbursement requirements for premature dispositions of certain Project equipment (*i.e.*, when Project equipment is withdrawn from appropriate use before the expiration of the equipment's useful life established by FTA), as explained in Subsection 19.g of this Lower Manhattan Recovery Master Agreement.

c. Maintenance. The Recipient will maintain Project real property and keep equipment in good operating order, in compliance with any guidelines, directives, or regulations FTA may issue.

d. Records. The Recipient will keep satisfactory records regarding the use of Project real property, equipment, and supplies, and submit to the FTA upon request such information as may be required to assure compliance with Section 19 of this Agreement.

e. Encumbrance of Project Property. The Recipient will maintain satisfactory continuing control of Project real property or equipment. Thus, absent written authorization by FTA permitting otherwise:

(1) Written Transactions. The Recipient will refrain from executing any transfer of title, lease, lien, pledge, mortgage, encumbrance, third party contract, grant anticipation note, alienation, or any other obligation that in any way would affect the Federal interest in any Project real property or equipment.

(2) Oral Transactions. The Recipient will refrain from obligating itself in any manner to any third party with respect to Project real property or equipment.

(3) Other Actions. The Recipient will refrain from taking any action that would either adversely affect the Federal interest or impair the Recipient's continuing control of the use of Project real property or equipment.

f. Transfer of Project Property.

(1) Federal Government Direction. The Federal Government may direct the disposition of, and even require the Recipient to transfer title to, any real property, equipment, or supplies financed with Federal assistance made available for the Grant Agreement.

(2) Leasing Project Property to Another Party. If the Recipient leases any Project asset to another party, the Recipient will retain ownership of the leased asset, and assure that the lessee will use the Project asset appropriately, either through a "Lease and Supervisory Agreement" between the Recipient and lessee, or another similar document. Upon request by FTA, the Recipient will provide a copy of any relevant documents.

g. Disposition of Project Property. With prior FTA approval, the Recipient may sell, transfer, or lease Project property and use the proceeds to reduce the gross project cost of other eligible capital transit projects. FTA may establish the useful life for Project property: The Recipient will use Project property continuously and appropriately throughout that useful life.

(1) Project Property Whose Useful Life Has Expired. When the useful life of Project Property has expired, the Recipient will comply with FTA's disposition requirements.

(2) Project Property Prematurely Withdrawn from Use. For property withdrawn from appropriate use before its useful life has expired, the Recipient agrees as follows:

(a) Notification Requirement. The Recipient will notify FTA immediately when any Project real property, equipment, or supplies are prematurely withdrawn from appropriate use, whether by planned withdrawal, misuse, or casualty loss.

(b) Calculating the Fair Market Value of Prematurely Withdrawn Project Property. The Federal Government retains a Federal interest in the fair market value of Project property prematurely withdrawn from mass transportation use. The amount of the Federal interest in the property shall be determined on the basis of the ratio of the Federal assistance awarded by the Federal Government for the property to the actual cost of the Property. The fair market value of property prematurely withdrawn from use will be calculated as follows:

1. Equipment and Supplies. Unless otherwise determined in writing by FTA, fair market value shall be calculated by straight-line depreciation of the equipment or supplies, based on the useful life of the equipment or supplies established or approved by FTA. In addition, the fair market value of equipment and supplies shall be the value immediately before the occurrence prompting the withdrawal of that property from use. In the case of equipment or supplies lost or damaged by fire, casualty, or natural disaster, the fair market value shall be calculated on the basis of the condition of that property immediately before the fire, casualty, or natural disaster, irrespective of the extent of insurance coverage. As authorized by 49 C.F.R. § 18.32(b), a State may use its own disposition procedures, provided that those procedures comply with the State's laws.

2. Real Property. The fair market value of real property shall be determined either by competent appraisal based on an appropriate date approved by the Federal Government, as provided by 49 C.F.R. Part 24, or by straight line depreciation, whichever is greater.

3. Exceptional Circumstances. The Federal Government may require the use of another method of determining the fair market value of property. In unusual circumstances, the Recipient may request that another reasonable valuation method be used including, but not limited to, accelerated depreciation, comparable sales, or established market values. In determining whether to approve such a request, the Federal Government may consider any action taken, omission made, or unfortunate occurrence suffered by the Recipient with respect to the preservation or conservation of Project property withdrawn from appropriate use.

(c) Obligations to the Federal Government. Unless otherwise approved in writing by the Federal Government, the Recipient will remit to the Federal Government the Federal interest in the fair market value of Project real property, equipment, or supplies prematurely withdrawn from appropriate use. In the case of fire, casualty, or natural disaster, the Recipient may fulfill its responsibilities with respect to the Federal interest remaining in the damaged equipment or supplies by either:

1. Investing an amount equal to the remaining Federal interest in like-kind equipment or supplies that are eligible for assistance within the scope of the Project that provided financial assistance for the damaged equipment or supplies; or

2. Returning to the Federal Government an amount equal to the remaining Federal interest in the damaged property.

h. Insurance Proceeds. If the Recipient receives insurance proceeds as a result of damage or destruction to the Project property, the Recipient will:

(1) Apply those insurance proceeds to the cost of replacing the damaged or destroyed Project property taken out of service, or

(2) Return to the Federal Government an amount equal to the remaining Federal interest in the damaged or destroyed property.

i. Transportation - Hazardous Materials. The requirements of Research and Special Programs Administration, "Shippers - General Requirements for Shipments and Packagings," 49 C.F.R. Part 173, apply to the transportation of hazardous materials.

j. Misused or Damaged Project Property. If any damage to Project real property, equipment, or supplies results from abuse or misuse of that property occurring with the Recipient's knowledge and consent, the Recipient will restore that real property or equipment to its original condition or refund the value of the Federal interest in the damaged property, as the Federal Government may require.

k. Obligations After Project Closeout Project closeout will not alter the Recipient's property management obligations of Section 19 of this Agreement and applicable Federal regulations and other FTA requirements or directives.

Section 20. Insurance.

a. Minimum Requirements. At a minimum, the Recipient will comply with the insurance requirements normally imposed by the laws, regulations, and ordinances imposed by its State and local governments. This includes, but is not limited to, the Recipient's obtaining all necessary environmental liability insurance.

b. Flood Hazards. To the extent applicable, the Recipient will comply with the flood insurance purchase requirements of section 102(a) of the Flood Disaster Protection Act of 1973, 42 U.S.C. § 4012a(a), with respect to any Project activity involving construction or acquisition having an insurable cost of $10,000 or more.

c. FEMA Requirements. For assistance received pursuant to the Stafford Act, including Section 406, 42 U.S.C. § 5172, the Recipient agrees to comply with 42 U.S.C. § 5154 and 44 CFR Part 206, Subpart I, to obtain and maintain insurance reasonable and necessary to protect against future loss from the type of hazard that caused the major disaster.

Section 21. Relocation.

When relocation of individuals or businesses is required, the Recipient will comply with the following requirements:

a. Relocation Protections. The Recipient will comply with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, 42 U.S.C. §§ 4601 *et seq.*; and U.S. DOT regulations, "Uniform Relocation and Real Property Acquisition for Federal and Federally Assisted Programs," 49 C.F.R. Part 24, which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal and federally assisted programs. These requirements apply to all interests in real property acquired for Project purposes regardless of Federal participation in purchases.

b. Nondiscrimination in Housing. The Recipient will comply with Title VIII of the Civil Rights Act of 1968, as amended, 42 U.S.C. §§ 3601 *et seq.* and Executive Order No. 12892, "Leadership and Coordination of Fair Housing in Federal Programs: Affirmatively Furthering Fair Housing," 42 U.S.C. § 3608 note, when carrying out its responsibilities to provide housing used to meet Federal relocation requirements.

c. Prohibition Against Use of Lead-Based Paint. In undertaking construction or rehabilitation of residence structures on behalf of individuals affected by land acquisition in connection with the Project, the Recipient will refrain from using lead-based paint in accordance with Section 401(b) of the Lead-Based Paint Poisoning Prevention Act, 42 U.S.C. § 4831(b).

Section 22. Real Property.

a. Land Acquisition. The Recipient will comply with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, 42 U.S.C. §§ 4601 *et seq.*; and U.S. DOT regulations, "Uniform Relocation and Real Property Acquisition for Federal and Federally Assisted Programs," 49 C.F.R. Part 24. These requirements apply to all interests in real property acquired for Project purposes regardless of Federal participation in purchases.

b. Covenant Assuring Nondiscrimination. The Recipient will include a covenant in the title of the real property acquired for the Project to assure nondiscrimination during the useful life of the Project.

c. Recording Title to Real Property. To the extent required by FTA, the Recipient will record the Federal interest in the title of real property.

d. FTA Approval of Changes in Real Property Ownership. The Recipient will not dispose of, modify the use of, or change the terms of the real property title, or other interest in the site and facilities without permission and instructions from FTA.

Section 23. Construction.

a. Drafting, Review, and Approval of Construction Plans and Specifications. The Recipient will comply with FTA requests pertaining to the drafting, review, and approval of construction plans and specifications.

b. Supervision of Construction. The Recipient will provide and maintain competent and adequate engineering supervision at the construction site to ensure that the complete work conforms to the approved plans and specifications.

c. Construction Reports. The Recipient will provide progress reports and such other information as may be required by FTA or the State.

d. Project Management. The FTA will manage the Project consistent with the FTA Project Management and Oversight Regulation applicable to major capital investments. (See 49 CFR Part 633.)

e. Seismic Safety. The Recipient will comply with the Earthquake Hazards Reduction Act of 1977, as amended, 42 U.S. C. §§ 7701 *et seq.*, Executive Order No. 12699, "Seismic Safety of Federal and Federally-Assisted or Regulated New Building Construction," 42 U.S.C. § 7704 note, and implementing U.S. DOT regulations, "Seismic Safety,"49 C.F.R. Part 41, (specifically, 49 C.F.R. § 41.117).

f. Minimum Standards for Public and Private Structures. Pursuant to the Stafford Act at 42 U.S.C. § 5176, and any implementing regulation, the Recipient will ensure that any repair or construction to be financed pursuant to this agreement will be in accordance with applicable standards of safety, decency, and sanitation and in conformity with applicable codes, specifications, and standards.

Section 24. Employee Protections.

a. Construction Activities. The Recipient will comply, and assures the compliance of each third party contractor at any tier and each subrecipient at any tier, with the following employee protection requirements for construction employees:

(1) Davis-Bacon Act, as amended, 40 U.S.C. §§ 276a - 276a(7), requiring compliance with the Davis-Bacon Act, and U.S. DOL regulations, "Labor Standards Provisions Applicable to Contracts Governing Federally Financed and Assisted Construction (also Labor Standards Provisions Applicable to Nonconstruction Contracts Subject to the Contract Work Hours and Safety Standards Act)," 29 C.F.R. Part 5.

(2) Contract Work Hours and Safety Standards Act, as amended, particularly with the requirements of section 102 of the Act, 40 U.S.C. §§ 327 - 332; and U.S. DOL regulations, "Labor Standards Provisions Applicable to Contracts Governing Federally Financed and Assisted Construction (also Labor Standards Provisions Applicable to Nonconstruction Contracts

Subject to the Contract Work Hours and Safety Standards Act)," 29 C.F.R. Part 5; and with section 107 of the Act, 40 U.S.C. § 333, and U.S. DOL regulations, "Safety and Health Regulations for Construction," 29 C.F.R. Part 1926; and

(3) Copeland "Anti-Kickback" Act, as amended, 18 U.S.C. § 874 and 40 U.S.C. § 276c, and U.S. DOL regulations, "Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in part by Loans or Grants from the United States," 29 C.F.R. Part 3.

b. Activities Not Involving Construction. The Recipient will comply, and assure the compliance of each third party contractor and each subrecipient at any tier, with any applicable employee protection requirements for nonconstruction employees of section 102 of the Contract Work Hours and Safety Standards Act, as amended, 40 U.S.C. §§ 327 - 332, and U.S. DOL regulations, "Labor Standards Provisions Applicable to Contracts Governing Federally Financed and Assisted Construction (also Labor Standards Provisions Applicable to Nonconstruction Contracts Subject to the Contract Work Hours and Safety Standards Act)," 29 C.F.R. Part 5.

c. Activities Involving Commerce. The Recipient will comply with the provisions of the Fair Labor Standards Act, 29 U.S.C. §§ 201 *et seq.*, applies to employees performing Project work involving commerce.
d. Not Applicable.

Section 25. Environmental Requirements.

The Recipient recognizes that many Federal and State laws imposing environmental and resource conservation requirements may apply to the Project. The Recipient also recognizes that U.S. EPA, FHWA and other Federal agencies have issued, and in the future are expected to issue, regulations, guidelines, standards, orders, directives, or other requirements that may affect the Project. Thus, the Recipient will comply, and assures the compliance of each subrecipient and each third party contractor, with any such Federal requirements as the Federal Government may now or in the future promulgate. Listed below are requirements of particular concern to FTA and the Recipient.

a. Environmental Protection. Federal assistance is contingent upon the Recipient's facilitating FTA's compliance with all applicable requirements and implementing regulations of the National Environmental Policy Act of 1969, as amended, (NEPA) 42 U.S.C. §§ 4321 *et seq.* (as interpreted by 42 U.S.C. 5159); Executive Order No. 11514, as amended, "Protection and Enhancement of Environmental Quality," 42 U.S.C. § 4321 note; and Council on Environmental Quality regulations pertaining to compliance with the National Environmental Policy Act of 1969, as amended, 40 C.F.R. Part 1500 *et seq.* For purposes of NEPA, FTA is designated as Lead Agency.

b. Air Quality. The Recipient will comply with all applicable regulations, standards, or orders implementing the Clean Air Act, as amended, 42 U.S.C. §§ 7401 *et seq.* In addition:

(1) The Recipient will comply with the applicable requirements of the U.S. EPA

regulations, "Conformity to State or Federal Implementation Plans of Transportation Plans, Programs, and Projects Developed, Funded or Approved Under Title 23 U.S.C. or the Federal Transit Act," 40 C.F.R. Part 51, Subpart T; and "Determining Conformity of Federal Actions to State or Federal Implementation Plans," 40 C.F.R. Part 93. To support the requisite air quality conformity finding for the Project, the Recipient will implement each air quality mitigation or control measure incorporated in the Project. The Recipient further agrees that any Project identified in an applicable State Implementation Plan (SIP) as a Transportation Control Measure will be wholly consistent with the design concept and scope of the Project described in the SIP.

(2) U.S. EPA also imposes requirements implementing the Clean Air Act, as amended, that may apply to transit operators, particularly operators of large transit bus fleets. Accordingly, the Recipient will comply with the following U.S. EPA regulations to the extent they are applicable to the Project: "Control of Air Pollution from Motor Vehicles and Motor Vehicle Engines," 40 C.F.R. Part 85; "Control of Air Pollution from New and In-Use Motor Vehicles and New and In-Use Motor Vehicle Engines: Certification and Test Procedures," 40 C.F.R. Part 86; and "Fuel Economy of Motor Vehicles," 40 C.F.R. Part 600.

(3) The Recipient will comply with the notification of violating facilities requirements of Executive Order No. 11738, "Administration of the Clean Air Act and the Federal Water Pollution Control Act with Respect to Federal Contracts, Grants, or Loans," 42 U.S.C. § 7606 note.

c. Clean Water. The Recipient will comply with all applicable standards, orders, or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. §§ 1251 *et seq.* In addition:

(1) The Recipient will protect underground sources of drinking water consistent with the provisions of the Safe Drinking Water Act of 1974, as amended, 42 U.S.C. §§ 300f *et seq.*

(2) The Recipient will comply with the notification of violating facilities requirements of Executive Order No. 11738, "Administration of the Clean Air Act and the Federal Water Pollution Control Act with Respect to Federal Contracts, Grants, or Loans," 42 U.S.C. § 7606 note.

d. Use of Public Lands. The Recipient will refrain from using publicly owned land from a park, recreation area, or wildlife or waterfowl refuge of national, State, or local significance as determined by the Federal, State, or local officials having jurisdiction thereof, or any land from a historic site of national, State, or local significance for the Project unless FTA makes the specific findings required by 49 U.S.C. § 303.

e. Wild and Scenic Rivers. The Recipient will comply with the Wild and Scenic Rivers Act of 1968, as amended, 16 U.S.C. §§ 1271 *et seq.* relating to protecting components of the national wild and scenic rivers system.

f. Coastal Zone Management. The Recipient will assure Project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972, as

amended, 16 U.S.C. §§ 1451 *et seq.*

g. Wetlands. The Recipient will facilitate compliance with the protections for wetlands in accordance with Executive Order No. 11990, as amended, "Protection of Wetlands," 42 U.S.C. § 4321 note.

h. Floodplains. The Recipient will facilitate compliance with the flood hazards protections in floodplains in accordance with Executive Order No. 11988, as amended, "Floodplain Management" 42 U.S.C. § 4321 note.

i. Endangered Species. The Recipient will comply with protections for endangered species of the Endangered Species Act of 1973, as amended, 16 U.S.C. §§ 1531 *et seq.*

j. Historic Preservation. The Recipient will facilitate compliance with the Federal historic and archaeological preservation requirements of section 106 of the National Historic Preservation Act, as amended, 16 U.S.C. § 470f; of Executive Order No. 11593, "Protection and Enhancement of the Cultural Environment," 16 U.S.C. § 470 note; and of the Archaeological and Historic Preservation Act of 1974, as amended, 16 U.S.C. §§ 469a *et seq.* as follows:

(1) In accordance with U. S. Advisory Council on Historic Preservation regulations, "Protection of Historic and Cultural Properties," 36 C.F.R. Part 800, the Recipient will consult with the State Historic Preservation Officer concerning investigations to identify properties and resources included in or eligible for inclusion in the National Register of Historic Places that may be affected by the Project, and will notify FTA of any affected properties.

(2) The Recipient will comply with all Federal requirements to avoid or mitigate adverse effects on those historic properties.

l. Mitigation of Adverse Environmental Effects. Should the Proposed project cause or result in adverse environmental effects, the Recipient agrees to take all reasonable measures to minimize those adverse effects, as required by 23 C.F.R. Part 771 and 49 C.F.R. Part 622. The Recipient will comply with all environmental mitigation measures that may be identified as commitments in applicable environmental documents (*i.e.*, environmental assessments, environmental impact statements, memoranda of agreement, and documents required by 49 U.S.C. § 303) and will comply with any conditions the Federal Government might impose in a finding of no significant impact or a record of decision. Those mitigation measures are incorporated by reference and made part of this Grant Agreement. Deferred mitigation measures will be incorporated by reference and made part of the Grant Agreement as soon as agreement with the Federal Government is reached. Those mitigation measures agreed upon may not be modified or withdrawn without the express written approval of the Federal Government.

Section 26. Energy Conservation.

The Recipient will comply with the mandatory energy efficiency standards and policies within the applicable State energy conservation plans issued in compliance with the Energy Policy and

Conservation Act, 42 U.S.C. §§ 6321 *et seq.*

Sections 27. - 29 Not Applicable.

Section 30. Metric System.

The Recipient will use the metric system of measurement in its Project activities, pursuant to the Metric Conversion Act, as amended by the Omnibus Trade and Competitiveness Act, 15 U.S.C. §§ 205a *et seq.*; Executive Order No. 12770, "Metric Usage in Federal Government Programs," 15 U.S.C. § 205a note; and other U.S. DOT or FTA regulations, guidelines, and policies. To the extent practicable and feasible, the Recipient will accept products and services with dimensions expressed in the metric system of measurement.

Section 31. Substance Abuse.

a. Drug-Free Workplace. The Recipient will comply with U.S. DOT regulations, "Drug-Free Workplace Requirements (Grants)," 49 C.F.R. Part 29, Subpart F, as modified by 41 U.S.C. §§ 702 *et seq.*

b. Not Applicable.

Section 32. Not Applicable.

Section 33. Seat Belt Use.

Pursuant to Executive Order No. 13043, "Increasing Seat Belt Use in the United States," April 16, 1997, 23 U. S. C. § 402 note, the Recipient is encouraged to adopt on-the-job seat belt use policies and programs for its employees when operating company-owned, rented, or personally-operated vehicles and include this provision in third party contracts, third party subcontracts, and subagreements entered into under this Project.

Section 34. Protection of Sensitive Security Information.

To the extent applicable, the Recipient will comply with section 101(e) of the Aviation and Transportation Security Act, 49 U.S.C. § 40119(b), and U.S. Transportation Security Administration regulations, "Protection of Sensitive Security Information," 49 C.F.R. Part 1520, and any implementing regulations, requirements or guidelines, that the Federal Government may issue.

Sections 35. 43 Not Applicable.

Section 44. Disputes, Breaches, Defaults, or Other Litigation.

FTA has a vested interest in the settlement of any dispute, breach, default, or litigation involving the Project. Accordingly:

a. Notification to FTA. The Recipient will notify FTA of any current or prospective major dispute, breach, default, or litigation that may affect the Federal Government's interests in the Project or the Federal Government's administration or enforcement of Federal laws or regulations. If the Recipient seeks to name the Federal Government as a party to litigation for any reason, in any forum, the Recipient will inform FTA before doing so.

b. Federal Interest in Recovery. The Federal Government retains the right to a proportionate share, based on the percentage of the Federal share awarded for the Project, of proceeds derived from any third party recovery, except that the Recipient may return any liquidated damages recovered to its Project Account in lieu of returning the Federal share to the Federal Government.

c. Enforcement. The Recipient will pursue all legal rights provided within any third party contract.

d. FTA Concurrence. FTA reserves the right to concur in any compromise or settlement of any claim involving the Project and the Recipient.

e. Alternative Dispute Resolution. FTA encourages the Recipient to use alternative dispute resolution procedures, as may be appropriate.

f. Indemnification. Pursuant to 42 U.S.C. § 5173, the Recipient will, in the case of debris or wreckage removal from private property, indemnify the Federal Government against any claim arising from such removal.

Section 45. Amendments to the Project.

A change in Project conditions causing an inconsistency with the terms of the Grant Agreement will require an amendment to the Grant Agreement signed by the original signatories. A change in the fundamental information submitted in its Application will also require an Amendment to its Application or the Grant Agreement.

Section 46. FTA's Electronic Award and Management System.

Except as otherwise permitted by FTA, the Recipient will use FTA's electronic award and management system to submit information and reports to FTA. FTA, however, reserves the right to determine the extent to which the Recipient may use FTA's electronic award and management system to execute legal documents pertaining to FTA Projects.

Section 47. Information Obtained Through Internet Links.

This Agreement may include electronic links to Federal statutes, regulations, directives, guidance, and other documents. FTA does not guarantee the accuracy of information accessed through such links. Accordingly, information obtained through any electronic link within this Master Agreement does not represent an official version of a Federal statute, regulation, requirement, guidance, or document, and might be inaccurate. Thus, information obtained through such links is neither incorporated by reference nor made part of this Agreement. The Federal Register and the Code of Federal Regulations are the official sources for regulatory information pertaining to the Federal Government.

Section 48. Severability.

If any provision of this Agreement is held invalid, the remainder of the Agreement shall not be affected, if that remainder would continue to conform to the requirements of applicable law.

ATTACHMENT E

GUIDANCE

U.S. Department of Transportation
Federal Transit Administration

August 21, 2003

Subject: LMRO THIRD PARTY CONTRACTING REQUIREMENTS

1. **PURPOSE.** This document sets forth the requirements a grantee must adhere to in the solicitation, award and administration of its third party contracts funded by the FTA/FEMA grants for the Lower Manhattan Recovery projects. These requirements are based on the common grant rules, Federal statutes, Executive Orders and their implementing regulations, and FTA policy. This document is based on FTA Circular 4220.1E. Inapplicable provisions of that circular are marked "Not Applicable" in this document and are left in place for the benefit of grantees who also receive funds authorized under the Federal Transit Laws who are familiar with the section numbers.

2. **NOT APPLICABLE**

3. **REFERENCES.**

   a. Federal Transit Laws, 49 U.S.C. Chapter 53 – definitions only.

   b. 2001 Emergency Supplemental Appropriations Act for Recovery from and Response to Terrorist Attacks on the United States, Public Law 107-38;the National Defense Authorization Act for Fiscal Year 2002, Public Law 107-107; the Fiscal Year 2002 Department of Defense Appropriations Act, Public Law 107-117; the Fiscal Year 2002 Department of Transportation and Related Agencies Appropriations Act, Public Law 107-206; the Consolidated Appropriations Resolution, 2003, Public Law 208-7; the Robert T. Stafford Disaster Relief and Emergency Assistance Act, Public Law 93-288, 42 U.S.C. § 5121-5206.

   c. Sections 4001 and 1555 of the Federal Acquisition Streamlining Act of 1994, 41 U.S.C. § 403(11) and 40 U.S.C. § 481(b), respectively,

   d. 49 C.F.R. part 18, Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments.

   e. 49 C.F.R. part 19, Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations.

   f. Executive Order 12612, "Federalism," dated 10-26-87.

   g. Not Applicable.

   h. LMRO Master Agreement.

   i. Appendix D, Best Practices Procurement Manual.

4. **APPLICABILITY.** This guidance applies to all FTA grantees and subgrantees that contract with outside sources under the joint FTA/FEMA assistance programs for the Lower Manhattan Recovery projects. These requirements do not apply to procurements undertaken in support of capital projects completely accomplished without FTA or FEMA funds.

5. **POLICY.** FTA's role in grantee procurements is reflective of Executive Order 12612, Federalism which directs Federal agencies to refrain from substituting their judgment for that of their recipients unless the matter is primarily a Federal concern and to defer, to the maximum extent feasible, to the States to establish standards rather than setting national standards.

   a. Grantee Self-Certification. Since most FTA grantees have experience with the third party contracting requirements of the "common grant rules" (49 C.F.R. parts 18 and 19), the LMRO will rely primarily on grantees' "self-certifications" that their procurement system meets FTA/FEMA requirements to support the required finding that a grantee has the technical capacity to comply with Federal procurement requirements. All grantees must "self certify" as part of the Annual Certification/Assurance Process.

   The LMRO will monitor compliance with this guidance as part of its routine oversight responsibilities and if it becomes aware of circumstances that might invalidate a grantee's self-certification, the LMRO will investigate and recommend appropriate measures to correct whatever deficiency may exist.

   b. Review of Third Party Contracts. The LMRO relies on the validity of each grantee's self-certification and on periodic, post-grant reviews rather than on a pre-award review of third party contracts to ensure that grantees comply with Federal requirements and standards. Grantees are still free to request FTA's pre-award review of their procurements as part of the LMRO's technical assistance program. Conversely, if the LMRO requests to review the record of a particular procurement, grantees must make their procurement documents available for the LMRO's pre-award (or post-award) review.

   c. Procurement System Reviews. The LMRO will fully review and evaluate the performance of grantees in carrying out grant programs with specific reference to their compliance with statutory and administrative requirements. Accordingly, the LMRO will perform a baseline procurement system review as part of its on-going oversight responsibility and may recommend "best practices" in order to assist the grantee in improving its procurement practices. In such cases, the LMRO will identify such recommendations as "advisory."

   d. Procurement Technical Assistance. The LMRO will provide procurement training and technical assistance as requested to enable the grantees to better understand and meet LMRO requirements.

   e. Contract Clauses and Provisions. The LMRO Master Agreement, issued annually and incorporated into each grant, lists many but not all the FTA/FEMA and other

crosscutting Federal requirements applicable to LMRO grantees. Many of these requirements are related to grantee procurements. Further explanations and interpretations of this guidance is can be found in the footnotes of FTA Circular 4220.1E. Suggested wording for contract clauses and provisions are available in FTA's "Best Practices Procurement Manual" available on the FTA website at: fta.dot.gov.

f. Not Applicable.

6. **DEFINITIONS.** All definitions in 49 U.S.C. §5302 are applicable to this guidance. The following additional definitions are provided:

a. "Best Value" is a selection process in which proposals contain both price and qualitative components, and award is based upon a combination of price and qualitative considerations. Qualitative considerations may include technical design, technical approach, quality of proposed personnel, and/or management plan. The award selection is based upon consideration of a combination of technical and price factors to determine {or derive} the offer deemed most advantageous and of the greatest value to the procuring agency.

b. "Design-Bid-Build" refers to the project delivery approach where the grantee commissions an architect or engineer to prepare drawings and specifications under a design services contract, and separately contracts for at-risk construction, by engaging the services of a contractor through sealed bidding or competitive negotiations.

c. "Design-Build" refers to a system of contracting under which one entity performs both architectural/engineering and construction under one contract.

d. "FEMA" is the Federal entity with primary authority to provide federal assistance following a Presidentially-declared major disaster or emergency. It is part of the Emergency Preparedness and Response Directorate of the Department of Homeland Security.

e. "FTA" refers to the Federal Transit Administration

f. "Grantee" means the public or private entity to which a grant or cooperative agreement is awarded by the joint FTA/FEMA effort. The grantee is the entire legal entity even if only a particular component of the entity is designated in the assistance award document.

For the purposes of this circular, "grantee" also includes any subgrantee of the grantee. Furthermore, a grantee is responsible for assuring that its subgrantees comply with the requirements and standards of this guidance, and that subgrantees are aware of requirements imposed upon them by Federal statutes and regulations.

g. Lower Manhattan Recovery Office (LMRO) refers to the FTA office with responsibility for carrying out the Lower Manhattan Recovery projects.

h. "Piggybacking" is an assignment of existing contract rights to purchase supplies, equipment, or services.

i. "State" means any of the several states of the United States, the District of Columbia, the Commonwealth of Puerto Rico, any territory or possession of the United States, or any agency or instrumentality of a State exclusive of local governments. "State" does not include any public and Indian housing agency under the United States Housing Act of 1937.

j. "Tag-on" is defined as the addition of work (supplies, equipment or services) that is beyond the scope of the original contract that amounts to a cardinal change as generally interpreted in Federal practice by the various Boards of Contract Appeals. "In scope" changes are not tag-ons.

k. "Third party contract" refers to any purchase order or contract awarded by a grantee to a vendor or contractor using Federal financial assistance awarded by FTA.

7. GENERAL PROCUREMENT STANDARDS APPLICABLE TO THIRD-PARTY PROCUREMENTS.

a. Conformance with State and Local Law. Grantees and subgrantees shall use their own procurement procedures that reflect applicable State and local laws and regulations, provided that the procurements conform to applicable Federal law, including the requirements and standards identified in this circular. If there is no State law on a particular aspect of procurement, then Federal contract law principles will apply.

b. Contract Administration System. Grantees shall maintain a contract administration system that ensures that contractors perform in accordance with the terms, conditions, and specifications of their contracts or purchase orders.

c. Written Standards of Conduct. Grantees shall maintain a written code of standards of conduct governing the performance of their employees engaged in the award and administration of contracts. No employee, officer, agent, immediate family member, or Board member of the grantee shall participate in the selection, award, or administration of a contract supported by FTA/FEMA funds if a conflict of interest, real or apparent, would be involved.

Such a conflict would arise when any of the following has a financial or other interest in the firm selected for award:

(1) The employee, officer, agent, or Board member,

(2) Any member of his/her immediate family,

(3) His or her partner, or

(4) An organization that employs, or is about to employ, any of the above.

The grantee's officers, employees, agents, or Board members will neither solicit nor accept gifts, gratuities, favors, or anything of monetary value from contractors, potential contractors, or parties to subagreements. Grantees may set minimum rules when the financial interest is not substantial or the gift is an unsolicited item of nominal intrinsic value. To the extent permitted by state or local law or regulations, such standards of conduct will provide for penalties, sanctions, or other disciplinary action for violation of such standards by the grantee's officers, employees, or agents, or by contractors or their agents.

d. Ensuring Most Efficient and Economic Purchase. Grantee procedures shall provide for a review of proposed procurements to avoid purchase of unnecessary or duplicative items. Consideration should be given to consolidating or breaking out procurements to obtain a more economical purchase.

Where appropriate, an analysis will be made of lease versus purchase alternatives and any other appropriate analysis to determine the most economical approach.

e. Intergovernmental Procurement Agreements.

(1) Grantees are encouraged to utilize available state and local intergovernmental agreements for procurement or use of common goods and services. When obtaining goods or services in this manner, grantees must ensure all federal requirements, required clauses, and certifications are properly followed and included, whether in the master intergovernmental contract or in the grantee's purchase document.

(2) Grantees are also encouraged to jointly procure goods and services with other grantees. When obtaining goods or services in this manner, grantees must ensure all federal requirements, required clauses, and certifications are properly followed and included in the resulting joint solicitation and contract documents.

(3) Grantees may assign contractual rights to purchase goods and services to other grantees if the original contract contains appropriate assignability provisions. Grantees who obtain these contractual rights (commonly known as 'piggybacking') may exercise them after first determining the contract price remains fair and reasonable.

f. Use of Excess Or Surplus Federal Property. Grantees are encouraged to use Federal excess and surplus property in lieu of purchasing new equipment and property, whenever such use is feasible and reduces project costs.

g. Use of Value Engineering in Construction Contracts. Grantees are encouraged to use value engineering clauses in contracts for construction projects.

h. Awards to Responsible Contractors. Grantees shall make awards only to responsible contractors possessing the ability to perform successfully under the terms and conditions of a proposed procurement. Consideration shall be given to such matters as contractor integrity, compliance with public policy, record of past performance, and financial and technical resources.

i. Written Record of Procurement History. Grantees shall maintain records detailing the history of each procurement. At a minimum, these records shall include:

(1) the rationale for the method of procurement,

(2) selection of contract type,

(3) reasons for contractor selection or rejection, and

(4) the basis for the contract price.

j. Use of Time and Materials Type Contracts. Grantees will use time and material type contracts only:

(1) After a determination that no other type of contract is suitable; and

(2) If the contract specifies a ceiling price that the contractor shall not exceed except at its own risk.

k. Responsibility for Settlement of Contract Issues/Disputes. Grantees alone will be responsible in accordance with good administrative practice and sound business judgment for the settlement of all contractual and administrative issues arising out of procurements. These issues include, but are not limited to, source evaluation, protests, disputes, and claims. These standards do not relieve the grantee of any contractual responsibility under its contracts.

The LMRO will not substitute its judgment for that of the grantee or subgrantee, unless the matter is primarily a Federal concern. Violations of the law will be referred to the local, State, or Federal authority having proper jurisdiction.

l. Written Protest Procedures. Grantees shall have written protest procedures to handle and resolve disputes relating to their procurements and shall in all instances disclose information regarding protests to the LMRO. All protest decisions must be in writing. A protester must exhaust all administrative remedies with the grantee before pursuing a protest with the FTA.

Reviews of protests by FTA will be limited to:

(1) a grantee's failure to have or follow its protest procedures, or its failure to review a complaint or protest; or

(2) violations of Federal law or regulation.

An appeal to FTA must be received by the LMRO within five (5) working days of the date the protester learned or should have learned of an adverse decision by the grantee or other basis of appeal to the LMRO.

m. Contract Term Limitation. Grantees are expected to be judicious in establishing and extending contract terms no longer than minimally necessary to accomplish the purpose of the contract. Additional factors to be considered include competition, pricing, fairness and public perception. Once a contract has been awarded, an

extension of the contract term length that amounts to an out of scope change will require a sole source justification

n. Revenue Contracts. Revenue contracts are those third party contracts whose primary purpose is to either generate revenues in connection with a transit related activity, or to create business opportunities utilizing an FTA-funded asset. FTA requires these contracts to be awarded utilizing competitive selection procedures and principles. The extent of and type of competition required is within the discretionary judgment of the grantee.

o. Tag-ons. The use of tag-ons is prohibited and applies to the original buyer as well as to others as defined in paragraph 6f.

p. Piggybacking. Piggybacking is permissible when the solicitation document and resultant contract contain an assignability clause that provides for the assignment of all or a portion of the specified deliverables as originally advertised, competed, evaluated, and awarded. If the supplies were solicited, competed and awarded through the use of an indefinite-delivery-indefinite-quantity (IDIQ) contract, then both the solicitation and contract award must contain both a minimum and maximum quantity that represent the reasonably foreseeable needs of the party(s) to the solicitation and contract. If two or more parties jointly solicit and award an IDIQ contract, then there must be a total minimum and maximum.

q. E-Commerce. E-Commerce is an allowable means to conduct procurements. If a grantee chooses to utilize E-Commerce, written procedures need to be developed and in place prior to solicitation and all requirements for full and open competition must be met in accordance with this circular.

