ENCLOSURE 5
ALEXANDRIA

ATTACHMENT A

Commonwealth of Virginia
Department *of* Fire Programs

Burn Building Grant Application
Construction, Renovation, or Repair

A. Applicant Information		
1. Title of Jurisdiction Making Application (Check ☑ only one, then make entry)		County of
	X	City of Alexandria
		Incorporated Town of
2. Employer Identification Number (EIN)	5 4 --- 6 0 0 1 1 0 3	
3. Principal Point of Contact	(Include salutation, name & title.) Captain Jason Wehmeyer	
4. Mailing Address (Include zip code+4) Identify **COUNTY** if appropriate →	1108 Jefferson Street Alexandria, VA 22314 City of Alexandria	
5. Telephone Number	(703 746-5185	
6. FAX Number	(703 838-0157	
7. Internet e-mail address	jason.wehmeyer@alexandriava.gov	
8. Application Scope (Check ☑ only one)	X	**Sole** Jurisdiction as identified in [A]
		Multiple Jurisdictions - Complete [F]

B. Facility Information (Burn Building)	The term "burn building" refers to an unoccupied structure. The purpose of the Burn Building is to provide live fire training to fire service personnel in support of Fire Fighter I and Fire Fighter II Training throughout the Commonwealth of Virginia.
1. Current / Proposed **Owner** of Facility	(Party **holding /to hold** title to the property) City of Alexandria Fire Department
2. In-Service Date or Age of Structure	(Leave blank if NOT an existing structure as reported in [C1] below.) Date 11/01/81 ☐ Unknown If unknown, enter approximate age in years
3. Address of Structure (If appropriate, identify COUNTY where located.)	805 South Payne Street Alexandria, VA 22314
4. Will the renovation or repair bring the the burn building into compliance with the current standard of NFPA 1403, including appropriate NFPA 1403 signage? If no, explain in **6. Comments.**	X Yes ☐ No ☐ N/A
5. Will the construction of the burn building be in compliance with the current edition of Sections I through IV of the Summary of Burn Building Prop Grant Program as included in the VDFP Project Manual for Burn Building Props and the current standard of NFPA 1403? If no, explain in **6. Comments.**	X Yes ☐ No ☐ N/A
6. Comments (pertaining to Facility)	☐ None

In accordance with the A&E report, the AFD burn facility is in need of renovation and repair. We value our facility and use it for training as well as live burns. We share the facillity with neighboring jurisdictions, incl. Arlington, Fairfax and the Airport Authority.

Department of Fire Programs

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C. Facility Usage

1.	Number of annual burns (must be documented)	VDFP FFI burns (in compliance with NFPA 1403 standards): 3
	(for New construction, this figure is projected)	VDFP FFII burns (in compliance with NFPA 1403 standards): 3
		Other Burns (specify types of burns): 24
2.	Travel to another facility	Distance traveled to closest alternate facility (in miles): 43
		Time traveled to closest alternate facility (rounded to whole hours): 1
3.	Other localities served (list number of stations and number of firefighters served for each locality)	Name of Locality: Metropolitan Washington Air; Number of stations: 1; Number of Firefighters: 40
	(for New construction, this figure is projected)	Name of Locality: Falls Church Volunteer Asso; Number of stations: 1; Number of Firefighters: 20
	(If more than 5 localities are served, additional localities must be included on Additional Localities Served tab)	Name of Locality: Fairfax City; Number of stations: 2; Number of Firefighters: 60
		Name of Locality: Fort Belvoir; Number of stations: 4; Number of Firefighters: 66
		Name of Locality: Arlington County; Number of stations: 10; Number of Firefighters: 250
		TOTAL NUMBER OF STATIONS SERVED (from above and add'): 18
		TOTAL NUMBER OF FIREFIGHTERS SERVED (from above and add'): 436
4.	Maintenance of facility	Annual Maintenance Inspections: X Yes ☐ No (documentation of annual inspections MUST be provided with application for inspections conducted after 12/2007)
	(for New construction, skip Section C.4. Section E.2. MUST be completed)	Previous Repair Projects: X Yes ☐ No (documentation MUST be provided with application for most recent repairs)

