



Request for Quote

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
 CAPITOL HILL
 PROVIDENCE RI 02908

BUYER: Ohara 2nd, John F
 PHONE #: 401-222-2142

CREATION DATE : 30-OCT-06
 BID NUMBER: 7002208,3
 TITLE: ELECTRICAL CONTRACTOR SERVICES
 REQUIRED FOR URI FIRE ALARM UPGRADES - URI
 BLANKET START : 31-OCT-06
 BLANKET END : 30-SEP-09
 BID CLOSING DATE AND TIME:
 16-NOV-2006 11:00:00

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 URI ACCOUNTS PAYABLE
 CARLOTTI ADMINISTRATION BLDG
 75 LOWER COLLEGE ROAD, SUITE 1
 KINGSTON, RI 02881
 US

Requisition Number:

Line	Description	Quantity	Unit	Unit Price	Total
	<p>Note to Bidders: Hughes Assoc. has supplied part numbers for items 7, 8, 60, 61, 62, 66, 67 and 68.</p> <p>In order to allow additional time for the vendors to update their bid prices the bid closing date and time has been extended: From: 10/31/06 at 11:00 AM To: 11/16/06 at 11:00 AM</p> <p>ATTACH A COPY OF THIS AMENDMENT TO YOUR SUBMITTAL.</p>				

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	<p>ANY SPECIAL EQUIPMENT OR SPECIAL CIRCUMSTANCES THAT WILL INCUR ADDITIONAL COSTS MUST BE APPROVED AHEAD OF TIME AND WILL BE THE RESPONSIBILITY OF THE CONTRACTOR OTHERWISE.</p> <p>PRICING FOR THE ITEMS LISTED ABOVE WILL REMAIN FIXED FOR THE FIRST YEAR OF THE CONTRACT. FOR YEARS 2 AND 3 AND ANY SUBSEQUENT RENEWALS, THE CONTRACT REVERSES THE RIGHT TO ADJUST PRICES BASED ON MARKET CONDITIONS. THE MAXIMUM PRICE INCREASE IS 3.0 ANNUALLY. THE CONTRACTOR AGREES TO PROVIDE ASSOCIATED PAPERWORK FROM THE MANUFACTURER INDICATING PRICE INCREASE FOR REVIEW AND FINAL DETERMINATION.</p> <p>LABOR RATES</p> <p>LABOR RATES ARE TO BE BID PER HOUR, ON SITE AND ARE INCLUSIVE OF ALL TRAVEL CHARGES. IT IS ALSO EXPECTED THAT WORK PERFORMED WILL BE INCLUSIVE OF ALL TOOLS, MATERIAL AND EQUIPMENT NECESSARY TO PERFORM THESE SERVICES.</p> <p>OVERTIME RATES WILL APPLY TO HOURS BEFORE 7:30 AM AND AFTER 4:30 PM, SATURDAYS, SUNDAYS AND STATE HOLIDAYS.</p>				

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	<p>THERE WILL BE A MANDATORY PRE-BID ON SEPTEMBER 29, 2006, AT 9:00 AM AT: URI UNIVERSITY CLUB PRESIDENT ROOM 95 UPPER COLLEGE ROAD KINGSTON, RI</p> <p>INSTRUCTIONS:</p> <p>IF BIDDING ON ANY ITEM, THE ENTIRE BID MUST BE RETURNED. THE PRICE COLUMN ON THE RIGHT WILL BE DETACHED TO CREATE A BID TABULATION SPREAD SHEET FOR THE "OFFICIAL BID ANALYSIS", THEREFORE:</p> <p>A. VENDOR NAME MUST APPEAR IN BOTH COLUMNS ON "EVERY" PAGE UNDER THE WORDS "BIDDER".</p> <p>THE STATE AT ITS DISCRETION, SHALL RESERVE THE RIGHT TO MAKE ONE OR MULTIPLE AWARDS FOR THE REQUIREMENT.</p> <p>BLANKET REQUIREMENTS: 10/1/06 - 9/30/09</p> <p>MATERIALS: NOTE: FCI PART # ARE LISTED. NO BRAND SUBSTITUTES FOR THE PURPOSES OF BIDDING THIS PORTION OF THE CONTRACT. ALTERNATIVES MAY BE DETAILED AS A SEPARATE ATTACHMENT BUT WILL NOT BE USED FOR THE PURPOSES OF EVALUATING AND AWARDDING THIS CONTRACT.</p> <p>ALL ITEMS WILL BE PRICED INCLUSIVE OF ANY PACKAGING, SHIPPING AND DELIVERY CHARGES. SIZE OF ORDER AND/OR DELIVERY LOCATION TO ANY URI CAMPUS NOTED IN THIS SOLICITATION</p>				

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Line	Description	Quantity	Unit	Unit Price	Total
	WILL HAVE NO IMPACT ON PRICING.				
	1. FCI CONVENTION DEVICES				
	PHOTO-ELECTRIC SMOKE DETECTOR (PART #SS 2151/2451				
	ITEMS 1 THROUGH 14 ARE THE SPECIFIC ITEMS BEING REFERRED TO AS "ATTACHMENT D" IN THE SPECIFICATIONS. THESE ITEMS WILL BE USED IN THE DETERMINATION OF THE LOW BIDDER.				
1	PHOTO-ELECTRIC SMOKE DETECTOR (PART #SS-2151/2451	100	Each		
2	COMBINATION RATE-OF-RISE & 135 DEGREE F. FIXED TEMPERATURE HEAT DETECTOR (PART #501)	100	Each		
3	190 DEGREE F. FIXED TEMPERATURE HEAT DETECTOR (PART #504)	100	Each		
4	MANUAL FIRE ALARM BOX (PART #MS-2/7)	100	Each		
5	ADDRESSABLE PHOTO-ELECTRIC SMOKE DETECTOR (PART #ASD-PL2)	100	Each		
6	ADDRESSABLE MANUAL FIRE ALARM BOX (PART #MS-7A)	100	Each		
7	HORN/STROBE (PART #AS-24MCW)	100	Each		
8	STROBE (PART #AS-24MCW)	100	Each		
9	MINI HORN (PART #MIZ-24-R)	100	Each		
10	1/s" EMT CONDUIT W/COUPLINGS (S) & CLIP(S)	100	Each		
11	#16 THHN WIRE	100	Each		
12	1 PAIR MC CABLE (#16 RED/BLK OR BLU/WHT)	100	Each		
13	2 PAIR MC CABLE (#16 RED/BLK/BLU/WHT)	100	Each		
14	COST PROPOSAL FOR COMPLETE SCOPE OF WORK FOR THE "SAMPLE" BUILDINGS DETAILED IN THE SCOPE OF WORK AND PER SITE VISIT - NOTE: ATTACH A DETAILED BREAKDOWN DEMONSTRATING HOW THIS FIGURE WAS DETERMINED.	1	TOTAL		
15	10/01/2006 - 09/30/2009 - PHOTO-ELECTRIC SMOKE DETECTOR (PART #SS 2151/2451 5 OR LESS - FCI	1	Each		

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	CONVENTIONAL DEVICE				
16	10/01/2006 - 09/30/2009 - PHOTO-ELECTRIC SMOKE DETECTOR (PART #SS 2151/2451) 6 TO 10 - FCI CONVENTIONAL DEVICE	1	Each		
17	10/01/2006 - 09/30/2009 - PHOTO-ELECTRIC SMOKE DETECTOR (PART #SS 2151/2451 OVER 10 - FCI CONVENTIONAL DEVICE	1	Each		
18	10/01/2006 - 09/30/2009 - COMBINATION RATE-OF-RISE & 135 DEGREE F. FIXED TEMPERATURE HEAT DETECTOR (PART #501) 5 OR LESS - FCI CONVENTIONAL DEVICE	1	Each		
19	10/01/2006 - 09/30/2009 - COMBINATION RATE-OF-RISE & 135 DEGREE F. FIXED TEMPERATURE HEAT DETECTOR (PART #501) 6 TO 10 - FCI CONVENTIONAL DEVICE	1	Each		
20	10/01/2006 - 09/30/2009 - COMBINATION RATE-OF-RISE & 135 DEGREE F. FIXED TEMPERATURE HEAT DETECTOR (PART #501) OVER 10 - FCI CONVENTIONAL DEVICE	1	Each		
21	10/01/2006 - 09/30/2009 - 190 DEGREE F. FIXED TEMPERATURE HEAT DETECTOR (PART #504) 5 OR LESS - FCI CONVENTIONAL DEVICE	1	Each		
22	10/01/2006 - 09/30/2009 - 190 DEGREE F. FIXED TEMPERATURE HEAT DETECTOR (PART #504) 6 TO 10 - FCI CONVENTIONAL DEVICE	1	Each		
23	10/01/2006 - 09/30/2009 - 190 DEGREE F. FIXED TEMPERATURE HEAT DETECTOR (PART #504) OVER 10 - FCI CONVENTIONAL DEVICE	1	Each		
24	10/01/2006 - 09/30/2009 - MANUAL FIRE ALARM BOX (PART #MS-2/7) 5 OR LESS - FCI CONVENTIONAL DEVICE - FCI CONVENTIONAL DEVICE	1	Each		
25	10/01/2006 - 09/30/2009 - MANUAL FIRE ALARM BOX (PART #MS-2/7) 6 TO 10 - FCI CONVENTIONAL DEVICE	1	Each		
26	10/01/2006 - 09/30/2009 - MANUAL FIRE ALARM BOX (PART #MS-2/7) OVER 10 - FCI CONVENTIONAL DEVICE	1	Each		
27	10/01/2006 - 09/30/2009 - ZONE DETECTOR MODULE (PART #ZDM) 5 OR LESS - FCI CONVENTIONAL DEVICE	1	Each		

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28	10/01/2006 - 09/30/2009 - ZONE DETECTOR MODULE (PART #ZDM) 6 TO 10 - FCI CONVENTIONAL DEVICE	1	Each		
29	10/01/2006 - 09/30/2009 - ZONE DETECTOR MODULE (PART #ZDM) OVER 10 - FCI CONVENTIONAL DEVICE	1	Each		
30	10/01/2006 - 09/30/2009 - ZONE MOTHER CARD (PART #ZMC-6) 5 OR LESS - FCI CONVENTIONAL DEVICE	1	Each		
31	10/01/2006 - 09/30/2009 - ZONE MOTHER CARD (PART #ZMC-6) 6 TO 10 - FCI CONVENTIONAL DEVICE	1	Each		
32	10/01/2006 - 09/30/2009 - ZONE MOTHER CARD (PART #ZMC-6) OVER 10 - FCI CONVENTIONAL DEVICE	1	Each		
33	10/01/2006 - 09/30/2009 - SUPERVISED RELAY MODULE (PART #SRB-6) 5 OR LESS - FCI CONVENTIONAL DEVICE	1	Each		
34	10/01/2006 - 09/30/2009 - SUPERVISED RELAY MODULE (PART #SRB-6) 6 OR 10 - FCI CONVENTIONAL DEVICE	1	Each		
35	10/01/2006 - 09/30/2009 - SUPERVISOR RELAY MODULE (PART #SRB-6) OVER 10 - FCI CONVENTIONAL DEVICE	1	Each		
36	10/01/2006 - 09/30/2009 - ADDRESSABLE PHOTO-ELECTRIC SMOKE DETECTOR (PART #ASD-PL2) 5 OR LESS - FCI ADDRESSABLE DEVICE	1	Each		
37	10/01/2006 - 09/30/2009 - ADDRESSABLE PHOTO-ELECTRIC SMOKE DETECTOR (PART #ASD-PL2) 6 TO 10 - FCI ADDRESSABLE DEVICE	1	Each		
38	10/01/2006 - 09/30/2009 - ADDRESSABLE PHOTO-ELECTRIC SMOKE DETECTOR (PART #ASD-PL2) OVER 10 - FCI ADDRESSABLE DEVICE	1	Each		
39	10/01/2006 - 09/30/2009 - ADDRESSABLE COMBINATION RATE-OF RISE AND 135 DEGREE F. FIXED TEMPERATURE HEAT DETECTOR (ATD-RL2) 5 OR LESS - FCI ADDRESSABLE DEVICES	1	Each		
40	10/01/2006 - 09/30/2009 - ADDRESSABLE COMBINATION RATE-OF-RISE AND 135 DEGREE F. FIXED TEMPERATURE HEAT DETECTOR (ATD-RL2) 6 TO 10 - FCI ADDRESSABLE DEVICES	1	Each		
41	10/01/2006 - 09/30/2009 - ADDRESSABLE COMBINATION RATE-OF-RISE AND 135 DEGREE F. FIXED TEMPERATURE HEAT DETECTOR (ATD-RL2) OVER 10 -	1	Each		