8. **COMPETITION.**

a. Full and Open Competition. All procurement transactions will be conducted in a manner providing full and open competition. Some situations considered to be restrictive of competition include, but are not limited to:

(1) Unreasonable requirements placed on firms in order for them to qualify to do business;

(2) Unnecessary experience and excessive bonding requirements;

(3) Noncompetitive pricing practices between firms or between affiliated companies;

(4) Noncompetitive awards to any person or firm on retainer contracts;

(5) Organizational conflicts of interest. An organizational conflict of interest means that because of other activities, relationships, or contracts, a contractor is unable, or potentially unable, to render impartial assistance or advice to the grantee; a contractor's objectivity in performing the contract work is or might be otherwise impaired; or a contractor has an unfair competitive advantage;

(6) Specifying only a "brand name" product instead of allowing "an equal" product to be offered without listing its' salient characteristics.

Grantees may define the salient characteristics in language similar to the following:

(a) 'Original Equipment Manufacturer (OEM) part #123 or approved equal that complies with the original equipment manufacturer's requirements or specifications and will not compromise any OEM warranties'; or

(b) 'Original Equipment Manufacturer part #123 or approved equal that is appropriate for use with and fits properly in [describe the bus, engine, or other component the part must be compatible with] and will not compromise any OEM warranties'; and

(7) Any arbitrary action in the procurement process.

b. Prohibition Against Geographic Preferences. Grantees shall conduct procurements in a manner that prohibits the use of statutorily or administratively imposed in-State or local geographical preferences in the evaluation of bids or proposals, except in those cases where applicable Federal statutes expressly mandate or encourage geographic preference. This does not preempt State licensing laws. However, geographic location may be a selection criterion in procurements for architectural and engineering (A&E) services provided its application leaves an appropriate number of qualified firms, given the nature and size of the project, to compete for the contract.

c. Written Procurement Selection Procedures. Grantees shall have written selection procedures for procurement transactions. All solicitations shall:

(1) Incorporate a clear and accurate description of the technical requirements for the material, product, or service to be procured. Such description shall not, in competitive procurements, contain features that unduly restrict competition. The description may include a statement of the qualitative nature of the material, product, or service to be procured and when necessary, shall set forth those minimum essential characteristics and standards to which it must conform if it is to satisfy its intended use. Detailed product specifications should be avoided if at all possible. When it is impractical or uneconomical to make a clear and accurate description of the technical requirements, a "brand name or equal" description may be used as a means to define the performance or other salient characteristics of a procurement. The specific features of the named brand which must be met by offerors shall be clearly stated.

(2) Identify all requirements that offerors must fulfill and all other factors to be used in evaluating bids or proposals.

d. Prequalification Criteria. Grantees shall ensure that all lists of prequalified persons, firms, or products that are used in acquiring goods and services are current and include enough qualified sources to ensure maximum full and open competition.

Also, grantees shall not preclude potential bidders from qualifying during the solicitation period, which is from the issuance of the solicitation to its closing date.

9. **METHODS OF PROCUREMENT.** The following methods of procurement may be used as appropriate:

a. Procurement by Micro-Purchases. Micro-purchases are those purchases under $2,500. Purchases below that threshold may be made without obtaining competitive quotations. There should be equitable distribution among qualified suppliers and no splitting of procurements to avoid competition. (The Davis-Bacon Act applies to construction contracts above $2,000.) Minimum documentation is required:. A determination that the price is fair and reasonable and how this determination was derived. The other requirements of paragraph 7(i) do not apply to micro-purchases.

b. Procurement by Small Purchase Procedures. Small purchase procedures are those relatively simple and informal procurement methods for securing services, supplies, or other property that cost more than $2,500 but do not cost more than the simplified acquisition threshold fixed at 41 U.S.C. § 403(11) (currently set at $100,000). If small purchase procedures are used, price or rate quotations shall be obtained from an adequate number of qualified sources.

c. Procurement By Sealed Bids/Invitation For Bid (IFB). Bids are publicly solicited and a firm-fixed-price contract (lump sum or unit price) is awarded to the responsible bidder whose bid, conforming to all the material terms and conditions of the invitation for bids, is the lowest in price.

(1) In order for sealed bidding to be feasible, the following conditions should be present:

(a) A complete, adequate, and realistic specification or purchase description is available;

(b) Two or more responsible bidders are willing and able to compete effectively for the business;

(c) The procurement lends itself to a firm fixed price contract and the selection of the successful bidder can be made principally on the basis of price; and

(d) No discussion with bidders is needed.

(2) If this procurement method is used, the following requirements apply:

(a) The invitation for bids will be publicly advertised and bids shall be solicited from an adequate number of known suppliers, providing them sufficient time to prepare bids prior to the date set for opening the bids;

(b) The invitation for bids, which will include any specifications and pertinent attachments, shall define the items or services sought in order for the bidder to properly respond;

(c) All bids will be publicly opened at the time and place prescribed in the invitation for bids;

(d) A firm fixed-price contract award will be made in writing to the lowest responsive and responsible bidder. When specified in bidding documents, factors such as discounts, transportation costs, and life cycle costs shall be considered in determining which bid is lowest;

Payment discounts will only be used to determine the low bid when prior experience indicates that such discounts are usually taken advantage of; and

(e) Any or all bids may be rejected if there is a sound documented business reason.

(3) The sealed bid method is the preferred method for procuring construction if the conditions in paragraph 9c(1) above apply.

d. Procurement by Competitive Proposal/Request for Proposals (RFP). The competitive proposal method of procurement is normally conducted with more than one source submitting an offer, i.e., proposal. Either a fixed price or cost reimbursement type contract is awarded. This method of procurement is generally used when conditions are not appropriate for the use of sealed bids. If this procurement method is used the following requirements apply:

(1) Requests for proposals will be publicized. All evaluation factors will be identified along with their relative importance;

(2) Proposals will be solicited from an adequate number of qualified sources;

(3) Grantees will have a method in place for conducting technical evaluations of the proposals received and for selecting awardees;

(4) Awards will be made to the responsible firm whose proposal is most advantageous to the grantee's program with price and other factors considered; and

(5) In determining which proposal is most advantageous, grantees may award (if consistent with State law) to the proposer whose proposal offers the greatest business value to the Agency based upon an analysis of a tradeoff of qualitative technical factors and price/cost to derive which proposal represents the "best value" to the Procuring Agency as defined in Section 6, Definitions. If the grantee elects to use the best value selection method as the basis for award, the solicitation must contain language which establishes that an award will be made on a "best value" basis.

e. Procurement of Architectural and Engineering Services (A&E). Grantees may use qualifications-based competitive proposal procedures (i.e., Brooks Act procedures) when contracting for A&E services as defined in 40 U.S.C. §541 and 49 U.S.C. §5325(d). Services subject to this method of procurement are program management, construction management, feasibility studies, preliminary engineering, design, architectural, engineering, surveying, mapping, and related services.

Qualifications-based competitive proposal procedures require that:

(1) An offeror's qualifications be evaluated;

(2) Price be excluded as an evaluation factor;

(3) Negotiations be conducted with only the most qualified offeror; and

(4) Failing agreement on price, negotiations with the next most qualified offeror be conducted until a contract award can be made to the most qualified offeror whose price is fair and reasonable to the grantee.

These qualifications-based competitive proposal procedures should only be used for the procurement of the services listed above. This method of procurement should not be used to obtain other types of services even though a firm that provides A&E services is also a potential source to perform other types of services.

These requirements apply except to the extent the grantee's State adopts or has adopted by statute a formal procedure for the procurement of these services.

f. Procurement of Design-Bid-Build. Grantees may procure design-bid-build services through means of sealed bidding or competitive negotiations. These services must be procured in a manner that conforms to applicable state and local law, the requirements of this guidance relative to the method of procurement used and all other applicable federal requirements.

g. Procurement of Design-Build. Grantees may procure design-build services through means of qualifications-based competitive proposal procedures based on the Brooks Act as set forth in Section 9e when the preponderance of the work to be performed is considered to be for architectural and engineering (A&E) services as defined in Section 9e, Qualifications-based competitive proposal procedures should not be used to procure design-build services when the preponderance of the work to be performed is not of an A&E nature as defined in Section 9e, unless required by State law.

h. Procurement By Noncompetitive Proposals (Sole Source). Sole Source procurements are accomplished through solicitation of a proposal from only one source, or after solicitation of a number of sources, competition is determined inadequate. A contract change that is not within the scope of the original contract is considered a sole source procurement that must comply with this subparagraph.

(1) Procurement by noncompetitive proposals may be used only when the award of a contract is infeasible under small purchase procedures, sealed bids, or competitive proposals and at least one of the following circumstances applies:

(a) The item is available only from a single source;

(b) The public exigency or emergency for the requirement will not permit a delay resulting from competitive solicitation;

(c) The LMRO authorizes noncompetitive negotiations—e.g., if FTA provides a joint procurement grant or a research project grant with a particular firm or combination of firms, the grant agreement is the sole source approval;

(d) After solicitation of a number of sources, competition is determined inadequate; or

(e) **NOT APPLICABLE**.

(2) A cost analysis, i.e., verifying the proposed cost data, the projections of the data, and the evaluation of the specific elements of costs and profit, is required.

i. Options. Grantees may include options in contracts. An option is a unilateral right in a contract by which, for a specified time, a grantee may elect to purchase additional equipment, supplies, or services called for by the contract, or may elect to extend the term of the contract. If a grantee chooses to use options, the requirements below apply:

(1) Evaluation of Options. The option quantities or periods contained in the contractor's bid or offer must be evaluated in order to determine contract award. When options have not been evaluated as part of the award, the exercise of such options will be considered a sole source procurement.

(2) Exercise of Options.

(a) A grantee must ensure that the exercise of an option is in accordance with the terms and conditions of the option stated in the initial contract awarded.

(b) An option may not be exercised unless the grantee has determined that the option price is better than prices available in the market or that the option is the more advantageous offer at the time the option is exercised.

10. **CONTRACT COST AND PRICE ANALYSIS FOR EVERY PROCUREMENT ACTION.** Grantees must perform a cost or price analysis in connection with every procurement action, including contract modifications. The method and degree of analysis is dependent on the facts surrounding the particular procurement situation, but as a starting point, grantees must make independent estimates before receiving bids or proposals.

a. Cost Analysis. A cost analysis must be performed when the offeror is required to submit the elements (i.e., labor hours, overhead, materials, etc.) of the estimated cost, (e.g., under professional consulting and architectural and engineering services contracts, etc.).

A cost analysis will be necessary when adequate price competition is lacking and for sole source procurements, including contract modifications or change orders, unless price reasonableness can be established on the basis of a catalog or market price of a commercial product sold in substantial quantities to the general public or on the basis of prices set by law or regulation.

b. Price Analysis. A price analysis may be used in all other instances to determine the reasonableness of the proposed contract price.

c. Profit. Grantees will negotiate profit as a separate element of the price for each contract in which there is no price competition and in all cases where cost analysis is performed. To establish a fair and reasonable profit, consideration will be given to the complexity of the work to be performed, the risk borne by the contractor, the contractor's investment, the amount of subcontracting, the quality of its record of past performance, and industry profit rates in the surrounding geographical area for similar work.

d. Federal Cost Principles. Costs or prices based on estimated costs for contracts under grants will be allowable only to the extent that costs incurred or cost estimates included in negotiated prices are consistent with Federal cost principles. Grantees may reference their own cost principles that comply with applicable Federal cost principles.

e. Cost Plus Percentage of Cost Prohibited. The cost plus a percentage of cost and percentage of construction cost methods of contracting shall not be used.

11. **BONDING REQUIREMENTS.** For those construction or facility improvement contracts or subcontracts exceeding $100,000, the LMRO may accept the bonding policy and requirements of the grantee, provided the LMRO determined that the policy and requirements adequately protect the Federal interest. The LMRO has determined that grantee policies and requirements that meet the following minimum criteria adequately protect the Federal interest:

a. A bid guarantee from each bidder equivalent to five (5) percent of the bid price. The "bid guarantee" shall consist of a firm commitment such as a bid bond, certified check, or other negotiable instrument accompanying a bid as assurance that the bidder will, upon acceptance of his bid, execute such contractual documents as may be required within the time specified;

b. A performance bond on the part of the contractor for 100 percent of the contract price. A "performance bond" is one executed in connection with a contract to secure fulfillment of all the contractor's obligations under such contract; and

c. A payment bond on the part of the contractor. A payment bond is one executed in connection with a contract to assure payment, as required by law, of all persons supplying labor and material in the execution of the work provided for in the contract. Payment bond amounts determined to adequately protect the federal interest are as follows:

(1) Fifty percent of the contract price if the contract price is not more than $1 million;

(2) Forty percent of the contract price if the contract price is more than $1 million but not more than $5 million; or

(3) Two and a half million dollars if the contract price is more than $5 million.

d. A Grantee may seek LMRO approval of its bonding policy and requirements if they do not comply with these criteria.

12. **PAYMENT PROVISIONS IN THIRD PARTY CONTRACTS.**

a. Advance Payments. FTA does not authorize and will not participate in funding payments to a contractor prior to the incurrence of costs by the contractor unless prior written concurrence is obtained from FTA.

b. Progress Payments. Grantees may use progress payments provided the following requirements are followed:

(1) Progress payments are only made to the contractor for costs incurred in the performance of the contract.

(2) The grantee must obtain adequate security for progress payments. Adequate security may include taking title, letter of credit or equivalent means to protect the grantee's interest in the progress payment.

13. **LIQUIDATED DAMAGES PROVISIONS.** A grantee may use liquidated damages if it may reasonably expect to suffer damages and the extent or amount of such damages would be difficult or impossible to determine.

The assessment for damages shall be at a specific rate per day for each day of overrun in contract time; and the rate must be specified in the third party contract. Any liquidated damages recovered shall be credited to the project account involved unless the LMRO permits otherwise.

14. **NOT APPLICABLE.**

15. **CONTRACT PROVISIONS.** All contracts shall include provisions to define a sound and complete agreement. In addition, contracts and subcontracts shall contain contractual provisions or conditions that allow for:

a. Administrative, contractual, or legal remedies in instances where contractors violate or breach contract terms, including sanctions and penalties as may be appropriate. (All contracts in excess of the small purchase threshold.)

b. Termination for cause and for convenience by the grantee or subgrantee including the manner by which it will be effected and the basis for settlement. (All contracts in excess of $10,000.)

16. **STATUTORY AND REGULATORY REQUIREMENTS.** A current but not all inclusive and comprehensive list of statutory and regulatory requirements applicable to

grantee procurements (such as Davis-Bacon Act, Clean Air, etc.) is contained in the LMRO Master Agreement. Grantees are responsible for evaluating these requirements for relevance and applicability to each procurement. Further guidance concerning these requirements and suggested wording for contract clauses may be found in FTA's Best Practices Procurement Manual.

For specific guidance concerning the crosscutting requirements of other Federal agencies, grantees are advised to contact those agencies.

RFP No. 11746
December 20, 2006

Downtown Streetscape Partners

A Joint Venture of
Edwards and Kelcey // DMJM Harris / EDAW

Performance of Expert Professional Architectural and Engineering Services for the World Trade Center

Streets, Utilities and Related Infrastructure Design

Prerequisite Proposal

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Downtown Streetscape Partners, the Edwards and Kelcey/DMJM Harris/EDAW Joint Venture Team, far exceeds the Prerequisite requirements established by the Port Authority for the World Trade Center Streets, Utilities and Related Infrastructure Design. Our firms have been in business for 60-75 years, and we have performed architectural and engineering services to a diverse mix of public agency and private clients throughout the New York metropolitan area, around the United States, and in many other countries.

TEN YEARS OF EXPERIENCE IN THE PERFORMANCE OF ARCHITECTURAL AND ENGINEERING SERVICES

Founded in 1946, **Edwards and Kelcey** has been providing a full range of planning, design and construction services for 60 years. The firm has nearly 1000 employees in 26 offices with over 300 professional staff in the New York region. The firm's broad client base includes numerous transportation agencies such as the Port Authority of New York and New Jersey, MTA New York City Transit, MTA Metro-North Railroad, MTA Long Island Rail Road, NJ Transit, AMTRAK, SEPTA, New York State Department of Transportation, New York City Department of Transportation, New Jersey Department of Transportation, New York State Thruway Authority and New Jersey Turnpike Authority. Recent signature projects include the Reconstruction of Route 9A on the west side of Manhattan, the Reconstruction of Route 21 in Newark, NJ, the LIRR Arch Street Yard and Shop design-build and the Metro-North Highbridge Yard and Shop design-build..

DMJM Harris is a worldwide leader in transportation infrastructure with over 75 years of experience. The firm has more than 2,300 employees, including more than 800 staff in the New York metropolitan region and access to an additional 20,000 through its parent company, AECOM, ranked #1 in Transportation by ENR. DMJM Harris' capabilities and resources, combined with those of its affiliates, offer leadership in the industry in infrastructure safety and security. Recent DMJM high-security projects include the $176 million Pentagon renovation, a combined $460 million in security work at Logan International Airport and the $160 million San Francisco International Airport Security Enhancements Project.

Founded in 1939, **EDAW** has over 1100 professionals working in 25 offices worldwide. The firm is headquartered in San Francisco, CA with a regional office in New York. Consistently ranked among the world's leading design firms, EDAW is recognized for superior landscape design, streetscapes, parks, and large scale urban redevelopment projects. Recently, EDAW developed the Security Master Plan for the Smithsonian Mall in Washington, DC. This project, which is directly comparable to the current WTC streetscape project, had a clearly defined goal of preserving visitor safety and facility integrity, integrating building perimeter security elements into dignified and cohesive streetscapes. The project also included interaction and coordination with numerous external agencies. In New York City, EDAW is currently completing the re-design of the Fulton Mall Streetscape in downtown Brooklyn for the NYC Economic Development Corporation. EDAW is also the prime consultant for the development of the Wharf District Parks, located in downtown Boston above the Central Artery Tunnel project. EDAW also served as prime consultant for the Centennial Olympic Park, a 21-acre park developed for the 1996 Olympic games in Atlanta, GA, that has become an icon for the city linking the convention center and Georgia Dome to the heart of downtown Atlanta.

MIXED USE PROJECTS WITH A MAJOR TRANSPORTATION COMPONENT OR OTHER SIMILAR PROJECTS IN SIZE AND SCALE WITH A CONSTRUCTION VALUE IN EXCESS OF $50 MILLION

As two of the largest and most respected engineering consultants in the nation, Edwards and Kelcey and EDAW have completed numerous projects during the past ten years with major transportation components in excess of $50 million. A representative sample of these projects is shown on the following table.

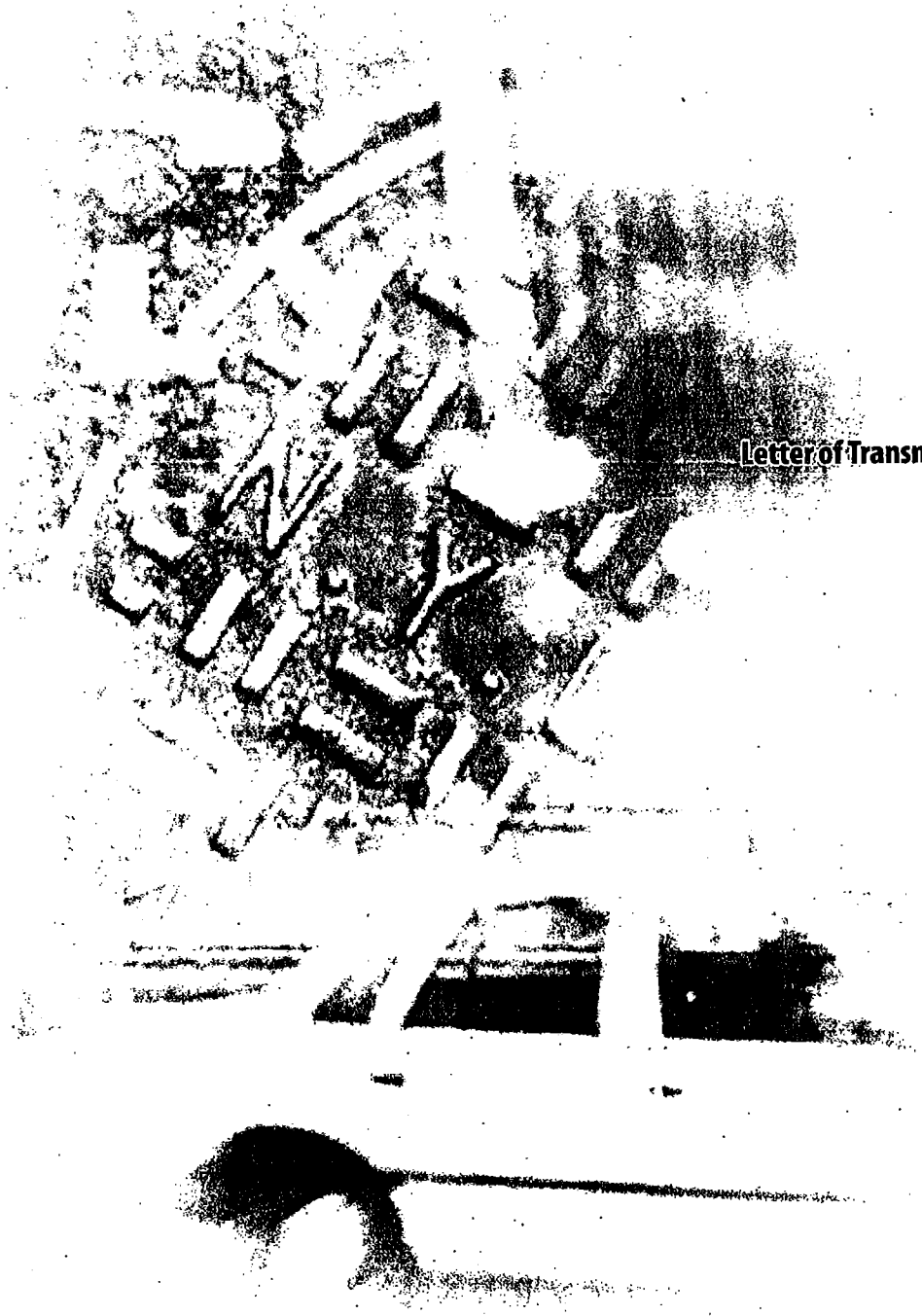
Project / Client / Cost / Completion Date	Salient Facts
Route 9 A Reconstruction Final Design New York, NY NYS Dept. of Transportation $70 million 2002	This $370 million project is still one of the largest and most complex roadway projects ever undertaken in New York City. The New York State Department of Transportation divided the 5-mile project area into seven segments. A separate team of consultants designed each segment. ***Edwards and Kelcey*** was the prime consultant for Segment 5, a nearly one mile long segment through the Chelsea area of Manhattan. The waterfront arterial, which serves the central business district of Manhattan and provides access to three major vehicular tunnels, was fully rebuilt as a 7-lane landscaped urban boulevard. Construction on all segments, including EK's $70 million piece, was completed in 2002.
Route 21 Reconstruction Newark, NJ NJ Dept. of Transportation $110 million 2006	***Edwards and Kelcey*** has been responsible for study, preliminary design, final design, and construction support services for the reconstruction of Route 21 from Green Street to north of Passaic Street, resulting in a cost-effective TSM roadway improvement project that reduced an original freeway-type design construction cost by approximately 50%. This critical section of Route 21 provides primary access to the Newark Central Business District, the Gateway office and hotel complex area, Penn Station, the NJ Performing Arts Center and the new Essex County Sportsplex. Major design elements included roadway widening and realignment, geotechnical analysis, replacement of a NJ TRANSIT railroad overgrade bridge, extensive surface and subsurface utility relocations, hydraulics/roadway drainage, combined sanitary and storm sewers (including five new storm sewer outfalls to the Passaic River), pedestrian crossing improvements, retaining walls, grading, resurfacing, lighting, signing and striping, traffic signals and an ITS system including 10 CCTV camera sites, seven VMS signs, and 10 volume/speed detector sites.
Arch Street Yard/Shop Design-Build Queens, NY MTA Long Island Rail Road $76 million 2006	***Edwards and Kelcey*** designed the $75 million Arch Street Yard and Shop as an equity partner in the Slattery Skanska/Edwards and Kelcey Design-Build Joint Venture. The 12-acre site in Long Island City, a former freight yard, was cleared for the new facility. Arch Street contains a 5-track, 400-foot-long heavy maintenance shop along with a substation and several satellite buildings. A 900-foot-long, high-level platform for extraordinary cleaning of train interiors was constructed, as well as site utilities, track, traction power infrastructure, storage buildings, communications/SCADA systems, access roads, parking lots, and lighting. As the lead designer, EK performed architectural, structural, geotechnical, site civil, track, traction power, electrical, and CCTV/SCADA design services.

Project / Client / Cost / Completion Date	Salient Facts
Highbridge Yard/Shop Design-Build Bronx, NY MTA Metro-North Railroad $80 million	***Edwards and Kelcey*** (EK) was a JV partner with Slattery Skanska for this $80 million Highbridge Yard and Shop Design/Build Project. This project is a key component of the MTA/LIRR East Side Access Program with a fast track, 18-month schedule for design and construction. The site, a former rail freight yard adjacent to the Harlem River, has been transformed into a modern electrified yard for midday storage of electric multiple unit and diesel-hauled trains with full toilet servicing, rail car cleaning, and limited locomotive fueling facilities. EK's primary design responsibilities included civil (under- and above-ground utilities), trackwork, traction power, third rail, structural (shop and substation foundations, building and roof structures, high-level platforms, and overpass), systems integration, and communications systems. The project also featured design and construction of a 900-foot-long, 2-track maintenance shop for scheduled heavy cleaning and related repairs, a 16 MW electrical substation to provide power to the entire yard and shop complex, and an ADA-compliant employee station with high-level platforms, pedestrian overpass, and elevators. Extensive environmental permitting was required to raise the entire yard above the 100-year flood plain.
Centennial Olympic Park Atlanta, GA Georgia World Congress Center Authority $75 million total construction cost	Hosting the 1996 Centennial Olympic Games ignited in the City of Atlanta a spirit of urban renewal and civic pride that produced a legacy: Centennial Olympic Park. ***EDAW*** was prime consultant to a 16-member consultant team, leading public charrette, design, production of documents, and construction observation. During the Games, the 21-acre park served as the city's central festival space, visited by an estimated 5.5 million people. Located at the eastern gateway to the Georgia World Congress Center/Georgia Dome complex, the park links convention facilities to the city's lively hotel and market district. The park has become the icon for the City of Atlanta, bringing together diverse populations of young and old; resident and tourist; black and white; and rich and poor to share in the park's activities.

SECURITY CONSTRUCTION PROGRAMS EXCEEDING $25 MILLION IN CONSTRUCTION VALUE

As leaders in infrastructure design, DMJM Harris brings vast experience in providing design and technical services for construction programs where security is paramount, including the Logan and San Francisco International Airports and the high-profile renovation of the Pentagon. A sampling of the projects that meet the required prerequisites is shown on the following table.

Project / Client / Cost / Completion Date	Salient Facts
San Francisco International Airport Security and Special Systems for New International Terminal, San Francisco, CA $160 million 2002 completion (San Francisco, CA)	***DMJM Harris*** completed design and technical services for security components, including communications, a command center, access control, and CCTV (700 cameras) for this new international terminal.
Transportation Security Administration (Boeing Company and Siemens Corporation) Airport Explosives Detection Systems (Nationwide) $700 million 2003 estimated completion	***DMJM*** Harris assisted with the design, facility modifications, installation, and maintenance of explosives detection systems at 438 U.S. airports for this major security program mandated by Congress.
Pentagon Renovation Program Management, Arlington, VA $4 billion (400 task orders completed to date) 2010 estimated completion	***DMJM Harris*** developed master plans and design criteria, early designs to meet the requirements of security, safety and efficiency of operation, and design of improvements during the recovery after 9/11. The design included electronic security (card reader access, CCTV, etc.); pop up barriers and lay-by lanes for screening vehicles; increased standoff distances between roads/parking areas and buildings by relocating parking and roads; blast resistant windows; relocation of large utilities away from the building; and redundant utilities.
Perimeter Intrusion Detection Systems (PIDS) Program Port Authority of New York and New Jersey $83 million 2007 completion	***DJMJ Harris*** prepared an assessment of existing security and operations and development of plans and procedures for the installation of an integrated security system for the four major NY/NJ area airports, that significantly enhances the ability of response forces to deter, delay, detect, assess, track, and ultimately defeat/apprehend unauthorized intruders into the airports' airside areas. Civil engineering and security design services also included upgrading perimeter fencing and gates and hardening access at entry gates with the installation of new vehicle barriers, card access control and CCTV surveillance, and new blast resistant guard booths.



Letter of Transmittal

Downtown Streetscape Partners

5 Penn Plaza, 18th Floor, New York, NY 10001
Tel: 212.944.2000 / Fax: 212.3024645

December 20, 2006

Ms. Patricia Cose
Procurement Manager, WTC Site Projects
Procurement Department
The Port Authority of New York & New Jersey
One Madison Avenue, 7th Floor
New York, NY 10010

Reference: RFP #11746, Performance of Expert Professional Architectural and Engineering Services for the World Trade Center Streets, Utilities and Related Infrastructure Design

Dear Ms. Cose:

Restoration of the original street grid through the World Trade Center site provides the opportunity to achieve a unified urban design that respects the profound significance of the Memorial, while meeting the multiple aesthetic and practical requirements of the site for mass transportation, vehicular and public access, and for security. Critical to the project is the ability of the selected design team to assure security and provide appropriate streetscaping and landscaping consistent with master plan and stakeholder goals in what is quite possibly the most complicated construction site in the world. Success will require a design team with the proven ability to coordinate with multiple entities to drive the project forward, a comprehensive understanding of the site and your needs, in-depth experience with highly complex civil projects in the New York City environment, and the cutting-edge security systems that will be required.

Edwards and Kelcey, DMJM Harris, and EDAW—as the Downtown Streetscape Partners —have come together to offer the Port Authority a best-value solution to accomplish your goals for this extraordinarily challenging undertaking. No one is better positioned to deliver this project successfully than the Downtown Streetscape Partners Team. With an unequaled background in infrastructure design, traffic engineering, urban and landscape design, and—equally important—security systems to maintain safe public access and protect critical assets, this team has the proven ability to create a distinct visual identity and a welcoming landscape that integrates new streets and public amenities with the many different elements of the WTC site. Through past and present partnerships, and as individual firms, we have decades of experience working with the Port Authority on some of the most challenging projects in the New York Metropolitan area. In addition, team members have been responsible for extensive streetscape design and underground utilities on Route 9A, Hudson Street and other key locations in lower Manhattan, as well as the Fulton Mall Streetscape in downtown Brooklyn. Through our experience, Downtown Streetscape Partners possesses a comprehensive understanding of the project site and the Port Authority's operations and goals for the WTC area that will be critical to delivering this project on time, within budget, and to the complete satisfaction of the Authority.

THE JOINT VENTURE

Edwards and Kelcey, DMJM Harris and EDAW, three of the leading engineering consulting firms in the country, are forming a joint venture for this challenging project, to be led by Edwards and Kelcey. The firms have over

1000 employees in the New York metropolitan area and thousands more to draw from as required. All key staff members will be located in Manhattan.

Founded in 1946 and headquartered in Morristown, NJ with a regional office in midtown Manhattan, Edwards and Kelcey is a diversified engineering consulting organization with a staff of nearly 1000 people and 26 offices. Ranked #21 in Transportation by ENR, Edwards and Kelcey's principal activities include the planning, design, and construction support/inspection of local streets, arterial highways, bridges, utility relocations, airport facilities, railroad and mass transit facilities, port facilities, and telecommunications systems. Edwards and Kelcey has been providing Civil Engineering design services to the PANYNJ through a series of consecutive task-order contracts for over 20 years and has completed literally hundreds of project assignments through these contracts. In the metropolitan area, Edwards and Kelcey's diverse client base includes: New York State DOT; New York City DOT; Battery Park City Authority; MTA Metro-North Railroad, Long Island Rail Road, New York City Transit, and Bridges and Tunnels; New Jersey DOT; NJ TRANSIT; and Amtrak. The firm's extensive experience with the design of streets and underground utilities in lower Manhattan includes the $370 million reconstruction of Route 9A and the $30 million reconstruction of Hudson Street, as well as the design of underground utilities for the Battery Park City Authority. Edwards and Kelcey also performed complex planning, design and construction support services, including extensive underground utility relocation and design, for the $110 million reconstruction of Route 21, an urban boulevard in Newark, NJ.

Headquartered in New York City, DMJM Harris is a worldwide leader in transportation infrastructure with over 75 years of experience. The firm has more than 2,300 employees, including more than 800 staff in the region, and access to an additional 20,000 through its parent company, AECOM, ranked #1 in Transportation by ENR. DMJM Harris' capabilities and resources, combined with those of its affiliates, offer leadership in the industry in infrastructure safety and security. The firm's high-security projects include the $176 million Pentagon renovation, $460 million in security work at Logan International Airport, the $160 million San Francisco International Airport Security Enhancements project, and the $1.87 billion Combat Services Support Contract at Camp Doha in Kuwait, as well as major transportation projects with extensive security elements: the $2.25 billion Tren Urbano System, the $480 million South Boston Piers Transitway, and the $2.5 billion Alameda Corridor Rail Expressway. DMJM Harris also offers a 25-year history of working with the Port Authority on many of its important projects, including a current on-call security contract for all area airports.

Founded in 1939, EDAW has over 1100 professionals working in 25 offices worldwide. The firm is headquartered in San Francisco, CA with a regional office in New York. Consistently ranked among the world's leading design firms, EDAW is recognized for superior landscape design, streetscapes, parks, and large scale urban redevelopment projects. Recently, EDAW developed the Security Master Plan for the Smithsonian Mall in Washington, DC. This project, which is directly comparable to the current WTC streetscape project, had a clearly defined goal of preserving visitor safety and facility integrity, integrating building perimeter security elements into dignified and cohesive streetscapes. The project also included interaction and coordination with numerous external agencies. In New York City, EDAW is currently completing the re-design of the Fulton Mall Streetscape in downtown Brooklyn for the NYC Economic Development Corporation. EDAW is also the prime consultant for the development of the Wharf District Parks, located in downtown Boston above the Central Artery Tunnel project. EDAW also served as prime consultant for the Centennial Olympic Park, a 21-acre park developed for the 1996 Olympic games in Atlanta, GA, that has become an icon for the city linking the convention center and Georgia Dome to the heart of downtown Atlanta.

Bringing additional extensive knowledge of the WTC site, its issues, the stakeholders, and other ongoing projects, through leadership roles on the WTC Transportation Hub, the WTC Security Center and Bus Garage,

and coordination and controls for reconstruction of Route 9A from Battery Park City to Chambers Street, is STV Incorporated in a major subconsultant role. STV's proven success representing the Port Authority's interests, working with New York City and State agencies, and Downtown stakeholders to coordinate project work, resolve issues and move forward will be a significant asset to our team. STV will also provide valuable additional expertise in civil, electrical, traffic and utilities engineering, as well as structural and geotechnical expertise. STV is currently teamed with Joint Venture member DMJM Harris on the WTC Transportation Hub and Vehicular Security Center projects for the Port Authority. With over 500 staff in New York and 1500 staff corporate-wide, STV is one of the premier consulting firms for major urban infrastructure projects, specializing in engineering, architecture, environmental services, and construction management.

Additional Subconsultants

Augmenting the considerable capabilities of the Downtown Streetscape Partners and principal subconsultant STV will be Weidlinger Associates, Inc. (WAI) and Science Applications International Corporation (SAIC). These firms provide our team with unmatched security analysis and design capabilities, as well as project knowledge. Blast analysis and its techniques originated with WAI—they are the only firm with analytical models validated by the U.S. government and are the authors of the Port Authority's security protocols, as well as the security criteria used by the GSA. SAIC's specific methodology for Needs-Based Risk Assessment has been adopted as the standard by the Office of Domestic Preparedness at the Department of Homeland Security. In addition, SAIC has recently conducted a Needs-Based Risk Assessment and Five-Year Security Planning effort for the Port Authority, and is currently writing the critical World Trade Center All Hazards Master Security Plan. Both WAI and SAIC are working with DMJM and STV on the WTC Vehicular Security Center project. With WAI and SAIC as core members of the Downtown Streetscape Partners Team, the Port Authority can be confident in this team's approach to the analysis and design of security systems for this facility. Also notable are the proven M/WBE firms that we have enlisted to support our effort. We have worked with each of these firms in the past and, with their help on this project, we will meet or exceed your 17% participation goal.