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D. Project **Description**	
1. Level of work proposed (Check ☑ only one)	[ ] NEW Construction where no such structure previously existed [X] RENOVATION of an existing burn building or substantially similar structure [ ] REPAIR of an existing burn building (up to $10,000)
2. Type of Building (proposed or existing)	[X] Class A fuel [ ] Prototype I plans (brick, block, concrete) [ ] Class B fuel [ ] Prototype II plans (steel frame) [ ] Other* 3,990 Square Footage of Building (proposed or existing) 1 Number of Burn Rooms on 1st floor 2 Number of Burn Rooms on 2nd floor **For New Construction:** ***If building plans deviate from Prototype I or II, applicant MUST define building concept and include proposed plans with application.** **For Renovations or Repairs:** ***If building plans deviate from Prototype I or II, applicant MUST include copy of existing building plans with proposed renovations/repairs.**
3. Architectural and/or Engineering (A/E) (Check ☑ only one for each)	Has an A/E study already been completed? [X] Yes [ ] No [ ] Not Applicable If so, is a copy attached to this application? [X] Yes [ ] No [ ] Not Applicable
4. Condemnation and/or fitness for use (Leave [C4] blank if this application is for totally new construction; otherwise Check ☑ only one for each statement.)	Is this structure still in use for certification of FFI and FFII at the time of application? [X] Yes [ ] No If yes, is there currently a scheduled date to remove the structure from service? [ ] Yes [X] No If yes, enter the month & year: If not presently in service, has this structure been condemned by a building official or other such entity legally empowered to do so? [ ] Yes [ ] No [ ] Not Applicable If yes, is a copy of such order attached to this application? [ ] Yes [ ] No [ ] Not Applicable

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E. Financial Plan 1. Project Budget (Capital Expend)	An estimated project budget must be attached to this application. For renovation/repair projects, contractor estimates must be attached.
a. *Expense*	
i. Estimated Cost of Construction (Enter or check ☑)	$ 300,000.00 ☐ Unknown at time of application
ii. Estimated A/E Costs (Enter or check ☑)	$ - ☐ Unknown at time of application
iii. Estimated Total Costs (Enter or check ☑)	$ 300,000.00 ☐ Unknown at time of application
b. *Revenue*	
i. Grant Funding Being Requested New construction maximum $430,000	$ 300,000.00
ii. Matching / Cost Share Funds	$ -
iii. Source of Matching Funds (local contributions, donations, etc.)	
2. Operating Budget (Maint. Expend)	
a. Is there a financial agreement among partnering localities?	☐ Yes ☐ No ☒ Not Applicable
b. Is there a local budget for annual maintenance costs?	☒ Yes ☐ No
c. Is there a local budget for annual inspection costs?	☐ Yes ☒ No
d. Is there a local budget for 5-year inspection costs?	☒ Yes ☐ No

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F. Additional Parties of Interest (Mark N/A and skip section [D] if not applicable - see [A.8])	Identify hereunder ALL **jurisdictions** (Not their Departments) otherwise participating in the proposed project. Attach additional sheets as may be required.
1. NON-Applicability	[X] No parties other than the jurisdiction identified in [A] above.
2. Formal Agreement Among Parties	Is there a formal agreement among parties with regard to the **proposed project?** [ ] Yes [ ] No If yes, is a copy attached to this application? [ ] Yes [ ] No Is there a formal agreement among parties with regard to the **shared use of the facility?** [ ] Yes [ ] No If yes, is a copy attached to this application? [ ] Yes [ ] No

{ Reproduce and complete as many additional blocs as may be necessary for complete disclosure. }

2a. Complete one each for ALL other Parties of Interest	Number [ ] of a total of [ ] parties to proposed project (Count the LEAD Locality as #1, thereby start with #2.)
2b. Title of Jurisdiction (Check ☑ only one, then make entry)	[ ] County of [ ] City of [ ] Incorporated Town of
2c. Employer Identification Number (EIN)	---
2d. Principal Point of Contact	(Include salutation, name & title.)
2e. Mailing Address Identify **COUNTY** if appropriate →	(Include zip code+4)
2f. Telephone Number	( )
2g. FAX Number	( )
2h. Internet e-mail address	

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G. Electronic Transfer of Funds Information

Note ☞ The completion of this section is optional at the time of application and will not hinder determination of eligibility, etc. However, if not provided and since funds will only be transferred electronically, disbursement will be delayed until this information is properly provided.