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	FCI ADDRESSABLE DEVICE				
42	10/01/2006 - 09/30/2009 - ADDRESSABLE 190 DEGREE F. FIXED TEMPERATURE HEAT DETECTOR (PART ATF-HL2) 5 OR LESS - FCI ADDRESSABLE DEVICE	1	Each		
43	10/01/2006 - 09/30/2009 - ADDRESSABLE 190 DEGREE F. FIXED TEMPERATURE HEAT DETECTOR (PART ATF-HL2) 6 TO 10 - FCI ADDRESSABLE DEVICE	1	Each		
44	10/01/2006 - 09/30/2009 - ADDRESSABLE 190 DEGREE F. FIXED TEMPERATURE HEAT DETECTOR (PART ATF-HL2) OVER 10 - FCI ADDRESSABLE DEVICE	1	Each		
45	10/01/2006 - 09/30/2009 - ADDRESSABLE MANUAL FIRE ALARM BOX (PART #MS-7A) 5 OR LESS - FCI ADDRESSABLE DEVICE	1	Each		
46	10/01/2006 - 09/30/2009 - ADDRESSABLE MANUAL FIRE ALARM BOX (PART #MS-7A) 6 TO 10 - FCI ADDRESSABLE DEVICE	1	Each		
47	10/01/2006 - 09/30/2009 - ADDRESSABLE MANUAL FIRE ALARM BOX (PART #MS-7A) OVER 10 - ADDRESSABLE DEVICE	1	Each		
48	10/01/2006 - 09/30/2009 - ADDRESSABLE MONITOR MODULE (PART #AMM-4) 5 OR LESS - FCI ADDRESSABLE DEVICE	1	Each		
49	10/01/2006 - 09/30/2009 - ADDRESSABLE MONITOR MODULE (PART #AMIM-4) 6 TO 10 - FCI ADDRESSABLE DEVICE	1	Each		
50	10/01/2006 - 09/30/2009 - ADDRESSABLE MONITOR MODULE (PART #AMM-4) OVER 10 - FCI ADDRESSABLE DEVICE	1	Each		
51	10/01/2006 - 09/30/2009 - ADDRESSABLE CONTROL RELAY OUTPUT MODULE (PART #AOM-2) 5 OR LESS - FCI ADDRESSABLE DEVICE	1	Each		
52	10/01/2006 - 09/30/2009 - ADDRESSABLE CONTROL RELAY OUTPUT MODULE (PART #AOM-2) 6 TO 10	1	Each		
53	10/01/2006 - 09/30/2009 - ADDRESSABLE CONTROL RELAY OUTPUT MODULE (PART #AOM-2) OVER 10 - FCI ADDRESSABLE DEVICE	1	Each		
54	10/01/2006 - 09/30/2009 - FAULT ISOLATION MODULE	1	Each		

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	(PART #M500X) 5 OR LESS - FCI ADDRESSABLE DEVICE				
55	10/01/2006 - 09/30/2009 - FAULT ISOLATION MODULE (PART M500X) 6 TO 10 - FCI ADDRESSABLE DEVICE	1	Each		
56	10/01/2006 - 09/30/2009 - FAULT ISOLATION MODULE (PART #M500X) OVER 10 - FCI ADDRESSABLE DEVICE	1	Each		
57	10/01/2006 - 09/30/2009 - QUAD RELAY UNIT (PART #QRU) 5 OR LESS - FCI ADDRESSABLE DEVICE	1	Each		
58	10/01/2006 - 09/30/2009 - QUAD RELAY UNIT (PART #QRU) 6 TO 10 - FCI ADDRESSABLE DEVICE	1	Each		
59	10/01/2006 - 09/30/2009 - QUAD RELAY UNIT (PART #QRU) OVER 10 - FCI ADDRESSABLE DEVICE	1	Each		
60	10/01/2006 - 09/30/2009 - HORN/STROBE (PART #AS-24MCW) 5 OR LESS - FCI NOTIFICATION APPLIANCE	1	Each		
61	10/01/2006 - 09/30/2009 - HORN/STROBE (PART #AS-24MCW) 6 TO 10 - FCI NOTIFICATION APPLIANCE	1	Each		
62	10/01/2006 - 09/30/2009 - HORN/STROBE (PART #AS-24MCW) OVER 10 - FCI NOTIFICATION APPLIANCE	1	Each		
63	10/01/2006 - 09/30/2009 - SPEAKER/STROBE (PART #ET70**R) 5 OR LESS - FCI NOTIFICATION APPLIANCE	1	Each		
64	10/01/2006 - 09/30/2009 - SPEAKER/STROBE (PART #ET70**R) 6 TO 10 - FCI NOTIFICATION APPLIANCE	1	Each		
65	10/01/2006 - 09/30/2009 - SPEAKER/STROBE (PART #ET70**R) OVER 10 - FCI NOTIFICATION APPLIANCE	1	Each		
66	10/01/2006 - 09/30/2009 - STROBE (PART #AS-24MCW) 5 OR LESS - FCI NOTIFICATION APPLIANCE	1	Each		
67	10/01/2006 - 09/30/2009 - STROBE (PART #AS-24MCW) 6 TO 10 - FCI NOTIFICATION APPLIANCE	1	Each		
68	10/01/2006 - 09/30/2009 - STROBE (PART #AS-24MCW) OVER 10 - FCI NOTIFICATION APPLIANCE	1	Each		
69	10/01/2006 - 09/30/2009 - MINI HORN (PART #MIZ-24-R) 5 OR LESS - FCI NOTIFICATION APPLIANCE	1	Each		
70	10/01/2006 - 09/30/2009 - MINI HORN (PART #MIZ-24-R) 6 TO 10 - FCI NOTIFICATION APPLIANCE	1	Each		
71	10/01/2006 - 09/30/2009 - MINI HORN (PART #MIZ-24-R)	1	Each		

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	OVER 10 - FCI NOTIFICATION APPLIANCE				
72	10/01/2006 - 09/30/2009 - ELECTROMAGNETIC DOOR RELEASE (PART #FM-9**) 5 OR LESS - FCI MISCELLANEOUS	1	Each		
73	10/01/2006 - 09/30/2009 - ELECTROMAGNETIC DOOR RELEASE (PART #FM-9**) 6 TO 10 - FCI MISCELLANEOUS	1	Each		
74	10/01/2006 - 09/30/2009 - ELECTROMAGNETIC DOOR RELEASE (PART #FM-9**) OVER 10 - FCI MISCELLANEOUS	1	Each		
75	10/01/2006 - 09/30/2009 - HINGED/LOCKABLE TERMINAL CABINET (PART #TC1) 5 OR LESS - FCI MISCELLANEOUS	1	Each		
76	10/01/2006 - 09/30/2009 - HINGED/LOCKABLE TERMINAL CABINET (PART #TC1) 6 TO 10 - FCI MISCELLANEOUS	1	Each		
77	10/01/2006 - 09/30/2009 - HINGED/LOCKABLE TERMINAL CABINET (PART #TC1) OVER 10 - FCI MISCELLANEOUS	1	Each		
78	10/01/2006 - 09/30/2009 - REMOTE POWER SUPPLY (PART #SNAC**) 5 OR LESS - FCI MISCELLANEOUS	1	Each		
79	10/01/2006 - 09/30/2009 - REMOTE POWER SUPPLY (PART #SNAC**) 5 OR LESS - FCI MISCELLANEOUS	1	Each		
80	10/01/2006 - 09/30/2009 - REMOTE POWER SUPPLY (PART #SNAC**) OVER 10 - FCI MISCELLANEOUS	1	Each		
81	10/01/2006 - 09/30/2009 - 1/S" EMT CONDUIT W/COUPLINGS (S) & CLIP (S) 10' - RACEWAY/WIRING	1	Each		
82	10/01/2006 - 09/30/2009 - 1/S" EMT CONDUIT W/COUPLINGS (S) & CLIP (S) 11' TO 100' - RACEWAY/WIRING	1	Each		
83	10/01/2006 - 09/30/2009 - 1/S" EMT CONDUIT W/COUPLING(S) & CLIP(S) 101' TO 500' - RACEWAY WIRING	1	Each		
84	10/01/2006 - 09/30/2009 - 1/S" EMT CONDUIT W/COUPLINGS(S) & CLIPS (S) 501' + - RACEWAY/WIRING	1	Each		
85	10/01/2006 - 09/30/2009 - 3/4" EMT CONDUIT W/COUPLINGS (S) & CLIPS (S) 10' - RACEWAY/WIRING	1	Each		
86	10/01/2006 - 09/30/2009 - 3/4" EMT CONDUIT	1	Each		

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Request for Quote

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
 CAPITOL HILL
 PROVIDENCE RI 02908

BUYER: Ohara 2nd, John F
 PHONE #: 401-222-2142

CREATION DATE : 30-OCT-06
 BID NUMBER: 7002208,3
 TITLE: ELECTRICAL CONTRACTOR SERVICES
 REQUIRED FOR URI FIRE ALARM UPGRADES - URI
 BLANKET START : 31-OCT-06
 BLANKET END : 30-SEP-09
 BID CLOSING DATE AND TIME:
 16-NOV-2006 11:00:00

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 URI ACCOUNTS PAYABLE
 CARLOTTI ADMINISTRATION BLDG
 75 LOWER COLLEGE ROAD, SUITE 1
 KINGSTON, RI 02881
 US

Requisition Number:

Line	Description	Quantity	Unit	Unit Price	Total
	W/COUPLING(S) & CLIP(S) 11' TO 100' - RACEWAY/WIRING				
87	10/01/2006 - 09/30/2009 - 3/4" EMT CONDUIT W/ COUPLING(S) & CLIP(S) 101' TO 500' - RACEWAY/WIRING	1	Each		
88	10/01/2006 - 09/30/2009 - 3/4" EMT CONDUIT W/COUPLING(S) & CLIP (S) 501' + - RACEWAY/WIRING	1	Each		
89	10/01/2006 - 09/30/2009 - #14 THHN WIRE (THWN OR TFN MAY BE SUBSTITUTED) 10' - RACEWAY/WIRING	1	Each		
90	10/01/2006 - 09/30/2009 - #14 THHN WIRE (THWN OR TFN MAY BE SUBSTITUTED) 11' TO 100' - RACEWAY/WIRING	1	Each		
91	10/01/2006 - 09/30/2009 - #14 THHN WIRE (THWN OR TFN MAY BE SUBSTITUTED) 101' TO 500' - RACEWAY/WIRING	1	Each		
92	10/01/2006 - 09/30/2009 - #14 THHN WIRE (THWN OR TFN MAY BE SUBSTITUTED) 501' + - RACEWAY/WIRING	1	Each		
93	10/01/2006 - 09/30/2009 - #16 THHN WIRE 10' - RACEWAY/WIRING	1	Each		
94	10/01/2006 - 09/30/2009 - #16 THHN WIRE 11' TO 100' - RACEWAY/WIRING	1	Each		
95	10/01/2006 - 09/30/2009 - #16 THHN WIRE 101' TO 500' - RACEWAY/WIRING	1	Each		
96	10/01/2006 - 09/30/2009 - #16 THHN WIRE 501' + RACEWAY/WIRING	1	Each		
97	10/01/2006 - 09/30/2009 - 1 PAIR MC CABLE (#14 RED/BLK OR BLU/WHT) 10' - RACEWAY/WIRING	1	Each		
98	10/01/2006 - 09/30/2009 - 1 PAIR MC CABLE (#14 RED/BLK OR BLU/WHT) 11' TO 100' - RACEWAY/WIRING	1	Each		
99	10/01/2006 - 09/30/2009 - 1 PAIR MC CABLE (#14 RED/BLK OR BLU/WHT) 101' TO 500' - RACEWAY/WIRING	1	Each		
100	10/01/2006 - 09/30/2009 - 1 PAIR MC CABLE (#14 RED/BLK OR BLU/WHT) 501' + - RACEWAY/WIRING	1	Each		
101	10/01/2006 - 09/30/2009 - 1 PAIR MC CABLE (#16 RED/BLK OR BLU/WHT) 10' - RACEWAY/WIRING	1	Each		