Key Personnel

Our commitment to this project is reflected in the professionals we have assigned. The EK/DMJM Harris/EDAW Team will be led by our proposed Project Manager, **Michael Cavanaugh, PE,** who will have ultimate responsibility for the project and who will be the primary contact with the Authority. Mike has 27 years of experience on street and landscaped urban boulevard projects including extensive design of new and relocated underground utilities. Mike was the Project Manager for final design and construction support services for the $70 million reconstruction of Route 9A between Horatio Street and West 26th Street. Previously, he was Project manager for the preliminary design of the entire five-mile $370 million Route 9A project from Battery Place to West 59th Street.

Infrastructure Manager **Michael J. Murno, PE, PP** has 37 years of experience in all phases of street and highway engineering. Michael was the Project Engineer for final design services for the $70 million construction of Route 9A between Horatio Street and West 26th Street. He was also the Project Manager for the design of underground electrical utility installations at the North Residential Area in Battery Park City. Urban Design Manager **Roger Courtenay, ASLA** has 30 years of experience with planning, urban streetscapes, and site security design. His extensive related experience includes serving as Principal in Charge for the Smithsonian Mall-Wide and Perimeter Security Plan, the National Capital Urban Design and Security Plan, and the National Museum of the American Indian landscape and perimeter security design. Security Manager **Kevin Conway, CCNP** has 25 years of experience in systems design, sustainable design and security system design. His recent project experience includes Perimeter Intrusion Detection Systems at Newark, La Guardia, John F,

Kennedy and Teterboro Airports and the Guard Post Hardening Project at Newark, LaGuardia and John F. Kennedy airports. Coordination Manager **Molly MacQueen** has over 25 years of experience in the coordination of stakeholder interests as well as complex regional and multi-jurisdictional planning. She served as Director of Planning and Environmental Review for the NY State Urban Development Corporation and has extensive experience interfacing with the Port Authority, NY City Economic Development Corporation, NY State and City Departments of Transportation and numerous other public agencies. Project Controls Manager **Amr A. Elmeged** has 35 years of experience in program and construction management. He has served as Project Controls Manager on numerous important transportation design projects including the Second Avenue Subway, Tren Urbano Rail System in San Juan, and the MBTA South Boston Piers Transitway.

Individuals Authorized to Negotiate and Execute Contract

The following are authorized to negotiate and execute a contract with the Port Authority:

- Kevin J. McMahon, President, Edwards and Kelcey, (973-267-0555)
- Ira Levy, PE, Executive Vice President, DMJM Harris, (212) 973-2900
- Paul H. Moyer, Principal/Vice President, EDAW Landscape, (703) 836-1414

Contact Person

If you have any questions, please do not hesitate to contact the Downtown Streetscape Partners Project Manager: Michael Cavanaugh, P.E., Edwards and Kelcey, 212-944-2000

Confidentiality

As with information provided in the Port Authority's RFP for the World Trade Center Streets, Utilities and Related Infrastructure Design project, the information provided in this proposal is of a secure and confidential nature. We ask that the Authority make every effort to secure and appropriately dispose of the contents of this proposal.

Commitment

With the Downtown Streetscape Partners' knowledge, experience, and personal relationships, the Port Authority can be confident in this project's success. We commit to you that this project will be a priority and that it will have the combined resources of our firms behind it. We look forward to speaking with you further regarding our capabilities, and to beginning work with you on this important downtown project.

Very truly yours,

Downtown Streetscape Partners

Kevin J. McMahon
President
Edwards and Kelcey

Ira Levy, PE
Executive Vice President
DMJM Harris, Inc.

Paul H. Moyer
Principal/Vice President
EDAW Landscape

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Michael S. Shapiro
Lucila P. Silva
James K. Stacy
Robert W. Swanagon
Michael J. Sweeney
Christine Tiernan-Varricchio
Rachel C. Vandenberg
John P. Van Echo
Glen D. Vasquez
Thomas R. Waldron
Steven D. Wilcox
Christopher M. Wood
Richard A. Woodman
Robert E. Wright
Gregory R. Yates
Joseph F. Zafonte

Principals

Mikhail Bass
Amr A. Elmeged
Howard W. Gregson
Kenneth W. Griffin
Mark S. Griffiths
Robert W. Heckman
Joseph J. Klein
Hanan A. Kivett
Mark D. Latch
Robert B. Lowe
Lin V. Nathan
Harry R. Roecker
John Sharenko
Herbert G. Spooner
Charlie V. Trujillo

Other Officers

Luke D. McKinnon, Chief Financial Officer, Treasurer, Senior Vice President
Elise R. Greenspan, Co-General Counsel, Secretary
Robert K. Orlin, Assistant Secretary
Douglas D. Smith, Assistant Secretary
Wesley Shimoda, Assistant Secretary
Brian Garbushian, Controller

Address:

605 Third Avenue, New York, NY 10158

Resolution

I, Elizabeth A. Refinski, Secretary of Edwards and Kelcey Engineers, Inc., a Corporation organized and existing under the laws of the State of New York, do hereby certify that the following is a true copy of a resolution approved, ratified and confirmed by the Board of Directors of said Corporation at a meeting held on the 21st day of September, 2006.

RESOLVED, that the attached is a true original copy of Edwards and Kelcey Engineers, Inc. certificate of incorporation.

I certify that on this date the above resolution was valid and in force, and that the officers of the Corporation are as follows:

Michael P. Cavanaugh	Chairman of the Board/CEO	5 Penn Plaza 18th Floor New York, NY 10001
Kevin J. McMahon	President	299 Madison Avenue Morristown, NJ 07962
Richard M. Hallahan	Executive Vice President	One Penn Square West 30 South 15th Street, Suite 1100 Philadelphia, PA 19102
Mark G. Pilla	Executive Vice President	343 Congress Street 2nd Floor Boston, MA 02210
Richard E. Tangel	Executive Vice President	299 Madison Avenue Morristown, NJ 07962
David Thornhill	Chief Financial Officer	299 Madison Avenue Morristown, NJ 07962
Elizabeth A. Refinski	Secretary	299 Madison Avenue Morristown, NJ 07962

In Witness Whereof, I have hereunto set my hand and affixed the seal of the said Corporation this 21st day of September 2006.

Elizabeth A. Refinski
Secretary

State of New York | ss:
Department of State

I hereby certify, that the certificate of incorporation of EDWARDS AND KELCEY ENGINEERS, INC. was filed on 01/03/1914, under the name of TAYLOR-HORNSBY CONSTRUCTION COMPANY, INC., fixing the duration as perpetual, and that a diligent examination has been made of the index of corporation papers filed in this Department for a certificate, order, or record of a dissolution, and upon such examination, no such certificate, order or record has been found, and that so far as indicated by the records of this Department, such corporation is a subsisting corporation.

A Certificate of Amendment TAYLOR-HORNSBY CONSTRUCTION COMPANY, INC., changing name to J.D. TAYLOR CONSTRUCTION CORPORATION, was filed 07/09/1917.

A Certificate of Amendment J.D. TAYLOR CONSTRUCTION CORPORATION, changing name to EDWARDS AND KELCEY ENGINEERS, INC., was filed 06/15/1982.

***

Witness my hand and the official seal of the Department of State at the City of Albany, this 04th day of June one thousand nine hundred and ninety-eight.

STATE OF NEW YORK ★ DEPARTMENT OF STATE ★ EXCELSIOR

Special Deputy Secretary of State

199806050137 55

EDWARDS AND KELCEY INC
299 MADISON AVE
P.O.BOX 1936
MORRISTOWN NJ 07962-1936

Enclosed is the information you requested. Your payment of $50.00 is hereby acknowledged.

If the name on the enclosed document(s) does not match exactly with the name of the entity you requested, this office does not have a record of the exact name you requested. The document(s) provided appear(s) to be of sufficient similarity to be the entity requested.

STATE OF NEW YORK
DEPARTMENT OF STATE
EXCELSIOR

199806050138 55

State of New York
Department of State

SS:

I hereby certify, that IFFLAND KAVANAGH WATERBURY, P.L.L.C. a NEW YORK limited liability company filed a Certificate of Articles of Organization pursuant to section 203 of the Limited Liability Company Law on 11/27/1996, and that the limited liability company is subsisting so far as shown by the records of the Department.

A Certificate of Affidavit of Publication of IFFLAND KAVANAGH WATERBURY, P.L.L.C. was filed on 03/24/1997.

A Certificate of Affidavit of Publication of IFFLAND KAVANAGH WATERBURY, P.L.L.C. was filed on 03/24/1997.

The limited liability company has filed proofs of publication under section 206 (c) of the Limited Liability Company Law.

***

Witness my hand and the official seal of the Department of State at the City of Albany, this 04th day of June one thousand nine hundred and ninety-eight.

STATE OF NEW YORK DEPARTMENT OF STATE EXCELSIOR

Special Deputy Secretary of State

199806050138 55

EDWARDS AND KELCEY INC
299 MADISON AVE
P.O.BOX 1936
MORRISTOWN NJ 07962-1936

Enclosed is the information you requested. Your payment of $50.00 is hereby acknowledged.

If the name on the enclosed document(s) does not match exactly with the name of the entity you requested, this office does not have a record of the exact name you requested. The document(s) provided appear(s) to be of sufficient similarity to be the entity requested.

STATE OF NEW YORK
EXCELSIOR
DEPARTMENT OF STATE

199806050137 55

The University of the State of New York
Education Department
Office of the Professions
REGISTRATION CERTIFICATE
Do not accept a copy of this certificate

License Number: [redacted] Certificate Number: [redacted]

CAVANAUGH MICHAEL P

is registered to practice in New York State through 04/30/2009 as a(n)
PROFESSIONAL ENGINEER

LICENSEE/REGISTRANT

EXECUTIVE SECRETARY

COMMISSIONER OF EDUCATION

DEPUTY COMMISSIONER
OFFICE OF THE PROFESSIONS

This document is valid only if it has not expired, name and address are correct, it has not been tampered with and is an original - not a copy. To verify that this registration certificate is valid or for more information please visit www.op.nysed.gov.

New York State Education Department

EACH CORPORATION LAWFULLY PRACTICING THE PROFESSION INDICATED HEREON MUST CONSPICUOUSLY DISPLAY THIS CERTIFICATE IN ITS PRINCIPAL OFFICE AT ALL TIMES AS AUTHORITY TO PRACTICE DURING THE CURRENT PERIOD
(In the event of a change of address return this certificate for correction)

THIS IS TO CERTIFY THAT

EDWARDS & KELCEY ENGINEERS, INC.
5 PENN PLAZA
16TH FLOOR
NEW YORK

HAVING MET THE STATUTORY REQUIREMENTS OF THE STATE OF NEW YORK IS REGISTERED FOR THE PRACTICE OF PROFESIONAL ENGINEERING

Triennium Ends: October 31, 2006

001

Commissioner of Education

Signature of Chief Executive Officer

Read instructions on reverse side

NEW YORK STATE EDUCATION DEPARTMENT

EACH CORPORATION LAWFULLY PRACTICING THE PROFESSION INDICATED HEREON MUST CONSPICUOUSLY DISPLAY THIS CERTIFICATE IN ITS PRINCIPAL OFFICE AT ALL TIMES AS AUTHORITY TO PRACTICE DURING THE CURRENT PERIOD
(In the event of a change of address return this certificate for correction)

THIS IS TO CERTIFY THAT

EDWARDS AND KELCEY ENGINEERS INC
[redacted]

HAVING MET THE STATUTORY REQUIREMENTS OF THE STATE OF NEW YORK IS REGISTERED FOR THE PRACTICE OF PROFESSIONAL ENGINEERING

Triennium Ends: October 31, 2009

[redacted]

Signature of Chief Executive Officier

PRESIDENT OF THE UNIVERSITY AND COMMISSIONER OF EDUCATION

CERTIFICATE OF ASSISTANT SECRETARY

DMJM+HARRIS, INC.

I, the undersigned, do hereby certify:

(1) That I am the duly elected and acting Assistant Secretary of DMJM+HARRIS, Inc., a New York corporation;

(2) That the attached Certificate of Amendment of Certificate of Incorporation of Frederic R. Harris, Inc., changing the name of the corporation to DMJM+HARRIS, Inc. is a true and correct copy; and

(3) That the attached record of DMJM+HARRIS, Inc. Board of Directors and Officers is a true and correct copy.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed the seal of said corporation this 14th day of December, 2006.

DMJM+HARRIS, INC

Robert K. Orlin, Assistant Secretary

(Corporate Seal)

STATE OF NEW YORK)
)ss:
COUNTY OF NEW YORK)

On this 14th day of December, 2006, before me, a Notary Public in and for the State of New York, personally appeared Robert K. Orlin, who acknowledged himself to be the Assistant Secretary of DMJM+HARRIS, Inc., and that he, as such Assistant Secretary, being authorized so to do, executed the foregoing instrument for the purposes therein contained, by signing his name as Assistant Secretary of DMJM+HARRIS, Inc.

IN WITNESS WHEREOF, I hereto set my hand and official seal.

Notary Public

DENISE JENKINS
Notary Public, State of New York
No. 01JE6060154
Qualified in New York County
Commission Expires June 18, 2007

State of New York }
Department of State } *ss:*

I hereby certify that the annexed copy has been compared with the original document in the custody of the Secretary of State and that the same is a true copy of said original.

Witness my hand and seal of the Department of State on OCT 01 2001

Special Deputy Secretary of State

DOS-1266 (7/00)

F01100100021 1

CT-07

CERTIFICATE OF AMENDMENT OF CERTIFICATE OF INCORPORATION

OF

FREDERIC R. HARRIS, INC.

(Pursuant to Section 805 of the Business Corporation Law)

FIRST: The name of the corporation is:

"FREDERIC R. HARRIS, INC."

SECOND: The Certificate of Incorporation was filed in the office of the Department of State in Albany, New York on May 3, 1930 under the name "FREDERIC R. HARRIS INC." The name of the corporation was changed to FREDERIC R. HARRIS ENGINEERING CORPORATION by Certificate of Amendment of Certificate of Incorporation filed in the office of the Department of State in Albany, New York on September 13, 1943, was further changed to FREDERIC R. HARRIS INC. by Certificate of Amendment of Certificate of Incorporation filed in the office of the Department of State in Albany, New York on May 4, 1949, was further changed to PRC HARRIS, INC. by Certificate of Amendment of Certificate of Incorporation filed in the office of the Department of State in Albany, New York on June 29, 1979, was further changed to PRC ENGINEERING, INC. FREDERIC R. HARRIS, INC. by Certificate of Amendment of Certificate of Incorporation filed in the office of the Department of State in Albany, New York on July 7, 1981, was further changed to FREDERIC R. HARRIS, INC. by Certificate of Amendment of Certificate of Incorporation filed in the office of the Department of State in Albany, New York on March 17, 1987.

THIRD: The amendment of the Certificate of Incorporation effected by this Certificate of Amendment is to change the name of the corporation to: DMJM+HARRIS, Inc.

FOURTH: To accomplish the foregoing amendment, Article FIRST of the Certificate of Incorporation relating to the name of the corporation is hereby stricken and the following Article is substituted in lieu thereof:

FIRST: The name of the corporation is:

"DMJM+HARRIS, Inc."

/

FIFTH: The manner in which the foregoing amendment of the Certificate of Incorporation was authorized was by Unanimous Action of the Board of Directors of the Corporation followed by Written Consent of the holder of all of the outstanding shares of the Corporation.

IN WITNESS WHEREOF, this certificate has been executed this 26th day of September, 2001.

FREDERIC R. HARRIS, INC.

John M. Dionisio
President and CEO

Elise R. Greenspan
Secretary

NEW YORK)
)ss:
NEW YORK)

Subscribed and sworn to before me
this 26th day of September 2001

Notary Public

ROBERT K. ORLIN
Notary Public, State of New York
No. 02OR5087994
Qualified in Suffolk County
Commission Expires November 10, 2001

CT-07

F01100100021 1

CERTIFICATE OF AMENDMENT

OF

FREDERIC R. HARRIS, INC.

UNDER SECTION 805 OF THE BUSINESS CORPORATION LAW

ROBERT K. ORLIN
FREDERIC R. HARRIS INC.
605 THIRD AVE
NEW YORK, NY 10158

FILED:
OCT 1 10 51 AM '01

12CC

STATE OF NEW YORK
DEPARTMENT OF STATE
FILED OCT 0 1 2001
TAX $
BY:

OCT 1 10 10 AM '01

RECEIVED

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RESTATED CERTIFICATE OF INCORPORATION
OF
EDAW, INC.

WHEREAS, pursuant to an Agreement of Merger, dated as of December 2, 2005, by and among AECOM Technology Corporation, a Delaware corporation, EDAW, Inc., a California corporation ("EDAW California") and AECOM Merger Sub II, Inc., a Delaware corporation ("AECOM Merger Sub"), EDAW California merged with and into AECOM Merger Sub with AECOM Merger Sub being a surviving corporation; and

WHEREAS, immediately upon the merger, pursuant to a Certificate of Merger of EDAW California with and into AECOM Merger Sub, dated as of December 2, 2005 (the "Certificate of Meger") the name of AECOM Merger Sub was immediately changed to "EDAW, Inc." ("EDAW") and the certificate of incorporation of EDAW was amended and restated in accordance with Appendix A of the Certificate of Merger on December 2, 2005 (as is restated herein, the "Certificate");

WHEREAS, the Board of Directors of EDAW is not amending the Certificate, but has adopted resolutions approving the restatement of the Certificate in accordance with 8 Del. C. § 245, in the form set forth herein;

NOW, THEREFORE, EDAW hereby restates the Certificate as follows:

FIRST: The name of the corporation is EDAW, Inc.

SECOND: The address of the registered office of the corporation in the State of Delaware is 1209 Orange Street, in the City of Wilmington, County of New Castle, and the name of its registered agent at that address is The Corporation Trust Company.

THIRD: The purpose of the corporation is to engage in any lawful act or activity for which corporations may be organized under the General Corporation Law of Delaware.

FOURTH: The total number of shares of all classes of stock which the corporation shall have authority to issue is one thousand (1,000) shares of Common Stock, par value $.01 per share (the "Common Stock").

FIFTH: The business and affairs of the corporation shall be managed by and under the direction of the Board of Directors.

SIXTH: To the fullest extent permitted by the General Corporation Law of the State of Delaware, as the same exists or may hereafter be amended, a director of the corporation shall not be liable to the corporation or its stockholders for monetary damages for breach of fiduciary duty as a director. The liability of a director of the corporation to the corporation or its stockholders for monetary damages shall be eliminated to the fullest extent permissible under applicable law in the event it is determined that Delaware law does not apply. The corporation is authorized to provide by bylaw, agreement or otherwise for indemnification of directors, officers, employees and agents for breach of duty to the corporation and its stockholders in excess of the indemnification otherwise permitted by applicable law. Any repeal or modification

of this Article shall not result in any liability for a director with respect to any action or omission occurring prior to such repeal or modification.

SEVENTH: The corporation reserves the right to amend, alter, change or repeal any provision contained in this Certificate of Incorporation, in the manner now or hereafter prescribed by statute and by this Certificate of Incorporation, and all rights conferred upon stockholders herein are granted subject to this reservation.

EIGHTH: In addition to the other powers expressly granted by statute, the Board of Directors of the corporation shall have the power to adopt, repeal, alter or amend the bylaws of the corporation.

IN WITNESS WHEREOF, EDAW, Inc. has caused this Certificate to be signed and attested by its duly authorized officer this 2nd day of February, 2006.

EDAW, Inc.

BY: _____
Name: Brodie Stephens
Title: Secretary & Vice President

JOINT VENTURE AGREEMENT

This Agreement is made this 19th day of December, 2006, by and between Edwards and Kelcey Engineers, Inc., a New York corporation, with offices at 5 Penn Plaza, New York, NY ("EK"), DMJM+HARRIS, Inc., a New York corporation, with offices at 605 Third Ave, New York, NY ("DMJM Harris") and EDAW, Inc., a Delaware corporation with offices at 104 West 22nd Street, New York, NY ("EDAW"); jointly referred to as the "Parties".

RECITALS

WHEREAS, the Parties, in combination, have the requisite expertise to perform, and are proposing to be selected for award of a contract (the "Contract") by the Port Authority of New York/New Jersey (the "Client") for Architectural/ Engineering design and construction related services (the "Services") for the Performance of Expert Professional Architectural and Engineering Services for the World Trade Center Streets, Utilities and Related Infrastructure Design – RFP #11746 (the "Project"), and

WHEREAS, the Parties desire to set forth their respective rights, interests and obligations with respect to participation in the Contract and performance thereof,

NOW, THEREFORE, the Parties agree as follows:

ARTICLE 1 - JOINT VENTURE ENTITY

A. The Parties associate themselves as a Joint Venture for the purpose of proposing and accepting the Contract and performing the Services under the Contract, together with any amendments, supplements or modifications thereto.

B. The Parties agree that, if awarded by the Client, they will join in the signing of the Contract promptly upon its being tendered for signature in a form mutually agreed upon by the Parties.

C. If selected by the Client, the Joint Venture shall continue until such time as the Joint Venture's obligations under the Contract and any amendments, supplements, or modifications thereto have been satisfactorily completed; all disputes, claims, causes of action, or like matters which arise under the Contract shall have been resolved; the Joint Venture shall have received full payment of all sums to which it is entitled under the Contract; and the final accounting and settlement between the Parties is accomplished.

D. In the event the Joint Venture's Services are terminated, the Joint Venture shall conclude its affairs in an orderly manner at the earliest possible date, subject to resolution of disputes, claims, causes of action, or like matters which arise under the Contract. Should the Services be only suspended, however, the Joint Venture shall remain in effect during the period of such suspension.

ARTICLE 2 - NAME

The Joint Venture shall be known by and conduct its business in the name of "Downtown Streetscape Partners", a Joint Venture of Edwards and Kelcey, Engineers, Inc., DMJM+HARRIS, Inc., and EDAW, Inc.

ARTICLE 3 - BUSINESS ADDRESS

A. The business address of the Joint Venture shall be 5 Penn Plaza, New York, NY. Services may be performed in the Client's offices, in the Joint Venture office, in the respective offices of the Parties, or at such locations as the Parties may mutually agree upon.

B. All original correspondence from the Client regarding the Services or the Contract shall go directly to the Project Manager at the address established for the Joint Venture office.

ARTICLE 4 - LIMITATIONS OF THE JOINT VENTURE

A. Neither the formation of the Joint Venture nor the execution of this Agreement shall be interpreted or construed to create a permanent Joint Venture between the Parties or constitute the Parties in any other relationship, particularly that of general partners or agents of each other.

B. Neither Party, nor any other person, shall have the power to bind the Joint Venture, incur any expense or enter into

any binding commitment except to the extent specifically authorized in writing by the Parties. Neither Party shall have the power to borrow money or secure loans or credit by pledging the credit of the other or the Joint Venture for any purpose.

C. Nothing contained herein shall prevent or interfere with the rights of the Parties to engage in other professional services or activities to the extent that such other interests do not adversely affect the performance of the Services hereunder.

ARTICLE 5 - JOINT VENTURE COVENANTS

EK, DMJM Harris and EDAW covenant to each other:

1. To perform the Services in a timely and professional manner.

2. To take no action that would be contrary to the interests of the other Party, to the interests of the Joint Venture, or to the interests of the Project.

ARTICLE 6 - PROJECT MANAGEMENT

A. Lead Venturer

EK shall act as Lead Venturer for the Project.

B. Joint Venture Executive Committee

1. To oversee the management of the affairs of the Joint Venture, the Joint Venture members shall establish a Joint Venture Executive Committee (the "JVEC"). Through its representative assigned to the JVEC, each Party shall be responsible for handling the affairs of the Joint Venture.

2. The JVEC shall consist of one (1) member and one (1) alternate from each Party. Each Party shall designate, in writing, its delegate and alternate to the JVEC. The Parties may change their designated members. Each Party shall provide written notice (including fax) to the JVEC and to the other Party.

3. Meetings of the JVEC will be held regularly on a mutually agreeable schedule to be prepared by the Chairman of the JVEC, but not less frequently than every three months during the period of time this Agreement is in effect.

4. Each JVEC member shall be kept fully informed of the progress of the Joint Venture at all times by the Project Manager or the Deputy Project Managers.

C. Project Manager

To manage and conduct the business of the Joint Venture, the JVEC shall designate a Project Manager. The Project Manager shall have authority and responsibility for overall performance of the Services. Any successor to the Project Manager shall be appointed by the JVEC.

ARTICLE 7 - SUCCESSORS AND ASSIGNS

Each Party hereto binds itself, its successors, administrators, trustees, representatives and assigns to the other Parties with respect to the obligations set forth in this Agreement.

ARTICLE 8 - DIVISION OF WORK

A. The interests of the Parties in and to any profit and equity derived from the performance of the Contract, and in and to any property acquired by this Joint Venture in connection with the Services to be performed thereunder, and in and to all advance funding required, shall be those percentages (the "Percentage Interest(s)") shall be determined by the Parties upon award of contract by the Client.

If any claim, demand, liability, lawsuit, action, cost, expense, damage, fine, penalty or fee ("Claim") is made against the Joint Venture or any litigation filed, appropriate action will be taken to determine which of the Joint

Venture Parties is at fault (the Indemnifying Party) through cooperative efforts of both Parties and the Indemnifying Party will be responsible for any losses, expenses or counsel fees.

EK shall hold harmless and indemnify DMJM Harris and EDAW from and against any and all Claims which shall o may arise out of, or result in anyway from the negligent acts, errors or omissions of EK. DMJM Harris shall hol harmless and indemnify EK and EDAW from any and all Claims which shall or may arise out of, or result in an way from the negligent acts, errors or omissions of DMJM Harris. EDAW shall hold harmless and indemnif DMJM Harris and EK from any and all Claims which shall or may arise out of, or result in any way from th negligent acts, errors or omissions of EDAW. The Indemnification agreed to by the Parties shall not obligate eithe Party to provide Indemnification for any Claims which result from the Party's own negligence.

The Parties agree to indemnify the other Party in accordance with their proportionate share of the Joint Venture fo any and all Claims not relating to the negligence of either Party. However, the Parties agree that to the extent Claim, suit or demand is made against the Joint Venture and to the extent possible in other actions, the Parties w cooperate in the defense of such matter and they agree that they may toll the limitations period as to any actio between themselves concerning such matter until the underlying Claim or litigation is resolved. Payment by suc Party of such loss or liability shall not be considered a contribution to the capital of the Joint Venture. Suc amount shall be paid directly by the Party bearing such loss or liability.

B. Manpower resources, when and as required for the performance of the Contract, shall be furnished by each of t Parties as nearly as possible in accordance with their respective Percentage Interests, taking into account t performance of the Services in a convenient, expeditious and economical manner. Contribution of manpow resources by the Parties in relation to their respective Percentage Interests shall, as nearly as possible, be substantially similar professional, managerial and other skill levels. The sole consequence of any imbalances the contribution of manpower resources shall be for the Parties to mutually adjust their respective fut contributions of such resources to more closely align with their respective Percentage Interests on a cumulat basis.

ARTICLE 9 - SUBCONTRACTING

Any and all services to be performed by outside consultants under this Agreement shall be accomplished by means formal subcontract document approved by the JVEC and, if required, by the Client. All subcontract documents shal signed by the Party(ies) designated by the JVEC.

ARTICLE 10 - INSURANCE

A. The Parties shall individually procure and maintain, at their own expense, insurance of the kinds and in amounts required by the provisions of the Contract.

B. Within fifteen (15) days of the commencement of the Services under this Agreement, each Party shall furnish other, and the Client, if required by the Contract, with certificates of insurance evidencing required insur coverages.

C. Subcontractors shall be required to furnish the Joint Venture with certificates of insurance evidencing coverag required by the JVEC. In no event, however, shall the types and limits of insurance required for the Joint Ve subcontractors be less than those required by the Client.

ARTICLE 11 - DEFAULT

A. Should either Party, hereinafter referred to as the "Defaulting Party", (i) file or fail to discharge within thirty days an involuntary petition in bankruptcy or reorganization, (ii) file a certificate of dissolution by election, order of Court of competent jurisdiction or by operation of law, (iii) make a general assignment for the ben creditors or become insolvent, or (iv) default in its obligations hereunder, then and on the occurrence of any default, the other Party, hereinafter referred to as the "Remaining Party" shall, upon notice or discovery th provide whatever is necessary for the continuance of the performance of the requirements of the Contract.

B. Upon the occurrence of any such default, the administrators, trustees or representatives of the Defaulting shall have no right to participate in the administration of the Joint Venture or to any distribution of compen from the Joint Venture. The Defaulting Party's share of any compensation at the time of such default sh

placed in a special account until the closing of the accounts of the Joint Venture, from which there shall be deducted all additional expenses incurred, if any, by the Remaining Party as a result of such default. The Defaulting Party shall be liable for any losses sustained by the Remaining Party or incurred by the Joint Venture as a result of the default of the Defaulting Party. In the case of such default, the Defaulting Party shall immediately turn over to the remaining Party all plans, data, drawings, and all other documents and information relating to the Project, which are in its possession or control.

ARTICLE 12 - NOTICES

All notices required to be given under any provision of this Agreement by one Party shall be given by first class mail, postage pre-paid, addressed to the office of the other in the follows:

Edwards and Kelcey Engineers, Inc.
5 Penn Plaza
New York, NY
Attn: Michael Cavanaugh

DMJM+HARRIS, Inc.
605 Third Ave
New York, NY 10158
Attention: Ira Levy/Neal Forshner

EDAW, Inc.
104 West 22nd Street
New York, NY
Attn: Timothy Delorm

ARTICLE 13 - AMENDMENT

This Agreement may be modified or amended only by written agreement duly signed by the authorized representatives of the Parties hereto.

ARTICLE 14 - SECURITY INTEREST

Both Parties to this Agreement hereby agree to convey and grant, each Party to the other, a security interest in any equipment and material to be provided in the construction of the Project; and that should a Party be in default under Paragraph 11, the non-defaulting Party shall thereby become a successor-in-interest and is thereby assigned the right to utilize said equipment and material for the completion of the Project construction. Upon completion of said construction, the successor-in-interest shall be obligated to return the equipment to its owner. The Party so utilizing the equipment shall be responsible for damage to the equipment, normal wear and tear notwithstanding.

ARTICLE 15- NOTICE UPON BANKRUPTCY

The Parties to this Agreement hereby agree that, given the unique nature of the Services provided under this Agreement, the critical timing of performance of this Agreement, and the nature of this Agreement involving a Joint Venture, even if a court determines that the Agreement may be assumed in bankruptcy, a reasonable time period to determine whether to assume or reject this Agreement in any bankruptcy case or similar proceeding shall not exceed 30 days. The Parties also agree that the Party in such proceeding shall inform the other Party in writing of its intention with respect to this Agreement as soon as possible, and in any event within that 30 day period.

ARTICLE 16 - SUCCESSORS AND ASSIGNS

Each Party binds itself, its successors, administrators, trustees, representatives and assigns to the other Party with respect to the obligations set forth in this Agreement.

ARTICLE 17 - GOVERNING LAW

This Agreement shall be construed under and governed by the laws of the State of New York.

PARAGRAPH 18 - COUNTERPARTS

The Agreement may be executed in any number of counterparts, each of which shall be deemed an original and together shall constitute but a single instrument.

IN WITNESS WHEREOF, the authorized representatives of the Parties have executed this Agreement as of the day and year first above written.

Edwards and Kelcey Engineers, Inc.

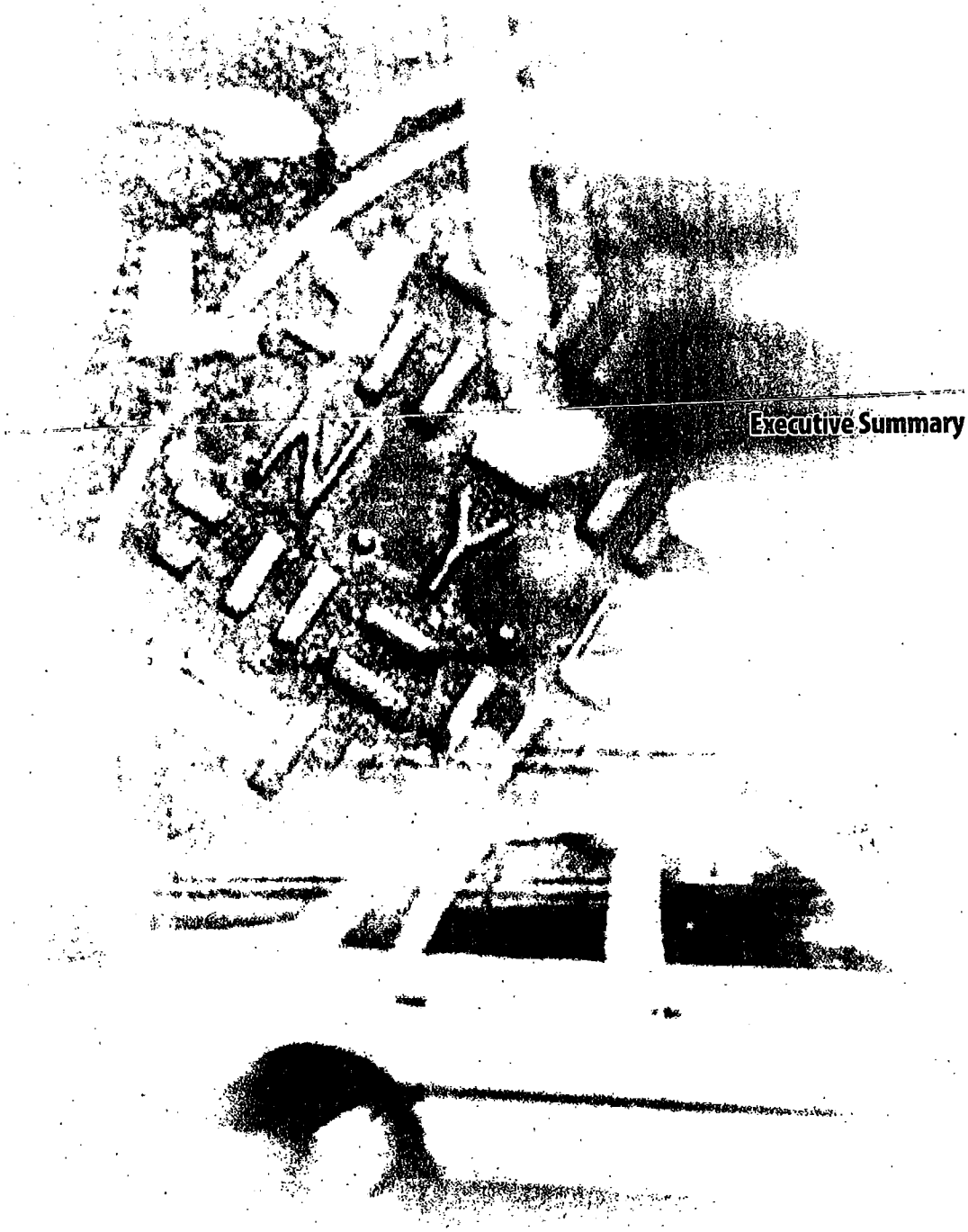
Name
Typed Name Kevin J. McMahon
Title President
Date December 19, 2006

DMJM+HARRIS, Inc.

Name
Typed Name Ira Levy, PE
Title Executive Vice President
Date December 19, 2006

EDAW, Inc.

Name
Typed Name Paul H. Moyer
Title Principal/Vice President
Date December 19, 2006



Executive Summary

EXECUTIVE SUMMARY

Critical to the WTC Streets, Utilities and Related Infrastructure Design project is the ability of the selected design team to assure security and provide appropriate streetscaping, infrastructure and landscaping consistent with master plan and stakeholder goals in what is quite possibly the most complicated construction site in the world. Success will require a design team with the proven ability to coordinate with multiple entities to drive the project forward, a comprehensive understanding of the site and your needs, in-depth experience with highly complex civil projects in the New York City environment, and the cutting-edge security systems that will be required. Downtown Streetscape Partners (DSP) is that team!

Edwards and Kelcey, DMJM Harris, and EDAW - as Downtown Streetscape Partners - have joined together to offer the Port Authority a best-value solution to accomplish your goals for this extraordinarily challenging undertaking. No one is better positioned to deliver this project successfully than the DSP Team. With an unequaled background in infrastructure design, traffic engineering, urban and landscape design, and - equally important - security systems to maintain safe public access and protect critical assets, this team has the proven ability to create a distinct visual identity and a welcoming landscape that integrates new streets and public amenities with the many different elements of the WTC site.

