



An employee-owned company
October 18, 2004

Mr. Rodney Williams
Project Manager
Facilities and Construction Management
School Board of Broward County
Ft. Lauderdale, FL 33312

Subject: Martin Luther King Elementary School, Project No. 1611-98-01
 School Board of Broward County
 Multipurpose, Remodeling & Renovation
 Review of COR No. 62R – New Automatic Wet Pipe Fire Sprinkler System

Dear Mr. Williams:

PBS&J has completed the review of the subject proposed change order request. Below is a summary of our review and recommendation for the additional cost submitted by the General Contractor (A.V.I. Contractors, Inc.). It should be noted, that the GC's additional scope of work will be performed at premium time

Change Order Request No. 62R – New Automatic Wet Pipe Fire Sprinkler System

COR Review Methodology:

This Change Order Request relates to providing a new automatic wet pipe sprinkler system to an existing fully finished building, required by SBBC Life Safety Inspector. The Multi-Purpose/Dining Room has three low areas with a combination of hard ceilings & acoustical ceilings. Also, the ceiling in the Multi-purpose room is an exposed ceiling grid with openings less than 1'-0". The additional scope of work is as follows:

- Low areas require soffit of pipes as to conceal the change in elevation
- The exposed ceiling grid will be required to be removed in sections coordinated with the sprinkler layout
- Due to the different elevations and working conditions the system will be required to be designed with access and the structure in mind
- Coring of penetrations requires protecting covering of finishes of walls for wet core machine
- Stage storage requires two (2) layers of sprinkler heads, as roof ladder and penetration do not allow for compartmentalization of structural members
- Finish cutting and patching and painting will be required
- Lights will be required to remain open until rough and pressure tests are complete
- **Hard ceilings:** Lights will need to be removed to gain access above the ceilings
 - *The lights above the hard ceilings are very tight and do not allow for installation from the above. The lights are for access and pipe to be installed from the ground; through the light
 - *Lights must be removed or multiple access panels are required to be installed
- Backflow and riser will require coordination with the alarm contractor because of the addition of three (3) tamper and one (1) flow switch; all to be wired into existing fire alarm
- The ceiling grid will be required to be removed; New pipe, A/C ductwork, flex, bar joist etc; painted black will need to be repainted black
- The Floor should be protected while this work is being performed

This review is based on the Contractor's, Sub-Contractor's backup documentation provided with the COR and the project documents (sketches, drawings, etc.) and information gathered during telephone conversations with the GC and a site visit performed by PBS&J representatives on September 28, 2004.

PBS&J have reviewed the unit prices of the material, labor and equipment costs of the various items. Quantity takeoffs have not been performed for all the items in this project. It has been assumed that the quantities provided in the estimate are accurate. However, cursory takeoffs were performed and were quantified for certain major items as deemed necessary.

PBS&J also verified the subcontractor markups for overhead, profit and bond for compliance with the contract Agreement between Owner and General Contractor.

However, the markup line item "Warranty @ 1%" is not in accordance with Contract Documents. PBS&J has adjusted the Markups so they may be in accordance with Contract Documents. (See Attachments "A")

PBS&J Observations:

Additional Cost Request

- **Foreman & Laborer:**

Additional cost for the foreman & laborer rates which includes a labor burden of 38% is within industry standards.

- **Barricades, guardrail, wooden:**

Additional cost for the barricades (3' high, 1" x 6", on 2" x 4" posts base,) @ \$2.47 lf is reasonable.

- **Surveys:**

The overall price of \$2,500 appears slightly high. However, based on scope and field conditions required to obtain the surveys and per conversations with the GC (the detailed line item does not specify all the activities required to complete the survey) the overall cost could be accepted.

- **Asbuilt Drawings:**

The overall cost of \$1,525 for the drawings is within industry standards.

- **Cleaning final:**

Additional cost for the cleaning final @ \$833 could be accepted.

- **Floor protection:**

Additional cost for the protection of the floor (14,000 sf) @ \$.35 sf is reasonable

- **Dumpster rental, 20 cubic yard unit:**

Additional cost for the dumpster rental, three (3) @ \$350 each is within industry standards.

- **Core drill holes high above ceiling:**

The unit cost of \$187 a hole appears slightly high. However, based on scope and field conditions required to drill the holes in the ceiling and per conversations with the GC (the detailed line item does not specify all the activities required to complete the drilling of the holes) the overall cost could be accepted.

- **Build soffit for sprinkler pipes at low to high ceiling transitions, incl. paint:**

The overall cost of \$4,933 appears slightly high. However, based on scope and field conditions required to build the soffits and per conversations with the GC (the detailed line item does not specify all the activities required to complete the building of the soffits) the overall cost could be accepted.

- **Patch & paint drywall:**

Additional cost for the patching and painting of the drywall @ \$1,148 is within industry standards.

- **Patch & paint stucco exterior:**

Additional cost for the patching and painting of the exterior stucco @ \$745 is within industry standards.

- **Repair and replace standard acoustical ceilings:**

Additional cost for the repair and replacement of the standard acoustical ceilings @ \$2,344 is within industry standards

- **Repair and replace 'Custom Grid' ceilings in dining room:**

Additional cost for the repair and replacement of the 'Custom Grid' ceilings @ \$31,750 (5,000 sf @ \$6.35 sf) is within industry standards

- **Paint conduits above ceilings:**

Additional cost for the painting of the conduits above the ceiling @ \$956 is reasonable.