1. Account Ownership Information

Employer Identification Number: 5 4 [redacted] 6 0 0 1 1 0 3

SSN may **NOT** be substituted.

Complete next three (3) entries ONLY if Name is different than ACCOUNT TITLE as it appears in (E2).

(Last, First, Initials)

NAME: City of Alexandria

(Telephone Number)

MAIN: 703-746-3871

(Telephone Number)

ALTERNATE: 703-746-3847

2. Direct Deposit Account Information

(Check ☑ one Type of Account) [X] Checking [ ] Savings

(9 digits)

ROUTING TRANSIT NUMBER: 6100104

ACCOUNT NUMBER: 9005358

ACCOUNT TITLE: City of Alexandria Concentration

FINANCIAL INSTITUTION: Suntrust Bank

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	Note ☞ This section of the application MUST be properly executed for the application to be complete. Certification may be completed by: • City Manager /or/ Deputy • County Administrator /or/ Deputy • Town Manager /or/ Mayor • Or other duly authorized official but only when the application is accompanied by a copy of an 'Ordinance' or other formal instrument clearly granting that party such authority. *Only completed applications can be acted upon.*

CERTIFICATION

This application is made on behalf of the jurisdiction above described [A] with the full knowledge and belief that all representations herein made are true and correct.

Michele R Evans, Deputy City Mgr | 12-20-13

Signature for | Date

Rashad M. Young | City Manager

Printed Name | Title

(All applications must be notarized to be considered – incomplete forms shall be returned.)

State of Virginia }
}
City / County of Alexandria }

On this 20 day of December (month) in 2013 (year), before me, the undersigned a Notary Public for the Commonwealth of Virginia, personally appeared Michele Evans to me known (or to me proved) to be the identical person named herein and having in my presence executed the above, and acknowledged that he executed same as his voluntary act and deed.

My Commission expires: 05/31/2017 | [signature] | {Seal}

Date | Notary Public

SEAN MICHAEL GARRICK NOTARY PUBLIC REG. #7562756 MY COMMISSION EXPIRES 05/31/2017 COMMONWEALTH OF VIRGINIA

Department of Fire Programs

DEC 30 2013

Administration

APPROVED AS TO FORM:

George M'Andrews

ASSISTANT CITY ATTORNEY

12/2011

Burn Building Budget Request

Category	Description	Amount
Hardware and Steel	Exterior Stair, Rail, and Landing w/Tread Grip (Galvanized)	24,001
Hardware and Steel	Interior Stair w/Tread Grip (Bolt Together--Galvinized)	16,572
Hardware and Steel	Replacement Hinged Scuppers w/Magnet Latch	9,361
Hardware and Steel	Replacement Door Frames/Hinges/Door w/Magnet Latch	20,206
Hardware and Steel	Roof Hatch Cover	598
Hardware and Steel	Sliding Roof Hatch	1,438
Hardware and Steel	**Hardware and Steel Total**	**72,176**
Labor	Demolition and removal	39,215
Labor	Installation of fabricated component	42,654
Labor	Crane Services	6,210
Labor	Onsite welding	2,956
Labor	**Labor Total**	**91,035**
Electrical (Material and Labor)	Provide and install 5 wall mounted explosion proof LED fixtures in burn building stairways and 2 other rooms	8,996
Electrical (Material and Labor)	Provide and install 3 Explosion proof LED fixtures at the rear of the building	8,929
Electrical (Material and Labor)	Provide and install 7 SG explosion proof outlet boxes	11,280
Electrical (Material and Labor)	Provide and install a 6 pole contractor	2,454
Electrical (Material and Labor)	Provide and install an emergency shutoff switch	962
Electrical (Material and Labor)	Provide and install branch circuits to contactor. Cut and patch concrete floor in rear of the building.	5,948
Electrical (Material and Labor)	Miscellaneous	1,631
Electrical (Material and Labor)	**Electrical Total**	**40,200**
Masonry and Concrete	Repair damaged masonry wall sections	15,775
Masonry and Concrete	Repair concrete pads behind the building	16,445
Masonry and Concrete	**Masonry and Concrete Total**	**32,220**
Internal Heat Tile and Concrete Repairs	Perform the necessary heat tile maintenance to the System 203 and/or 203 Lite, thermal lining system	3,556
Internal Heat Tile and Concrete Repairs	Repair cracks in the concrete floor beneath the heat tiles	13,275
Internal Heat Tile and Concrete Repairs	**Heat Tile Total**	**16,831**
Supervision	**Supervision Total**	**33,500**
Cost Adjustments	**Projected Cost Increases since date of estimate**	**14,038**
	Project Total	**300,000**

Introduction:

Maurice Jones and I visited the "Burn Building" of the City of Alexandria Fire Department site this morning, to conduct a survey of conditions of the building and collect data for evaluation of the existing building and prepare a field report.