The DSP Team offers the Port Authority tremendous advantages to navigating the path ahead while serving as your consultant for this challenging project. With the advantages listed below, we will have a running start on this job, and will be able to coordinate with all of the involved parties to begin advancing the project on Day One:

Depth of knowledge. The members of the DSP Team have been working at the WTC site and throughout Lower Manhattan for decades. From Edwards and Kelcey's leadership on such major urban projects as the design of a $70 million segment of Route 9A - one of the largest and most complex roadway projects ever undertaken in New York City - to DMJM's work at the WTC Transportation Hub, Vehicular Security Center, and many other projects in the area, the team brings a proven successful experience in major street and infrastructure design and construction in the New York City environment, and comprehensive understanding of the WTC Master Plan and Master Schedule.

World class urban and landscape design. In addition to the DSP Team's substantial strength in streetscape design, EDAW brings to the Team unmatched experience in urban master planning and design for highly visible, public sites, including preparation of Security Master Plans for Downtown Washington, for the National Capital Planning Commission, as well as multiple streetscape projects for the U.S. Capitol, the World Bank Headquarters, and the Smithsonian Institution, as well as design of Olympic parks in Atlanta, London, and Barcelona. EDAW's work for the Smithsonian Mall in Washington, D.C., is particularly relevant to the WTC streetscape project, having as its defined goal preserving visitor safety and facility integrity, and integrating building perimeter security elements into dignified and cohesive streetscapes. EDAW is also currently working on the re-design of the Fulton Mall Streetscape in downtown Brooklyn for NYCEDC.

Proven ability to exercise strong project and stakeholder coordination. Bringing additional extensive knowledge of the WTC site, its issues, the stakeholders, and other ongoing projects through leadership roles on the WTC Transportation Hub, the Vehicular Security Center, and coordination and controls for reconstruction of Route 9A from Battery Park City to Chambers Street is STV Incorporated in a major subconsultant role. STV's proven success representing the Port Authority's interests, working with New York City and State agencies, and Downtown stakeholders to coordinate project work, resolve issues and move forward will be a significant asset to our team.

Effective leadership to deliver success. Our core management team—Michael Cavanaugh, P.E. (Project Manager), Michael Murno, P.E. (Infrastructure Manager), Roger Courtenay, ASLA, LEED (Urban Design Manager), Kevin Conway, P.E. (Security Manager), Molly MacQueen (Coordination), and Amr Elmeged (Project Controls)—will be fully committed to seeing that this project is managed, developed, and executed on time and to the complete satisfaction of the Port Authority.

Proven, high profile, mega-project credentials. No one is better positioned to deliver this project successfully than the DSP Team. From our key roles on such high profile projects as the Route 9A reconstruction and design of Hudson Street from Chambers to 14th Street; on the WTC Transportation Hub and the WTC Vehicular Security Center; and master planning and design for security streetscape projects for such national monuments as the U.S. Capitol, the World Bank Headquarters, the Smithsonian Institution, and several Olympic Parks, the members of DSP Team have a proven history of meeting and exceeding the expectations of our clients and the public on similar challenging endeavors.

Unparalleled security capabilities. Our team offers pioneering security design expertise and a full understanding of WTC site security plans. The DSP firms have performed security planning and design services for the Port Authority, the Pentagon, DOD, DOE, TSA, MTA, the U.S. State Department, USACE, major U.S. airports, and numerous private clients. Two of the subconsultants we have enlisted - Weidlinger Associates (WAI), and Science Applications International Corporation (SAIC) - have outstanding specialized capabilities in security design and systems integration. WAI staff knows the Port Authority's security protocols inside and out - because they wrote them. The firm has been a trailblazer in the field of blast analysis and structural hardening. In fact, WAI developed the blast analysis and security criteria used by the GSA and is the only firm to have its analytical models validated by the U.S. government. SAIC has conducted more than 500 threat and vulnerability assessments for some of the nation's most popular icons, financial districts, maritime ports, energy facilities, chemical plants, and sporting venues. SAIC's specific methodology for Needs-Based Risk Assessment has been adopted as the standard by the Office of Domestic Preparedness at the Department of Homeland Security. In addition, SAIC has recently conducted a Needs-Based Risk Assessment and Five-Year Security Planning effort for the Port Authority, and is currently writing the critical World Trade Center All Hazards Master Security Plan.

Depth of resources. The Downtown Streetscape Partners Team brings a wealth of multidisciplinary engineering and architectural resources to the WTC Streets, Utilities, and Related Infrastructure Project. With major offices in New York City, and a New York City area staff numbering over 1400, backed by national resources of over 5700, the DSP Team will be able to quickly mobilize, deploy all necessary staff, and provide all necessary management, administrative, and support resources to make this project a success. We have a depth and breadth of talent that will enable us to respond to any necessity, efficiently and effectively.

Staff qualifications and experience. Our commitment to this project is reflected in the professionals we have assigned.

- The DSP Team will be led by our proposed **Project Manager, Michael Cavanaugh, PE**, who will have ultimate responsibility for the project and who will be the primary contact with the Authority. Mike has 27 years of experience on street and landscaped urban boulevard projects including extensive design of new and relocated underground utilities. Mike was the Project Manager for final design and construction support services for the $70 million reconstruction of Route 9A between Horatio Street and West 26th Street. Previously, he was Project manager for the preliminary design of the entire five-mile $370 million Route 9A project from Battery Place to West 59th Street.

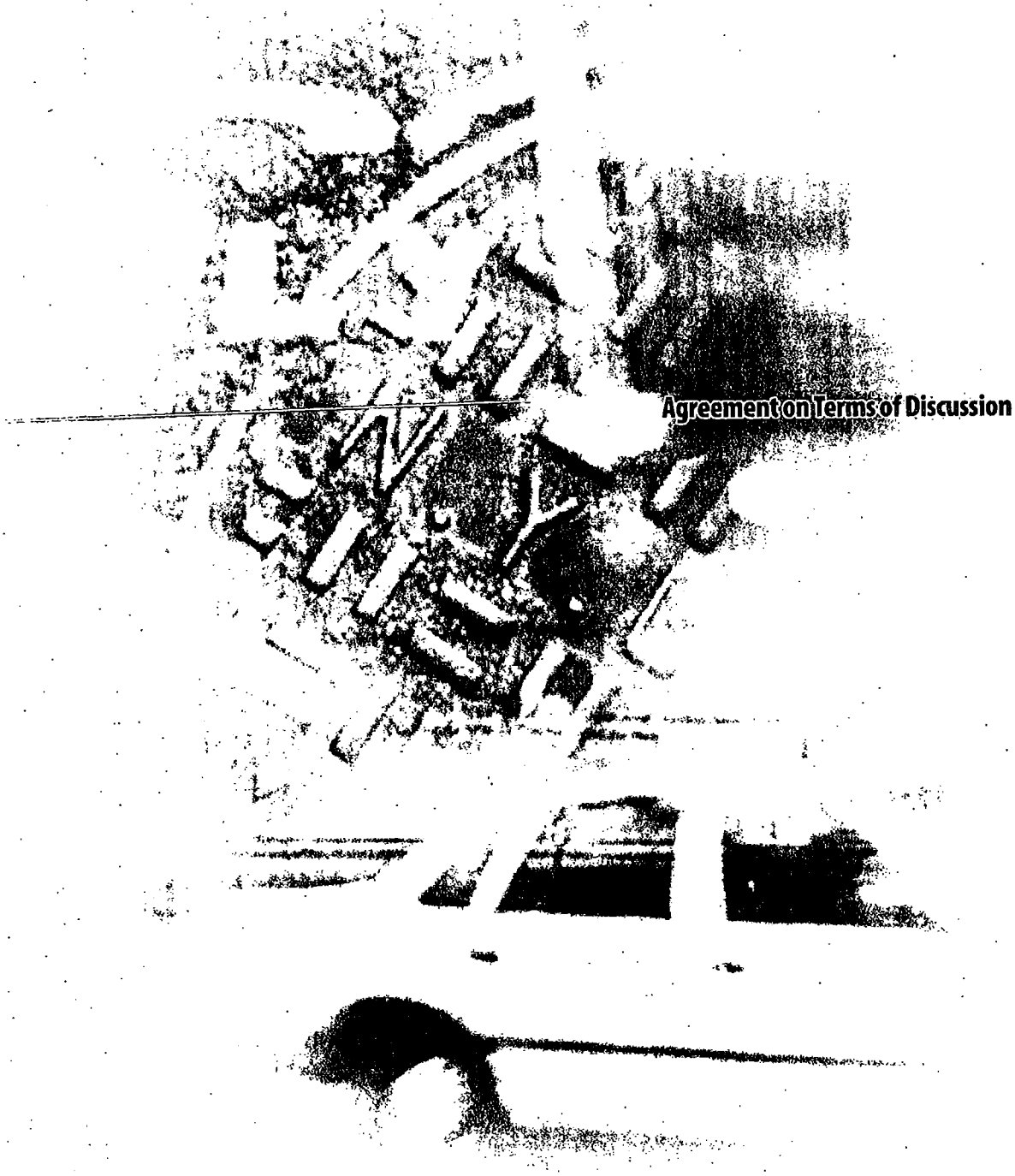
- **Infrastructure Manager Michael J. Murno, PE, PP** has 37 years of experience in all phases of street and highway engineering. Michael was the Project Engineer for final design services for the $70 million construction of Route 9A between Horatio Street and West 26th Street. He was also the Project Manager for the design of underground electrical utility installations at the North Residential Area in Battery Park City.
- **Urban Design Manager Roger Courtenay, ASLA** has 30 years of experience with planning, urban streetscapes, and site security design. His extensive related experience includes serving as Principal-in-Charge for the Smithsonian Mall-Wide and Perimeter Security Plan, the National Capital Urban Design and Security Plan, and the National Museum of the American Indian landscape and perimeter security design.
- **Security Manager Kevin Conway, CCNP** has 25 years of experience in systems design, sustainable design and security system design. His recent project experience includes Perimeter Intrusion Detection Systems at Newark, La Guardia, John F. Kennedy and Teterboro Airports and the Guard Post Hardening Project at Newark, LaGuardia and John F. Kennedy airports.
- **Coordination Manager Molly MacQueen** brings to the project more than 25 years of experience in coordination of stakeholder interests, as well as complex regional and multi-jurisdictional planning. She formerly served as Director of the Urban Development Corporation Environmental Planning and Review Division. Her background encompasses project management of some of the largest public and private development initiatives undertaken in recent years. Her experience includes extensive interface with the NYCEDC, PANYNJ, NYSDEC, SHPO, and the New York City and State Departments of Transportation, as well as coordination with local community boards, borough presidents, and city council members.
- **Project Controls Manager Amr A. Elmeged** has 35 years of experience in program and construction management. He has served as Project Controls Manager on numerous important transportation design projects including the Second Avenue Subway, Tren Urbano Rail System in San Juan, and the MBTA South Boston Piers Transitway.

Technical/Management Approach. Our goal will be to provide effective project coordination and create a distinct visual identity and a welcoming landscape that integrates new streets and public amenities with the many different elements of the WTC site. We understand the key issues of this project include:

- Unified urban design
- Security
- Infrastructure design
- Construction issues
- Coordination with stakeholders and other projects
- Traffic and pedestrian management

With these key issues in mind, the DSP Team has developed a technical approach and a management plan, based on the team's extensive knowledge of the WTC site area and tremendous experience with projects of similar complexity and scope, that will meet the goals and objectives of the Port Authority for this project. Our approach is described in detail within our proposal.

An important aspect of our approach is the integration of all infrastructure elements into a unified design with the master plan and landscape design regarding aesthetic goals, connectivity for vehicles and pedestrians, and an engaging streetscape that will enliven Lower Manhattan and the objectives for residential, commercial, and cultural revitalization.



Agreement on Terms of Discussion

ATTACHMENT A

AGREEMENT ON TERMS OF DISCUSSION

The Authority's receipt or discussion of any information (including information contained in any proposals, ideas, concepts, models, drawings, or other material communicated or exhibited by the undersigned ("us") or on our behalf to the Authority) shall not impose any obligation whatsoever on the Authority or entitle us to any compensation therefor (except to the extent specifically provided in such written agreement, if any, as may be entered into between the Authority and us). Any such information given to the Authority before, with, or after this RFP, either orally or in writing, is not given in confidence and may be used or disclosed to others by the Authority, for any purpose at any time without obligation or compensation and without liability of any kind whatsoever. Any statement which is inconsistent with this agreement, whether made as part of or in connection with any information received from us, or made at any other time in any fashion, shall be void and of no effect. This RFP is not intended, however, to grant to the Authority rights to use any matter, which is the subject of valid existing or potential letters patent. The foregoing applies to any information, whether or not given at the invitation of the Authority.

Further, upon notice before disclosure, the Authority will use all reasonable efforts to safeguard any disclosure by the Authority of material deemed to be your trade secret or which are maintained for the regulation or supervision of commercial enterprise, disclosure of which would injure your competitive position, in accordance with the provisions of the Authority Commissioners regarding Freedom of Information.

EDWARDS AND KELCEY ENGINEERS, INC.
Name of Company*

SIGNATURE OF OFFICER

PRESIDENT
Title

DECEMBER 19, 2006
Date

* For a joint venture, insert information and signature as appropriate for one participant of the joint venture on this page and for the other participant(s) on the additional page(s) (photocopy page for signatures of additional joint venture participants as required).

ATTACHMENT A
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Name of Company*

DMJM Harris

Signature of Officer

Title

Ira Levy, PE

Executive Vice President

Date December 20, 2006

* For a joint venture, insert information and signature as appropriate for one participant of the joint venture on this page and for the other participant(s) on the additional page(s) (photocopy page for signatures of additional joint venture participants as required).

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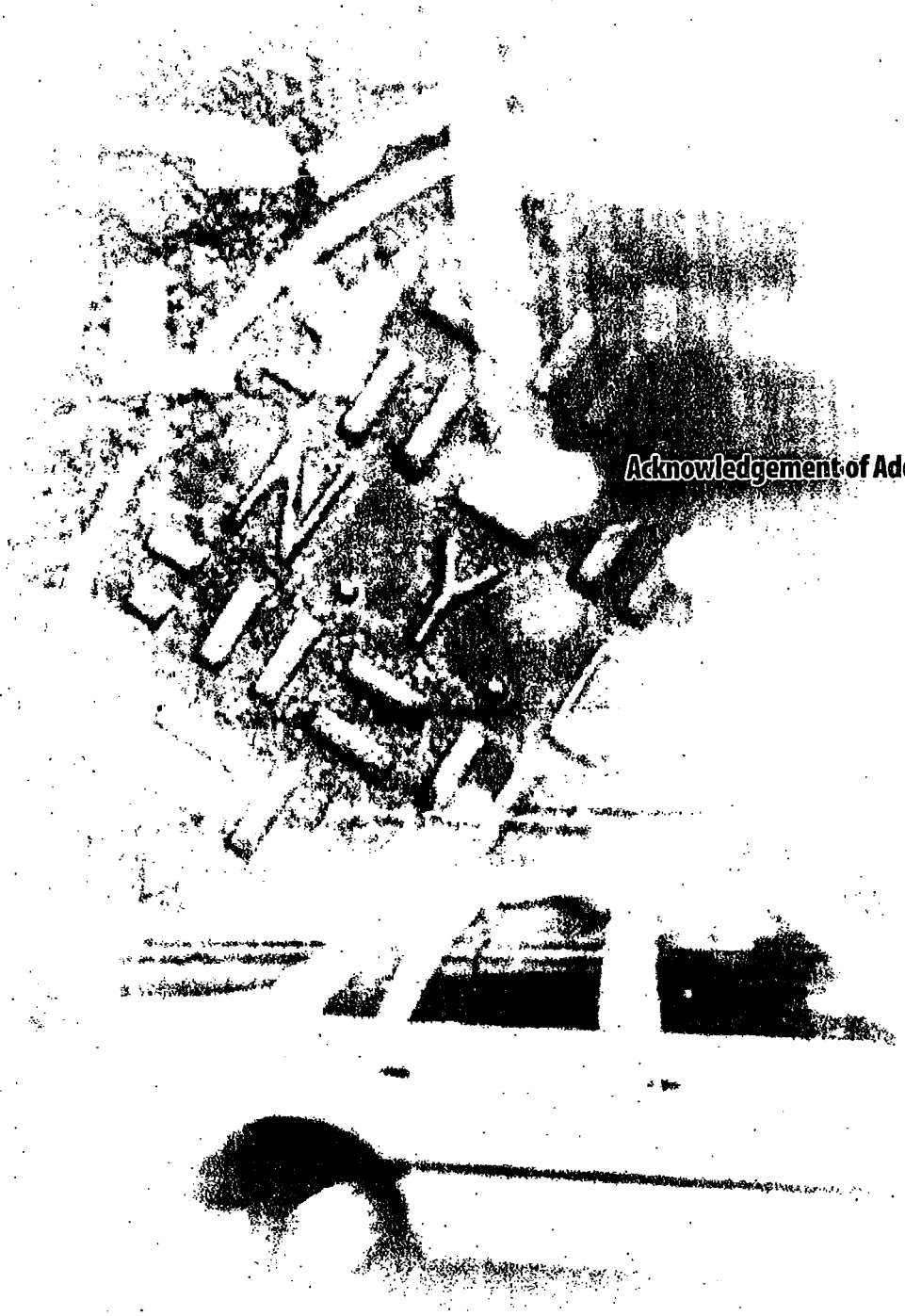
EDAW, Inc.
Name of Company*

Roger Courtney
SIGNATURE OF OFFICER

PRINCIPAL/VICE PRESIDENT
Title

DECEMBER 19, 2006
Date

* For a joint venture, insert information and signature as appropriate for one participant of the joint venture on this page and for the other participant(s) on the additional page(s) (photocopy page for signatures of additional joint venture participants as required).



Acknowledgement of Addenda

THE PORT AUTHORITY OF NY & NJ

THE PORT AUTHORITY OF NEW YORK & NEW JERSEY
PROCUREMENT DEPARTMENT
ONE MADISON AVENUE 7TH FL.
NEW YORK, NY 10010

Date: December 1, 2006

ADDENDUM #1

TO PROSPECTIVE PROPOSERS ON REQUEST FOR PROPOSALS (RFP) # 11746 PERFORMANCE OF EXPERT PROFESSIONAL ARCHITECTURAL AND ENGINEERING SERVICES FOR THE WORLD TRADE CENTER STREETS, UTILITIES AND RELATED INFRASTRUCTURE DESIGN

Due back on December 20, 2006, no later than 2:00 PM

The following change is hereby made in the documents:

1. In Exhibit A – Scope of Work, Task E, entitled "Design Criteria Summary," the following note is added for the document entitled "WTC Streets Security Performance Criteria" listed on page 4: "(will be made available after award to the selected Consultant)."

All other Terms and Conditions shall remain the same.

This communication should be initialed by you and annexed to your proposal upon submission.

In case any proposer fails to conform to these instructions, its proposal will nevertheless be construed as though this communication had been so physically annexed and initialed.

THE PORT AUTHORITY OF NY & NJ

PATRICIA COSE PROCUREMENT
MANAGER, WTC SITE PROJECTS

PROPOSER'S FIRM NAME: EDWARDS AND KELCEY/DMJM HARRIS/EDAW, A JOINT VENTURE

INITIALED: _____

DATE: DECEMBER 19, 2006

PS11All

Date: December 7, 2006

ADDENDUM #2

6	*Question*	In reference to Article 1.3 of the RFP, does the separately packaged "Proposer Prerequisites" count in the overall 100 page limit for the Proposal? If so, exactly what components of the Prerequisite Proposal, as defined in RFP articles 7.1.1 through 7.1.9, are to be included within the 100 page limit?
	Answer	The separately packaged documentation for the "Proposer Prerequisites" is not included in the 100-page limit for the Proposal.
7	*Question*	Do covers and tabbed dividers count in the 100 page limit?
	Answer	No.
8	*Question*	What is definition of "common law joint venture" as referred to in the last paragraph of Chapter 3 of the RFP?
	Answer	See Answer #3.

All other Terms and Conditions shall remain the same.

This communication should be initialed by you and annexed to your proposal upon submission.

In case any proposer fails to conform to these instructions, its proposal will nevertheless be construed as though this communication had been so physically annexed and initialed.

THE PORT AUTHORITY OF NY & NJ

PATRICIA COSE PROCUREMENT
MANAGER, WTC SITE PROJECTS

PROPOSER'S FIRM NAME: Edwards and Kelcey/DMJM Harris/EDAW, A Joint Venture

INITIALED: _____

DATE: DECEMBER 19, 2006

QUESTIONS CONCERNING THIS ADDENDUM MAY BE ADDRESSED TO PATRICIA COSE, WHO CAN BE REACHED AT (212) 435-3917.

Date: December 11, 2006

ADDENDUM #3

1	*Question*	Can the bid list be made public?
	Answer	The Port Authority has made a determination that the list of prospective proposers will not be distributed to anyone outside the organization.
2	*Question*	Is a list of bidders is currently available? If so, how may we obtain a copy?
	Answer	See Answer #1 above and Answer #2 in Addendum 2, dated December 7, 2006.
3	*Question*	Has a **Total Construction Budget/Cost** been established and or estimated for the work identified in the RFP? If so what is the dollar amount?
	Answer	The total construction budget/cost for the RFP scope is not available.

All other Terms and Conditions shall remain the same.

This communication should be initialed by you and annexed to your proposal upon submission.

In case any proposer fails to conform to these instructions, its proposal will nevertheless be construed as though this communication had been so physically annexed and initialed.

THE PORT AUTHORITY OF NY & NJ

PATRICIA COSE PROCUREMENT
MANAGER, WTC SITE PROJECTS

PROPOSER'S FIRM NAME: EDWARDS AND KELCEY/DMJM HARRIS/EDAW, A JOINT VENTURE

INITIALED: _____

DATE: DECEMBER 19, 2006

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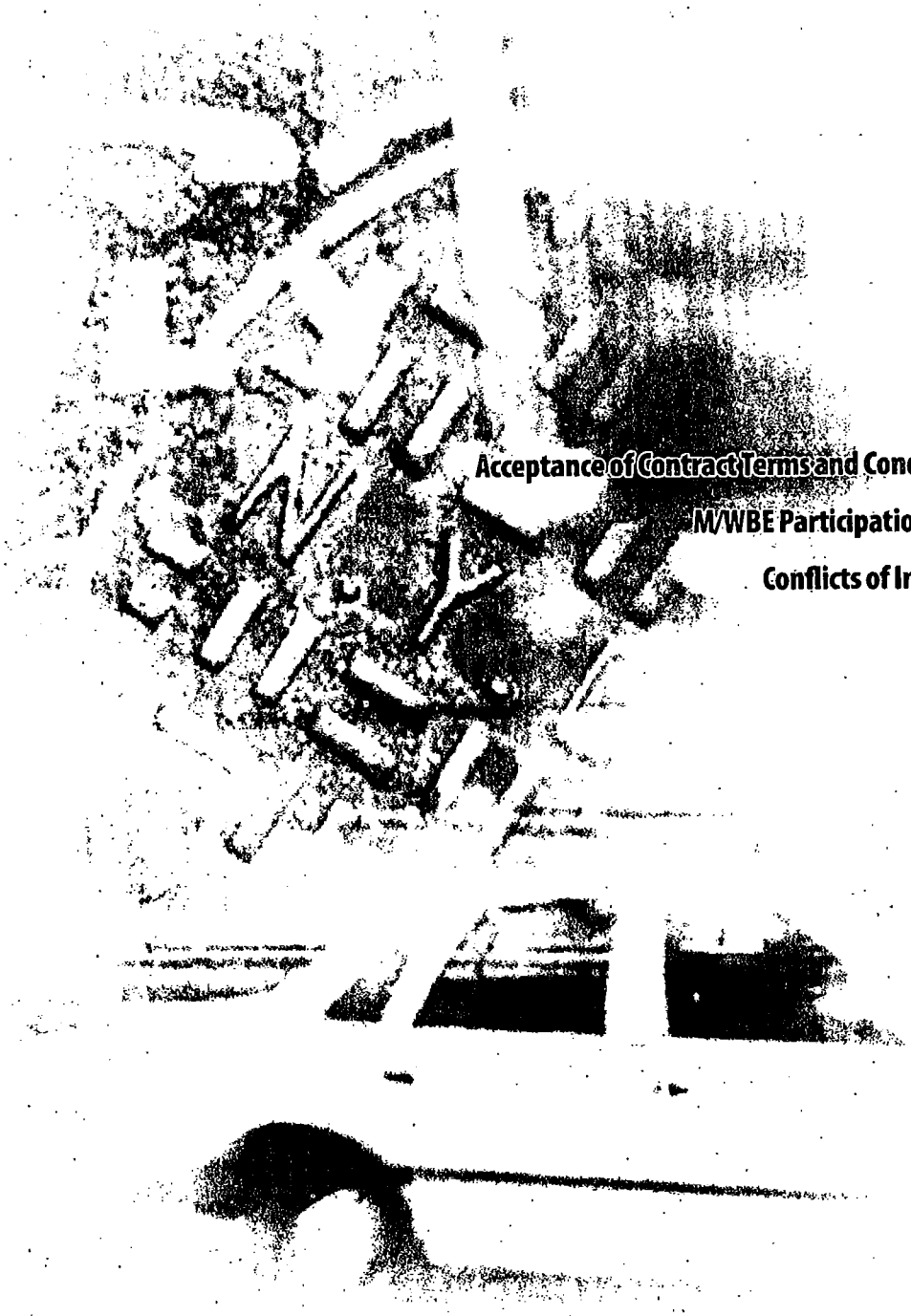


Acceptance of Contract Terms and Conditions

M/WBE Participation Plan

Conflicts of Interest

CONTRACT TERMS AND CONDITIONS

The Downtown Streetscape Partners' Team does not take any exception to the proposed contract terms and conditions.

MBE/WBE PARTICIPATION PLAN

MBE/WBE Participation

Edwards and Kelcey and our joint venture partners have developed and implemented MBE/WBE utilization plans for a large number of projects over the last several years. These plans have been implemented for a wide variety of clients including:

Port Authority of NY and NJ
MTA New York City Transit
MTA Long Island Rail Road
MTA Bridges and Tunnels
New York State Department of Transportation
New York State Thruway Authority
New York City Department of Transportation
New Jersey Highway Authority
New Jersey Turnpike Authority
New Jersey Department of Transportation
Massachusetts Department of Transportation
South Eastern Pennsylvania Transportation Authority

This experience has provided our team with extensive knowledge of the capabilities and expertise of a large number of MBE and WBE firms in the northeast region and we have developed good working relationships with many of them. Our past experience in successfully teaming with MBE/WBE firms assures the Port Authority that MBE/WBE firms will have meaningful work and make a positive contribution to the success of the Downtown Streetscape Partners Team.

Each of our firms – Edwards and Kelcey, DMJM Harris and EDAW – takes pride in our record of meeting and exceeding clients' MBE/WBE subcontracting goals. Our Team includes a carefully selected group of MBE/WBE firms who have successfully worked with our joint venture partners, both individually or collectively, on a variety of past projects. These firms all have past experience working successfully on projects for the Port Authority of NY and NJ. The table below lists the MBE/WBE firms that will be part of our team and summarizes the services they will provide.

Firm	M/WBE	Scope of Work
Two Twelve Harakawa 902 Broadway, 20th Floor, New York, NY 10010	MBE	Wayfinding/Signage
Environmental Planning and Management 1983 Marcus Avenue, Lake Success, NY 11042	WBE	Lead/Asbestos Abatement
Medina Consultants One Edgeview Drive, Hackettstown, NJ 07840	MBE	Survey
IH Engineers 103 College Road East, Princeton, NJ 08540	MBE	Civil/Structural Eng. Support
To Be Determined	M/WBE	Reproduction/Graphics

CONFLICTS OF INTEREST

The Downtown Streetscape Partners Team has read Articles 8.4 and 8.5 of the Conditions for Submission of a Proposal regarding conflicts of interest. We have no conflict of interest, and we agree to the terms and conditions of Article 8.4 and Article 8.5.

Team Qualifications and Experience

2. QUALIFICATIONS & EXPERIENCE

1. FIRM QUALIFICATIONS

Edwards and Kelcey/DMJM Harris/EDAW, A Joint Venture

Edwards and Kelcey/DMJM Harris/EDAW, a Joint Venture, Downtown Streetscape Partners, wishes to be pre-qualified as a joint venture for this project. This joint venture brings together three of the leading engineering/consulting firms in the country with extensive prior experience on related projects and a proven record of success on prior Port Authority projects including the WTC Transportation Hub. A copy of our joint venture agreement is attached following the Transmittal Letter.

Unmatched Level of Experience at the WTC Site and in Lower Manhattan

As shown in the listing below, our Team offers the Port Authority an unmatched level of experience working at the WTC site and throughout Lower Manhattan. Our understanding of the complexities involved in working at the WTC site, as well as our history of effectively collaborating with the Port Authority and the many stakeholders involved, demonstrates that our Team will deliver this project successfully.

LISTING OF WTC/LOWER MANHATTAN SITES THE TEAM HAS WORKED / IS WORKING ON

WTC Transportation Hub A/E Design
WTC All Hazard Master Security Plan
Freedom Tower Security Consultation
7 World Trade Center Security Consulting
Route 9A Tunnel Study Reconstruction
Downtown Manhattan Utility Mapping (Vesey, Church, Liberty, West Streets)
WTC Structural Engineering Investigation
WTC Plaza Vibrations Study
WTC Bombing Analysis and Assessment
Dey Street Concourse (underpinning geostructures)
WTC Transportation Hub Security Consultation
Wall Street Financial District Security Program
Museum – Jewish Heritage – Security Consultation and Engineering
Battery Park Vehicle Assessment Screening and Detection Program
Second Avenue Subway Design and Environmental Coordination
Whitehall Ferry Terminal
Route 9A West Program Management
Route 9A Emergency Repairs 2001-2002
Route 9A Segment 2
Route 9A Segment 5
Hudson Street Preliminary and Final Engineering

The Edwards and Kelcey/DMJM Harris/EDAW Team

The Downtown Streetscape Partners Team is comprised of three of the most respected engineering firms in the industry – Edwards and Kelcey, DMJM Harris and EDAW – and a team of high-caliber subconsultants including STV, Weidlinger Associates and SAIC, bringing cutting-edge security design. As shown by the table below, no one is better positioned to deliver this project successfully than our Team

The Edwards and Kelcey/DMJM Harris/EDAW Team has the knowledge of the WTC site, experience working with the Port Authority and stakeholders, and unique security expertise needed to deliver a successful project.

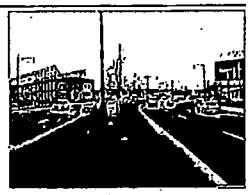
TEAM MEMBER	DIFFERENTIATORS
Edwards and Kelcey	• *A 100-person New York office dedicated to NY metropolitan area infrastructure projects* • *A Project Manager with over 25 years of experience in preliminary and final design for over 30 miles of New York City street and utility construction for agencies including NYCDOT, NYSDOT, NYCEDC and BPCA* • *A firm with a continuous 20+ year relationship with PANYNJ providing civil engineering services on a call-in basis for literally hundreds of tasks* • *A firm with extensive experience coordinating and developing utility designs for NYCDEP (water/sewer), Con Ed (electric/gas/steam), and Verizon/Empire City Subway* • *In-depth experience – large urban projects, infrastructure/utilities design and construction, roadway design, alignment/geometry, stakeholder coordination, knowledge of and experience in Lower Manhattan including Route 9A and Hudson Street* • *Resources and Availability – approx. 300 staff in the NY/NJ area with nearly 1,000 in the U. S.*
DMJM Harris	• *Project Knowledge – part of the JV leading design of the WTC Transportation Hub, a largely underground facility immediately adjacent to this project. Know the site, its issues, the stakeholders, and other ongoing projects* • *Resources and Availability – approx. 650 multidisciplinary staff in the NY/NJ area, over 2,000 in the U. S. plus access to 28,000+ through parent AECOM* • *Communications and Coordination – proven success representing the Port Authority's interests and working with Downtown stakeholders to resolve issues and more forward* • *Excellent Credentials in Security for Infrastructure – Port Authority Capital Security Program, Tren Urbano System, American Airlines Terminal, Pentagon Renovation Program, San Francisco International Airport Terminal* • *In-depth Experience – security systems for critical assets, parking facilities, and all other technical knowledge required for success*
EDAW	• *Co-author of Security Master Plans for Downtown Washington (for National Capital Planning Commission) and for the Smithsonian Institution* • *Proven capability to work in regulatory environment with stakeholder and public participation, consensus-building situations and create internationally-recognized design: Wharf District Parks, Boston; Manchester Downtown, U.K., multiple projects – Downtown Washington, D.C.; and Barbara Faga, author: Designing Public Consensus* • *Multiple site perimeter security streetscape projects constructed or in construction, including World Bank HQ, U.S. Capitol, Smithsonian Institution Museums* • *Urban design/landscape architecture practice for world-class venue public realm planning, urban design and design implementation: Centennial Olympic Park (Atlanta), Olympic Games (London), Diagonal Mar (Barcelona)* • *Expertise with similar role on similar infrastructure-based urban design projects: Urban Design Task Manager for Virginia Side Improvements – Woodrow Wilson Bridge*
STV	• *Project Knowledge—STV knows the site, its issues, the stakeholders, and other ongoing projects through our leadership roles on the WTC Transportation Hub, the WTC Security Center and Bus Garage, and coordination and controls for reconstruction of Route 9A from Battery Park City to Chambers Street* • *Communications and Coordination—proven success representing the Port Authority's interests, working with New York City and State agencies, and Downtown stakeholders, to coordinate project work, resolve issues and move forward* • *Expertise and Resources—an in-house staff of over 500 multidisciplinary architects and engineers in the NYC metropolitan area, backed by over 1450 nationwide*

Exemption (4)

Relevant Experience

Edwards and Kelcey, DMJM Harris. EDAW, STV, and other key subconsultants on the Downtown Streetscape Partners Team are firms that have designed some of the largest and most complex projects in this region, working both individually and in teams. Whether in joint ventures or prime-subconsultant relationships, the member firms on our team have worked on literally billions of dollars in construction in New York and New Jersey and have successfully delivered some of the most technically challenging projects around the country and throughout the world. To comply with the PA's request for a table detailing information on a minimum of two projects with urban street and park components, and other similar projects in size and scale performed by the members of our team, we have prepared the following table demonstrating the vast experience of our team with these types of projects. Following the table, we have also provided full-page project descriptions to provide further detail of our experience.

Route 9A Reconstruction Final Design, New York, NY

Team Member: Edwards and Kelcey Project Manager: Michael Cavanaugh, PE Date Started: 1996 Date Completed: 2002 Total Cost: $70 million Client/Contact: NYSDOT Doug Curry, 718.482.4526	 EK prepared final plans, specifications and estimates and performed construction phase services for a 1.5-kilometer section from Horatio Street to W. 26th Street. The project consisted of a new seven-lane roadway with landscaped median and a separate bikeway and walkway. EK prepared 800 contract drawings as part of an aggressive 18-month schedule. EK's effort and execution were duly noted on the final performance evaluation from the Route 9A Executive Director. The evaluation, which contained only positive comments, said that EK's "excellent staff" produced "highly professional work" that was "within schedule" and "under budget.

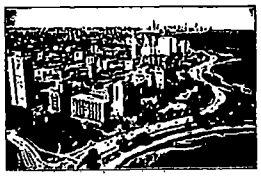
Hudson Street Preliminary and Final Design, New York, NY

Team Member: Edwards and Kelcey
Project Manager:
Michael Cavanaugh, PE
Date Started: 1988
Date Completed: 1996
Total Cost: $27 million
Client:
NYC DOT
Dino Ng (now w/ NYCDDC), 718.391.2140

Edwards and Kelcey provided preliminary and final engineering services for street improvements in Hudson Street for its entire 2-mile length from Chambers Street to West 14th Street. Preliminary design included topographic and utility surveys, identification of infrastructure improvements, schematic design, and preparation of a preliminary design report. The final design contract documents provided for a full rehabilitation of the street bed and underground utility systems, most well over 100 years old.

Lake Shore Drive Preliminary Design and Project Management Services, Chicago, IL

Team Member: Edwards and Kelcey
Project Manager:
Douglas Knuth, PE
Date Started: 1998
Date Completed: 2004
Total Cost: $160 million
Client/Contact:
Illinois DOT/J. Cebulski
847.705.4125
Chicago DOT/C. Wuellner
312.742.1986



EK prepared a project report and preliminary plans for 6.3 miles of US Route 41. The project involved detailed planning studies for improvements to this Chicago area arterial route. Because of its uniqueness and historical context, this project was subject to intense public and media interest. EK instituted a Context Sensitive Solutions approach. This included a public communication program, including meetings with neighborhood groups, the general public, and an Advisory Group composed of interested organizations. In addition, as Project Manager, EK acted as mediator and liaison between several engineering firms, the Chicago Park District, and the City of Chicago.