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CARLOTTI ADMINISTRATION BLDG
75 LOWER COLLEGE ROAD, SUITE 1
KINGSTON, RI 02881
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Requisition Number:

Line	Description	Quantity	Unit	Unit Price	Total
102	10/01/2006 - 09/01/2009 - 1 PAIR MC CABLE (#16 RED/BLK OR BLU/WHT) 11' TO 100' - RACEWAY/WIRING	1	Each		
103	10/01/2006 - 09/30/2009 - 1 PAIR MC CABLE (#16 RED/BLK OR BLU/WHT) 101' TO 500' - RACEWAY/WIRING	1	Each		
104	10/01/2006 - 09/30/2009 - 1 PAIR MC CABLE (#16 RED/BLK OR BLU/WHT) 501' + - RACEWAY/WIRING	1	Each		
105	10/01/2006 - 09/30/2009 - 2 PAIR MC CABLE (#14 RED/BLK/BLU/WHT) 10' - RACEWAY/WIRING	1	Each		
106	10/01/2006 - 09/30/2009 - 2 PAIR MC CABLE (#14 RED/BLK/BLU/WHT) 11' TO 100' - RACEWAY/WIRING	1	Each		
107	10/01/2006 - 09/30/2009 - 2 PAIR MC CABLE (#14 RED/BLK/BLU/WHT) 101' TO 500' - RACEWAY/WIRING	1	Each		
108	10/01/2006 - 09/30/2009 - PAIR MC CABLE (#14 RED/BLK/BLU/WHT) 501' + - RACEWAY/WIRING	1	Each		
109	10/01/2006 - 09/30/2009 - 2 PAIR MC CABLE (#16 RED/BLK/BLU/WHT) 10' - RACEWAY/WIRING	1	Each		
110	10/01/2006 - 09/30/2009 - 2 PAIR MC CABLE (#16 RED/BLK/BLU/WHT) 11' TO 100' - RACEWAY/WIRING	1	Each		
111	10/01/2006 - 09/30/2009 - 2 PAIR MC CABLE (#16 RED/BLK/BLU/WHT) 101' TO 500' - RACEWAY/WIRING	1	Each		
112	10/01/2006 - 09/30/2009 - 2 PAIR MC CABLE (#16 RED/BLK/BLU/WHT) 501' + - RACEWAY/WIRING	1	Each		
113	10/01/2006 - 09/30/2009 - 1 PAIR FPL (SLC) CABLE (#14 RED/BLK) 10' - RACEWAY/WIRING	1	Each		
114	10/01/2006 - 09/30/2009 - 1 PAIR FPL (SLC) CABLE (#14 RED/BLK) 11' TO 100' - RACEWAY/WIRING	1	Each		
115	10/01/2006 - 09/30/2009 - 1 PAIR FPL (SLC) CABLE (#14 RED/BLK) 101' TO 500' - RACEWAY/WIRING	1	Each		
116	10/01/2006 - 09/30/2009 - 1 PAIR FPL (SLC) CABLE (#14 RED/BLK) 501' + - RACEWAY/WIRING	1	Each		
117	10/01/2006 - 09/30/2009 - 1 PAIR FPL (SLC) CABLE (#16 RED/BLK) 10' - RACEWAY/WIRING	1	Each		
118	10/01/2006 - 09/30/2009 - 1 PAIR FPL (SLC) CABLE (#16 RED/BLK) 11' TO 100' - RACEWAY/WIRING	1	Each		
119	10/01/2006 - 09/30/2009 - 1 PAIR FPL (SLC) CABLE (#16 RED/BLK) 101' TO 500' - RACEWAY/WIRING	1	Each		

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 PROVIDENCE RI 02908

BUYER: Ohara 2nd, John F
 PHONE #: 401-222-2142

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 75 LOWER COLLEGE ROAD, SUITE 1
 KINGSTON, RI 02881
 US

Requisition Number:

Line	Description	Quantity	Unit	Unit Price	Total
	RED/BLK) 101' TO 500' - RACEWAY/WIRING				
120	10/01/2006 - 09/30/2009 - 1 PAIR FPL (SLC) CABLE (#16 RED/BLK) 501' + - RACEWAY/WIRING	1	Each		
121	10/01/2006 - 09/30/2009 - LABORER; STRAIGHT TIME (FIRST YEAR)	1	Each		
122	10/01/2006 - 09/30/2009 - LABORER; STRAIGHT TIME (SECOND YEAR)	1	Each		
123	10/01/2006 - 09/30/2009 - LABORER, STRAIGHT TIME (THIRD YEAR)	1	Each		
124	10/01/2006 - 09/30/2009 - LABORER; OVERTIME (FIRST YEAR)	1	Each		
125	10/01/2006 - 09/30/2009 - LABORER; OVERTIME (SECOND YEAR)	1	Each		
126	10/01/2006 - 09/30/2009 - LABORER; OVERTIME (THIRD YEAR)	1	Each		
127	10/01/2006 - 09/30/2009 - ELECTRICIAN - STRAIGHT TIME (FIRST YEAR)	1	Each		
128	10/01/2006 - 09/30/2009 - ELECTRICIAN - STRAIGHT TIME (SECOND TIME)	1	Each		
129	10/01/2006 - 09/30/2009 - ELECTRICIAN - STRAIGHT TIME (THIRD YEAR)	1	Each		
130	10/01/2006 - 09/30/2009 - ELECTRICIAN - OVERTIME (FIRST YEAR)	1	Each		
131	10/01/2006 - 09/30/2009 - ELECTRICIAN - OVERTIME (SECOND YEAR)	1	Each		
132	10/01/2006 - 09/30/2009 - ELECTRICIAN - OVERTIME (THIRD YEAR)	1	Each		
133	10/01/2006 - 09/30/2009 - ELECTRICIAN - MASTER; STRAIGHT TIME (First Year)	1	Each		
134	10/01/2006 - 09/30/2009 - ELECTRICIAN - MASTER, STRAIGHT TIME (SECOND YEAR)	1	Each		
135	10/01/2006 - 09/30/2009 - ELECTRICIAN - MASTER, STRAIGHT TIME (THIRD YEAR)	1	Each		
136	10/01/2006 - 09/30/2009 - ELECTRICIAN - MASTER, OVERTIME (FIRST YEAR)	1	Each		
137	10/01/2006 - 09/30/2009 - ELECTRICIAN - MASTER	1	Each		

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 KINGSTON, RI 02881
 US

Requisition Number:

Line	Description	Quantity	Unit	Unit Price	Total
138	(SECOND YEAR) 10/01/2006 - 09/30/2009 - ELECTRICIAN - MASTER; OVERTIME (THIRD YEAR)	1	Each		

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FIRE ALARM SYSTEM SPECIFICATIONS
FOR
THE UNIVERSITY OF RHODE ISLAND
January 1, 2004

PART 1: GENERAL

1.01 - WORK INCLUDED

- (A) Perform all electrical work, complete, in accordance with the specifications and drawings.
- (B) All wiring for the fire alarm system shall be subject to the State of Rhode Island Uniform Fire Safety Code 13.8.10.6.2, and raceways containing connectors identified as "Fire Protective Alarm System" conductors shall not contain any other conductors, and A.C. current carrying conductors will not be allowed in the same raceway with the D.C. fire alarm detection and signaling conductors.

1.02 - GENERAL REQUIREMENTS

- (A) The contractor shall furnish and install a complete 24V D.C. closed circuit, electrically supervised, zone annunciated fire alarm system as specified herein and indicated on the drawings.
- (B) If equipment of listed equivalent Manufacturer is submitted for approval, the contractor shall state how much is to be deducted from his base bid for the substitution, and also shall state what, if any, specific points of system operation differ from the specified points of the system operation. This differentiation report must reference every paragraph of this specification. This submittal and detailed report shall be provided to the University of Rhode Island's Superintendent of Alarms no less than five (5) days following award of contracts.

The system shall include, but not be limited to, all control panels, power supplies, initiating devices, audible and visual alarm devices, conduit, conduit fittings, and outlet

boxes and fittings, conduit hangers, clamps and supports, pull boxes, locked terminal boxes, wire and cables, compression terminal connectors, solderless lugs, disconnect switches and fuses, circuit breakers, pilot devices, connectors, identification name plates, tags, wireway and accessories, and all other equipment and accessories necessary, implied or specified herein or indicated on the drawings and schedules, including all necessary anchors, sleeves, hangers and such other items as may be needed for attaching or connecting this work to the work of others.

- (C) All material shall be new, unless otherwise indicated, and shall conform to the standards of the Underwriters Laboratories and approved by Factory Mutual or as accepted by the Superintendent of the University of Rhode Island. This fire alarm shall be supplied by a single source; accessory components as required should be catalogued by the manufacturer and U.L. listed to operate with the manufacturer's control panel.

(D) Laws and Regulations

The installation shall comply with all state and local laws and regulations applying to electrical installations in the State of Rhode Island with all applicable requirements of the National Electrical Code and its latest revisions, and the University of Rhode Island Fire Alarm Codes without exception.

1.03 - SUBMITTALS

The Superintendent of Alarms U.R.I. will approve all equipment submittals. General requirements are as follows:

- (A) A riser diagram of the complete firm alarm system. (Typical riser diagrams are not acceptable.)
- (B) A complete point to point installation diagram. (Typical diagrams are not acceptable.)
- (C) A complete list of current drain requirements during normal supervisory, trouble and alarm condition.
- (D) Battery standby calculations showing total standby power required to meet the specified system requirements.
- (E) Manufacturer's original catalog data and description information shall be supplied for all major components of the equipment to be supplied.
- (F) Supplier's qualifications indicating years in business, service policies, warranty definitions, and a list of similar installations.
- (G) Contractor's qualifications indicating years in business, prior experience with installations that include the type of equipment that is to be supplied, Rhode Island License # and type of license.
- (H) All pertinent information regarding the reliability and operation of the equipment to be installed.
- (I) Delivery dates of the equipment to be supplied.
- (J) Installation and final test/acceptance dates of the equipment to be supplied.
- (K) Sufficient information shall be supplied so that the exact function is known of each installed device.
- (L) Submittal of shop drawings shall contain original manufacturer's specification sheets. All equipment and devices on the shop drawing to be furnished under this contract shall be clearly marked in the specification sheets. If any equipment and/or devices required in the systems is not so marked, the engineer shall mark the sheet and this

equipment and/or devices shall be made part of the system and shall be provided. Equipment other than specified will not be considered for approval:

1. Complete lists, descriptions and drawings of materials to be used.
2. A complete riser diagram of the fire alarm system.
3. A complete point-to-point installation diagram. Typical wiring diagrams are not acceptable.
4. A complete list of current drain requirements during normal supervisory trouble and alarm conditions.
5. Battery standby calculations showing total standby power needed to meet the system requirements as specified.
6. If any attempt is made to substitute the brand of equipment specified; it is the contractor's responsibility to meet the entire intent of the specifications.

Deviations from the specified item(s) shall be at the risk of the contractor until the date of final acceptance by the Superintendent of Alarms U.R.I., and all costs form removal, relocation or replacement of a substituted item(s) shall be at the risk of the contractor.

1.04 - CODES AND STANDARDS

The installation shall comply with all state and local codes applying to electrical and fire alarm installations and the State Fire Code Fire Alarm Chapter 13 in its entirety.

1.05 - DRAWINGS

The drawings shall show the layout of the system and indicate the approximate locations of outlets, apparatus and equipment. The runs of wiring as shown on the drawings are schematic only. The exact routing of conduit shall be determined by the structural conditions and other obstructions. This shall not be construed to mean that the design of the system may be changed, but refers only to exact runs of conduit between given points.