- **Repaint HVAC ductwork above ceilings:**

Additional cost for the repainting of the HVAC ductwork above the ceiling @ \$475 is reasonable.

- **Hand Excavating, backfill incl. compaction, 18" wide trench, 36" deep:**

The overall cost of \$3,960 appears slightly high. However, based on scope and field conditions required to hand dig the trench and per conversations with the GC (the detailed line item does not specify all the activities required to complete the trench) the overall cost could be accepted.

- **Repair and relocate Irrigation:**

The lump sum cost of \$4,500 appears high. A reasonable cost for the additional scope of work should be in the range of \$2,000 to \$2,500.

A meeting was held on October 11, 2004 to clarify the cost for the repair and relocation of the irrigation. The cost was reduced from \$4,500 to \$2,250 per agreement between Owner & the General Contractor for the additional scope of work

- **Repair and relocate underground electrical conduits:**

Additional cost for the repairing and relocating the underground electrical conduits @ \$2,642 appears acceptable.

- **Backhoe & operator:**

Additional cost for the backhoe and operator @ \$1,502 (40 hrs x \$37.55 = \$1,502) is within industry standards.

- **Lift Rental:**

Additional cost for the lift rental @ \$2,550 (2 months x \$1,275 = \$2,550) is within industry standards.

- **Sod and landscape replacement:**

The lump sum cost of \$5,800 appears high. A reasonable cost for the additional scope of work should be in the range of \$2,000 to \$1,500.

A meeting was held on October 11, 2004 to clarify the cost for the sod and landscape replacement. The cost was reduced from \$5,800 to \$2,000 per agreement between Owner & the General Contractor.

- **Saw cutting, asphalt/concrete walks:**

Additional cost for the saw cutting of asphalt/concrete walks @ \$218 (100 lf x \$2.18 = \$218) is within industry standards.

- **Asphaltic Patching:**

Additional cost for the asphaltic patching @ \$3,360 (640 sf x \$5.25 = \$3,360) is within industry standards.

- **Concrete Patching:**

Additional cost for the concrete patching @ \$3,325 (380 sf x \$8.75 = \$3,325) is within industry standards.

- **Sprinklermatic Proposal (see attached):**

The overall cost of \$100,568 appears slightly high. However, based on scope and field conditions required to sprinkle the multipurpose room and per conversations with the GC (the attached proposal outlines all the specific activities required to complete the sprinkling of the building) the overall cost could be accepted. (see attachment C)

- **Additions to Fire Alarm Panel:**

Additional cost to upgrade the fire alarm panel @ \$1,480 appears acceptable.

- **Conduit in concrete slab, includes terminations, fittings etc.:**

Additional cost for installing the conduit in the slab @ \$449 appears acceptable.

- **Conduit above existing ceiling, (includes wiring & connections):**

Additional cost for installing the conduit (including wiring and connections) above the existing ceiling @ \$1,488 is within industry standards.

- **Remove and temporarily support light fixtures:**

Additional cost for the removal and temporarily support of the light fixtures @ \$2,800 (150 ea. x \$18.66 = \$2,800) is within industry standards.

- **Reinstall and support light fixtures:**

Additional cost for the reinstallation and support of the light fixtures @ \$3,615 (150 ea. x \$24.10 = \$3,615) is within industry standards.

- **Premium for Labor Cost @ Time & Half for night work:**

Based on the scope of work that needs to be performed (A.V.I. scope of work will be performed at premium time), the total unit price of \$25,845 ($\$51,689 \times \$0.50 = \$25,845$) appears to be acceptable.

- **A.V.I. Contractor's Estimate Summary – Final Adjustments :**

- The markup line item "Warranty @ 1%" is not in accordance with Contract Documents. PBS&J has adjusted the Markups so they may be in accordance with Contract Documents. (See Attachments "A")

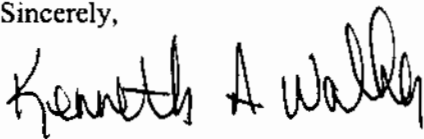
Based on our review the General Contractor's request appears slightly high, however due to the labor intensive scope of work for the new supervised fire sprinkler wet system and the level of difficulty for installation of work in the existing space, the Contractor's cost could be accepted with the agreed upon markups. No time extension was requested.

Change Order Request #62R

Contractor's Request	<u>Total Cost</u>
PBS&J Recommended Amount	\$296,356
	\$286,365 (see attachment B)

Please feel free to contact us (305) 514-3421 if you have any questions or comments regarding this review.