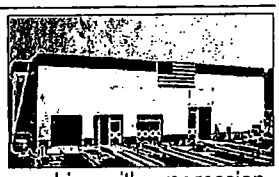
Route 21 Reconstruction, Newark, NJ

Team Member: Edwards and Kelcey
Project Manager:
Neal Toglia, PE
Date Started: 2002
Date Completed: 2007
Total Cost: $110 million
Client/Contact:
NJ DOT
L. Vogel, 609.530.5529

EK has been responsible for study, preliminary design, final design, and construction support services for the reconstruction of this section of Rte. 21 through downtown Newark, resulting in a cost-effective TSM roadway improvement project that reduced an original freeway-type design construction cost by approximately 50 percent. Major design elements included roadway widening and realignment, geotechnical analysis, extensive surface and sub-surface utility relocations, hydraulics/roadway drainage, combined sanitary and storm sewers, pedestrian crossing improvements, retaining walls, grading, re-surfacing, lighting, signing and striping, traffic signals and an ITS system including 10 CCTV camera sites, seven VMS signs, and 10 volume/speed detector sites.

Arch Street Yard Design/Build, Queens, NY

Team Member: Edwards and Kelcey
Project Manager:
Michael Kennedy, PE
Date Started: 2002
Date Completed: 2005
Total Cost: $76 million
Client/Contact:
MTA Long Island Rail Road
Robert Oggeri, PE, 718.558.3622



Edwards and Kelcey designed the Arch Street Yard and Shop as an equity partner in the Slattery Skanska/EK Design-Build Joint Venture. The 12-acre site in Long Island City features a shop containing a 3-story administration area, 20-ton overhead crane, several 3-ton cranes, a wheel truing machine with progression system, DC stinger system, motorized turntables, hoists, fixed platforms, moveable gantry platforms, and maintenance pits. The yard contains 4 quarter-mile-long lead-in tracks plus 5 shop tracks, 2 car-cleaning tracks, 2 maintenance of way tracks, a run-around track, tail track, as well as 4 tracks to an adjacent parcel for an existing freight tenant. The facility is now being used by Bombardier for acceptance testing of the LIRR's new M7 car fleet.

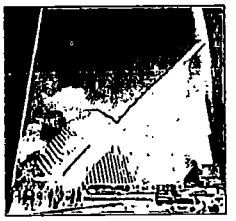
Highbridge Yard Design/Build, Bronx, NY

Team Member: Edwards and Kelcey
Project Manager: Dale Legg, PE
Date Started: 2002
Date Completed: 2004
Total Cost: $80 million
Client/Contact:
MTA Metro-North Railroad
Michael Sickenius, 212.499.4427

Edwards and Kelcey was a JV partner with Slattery Skanska for the Highbridge Yard and Shop Design/Build Project. The site, a former rail freight yard adjacent to the Harlem River, has been transformed into a modern electrified yard for midday storage of electric multiple unit and diesel-hauled trains with full toilet servicing, rail car cleaning, and limited locomotive fueling facilities. EK's primary design responsibilities included civil (under- and above-ground utilities), trackwork, traction power, third rail, structural (shop and sub-station foundations, building and roof structures, high-level platforms, and over-pass), systems integration, and communications systems. Also featured design and construction of a 900-foot-long, 2-track maintenance shop for scheduled heavy cleaning and related repairs, a 16 MW electrical sub-station to provide power to the entire yard and shop complex, and an ADA-compliant employee station with high-level platforms, pedestrian overpass, and elevators.

World Trade Center Transportation Hub, New York, NY

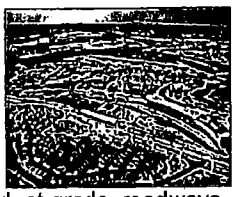
Team Member: DMJM Harris
Project Manager: Ross Edwards
Date Started: 2003
Date Completed: 2009 – planned
Total Cost: $2.2 billion
Client/Contact:
PANYNJ
Frank Lombardi, 212.435.7449



As an integral part of the reconstruction of the World Trade Center (WTC) and the larger revitalization of Lower Manhattan, the permanent World Trade Center Transportation Hub is one of New York City's most important and visible transportation infrastructure projects. DMJM Harris/STV joint venture (DDP) is working in association with Santiago Calatrava, S.A., to design the new hub.

American Airlines JFK International Airport New Terminal, Jamaica, NY

Team Member: DMJM Harris
Project Manager: Dave Brown
Date Started: 2004
Date Completed: 2007, partial – 2005
Total Cost: $1.3 billion
Client/Contact:
American Airlines
Steven Silver; 718.632.2482



Mixed-use project with major roadway and utilities components, as well as security systems, including access control, screening, and surveillance. This project involved underground construction, as well as architectural, structural, civil, MEP, and systems design. Elements include aprons and taxiways, fuel transmission and hydrant systems, and elevated and at-grade roadways (with 4,400 feet of curb lanes). Total paving area is 435,000 square yards.

Pentagon Renovation, Washington, D. C.

Team Member: DMJM Harris
Project Manager: R. McSeveney
Date Started: 1991
Date Completed: 2010, partial – 2005
Total Cost: $4 billion
Client/Contact:
Pentagon Renovation Office
Sajeel Ahmed, 703. 614.5129

Mixed-use project involving 6.5 million SF area that functions as a self-sustaining, secure community. Facilities involved in the extensive renovation include a central heating and refrigeration plant, medical facilities, shopping mall, dining and athletic facilities, library and post office, and mass transit stations. Security design includes [redacted]

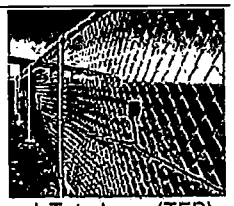
PANYNJ Services for Security Capital Program on a Call-In Basis

Team Member: DMJM Harris
Project Manager: Kevin Pierce, PE
Date Started: 2003
Date Completed: 2007
Total Cost: $120 million
Client/Contact:
PANYNJ
Mike Valletta, AIA, 201.595.4754

Exemption (4)

Perimeter Intrusion Detection Systems (PIDS) Program, NY and NJ Airports

Team Member: DMJM Harris
Project Manager: Bill Rauen, PE
Date Started: 2004
Date Completed: 2007, design: 2005
Total Cost: $83 million
Client/Contact:
PANYNJ
Angel Martinez, 201.595.4744



As part of Call-in Services for Security Capital Program, this project involves assessment of existing security and operations and development of plans and procedures for the installation of a Perimeter Intrusion Detection System (PIDS) for the four major PANYNJ Airports: John F. Kennedy International (JFK), LaGuardia (LGA), Newark Liberty International (EWR) and Teterboro (TEB). The program objective is to design and install an integrated security system that significantly enhances

Exemption (4)

Smithsonian Mall-Wide Security Master Plan, Washington, DC

Team Member: EDAW
Project Manager: Roger Courtenay
Date Started: 2004
Date Completed: 2004
Total Cost: $282,000 EDAW fee
Client/Contact:
Smithsonian Institution
Judson McIntire, 202.275.0270

The Master Plan provides specific treatments of public spaces along street edges and between buildings and the Mall. EDAW assessed conditions, developed alternatives,

Exemption (4)

Wharf District Parks, Boston, MA

Team Member: EDAW
Project Manager: Barbara Faga
Date Started: 2003
Date Completed: Ongoing (2007)
Total Cost: $13 million total construction cost
Client/Contact:
Massachusetts Turnpike Authority
Fred Yalouris, 617.951.6142

EDAW is the prime consultant to an eight-member team of design consultants, leading public process, design, production of documents, and construction observation. The Central Artery Tunnel project is the most expensive public works program in U.S. history. Of the 250 acres of new parks and open space accompanying it, three new downtown parks will take shape along a 30-acre linear path. At four acres, Wharf District Parks is the largest, occupying a key part of downtown Boston between Quincy Market and the New England Aquarium.

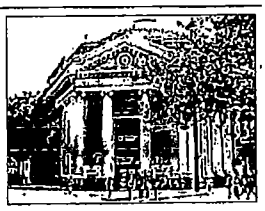
Centennial Olympic Park, Atlanta, GA

Team Member: EDAW
Project Manager: Barbara Faga
Date Started: 1994
Date Completed: 1998
Total Cost: $75 million total construction cost
Client/Contact:
Georgia World Congress Center Authority
Dan Graveline, 404.223.4000

Hosting the 1996 Centennial Olympic Games ignited in Atlanta a spirit of urban renewal and civic pride that produced a legacy: Centennial Olympic Park. EDAW was prime consultant to a 16-member consultant team, leading public charrette, design, production of documents, and construction observation. During the Games, the 21-acre park served as the central festival space, visited by an estimated 5.5 million people. Located at the eastern gateway to the Georgia World Congress Center/Georgia Dome complex, the park links convention facilities to the city's lively hotel and market district. The park has become the icon for the City of Atlanta, bringing together diverse populations of young and old; resident and tourist; black and white; and rich and poor to share in the park's activities.

Fulton Mall Streetscape, Brooklyn, NY

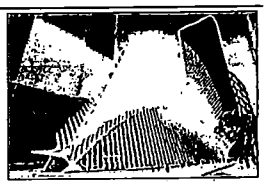
Team Member: EDAW
Project Manager: Gus Robertson
Date Started: 2005
Date Completed: Ongoing (2007)
Total Cost: $1 million EDAW fee
Client/Contact:
NYC Economic Development Corp.
Joanna Gargiula, 212.312.3726



As a key part of the 2004 Downtown Brooklyn Plan, the redesign of the Fulton Street Mall focuses on place-making and connecting this vibrant social/retail street to the surrounding cultural, academic, civic and residential communities. EDAW's redesign incorporates cultural and event programming to draw and capitalize upon nearby cultural and educational resources, expanding the user group of the mall in creating a local and regional destination.

World Trade Center Hub, New York, NY

Team Members: DMJM Harris/ STV; Prime Consultant - Weidlinger
Project Manager: Ross Edwards
Date Started: 2003
Date Completed: 2009 - Planned
Total Cost: $2.2 billion
Client/Contact:
PANYNJ
Frank Lombardi, 212.435.7449



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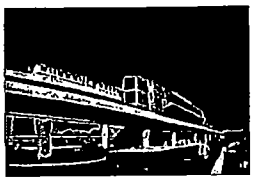
AirTrain JFK, Jamaica, NY

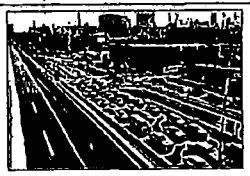
Team Member:
STV
Project Manager:
Scott McIntyre
Date Started: 1998
Date Completed: 2003 - Actual
Total Cost: $1.3 billion
Client/Contact:
PANYNJ
Quentin Bruthwaite, 212.435.5229



Complete architectural and engineering design and construction support services, including highly complex utility work, for a new light rail system to link New York City to the John F. Kennedy International Airport. The project features an innovative elevated track structure, 10 award-winning stations, and a sophisticated Operations, Maintenance, and Storage Facility with an Operations Control Center for the system.

Route 9A Project Management and Controls and Construction Management, New York, NY

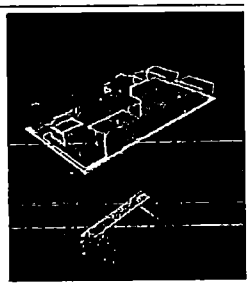
Team Member: STV
Project Manager: Tom Mellett
Date Started: 2003
Date Completed: Ongoing
Total Cost: $375 million
Client/Contact:
NYSDOT
Richard Schmaltz, PE,
212.267.4113



STV was chosen by the NYSDOT, in joint venture, to provide project coordination and controls for the reconstruction of Route 9A from Battery Park City to Chambers Street and, as a separate contract, construction management. STV provided coordination and tracking of resolution of design issues and constructability reviews of the impact of other projects on Route 9A. STV provided coordination with PANYNJ, MTA, Lower Manhattan Development Corporation, Battery Park City Authority, and the NYCDOT, as well as private developers.

East Side Access, Manhattan and Queens, NY

Team Member: STV
Project Manager: Majid Hedayati
Date Started: 1999
Date Completed: 2010 - Planned
Total Cost: $6.3 billion
Client/Contact:
MTA LIRR
Dilip Patel, 212.967.0236



STV, in joint venture, was retained to provide transportation planning, design and tunnel engineering services, including planning, preliminary and final design engineering, and construction phase services, to extend LIRR service to Manhattan's East Side, terminating in Grand Central Terminal. STV also developed the conceptual design for the new line's systems, including signals, communications, central control, and traction power. The firm is providing extensive coordination with the New York & Atlantic Railroad, LIRR, Amtrak NYSDOT, NYCDOT, and environmental protection agencies. To address the MTA Capital Construction's forthcoming agency-wide policy regarding global security criteria, the design for the project has continued to conform with Crime Prevention Through Environmental Design (CPTED) principles, including Natural Access Control and Natural Surveillance.

WTC Vehicular Security Center and Tour Bus Parking Facility, New York, NY

Team Member: STV/DMJM Harris
Project Manager: Joe Lucca
Date Started: 2006
Completion Date (Planned & Actual): 2007 (Planned)
Total Cost: Confidential
Client/Contact:
PANYNJ
Li Pei Wang, 212.435.5667

In association with the major construction at the World Trade Center (WTC) site in downtown Manhattan, the Port Authority of New York and New Jersey (PANYNJ) retained STV, in joint venture with DMJM, to design a vehicular security center and tour bus parking facility. The new facility will implement security precautions to protect new public investments at the WTC site using established measures to examine vehicles entering the WTC site as an important step in maintaining a safe environment. The project also includes a parking facility to serve 80 tour buses that would visit the memorial, which would alleviate the need for the buses to park and/or idle on local streets.

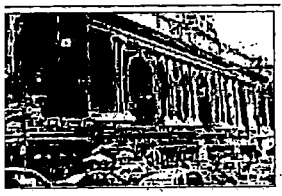
Exemption (4)

World Trade Center Memorial Envelope Definition Package, New York, NY	
Team Member: STV / DMJM Harris Project Manager: Wendi Ho Date Started: 2004 Completion Date (Planned & Actual): 2004 (Actual) Total Cost: $50,000 Client/Contact: Michael Arad Architects/Lower Manhattan Development Corp. Don Shillingburg, 212.595.4112	Working with the architects for the World Trade Center site memorial, STV assisted in the preparation of a World Trade Center Memorial Envelope Definition Package by providing conceptual civil engineering analysis of the memorial site. The civil engineering site design for the project will have substantial impacts to adjacent roadways and developments, including the reconstructed Route 9A, the new Freedom Tower, the new permanent PATH Station, and Liberty Street. STV provided conceptual analysis and design of grading, drainage, and utilities at the site, formulating several alternatives for site grading and projecting their likely impacts to the adjacent properties. Exemption (4)

PANYNJ Security Scoping Program, New York, NY	
Team Member: Weidlinger Assoc. (Primary Consultant) Project Manager: Hamid Adib, PhD, PE Date Started: 2002 Completion Date (Planned & Actual): Ongoing Total Cost: $700 million / $150 million to date Client/Contact: PANYNJ Bernard Yostpille, 973.792.4545	Thorough investigation of the vulnerability of their facilities to terrorism and provide a plan Exemption (4)

MTA Revenue Facility, New York, NY	
Team Member: Weidlinger Assoc. (Primary Consultant) Project Manager: Hamid Adib, PhD, PE Date Started: 2003 Completion Date (Planned & Actual): 2004 / 2004 Total Cost: $60 million / $60 million Client/Contact: Metropolitan Transportation Auth. Ashok Pate, 646.252.4927	Project involved the design/build of a multi-storv facilitv with heavv truck operations. High-security features included Exemption (4)

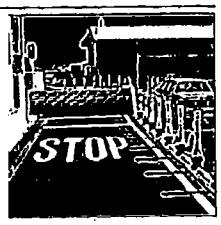
MTA Capital Security Program, New York, NY



Team Member:
Weidlinger Assoc. (Primary Consultant)
Project Manager:
Abdol Hagh, PhD, PE
Date Started: 2004
Completion Date (Planned & Actual): 2009
Total Cost: $600 million
Client/Contact:
Metropolitan Transportation Auth.
Ashok Pate, 646.252.4927

Exemption (4)

LaGuardia Airport, Hardening of Three Guard Posts, Queens, NY



Team Member:
SAIC/AMSEC
Project Manager:
Michael Fleahman, P.E.
Date Started: 2001
Completion Date (Planned and Actual): 12/31/2005
Total Cost: $218K
Client/Contact:
PANYNJ
Charles Clinton, 973.792.4417

Exemption (4)

PATH, Hackensack River Bridge Security Improvements, Jersey City, NJ

Team Member:
SAIC/AMSEC
Project Manager:
Michael Fleahman, P.E.
Date Started: 6/7/2002
Completion Date (Planned and Actual): 3/31/2005
Total Cost: $295.5K
Client/Contact:
PANYNJ
Charles Clinton, 973.792.4417

Developed detailed professional contract drawings and specifications for the installation of security fencing access control systems, intrusion detection, and closed circuit television (CCTV) surveillance on the track approaches to the bridge. The intent is to prevent unauthorized persons from gaining access to the bridge via the track approaches. The [redacted]

Exemption (4)

Bureau of Prisons – NICE Vision

Team Member: SAIC
Project Manager: James R. Fuller
Date Started: 2/18/05
Completion Date (Planned and Actual): 12/30/05
Total Cost: $1.149 million
Client/Contact:
Federal Bureau of Prisons
Robert Utterback, 202.514.6469

Exemption (4)

Port of San Diego – Maritime Security, San Diego, CA

Team Member: SAIC
Project Manager: Garth Dimkoff
Date Started: 2003
Completion Date (Planned and Actual): 2004
Total Cost: $1.26 million
Client/Contact:
San Diego Unified Port District
Marc Uribe, 619.400.4713

Exemption (4)

Department of State Facial Recognition

Team Member: SAIC
Project Manager:
Michael P. Miley
Date Started: 1997
Completion Date (Planned and Actual): 2006 (Planned)
Total Cost: $5 million
Client/Contact:
U. S. Department of State
Michele T. Archibald
Vice President, Identix Incorporated
703. 582.5202

Exemption (4)

U. S. Navy SmartCard Program

Team Member: SAIC
Project Manager:
Michael P. Miley
Date Started: 5/1997
Completion Date (Planned and Actual): 9/2006 (Planned)
Total Cost: $5M
Client/Contact:
U. S. Navy
Donna Freedman, 850.452.7705

Exemption (4)

Card technology at selected prototype installations.

Route 9A Reconstruction Final Design
New York, NY

CLIENT: New York State Department of Transportation

Client's Program

The Route 9A reconstruction project was a descendant of the massive Westway proposal from the 1980's. Due to environmental concerns in the Hudson River, the multi-billion dollar Westway tunnel and expressway project was reduced to a more moderately scaled boulevard reconstruction project. This $370 million project was still one of the largest and most complex roadway projects ever undertaken in New York City. The New York State Department of Transportation divided the 5-mile project area into seven segments. A separate team of consultants designed each segment. Edwards and Kelcey was the prime consultant for Segment 5, a nearly one mile long segment through the Chelsea area of Manhattan. The waterfront arterial, which serves the central business district of Manhattan and provides access to three major vehicular tunnels, was fully rebuilt as a 7-lane landscaped urban boulevard. Construction on all segments, including EK's $70 million piece, was completed in 2002.

Relevant Components

Knowledge of Lower Manhattan
Urban Design
Park Design
Stakeholder Coordination
Security
Infrastructure / Utilities
Infrastructure / Grading

Project Overview

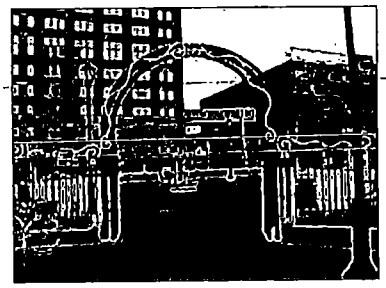
Edwards and Kelcey prepared final plans, specifications and estimates and performed construction phase services for a 1.5-kilometer section from Horatio Street to W. 26th Street. The project consisted of a new seven-lane roadway with landscaped median and a separate bikeway and walkway. Edwards and Kelcey prepared 800 contract drawings as part of an aggressive 18-month schedule. EK's effort and execution were duly noted on the final performance evaluation from the Route 9A Executive Director. The evaluation, which contained only positive comments, said that EK's "excellent staff" produced "highly professional work" that was "within schedule" and "under budget." EK was "very responsive" and "excellent at clarifying issues and clearly preparing reports and plans."

Project Elements

Stakeholders: The Segment 5 project limits included both the Chelsea Piers Sports Complex and the Gansevoort Meat Market, major stakeholders whose property fronted the Route 9A roadway. Extensive coordination was required to address their needs for local access, deliveries, and operations vs. the traffic requirements of the roadway. The result was a unique alignment that provided independent service roads designed to accommodate the specific

Route 9A Reconstruction Final Design
New York, NY

vehicular and pedestrian movements associated with each operation.



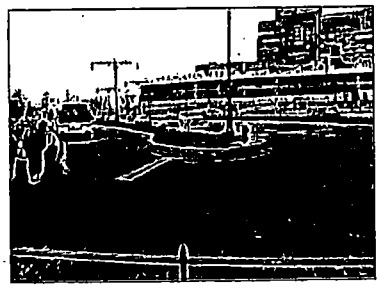
Urban Design: The project was designed as a landscaped urban boulevard that included an independent landscaped bikeway walkway. Planted buffer areas, a landscaped center median, and hardscaping that included pavers, stone curb, bollards, and low-level pedestrian lighting were utilized within the urban design to create a park-like setting.

Park Design: The project included the creation of a new park on the east side of Route 9A between W. 14th Street and W. 15th Streets. The park was developed in cooperation with a task force that included local community members and included landscaped areas, lawns, stone dust paths, paving, decorative iron fencing, and an underground sprinkler system.

Security: The Chelsea Piers operation necessitated controlled access to their service road between 18th Street and 22nd Street. Coordination with Chelsea Piers and NYSDOT resulted in a fully managed roadway that incorporated access booths, automatic gates, and a series of bollards into the design.

Infrastructure/Utilities: The project included reconstruction/

Exemption (4)



Infrastructure/Grading: The design of the project grading was critical due to the relatively flat nature of the corridor and specific vertical controls that included adjacent building elevations to the east; bulkhead elevations to the west; and large gravity controlled combined sewers. As a result, special utility details

Exemption (4)

RELEVANT PROJECT EXPERIENCE

EDWARDS AND KELCEY

Hudson Street Preliminary and Final Engineering

New York, NY

CLIENT: New York City Department of Transportation

Edwards and Kelcey provided preliminary and final engineering services for street improvements in Hudson Street for its entire 2-mile length from Chambers Street to West 14th Street. Hudson Street is a critical north-south artery within Lower Manhattan and serves as a primary access/egress for the Holland Tunnel.

Relevant Components

Knowledge of Lower Manhattan
Final Roadway Design
Urban Design
Park Design
Stakeholder Coordination
Security
Infrastructure / Utilities
Infrastructure / Grading

Preliminary design included topographic and utility surveys, identification of infrastructure improvements, schematic design, and preparation of a preliminary design report. The report documented existing conditions; recommended treatment for pavement, curbs and sidewalks; intersection channelization and drainage facilities. The report also identified public and private agency improvement programs, Community Board recommendations for final design, funding source data, and construction cost estimates.

The final design contract documents provided for a full rehabilitation of the street bed and underground utility systems, most well over 100 years old. The pavement curbing and sidewalks were fully reconstructed, as were the street lighting and traffic signal systems within the corridor. Existing trolley system foundations, still present within the roadway were also completely removed. Aged brick sewers were strengthened utilizing an interior gunite lining, and a new drainage collection system was provided. Water distribution mains ranging in size from 8 to 20 inches were replaced and over 1 mile of new 48-inch trunk water main was constructed. The work was sequenced to maintain traffic entering and exiting the Holland Tunnel in the vicinity of Canal St. The project also included special sidewalk paving treatment within the Greenwich Village Historic District and a new landscaped park area at Hudson triangle near Chambers Street.

Project Elements

Urban Design: The project, partially located within the Greenwich Village Historic District, utilized hardscape treatments including stone curb and sidewalk materials and street tree plantings to distinguish the street elements within the district.

Park Design: A new park was created at the project's southern terminus. The park, including both hardscape treatments and landscaping, was created to beautify the traffic island created by Hudson St., W. Broadway, and Reade St.

Infrastructure/Utilities: The entire utility system within the corridor was

Exemption (4)

RELEVANT PROJECT EXPERIENCE

EDWARDS AND KELCEY

McGuiness Boulevard Street Improvements – Preliminary and Final Design Services for Roadway and Street Improvement

Brooklyn, NY

CLIENT: New York City Department of Design and Construction

Edwards and Kelcey performed both preliminary and final design services for the improvement of the entire 1.5-mile length of McGuinness Boulevard in Brooklyn. The Boulevard connects the Brooklyn Queens Expressway and the Pulaski Bridge and serves as the primary local truck route for the Greenpoint and Williamsburg sections of Brooklyn.

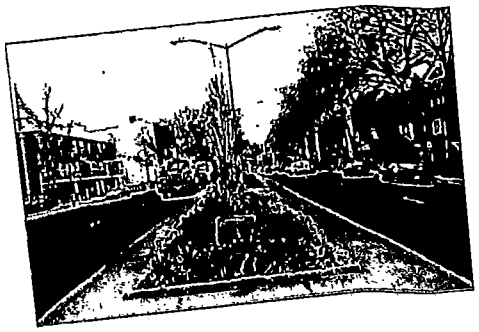
The Preliminary Design phase of this project consisted of coordinating the project with affected public and private agencies, topographic and utility surveys, subsurface investigations, geotechnical analysis and pavement design, schematic design and the preparation of a Design Report recommending comprehensive improvements to the roadway and underground utility systems. The report documented existing conditions; recommended treatment for pavement, curbs and sidewalks; intersection channelization, and drainage facilities. The report also identified public and private agency improvement programs, Community Board recommendations, traffic considerations, and overall project recommendations for final design, funding source data, and construction cost estimates.

Based on the recommendations contained within the Design Report, final design contract plans, specifications and estimates for improvements to this section of McGuinness Boulevard were prepared. The design included rehabilitation of the pavement, curbs and sidewalks; reconstruction of the boulevard's raised center median to provide channelization for left turning vehicles, signalization improvements at 10 locations, and a new street lighting system.

Another significant aspect of the project involved upgrading of the existing underground utility systems within the project right of way. Utility improvements incorporated within the contract included [redacted]

Relevant Components

Urban Design
Park Design
Stakeholder Coordination
Security
Infrastructure / Utilities
Infrastructure / Grading



RELEVANT PROJECT EXPERIENCE

EDWARDS AND KELCEY

Route 21 Reconstruction

Newark, NJ

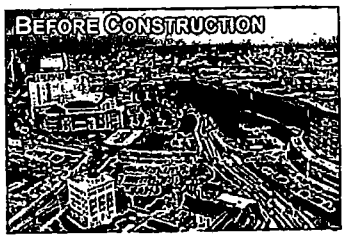
CLIENT: New Jersey Department of Transportation

Relevant Components

Urban Design
Park Design
Stakeholder Coordination
Infrastructure / Utilities
Infrastructure / Grading

Edwards and Kelcey (EK) has been responsible for study, preliminary design, final design, and construction support services for the reconstruction of Route 21 from Green Street to north of Passaic Street through the downtown Newark Central Business District, resulting in a cost-effective TSM roadway improvement project that reduced an original freeway-type design construction cost by approximately 50%.

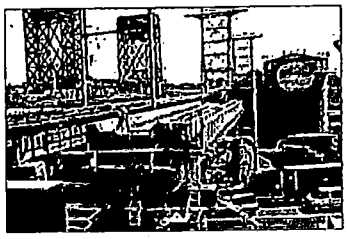
Major design elements included roadway widening and realignment, geotechnical analysis, replacement of a NJ TRANSIT railroad overgrade bridge, extensive utility relocations, hydraulics/roadway drainage, combined sanitary and storm sewers (including five new storm sewer outfalls to the Passaic River), pedestrian crossing improvements, retaining walls, grading, resurfacing, lighting, signing and striping, traffic signals and an ITS system including 10 CCTV camera sites, seven VMS signs, and 10 volume/speed detector sites.



EK developed utility schemes of accommodation for the relocation of surface and subsurface utilities along the two-mile corridor, primarily through the central business district of the City of Newark. The schemes were developed to provide an exclusive alignment for each utility that needed to be relocated. Test hole excavations were performed to define the horizontal and vertical location of existing utilities at potential conflict locations. Construction plans, including computed horizontal alignment and defined profiles for each utility were prepared and included in the roadway construction documents.

Landscaping and streetscaping were also critical design elements representing over $10 million in construction cost. Design elements included ornamental lighting, paver pedestrian crossings, granite curbing, tree wells, planters and ornamental traffic signal poles consistent with NJDOT's Context-Sensitive Design Approach. Other important project elements included traffic analysis, maintenance and protection of traffic, construction staging, congestion management system report, community involvement, permits, alternatives analysis, coordination with other agencies, and coordination with local governments.

An important design challenge and constraint was the requirement to develop a roadway alignment for Route 21 that would be compatible with the alignment of NJ TRANSIT's Newark Elizabeth Rail Link (NERL) light rail system. This included the development of a utility corridor to accommodate utilities affected by the light rail construction to ensure that the roadway and utilities would be relocated prior to light rail construction.



Coordination with numerous government agencies and private entities was critical to the success of this project. These included the City of Newark, NJ TRANSIT, NJPAC, U.S. Army Corps of Engineers, NJDEP, State Historic Preservation Office, the Hudson/Essex Joint Bridge Committee, the County of Essex, the City of Harrison, the Borough of East Newark, and public and private utility companies including PSE&G.

South Lake Shore Drive
Preliminary Design and Program Management Services
Chicago, IL

CLIENT: Illinois Department of Transportation and Chicago Department of Transportation

Preliminary Design

Edwards and Kelcey prepared a project report and preliminary plans for 6.3 miles of US Route 41, South Lake Shore Drive between I-55 and Hayes Drive. The project involved detailed planning studies for improvements to an urban arterial route located in historic Jackson Park and Bumham Park along Lake Michigan's shoreline. Following preliminary design, EK became Program Manager directing the final design project team and acting as liaison with the Chicago Park District and the City of Chicago.

Because of its uniqueness and historical context, South Lake Shore Drive was subject to intense public and media interest. Edwards and Kelcey instituted a Context Sensitive Solutions approach. This included a public communication program, including meetings with neighborhood groups, the general public, and an Advisory Group composed of interested organizations.

Edwards and Kelcey's work on the project was also recognized with awards from CECI, ITE, and Soles & Spokes.

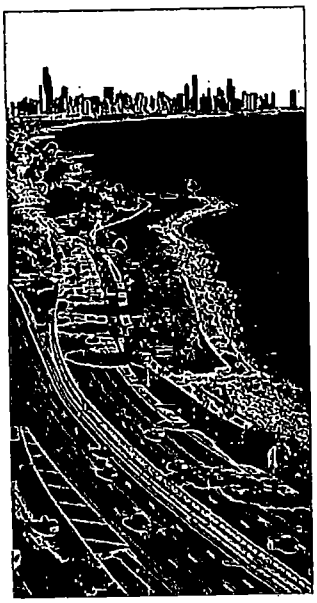
Context Sensitive Design elements of this project included:

- Improved roadway aesthetics to complement the park setting, including elements such as architectural barrier walls and bridge lighting, and the cleaning/restoration of an historic bridge.
- Maximized green-space, the reduction of pavement encroaching on parkland, and enhanced landscaping.
- Improved facilities for pedestrians and cyclists, including the creation of a continuous lakefront path, a boardwalk along the beach, and five new underpasses with architectural façades and interior treatments that provide direct access to the lakefront.
- Improved traffic operation efficiency rather than increased roadway capacity, including reconstruction of the entire boulevard and re-configuration of feeder ramps and intersections.
- Greatly reduced lake pollution from roadway runoff by installation of a new sewer system.

The project encompassed improvements totaling $160 million, including complete roadway reconstruction, installation of a new sewer system to protect lake water quality, restoration of a historic bridge, construction of cyclist/pedestrian facilities including five new underpasses, and extensive landscaping.

Relevant Components

Large Urban Project - $160 million
Park Design
Stakeholder Coordination
Security
Infrastructure / Utilities
Infrastructure / Grading



RELEVANT PROJECT EXPERIENCE

DDP – DMJM HARRIS/STV, JOINT VENTURE

WTC Transportation Hub
New York, NY

CLIENT: Port Authority of New York & New Jersey

As an integral part of the reconstruction of the WTC and the larger revitalization of Lower Manhattan, the permanent WTC Transportation Hub is one of the City's most important and visible transportation infrastructure projects. The Port Authority selected DMJM Harris/STV as a joint venture (DDP), in association with renowned Spanish architect Santiago Calatrava, S.A., to provide architectural services and preliminary and final engineering design to realize this dramatic architectural vision.

Relevant Components

Knowledge of WTC site

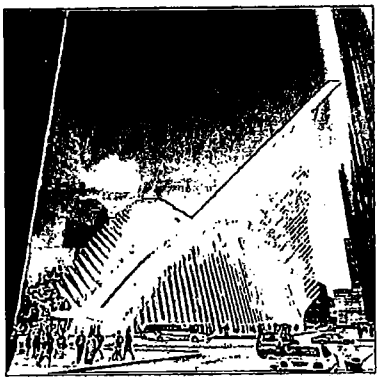
Coordination with WTC Master Plan

Teamwork - DMJM Harris, STV, WAI, and others

Coordination and communication with the Port Authority and all stakeholders

Infrastructure / Utilities

This major regional transportation hub will be a gateway for commuters, workers, residents, and visitors, and will also serve as a significant cultural and retail destination. The hub will include a permanent PATH terminal; pedestrian connections that will significantly improve access to PATH, ferries, and 13 Lower Manhattan subway services; greater open space in the Wedge of Light Plaza; and state-of-the-art safety, security, and environmental enhancements.



Based on our prior experience working with the Port Authority Geotechnical Group regarding geotechnical and structural design for the hub and adjacent projects, DMJM Harris/STV have developed a fluent understanding of the project's geotechnical issues, including soil and rock conditions and materials, excavation, floor slabs, lateral supports, and temporary supports.

Work on the Hub requires DMJM Harris/STV's extensive coordination with public agencies and stakeholders, such as NYCDOT, NYSDOT, MTA, LMDC, utility companies, retail vendors, and cultural organizations. DMJM Harris/STV are providing extensive coordination between this project and other major projects in the vicinity, including Route 9A, the Freedom Tower Memorial, the cultural center and/or museum, and the Fulton Street Transit Center.

Security considerations are paramount, and they include Exemption (4)

In all, the DMJM Harris/STV joint venture (DDP) is overseeing more than 30 subconsultant specialty firms providing a range of services.

The project requires extremely complex construction staging. The DMJM Harris/STV team will have to maintain operations of the temporary PATH terminal while construction of the new one will carry on above it.