- (A) This contractor shall consult all contact drawings which may affect the location of any outlets and equipment to avoid possible interference's and permit full coordination of all work. The right to make any reasonable change in location of outlets, apparatus and equipment up to the time of roughing in is reserved by the Superintendent of Alarms and such change shall be made without additional expense to the owner.
- (B) It shall be the responsibility of this contractor to see that all equipment such as junction and pull boxes, controls and such other apparatus as may require maintenance and operation from time to time is made easily accessible. Although the equipment may be shown on the drawings in certain locations, the construction may disclose the fact that such locations do not make its position readily accessible. In

such cases this contractor shall call the attention of the Superintendent of Alarms to the condition before advancing the construction.

(C) Equipment and Scaffolding

This contractor performing work under this section shall be responsible for furnishing all tools and equipment, scaffolding and other temporary construction required for the execution of work.

(D) Inspection

Inspections will be made of routine work before any wiring is pulled, after wiring is pulled and before any devices are installed and before any connections to the control panel. The Superintendent of Alarms will make these inspections before the final inspection and it is the contractor's responsibility to contact the Superintendent of Alarms to arrange these inspections.

If work proceeds without these inspections it will be the contractor's risk and expense to have construction removed to perform the inspections.

1.06 - RACEWAY SYSTEMS

All conductors for fire alarm systems shall be installed in raceways as herein specified and as indicated. Raceways shall be of the sizes indicated or for maximum number of wires required by system design and as stated in the N.E.C. #70 and shall bear the label of Underwriters Laboratories. Raceways shall include rigid steel threaded conduit, electrical metallic conduit (EMT), surface metal raceway (wire mold).

(A) Couplings and connectors for electrical metallic tubing shall be steel setscrew type.

(B) Wireways shall be complete with all necessary fittings, accessories, covers and connectors and shall be hot dip galvanized

The wireways shall be of the sizes indicated with hinged lockable cover and knockouts shall bear the Underwriters Laboratories label and be securely supported by approved methods.

(C) Surface metal raceways shall be furnished and installed for exposed work in finished dry areas as required. Raceways shall be furnished complete with all necessary fittings, boxes, accessories and connectors. The minimum size shall be No. 500 as manufactured by Wiremold Company and shall be securely supported by approved methods.

(D) Supports shall be provided every 5 feet for all conduits wherever possible, the points of support to be determined in the field. The supports shall consist of approved types of clamps or straps secured by screws, bolts or expansion bolts on wood or steel

framework and decking, concrete or brickwork. In no instance shall supporting bolts or screws protrude to the outside of building walls or roof.

- (E) The complete raceway system shall become metallically continuous throughout its entire length and the entire system shall be electrically continuous and shall be thoroughly grounded in accordance with the requirements of the Rhode Island State Fire Code Alarm Section and the National Electrical Code and its latest revisions.

(F) Boxes and Fittings

Provide junction boxes; pull boxes; outlets; and terminal boxes and conduit fittings as indicated, specified herein or wherever they shall be necessary to facilitate the pulling or termination of wires and cables.

- (G) Junction or pull boxes not over 100 cubic inches in size shall be standard galvanized steel boxes except as noted otherwise. Junction and pull boxes over 100 cubic inches in size shall be constructed of code gauge sheet galvanized steel with lockable covers and painted red. Boxes shall be secured in position independently of conduits entering them. Boxes shall be installed so they are accessible.

- (H) Outlet boxes for the fire alarm system shall be galvanized steel at least 1½ inches deep and of sufficient size to accommodate the devices at the outlet location with the exception of the horn lite boxes which shall be of 4” square x 2½” deep. All boxes shall have mounting lugs or ears for covers and knockouts for conduit terminations.

1.07 - Wire and cable work shall be in strict accordance with the requirements of the State of Rhode Island Fire Safety Code Fire Alarm Section and the National Electrical Code and its latest revisions, both with respect to material and workmanship, except where insulation thickness and covering are required by these specifications in excess of code requirements. Color coding shall be in strict accordance with the Rhode Island State Fire Code and the Superintendent of Alarms U.R.I.

- (A) The minimum size wiring shall be #16 AWG THHN solid 600 volt.

- (B) “Y ER EAS” or an approved equal, shall be used as a lubricant where necessary when pulling wire or cable. No wire or cable shall be pulled into the conduit system until all work which could cause injury to the wiring has been completed and the Superintendent of Alarms has been notified and an inspection of conduit system has been approved. All wires and cable shall, insofar as practicable, be continuous from origin to termination without running splices. The installation of wires and cables shall include the provisions of all hangers, racks, cable cleats and supports necessary to make a neat and substantial installation.

- (C) The contractor shall use feeding tubes where cables pass into mouth of conduits. To avoid injury to sheathing, cable shall not be subject to bending less than 6 times its overall diameter.

- (D) Gutter Wiring

All gutter wiring in cabinets, panel, and such other equipment shall be neatly formed and tied with cable ties and straps.

(E) Nameplates

Engraved bakelike nameplates with engraving through to white core shall be provided on the fire alarm equipment as specified by the Superintendent of Alarms.

(F) Disconnect Safety Switch or Circuit Breakers

Provide circuit breakers with locks if disconnect safety switch is to be used. A fusible disconnect switch with provision for padlocking handles in on or off position shall be provided. Fire alarm disconnects shall be painted with red enamel and shall be provided with suitable nameplates.

(G) Patching and Painting

This contractor shall restore to their original condition any areas disturbed by his/her work or negligence including wall, ceiling and floors. This shall include plastering, carpentry, metal work and painting.

This restoration shall be done to the satisfaction of the owner.

PART II: FIRE ALARM SYSTEM OPERATION

- 2.01 (A) The operation of a manual station or automatic activation of any smoke detector, heat detector, sprinkler device, or extinguishing device shall cause:
1. All evacuation horns to sound and lamps to flash in a march time code.
 2. Shut down all air handling units as specified later herein and shown on the plans.
 3. Indicate the zone in alarm on the control panel.
 4. Indicate the zone in alarm on the remote annunciator
 5. Automatically release all magnetically held doors.
 6. Perform any additional function as specified herein or as shown on the plans.
 7. Summon the fire department
- until
- (B) 1. The operated device is returned to normal and the control panel is manually reset except that the alarms may be silenced as described elsewhere in these specifications.

2. An alarm may be silenced by a switch on the zone card in the control panel. When silenced, this shall not prevent the resounding of subsequent alarms if another zone should alarm.
 3. When alarms are silenced the zone indicating red LED's on the control panel and the remote annunciator shall remain on until the operated device is returned to normal and the control panel is manually reset.
 4. Control panel zone cards shall be one zone per card.
- (C) A green pilot LED shall normally be on, indicating that the system is receiving normal 120 VAC powers. A failure of normal power shall cause the LED to extinguish.
- (D) An amber trouble LED and sonalert, operating together, shall signal any trouble condition. Failure of normal power, opens, short circuits, and grounded conductors shall cause a trouble condition.

2.1 FIRE ALARM CONTROL PANEL

- (A) Control Panel shall be as manufactured by FCI, Notifier, Simplex, and EST 3. Control Panel construction shall be modular with solid state, microprocessor based electronics. It shall display only those primary controls and displays essential operation during a fire alarm condition. Keyboards or keypads shall not be required to operate the system during fire alarm conditions. A local audible device shall sound during Alarm, Trouble or supervisory conditions. This audible device shall sound differently during each condition to distinguish one condition from another without having to view the panel. This audible device shall also sound during each key press to provide an audible feedback to ensure that the key has been pressed properly.
- (B) The following primary controls shall be visible through a front access panel:
- B.1 Eighty character liquid crystal display
 - B.2 Individual red system alarm LED
 - B.3 Individual yellow supervisory service LED
 - B.4 Individual yellow trouble LED
 - B.5 Green "power on" Led
 - B.6 Alarm Acknowledge key
 - B.7 Supervisory Acknowledge key
 - B.8 Trouble Acknowledge key
 - B.9 Alarm Silence key
 - B.10 System Reset key
 - B.11 Alarm and trouble LED's shall be provided for all corresponding zones (40)
 - B.12 HOA Switches for all Air Handling Units controlled
- (C) The following secondary control switches and LED's shall be available behind an access door:
- C.1 City disconnect/switch
 - C.2 Manual evacuation (drill)
 - C.3 Elevator bypass

- C.4 Door holder release bypass
- C.5 Future

(D) The control panel shall provide the following:

- D.1 Setting of time and date
- D.2 LED testing
- D.3 Alarm, trouble, and abnormal condition listing
- D.4 Enabling and disabling of each monitor point separately
- D.5 Activation and deactivation of each control point separately
- D.6 Changing operator access levels
- D.7 Walk Test enable
- D.8 Running diagnostic functions
- D.9 Displaying software revision level
- D.10 Displaying historical logs
- D.11 Displaying card status
- D.12 Point listing

(E) For maintenance purposes the following lists shall be available from the point lists menu.

- E.1 All points list by address
- E.2 Monitor point list
- E.3 Signal/speaker list
- E.4 Auxiliary control list
- E.5 Feedback point list
- E.6 Pseudo point list
- E.7 LED/switch status list

(F) Primary Keys, LED's and LCD Display

The Control Panel shall have a 2 line x 40-character liquid crystal display, which shall be backlit for enhanced readability. So as to conserve battery standby power, it shall not be lit during an AC power failure unless an alarm condition occurs or there is keypad activity. The display shall support both upper and lower case letters. Lowercase letters shall be used for softkey titles and prompting the user. Uppercase letters shall be used for System Status Information. A cursor shall be visible when entering information.

2.2 SYSTEM FRONT PANEL OPERATION AND CAPABILITIES

- (A) Under normal condition the front panel shall display a "System is Normal" message and the current time and date.
- (B) Should an abnormal condition be detected the appropriate LED (Alarm, Supervisory or Trouble) shall flash. The panel audible signal shall pulse for alarm conditions and sound steady for trouble and supervisory conditions.
- (C) The LCD shall display the following information relative to the abnormal condition of a point in the system.

- C.1 40 character custom location label
- C.2 Type of device (i.e. smoke, pull station, waterflow)
- C.3 Point status (i.e. alarm, trouble)

(D) For NFPA 72D requirements:

Pressing the appropriate acknowledge button shall display the first unacknowledged condition in the appropriate list (either alarm, supervisory or trouble), and require another acknowledge button. Press to acknowledge only the displayed point.

These acknowledge functions may be passcode protected if the user has insufficient privilege to acknowledge such conditions. A message shall indicate insufficient privilege but allow the user to view the points without acknowledging them. Should the user have sufficient privilege to acknowledge, a message will be displayed informing the user that the condition has been acknowledged.

D.1 After all points have been acknowledged, the LEDs shall glow steady and the Sonalert will be silenced. The total number of alarms, supervisory and trouble conditions shall be displayed along with a prompt to review each list chronologically. The end of the list shall be indicated by an end of list message "END of LIST".

(E) Alarm Silencing

E.1 Should the "Alarm Silence" button be pressed all alarm signals shall cease operation.

E.2 Signals shall not be silenced during alarm silence inhibit mode.

(F) System Reset

F.1 The SYSTEM RESET button shall be used to return the system to its normal state after an alarm condition has been remedied. The LCD display shall step the user through the reset process with simple English Language messages. Messages, "SYSTEM RESET IN PROGRESS", will first be displayed followed by the message, "SYSTEM RESET COMPLETED", and finally, "SYSTEM IS NORMAL", should all alarm conditions be cleared.

F.2 Should an alarm condition continue to exist the message, "SYSTEM RESET IN PROGRESS", will be followed by the message, "SYSTEM RESET ABORTED", and the system will remain in an abnormal state. System control relays shall not reset. The Sonalert and the Alarm LED will be on. The display will indicate the total number of alarms and troubles present in the system along with a prompt to use the ACK keys to review the points. These points will not require acknowledgement if they were previously acknowledged.

F.3 Should the Alarm Silence Inhibit function be active, the (SYSTEM RESET) key press will be ignored. The message, "SYSTEM RESET INHIBITED", will be displayed for a short time to indicate the action was not taken. As feedback to the operator, the message "SYSTEM RESET NO LONGER INHIBITED" will be displayed when the inhibit function times out.