Sincerely,



Kenneth A. Walker
Sr. Estimator/Scheduler

C: Attachments (A , B & C)

Estimate Summary - Condensed

MLK Change Orders-Project # 1611-98-01 / MLK C.O. #62 R Fire Sprinkler System
 Wet Sprinkler sytem in Cafeteria Building (REVISED)
 Estimate No
 Estimate Date 8/19/2004

A. V. I. Contractors, Inc.
 Project Estimator: RPM

ARENASOFT™

Description		Total
15300	FIRE SPRINKLER PROTECTION	251,523 245,473

Total of CSI Sections:

251,523	\$/SF
245,473	

Final Adjustments

Sales Tax 6%
 TOTAL
 Warranty @ 1%
 TOTAL

Total

	7	
251,530		245,480
2,840		
254,045		245,480

Grand Total:
 Square Feet:
 \$ / SF

254,045	245,480



The School Board of Broward County, Florida
 Facilities and Construction Management Department
 1700 SW 14th Court
 Fort Lauderdale, FL 33312

(954) 765-6390

Document 01250d: Proposal Worksheet Summary

To: **Thaddeus Cohen Architects**
 Attn: **Thaddeus Cohen**
 Project No: **1611-98-01**
 Project Title: **New Cafeteria/Kitchen**
 Facility Name: **Martin Luther King Elementary School**

Proposal Request No.:	Change Order Request No.:	AVI 062R
		REVISED

Date **August 19, 2004**
 Prepared:

From/Trade **General Contractor**

Contact: **R.P. Mish** Phone **954-385-7339**

Additions:

Sheet	Item Description	Materials	Labor	Subtotal
1	A.V.I. Worksheets (att)			247,389.00
2				245,480.00
3				
4				
5				
6				

Deductions:

Sheet	Item Description	Materials	Labor	Subtotal
1				
2				
3				
4				
7				
Subtotal Deductions:				

Subtotal (Additions - Deductions): ~~254,045.00~~ ⁴ 295,480
 10% Contractor's Overhead 25,404.50 * 24,598
 5% Contractor's Profit 13,972.48 * 13,501.1
 1% Bond Allowance 2,934.22 * 2,835.2
Total \$296,356.00
 8 286,365.00



July 20, 2004

Rich Mish
 AVI Contractors, Inc
 2863 Executive Park Drive, Suite 6
 Weston, FL 33321

Re: Martin Luther King Elementary School
 Fort Lauderdale
 Via Fax: 954-385-3262

Dear Rich:

We have reviewed plans dated 08/01/02, and specifically sheets A 6-1 (8-01-02) M2.01 and WS-1 (May 2001), and propose to install an Automatic Wet Pipe Fire Sprinkler System as follows:

SCOPE OF WORK:

- As discussed we have performed an extensive walk thru of any existing fully finished building with the intent of providing fire sprinklers.
- We walked the existing building with your superintendent, as this project is rather difficult.
- We have (3) three low areas and an exposed ceiling grid in the multi-purpose room.
- Low areas require soffiting of pipe as to conceal the change in elevations.
- The exposed ceiling grid will be required to be removed in sections coordinated with the sprinkler layout.
- Due to the different elevations and working conditions the system will be required to be designed with access and the structure in mind.
- Coring of penetration requires protecting covering of finishes of walls for wet core machine.
- Stage storage requires (2) two layers of sprinkler heads, as roof ladder and penetration do not allow for compartmentalization of structural members.
- Finish cutting, patching and painting will be required by others.
- Penetrations will be sleeved and fire calked. (Included)
- Lights will be required to remain open until rough and pressure test are complete.
- Backflow on riser will require coordination with your alarm contractor as we are adding (3) tampers and (1) flow switch; all to be wired into existing fire alarm.

DESCRIPTION OF WORK:

- Hard Ceilings: Lights will need to be removed to gain access above the ceilings in the following rooms.
 1. Stage storage (829)
 2. Non working stage (830) and soffits in multi purposed room
 3. Ramp to stage (831)
 4. Kitchen (803)
 5. Men and women toilet room (816, 817, 820, 821)
 6. Paper storage (814)
 7. Receiving area (812)
 8. Room 811, 809 and 808

*Please note areas above hard ceilings are very tight and do not allow for installation from the above. The lights are for access and pipe to be installed from the ground; through the light.
 *Lights must be removed or multiple access panels are required to be installed.
- Multi Purposed/Dinning room: This area is an exposed ceiling grid, with openings less the 1'-0". Lights are suspended from grid. Due to the exposed structure; sprinkler heads are required to be installed within (1'-0") of the deck; which is approximately 8'-0" above grid elevation.
 The ceiling grid will be required to be removed in sections requiring sprinklers. New Pipe, A/C ductwork, flex, bar joist etc; painted black will need to be repainted by others.

3211 North 74th Avenue • Hollywood, Florida 33024
 954-986-1106 phone • sprinklermatic@bellsouth.net • 954-986-1109 fax
 CC#174314000197



- Floor: Should be protected by others. *We will wrap our lift tires with duct tape; but floor should be protected by others. (Existing damage noticed in walk thru).

As a summary to the description of work we underline the difficulty of this installation and coordination is key to a quick installation. As discussed time is of the essence and upon completion of fire sprinkler layout we proposed all openings, coring, light and grid removal are completed during plan review process. Upon approval we agree to a thirty-day construction schedule; however we underline the critical nature of work to be done by others and work prior to acceptance of drawings

COMMENCEMENT OF WORK:

Sprinklermatic will start at existing 8-inch water main and install fire service into building. Including backflow preventor and indicating valves, tamper switches and fire department connection.

RISER:

4 "shotgun" complete with indicating valve, tamper switch, water flow switch, electric bell, drain and test connection, spare sprinkler cabinet, wrench and required signs.