Captain Jason Wehmeyer, of Alexandria Fire Department Training Academy accompanied us in the walk-through of the building and provided partial existing floor plans, information about the use of the facility and NFPA " Live Structural Fire Training Facility Inspection " forms to fill out and guided us through the building, floor by floor, room by room and around the facility.

Field Report

Site Visit: September 10, 2013
Location/Time: 835 South Payne St. Alexandria, VA 22314/ 10:00 AM
Weather: Hot & Sunny

Attendees: Bill Ertumen: Structural Engineer (The writer), Code Administration
Maurice Jones, FPS Supervisor, Alexandria Fire Department
Jason Wehmeyer, Fire Training Captain, Alexandria Fire Department

The Evaluation Process:

1. Data collection:
   a. No as-built drawings were available at the site
   b. No Geotechnical Report on site conditions was available.
   c. No access to full set of original contract drawings, specifications and back-up calculations.
   d. No extensive data of any previous repair and remodeling work.
2. Reviewed a copy of NFPA 1403: "Standard on Live Fire Training Evolutions, 2012 Edition, provided to the writer by Maurice Jones.
3. Reviewed limited amount of documents of earlier studies and/or existing reports.
4. No Operation Manuals and Maintenance logs were seen.
5. All walk-through observations were visual. No exact measurements were taken in the field. The dimensions stated in the report are approximate and would need verification.
6. The deficiency statements listed below identify items which require further investigation.

Building Data:

Year built: 1981 | Year (s) remodeled: Not known | Number of Stories: 3
Area / floor = 1600 sq. ft. | Length = 40 ft. | Width = 40 ft.
Type of Occupancy: U

Type of construction: II B

(Building Elements listed in Table 601 of 2009 VCC are of noncombustible materials, except as permitted in section 603 and elsewhere in the code)
(No wood which is not fire-retardant treated is allowed in Type IIB construction).
The building is mainly of reinforced concrete frame (two way slabs, beam and girder supported by concrete column and spread footings) construction with non-bearing exterior and interior in-fill CMU walls. Portion of roof (Sloped Portion) was constructed of structural steel wide flange beam/joists spanning East-West with steel metal deck for roof diaphragm.

Applicable Building Code (at time of construction): The BOCA Basic Building Code/1981.
Present Applicable Building Codes: 2009 Virginia Construction Code, 2009 Virginia Property Maintenance Code. (And the associated ICC companion codes for Fire/M/E/P).

Construction Data:

Roof Framing: 6 (six) inch thick cast-in place reinforced two –way concrete slab.
Partial Roof: Structural steel wide flange beams, end bearing on concrete beams/with a steel deck diaphragm spanning over the beam/joists.
Third Floor /Low Roof: 6 (six) inch thick reinforced concrete two-way slab
First Floor (Ground) : 6 (six) inch thick reinforced concrete slab on grade.
Columns: 12" x 12" reinforced poured in place concrete
Beams/Girders: Reinforced concrete deep beams and girders, interior and perimeter (12" x 24")
Footings and Foundation: Spread Footings under individual columns, piers and grade beams
Interior Non-bearing walls: CMU infill walls
Metal Exterior stairs
Reinforced concrete Interior Stair
Exterior in-fill walls around the perimeter, floor to underside of perimeter beams: 8 (eight) inch thick reinforced masonry (non-bearing) CMU .The exterior infill walls are believed to be fully grouted (at the spacing of vertical reinforcing bars) and reinforced with vertical bars spaced at 48" on centers. The horizontal reinforcement is believed be spaced at 16 inches on center (every other course).
Lateral Force Resisting System (For Wind/Seismic): Ordinary Reinforced Concrete Moment Frames (Both orthogonal directions).
Site and Soil parameters: No Geotechnical report was available