(G) Function Keys

Additional function keys shall be provided to access status data for the following points:

G.1 Initiating device circuits

G.2 Indicating appliance circuits

G.3 Auxiliary relays

G.4 Feedback points

G.5 All other input/output points

(H) The following status data shall be available:

- H.1 Primary State of point
- H.2 Zone, PID and Card type information
- H.3 Class "A" Status
- H.4 Current priority of outputs
- H.5 Disable/Enable status
- H.6 Verification tallies of initiating devices
- H.7 Automatic/Manual Control Status of output points
- H.8 Acknowledge status
- H.9 Relay Status

(I) History Logging

These events shall be stored in a battery protected random access memory. Each recorded event shall include the time and date of that event's occurrence. This information shall be viewed without the need for an off board computer.

The following Historical Alarm log events shall be stored:

- I.1 Alarms
- I.2 Alarm Acknowledgment
- I.3 Alarm Silence
- I.4 System Reset
- I.5 Alarm Historical log cleared

(J) The following Historical Trouble log events shall be stored:

- J.1 Trouble conditions
- J.2 Supervisory alarms
- J.3 Trouble acknowledgment
- J.4 Supervisory acknowledgment
- J.5 Alarm Verification tallies
- J.6 Walk Test results
- J.7 Trouble Historical log cleared

(K) Silent Walktest with History Logging

The system shall be capable of being tested by one person. While in testing mode the alarm activation of an initiating device circuit shall be silently logged as an alarm condition in the historical data file. The panel shall automatically reset itself after logging of the alarm. The momentary disconnection of an initiating or indicating device circuit shall be silently logged as a trouble condition in the historical data file. The panel shall automatically reset itself after logging of the trouble condition. Should the walktest feature be on for an inappropriate amount of time it shall revert to the normal mode automatically. The control panel shall be capable of supporting up to 8 separate testing groups whereby one group of points may be in a testing mode and the other (non-testing) groups may be active and operate as programmed per normal system operation. After testing is considered complete, testing data may be retrieved from the system in chronological order to ensure device/circuit activation. Should an alarm condition occur from an active point, not in walk test mode, it shall perform operations described in section 1.4.

(L) LED Supervision

All slave module LEDs shall be supervised for burnout or disarrangement. Should a problem occur the LCD shall display the module and LED location numbers to facilitate location of that LED.

(M) System Trouble Reminder

Should a trouble condition be present within the system and the audible trouble signal silenced, the trouble signal shall resound at preprogrammed time intervals to act as reminder that the fire alarm system is not 100% operational. Both the time interval and the trouble reminder signal shall be programmable to suit the owner's application.

(N) Access Levels

N.1 There shall be four (4) access levels with level 4 being the highest level. Level 1 actions shall not require a passcode. Passcodes shall consist of up to ten (10) digits. Changes to passcodes shall only be made by authorized personnel.

N.2 In order to maintain security when entering a passcode the digits entered will not be displayed but a cursor will move along filling the position with an X to indicate that the digit has been accepted. All key presses will be acknowledged by a local audible sound.

N.3 When a correct passcode is entered, the message "Access Granted" shall be displayed. The new access level shall be in effect until the operator manually logs out or the keypad has been inactive for ten (10) minutes.

N.4 Should an invalid code be inputted, the operator shall be notified with the message, "ERROR...INCORRECT PASSCODE", and shall be allowed up to three chances to enter a valid code. After three unsuccessful tries, the message, "ACCESS DENIED", shall be displayed. The level shall not be altered, and the operator shall no longer be in the menu option.

N.5 Access to a level will only allow the operator to perform all actions within that level plus all actions of lower levels, not higher levels.

N.6 The following keys/switches shall have access levels associated with them:

- Alarm Silence
- System Reset
- Set Time/Date
- Manual Control
- On/Off/Auto Control
- Disable/Enable
- Clear Historical Alarm Log
- Clear Historical Trouble Log
- Walk Test
- Change Alarm Verification

N.7 Acknowledge keys shall also require privileged access to acknowledge points. If the operator presses an (ACK) key with insufficient access, an error message will be

displayed. The points will scroll with (ACK) key presses to view the points on the list, but the points will not get acknowledged in the database.

(O) RS-232-C Output

Fire Alarm Control Panel shall be capable of operating remote CRT's and/or printers; output shall be ASCII from an EIA RS-232-C connection with an adjustable baud rate. Each RS-232-C port provided shall be capable of supporting and supervising a remote CRT or Printer, supporting as many as four (4) remote CRT displays or printers. Data amplifiers shall be used to increase CRT or printer line distance. Each RS-232-C port shall only communicate with one keyboard. The Fire Alarm Control Panel shall provide two (2) RS-232-C ports.

(P) Fire Alarm Control System Network

Each Fire Alarm Control Panel shall operate as a proprietary local system with data communication to a higher order Central Processing Unit (CPU). The Central Processing Unit (CPU) shall monitor all alarms and troubles of each Fire Alarm Panel (Node).

The CPU shall control each Fire Control Panel as listed in this specification. All data communication wiring between the CPU and Fire Alarm Control Panel shall be supervised for opens, shorts and grounds. Each Panel shall stand alone in the event of communications failure.

(Q) Equipment Enclosures

Provide cabinets of sufficient size to accommodate the aforementioned equipment. Cabinet shall be equipped with locks and transparent door panel providing freedom from tampering yet allowing full view of the various lights and controls. Enclosures shall be flush mounted in the newly constructed area and surface mounted in other locations..

2.3 REMOTE ANNUNCIATOR(S)

(A) As required provide an 80 character LCD serial annunciator that shall provide a common alarm and trouble circuit consisting of:

Control Push button switches for: alarm silence, trouble silence, system reset and manual evacuation duplicating the control panel switches. A key "enable" switch shall be provided to activate or deactivate the control switches.

(B) Tone Alert: Duplicates the control panel tone alert during alarm & trouble conditions.

B.1 System trouble, Power ON, Tamper Trouble, Smoke Detector, Heat Detector, Manual Station, and City Box Trouble Indications.

B.2 Annunciator shall have 32 active LED'S to located on the submitted Graphic detail by owner, and

B.3 To accommodate and facilitate job site changes the control switches shall have the capability to be programmed on site to provide for manual switch input operation other than their standard purpose.

(C) Provide and install a graphic display annunciator showing [site/building] plan. Annunciator LED's shall show location of alarm and trouble conditions graphically. Submit Graphic annunciator site/building plan drawing will be provided by the manufacturer and approved by the owner/Engineer and University of Rhode Island prior to fabrication.

C.1 Annunciator shall indicate each alarm initiating device graphically. Alarm and trouble conditions shall be indicated for each alarm initiating device.

C.2 Manual Control Switches shall be provided for the following functions:

- 1.System Reset
- 2.Alarm Silence
- 3.Trouble Silence
- 4.Manual Evacuation
- 5.Alarm Acknowledge
- 6.Trouble Acknowledge
- 7.Supervisory Service Acknowledge

C.3 Graphic Annunciator Shall be located as shown on drawings, it shall be supervised for LED placement and continuity. Display area shall be a minimum of 24" by 30". Device shall be

C.4 Graphic annunciator shall have all indicators as specified in section B.1 through B.3 of previous section. Provide system voice control including but not limited to: microphone, voice tone generator control switches, circuit control switches and circuit status LEDS.

2.5 MULTIPLE ADDRESSABLE PERIPHERAL NETWORK

(A) Communication with addressable devices. The system must provide communication with initiating and control devices individually. All of these devices will be individually annunciated at the control panel and remote annunciator. Annunciation shall include the following conditions for each point:

- A.1 Alarm
- A.2 Trouble
- A.3 Open
- A.4 Short
- A.5 Device missing/failed

(B)All addressable devices shall have the capability of being disabled or enabled individually.

(C) Up to 127 addressable devices may be multidropped from a single pair of wires. Systems that require factory reprogramming to add or delete devices are unacceptable. Loops shall be capable of 127 monitor and or control points.

(D) The communication format must be a completely digital poll/response protocol. A high degree of communication reliability must be obtained by using parity data bit

error checking routines for address codes and check sum routines for the data transmission portion of the protocol. **Systems that do not utilize full digital transmission protocol are not acceptable.**

(E) Identification of Addressable Devices

Each addressable device must be uniquely identified by an address code entered on the base each device at time of installation. The use of jumpers to set address will not be acceptable due to the potential of vibration and poor contact. Device identification schemes that do not use uniquely set addresses but rely on electrical position along the communication channel are unacceptable. The system must verify that proper type device is in place and matches the desired software configuration.

Systems that do not allow the device head be replaced without the need of verifying address setting shall provide a monitor module and conventional device for each and every location. Provide one year smoke detector cleaning contract in base bid. System manufacturer shall provide detector cleaning on site. Provide complete documentation one year from completion of project that each and every detector has been cleaned.

(F) Wiring Type, Distances, Survivability and Configurations

Wiring types will be approved by the Equipment Manufacturer, Engineer, URI AHJ.

The system shall allow a line distance of up to 2,500 feet to the furthest addressable device on a Class A circuit. Class A Style 7 communications will be provided . Wire will be so routed to maintain sufficient distance between the forward and return loop as called for by the authority having jurisdiction. Class A wiring is required.

2.6 ADDRESSABLE DEVICE TYPES

(A) General

The system control panel, must be capable of communicating with the types of addressable devices specified below. Addressable devices will be located as shown on the drawings. The location of addressable devices will be selected along with conventional devices to optimize the system layout in order to provide the level of protection, zone identification and control as shown on the drawings. Label all detectors with their address with an engraved tag for easy recognition. Labels shall be professionally fabricated and attached to the base of the detector.

(B) Addressable Detector Bases

All addressable smoke and heat detector heads as specified below will be pluggable into their bases. The base will contain electronics that communicate the detector status (normal, alarm, trouble) to the control panel over two wires and shall contain the address of that device. The same two wires shall also provide power to the base and detector. Different detector heads (smoke or heat) must be interchangeable. Upon removal of the head, a trouble signal will be transmitted to the control panel. Addressable detector bases shall contain the address of the detector, and shall be securely mounted to a standard electrical outlet box. **The devices must allow the**

Owner to replace and repair associated detector heads without the need to readdress or verify addresses. This specification is non proprietary, those systems that do not utilize addressable bases shall provide an addressable monitor module and conventional detector for each and every device as shown on the plans.

Those listed systems that do not comply with this section shall not be considered equal.

(C) Photoelectric Detector Head

1. The Photoelectric type detector shall be a plug-in unit which mounts to a twist-lock base, and shall be UL approved.
2. The detectors shall be of the solid state photoelectric type and shall contain no radioactive material. They will use a refracted infrared LED light source and be sealed against rear air flow entry.
3. The detector shall fit into a base that is common with both the heat detector and ionization type detector and shall be compatible with other addressable detectors, addressable manual stations, and addressable Zone Adapter Modules on the same circuit. The detector shall also fit into a non-addressable base that is capable of being monitored by an addressable Zone Adapter Module.
4. There shall be no limit to the number of detectors or Zone Adapter Modules which may be activated or “in alarm” simultaneously.

(D) Addressable Thermal Detector Head

Thermal detector heads must be UL listed. Shall be a combination rate-of-use and fixed temperature (135 F) type, automatically restorable. These devices shall provide an integral alarm LED that shall illuminate on activation.

(E) Addressable Pull Stations

1. Addressable pull stations will contain electronics that communicate the station’s status (alarm, normal) to the transponder over two wires which also provide power to the pull station. The address will be set on the station. They will be manufactured from high impact red Lexan. Station will mechanically latch upon operation and remain so until manually reset by opening with a key common to all system locks. Pull stations will be double action and shall be identified by a schedule on the prints.
2. The front of the station is to be hinged to a back plate assembly and must be opened with a key to reset the station. The key shall be common with the control panels. Stations which use Allen wrenches or special tools to reset, will not be accepted. The station shall consist of high impact lexan plastic, red in color.
3. The addressable manual station shall be capable of field programming of its “address” location on an addressable initiating circuit. The manual station shall be fitted with screw terminals for field wire attachment.
4. There shall be no limit to the number of stations, detectors or Zone Adapter modules, which may be activated or “in alarm” simultaneously.