SPRINKLER HEADS:

White Semi Recessed Sprinklers.
Brass upright in exposed areas.

SPRINKLER PLANS:

Prepare fire sprinkler shop drawings and hydraulic calculations, designed in accordance with the intent of the design professional's drawings listed above, N.F.P.A. 13 and local authority having jurisdiction.

MATERIALS:

All fire protection equipment and devices shall be U.L. listed, approved by local authority having jurisdiction and shall be of SprinklerMatic's choice

WORKMANSHIP:

All work shall be performed by State licensed and certified personnel in accordance with the local authority having jurisdiction.

TESTS AND CERTIFICATION:

One (1) year guarantee against any defects in material and/or workmanship (an Annual Inspection Contract is available upon request.)

Attachment C, Page 3/3



EXCLUSIONS:

- ❖ Electrical Work, Fire Alarm Or Panel
- ❖ Fire Extinguishers, Fire Hose Cabinets, Fire Hose Valves
- ❖ Painting, Finish Patching Or Access Panels
- ❖ Sprinklers Beneath Shelving, Racks, Etc.
- ❖ Post Indicator Valve
- ❖ Ballards
- ❖ Unforeseen Underground Obstructions
- ❖ Bonding (Available At Additional Cost)
- ❖ City of Ft. Lauderdale Permit Fees Or Additional Municipal Fee
- ❖ Impact Fees
- ❖ Remote Freestanding Fire Department Connections
- ❖ Phasing (Work To Be Done In A Continuous Manner)
- ❖ Employee Parking
- ❖ Covered Walkways
- ❖ Work outside normal work hours (7:00 am to 5:00 pm M-F)
- ❖ Removal of lights
- ❖ Removal of grid
- ❖ Painting of any kind
- ❖ Damage of existing finishes

TERMS:

Contract price for the above detailed installation is \$100,567.63 (One Hundred Thousand Five Hundred Sixty Seven Dollars and 63/100). Contract substantially equivalent to AIA terms, with provisions for stored materials. Upon execution, it constitutes a binding purchase order. Please sign and return to signify acceptance and retain a copy for your files, or furnish your contract. This bid is valid for 45 days from the above date.

Signature of Acceptance

Print Name and Date

If you should have any questions, please call. Thank you for your time and consideration.

Sincerely,

Robin E. Collier
President

.... Estimate For

MLK Change Orders-Project # 1611-98-01

MLK C.O. #62 R Fire Sprinkler System

Prepared by:

*A. V. I. Contractors, Inc.
2863 Executive Park Drive
Suite 106
Weston, FL 33331
Phone: 954-385-7339- Fax: 954-385-3262*

Estimate No:

Estimate Date: 8/19/2004

Estimator: RPM

Design Status

Project Description

Wet Sprinkler system in Cafeteria Building (REVISED)

Estimate Comments

Exclusions:

A. . Any items of work not specifically itemized in the attached breakdown are NOT included in this proposal !

NOTE WELL! Work at premium time.



**The School Board of Broward County, Florida
Facilities and Construction Management Department
1700 SW 14th Court
Fort Lauderdale, FL 33312**

(954)765-6390

Document 01250b: Change Order Request (Proposal)

**To: Thaddeus Cohen Architect
75 NE 6th Avenue Suite 219
Delray Beach, FL 33483
561-276-4300 Fax 561-276-0244**

Change Order Request No.:	AVI 062R	Date:	08/19/04
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Attn: Thaddeus Cohen

Project No: 1611-98-01

Project Title: New Cafeteria / Kitchen

(One Request
(Proposal) per form)

Facility Name: Martin Luther King Elementary School

This Change Order Request (Proposal) contains an itemized quotation for changes in the Contract Sum and/or Time in response to proposed modifications to the Contract Documents based on Proposal Request No. _____ or other conditions which require this Proposal.

Description of Proposed Change:

Addition of complete new supervised Fire Sprinkler Wet system. To include engineering and signed and sealed drawings. Includes repair of all existing surfaces which are damaged during construction. Excludes permits and impact fees.

Attachments : Estimate sheets & summary work sheet.

Reason for Change:

Not in contract. Required by Life safety inspector Tom Keane and Project Manager, Rodney Williams.

Does Proposed Change involve a change in Contract Sum or Time? Yes No
However, Contractor's acceptance of this change order shall not be deemed a waiver of any claim by contractor for additional time or money not related to the work described herein. Further, contractor has not included General Conditions and will seek compensation for additional General Conditions when required.