RELEVANT PROJECT EXPERIENCE

DMJM HARRIS

Port Authority Security Capital Program Call-in Services

New York and New Jersey

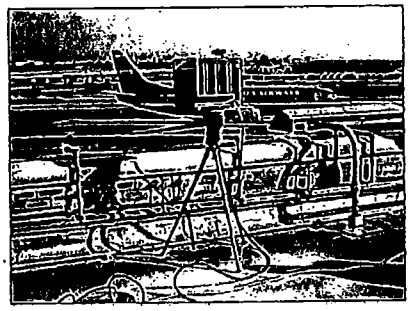
CLIENT: Port Authority of NY & NJ

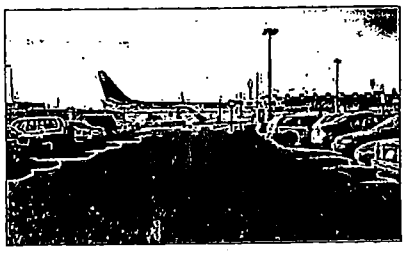
Exemption (4)

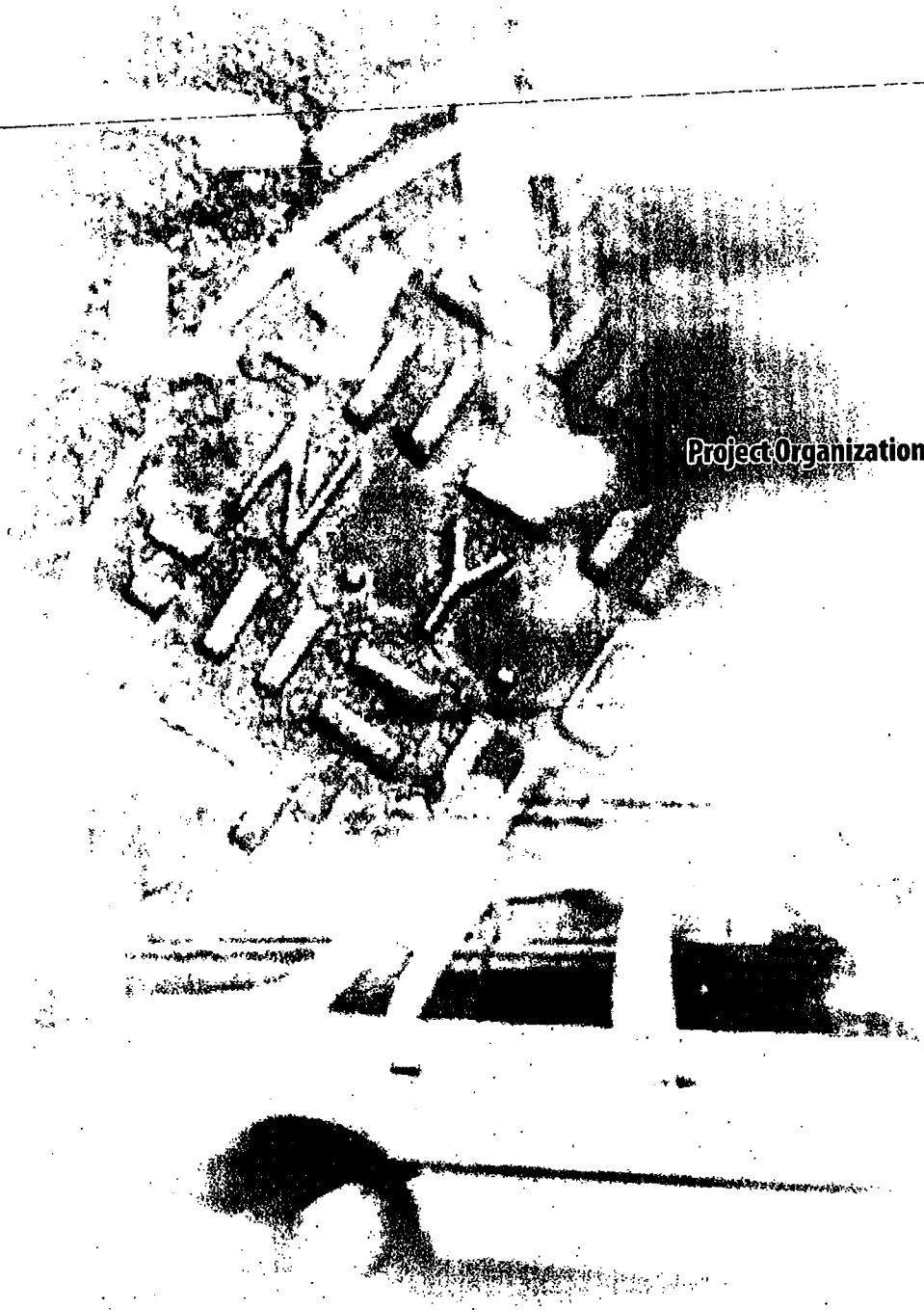
Relevant Components

Major security program for Port Authority with transportation component

Security systems design including intrusion detection, communications, and surveillance

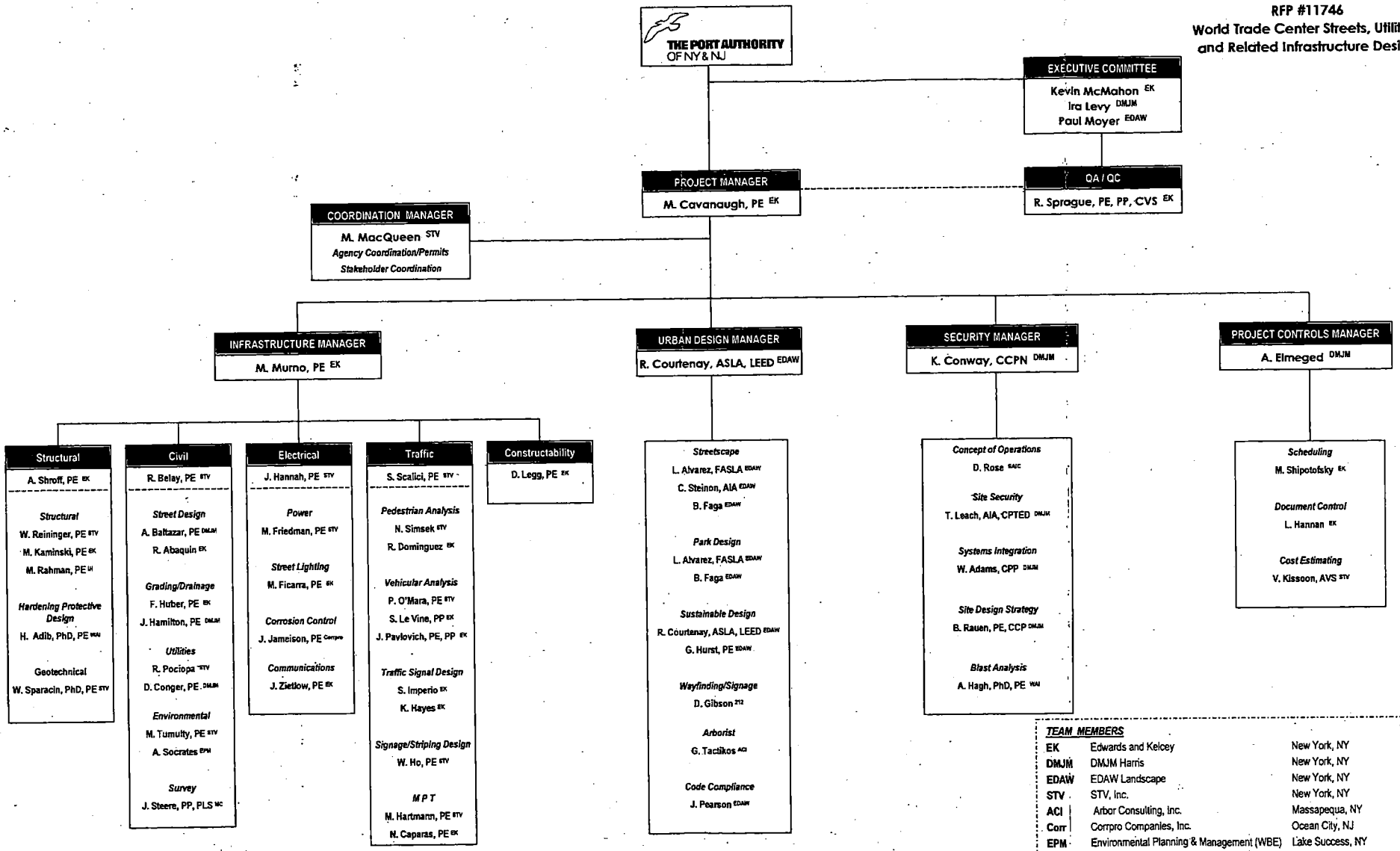






Project Organization Chart

PROJECT ORGANIZATION CHART
RFP #11746
World Trade Center Streets, Utilities, and Related Infrastructure Design



TEAM MEMBERS

EK	Edwards and Kelcey	New York, NY
DMJM	DMJM Harris	New York, NY
EDAW	EDAW Landscape	New York, NY
STV	STV, Inc.	New York, NY
ACI	Arbor Consulting, Inc.	Massapequa, NY
Corr	Corrpro Companies, Inc.	Ocean City, NJ
EPM	Environmental Planning & Management (WBE)	Lake Success, NY
IH	IH Engineers, PC (MBE)	Princeton, NJ
MC	Medina Consultants (MBE)	Hackettstown, NJ
SAIC	Science Applications International Corp.	New York, NY
212	Two Twelve Harakawa, Inc. (M/WBE)	New York, NY
WAI	Weidlinger Associates, Inc.	New York, NY

2. SALARY SCHEDULE

Key personnel salary schedule by job classification is listed below:

	JOB CLASSIFICATION	HOURLY RATE ($)
EDWARDS AND KELCEY	PROJECT MANAGER	96.15
	INFRASTRUCTURE DESIGN MANAGER	67.31
	ENGINEER VII (QA/QC)	64.58
	ENGINEER VII	64.58
	ENGINEER VI	57.74
	ENGINEER V	49.66
	ENGINEER IV	41.87
	ENGINEER III	33.94
	ENGINEER II/I	29.16
	ENGINEER TECH IV	34.87
	ENGINEER TECH III	32.26
	ENGINEER TECH II	25.23
	TECH TYPIST	18.00

DMJM HARRIS	JOB CLASSIFICATION	HOURLY RATE ($)
	PROJECT MANAGER	66.03
	PRINCIPAL ENGINEER	58.03
	PROJECT ENGINEER	49.02
	SENIOR ENGINEER	43.23
	ENGINEER	57.09
	SENIOR CADD DRAFTER	44.98
	CADD DRAFTER	28.76
	PROJECT CONTROLS MANAGER	60.00
	SENIOR SCHEDULER	45.00
	SCHEDULER	37.00
	SENIOR ESTIMATOR	48.00
	ESTIMATOR	32.00
	DOCUMENT CONTROL TECHNICIAN	27.00

STV	JOB CLASSIFICATION	HOURLY RATE ($)
	PRINCIPAL	147.00
	PRINCIPAL ENGINEER	96.58
	PROJECT MANAGER	72.98
	ASSISTANT PROJECT MANAGER	56.70
	SR. ENGINEER II	46.43
	SR. ENGINEER I	41.73
	ENGINEER	33.58
	JR. ENGINEER	27.87
	TECHNICAL TYPIST	25.24

Technical Approach

3. TECHNICAL APPROACH

INTRODUCTION

Restoration of the original street grid through the World Trade Center (WTC) site provides the opportunity to achieve a unified urban design that respects the profound significance of the Memorial, while meeting the multiple aesthetic and practical requirements of the site for mass transportation and vehicular and public access; assuring security; and providing appropriate streetscaping and landscaping consistent with master plan and stakeholder goals.

The Downtown Streetscape Partners Team has identified five key issues that will be critical to the successful completion of this project. They are Unified Urban Design, Security, Infrastructure Design, Construction-Related Issues and Coordination. A description of our Team's understanding and approach to each of these key issues follows.

UNIFIED URBAN DESIGN

For all great cities the street is life. Nowhere is this truer than in Lower Manhattan. The street is the place which is the setting not just for buildings, and the character of the neighborhood, but for the interaction of people doing all the things they do to live – promenading/doing errands, strolling/commuting, participating/ retiring, and so on. The World Trade Center project, now to be a locus of public open space rather than commerce and trade, will significantly change the character and identity of Lower Manhattan and its streets. This project brings the opportunity to help re-cast and re-shape the public realm associated with the memorial site, and to re-make the connectivities and linkages that its streets should have with the rest of the city. The great cities must have great streets – that is their imprimatur. A great streetscape works on the imagination as well as on the body. It works so wonderfully well that the pure work of moving from place to place is easier, more efficient, convenient, and balanced. It works on the mind to the extent that one knows where one is unconsciously, one can move freely without barrier, and one is free to be caught by those idiosyncracies and random juxtapositions, designed and ad hoc, that make the vernacular of place particularly transcendent.

The RFP requests that designers create a unified design approach that re-hinges these connectivities and anticipates new ones. It is concerned with the larger urban relationships, but focused on the specific means of design. And it is concerned not just with pedestrians, although these are the surest arbiters of design in this environment, but with motorists, cyclists and the mobility-assisted. A unified design approach means that from way below the ground, architects and landscape architects will be working with engineers to shape the expression of utilities at the surface so as to reduce 'flow friction' of movement on the surfaces above, and to put things in appropriate places. It will mean putting accessibility elements in the right places, easy to hand. It will mean reducing dependence on wayfinding through the coherent use and patterning of materials and design elements, by creating clear view zones that enhance place sensing and orientation in Liberty Park and along Church and Vesey Streets and the other perimeter streets. It will mean being as cognizant of the night as of the day, and protecting the passerby through the defensible design of places, and the management of shade and shadow. It will mean, above all, weaving together places and walking and lingering venues that are welcoming, that recognize people and place-making as one, that act as a seam with its own definition, between roadway and park, between building and memorial, between work and relaxation.

SECURITY

Security planning and design for the WTC Streets, Utilities and Related Infrastructure project present unique challenges that involve a combined analysis of

EXEMPTION 4

INFRASTRUCTURE DESIGN

Infrastructure has been defined as the basic facilities, equipment, and installations needed to provide the utility products and services crucial for the growth and functioning of an economy, community or organization. In other words, it is the underlying foundation or basic framework of a system.

Infrastructure is:

- A large-scale system
- The embodiment of strong technological dimension
- Comprised of immovable physical components
- A delivery of an essential service (where essential means absolutely necessary and difficult to replace)

Critical to the success of the World Trade Center Streets, Utilities and Related Infrastructure Project is a well-coordinated and well-constructed infrastructure plan. Our Team understands the meaning of good infrastructure design and this is exemplified in many of our past and current projects. A recent example is the $26 million Kent Avenue and Franklin Street Reconstruction for NYCDDC where an outdated Design Report had to be modified to current NYSDOT requirements and the bid documents had to be completed at a pre-set deadline in order to qualify for Federal Funding.

Exemption (4)

Another current project is the East Side Access project, which includes considerable
required within both Manhattan and Queens in order to construct new train tunnels to Grand Central Terminal. Team members recently completed designs involving

The WTC Project envisions the creation of two streets, Greenwich and Fulton Streets, completing the grid around the Memorial Plaza. Thus, the plan provides for traffic circulation and the interconnection of infrastructure between of the PATH Terminal, the WTC building complex including the Memorial Plaza, and the existing network of existing surrounding streets. In addition, the plan includes the reconfiguration of Vesey Street, between West Street (Route 9A) and Church Street, between Vesey and Liberty Streets.

A new park (Liberty Park) will be created atop the Vehicle Security Center as a public gathering place and sidewalk areas will be landscaped to enhance the infrastructure and provide connectivity and context between the memorial plaza and its environs.

Extremely important to a successful preliminary engineering design is a full and comprehensive understanding of the Authority's Conceptual Design (Stage I) package for public and private utility relocations and the Security Concepts of Operations Document (ConOps), and how they relate to street design and other related infrastructure. To do so, the Downtown Streetscape Partners Team will

Exemption (4)

To further understand existing and proposed utility infrastructure, our Team will prepare a layered, composite utility layout showing all utility information obtained through a review of existing documents and field survey. This plan will indicate

The utility plans will be used, as necessary, to identify conflicts, potential or real, with intersections between existing and proposed utilities, other subsurface structures such as subways, underground habitable spaces, foundations, and walls. Conflicts will be verified using horizontal alignment and vertical elevation details obtained through test pits or "As Built" Plans of preceding construction projects. Where gaps remain, additional survey may be warranted. The Downtown Streetscape Partners Team will closely coordinate any additional survey requests with the Port Authority. Upon the completion of the survey, cross sections of all utility locations, both horizontally and vertically, will be drawn to determine where conflicts exist. Where conflicts are verified in the conceptual design, the Team will closely coordinate an acceptable design with the Port Authority and all participating stakeholders.

As important as the utility infrastructure itself, is its relationship with the overall infrastructure plan. The question to be answered is how do the utilities fit into the overall infrastructure plan? A plan that includes existing subway

structures in Greenwich and Fulton Streets, the PATH substructure, the underground structure that supports the Memorial Plaza and the street system, Traffic and Transportation, the Vehicular Security Center, Security Systems, Liberty Park and the WTC Complex of Buildings. The answer will require a thorough understanding of the Horizontal and Vertical relationship of all infrastructure elements; Coordination with the Port Authority, the Developer, and the Utility Companies; Construction Phasing; and the Project Schedule relative to committal dates for opening the Memorial Plaza, the Freedom Tower and the remaining complex of buildings.

The Downtown Streetscape Partners Team does not underestimate the magnitude of this challenging undertaking, but is proud to say that it has met similar challenges for the Port Authority and other agencies. The principal firms on our team, working both as individuals and in prior joint ventures, have been in the forefront on a multitude of successful high profile projects such as the $1.7 billion AirTrain JFK Project, the $2.2 billion World Trade Center Transportation Hub, the $370 million reconstruction of Route 9A, the $160 million reconstruction of Lake Shore Drive in Chicago, the $1.3 billion American Airlines Terminal at JFK Airport, the $600 million MTA Capital Security Program (currently underway).and numerous others.

CONSTRUCTION-RELATED ISSUES

The Downtown Streetscape Partners have identified three major critical construction-related issues affecting the performance of this project:

- Project packaging, scheduling and construction staging to meet the projected dates as demonstrated in the Stage I Documents
- Coordination with other concurrent construction projects at and surrounding the WTC Site
- Pedestrian circulation and safety related to the staggered schedule for completion and opening of the various WTC elements, namely the Transportation Hub, Memorial Plaza and the Freedom Tower

The Stage I Plans define a staggered, but somewhat overlapping construction schedule for the streets surrounding the WTC complex. Careful planning and coordination is required to identify a viable construction-packaging scheme to advance this project and meet the intended completion dates.

The WTC Streets, Utilities and Related Infrastructure Project is just one of several projects that are either under way or soon to commence. Not only is coordination and collaboration required with all of the stakeholders with respect to design, but more critical to develop a design that is constructible given a tightly condensed site with numerous construction activities scheduled to occur simultaneously.

To add to the challenge, there will be facilities nearing construction completion and requiring the infrastructure that is being provided under this contract adding to the current demanding schedule. Our Team will address this challenge by working closely with the PA, the PA's Construction Management Consultant and other stakeholders to identify the benefits of construction packaging, sequencing, and staging of the project.

The key members of the Downtown Streetscape Partners Team have successfully worked on other very complex projects, i.e. the award winning AirTrain to JFK Airport. In similar ways the AirTrain JFK project had to sequence construction in light of several new and reconstructed terminal facilities within the Central Terminal Area. Design packages were broken into various phases in order to be facilitate construction while maintaining service and to minimize disruption to the airport operations. Likewise, the reconstruction of Route 9A required a complex construction staging plan to maintain the continuity of the vast network of affected utility lines as well as

vast maintenance and protection of traffic plan to ensure a constant flow of traffic during both peak and off-peak hours on this critical arterial roadway.

Constructability is a significant design force in developing the engineering design for major infrastructure projects. It evaluates issues such as a constrained site, unprecedented volume of adjacent heavy construction and competing demand for critical resources. Our Team is able to meet this challenge given its vast experience in design and construction inspection on many of the major New York City as well as New York State infrastructure projects. Notable projects are from its current involvement in the Route 9A Reconstruction, to installation of a 72" water trunk main in Staten Island, to security upgrades on the Verrazano Bridge. Our Team can bring its experience and lessons learned from such projects to develop contract documents that are buildable, economical within an agreed upon schedule along with minimizing exposure to future claims and cost growth.

Another critical issue will be the safety and protection of pedestrians during the various stages of construction. As previously discussed, the Stage I schedule for construction identifies a multi-phased project with much of the infrastructure construction occurring on both a simultaneous and staggered basis. There will also be many construction activities for adjacent projects occurring simultaneously; all of which will have different dates for completion.

Depending on these completion dates, many facilities will be open before others and will experience pedestrian traffic. For example, plans for opening the Memorial Plaza, the Freedom Tower, and the remaining WTC Complex will reach their completion dates at different times. The Memorial Plaza will be one of the earlier openings and the pedestrian demand to visit the site will be great as it nears completion. However, when the site is open, visitors will need clear guidance and protection from the ongoing construction activities that will be occurring around them. The Downtown Streetscape Partners recognize the need to guide and protect these visitors and will work closely with the PA and Construction Management consultant to provide a safe and protected environment.

COORDINATION

Coordination of the design of the restoration of the original street grid through the WTC site involves a multitude of projects and interested stakeholders. Design of the aesthetic and practical requirements of the site shall require the coordination of mass transportation, vehicular and public access, and security, while providing appropriate streetscape and landscaping consistent with the master plan and stakeholder goals.

Design must be responsive and flexible because of its complexity, future business operations implications, aggressive schedule, and the extensive integration of concurrent activities of various project participants and current and future stakeholders. Continuous coordination and collaboration with all WTC Master Plan stakeholders will be necessary to accommodate the multiple designers, signature architects, technology developers/suppliers, and contractors working simultaneously nearby, many of whom are working for other clients.

The members of the Downtown Streetscape Partners Team have been involved in many of the master planning issues. We are well positioned to facilitate coordination between this and other projects that are part of the Downtown Restoration Program and other master plan developments in conjunction and coordination with the Port Authority.

Design Coordination will address:

- How this intricate project can be constructed in a dense urban site surrounded by many other projects competing for similar resources
- Minimizing disruption to commuter, residential and business communities
- Minimizing disruption to the operating system of PATH and NYCT
- Communication with politically involved, vocal communities with varying, project goals and perceptions of success
- Construction staging to enable the early release of construction packages and ultimately phased-in revenue service
- Coordination with agencies and utilities to expedite permits.

The efficient advancement of this project's design will require taking account of the development of other projects by advancing areas that have clear direction, and developing information for informed decision-making in areas that are subject to impact from coordination with other projects.

The greatest challenge for design is coordination of this project with other projects that will be in various stages of design and construction concurrently. This project has to be designed with consideration for shared structures, utilities, and the flexibility to accommodate new considerations. Issues include shared structure and utilities with adjacent properties/projects, as well as operational and phasing considerations during construction to provide for a logical transition from a facility under construction to an on-line functional street network.

The schedule of activities within the South Bathtub, East Bathtub, neighboring sites including utility modification in the surrounding streets, together with the need to maintain normal PATH and MTA operation, will be influential in developing a comprehensive staging plan. Meetings will be held with the respective parties early in the program to determine their requirements so that we can develop a comprehensive staging plan along with special conditions for inclusion in the contract documents.

We recognize that the site is located in an area where many activities are taking place on many nearby and adjacent projects. It is anticipated that much of the staging of equipment will occur at a location or locations to be determined, where it will have to be carefully coordinated with staging for adjacent projects and to minimize potential impacts on vehicular and pedestrian traffic circulation.

Street and below-grade access for construction, facility maintenance, commercial and retail businesses, tenants, and visitors is already creating challenges for those responsible for the planning and redevelopment of the WTC site and the larger context of Lower Manhattan. The timely completion of this project is a critical component of the rebuilding of the WTC site.

Projections through the year 2015 anticipate a strong, continuing interest in visiting the WTC site, the planned Memorial and Museum, Freedom Tower observation deck, Cultural Center, and Performing Arts Center. Access to the site includes all modes of surface and rail transportation, with many visitors making use of the extraordinary improvements to the existing and planned transit network. Other means of travel for visiting the site include the use of private tour buses, it has been projected that one in five visitors to Lower Manhattan will arrive by tour buses arriving at the WTC site, discharging passengers, and then parking along the edges of the site, sometimes for hours, until the tour group has concluded its visit. The impact of bus activity has been a continuing concern to the Lower Manhattan mixed-use community and will be exacerbated by the new facilities and ongoing rebuilding activities. Such increases in traffic will add to the challenge of protecting the site and

contribute to the need for a comprehensive sequence of construction plans providing safety and security, as well as minimizing impact to adjacent local streets and services.

There is a high archeological sensitivity of numerous structures at the project site. Besides avoiding any impacts to these structures, access must be maintained to all cultural, historic, business and residential structures. Coordination will require open communication with these establishments to receive their concerns and address them during design. Public information outlets will provide the vehicle for the open communication.

Individual project construction activities will be scheduled to avoid/minimize adverse impacts. Coordination of the construction activities with projects under construction and future construction in adjacent and nearby locations will minimize impacts.

A project of this magnitude and importance to the security and redevelopment of Lower Manhattan requires extensive coordination with and sensitivity to the concerns of the Port Authority and numerous stakeholders. These include:

- WTC Memorial and Redevelopment Plan (Lower Manhattan Development Corporation)
- FTA (funding Agency)
- WTC Transportation Hub/PATH Terminal (Downtown Design Partnership)
- WTC Memorial – (LMDC, DBB, PWP)
- WTC Tower One – (SPI. SOM, PWP)
- WTC Tower Two – (SPI, Foster and Partners)
- WTC Tower Three – (SPI, Richard Rogers)
- WTC Tower Four – (SPI, Maki and Associates)
- WTC Vehicular Security Center (Liberty Security Partners)
- Lower Manhattan Construction Command Center
- Downtown Restoration Alliance
- MTA
- NYCT
- NYCDOT
- NYSDOT (Route 9A Promenade Project)
- NYPD and FDNY
- The Office of the Mayor
- The U. S. Department of Homeland Security
- NYC Landmarks Preservation Commission
- NYC Department of Environmental Protection
- NYS Office of Parks, Recreation and Historic Preservation
- Private-sector developers and tenants
- Community groups
- Manhattan Community Board No. 1
- Liberty Park / St. Nicholas Church
- Consolidated Edison
- Keyspan
- Empire City Subway
- Ducibella Ventor & Santore (DVS) (consultant to LMDC)
- SAIC (consultant to LMDC)
- Weidlinger Associates (consultant to LMDC)

The Downtown Streetscape Partners Team has worked with all of the agencies and stakeholders that will be involved with this project, as we have been doing for the WTC Transportation Hub and Route 9A Reconstruction. Our Team's knowledge base and extensive involvement with parties to the Downtown Restoration Program will be invaluable to our necessary coordination efforts.

Our Team's understanding and approach to completing each of the tasks delineated in the Request for Proposals follows.

TASK A – PROJECT SCHEDULE

The Downtown Streetscape Partners recognize the aggressive timetable for design and construction of this project. We are also cognizant of external factors and the extensive coordination issues with multiple stakeholders that have to be addressed to progress the implementation of the project and proceed into final design.

Our Team, which is committed to working as a unified and cohesive group, offers several advantages to meeting this schedule because we would require virtually no start-up time or learning curve Exemption (4)

The knowledge of these projects, our experience working as a unified team, and the logistical benefit of having an established Lower Manhattan office location dedicated to the Downtown Restoration effort offer the Authority unmatched benefits for this streetscape project.

TASK B – MEETINGS

Effective communication among the members of the project team and stakeholders is critical to the successful completion of the design and construction of this project.

As defined in the RFP, the Downtown Streetscape Partners Team will participate in orientation meetings at the beginning of each stage of design, bi-weekly progress meetings, and quarterly performance meetings. We will also attend meetings and presentations as required with various state, city, and community representatives. In addition to the progress meetings identified in the RFP, we envision an important meeting at the start of the project. This will be the kickoff meeting with the Port Authority to confirm the project goals and objectives, scope of work, and status of the concept plan.

Meetings will provide an opportunity for interactive review of ongoing and expected progress; identification of specific coordination needs among technical disciplines, team members, and with in-house Port Authority staff; listing data and input required from others; and responding to the evolving complexities of supporting the Authority's position relative to a myriad of agencies and other interested parties.

To promote the most effective use of meeting times, our Team will prepare an agenda for each meeting and appropriate materials for presentation, discussion or review at that time. We suggest the use of separate forums to perform detailed coordination of technical issues, as well as on-board reviews of specific project features. Meeting minutes will include action items, responsible parties, and due dates.

Meeting minutes, incorporation of Authority comments, re-submission of minutes, identification of follow-up items, and tracking of those items will all be provided in accordance with Authority requirements.

TASK C – REVIEW OF ALL AVAILABLE DOCUMENTS

A wealth of data has been gathered on existing conditions, such as utilities, as part of the master planning and initial design of other projects in the WTC area. Exemption (4)
Our Team will perform a search through the Authority's engineering files to gather all available in-formation necessary to perform the design, including development of baseline conditions. We offer the benefit of having familiarity with the site area and having already amassed and evaluated data on local infrastructure, such as utilities.

The Team will consolidate and confirm these data, and conduct supplemental survey, where necessary, as described under Task D.

TASK D – FIELD VERIFICATION AND SURVEY

The Team will evaluate existing information including survey and aerial mapping documents, datums and monuments, utility as-builts, and proposed construction plans amongst others to determine what supplemental

information will be required to prepare base mapping for the project. The base mapping must accurately reflect existing conditions to be anticipated by the WTC Streets and Utilities contractor(s) at the start of construction. Further, the structural group will review available geotechnical reports to determine what supplement substrata investigations are required to design underground foundations works required for the project including roadway support systems beneath Greenwich Street and Liberty Street.

- *Review available documentation.* Key to preparing accurate construction plans for the project is the depiction of existing conditions at the time the contractor(s) start the work. In addition to Authority-provided mapping, the team is cognizant of the various design contracts and phasing proposed by the Authority at the site in addition to public and private parties as defined in the WTC Master Plan documents including Route 9A, WTC Vehicular Security Center, WTC Transportation Hub, WTC Memorial and Museum, various Tower complexes, Performing Arts Center, and the St. Nicholas Church. There are also ongoing utility designs to support the overall WTC Site by various utility agencies including Con Edison and Verizon.

- *Perform Field Verification Surveys*: It cannot be assumed that information presented on existing documentation accurately reflects conditions at the site. The team will perform a thorough investigation and inventory of site conditions in advance of preliminary design to validate and determine what additional surveys will be required. Field findings will be recorded on forms approved by the Authority and be utilized for discussions with Authority staff. From these discussions we anticipate the Authority will authorize our team to perform additional surveys, test pits, and geotechnical investigations.

- *Update Base Mapping:* The Team anticipates that updates to the base plans as they relate to horizontal and vertical features (both at-grade and underground) will be required at the beginning of Preliminary Design and possibly prior to issuance of bid packages. This assures that our designs, as they relate to the overall site, are accurate and reduce to the maximum extent possible claims from contractors of "varying site conditions". Base map updates will be performed by digitizing information into Authority-provided mapping from electronic documents provided from other designers and/or incorporating collected electronic field survey data from surveys performed by the Team.

- *Utility Test Pit and Boring Surveys:* The Team's designated surveyor, Medina Consultants, will provide survey crews as needed to demark and collect relevant information for utility test pits and boring locations. Test pits will be required at existing utility tie-in points to verify location (horizontal and vertical), material, size, and condition. Our team recommends using minimally invasive techniques for test pits that utilize truck-mounted hydraulic nozzles and vacuum soil extraction equipment to minimize excavation and patching within existing thoroughfares. For boring locations, the surveyor will record vertical elevation and horizontal location.

- *Geotechnical Investigations:* The Team has designated a geotechnical engineer to evaluate, recommend, and support geotechnical investigations to be performed by the Authority. After a thorough review of available documentation by our Team, we will provide recommendations for supplemental investigations to support the design of pavements, pile driving, subsurface foundations, retaining walls, shear walls, blast design, material specifications, and other structural items that will be required. From these investigations our geotechnical engineer can prepare addendums or updates to existing reports defining design parameters to be utilized for the project.

TASK E – DESIGN CRITERIA SUMMARY

Compliance with all applicable codes and standards, as well as the Authority's latest standards, is a critical element of the overall design process. The purpose of this important task is to identify all applicable codes and standards that must be incorporated into the design development. The Design Criteria Summary (DCS) will identify all applicable federal, state, city, municipal, and industrial cods and regulations, including the latest Port Authority standards for all systems. Where codes differ, we will identify and recommend the more stringent code. Any contemplated exceptions to the codes will be discussed with the Port Authority for approval, prior to their incorporation into the DCS document and the development of the preliminary design.

In particular, our Team recognizes the importance of the WTC site sustainable design guidelines. There are a number of sustainable design guidelines that have been developed by New York City agencies and departments, as well as for the Downtown Restoration program. These include the WTC Transportation Hub Sustainable Design Guidelines, New York City Transit (NYCT) Sustainable Design Guidelines, the LMDC guidelines, and the New York City Department of Design and Construction (NYCDDC) guidelines. Our Team brings familiarity with all of these guidelines, having worked on the WTC Transportation Hub, the NYCT Second Avenue Subway, as well as the state and federal programs related to green design and LEED certification. We will develop cohesive sustainable design guidelines for this project that will be submitted as part of the Design Criteria Summary.

TASK F – PRELIMINARY DESIGN

During the preliminary design stage, we will validate the conceptual design (Stage I) prepared by the Port Authority and develop the design further to produce detailed plans, sections and elevations that meet the objectives of the BDR. Our Team's objective will be to make sure that the concept plan developed by the Port Authority responds to the needs of the multiple stakeholders in the project vicinity and provides an effective and aesthetic infrastructure and streetscape solution that takes into account a myriad of concerns such as security, structural requirements, utilities, and coordination with other WTC site elements.

General Requirements

The Downtown Streetscape Partners Team will submit a Preliminary Engineering Package (PEP), representing the design development of all architectural and engineering components for the WTC Streets, Utilities and Infrastructure Project to a 60% level of design completion for the Port Authority's review and approval. There will be a submittal at the 50% level of completion, i.e., 30% design, and at the 100% level of preliminary design. Those two submittals will include drawings, outline specifications and calculations, preliminary construction cost estimates, and a construction schedule and staging plan. In addition, our Team will prepare presentation materials that will include sketches, 3D renderings, models and animations, and sample boards, where appropriate. The following text presents our Team's approach to each of the architectural and engineering disciplines identified in the Scope of Work.

ARCHITECTURAL

Comprehensive Streetscape Design

Our Team will develop an integrated, unified and coordinated streetscape system design for the WTC site. The limit of work - extending to those streets and ancillary public park space within the World Trade Center precinct, but not including major plazas and memorials – is essentially the public realm outside the major iconic design spaces. The urban designer/landscape architect will lead the development of an aesthetic approach which

works within the settings and expressions set by the new projects, both architectural and landscape architectural. As the seam of continuity with the public realm, our Team will be looking for an aesthetic that: respects freedom of vehicular and pedestrian movement; that relates uncompromisingly with adjacent designs; and that rebuilds the subsurface and aboveground infrastructure systems in a way that reinforces the desired physical expression. We will be looking at every vault and manhole location and we will be looking at every inch of grade change and micro-drainage pattern – inches matter.

But we are also mindful of the larger urban planning and design forces that have already influenced the designation of public space around the site. The long interface with Michael Arad and Peter Walker's WTC Memorial design will present opportunities for terrace-like overlooks to the Memorial precinct – how will that kind of slower-moving use be correlated to the typically quick pace of New Yorkers on the move about their city? The PATH Terminal offers similar surface-to-below-grade relationships where access will need to be carefully framed. St. Nicholas Church in Liberty Park will require a respectful setting amid the noise, vehicles and activity of the south end of the Memorial. We will examine these and many other interfaces and relationships. The immediate past events that have precipitated the re-generation of the immediate area will focus everyone's resolve to make the weaving together of the components of public open space functional, aesthetically coordinated, and unified in expression and character.

Streetscapes Then and Now – how will they change?

- Fulton Street will be extended. Its historic role as a major east-west retail spine through the Nassau/Fulton district will remain vibrant, but its character will become more open and its function more public of a different destination kind. Its role as a cross-town link to the World Financial Center and Freedom Tower will create further invigoration.
- Church Street, always the 'front door' to the World Trade Center, will also be handling a greater throng. Expectations about the capacity of sidewalks to carry an even more important civic role, as gateway to the Memorial, will need to be addressed.
- Greenwich Street, as the centroid of the public traffic realm, and mostly on structure to boot, will channel much north-south movement, re-opening linkage and connection opportunities to other neighborhoods not seen on the west side since the 1960's.
- Liberty Street re-opened and extended to create an important link to the World Financial Center, and the setting and linkage to:
- Liberty Park, with significant grade change opportunities. The park will be a new public open space, a setting for a new church, and perhaps a place offering some respite from the memorial and city streets. Egress and air venting from the Vehicular Security Center, while nowhere delineated, must be assumed to use the park rather than the memorial – these major appurtenances will need to be integrated into park design.
- Re-making the south side of Vesey Street, thus helping to 're-brand' the perimeter of the WTC precinct, just as will the Church Street work.