5. The addressable manual station shall be Underwriters' Laboratories Inc. listed.

(F) Addressable Photoelectric Duct Detector

The detector shall be a non polarized 24VDC type which is compatible with the Fire Alarm Panel and, obtains its operating power from the supervisory current in the fire alarm detection loop.

Detectors shall be of the solid state photoelectric type and shall operate on the light scattering, photodiode principle. To minimize nuisance alarms, detectors shall have an insect screen and be designed to ignore invisible airborne particles or smoke densities that are below the factory set alarm point. No radioactive material shall be used.

The detector head shall be directly interchangeable with an ionization detector type. The 24VDC detector may be reset by actuating the control panel reset switch.

Detector construction shall have a mounting base with a twist-lock detecting head that is lockable. The locking feature must be field removable when not required. Contact between the base and head shall be of the bifurcated type utilizing spring type, self-wiping contacts.

Removal of the detector head shall interrupt the supervisory circuit of the fire alarm detection loop and cause a trouble signal at the control panel. Detector design shall provide compatibility with other normally open fire alarm detection loop devices (heat detectors, pull stations, etc.)

It shall be possible to alarm the duct housing by using a test switch. For maintenance purposes, it shall be possible to clean the duct housing sampling tubes by accessing them through the duct housings front cover. To minimize false alarms, voltage and RF transient suppression techniques shall be employed as-well-as smoke signal verification circuit and an insect screen.

Auxiliary SPDT relays and or remote LED alarm indicators and key operated test stations shall be installed where indicated.

(G) Zone Adapter Module

Zone Adapter Modules shall be used for monitoring of waterflow, valve tamper, Halon Control Panels, **all Heat and Smoke detectors shall be individually addressed.**

1. An addressable interface module shall be provided for interfacing normally open direct contact devices to an addressable initiating circuit.
2. ZAMs will be capable of mounting in a standard electric outlet box. ZAMs will include cover plates to allow surface or flush mounting. ZAMs will receive their 24VDC power from a separate two wire pair running from an appropriate power supply.
3. There shall be two types of devices:

Type 1: Monitor ZAM

Type 2: Control ZAM

(H) Addressable Device Supervision

All devices shall be supervised for trouble conditions. The system control panel will be capable of displaying the type of trouble condition (open, short, device missing/failed). Should a device fail it will not hinder the operation of other system devices.

2.6 ALARM SIGNALS

(A) Audible/Visual Unit (Xenon Strobe)

Provide Horn/Strobe unit. Comprised of a 24 VDC Horn and Xenon Flash Tube entirely solid state. The unit to conform to ADA requirements. (110cd)

(B) Visual Flashing Lamps (Xenon Strobe)

Visual indicating appliances shall be and comprised of a xenon flash tube and be entirely solid state. This unit shall mount to a single gang box and plate for surface mount. Minimum of 110 cd light output to conform to A.D.A.

(C) Mini-Horn

Provide VDC Red, Mini-Horn. The unit shall mount to a single gang box.

(D) Strobe Light

Provide a Wall Mounted, 24 V.D.C. Strobe, color Red.

PART 3: - EXECUTION

3.1 INSTALLATION

(A) Provide and install the system in accordance with specifications, all applicable codes and the Manufacturer's recommendations. All wiring shall be installed in strict compliance with all the provisions of NEC - Article 760 A and C, Power-Limited Fire Protective Signaling Circuits or if required may be reclassified as non-power limited and wired in accordance with NEC-Article 760 A and B. Upon completion, the contractor shall so certify in writing to the owner and general contractor. All junction boxes shall be sprayed red and labeled "Fire Alarm". Wiring color code shall be maintained throughout the installation.

(B) Installation of equipment and devices that pertain to other work in the contract shall be closely coordinated with the University of Rhode Island.

(C) The contractor shall clean all dirt and debris from the inside and the outside of the fire alarm equipment after completion of the installation.

- (D) The Manufacturer's authorized representative shall provide onsite supervision of installation.
- (E) Color code for wire as per Rhode Island State Fire Code
 - 1. DETECTOR CIRCUIT shall be red and black. Red shall be positive and black shall be negative. (NFPA IDC)
 - 2. HORN/STROBE CIRCUIT shall be blue and white. Blue shall be positive and white shall be negative. When bells, chimes or other audible/visual devices are used in lieu of horns, this color shall be followed. (NFPA IAC)
 - 3. FLASHING STROBE CIRCUIT, if separate feed is required, shall be orange and yellow. Orange shall be positive and yellow shall be negative.
 - 4. SPRINKLER/STANDPIPE CIRCUITS shall be red and black. Red shall be positive and black shall be negative.
 - 5. SMOKE DETECTOR CIRCUITS, if a separate power feed is required, shall be brown and violet. Violet shall be positive and brown shall be negative.
 - 6. ELECTRO-MAGNETIC DOOR HOLDERS - BACK CIRCUITS shall be gray and gray.
 - 7. MUNICIPAL MASTER BOX TRIPPING CIRCUITS shall be orange and orange. Conductors for this circuit shall be installed in a separate raceway.
 - 8. ELEVATOR CAPTURE CIRCUITS shall be brown and yellow.
 - 9. FAN SHUT-DOWN CIRCUITS shall be orange and yellow.
 - 10. REMOTE ANNUNCIATOR CIRCUITS shall be violet and numbered at each end.
 - 11. BOND WIRES from the control panel to the master box ground rod, and all required bonding conductors shall be green.
 - 12. MUNICIPAL FIRE ALARM LOOP from the master box to the municipal loop shall be black and white.
 - 13. AC SUPPLY CIRCUIT to the main fire alarm control panel shall be white, black and red. The black wire shall be one phase and the red shall be the opposite phase, if required. The white shall be the neutral. If a separate feed is required for the battery charger, it shall be black and white unless the main fire alarm panel requires only one AC feed. In that case, the conductors to the battery charger shall be red and white.

3.2 TESTING

- (A) A pretest will be held with the installer and the manufacturer's technical representative present. In addition to the requirements listed below, the pretest shall demonstrate that each smoke detector is operative and produces the intended response. Each smoke detector is tested in accordance with the manufacturer's recommendations to initiate an alarm at its installed location. After certification of a complete pretest, the installing contractor shall provide the authority having jurisdiction with written documentation, from the manufacturer's authorized representative of the outcome of the test and will re-inspect in the presence of the authority having jurisdiction and the manufacturer's authorized technical representative. A complete test shall be conducted as follows: the installing contractor, in the presence of a representative of the authority having jurisdiction, shall manually operate every manual fire alarm station, every rate of rise type thermodetector with heat, manually operate or electrically short out every fixed

temperature thermodetector, actuate every smoke detector with smoke in accordance with the manufacturer's recommendations to demonstrate that smoke can enter the chamber and initiate an alarm, activate all automatic extinguishing system switches and activate every water sprinkler/standpipe flow switch by a flow of water.

- (B) After installation and before the system acceptance test is performed, a copy of the testing and service contract will be furnished to the authority having jurisdiction by the owner or contractor. The contractor shall prepare and submit a single line diagram of each installation indicating wiring between equipment and locations of panels, manual pull stations, detectors, and other devices to the authority having jurisdiction. Each manual fire alarm station, thermodetector, smoke detector, extinguishing system switching circuits, flow switch circuit and each alarm horn/strobe circuit shall be opened in at least two locations to test for the correctness of the supervisory circuitry.

All communications shall be tested completely. The fire alarm system shall be in one hundred percent (100%) operation prior to acceptance and/or issuance of a certificate of occupancy.

3.3 WARRANTY

- (A) The contractor shall warrant the completed fire alarm system wiring and equipment to be free from inherent mechanical and electrical defects for a period of one (1) years from the date of the completed and certified test or from the date of first beneficial use.
- (B) The equipment manufacturer shall make available to the owner a maintenance contract proposal to provide a minimum of four (4) inspections and tests per year in compliance with NFPA-72 and The Rhode Island State Fire Code.

3.4 TRAINING

- (A) The electrical Contractor and Manufacturer shall provide a minimum of two (2) on-Site training sessions for the Owner's representatives. Each session shall be a minimum of 4 hours.
- (B) Due to the critical nature of proper system operation, training must be conducted by personnel in the direct employ of the manufacturer of the fire alarm control panel. A third party instructor is not acceptable.
- (C) A complete set of reproducible "as Built" drawings showing installed wiring, color coding, and wire tag notations for exact location of all installed equipment, specific interconnections between all equipment, and internal wiring of the equipment shall be delivered to the owner upon completion of the system.
- (D) Operating and instruction manuals shall be submitted prior to the testing of the system. Four complete sets of the operating and instruction manuals shall be delivered to the owner upon completion.
- (E) Instructions complete and accurate, step by step testing instructions giving recommended and required testing frequency of all equipment, and a complete

trouble shooting manual explaining how to test the primary parts of each piece of equipment shall be delivered to the owner upon completion of the system. Also any passwords and other proprietary information that the owner deems necessary for him to maintain and repair the equipment.

- Instructions for replacing any components of the system, including internal parts.
- Instructions for cleaning and adjustments of equipment with a schedule of these functions
- A complete list of all equipment and components with information as to the address and telephone number of both the manufacturer and local supplier of each item
- User operating instructions shall be provided and displayed on a separate sheet located next to the control unit in accordance with UL Standard 864.
- Spare Parts shall be provided as follows:

- 2 Manual Pull Stations
- 5 Analog Smoke Detectors
- 2 Analog Heat Detector
- 2 Analog Smoke/Heat Bases
- 5 Monitor Modules
- 2 Horn Strobes
- 3 Analog Smoke Sounder Bases (if applicable)

The contractor shall supply and interconnect to the fire alarm system all the necessary water flow switches with retard, pressure switch and gate valve supervisory switches.

The entire fire alarm system shall be connected to a Gamewell local energy in accordance to the Superintendent of Alarms. The master box shall be properly grounded to a driven ground rod independent of any other grounding system. Grounding of the Master box to a water pipe or power ground is not acceptable.

If any problems are found in the system, a date and time will have to be rescheduled with the superintendent of alarms to retest and system after the problems are corrected. Prior to the final test, the Superintendent of alarms must be notified within a reasonable time to test (at least 48 hours). The Contractor shall provide the necessary personnel and equipment to conduct the test.

University of Rhode Island
Bid Package for Upgrade to the Fire Alarm Systems
Kingston Campus; Narragansett Bay Campus; W. Alton Jones Campus

1.0: Introduction

1.1 Scope of Work: The University of Rhode Island (herewith referred to as "URI") is seeking the services of a qualified electrical contractor for the upgrade to the fire alarm systems for various buildings throughout the Kingston Campus, Narragansett Bay Campus, and the W. Alton Jones Campus in accordance with the Rhode Island Fire Laws and Rules, NFPA, and Life Safety Codes. Approximate number of buildings scheduled for upgrade is 134 buildings categorized as follows: 13 Buildings/Assembly; 83 Buildings/Business; 18 Buildings/Dormitory/Residence; and 20 Buildings/Other Type Occupancy.

1.2 Terms: The successful contractor will be responsible to upgrade existing fire alarm systems for various buildings on URI campuses. A specific scope of work per building, including the quantity and location of devices and appliances to be installed, will be provided to the successful contractor by Hughes Associates, Inc. (herewith referred to as "HAI") and by URI. All work performed by the Contractor shall be in accordance with Attachment B – Fire Alarm Specifications of this document. The project schedule will be determined on a per building basis by URI, HAI and the selected Contractor. All work performed under this contract shall be paid at the rate of the unit prices times the amount of the work done.