If yes: Proposed Change in Contract **\$ 296,356.00**

Sum:

Proposed Change in Contract 0 days

Time:

Attached : Proposal Worksheet Summary
 Proposal Worksheet Detail(s)

Contractor: A.V.I. Contractors, Inc.
2863 Executive Park Drive, Ste 106
Weston, FL 33331

By: (Signature)

Richard P. Mish, President

Attached is supporting information from: Subcontractor Supplier

Section Details - Continous

8/19/2004 12:03 PM Page 1

MLK Change Orders-Project # 1611-98-01 MLK C.O. #62 R Fire Sprinkler System
Wet Sprinkler sytem in Cafeteria Building (REVISED)

L.V.I. Contractors, Inc.
Project Estimator R/P/M

Showing Take-off & Crew Details

Est. No
Est Date 8/19/2004

Line No	Description	Quantity	Unit	Labor	Equip	Material	Sub	Total
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15300 FIRE SPRINKLER PROTECTION

base

10	Foreman-includes 38% burden	13.00	wk	1,884.40				1,884.40
	base		D	24,497	0	0	0	24,497

Trade	1.00 A.V.I. Superintendent	Equip	Equipment	Crew
Daily:	\$ 376.88 Daily Labor	/	.20 wk per Day	= \$ 1,884.40 per wk
	Daily Equip	/	.20 wk per Day	=
Hourly	40.0000 Man Hours per wk	X	\$ 47.11 per Man Hour	= \$ 1,884.40 per wk
	Equip Hours per wk	X	per Equip Hour	=
Days:	65.0 Man Days	X	\$ 376.88 per Man Day	= \$ 1,884.40 per wk
	Equipment Days	X	per Equip Day	=

20	Laborer- -includes 38% burden	13.00	wk	416.25				416.25
	base		D	5,412	0	0	0	5,412

Trade	1.00 Common Building Laborers	Equip	Equipment	Crew
Daily:	\$ 83.25 Daily Labor	/	.20 wk per Day	= \$ 416.25 per wk
	Daily Equip	/	.20 wk per Day	=
Hourly	40.0000 Man Hours per wk	X	\$ 10.41 per Man Hour	= \$ 416.25 per wk
	Equip Hours per wk	X	per Equip Hour	=
Days:	65.0 Man Days	X	\$ 83.25 per Man Day	= \$ 416.25 per wk
	Equipment Days	X	per Equip Day	=

30	Barricades, guardrail, wooden, 3' high, 1" x 6", on 2" x 4" posts base	250.00	L.F.	1.41		47	59	247
	base		D	353	0	118	148	619

Trade	2.00 Men	Equip	Equipment	Crew
Daily:	\$ 281.66 Daily Labor	/	200.00 L.F. per Day	= \$ 1.41 per L.F.
	\$.00 Daily Equip	/	200.00 L.F. per Day	= \$.00 per L.F.
Hourly	.0800 Man Hours per L.F.	X	\$ 17.60 per Man Hour	= \$ 1.41 per L.F.
	Equip Hours per L.F.	X	per Equip Hour	=
Days:	2.5 Man Days	X	\$ 140.83 per Man Day	= \$ 1.41 per L.F.
	Equipment Days	X	per Equip Day	= \$.00 per L.F.

40	Surveys	1.00	lot				2,500.00	2,500.00
	base			0	0	0	2,500	2,500

50	Asbuilts drawings	1.00	lot				1,525.00	1,525.00
	base			0	0	0	1,525	1,525

70	Cleaning final.	1.00	Lot	833				833.53
	base		D	833	0	0	0	833

35,386

Section Details - Continous

8/19/2004 12:03 PM Page 2

MLK Change Orders-Project # 1611-98-01 MLK C.O. #62 R Fire Sprinkler System
Wet Sprinkler system in Cafeteria Building (REVISED)

A V I Contractors, Inc.
Project Estimator: RPN

Showing Take-off & Crew Details

Est No
Est Date 8/19/2004

Line No.	Description	Quantity	Unit	Labor	Equip	Material	Sub	Total
		Zone Toff						
80	Protection of floor	14.000.00	sf					
	base			0	0	0	4,900	4,900
100	Dumpster rental 20 cu unit	3.00	ea					
	base			0	0	0	1,050	1,050
110	Core drill holes high above ceiling	20.00	ea	115.24	24.51		40.95	180.70
	base			2,305	490	0	939	3,734
120	Build soffit for sprinkler pipes at low to high ceiling transitions, inc paint	4.00	loc	749.84		189.41	294.00	1,233.27
	base		D	2,999	0	758	1,176	4,933
	Trade	2.00	Carpenters		Equip	Equipment		Crew
	Daily:	\$ 239.95	Daily Labor	/	.32	loc per Day	=	\$ 749.84 per loc
			Daily Equip	/	.32	loc per Day	=	
	Hourly:	50.0000	Man Hours per loc	Σ	\$ 15.00	per Man Hour	=	\$ 749.84 per loc
			Equip Hours per loc	Σ		per Equip Hour	=	
	Days:	25.0	Man Days	Σ	\$ 119.98	per Man Day	=	\$ 749.84 per loc
			Equipment Days	Σ		per Equip Day	=	
130	Patch & Paint drywall	1.00	lot	933.45		67.85	148.00	1,148.30
	base		D	933	0	67	148	1,148
	Trade	2.00	Painters, Ordinary		Equip	Equipment		Crew
	Daily:	\$ 186.68	Daily Labor	/	.20	lot per Day	=	\$ 933.40 per lot
			Daily Equip	/	.20	lot per Day	=	
	Hourly:	80.0000	Man Hours per lot	Σ	\$ 11.67	per Man Hour	=	\$ 933.40 per lot
			Equip Hours per lot	Σ		per Equip Hour	=	
	Days:	10.0	Man Days	Σ	\$ 93.34	per Man Day	=	\$ 933.40 per lot
			Equipment Days	Σ		per Equip Day	=	
140	Patch & Paint Stucco Exterior	1.00	lot	467.72			278.50	744.22
	base		D	467	0	0	278	745
	Trade	2.00	Painters, Ordinary		Equip	Equipment		Crew
	Daily:	\$ 186.68	Daily Labor	/	.40	lot per Day	=	\$ 466.70 per lot
			Daily Equip	/	.40	lot per Day	=	
	Hourly:	40.0000	Man Hours per lot	Σ	\$ 11.67	per Man Hour	=	\$ 466.70 per lot
			Equip Hours per lot	Σ		per Equip Hour	=	
	Days:	5.0	Man Days	Σ	\$ 93.34	per Man Day	=	\$ 466.70 per lot
			Equipment Days	Σ		per Equip Day	=	