The larger picture of relationships amongst users and uses will be fundamental to developing a cohesive public streetscape realm that will accommodate large visitation and local flows of vehicles, pedestrians and other modes of travel. Careful analysis of the types and modalities of the interface amongst these users, the General Program Coordination Diagrams and documents already prepared will involve:

- Creating a single unified and cohesive vision for the streetscape

- Reviewing current and outstanding WTC site designs and plans. Coordination with ongoing projects, specifically the Memorial and Museum, WTC Transportation Hub, Vehicular Security Center, and related and ancillary public realm open space
- Reviewing local stakeholder plans and intentions, including St. Nicholas Church, Performing Arts Center, Freedom Tower and others
- Coordinating with retail and commercial and ground floor development patterns, programs and plans along the streetscapes. Integrating street wall definition and micro-climate conditions into streetscape design criteria.
- Developing an ADA design implementation plan specific to the exterior public realm but coordinated with their respective architectural, transit and transportation components. Level and topographic changes across Liberty Park, and in particular between the sunken/subsurface memorials and transit and vehicular venues, will need careful attention.
- Coordinated design of infrastructure to ensure that aboveground design aesthetic expectations can be met. Coordinated design of above ground infrastructure (power, light, signalization, wayfinding and other signage, interpretive design) with a similar expectation. In a number of significant areas, we will be working essentially on top of structure.

Specific opportunities arising from the limit of work include:

- Establishment of hierarchy with Greenwich Street as the principal avenue of the World Trade Center complex
- Church Street enhancing its role as a gateway to the memorial site from street and subway points to the east
- Fulton, Greenwich and Liberty Street heads as entrances/gateways
- Fulton and Liberty Streets as linkages to the World Financial Center
- Liberty Park as a fulcrum entranceway from the south
- The setting of Liberty Park balancing St. Nicholas Church and public realm objectives
- Streetscapes as virtual extensions of memorial design

Our Team's streetscape design alternatives will proceed from development of the Basis of Design Report (BDR) and antecedent criteria. Even as we are considering existing context and architectural and landscape designs already underway, we will be developing overall and holistic perspectives for an integrated urban context, utility planning and design, and surface considerations, modeling in three-dimensions in order to illustrate infrastructure relationships. We will use plans and models – both real and computer-generated – to illustrate concepts in rendered and annotated form. Documentation will proceed from approved design. The development of viable alternatives, proceeding from a solid basis of design, is basic to developing consensus, and to communication and discussing with stakeholders. We anticipate a lively and public debate on design, with informed comment from many quarters. We will assist in designing the format and sequencing of presentations, workshops, and other participatory venues to ensure that place-making in the streetscape represents public consensus.

And we will not forget, either in the trenches or as out-front advocates, the objectives of the Port Authority amid all of this.

Detail Streetscape Design

Site furniture, related appurtenances and 'vertical elements' are the single most complex group of design concerns in a public realm streetscape, not just from the perspective of unified three-dimensional design but as importantly from that of organization, layout and balance. Light poles (and their fixtures), banner poles, signage, security video installations, bollards, benches, planters, signalization and parking, directional, informational and proscriptive signage will be carefully scrutinized as their prospective layouts come in from each discipline, and in coordinated in-design sessions, our Team will work out spacing, height and mounting issues in a cohesive, coordinated composite.

A number of important considerations having nominally large-scale impacts on streetscape expression and functionality come into play. ADA accessibility must be an integrated design criterion. Color and tonal shifts, lighting and shadow, texture and contour shifts – these are not just an accessibility palette, they are the design palette. Considerations of Community Protection Through Environmental Design (CPTED) weave into these considerations as well, and underscore how we will think about lighting, creating defensible space – space that is not just 'for people,' but safely occupiable.

Secondly, and a more recent 'newcomer' in the streetscape realm, is the introduction of perimeter security. Urban designers have not had a long period of time in this country to develop many appropriate responses to this new requirement. Our Team has had over twenty years of urban design and design implementation experience in New York, Washington as well as around the world for American embassies and consulates, and for high profile places in Europe, such as the city center of Manchester, England. While the physical expression of security can take many forms, and with good design, be integrated into the language of the street while maintaining freedom of public access, the subsurface mass associated with making the perimeter are a largely invisible, and therefore underestimated, element of urban design.

Thirdly, there will be important urban tree/street tree/vegetation component opportunities in the design of the public realm. Recent research and planting experience has demonstrated that providing acceptable and viably-sized and serviced planting volumes – with concomitant irrigation, drainage, root zone expansion, aeration and inspection – cannot be underplayed: they must be sufficient for plants to live. This is one, and perhaps the most visibly-apparent, aspect of a complete sustainable approach to design, and one of sensitive design technique in and around the WTC site, where many streetscape opportunities will be compromised by substantial underground foundations and building extensions.

Significant amongst these is the topographically challenged situation of Liberty Park. The park property, woven around St. Nicholas Church, incorporates the curving ramps and ramp roofing for the Vehicular Security Center. This ramp roofing, to which the site's ground topography can be brought up to, could have great public open space potential – giving some height and overlook/terrace opportunities over Liberty Street and into the Memorial landscape. At the same time, the re-design of the approach to the pedestrian bridge across Route 9A will give additional impetus to strengthening connections through Liberty Park to Cedar Street and Route 9A from Liberty Street and points east. The question will be what kind of program will be appropriate for such a bounded and divided park site? Its setting for St. Nicholas Church, its potential connectivity to active destinations to the south, and its strong natural affinity to the Memorial will surely shape its future character and use.

Reduced street-tree planting opportunities, particularly on Greenwich and Liberty Streets, mean that we must think harder about micro-climatic issues – particularly those of wind and insolation. Stormwater management,

both water quality and capacity, will be artfully integrated into planting strategies so that bio-filtration, retention and detention value can be developed.

The streetscape has its own infrastructure – wiring, irrigation, tree and vegetation planting panels and trenches, and so on. Our Team will coordinate these largely unseen components into the three-dimensional design of the streetscape, working with and around vaults, below-grade building extensions and connections, working over structure with appropriate waterproofing, protection systems, and penetrations when necessary. We have found that tracking and coordinating ancillary requirements for vault and related space for irrigation, lighting, and other controls are an often over-looked component of three-dimensional design. Additional considerations, such as fire hydrants and other public safety and surveillance utility appurtenances will be similarly woven into the integrated layout. Line of sight, stand-offs, spacing and other regulatory guidelines, which affect many of these elements, will be respected and intelligently interpreted so that the objectives of the project are met creatively and in the best spirit of the regulatory environment.

Coordination of the 'vertical elements' with planters, paving finishes and 'horizontal' design is a significant part of the design process. Much of the streetscape is adjacent to significant park and plaza open space and public realm being designed by others, where horizontal coordination will be paramount. Our Team has a long history of collaboration of working side-by-side with other designers on adjacent, contiguous and allied public projects. Therefore, we understand that one of our Team's principal efforts will be directed toward making seamless connections between those important settings and the functions and aesthetics of the street. We will expect to develop an understanding of, and coordinate closely with, those designs and designers.

Streetscape Perimeter Security

On a precinct-wide basis, our Team will examine the physical urban structure of the entrance to the WTC neighborhood and develop a coordinated vehicular access control plan and design. Coordinating with streetscape design objectives that focus on image, setting and identity-making for the WTC precinct, we will be working to ensure that visibility, safety and freedom of access to the public realm are not compromised along its edges and seams with the neighborhood. Our Team will develop a unified, street and building-integrated design that meets these objectives and sets the stage as the first 'filter' of new streetscape design that sets up motorist and the pedestrian experience and welcome to the interior of the precinct and its concomitant public open spaces. These studies will be completed in plan and 3D modeling, and supported by section and elevation renderings.

Best practice suggests that precinct-wide designs, which may vary according to the specific nature of their location, are the most successful, integrative and economical solutions to multi-block urban security projects. The key concern for the development of a design expression is that it not only be at once synonymous and resonant with local architectural and urban character, but also recessive and efficient enough not to call undue attention to itself. Keeping the groundplane as visually open and accessible is the premier 'fault-line' rule in inserting perimeter security into public realm where pedestrian flows and quantities are high – the less friction and the greater freedom of movement the better.

Our Team's extensive study and design experience in downtown Washington, D.C., where worker and tourist volumes can be very high, have borne this theory out in practice. Accessibility and mobility of public safety and emergency response teams and logistics are a critical component – designed entries and penetrations, integration of operations with physical design, are fundamental, and potentially in short supply at the Memorial site, which is substantially below-grade. Through a thorough review of the character, materials, design

approach and philosophy and the nature of the designed environment, we will produce several alternative approaches to physical secure perimeter design. Real-time simulations are likely required to demonstrate response time and efficacy of access under emergency conditions. The typical language of perimeters – bollards, hardened street furniture, sculptural elements, site walls, integral landscape structures, and the like – will be the basis of this investigation, but we will be looking at the new landscape and architectural designs being formulated for the WTC site for inspiration and interpretation of those traditional elements, and for the development of new ones, on which to found a new perimeter security expression.

Presentation of Design

The Downtown Streetscape Partners Team will create plan and 3D modeling to depict alternative approaches. For streetscape design and perimeter security, we typically carry design of physical elements well into the design expression of each alternative approach's aesthetic and functional aspects. Working physical and computer-generated models, as well as finished one, and professional renderings, as well as traditional illustrative plan, section and elevation, will all be part of our communication palette. The security, structural, architectural, civil, utility, simulation graphic artists and landscape architectural teams' work will be brought together under urban design/landscape architectural leadership for design coordination, and for articulation to stakeholders and client – for it is the urban designer/landscape architect who is responsible for the physical aesthetic design expression, who will coordinate the various disciplines associated with overall streetscape design, and who will participate as one of the key lead positions in stakeholder and approval presentations.

Wayfinding, Signage and Graphics for the WTC Site: Communication, Commerce and Community

The environmental graphic design component of the WTC Infrastructure program will result in wayfinding strategies and create and document signage design standards for permanent and temporary directional and informational signage throughout the World Trade Center site. Our aim will be to leverage graphic communication as a means of re-establishing community, of connecting people with the place as it undergoes transformation.

This effort will require collaboration with several members of the project and client teams, as decision-making will involve issues of identity, communication, structure, engineering, and other practical and political aspects of the program.

During the documents review, we will study and prioritize the proscribed design criteria - Port Authority World Trade Center Sustainable Design Guidelines Reference Manual, New York City Transit standards, WTC Site Commercial Design Guidelines, et al. Through discussion and deliberation with the client and project teams, we will decide which existing standards must be incorporated in the sign program, and what new elements may need to be developed to address issues of identity. For example, the team will need to decide where, when and how the WTC site might be treated as a separate, distinctive neighborhood with its own unique visual identifiers (e.g., logo, color palette, sign forms, etc.), or integrated as much as possible with the rest of downtown by extending and/or incorporating existing systems.

In terms of wayfinding analysis, the key challenge will be to identify and understand the area's visitor and stakeholder populations - tourists, commuters, residents, tenants and motorists - and the major destinations they seek within and adjacent to the site - public amenities and attractions, offices, apartment buildings, church, retail stores, parking and transit stops. We will need to analyze the major user groups' existing and anticipated pathways, both pedestrian and vehicular, to and from these destinations at different times of day. Careful research will reveal where and how signage would be needed, along with other elements of the

program, to help control the circulation of vehicular and pedestrian traffic at peak times. The results of this complex research and analysis effort will be a wayfinding plan, including strategic recommendations, sign types family, preliminary message schedules, and location plans.

Wayfinding strategies for the WTC site will need to coordinate with the intent of the overall urban plan, as well as specific architectural and landscaping features. It will need to reflect the considerable safety and security concerns associated with the site by restricting vehicular access to densely crowded places without interfering with pedestrian circulation. In a neighborhood that offers access to more than seven subway lines, the wayfinding strategies should also encourage use of public transit without compromising vehicular flow. In an area that struggles to regain its economic vitality, it will need to support commercial traffic without compromising civic standards.

Using the circulation analysis and approved wayfinding strategies as a platform, we will then devise a "family" of sign types to be used through out the site. This may include a combination of proscribed and new elements depending on the outcome of the documents review and subsequent discussions and recommendations. It will need to include a variety of structural types (e.g., pole-mounted, freestanding, wall-mounted) and sizes to suit a variety of environmental and architectural conditions. It will need to specify temporary and permanent types. We will map these types to a location plan, which will describe which sign type is likely to be needed where and when.

Once the wayfinding and signage framework is established, we will begin to design the individual sign types and message schedules. These will need to reflect a clear hierarchy of information, appropriate institutional identity(ies), consistent nomenclature, and other coordinated graphic elements. Collaboration with representatives of the PANYNJ, the City, the developer(s), and other stakeholders will be needed to ensure that sign messages "speak" with the appropriate language, tone and authority. This will likely be the most challenging part of the program from a political standpoint, and will deserve close attention and involvement of key parties.

From a structural perspective, we will also need to consider and coordinate our signage designs to harmonize with the local architecture, street furniture design, and landscaping schemes. Our goal will be to convey the right messages in the right places without adding unnecessary visual clutter to an already dense streetscape.

In working out the details of signage design and construction, we will consider durability, vandal-resistance, and affordability. In this day and age, we believe it is also important to employ principles of sustainable design. We will aim to make wise use of resources in terms of specification, fabrication, installation and maintenance in general. Specifically, we would aim to minimize waste and pollution and conserve water and energy by developing sign systems that are designed and documented once to be implemented and extensible over time; employ materials and construction methods appropriate and scaled for project needs; require minimal energy to function (e.g., highly visible designs that require no lighting, or utilize solar-powered or energy efficient lighting); require minimal maintenance and are easy to clean, update and replace.

Finally, we will coordinate with the project team to plan phased implementation as the site develops over time. We will need to establish and address a hierarchy of wayfinding and signage needs in terms of user groups, destinations and messages, and work with practical constraints such as ongoing construction and funding. Careful planning will ensure that critical needs can be met every at every stage of the redevelopment process.

Overall, the goal of the wayfinding and signage program will be to support a busy, vibrant community as it evolves and re-establishes itself as the heart of downtown. In Two Twelve, our team has a seasoned partner with both personal and professional interests in seeing the area revive; the firm lost its offices at 90 West Street on 9/11/01 and has made a concerted effort to apply and contribute its talents to various aspects of the rebuilding process over the past five years.

CIVIL

Removal/Reconfiguration of Streets

This portion of the scope of work consists of the removal/reconfiguration of five streets surrounding the proposed WTC complex. Two of the streets, Fulton and Greenwich Streets, are to be newly created streets and will complete the grid around the Memorial Plaza and the WTC complex of buildings. The other three streets - Vesey, Church and Liberty Streets - currently exist and are adjacent to the WTC reconstruction zone. Under this sub-task, the south side of Vesey Street and the west side of Church Street will be reconstructed, including their adjacent sidewalks. Liberty Street will be widened and reconstructed to accommodate two-way vehicular traffic as part of the WTC master plan and in coordination with the proposed private buildings and Port Authority facilities. The limits of removal and reconfiguration will be based on the development of tasks noted in the horizontal and vertical layout, and utility modifications below.

Although the scope of work limits the reconstruction of Vesey and Church Streets as discussed above, the limits of possible utility relocation, pavement marking removals and reapplication, and pavement rehabilitation resulting from deformations caused by the movement of construction equipment, etc. may warrant consideration of an additional mill and overlay task to give the entire street a clean uniform appearance at minimal cost. It is also noted that NYCDEP criteria require that any street for which sewer work is performed, include a mill and overlay of the entire street. This will be further investigated by the Downtown Streetscape Partners Team and coordinated with the Port Authority as the work is progressed.

The construction staging sequence will also be considered as part of the civil engineering task, since the work will need to properly dovetail with other construction surrounding the WTC and schedules for opening the Memorial Plaza and the Freedom Tower.

Horizontal and Vertical Layout of Streets

The Stage I Plans, Master Plan and BDR will be the starting point for developing the horizontal and vertical alignments of the streets. Based on a review of these documents, the Team will obtain a thorough understanding of the design constraints associated with street design relative to all of the proposed facilities within the project limits.

It is important that this understanding include and be consistent with the constraints demonstrated in the Conceptual Design including, but not limited to, the position of the existing subway structure in Greenwich Street and the walkway connector in Fulton Street, the PATH substructure, subway entrances, the underground structure that supports the Memorial Plaza and the street system, traffic and transportation, the Vehicular Security Center, security systems, Liberty Park and the WTC complex of buildings.

In addition, it is imperative that the vertical geometry be designed to account for the utility requirements of the site. Vertical control elevations will need to be established above the lanes identified for the utilities. These vertical controls, accounting for established elevations for the Memorial Plaza and WTC complex, are crucial to

the design of the street profiles; they must fit with the design of the utilities and other underground infrastructure. Established elevations must allow for the gravity flow of storm and sanitary sewers as well as the required cover for other utilities. The geometric street design must fit the site like a glove.

Designs will be coordinated with contacts from the Lower Manhattan Development Commission (LMDC), NYCT and the Downtown Development Commission (DDC) to identify other reconstruction projects outside and adjacent to our project limits. There may also be a need for additional coordination with other agencies for project information. If there are other projects underway that affect the design of the WTC Streets, Utilities and Related Infrastructure Project, our Team, in close coordination with the Port Authority, will determine if the base condition of the streets under the Conceptual Design will be affected by others, e.g., NYC Transit's Fulton Street Connector project.

Coordination meetings will then be scheduled with the other designers to begin the iterative process to confirm and reconcile the WTC street designs as they relate to other project designs. The street design will also be coordinated with the Team's landscape architect responsible for the design of the sidewalk streetscape relative to the various plaza designs.

As the designs evolve and solidify, through the preliminary design phase, schematic geometric, pavement designs, and pavement marking plans, etc. will be submitted to NYCDOT Highway Division, the Borough President Office, NYSDOT (West Street design) and any other concerned agencies for their approval. The designs will then be developed and advanced to Final Roadway Construction and Profile Plans.

Modification of Utilities

Similar to the discussion above, the Stage I Plans, Master Plan and BDR will be the starting point for developing the utility relocation plans. The Team will review the documents to become familiar with the proposed utility requirements.

The modification of utilities and utility design will be constrained by the established surface grades for the Memorial Plaza and WTC complex as well as all of the other proposed subsurface structures, habitable spaces and subway lines. As such, one of the first subtasks is to review and understand the Stage I Design Plans for all proposed facilities that extend below the street system and to understand their relationship to existing subsurface facilities. These utility design plans will be used, as necessary, to identify conflicts, potential or real, with intersections between existing and proposed utilities, other subsurface structures such as subways, underground habitable spaces, foundations, and walls. Conflicts will be verified using horizontal alignment and vertical elevation details obtained through test pit survey, and "as built" and record plans of preceding construction projects. Where gaps remain, additional survey may be warranted. In addition, information on the various site connections of the proposed facilities will also be reviewed and verified. The Team will closely coordinate any additional survey requests with the Port Authority.

Upon the completion of the survey and Stage I Plan review, cross sections showing the horizontal and vertical position all utilities at critical locations will be drawn to understand the relationship of all underground facilities and determine where conflicts exist. Where conflicts are verified in the conceptual design, the Team will closely coordinate an acceptable design with the Port Authority and all participating stakeholders.

Acceptable designs may require modifications to the horizontal and vertical positions of utility and storm/sanitary sewer profiles. The utmost care and attention must be given to this task, as it will require a unified approach and a tailored fit.

Coordination with utility companies and agencies is key in developing utility modifications in the existing street system. However, coordination within the WTC site and the respective designers will be a challenge in order to understand if certain utilities are impacted by other proposed WTC developers or PANYNJ facilities, i.e. the WTC Transportation Hub, Vehicular Security Center, and others.

Where record utility plans are not readily available from the Stage I Design data bank, a mass mailing to all of the private and public agencies may be required to obtain as-built information and concurrence of the existing utilities. As discussed above, where existing utility information is obscure, but critical to the design, test pits will be requested by the Team. Depending on the complexity of the utility relocations, a number of meetings with the utility agencies may be required.

The work within Liberty Street is a good example; given the north side subsurface is being developed by the Memorial entity, and the south side subsurface is being developed by the Vehicular Security Center entity. In addition, the WTC chiller plant will be providing chilled water to the various WTC sites resulting in chilled water lines possibly crossing the street limits.

Drawing Requirements

Base drawings will be developed defining/depicting all existing conditions and features including but not limited to the requirements specified in the RFP. Once conformed to existing conditions, the base plans will be used to generate proposed designs to ensure a comprehensive and complete set of contract documents that are biddable and constructible. All plan development will be in accordance with Port Authority CADD Standards and in the horizontal and vertical datum established by the Port Authority.

The Drawings shall present the design elements on various types of plans by discipline as listed in the RFP and the BDR. Additional drawings will be added to define the details as needed. The following major details and calculations will be incorporated:

EXEMPTION 4

EXEMPTION 4

Coordinate Utility Modifications (Private and Public Agencies)

One of the main aspects in regard to utility design is coordination with the various private and public utility agencies to first confirm existing utility types and locations and secondly to confirm a unified relocation, modification and proposed utility plan within the project limits. The Team has extensive experience working on

various NYCDOT, NYCDDC and NYSDOT projects that has resulted in a strong relationship with many of the utility agencies and their respective utility liaison representatives.

The private utilities (Con Edison, Keyspan, Verizon and others) have agreements with the City with regard to their coexistence within public Right-of-Way. As such, these private concerns will plan and mobilize their relocations in advance of the City's or in this case Port Authority's work to avoid delay claims.

To facilitate utility coordination two mass mailings are proposed.

- The first mass mailing will be made to all of the private and public agencies to get as-built information and concurrence on the existing utilities. Depending on the complexity of the utility relocations, one-on-one meetings will be set up with the utility agencies to facilitate coordination and design. Replacement of sewer and water mains will be submitted to NYCDEP for approval. In addition, the Team will work with the private utility companies to define support and protect items of work for utilities remaining in place.

- Prior to proceeding with the final design, a second mass mailing will be made in order to solicit comments and to schedule an all-agency meeting. The all-agency meeting is critical to confirming the coordination with all impacted utility agencies.

Agency Review / Comments

Under the various above tasks, our Team will be soliciting comments from various agencies and stakeholders through the process of obtaining permits and conducting mailings/meetings. These comments will be carefully addressed, responded to, and/or incorporated into the design documents. Logs will be prepared for each agency to organize and monitor agency comments and responses. Each agency will be responded to in kind with specific responses addressing their particular comments.

ELECTRICAL

EXEMPTION 4

All critical systems related to life safety, security and access control, traffic control, vehicle inspection, security lighting, communication systems, and related facilities will be powered from the Transportation Hub's emergency generator plant.

Raceways serving the devices supported from the Transportation Hub's resources will be routed through vertical and horizontal chases below street level. Raceways embedded in the streets will be limited to those required to support City Agency devices and possibly pass-through duct banks required by the Utility companies to serve adjacent development.

The electrical design, in addition to complying with all the Codes, Standards and reference guidelines noted in the RFP, will also conform to PANYNJ design requirements noted therein. To further integrate the design to PANYNJ practice, it is anticipated that the raceway and cable naming conventions established for the design of the Transportation Hub will be expanded to this Project to maintain non-redundant identification. Additionally, the Transportation Hub drawings can be referenced and updated (as part of that Project), as necessary, to reflect the interface between the two projects.

While much of the electrical design will be dependent on the design of WTC facilities still in design by various A/E firms, this project's electrical design will incorporate the results of field surveys of any existing adjacent electrical facilities as well as examination of construction documents of these facilities prepared by the various City agencies. Additional to the field surveys and drawing reviews, a number of meetings with electrical design counterparts will be scheduled to assure a smooth interface for all related systems. All meetings will be documented and summarized in minutes for review and to serve as backup for design decisions.

As with other trade designs, the electrical design will allow for review submittals by PANYNJ at the 50% and 100% completion levels. Documents to be submitted will include calculations, equipment catalog cuts, drawings, and specifications. Concurrent to the design, the electrical engineers will participate in the independent value engineering process and will incorporate documented accepted changes in a timely manner.

ENVIRONMENTAL

The environmental scope includes addressing contaminated soil and hazardous materials; as well as evaluation and preparation of plans for mitigation of construction-related air quality and noise impacts.

To advance to Final Design, the project will need to comply with NEPA requirements. A project-specific Environmental Assessment (EA) will be prepared by others. Our Team will support the Port Authority in this effort by providing technical information, illustrative materials, and through participation in information sessions/meetings. The EA will document baseline conditions, potential environmental impacts, and how they will be mitigated.

Contaminated and Hazardous Materials

Soil and groundwater assessments have been performed in the project area. These prior studies provide valuable information that can be relied upon for this project. Our Team will review and evaluate all available environmental assessment and investigation reports that have been generated for the area, and related data available from the Port Authority and regulatory agencies. Following this review, we will prepare a Sampling and Analysis Plan (SAP), which will include all procedures required for completion of fieldwork and, once approved by the Port Authority, will provide the guidelines for environmental investigation. The SAP will be prepared in

accordance with the protocols and guidance developed by the NYS Department of Environmental Conservation (DEC), the U.S. Environmental Protection Agency (EPA), and the NYS Department of Health (DOH). The SAP will outline the procedures for sampling soil and groundwater, as well as building material to identify lead-based paint (LBP) and asbestos-containing material (ACM). Environmental quality assurance/quality control (QA/QC) procedures for field and laboratory activities for the project will be described as well. The Team will select samples for analysis based on existing and suspected contaminants on site. A Health and Safety Plan (HASP) will be developed in accordance with Occupational Safety and Health Administration (OSHA) regulations.

Following sampling and analysis, impacted soil and groundwater mapping will be generated to provide reliable estimates of impacted soil volumes and groundwater that need to be managed during construction. Detailed plans and specifications for management of contaminated materials will be prepared to make sure that construction activities are performed safely and in the most expeditious manner.

The quality of the soil at the specific areas to be excavated and managed during construction will need to be further characterized to support proper disposal or re-use. Pre-classification of soils will eliminate the need to stockpile soils for sampling and classification prior to beneficial reuse or off-site disposal. This will mitigate the amount of dust generated from construction and minimize the amount of time need for air monitoring. It will also help with controlling truck traffic during construction and associated noise. Obtaining groundwater data early in the process will also allow our Team to determine the appropriate treatment associated with dewatering operations during construction.

Soil borings will be advanced at locations in the project area to obtain soil samples for comprehensive laboratory analyses. Samples will be analyzed to obtain firm cost estimates for soil disposal or re-use including:

- Target Compound List (TCL) volatile organic compounds (VOCs)
- TCL semi-volatile organic compounds (SVOCs)
- Target Analyte List (TAL) metals
- PCBs
- Full list Toxicity Characteristic Leaching Procedure (TCLP) analyses for metals, VOCs, SVOCs, pesticides, and herbicides
- Hazardous characteristics of ignitability, reactivity and corrosivity

Groundwater samples will also be collected at locations in the project area. The samples will be analyzed for VOCs, SVOCs, metals, and PCBs to determine the appropriate disposal requirements associated with dewatering during construction.

Our Team will also conduct surveys of ACM, LBP, and other hazardous materials that may be present in existing structures and utilities. Following the review and assessment of available data and reports, we will collect supplemental bulk asbestos samples and use x-ray fluorescence to detect the presence of LBP. The findings from this field investigation will be included in an environmental survey report. The ACM and LBP investigations will be conducted by a licensed NYC Asbestos Investigator and USEPA-certified LBP Investigator/Risk Assessor, respectively.

The Findings Reports for the Environmental Site Investigation (ESI) and hazardous materials surveys will present and interpret the results of the field investigations and identify hazards, including subsurface contamination, PCBs, LBP, and ACM, that may be affected by construction of the streets, utilities and related

infrastructure. The reports will include recommendations for managing contaminated materials during and after construction, including soils disposal/reuse, proper management or abatement of ACM and LBP, dewatering of contaminated groundwater, and incorporation of any protective barriers to contaminated materials, if necessary.

Construction Contaminant Management

Our Team will prepare a Construction Contaminant Management Plan (CCMP) that will be implemented during construction so that contaminated materials and hazardous wastes are properly managed in accordance with applicable environmental regulations. Contaminated materials and/or hazardous wastes can include excavated soils and sediment, groundwater and surface water generated during excavation dewatering, ACM, and LBP. Proper management of such materials includes excavation techniques, waste characterization, handling, transportation, disposal, staging, erosion and dust controls, temporary storage and disposal.

The CCMP will include guidelines for the design, installation, maintenance and operation of any temporary dewatering systems, water storage and treatment systems. Such systems would be used to minimize the migration of any existing contaminant plumes, minimize the volume of water generated, and treat contaminated concentrations to acceptable levels as specified in discharge permits.

Based on information obtained during the field investigation, as well as from prior environmental assessments, we will develop environmental drawings and specifications to make certain that materials are properly characterized and handled during construction and that general worker safety is maintained. Following the latest Port Authority guidelines and applicable regulations, our environmental specifications will detail all phases of the management of all types of contaminated materials and hazardous waste.

We will also prepare plans and specifications so that soils and construction/demolition (C&D) debris that are not classified as "hazardous" under EPA and DEC criteria are beneficially reused either on site of at an off-site facility. In New York State, 6 NYCRR Part 360 provides guidance for the management and re-use of contaminated soils and C&D debris. The beneficial re-use of excavated coils and C&D debris provides the opportunity to remove these materials from the waste stream.

A project closeout report will be submitted to the Port Authority at the completion of the contract. This report will include sufficient detail and supporting documentation to describe all contaminated material work performed under this contract. Thorough inspection and complete documentation of construction activities is necessary to produce a complete project closeout report that is necessary for the Port Authority to comply with EPA and state regulations.

Air Quality and Noise Impacts

Plans will be developed to address emissions of air contaminants and related ambient air quality issues as well as noise levels to community receptors from construction or transportation activities. The initial step in developing a plan for ambient air and noise monitoring programs is to identify the rationale or triggers for a particular monitoring effort. We will consider such issues as what information is required and what level of quality assurance and control is warranted and then formulate a monitoring strategy to achieve the objectives in an efficient manner.

The Lower Manhattan Construction Coordination Committee (LMCCC) is a stakeholder for ensuring air monitoring in the vicinity of the former World Trade Center site meets regulatory and community objectives.

Regulatory standards for evaluating noise-level compliance include Environmental Regulations under the EPA and OSHA.

AIR QUALITY

Our Team has specified ambient air monitoring plans for numerous construction projects throughout New York, including preparation of Ambient Air Monitoring and Data Collection Plans for the collection of background monitoring data for comparison to air monitoring levels during the construction. Monitoring is often performed with particulate monitors and meteorology sensors typically used for evaluating compliance with National Ambient Air Quality Standards (NAAQS). At the project site, ambient air quality data provided to the Lower Manhattan Construction Coordination Committee (LMCCC) for the deconstruction of the Deutsche Bank building at 130 Liberty Street will be referenced, for ensuring air monitoring in the vicinity of the former World Trade Center site meets regulatory and community objectives.

During demolition/construction phases of the project, short-term ambient air quality impacts may result from:

- Fugitive dust (PM2.5, PM10) emissions from land clearing, construction materials or debris handling, excavation, demolition, compaction, short-term storage, and vehicle motion over unpaved areas.
- Mobile source emissions, including CO, VOCs, and NOx emissions from internal combustion engine-powered construction equipment at the site, construction worker vehicles, and traffic diversions or detours. Exhaust emissions of PM also result from the use of diesel-powered vehicles.

Approaches to mitigate construction-related emissions include: use of water or dust-suppression mixtures during demolition, excavation, grading, and construction operations will minimize fugitive dust emissions. Specifications would be developed to require construction workers to apply dust suppression agents on a recurring basis to gravel or dirt roadways, materials stockpiles, and other surfaces capable of producing airborne dust. In addition, vehicles that transport materials to the site would be required to cover open-body trucks with tarps to minimize dust and to maintain low speeds. To further minimize fugitive dust emissions, vehicles could be required to periodically sweep and wet down paved roads.

Subsurface construction activities may utilize wet suppression of dust-creating activities. Ventilation of these construction areas will incorporate the state and City's requirements, including appropriate control measures. These requirements will be included as part of the specifications of the construction contract.

Mobile-source emissions would be controlled by:

- Selecting diesel-powered construction equipment with reduced carbon monoxide emissions, where practicable
- Not allowing delivery trucks or equipment to idle during periods of extended unloading or inactivity
- Adjusting traffic patterns and phasing deliveries to maximize flow and minimize idling
- Specify use of construction equipment that uses low-sulfur diesel fuel

NOISE

Although the major noise source during construction, i.e., heavy machinery, will move unpredictably, no one receptor is expected to be exposed to elevated levels of construction noise for long periods. Construction noise lasts only for the duration of the construction phase, and is usually limited to the designated hours of work.

Depending on the nature of construction operations, construction noise events can last from seconds (e.g., a truck passing a receptor) to months (e.g., constructing a building). Construction noise is intermittent, responsible for a variety of impulsive, discontinuous noise sources. It is dependent upon the type of operation, the location and function of the equipment, and the equipment usage cycle. If needed, the construction of temporary walls or creation of piles of excavated debris may be useful in attenuating particularly noisy activities.

While there will be temporary increases in local noise levels, the current nature of the existing land usage near the demolition/construction site will result in very few existing sensitive noise receptors which would be affected. Adherence to the New York City Noise Ordinance will be strictly enforced with respect to, among others, allowable hours of construction operations and noise emission standards for various construction equipment.

We will select noise monitoring equipment, equipment operating modes, and strategies for collecting and evaluating data. Plans will be developed for reporting noise that exceeds threshold values to the construction team so that modifications/controls may be performed.

Our plan will address measures that contractors should employ to control construction-related noise. These may include:

- Installing construction noise barriers using temporary walls or piles of excavated material between noisy activities and noise sensitive receivers
- Routing of trucks through non-residential streets
- Positioning site equipment as far away from noise sensitive locations as possible
- Combining noisy operations to occur during the same time period
- Avoiding nighttime activities

In general, construction materials will be handled and transported in a manner that avoids unnecessary noise. Adherence to the above noise control measures will significantly reduce the likelihood of any significant adverse construction-related noise. Provisions would be included in the contract and specifications to ensure that contractors make every reasonable effort to minimize construction noise through additional abatement measures such as work-hour controls, maintenance of muffler systems, public information regarding construction scheduling and limitations on idling equipment.

STRUCTURAL/GEOTECHNICAL

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based, networked solution providing the means of integration of disparate systems through standard SDK and open API's.

These and other factors that will strengthen the 'deter, detect, and delay' based model of security will be the guiding lights of our design.

TASK G – VALUE ENGINEERING

During the preliminary design stage, the Downtown Streetscape Partners Team will participate in a Value Engineering (VE) workshop, which will be led by an independent Value Engineering consultant, consistent with FTA guidelines and good practice. Team Leader Edwards and Kelcey has years of experience conducting VE studies for New York area agencies including MTA New York City Transit, MTA Metro-North Railroad, New York State Department of Transportation and NJ Transit, so we are comfortable with the process and used to value-engineering our own designs as a normal course of business. Under the direction of a Certified Value Specialist (CVS), this will be an independent multidisciplinary team of professionals to identify potential cost and schedule savings. Our role will be to make presentations to the workshop and evaluate the impacts that could result from implementing the value engineering recommendations.

Our Team will make available to the VE team a review of all available records and design documents including:

- Design drawings
- Design specifications
- Design calculations
- Design criteria
- Applicable federal, state, and local codes and regulations
- Design standards including applicable Port Authority operational criteria and standards
- Alternative designs considered
- Environmental assessment
- Geotechnical report
- Surveys and maps
- Construction cost estimate
- Construction schedule
- WTC Master plan and master schedule
- Impact on Port Authority operations, vehicular and pedestrian traffic, utilities, as well as other affected

At the conclusion of the workshop, the VE team will submit a VE Report containing project objectives and description; a summary listing of the value engineering recommendations and the associated cost savings, as applicable; and a detailed description of each value engineering recommendation including a comparison of the present design vs. the proposed, with supporting marked-up drawings, revised calculations, applicable codes and standards, and other technical data.

The Downtown Streetscape Partners Team will review the VE Report and submit our recommendations to the Port Authority in the form of Value Study Proposals. Upon the Port Authority's final decision for acceptance/rejection and implementation of the value study proposals, we will revise the Preliminary Design, as required, update design drawings, and prepare a revised project construction cost estimate based on the construction cost estimate previously prepared plus the revisions to the cost estimate caused by implementation of the value engineering recommendations. This revised cost estimate will be used as the benchmark for the project moving forward.