Additionally:

- All vehicles used by the bidder shall be owned or leased by the successful bidder and carry sufficient insurance coverage accordingly.
- The successful contractor may not subcontract services and/or personnel without the prior approval from URI.
- Any personnel whose performance is deemed unsatisfactory by URI will be replaced upon written request to the contractor from the URI Department of Safety and Risk Management.
- The successful contractor, in submitting bid documentation, agrees not to make any reference to URI, HAI, or any part thereof, in any advertisements, solicitations, or announcements without the expressed written consent of the Director of Safety and Risk Management and/or the Assistance Vice President for Business Services. Further, should such reference be allowed, URI reserves the right to approve all such advertisements, solicitations, or announcements before they are circulated.
- At the end of each business day, the contractor must leave all working areas in "broom-clean" condition. The contractor shall at all times keep the premises free from accumulation of waste materials or rubbish caused by their operation and shall be responsible for the collection, removal, and disposal of such waste from the site as well as the proper recycling of same when required.

1.3 Contract Pricing: Pricing shall be submitted on the attached "Standard Bid Sheet" form (Attachment A) as required by the State of Rhode Island Division of Purchases. The bid form requires that the Contractor submit unit prices for the installation of various fire alarm system components and equipment. The unit cost of each device control unit or appliance shall include be inclusive of all delivery and handling charges. Labor rates will include all services, tools, transportation, and temporary construction necessary to fabricate, install and test the operational fire alarm system.

1.4 Bid Evaluation: Determination of the low bidder(s) will be based on the attached Cost Proposal Summary Sheet, Attachment D. This summary consists of a weighted sample of high volume items and labor rates detailed in Attachment A and a total contract price for the following sample set of buildings. All pricing reflected in Attachment D should be reflective of it the line items in Attachment A for year one of the contract. Alternate will not be allowed for the purposes of this establishing this cost proposal.

- Roger Williams Dining Hall: Business/Assembly
2-stories above grade, 0-stories below grade
FCI 7200
- Washburn Hall: Business (Classrooms)
3 stories above grade, 1 story below grade
FCI FC-72
- Coddington Hall: Dormitory
4-stories above grade, 1-story below grade
FCI FC-72
- Tyler Hall: Business (Classrooms/Offices)
3-stories above grade, 1-story below grade
FCI FC-72
- Mackal Fieldhouse: Assembly/Business (Indoor track/Offices)
1-story above grade (mezzanine), 0-stories below grade
FCI FC-72

Detailed descriptions of the scope of work for each building indicated above will be presented and discussed at the mandatory pre-bid conference. The buildings will only be able to be visited during the walk-through immediately following the pre-bid conference. The total contract amount for this sampling should include all anticipated installation costs. The sample set of buildings shown above will not necessarily be the initial phase of buildings.

Total bid price established in Attachment D is to be used only for the purpose of determining the low bidder(s) and not for establishing the overall contract price. This is an indefinite quantity contract with no fixed or lump sum price. The actual amount of work to be performed and the time of such performance will be determined by the University of Rhode Island and HAI. Unit prices found to be erroneous for the purpose of establishing a lower bid will be disqualified.

1.4 Additional Required Information to Accompany Bid Documentation in Attachment B:

- Qualifications and company information of the Contractor along with the names and qualifications of the equipment supplier's and project manager who shall be in responsible charge during the entire project installation. Qualifications and company information shall include:

Information Required:

- a. Company name, address, and contact information
- b. Owner's name, address, and contact information
- c. Business operator's name, address, and contact information if different from above.
- d. Years in business
- e. Service policies
- f. Warranty definitions

Qualifications Required:

- a. Prior experience with installations that include the type of equipment that is to be supplied. Please list last 3 projects at which you have installed FCI equipment. Include addresses of properties and contact names.
 - b. Copies of all applicable licenses and certifications.
 - c. Certificates of Insurance in accordance with the Insurance Table (Attachment C)
- The prices for recommended alternatives for:
 - Equipment
 - Rates for additional service work not included in the warranty.
 - Prices for a service contract following expiration of any warranties.
 - List of all deviations and/or exceptions to this document and/or Attachment B.

1.5 Other Information

- Pre-bid Conference: A mandatory Pre-bid Conference will be held to outline bid package requirements and a walk-through of the sample building group.
- Pre-Award Conference: The apparent low bidder will be required to attend a pre-award conference to make a presentation of their bid package and answer questions from URI and HAI personnel about the bid package.
- Questions concerning submission of the bid should be directed to the State of Rhode Island, Department of Administration, Division of Purchases.

ATTACHMENT B

Fire Alarm Specifications

1.0 Codes and Standards

- 1.1 The fire alarm system equipment shall be installed accordance with all applicable codes and regulations including the following:
 - 1.1.1 The Rhode Island Fire Safety Code (RIFSC), which includes:
 - 1.1.1.1 The applicable sections of the Rhode Island Uniform Fire Code (RIUFC), which references and amends the National Fire Protection Association (NFPA) *Uniform Fire Code*, 2003 Edition (NFPA 1 – 2003);
 - 1.1.1.2 The applicable sections of the Rhode Island Life Safety Code (RILSC), which references and amends the NFPA 101, *Life Safety Code*, 2003 Edition (NFPA 101 – 2003)
 - 1.1.2 The University of Rhode Island (URI) Fire Alarm Specification.
- 1.2 Installation shall be made in accordance with the applicable provisions of the latest published edition of the following:
 - 1.2.1 NFPA 70, *National Electrical Code*, 2002 Edition.
 - 1.2.2 NFPA 72, *National Fire Alarm Code*, 2002 Edition.
 - 1.2.3 The URI Fire Alarm Specification.
 - 1.2.4 The latest published edition of the equipment manufacturers' product datasheets, technical specifications, installation instructions and wiring guidelines.
- 1.3 The system shall be tested in accordance with the following:
 - 1.3.1 NFPA 72 – 2002.
 - 1.3.2 The latest published edition of the equipment manufacturers' testing procedures and guidelines.

2.0 Submittals

- 2.1 Pre-Installation Documentation: After award has been made, but prior to installation, the contractor is responsible to submit the following installation information for approval by URI.
 - 2.1.1 Product data for sheets or each product specified in Part 2. Submittal shall indicate listing and approvals, selected options and electrical characteristics.
 - 2.1.2 Identify type, quantity, make and model number of each piece of equipment included in the submittal. Types and quantities of equipment indicated shall coincide with the types and quantities of equipment used in the battery calculations and those shown on the shop drawings.
 - 2.1.3 Shop drawings shall be a minimum 1/8" = 1'-0" scale floor plans and corresponding riser diagram inclusive of information required by NFPA 72-2002 requirements.
 - 2.1.4 A point-to-point wiring diagram for the fire alarm control equipment installation inclusive of information required by NFPA 72-2002 requirements; typical wiring diagrams are not acceptable.
 - 2.1.5 Battery calculations in accordance with NFPA 72-2002 requirements and showing total standby power and total alarm power required to meet the specified system requirements. Include a complete list of current requirements during normal, supervisory, trouble, and alarm conditions for each component of the system.
 - 2.1.6 Voltage-drop calculations prepared in accordance with NFPA 72-2002 requirements to demonstrate that the system will operate per the prescribed backup time periods and under all voltage conditions per UL and NFPA standards.

3.0 Contractor's Responsibilities

- 3.1 All strobe only and horn strobe notification appliances shall conform to the requirements of NFPA 72 -- 2002, UFAS and the ADA and shall be listed to UL 1971, *Standard for Signaling Devices for the Hearing Impaired*.
 - 3.1.1 All notification appliances shall be wall-mounted such that that the entire strobe lens is not less than eighty (80) inches and not greater than ninety-six (96) inches above the finished floor, or six (6) inches below the finished ceiling, whichever is lower.
 - 3.1.2 All strobes shall be synchronized throughout each floor.
 - 3.1.3 All audible notification appliances shall sound the three-pulse temporal code pattern fire alarm evacuation signal.
- 3.2 Installation of metal raceway, wire, fittings, and all other accessories required providing a complete and operable fire alarm system.
- 3.3 The contractor shall furnish and install remote power supplies for the notification appliance circuits as necessary in the building.
 - 3.3.1 Each circuit's power load shall not exceed 75% of the individual circuit power available from the remote power supply.
 - 3.3.2 A smoke detector shall be located in the immediate vicinity of each remote power supply.
 - 3.3.3 Each remote supply shall be provided with a switch in the fire alarm control unit to silence appliances on that circuit.
 - 3.3.4 Hughes Associates, Inc. (HAI) and URI shall approve the location of each remote power supply prior to installation.
- 3.4 The installation and wiring of all devices and appliances shall be in accordance with the latest published revision of the manufacturer's installation instructions to achieve the system operation and function as specified herein.
- 3.5 The Contractor is responsible to pay all permit fees required for the installation of the fire alarm system and to obtain the permit from the Rhode Island State Fire Marshal's Office (RISFMO).
- 3.6 The Contractor is responsible to provide four (4) sets of complete pre-installation submittal packages to URI including shop drawings, point-to-point wiring diagrams, battery calculations, and product data sheets as described in Part 2 of this spec.
- 3.7 Upon completion of the installation, the Contractor is responsible to submit as-built drawings in AutoCAD format, training materials, Operating and Maintenance (O&M) manuals, Test Plan, warranty, etc.
 - 3.7.1 The as-built drawings shall be scaled.
 - 3.7.2 The as-built drawings shall include a title block. The title block shall contain the name of the Contractor, building name, the date the drawing was created and any other relevant project information.
 - 3.7.3 The as-built drawings shall include a symbols legend.
- 3.8 Coordinating the Demonstration Test and the Acceptance Test of the fire alarm system with URI and the RISFMO.

4.0 Quality Assurance

- 4.1 Each component of the fire alarm system shall be listed as a product of a single fire alarm system manufacturer under the appropriate category for the intended use in Underwriters Laboratories, Inc. (UL), *UL FPED Fire Protection Equipment Directory*, 2005 Edition. All control equipment shall be listed under UL category UOJZ Control Units System as a single unit. Partial listings, or multiple listings for various major sections of the control equipment, shall not be acceptable.
- 4.2 All control equipment shall have transient protection devices that comply with the requirements outlined in UL 864, *Standard for Control Units for Fire-Protective Signaling Systems*

5.0 Qualifications of Manufacturers

- 5.1 Fire Control Instruments (FCI, Westwood, Massachusetts) are the acceptable manufacturers of the fire alarm system equipment.
- 5.2 Distributors of acceptable manufacturer's equipment shall provide documentation indicating that they are authorized by the manufacturer to distribute and service the equipment and that the manufacturer has stated that they have satisfactorily completed all training courses offered by the manufacturer in relation to the equipment provided. Distributors shall be able to provide on-site service within four (4) hours from the request for service.

6.0 Installer Qualifications:

- 6.1 Licensed in the State of Rhode Island and be experienced in the installation of fire alarm systems in buildings similar to the work described herein and has obtained design and inspection approvals for similar projects from authorities having jurisdiction.
- 6.2 Foreman: Provide proof of competence of both their company and the individual foreman that will be assigned to this project, in the area of installing fire detection, alarm, and control systems for at least five (5) years and acceptable to URI. Once assigned, the Contractor's foreman shall not be changed without the approval of URI.

7.0 Wiring

- 7.1 The entire wiring and raceway system for the fire alarm system shall be in accordance with NFPA 70 – 2002, the RIUFC, and applicable sections of the URI fire alarm specifications.
- 7.2 The Contractor shall furnish all metal raceway, wiring, outlet boxes, junction boxes, cabinets, labels and similar devices necessary for the complete installation of the fire alarm system. All wiring shall be of the type as specified herein and recommended by the manufacturer and shall be installed in metal raceway throughout.
- 7.3 EMT and wiremold are the only acceptable forms of metal raceway.
- 7.4 Terminal cabinets with hinged, lockable red covers, supplied by Space Age Electronics, Marlboro, MA, or approved equal shall be provided at all junction points. All conductor splices shall be made on screw-type terminal blocks. All terminals within a terminal cabinet shall be properly and permanently labeled. All junction box covers shall be painted red.
- 7.5 Raceways containing conductors identified as "Fire Alarm System" conductors shall not contain any other conductors, and no AC carrying conductors shall be allowed in the same raceway with the DC fire alarm detection and signaling conductors.
- 7.6 The conductors for the notification appliance circuits shall not be installed in the same raceway as the conductors for initiating device circuits unless written certification from the manufacturer is supplied to HAI and URI indicating that the inclusion of these circuits in the same raceway is acceptable and that no additional consideration is needed for these circuits.