16,510

Section Details - Continous

MLK Change Orders-Project # 1611-98-01 MLK C.O. #62 R Fire Sprinkler System
Wet Sprinkler system in Cafeteria Building (REVISED)

A V I Contractors, Inc.
Project Estimator RPM

Showing Take-off & Crew Details

Est. No.
Est. Date 8/19/2004

Line No	Description	Quantity	Unit	Labor	Equip	Material	Sub	Total
		Zone Toff						
150	Repair & Replaice Standard acoustical ceilings	1.00	lot	1,499.75	0	399	445	2,344
	base		D	1,500	0	399	445	2,344
Trade	1.00 Carpenters				Equip	Equipment		Crew
Daily:	\$ 119.98 Daily Labor	/		.08 lot per Day	=	\$ 1,499.75 per lot		
	Daily Equip	/		.08 lot per Day	=			
Hourly	100.0000 Man Hours per lot	X		\$ 15.00 per Man Hour	=	\$ 1,499.75 per lot		
	Equip Hours per lot	X		per Equip Hour	=			
Days:	12.5 Man Days	X		\$ 119.98 per Man Day	=	\$ 1,499.75 per lot		
	Equipment Days	X		per Equip Day	=			
160	Repair & Replace % CUSTOM GRID ceilings in Dining Room	5,000.00	sf	0	0	0	31,750	31,750
	base			0	0	0	31,750	31,750
170	Paint conduits above ceilings	1.00	lot	691.44	0	111	154	956
	base		D	691	0	111	154	956
Trade	2.00 Painters, Ordinary				Equip	Equipment		Crew
Daily:	\$ 186.68 Daily Labor	/		.27 lot per Day	=	\$ 691.41 per lot		
	Daily Equip	/		.27 lot per Day	=			
Hourly	59.2590 Man Hours per lot	X		\$ 11.67 per Man Hour	=	\$ 691.41 per lot		
	Equip Hours per lot	X		per Equip Hour	=			
Days:	7.4 Man Days	X		\$ 93.34 per Man Day	=	\$ 691.41 per lot		
	Equipment Days	X		per Equip Day	=			
180	Repaint HVAC duct work above ceiling	1.00	lot	474.78	0	0	0	474.78
	base		D	475	0	0	0	475
Trade	2.00 Sheet Metal Workers				Equip	Equipment		Crew
Daily:	\$ 237.39 Daily Labor	/		.50 lot per Day	=	\$ 474.78 per lot		
	Daily Equip	/		.50 lot per Day	=			
Hourly	32.0000 Man Hours per lot	X		\$ 14.84 per Man Hour	=	\$ 474.78 per lot		
	Equip Hours per lot	X		per Equip Hour	=			
Days:	4.0 Man Days	X		\$ 118.70 per Man Day	=	\$ 474.78 per lot		
	Equipment Days	X		per Equip Day	=			
200	HAND Excavating, backfill incl compaction, 18" wide trench, 36" D	560.00	L.F.	3,136	678	0	146	3,960
	base		D	3,136	678	0	146	3,960
Trade	1.00 Men				Equip	1.00 Equipment		Crew
Daily:	\$ 124.55 Daily Labor	/		22.22 L.F. per Day	=	\$ 5.61 per L.F.		
	\$ 27.07 Daily Equip	/		22.22 L.F. per Day	=	\$ 1.22 per L.F.		
Hourly	.3600 Man Hours per L.F.	X		\$ 15.57 per Man Hour	=	\$ 5.61 per L.F.		
	.3600 Equip Hours per L.F.	X		\$ 3.38 per Equip Hour	=	\$ 1.22 per L.F.		
Days:	25.2 Man Days	X		\$ 124.55 per Man Day	=	\$ 5.61 per L.F.		
	25.2 Equipment Days	X		\$ 27.07 per Equip Day	=	\$ 1.22 per L.F.		
210	Repair and relocate Irrigation	1.00	lot	0	0	0	4,500.00	4,500.00
	base			0	0	0	4,500	4,500

41,735

Section Details - Continous

MLK Change Orders-Project # 1611-98-01 MLK C.O. #62 R Fire Sprinkler System
Wet Sprinkler system in Cafeteria Building (REVISED)