TASK H – FINAL DESIGN AND CONTRACT DOCUMENTS

Following the value engineering workshop, and contingent upon Port Authority's receipt of authorization through the NEPA process, the Downtown Streetscape Partners Team will advance the preliminary design to produce final design and contract documents. The final design will address those recommendations of the value engineering report agreed-upon with the Port Authority, as well as any review comments on the Preliminary Design submittal. Our Team will submit appropriate plans, specifications, revised cost estimates, and construction schedule to the Port Authority for review. These design plans will address all RFP requirements, including dimensioned alignments, layouts, grades and elevations; utility and drainage plans; structural framing and supports; roofing and architectural details; electrical and mechanical plans; signage plans; and construction staging plans.

The final design submittal will include design computations, including analyses of stress levels and loading conditions, and complete technical specifications in CSI format.

Following Port Authority review, we will address all comments and develop the design documents to the 100% level. This submittal will be reviewed again by the Authority and, after being accepted or revised, will become the bid-ready construction documents. The Final Design Documents will be signed and sealed by appropriate engineers licensed in either the State of New York or the State of New Jersey who are familiar with and responsible for the design. The cost estimates that accompany the Final Design will include an estimate of quantities, including unit prices where appropriate, along with documentation of analyses used to establish unit and lump sum prices.

TASK I – COST ESTIMATE AND CONSTRUCTION SCHEDULE

From the preliminary to the final design stage, it is important that the Port Authority have the best cost information available. The Downtown Streetscape Partners Team will prepare, maintain, and modify cost estimates and a construction schedule as part of the design development process. These will be prepared by assessing all construction elements and evaluating the material, equipment, and labor required, as well as the progress expected for each activity.

To develop cost estimates, material costs will be estimated separately, and costs will be added for overhead, equipment, profit, and escalation to the midpoint of construction. All estimates will be prepared using costs based on the New York City practices, recent cost history for similar construction, and guidelines governing labor and procurement. Construction practice trends in the New York metropolitan area will be assessed to estimate influences that may affect future package construction costs. Assessments will be developed with respect to capacity of local and national companies to perform the work over the construction schedule.

Cost estimating and control will be an ongoing process throughout design development. We will update estimates on a regular basis and reconcile updates with previous estimates. At the 50% and 100% levels of preliminary design (consistent with accepted value engineering recommendations), as well as for final contract document submissions, we anticipate preparing estimate updates in a common format and producing a report on the estimate itself, along with the reconciliation with the previous estimate for each construction or procurement item. Cost estimates will include itemized, rolled up, and summarized costs and provided in a format approved by the Port Authority.

As with cost estimating, scheduling for the streetscape project will be an iterative process that will start with top-level schedules with little detail, and then proceed to progressively more detailed schedules. The final detailed

construction will include intermediate milestones and details on components of the construction contract that will be used in construction management. As the design progresses, we will prepare and revise a target construction schedule, which will include estimates of delivery times for long-lead items. An updated construction schedule will be provided in bar chart format to Port Authority at the 50% and 100% levels of preliminary design, as well as at the time of final design and contract document submission. As with the construction cost estimate, the schedule will take into account the current construction climate. Such factors as current projects under contract in Manhattan and in the region, dollar value of current contracts versus average annual volume, employment levels and similar risk factors that effect both cost and schedule will be considered.

TASK J – POST AWARD DUTIES

Our Team recognizes that the designer's role does not end with the issuance of design documents. The Downtown Streetscape Partners' responsibilities during the post-award phase will include:

- Reviewing and approving working drawings, catalog cuts, and samples for those articles, for which we are Engineer-of-Record
- Evaluating requests for changes and developing detailed estimates
- Reviewing as-built drawings submitted for completeness and accuracy
- Evaluating alternative construction details and materials
- Making site inspections and on-site observations, as required
- Attending two preconstruction meetings and one monthly field meeting during construction

Our Team will submit a Quality Control/ Quality Assurance program for this phase of the work and at the first preconstruction meeting, provide a list of required contractor submittals.

Management Approach

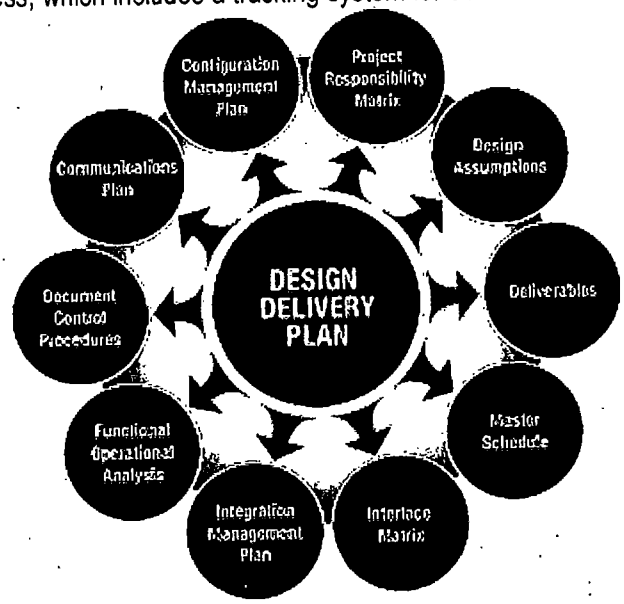
4. MANAGEMENT APPROACH

OUR APPROACH FOR SUCCESS

The foundation of the Downtown Streetscape Partners Management Approach rests on senior executive management commitment and a fundamental focus on responsiveness by our Project Manager and key team members that will be the bedrock of our organization for the life of this project. No project as complex as this one, with so many adjacent stakeholders, can succeed without clear goals, thorough planning, and decisive leadership, while maintaining responsiveness and flexibility. This is particularly true for the WTC Streetscape Project because of the aggressive schedule for design and construction and the need for integration with the design and construction that will be underway on the numerous adjacent properties. Continuous coordination will be needed to accommodate the multiple designers and constructors working nearby, many of whom will be working for other clients. Our Team is committed to the delivery of an exceptional product within the established schedule confines.

We understand that with the continuing evolution of the stakeholder discussions and agreements, as well as possible revisions to the Master Plan, our Team must remain flexible throughout the design process. Our Team will adapt to any changes in the master plan through a structured approach to configuration management and change control.

As requested in the RFP, our Team's Management Approach (1) provides an internal management organization and hierarchy for program efficiency and project effectiveness, which includes a tracking system for deliverables and controlling costs, (2) provides procedures for keeping the FTA/Port Authority team informed of issues and progress during project preparation, and (3) describes a program for coordination and plan of action for working with multiple consultants, contractors, stakeholders, and the master-planning process.



DESIGN DELIVERY PLAN

A key component of our management approach will be the preparation of a Design Delivery Plan that will serve as the Downtown Streetscape Partners' master management tool for the design. Before starting design, we will develop, in coordination with the Port Authority, a comprehensive plan defining:

- **Project Responsibility Matrix** – individuals and organizations responsible for each specific scope item
- **Design Assumptions** – early resolution of any and all undefined scope items
- **Deliverables** – drawings, reports, studies and other project deliverables, including review requirements
- **Master Schedule** – incorporating activities and milestones, deliverable preparation and review, and QA reviews
- **Interface Matrix** – identification of critical technical, management and schedule interfaces among the Port Authority, our Team, stakeholders, other consultants, contractors, suppliers, and others, including potential third party impacts to schedule and scope

- **Integration Management Plan:** defining the process of coordination among design teams to deliver a fully integrated infrastructure and streetscape design
- **Functional Operations Analysis:** to inform the design process from the perspectives of the users of the facilities
- **Document Control Procedures:** protocols for document distribution and control, including security-sensitive documents
- **Communications Plan:** definition of procedures for communications with the public, the Port Authority, and for inter-agency input
- **Configuration Management Plan:** procedures for change control and documentation

Many of these components of the Design Delivery Plan will be more fully developed as the project progresses, as described in more detail below in the context of their roles as major functional elements of our management approach.

The Design Delivery Plan will serve as the foundation document and guide for the overall design effort. It will be a "living document" that will be refined and updated throughout the project. In addition to the major components described above, it will also provide information useful for numerous purposes such as executive reference, public information development, and operations procedures, describing in narrative, matrix and pictorial format the project's features, layout, functionality, operability, maintainability, equipment parameters, backup systems, expandability, critical interface points, failure management, and other key components necessary to establish a clear direction for the design. The more knowledgeable the designers are about the project as a whole, and the overall master plan of which it is a part, the higher will be the design quality and the less likely there will be gaps or conflicts.

PROJECT OFFICE

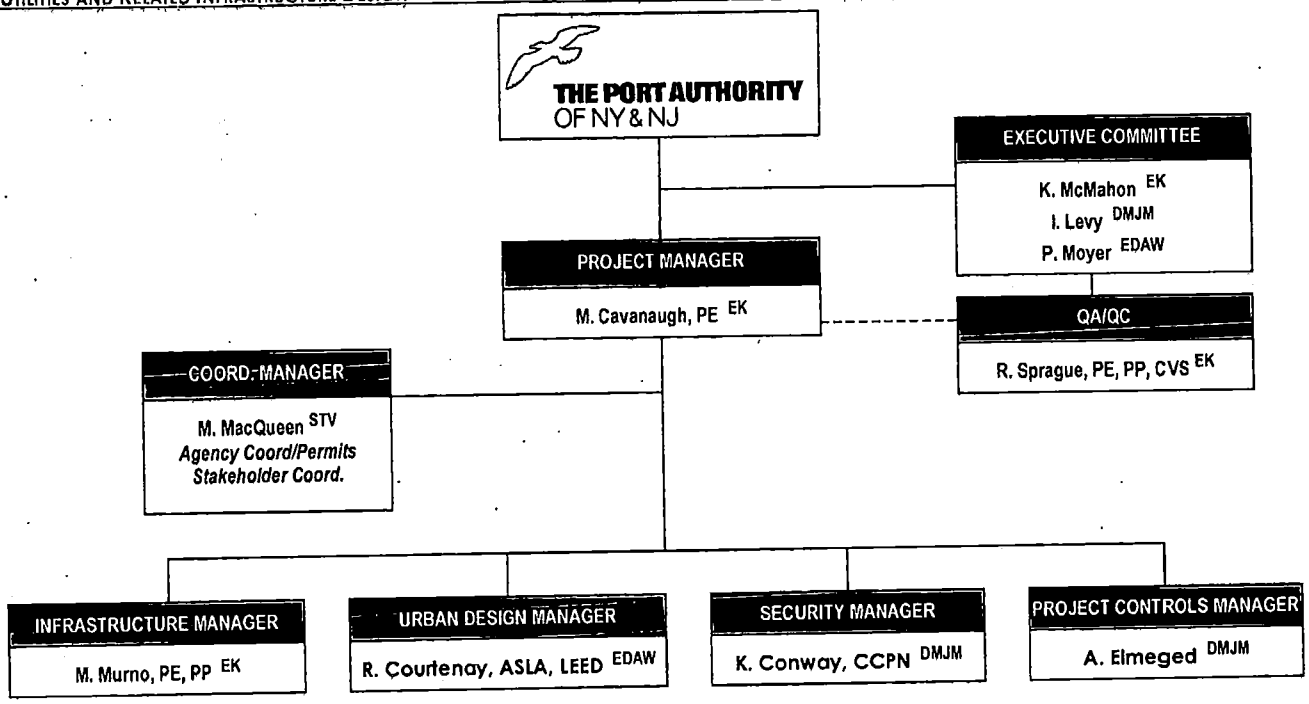
Considering the tight schedule for design and the need for rapid mobilization, it would be advantageous to manage this project in a project office comprising key staff, including those already familiar with the project and adjacent work at the WTC site.

PROJECT ORGANIZATION

The Downtown Streetscape Partners' management and design organization is based on logical assignment of tasks and responsibilities with clear lines of communication to promote efficient operations. In summary, our proposed organization consists of four key functions:

- **Project Management:** under the direction of the Project Manager
- **Design:** managed by the Team's Infrastructure and Urban Design Managers
- **Security Management:** under the direction of the Team's Security Manager, and
- **Coordination and Project Controls:** under the direction of the Team's Coordination and Project Controls Managers

The following chart depicts the upper tier of our Team's organization with the key managers having direct reporting responsibility to our Project Manager



The Project Manager will direct and control the project, using risk management and project control tools, to manage risk, track deliverables, control cost and schedule, keep the Port Authority/FTA Team informed of issues and progress, and coordinate with multiple consultants, contractors, stakeholders, and the master security peer review, communications, and liaison and transfer of lessons learned on the Downtown Transportation Hub project.

The majority of the project technical staff members are shown as functionally reporting to either the Infrastructure Manager, Urban Design Manager or the Security Manager. The Security Manager will be responsible for directing functional analyses related to project security components, meeting security standards, and integrating security components within the streetscapes to the overall World Trade Center security systems and master plan components. The Security Manager will also work closely with the Infrastructure and Urban Design Managers, making sure that the results of all security work completed are fully integrated into the overall design effort. The Infrastructure Manager and Urban Design Manager will manage all of the design efforts of the Team, working in tandem with the Security Manager and Project Manager to assure designs meet all applicable standards and functional requirements. The Infrastructure and Urban Design Managers will make sure that all structural, civil, MEP, and architectural/urban design work is coordinated across disciplines.

The Project Manager, Security Manager, Infrastructure Manager and Urban Design Manager will work from the Design Delivery Plan, continuously updating and refining that plan, and reinforcing its use by all project staff. This streamlined organization will ensure the performance of the following essential activities:

- Develop consensus by proactive interface with involved parties
- Make decisions in a timely and effective manner
- Communicate necessary information to the Port Authority/FTA
- Provide a comprehensive risk analysis approach to all project elements during design and construction

- Provide a design management team that balances innovation and flexibility with production, while meeting master plan and guideline objectives
- Deliver required deliverables that achieve schedule, cost and quality requirements

MANAGEMENT TEAM

The Downtown Streetscape Partners Team will be led by our proposed Project Manager, **Michael Cavanaugh, PE,** who will have ultimate responsibility for the project and who will be the primary contact with the Authority. Mike has 27 years of experience on street and landscaped urban boulevard projects including extensive design of new and relocated underground utilities. Mike was the Project Manager for final design and construction support services for the $70 million reconstruction of Route 9A between Horatio Street and West 26th Street. Previously, he was Project manager for the preliminary design of the entire five-mile $370 million Route 9A project from Battery Place to West 59th Street. Infrastructure Manager **Michael J. Murno, PE, PP** has 37 years of experience in all phases of street and highway engineering. Michael was the Project Engineer for final design services for the $70 million construction of Route 9A between Horatio Street and West 26th Street. He was also the Project Manager for the design of underground electrical utility installations at the North Residential Area in Battery Park City. Urban Design Manager **Roger Courtenay, ASLA** has 30 years of experience with planning, urban streetscapes, and site security design. His extensive related experience includes serving as Principal in Charge for the Smithsonian Mall-Wide and Perimeter Security Plan, the National Capital Urban Design and Security Plan, and the National Museum of the American Indian landscape and perimeter security design. Security Manager **Kevin Conway, CCNP** has 25 years of experience in systems design, sustainable design and security system design. His recent project experience includes Perimeter Intrusion Detection Systems at Newark, La Guardia, John F, Kennedy and Teterboro Airports and the Guard Post Hardening Project at Newark, LaGuardia and John F. Kennedy airports. Coordination Manager **Molly MacQueen** has over 25 years of experience in the coordination of stakeholder interests as well as complex regional and multi-jurisdictional planning. She served as Director of Planning and Environmental Review for the NY State Urban Development Corporation and has extensive experience interfacing with the Port Authority, NY City Economic Development Corporation, NY State and City Departments of Transportation and numerous other public agencies. Project Controls Manager **Amr A. Elmeged** has 35 years of experience in program and construction management. He has served as Project Controls Manager on numerous important transportation design projects including the Second Avenue Subway, Tren Urbano Rail System in San Juan, and the MBTA South Boston Piers Transitway.

THIRD PARTY COORDINATION

A key focus of our team will be effective and early third-party coordination to inform the design process and prevent adverse third-party impacts to the project schedule and scope.

The risk to the schedule will primarily result from work that will be performed by others on the project, particularly firms or agencies that may not be under the control of the Port Authority. The goal will be to prevent the need for rework due to the lack of timely decisions by others, a change in decision by others, or work stoppage due to lack of action on the part of others who are not a party to this contract.

A parallel goal will be to prevent changes related to scope that could arise from missed interfaces with work or decisions done by others. One common strategy for dealing with this risk during construction is to schedule work in such a way that no two contractors are active in the same are at the same time. However, this approach is inefficient and can cost the project both time and money. Therefore, we will employ a more practical approach

by establishing an aggressive management plan, to integrate schedules and manage interfaces, for both design and construction, including the following:

- Identify all of the activities required to complete the project
- Define the responsible parties
- Identify work that would need to be incorporated from third parties
- Develop an overall schedule that clearly defines when decisions/information are required from the various parties

This approach will identify, for all participants, the limits within which they must develop their own schedules, and when they can expect the work of others to be available to them.

COMMUNICATIONS PLAN

The Downtown Streetscape Partners Team's management approach is built around the establishment of direct communication and defined responsibilities. Direct lines of communication, up and down, are a key factor in producing a quality, constructible project, on time and within budget. Our management team, working in collaboration with the Port Authority, will provide clearly defined divisions of responsibility from the support staff up to and through senior project management. In each instance, there will be clear points of contact at all levels. Our progress reports will be written in a manner that addresses progress, status and plan for next periods, while focusing on issues and trends and providing a description of steps being taken to resolve them. This approach has served us well on other projects by motivating all project team members to advance in the right direction.

EXTERNAL COMMUNICATIONS

Our team has a deep respect and understanding for the importance of total integration as an underlying theme of our approach to tackling the challenges inherent to this project. One of the key elements in providing seamless integration is the identification of a strong and talented Coordination Manager. We are pleased that we can offer Molly MacQueen, with over 25 years of directly related experience, to handle this critical role on the WTC Streetscape project. She will integrate the many communications interfaces including:

- Stakeholders, including FTA and NYCT
- Agencies
- Land Use
- Permitting

At the start of the project, a coordination plan will be developed to define the parameters of the proposed support effort. This type of plan has effectively been implemented on the WTC Transportation Hub project and proved essential in successfully coordinating AirTrain's design for the Port Authority with the unusual large number of outside agencies, individual airlines and other stakeholders involved in the process. Our plan will:

- Define procedures and protocols for interagency participation
- Define procedures for integrating inter-agency input
- Detail the mechanisms for soliciting, responding to, and documenting the Port Authority and interagency input

INTERFACE MATRIX

Another task that will be completed immediately upon Notice to Proceed is the development of an Interface Matrix. This matrix will clearly identify all of the critical interfaces between the Port Authority, the Downtown Streetscape Partners, stakeholders, other consultants, contractors, suppliers, and other involved parties. It will also identify, for each specific interface, whether it is a technical interface, a management interface, or a schedule interface; where the requirements for that interface can be found; and who specifically is responsible for management and coordination of that inter-face. The interface matrix will then be made available to all project participants so that all involved parties understand their responsibility to communicate and coordinate their work. The interface matrix will serve as a working tool, updated as appropriate to track the coordination of both the technical and management interfaces for the life of the project.

INTEGRATION AND COORDINATION

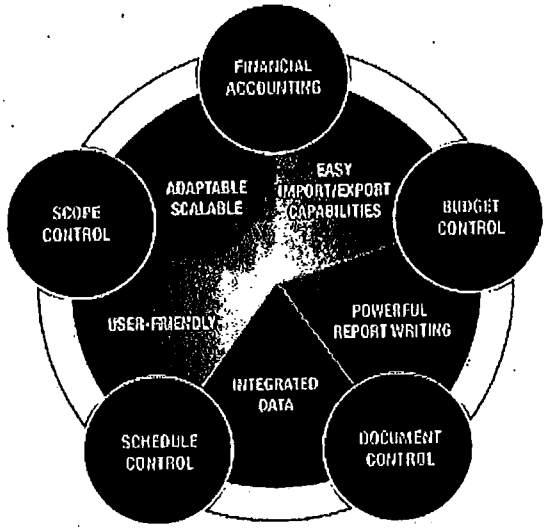
Our management approach is shaped by our awareness of the extensive integration and coordination required, both internal and external, to execute the designs and advance the streets, utilities and infrastructure project. We understand that we will influence the process and the process will influence us. Ultimately, our approach reflects our absolute commitment to collaboration and cooperation—project values that we will foster with our Port Authority partners and all other project participants to successfully advance this project. Our approach will incorporate the principles that have served us well on other transit mega-projects including the WTC Transportation Hub.

We will implement a team-based approach with open lines of communication between our Team and the Port Authority while working closely with you to respond to FTA and other stakeholder issues. The most effective way to accomplish this will be to establish precise project definition, scope, goals, procedural policies, and submittal requirements. Working with the Port Authority, we will define and verify the work products expected from us, including the type and number of reports, preliminary and final engineering plans, specifications, cost estimates, and schedules. Design formats and criteria, as well as operational/system requirements, must be fully defined at the outset of the project. Our progress reports will address the status of all these deliverables and issues that require special attention.

PROJECT CONTROLS

Our Team will apply proven project control techniques to keep the streets, utilities and related infrastructure project successfully on track.

Project control on a complex and fast moving project such as this will be a critical management function that will mean the difference between a successful program and one that exceeds budget, schedule, or both. We understand that computer programs, printouts, plots, forms and data manipulations do not constitute project control – they are merely the MIS tools for responsible, proactive managers to use in the decision-making process. Real project control is the response of decisive managers to the need for timely action.



The Downtown Streetscape Partners Team has the tools and procedures in place to produce current information to provide the early-warning signals that will alert our managers if something drifts from the established plan. With early warning, the cause of any adverse trend will be properly analyzed, corrective actions will be defined and evaluated and an appropriate course of action will be selected to correct the trend. Corrective action must be informed, decisive, and prompt; we recognize that the longer the warning goes unheeded and corrective action is delayed, the greater the risk that recovery measures will be ineffective (with the attendant cost and schedule implications).
For this endeavor, control by timely and effective management action will consist of three basic elements: scope control, cost control and schedule control. Of these, cost and schedule controls are better recognized and readily lend themselves to tracking by use of computer-driven MIS data.

Nevertheless, the actual mechanics of project control that we propose to use are quite simple. The overall process will consist of detailing the Design Delivery Plan, described earlier, that will establish the scope of the design. A comprehensive schedule and budget will be developed from this foundation document. Tasks to be performed and linkages between tasks will be established and constitute our basis for project control.

When trends and projections for any element of the project are within reasonable tolerance of the baseline, that element will be considered "on course" and not in need of adjustment. However, whenever departures are detected that could affect scope, time to complete, or final cost, an analysis of casual factors will be undertaken by the Project Manager and the project control staff. The MIS will be used to provide the same data to all appropriate managers so that each manager can perform an independent review. This double tracking will reduce errors resulting from misinterpretation of the data.

Project control must include the design efforts as well as the design itself and subsequent construction. In concert with the Port Authority, we will establish a design scope, schedule and budget that will require the same diligent control as the future construction activities. We are committed to such diligence in managing the design scope, schedule and budget and; fortunately, the same tools we use in controlling the overall program are applicable and adaptable to the design effort.

SCOPE CONTROL

While scope creep is often difficult to resist or even to detect, scope control will be a serious mission of our project management personnel at all levels, including design and construction monitoring. Scope is the most challenging project element to control, since there is no quantitative data to compare to the baseline. Scope creep can occur with any project and particularly with such complex undertakings as the WTC streets, utilities, and related infrastructure. In some instances, this is well intentioned and would, if implemented, enhance the project in terms of the user, the community, or the operator.

If a requested enhancement can be accommodated within the established schedule and budget baselines, there is a strong possibility that it will be included. However, while each item may be modest in terms of its impact on the total project, the cumulative effect can cause significant cost increases or may involve redesign and schedule impacts. Therefore, scope control will be essential on this project. If, as part of the change control process that would necessarily be attendant to a proposed scope adjustment, the change is highly desirable but unaffordable, our first fallback position should be to provide for future incorporation of the betterment in the design.

We will identify scope creep through our regular multi-disciplined reviews, in which our senior management will review all areas of the project to check:

- The progress and consistency with design concepts
- Identify cost and/or schedule increases
- Evaluate construction methods and phasing

The scope control process will also identify risks and opportunities arising in the project. These items will be recorded in our risk and opportunity registers and managed through our Risk Management Plan. The risk and opportunity register will be discussed with the Port Authority, and selected options will be incorporated into the Design Delivery Plan.

This will include design-to-specification, stringent design criteria and standards, design reviews, configuration management, change control procedures, and interface control. A clear definition of the scope baseline will be critical. The key to successful scope control, and the directly linked cost control function, will be the baseline tool. Once a design concept is set and the budget agreed upon, all future control will be tied to designing the element within the budget envelope.

COST CONTROL

Controlling program cost during design will be a major responsibility of our Team. From the standpoint of the construction cost, we propose to establish target construction budgets in concert with the Port Authority for the various project elements and the total project early in the program, and to design to budget. Once all parties have agreed on the target, that cost will become the baseline budget and from that point on, we will carefully track estimated construction cost throughout the design process. At each design level associated with this contract, we will prepare construction cost estimates in increasing detail. At the initial stages of design, design contingencies (to account for unknown design details) and construction contingencies (to account for unknown contractor and construction issues) will be added to the estimated cost. As design progresses and more details are developed, and construction procedures and site conditions are refined, both contingencies will be reduced until, at the final estimate, design contingency will be reduced to 0% and construction contingency to less than 10%. At all design levels, the Port Authority procedures for estimating program costs will be followed.

To facilitate an effective cost control and design-to-budget effort, we will establish a unit price database that will be a key utility to all the designers. This not only relieves the designers from duplicative research into unit costs, but also focuses their cost concentration on quantities and construction complexity.

At each design level, we will conduct a cost differential analysis to identify increases to the cost of the elements and to the total project. In each case where cost increase is noted, the analysis will focus on identifying the causal factor(s) and the impact on the design-to budget to establish a trend line. Where it appears that the project is trending to an over budget condition, we will present the analysis to the Port Authority, together with causal factors and suggested remedies. After Port Authority agreement, the program modifications, if any, will be incorporated in the design program.

Once the project enters the construction stage, control will become the responsibility of the contractor and the construction manager. Our Team will support those efforts by providing requested design services for any contractor or field changes, independent cost estimates and similar services, as requested by the Port Authority.

Control of the design cost will be handled in a similar manner except that the estimated cost to date and cost to complete will be based on labor hours and accumulated direct cost.

SCHEDULE CONTROL

The objective of schedule control is to detect trends early and make corrections so trends never become problems. We know that lost time is extremely difficult to recoup.

Controlling the project schedule requires aggressive management. The design schedule will be developed in concert with the Port Authority during contract negotiations based on an agreed upon Work Breakdown Structure, reflecting the various tasks and design products that must be accomplished in this abbreviated timeframe. Once set, this will become the baseline design schedule. In the event that progress indicates a potential slippage, a schedule analysis will be conducted to identify causal factors and remedial procedures implemented. In all project control analysis, scope, schedule and budget will be considered when identifying problem causes and possible interaction between the project elements.

As the design progresses, we will prepare a target construction schedule. The initial steps in developing the target schedule will be large enough to attract major contractors but small enough to produce serious competition.

The final target schedule will be prepared at the initial design review. As with the construction cost estimate, the schedule development will take the current construction climate into account. Such factors as current projects under contract in Manhattan and in the region, dollar value of current contracts versus average annual volume, employment levels and similar factors that affect both cost and schedule will be considered.

We will incorporate both the design schedule and the target construction schedule into a master schedule. As the design progresses, we will review the earlier construction schedule estimates, and make any appropriate changes that reflect revised construction packaging and phasing. This approach will control slippage of the design schedule and provide a construction guide for the Authority.

DOCUMENT CONTROL

Document control will be an essential part of the management and production processes. Both the volume and the nature of the documents that will be produced for this project dictate the use of a computerized document tracking and control system to manage both the myriad of written documents associated with the project as well as design/CADD files.

DOCUMENT CONTROL FOR WRITTEN DOCUMENTS

Project documents that are not security sensitive will be controlled using an electronic document control software package. The system allows users to work in the required media, while distributing, logging, tracking, and automatically assigning sequential document numbers.

NOTE: Security sensitive documents will be controlled in accordance with a mutually agreed upon Security Plan and will be handled separately from all other project documents.

Once electronically logged into the system, all documents may be copied to compact disk (CD) on a quarterly basis. This method will allow storage of large volumes of data on a single CD, with each CD holding as much as a year of data. This data can be easily accessed, even across multiple CDs, using an optical jukebox. Consistent with the Port Authority's existing policies and procedures, the Downtown Streetscape Partners Team will implement a project document control procedure as described below.

The system will maintain standard lists by location, work zone, discipline, or other defined variable. It will maintain distribution history logs, generate flow-up action and status reports, and produce transmittals. This capacity will be critical to planning, management, and claims avoidance.

Our Team will implement a filing and storage procedure for all printed material. This rigorous approach is based on project-specific designations and classifications for document identification and retrieval. Procedures for numbering each issuance of the design drawings will be prepared even before contracts are awarded, as are the contractor's distribution responsibilities. Similar procedures will be prepared for the numbering and distribution of contractor shop drawings, specifications, calculations, manuals, and samples.

DESIGN/CADD DOCUMENT MANAGEMENT

State-of-the-art measures will be implemented to manage documents throughout life of the project. These include control of revisions, information associativity, quick comparison features, and redlining.

The Downtown Streetscape Partners Team will implement a CADD management system that will simplify document organization and access. Further, the system will enhance the management of documents over time. The CADD management system will accomplish the following goals:

Flexible Organization—A single, fixed, document organization (such as a computer directory structure) will not be adequate for this project. Electronic documents must appear in more than one folder, without duplicating the files. The system will organize documents into folders that can be reorganized at any time without physically moving documents. The system will also group documents by specific tasks, discipline, or design phases.

Document Names—The system will allow the Team to use longer, more meaningful file names. This will enhance productivity through more efficient file organization and retrieval.

Easy-to-Access Profile Information—The system will quickly and easily view the document name, author, creation and revision dates, revision number, and a list of related documents. Moreover, it will facilitate the modification of profile information at any time, saving customized information with each document and each revision. All documents checked out to a user will be displayed in a single list.

The system will facilitate a search of the common document storage area to obtain a list of documents meeting specific criteria. The system will define and save the common search configurations, allowing rapid access through dialog boxes, scrolling lists, and user-intuitive sequences. Specific prompts will allow more complex searches to be easily run by less-experienced staff.

CONFIGURATION MANAGEMENT

As part of our Design Delivery Plan, we will develop a Configuration Management Plan that will employ rigorous procedures to make sure configuration is controlled and managed properly throughout the life of the project.

The baseline will be established at the end of Preliminary Engineering (Stage II). Change control procedures will be used to make sure that any changes from the baseline will be properly justified, agreed to, and documented. We propose that a key representative from the Port Authority chair the Change Control Board (CCB), and that the CCB also include a strong operational component, as well as the design managers. The initial undertaking in the development of the Configuration Management Plan will be to reconfirm the following aspects of the project: objectives, responsibilities, lines of communications, and processes. The detailed Configuration Management Plan will then be developed to define and control the project's configuration from the established baseline through operational ready status.

PROJECT INFORMATION

A number of management tools will be used to ensure that our efforts are coordinated. Mike Cavanaugh, as Project Manager, will conduct debriefing meetings each morning. Participants will include our Infrastructure Manager, Urban Design Manager, Security Manager, and, as required, our Lead Project Controls Manager and Coordination Manager. This will afford everyone an opportunity to report on the past day's progress and identify any new resource or information needs. It will also allow the discipline leads to coordinate the production of time-sensitive deliverables. Weekly review meetings will be held with Authority personnel to review critical issues, production schedules and coordination of subconsultant activities.

To guarantee consistency, all design standards, CADD standards and standard design details will be posted electronically on the web-based, project-specific Management Information System (MIS) site described below. Dedicated document control staff will make sure that the working copy of any document is always the latest version. Periodic quality audits will be performed at all locations to help the Project Manager anticipate problems and take timely corrective action.

The Downtown Streetscape Partners Team will create a project-specific MIS site that will allow project staff members and key decision-makers to view and comment on project documents in an easy-to-use, web-based system. We will employ our proven executive software package that will enable the user-friendly application of commercially available software packages for schedule, cost and budget control, document control, and public information. We will also create a virtual walk-through environment with clickable image maps that afford easy access to all project documents. All pages will be capable of being modified to fit specific project needs. The site will be fully secure, maintaining the privacy and integrity of project documentation.

MANAGEMENT REPORTING

Management reporting is a critical tool that will be used to communicate the status of this project's progress, accomplishments and technical, cost, and schedule status. Reporting during preliminary engineering will include the following reports:

- Weekly Update (Highlights) Report
- Weekly Report
- Monthly Project Controls Report
- Monthly Program Report
- Quarterly Progress Report

During Preliminary Engineering, the Quarterly Progress Report will be available via the Internet on a project collaboration web site. This convenient reporting tool will be used to:

- Notify program leadership of potential delay and/or operational disruptions
- Recommend alternatives to overcome or mitigate identified issues
- Provide "what-if" analyses to develop alternative solutions
- Report Earned Value and identify the status of the progress of engineering and construction trends
- Provide Cost Analysis
- Report accomplishments against milestones
- Provide a plan and anticipated milestones for the upcoming two months, as appropriate

Our Monthly Project Controls Report will accompany all submitted invoices, and will be used as a measure of design earned-value. This information can be incorporated into the Port Authority's Monthly Project Controls Report and senior management reports, including FTA reports.

QUALITY MANAGEMENT PROGRAM

A quality management program will be a key component in ensuring that the necessary procedures are established and closely adhered to. For this project, we will develop a specific project Quality Management Plan based on the existing QA/QC manuals currently in used by the Joint Venture sponsor firms. The program will meet the requirements of the ISO 9000 series of standards, and it will be consistent with the Authority's quality program. The program will govern all activities of the team on this project.

The plan will provide for:

- ISO-required organizational independence of the quality management function from the design team to ensure objectivity
- Consistent procedures throughout the project, regardless of team member involvement
- Consistent enforcement of the design control program, ensuring consistent reviews and approvals
- Consistent application of the corrective action program, ensuring issues are identified and mitigated throughout all project activities
- The application of lessons learned throughout the project team
- Consistent application of oversight mechanisms
- Consistent reporting of quality issues to management, ensuring that they are immediately and completely addressed

The program will be managed by, Randall Sprague, PE, PP, CVS, who will report directly to the Joint Venture Officers-in-Charge to provide complete independence and that critical aspects of the project are controlled and under the umbrella of the quality management program.

DESIGN QUALITY MANAGEMENT AND COORDINATION

In a project of this complexity, the design process in particular will be inherently complicated because of the sheer number of interfaces and interrelated design tasks. The quality assurance management process will serve as the mechanism to ensure such activities are performed in a controlled manner, and in compliance with established requirements.

The program will require consistent design control methodologies and means to ensure that the design meets established criteria in general, and Authority requirements in particular. A key element of the program will be to make sure that design interface and coordination points are established in advance, and that the quality

management principles are applied. Key interface points, design reviews, interdisciplinary reviews, and supplier reviews must be established at the outset of the project, and rigorously maintained to ensure coordination.

OVERSIGHT

In addition, the quality management program will provide for the oversight and monitoring of these critical activities. This is essential to ensure that these critical measures are established and carried out in accordance with contractual requirements and necessary protocols that protect the interests of all parties. This will be accomplished by the preparation of an over-sight matrix that identifies project activities and the means by which oversight will be achieved. This will include proactive oversight via audits, surveillance, and ongoing quality reviews.

MANAGING ERRORS, NONCONFORMANCE AND EMERGENCIES

A quality management system will be put into place to prevent the occurrence of nonconforming conditions and to ensure that quality goals are met. The failure to properly plan for such contingencies would constitute a failure of the system. Nonetheless, errors, non-conformance, and emergencies are part of the process when developing complex systems and executing large projects. As such, they must be dealt with deliberately and proactively.

A significant benefit of a strong quality management process will be the ability to professionally and aggressively address errors, nonconformance, or emergencies to make sure that the situation is:

- Brought under control
- Examined to determine the source of the error
- Evaluated to determine the extent of the condition and the likelihood of it affecting other aspects of the project

With this information in hand, the necessary actions will be taken to:

- Identify remedial actions that will correct the immediate problem
- Identify measures that will prevent a recurrence on the project at a later date or different location

The quality management program will ensure that the methods for addressing such situations are handled in an appropriate manner to maintain control and provide complete mitigation and prevention.