- 7.7 All wiring shall test free from grounds and short circuit faults. To ensure all wiring meets this requirement, the wiring shall be tested by the Contractor. The testing results shall be recorded, signed by the Contractor and forwarded to the supplier, HAI, and URI.
- 7.8 All system wiring size shall be as determined suitable by the manufacturer and in compliance with the NFPA 70 – 2002 but shall not be smaller than 16 AWG solid copper, type THHN, THWN or TFN.
 - 7.8.1 All wiring shall connect continuously from device to device.
 - 7.8.2 Wiring size shall be increased as required to limit voltage drop to three (3) percent.
- 7.9 Conductor color code shall be in accordance with RIUFC § 13.8.10.6.3.
- 7.10 Where penetrations of floor slabs, fire-resistance rated walls and/or smoke barrier walls are made, the wiring shall be sleeved in metal raceway and the penetrations shall be fire-stopped with approved or UL Listed through-penetration firestop assembly material acceptable to URI, HAI and the RISFMO.

8.0 Testing

- 8.1 Upon completion of the installation of the fire alarm system, the Contractor shall provide a minimum of one (1) week's notice to URI and HAI that the fire alarm system has been satisfactorily tested by the Contractor and the manufacturer's representative and is ready for the Demonstration Test.
- 8.2 The tests shall demonstrate that the entire control system functions as intended. All circuits and devices shall be tested, including equipment shutdown, alarm signaling devices, horns and auxiliary functions. In addition, supervision of each circuit shall be tested.
- 8.3 Either the installing contractor or the fire alarm equipment supplier shall provide qualified personnel to perform the pre-test and the final acceptance test. The installing supervisor shall be present to witness the pre-test and final acceptance test.
- 8.4 During the pre-test, all smoke detectors shall be tested with smoke from a smoke -generating device.
- 8.5 Upon completion of successful demonstration, the Final Acceptance Test shall be performed as required by the RISFMO.
- 8.6 Upon satisfactory completion of the tests, the Contractor shall leave the fire alarm system in proper working order and without additional expense to URI, shall replace any defective materials or equipment provided by the Contractor under this Contract within one year from the date of final acceptance by the awarding authority.

9.0 Warranty

- 9.1 The Contractor shall guarantee all new equipment installed and new raceways, new wiring and connections to existing wiring from defects in workmanship and inherent mechanical and electrical defects for a period of one (1) year from the date of substantial completion of the project.
- 9.2 The Manufacturer or the authorized representative shall guarantee all new system equipment for a period of two (2) years from the date of substantial completion of the project.

Fire Alarm Upgrade Bid Specs Insurance Table
ATTACHMENT C

Insurance:

The successful bidder must provide insurance coverage as listed below. Prior to award, Certificate(s) of Insurance must be submitted by successful bidder evidencing proof of all insurance requirements.

With the exception of workers compensation and employers liability, Certificate(s) of Insurance must identify as the additional insured: **The Board of Governors for Higher Education, The University of Rhode Island, and The State of Rhode Island.** Failure to comply with these provisions may result in rejection of the offeror's bid. Annual renewal certificates must be submitted to the Office of Safety & Risk Management. A 90-day cancellation notice is required.

TYPE OF INSURANCE	LIMITS	
General Liability Commercial General Liability (per occurrence)	Each Occurrence	\$1,000,000
	Fire Damage (Any one fire)	\$ 50,000
	Med Exp (Any one person)	\$ 5,000
	Personal & Adv. Injury	\$1,000,000
	General Aggregate	\$2,000,000
	Products	\$2,000,000
Automobile Liability Any Auto	Combined Limit Single (Each accident)	\$1,000,000
Excess Liability Umbrella Form	Each Occurrence	\$5,000,000
	Aggregate	\$5,000,000
Workers Compensation and Employers' Liability	Workers Comp	Statutory Limits
	EL Each Accident	\$1,000,000
	EL Disease ~ Each Employee	\$1,000,000
	EL Disease ~ Policy Limit	\$1,000,000

Contract Terms and Conditions

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Terms and Conditions

BID STANDARD TERMS AND CONDITIONS

TERMS AND CONDITIONS FOR THIS BID

WAGE REQUIREMENTS

BIDDERS ARE ADVISED THAT ALL PROVISIONS OF TITLE 37 CHAPTER 13 OF THE GENERAL LAWS OF RHODE ISLAND APPLY TO THE WORK COVERED BY THIS REQUEST, AND THAT PAYMENT OF THE GENERAL PREVAILING RATE OF PER DIEM WAGES AND THE GENERAL PREVAILING RATE FOR REGULAR, OVERTIME, AND OTHER WORKING CONDITIONS EXISTING IN THE LOCALITY FOR EACH CRAFT, MECHANIC, TEAMSTER, OR TYPE OF WORKMAN NEEDED TO EXECUTE THIS WORK IS A REQUIREMENT FOR BOTH CONTRACTORS AND SUBCONTRACTORS. THE PREVAILING WAGE TABLE MAY BE OBTAINED AT THE RI DIVISION OF PURCHASES HOME PAGE BY INTERNET at www.purchasing.state.ri.us. SELECT "INFORMATION" AND THEN SELECT "PREVAILING WAGE TABLE". THE STATE OF RHODE ISLAND USES THE GENERAL DECISION NUMBER RI20030001. PRINTING THE ENTIRE DOCUMENT AVERAGES APPROXIMATELY ONE MINUTE PER PAGE - YOU MAY WANT TO PRINT ONLY THE PAGES APPLICABLE TO YOUR BID. BIDDERS NOTE: IN THE EVENT THIS BID SPECIFIES PRICE OFFERS ON A TIME-AND-MATERIALS BASIS, i.e., AN HOURLY RATE, ANY OR ALL BIDS SUBMITTED IN AN AMOUNT LESS THAN THE PREVAILING RATE IN EFFECT FOR THE WORK COVERED BY THIS REQUEST AS OF THE DATE OF BID ISSUANCE SHALL BE REJECTED BY THE DIVISION OF PURCHASES.

READING VENDOR NAMES ONLY

DUE TO LENGTH OF BID AND TIME CONSTRAINTS, THE STATE WILL ONLY ACKNOWLEDGE RECEIPT AND READ THE NAMES OF VENDORS SUBMITTING PROPOSALS. NO EXAMINATION OF DOCUMENTS OR PRESENTATION OF INFORMATION CONTAINED IN PROPOSALS WILL BE MADE AVAILABLE AT THE BID OPENING; HOWEVER, INSTRUCTIONS TO OBTAIN THE TABULATION OR SUMMARY OF BID RESPONSES WILL BE MADE AVAILABLE AT THE RI DIVISION OF PURCHASES WEBSITE AT WWW.PURCHASING.RI.GOV

INSURANCE REQUIREMENTS

AN INSURANCE CERTIFICATE IN COMPLIANCE WITH PROVISIONS OF ITEM 31 (INSURANCE) OF THE GENERAL CONDITIONS OF PURCHASE IS REQUIRED FOR COMPREHENSIVE GENERAL LIABILITY, AUTOMOBILE LIABILITY, AND WORKERS' COMPENSATION AND MUST BE SUBMITTED BY THE SUCCESSFUL BIDDER(S) TO THE DIVISION OF PURCHASES PRIOR TO AWARD. THE INSURANCE CERTIFICATE MUST NAME THE STATE OF RHODE ISLAND AS CERTIFICATE HOLDER AND AS AN ADDITIONAL INSURED. FAILURE TO COMPLY WITH THESE PROVISIONS MAY RESULT IN REJECTION OF THE OFFEROR'S BID. ANNUAL RENEWAL CERTIFICATES MUST BE SUBMITTED TO THE AGENCY IDENTIFIED ON THE PURCHASE ORDER. FAILURE TO DO SO MAY BE GROUNDS FOR CANCELLATION OF CONTRACT.

NOTE: IF THIS BID COVERS CONSTRUCTION, SCHOOL BUSING, HAZARDOUS WASTE, OR VESSEL OPERATION, APPLICABLE COVERAGES FROM THE FOLLOWING LIST MUST ALSO BE SUBMITTED TO THE DIVISION OF PURCHASES PRIOR TO AWARD: * PROFESSIONAL LIABILITY INSURANCE (AKA ERRORS & OMISSIONS) - \$1 MILLION OR 5% OF ESTIMATED PROJECT COST, WHICHEVER IS GREATER. * BUILDER'S RISK INSURANCE - COVERAGE EQUAL TO FACE AMOUNT OF CONTRACT FOR CONSTRUCTION. * SCHOOL BUSING - AUTO

LIABILITY COVERAGE IN THE AMOUNT OF \$5 MILLION. * ENVIRONMENTAL IMPAIRMENT (AKA POLLUTION CONTROL) - \$1 MILLION OR 5% OF FACE AMOUNT OF CONTRACT, WHICHEVER IS GREATER. * VESSEL OPERATION - (MARINE OR AIRCRAFT) - PROTECTION & INDEMNITY COVERAGE REQUIRED IN THE AMOUNT OF \$1 MILLION.

CHARGES PERMITTED

NO CHARGES OTHER THAN PARTS AND LABOR ON THE JOB - NO TRAVEL, NO MILEAGE, NO MISCELLANEOUS CHARGES, NO PORTAL TO PORTAL.

LICENSE REQUIREMENTS

VENDOR (OWNER OF COMPANY) IS RESPONSIBLE TO COMPLY WITH ALL LICENSING OR STATE PERMITS REQUIRED FOR THIS TYPE OF SERVICE. A COPY OF LICENSE/PERMIT SHOULD BE SUBMITTED WITH THIS BID. IN ADDITION TO THESE LICENSE REQUIREMENTS, BIDDER, BY SUBMISSION OF THIS BID, CERTIFIES THAT ANY/ALL WORK RELATED TO THIS BID, AND ANY SUBSEQUENT AWARD WHICH REQUIRES A RHODE ISLAND LICENSE(S), SHALL BE PERFORMED BY AN INDIVIDUAL(S) HOLDING A VALID RHODE ISLAND LICENSE.

MULTI YEAR AWARD

THIS IS A MULTI-YEAR BID/CONTRACT. PER RHODE ISLAND STATE LAW 37-2-33, CONTRACT OBLIGATIONS BEYOND THE CURRENT FISCAL YEAR ARE SUBJECT TO AVAILABILITY OF FUNDS. CONTINUATION OF THE CONTRACT BEYOND THE INITIAL FISCAL YEAR WILL BE AT THE DISCRETION OF THE STATE. TERMINATION MAY BE EFFECTED BY THE STATE BASED UPON DETERMINING FACTORS SUCH AS UNSATISFACTORY PERFORMANCE OR THE DETERMINATION BY THE STATE TO DISCONTINUE THE GOODS/SERVICES, OR TO REVISE THE SCOPE AND NEED FOR THE TYPE OF GOODS/SERVICES; ALSO MANAGEMENT OWNER DETERMINATIONS THAT MAY PRECLUDE THE NEED FOR GOODS/SERVICES.

PURCHASE AGREEMENT BID

BIDDING (a) A single price shall be quoted for each item against which a proposal is submitted. This price will be the maximum in effect during the agreement period. Any price decline at the manufacturer's level shall be reflected in a reduction of the agreement price to the State. (b) Quantities, if any, are estimated only. The agreement shall cover the actual quantities ordering during the period. Deliveries will be billed at the single, firm, awarded unit price quoted regardless of the quantities ordered. (c) Bid price is net F.O.B. destination and shall include inside delivery at no extra cost. (d) Bids for single items and/or a small percentage of total items listed, may, at the State's sole option, be rejected as being non-responsive to the intent of this request. ORDERING (a) The User Agency(s) will submit individual orders for the various items and various quantities as may be required during the agreement period. (b) Exception - Regardless of any agreement resulting from this bid, the State reserves the right to solicit prices separately for any extra large requirements for delivery to specific destinations.

AWARD

THE STATE, AT ITS SOLE DISCRETION, SHALL RESERVE THE RIGHT TO MAKE ONE OR MULTIPLE AWARDS FOR THIS REQUIREMENT AND/OR TO REJECT ANY OR ALL BIDS.