U. I. Contractors, Inc.
Project Estimator RPN

Est No
Est Date 8/19/2004

Showing Take-off & Crew Details

Line No.	Description	Quantity	Unit	Labor	Equip	Material	Sub	Total
		Zone Toff						
220	Repair and relocate underground electrical conduits base	1.00	lot	1,152.30	0	535	955	2,642
	Trade 1.00 Electricians				Equip Equipment		Crew	
	Daily: \$ 115.24 Daily Labor		/		.10 lot per Day	=	\$ 1,152.40 per lot	
	Daily Equip		/		.10 lot per Day	=		
	Hourly 80.0000 Man Hours per lot		x	\$ 14.41 per Man Hour		=	\$ 1,152.40 per lot	
	Equip Hours per lot		x	per Equip Hour		=		
	Days: 10.0 Man Days		x	\$ 115.24 per Man Day		=	\$ 1,152.40 per lot	
	Equipment Days		x	per Equip Day		=		
230	Backhoe & operator base	40.00	hrs	12.47	15.61	0	378	1,502
240	Lift Rental base	2.00	months	0	0	0	2,550	2,550
250	Sod & landscape Replace base	1.00	lot	0	0	0	5,800.00	5,800.00
260	Saw cutting, asphalt/conc walks base	100.00	L.F.	86	64	16	52	218
	Trade 2.00 Men				Equip 3.00 Equipment		Crew	=Error
	Daily: \$ 183.44 Daily Labor		/		213.33 L.F. per Day	=	\$.86 per L.F.	
	\$ 135.40 Daily Equip		/		213.33 L.F. per Day	=	\$.63 per L.F.	
	Hourly .0750 Man Hours per L.F.		x	\$ 11.47 per Man Hour		=	\$.86 per L.F.	
	.1130 Equip Hours per L.F.		x	\$ 5.64 per Equip Hour		=	\$.63 per L.F.	
	Days: .9 Man Days		x	\$ 91.72 per Man Day		=	\$.86 per L.F.	
	1.4 Equipment Days		x	\$ 45.13 per Equip Day		=	\$.63 per L.F.	
270	Asphaltic Patching base	640.00	sf	0	0	0	3,360	3,360
280	Concrete Patching base	380.00	sf	0	0	0	3,325	3,325
* 640	Sprinklermatic Proposal 7/20/04 (attached) base	1.00	lot	0	0	0	100,568	100,568
660	Electrical Work base			0	0	0	0	0
665	Additions to Fire Alarm Panel base	1.00	lot	230.48	0	0	1,250.00	1,480.48
	Trade 1.00 Electricians				Equip Equipment		Crew	
	Daily: \$ 115.24 Daily Labor		/		.50 lot per Day	=	\$ 230.48 per lot	
	Daily Equip		/		.50 lot per Day	=		
	Hourly 16.0000 Man Hours per lot		x	\$ 14.41 per Man Hour		=	\$ 230.48 per lot	
	Equip Hours per lot		x	per Equip Hour		=		
	Days: 2.0 Man Days		x	\$ 115.24 per Man Day		=	\$ 230.48 per lot	
	Equipment Days		x	per Equip Day		=		

117,645

Section Details - Continous

MLK Change Orders-Project # 1611-98-01 MLK C.O. #62 R Fire Sprinkler System
Wet Sprinkler system in Cafeteria Building (REVISED)

A J I Contractors Inc
Project Estimator RPA

Showing Take-off & Crew Details

Est No
Est Date 8/19/2004

Line No.	Description	Quantity	Unit	Labor	Equip	Material	Sub	Total
670	Conduit in conc slab, incl termn, fngs & sprts, rgd galv st, 1" dia	100.00	L.F.	273	0	110	66	449
	Trade 1.00 Electricians				Equip Equipment		Crew	
	Daily: \$ 115.29 Daily Labor	/		42.33 L.F. per Day	=	\$ 2.72 per L.F.		
	Daily Equip	/		42.33 L.F. per Day	=			
	Hourly 1890 Man Hours per L.F.	X		\$ 14.41 per Man Hour	=	\$ 2.72 per L.F.		
	Equip Hours per L.F.	X		per Equip Hour	=			
	Days: 2.4 Man Days	X		\$ 115.29 per Man Day	=	\$ 2.72 per L.F.		
	Equipment Days	X		per Equip Day	=			
680	Cond to 15' H.incl 2 termn.2 elb&11 bm CLP above xst ceiling	150.00	L.F.	770	0	182	167	1119
	Trade 1.00 Electricians				Equip Equipment		Crew	
	Daily: \$ 115.29 Daily Labor	/		22.47 L.F. per Day	=	\$ 5.13 per L.F.		
	Daily Equip	/		22.47 L.F. per Day	=			
	Hourly 3560 Man Hours per L.F.	X		\$ 14.41 per Man Hour	=	\$ 5.13 per L.F.		
	Equip Hours per L.F.	X		per Equip Hour	=			
	Days: 6.7 Man Days	X		\$ 115.29 per Man Day	=	\$ 5.13 per L.F.		
	Equipment Days	X		per Equip Day	=			
690	Device conns, flexible end and fngs, 115 volt,	4.00	Ea.	58	0	8	29	95
	Trade 1.00 Electricians				Equip Equipment		Crew	
	Daily: \$ 115.24 Daily Labor	/		8.00 Ea. per Day	=	\$ 14.41 per Ea.		
	Daily Equip	/		8.00 Ea. per Day	=			
	Hourly 1.0000 Man Hours per Ea.	X		\$ 14.41 per Man Hour	=	\$ 14.41 per Ea.		
	Equip Hours per Ea.	X		per Equip Hour	=			
	Days: .5 Man Days	X		\$ 115.24 per Man Day	=	\$ 14.41 per Ea.		
	Equipment Days	X		per Equip Day	=			
700	Wire, 600 volt, type THW, copper, solid, #12	15.00	C.L.F.	157	0	35	82	274
	Trade 1.00 Electricians				Equip Equipment		Crew	
	Daily: \$ 115.21 Daily Labor	/		11.00 C.L.F. per Day	=	\$ 10.47 per C.L.F.		
	Daily Equip	/		11.00 C.L.F. per Day	=			
	Hourly 7270 Man Hours per C.L.F.	X		\$ 14.40 per Man Hour	=	\$ 10.47 per C.L.F.		
	Equip Hours per C.L.F.	X		per Equip Hour	=			
	Days: 1.4 Man Days	X		\$ 115.21 per Man Day	=	\$ 10.47 per C.L.F.		
	Equipment Days	X		per Equip Day	=			
710	Remove and temporarily support light fixtures	150.00	ea	2,162	0	0	638	2,800

4737

Section Details - Continous

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MLK Change Orders-Project = 1611-98-01 MLK C.O. #62 R Fire Sprinkler System
Wet Sprinkler system in Cafeteria Building (REVISED)

V.V.I. Contractors, Inc.
Project Estimator RPN

Showing Take-off & Crew Details

Est. No
Est Date 8/19/2004

Line No	Description	Quantity Zone Toff	Unit	Labor	Equip	Material	Sub	Total
	Trade 2.00 Electricians			Equip	Equipment		Crew	
	Daily: \$ 230.48 Daily Labor		/		16.00 ea per Day	=	\$ 14.41 per ea	
	Daily Equip		/		16.00 ea per Day	=		
	Hourly 1.0000 Man Hours per ea		X		\$ 14.41 per Man Hour	=	\$ 14.41 per ea	
	Equip Hours per ea		X		per Equip Hour	=		
	Days: 18.8 Man Days		X		\$ 115.24 per Man Day	=	\$ 14.41 per ea	
	Equipment Days		X		per Equip Day	=		
720	Reinstall and support light fixtures	150.00	ea	18.00			915	241
	base		D	2.700	0	0		3,615
	Trade 2.00 Electricians			Equip	Equipment		Crew	
	Daily: \$ 230.48 Daily Labor		/		12.80 ea per Day	=	\$ 18.01 per ea	
	Daily Equip		/		12.80 ea per Day	=		
	Hourly 1.2500 Man Hours per ea		X		\$ 14.41 per Man Hour	=	\$ 18.01 per ea	
	Equip Hours per ea		X		per Equip Hour	=		
	Days: 23.4 Man Days		X		\$ 115.24 per Man Day	=	\$ 18.01 per ea	
	Equipment Days		X		per Equip Day	=		
730	Premium for Labor Cost @ Time & Half for night work	51,689.00	base	25,845	0 <input checked="" type="checkbox"/>	0 <input checked="" type="checkbox"/>	0	25,845
	base - Total			77,534	1,856	2,339	169,794	251,523
	15300 FIRE SPRINKLER PROTECTION - Total			77,534	1,856	2,339	169,794	251,523

29,400

Estimate Summary - Condensed

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MLK Change Orders-Project # 1611-98-01 / MLK C.O. #62 R Fire Sprinkler System
Wet Sprinkler sytem in Cafeteria Building (REVISED)
Estimate No
Estimate Date 8/19/2004

A. V. J. Contractors, Inc.
Project Estimator - RPM

AREAS NOT

<i>Description</i>		<i>Total</i>
15300	FIRE SPRINKLER PROTECTION	251,523

Total of CSI Sections:

251,523 \$/SF

Final Adjustments

Sales Tax @ 6%

Total

7

TOTAL

251,530

Warranty @ 1%

2,515

TOTAL

254,045

Grand Total:

254,045

Square Feet:

\$ / SF



The School Board of Broward County, Florida
Facilities and Construction Management Department
 1700 SW 14th Court
 Fort Lauderdale, FL 33312

(954) 765-6390

Document 01250d: Proposal Worksheet Summary

To: Thaddeus Cohen
 Architects

Attn: Thaddeus Cohen

Project No: 1611-98-01

Project Title: New Cafeteria/Kitchen

Facility Name: Martin Luther King
 Elementary School

Proposal Request No.: _____	Change Order Request No.: _____	AVI Order No.: 062R
REVISED		

Date: August 19, 2004
Prepared:

From/Trade: General Contractor

Contact: R.P. Mish **Phone:** 954-385-7339

Additions:

Sheet	Item Description	Materials	Labor	Subtotal
1	A.V.I. Worksheets (att)			247,389.00
2				
3				
4				
5				
6				

Deductions:

Sheet	Item Description	Materials	Labor	Subtotal
1				
2				
3				
4				
7				
Subtotal Deductions:				

Subtotal (Additions - Deductions):	254,045.00
10% Contractor's Overhead	25,404.50
5% Contractor's Profit	13,972.48
1% Bond Allowance	2,934.22
Total	\$296,356.00