Observed Deficiencies:

1. Missing Heat Tile (fire clay) plugs over anchor bolts (toggle bolts, with observed nuts intact on them), anchoring the heat tiles to reinforced concrete columns, concrete roof, and the reinforced concrete girders and beams. The heat tiles were located within the burn rooms. There were 3 (three) burn rooms in the building: 1 (one) on the First Floor and 2 (two) on the second floor. The diameter of existing plugs appeared to be 1 ½" in diameter. They should be filled with the Manufacturer's Specifications and Installation instructions.
2. The heat tiles at corner columns were installed over a layer of Padgenite in the Burn Rooms. Missing tiles (damaged or not properly attached) in burn rooms in First and Second Floors need be re-installed. (Over beams, ceilings, lintels, door openings and windows). Radiant Heat damage and effects of thermal shock could be noticed on the tiles, which were attached to the walls and the ceilings in the burn rooms. The structural integrity of some of the tiles had been compromised, due to fire exercises and rapid cooling during extinguishment.
3. Fire Door Assembly: Fire-resistant rated doors must have fire rated:

a. Frames b. Closers (They appeared to be rusted and some non-working)
b. Hardware c. And other related accessories were missing/broken
(2009 VCC, Section 715.4)

4. Panic hardware on exist doors appeared to be inoperable and in need of replacement. (2009 VCC Section 1008.1.9, Section 1008.1.9.1.)
5. Exterior Metal Egress Stairway:

a. The width of the existing stairs measured 25 inch.
2009 VCC Section 1009.1 requires the width to be 44 inches. (Exception 1 allows the width to be 36" min. when the occupant load is less than 50). In either case it does not meet the present code. (Repairs or alterations required by the current codes for adequacy must be accomplished in accordance with applicable code provisions. Typical).
b. Deterioration of paint, accumulation of rust and corrosion was observed on the underside of the stair treads, landings and stringers.
c. Trip hazard at the ground level of the stair landing was identified. At the base of the steel exterior stairs there is a 9 ½" wide landing and a 3 ½" drop to grade.
d. Their stairs are not covered. They present a slip hazard. Snow removal, salting or sanding would be required to provide traction in winter to prevent freezing.

6. Class A materials (hay and wooden pallet) were seen lying around. They were used in fire training as fuel. They need be properly stored.
7. No exit signs were seen. The path of egress travel to exits and within exits shall be marked by readily visible exit signs. 2009 VCC Section 1011.1. Exit signs shall be internally or externally illuminated. 2009 VCC Section 1011.2.
8. The minimum corridor width shall not be less than 44 inches. (36 inch minimum when the required capacity is less than 50). There were sections which appeared not to meet these criteria. All props installed for training purposes should comply with this requirement with no obstructions in exit access paths.
9. Scuppers at all levels, on East and West elevation had wood covers or no covers at all. They should be covered with non-combustible, i.e. metal covers.

10. Burn room floors displayed cracked, displaced, missing firebrick on the burn room floors. They should be replaced and the concrete floor be checked for water damage and leakage.
11. Some areas where padgenite tiles were applied to the ceiling were lay-in type, i.e. they were hung from the bottom of the floor concrete above. The ceiling framing grillage were broken in Second floor Non-Burn Area, and need be replaced.
12. Suspended padgenite ceilings in the burn rooms and other areas displayed water stains, and indicated signs of distress. Discoloring was noticed. The white spots on the ceiling fire tiles indicate water damage.
13. No Light Fixture was observed. No emergency lighting.
14. Corrosion of ceiling metal framing, track, tie screws were observed.
15. Masonry (non-bearing exterior walls) had areas which need tuck-pointing, mortar joists, some of which were previously filled with new mortar, required repair mortar joints.
16. Spandrel beams had various cracks, which were previously repaired; need further investigation as to the noticeable formation of visible cracks or week veins.
17. LPG tanks (Compressed gas cylinders/ containing hazardous material) in the storage room needs be adequately restrained from falling/spilling and should be secured.
18. There was some duct work going through the wall and roof which was not protected.
19. Some window shutters appeared to be built of combustible material.(Located on West Elevation
20. Interior exit stair did not have the required tread depth of 11 inch minimum (it measured 10") and did not have the 7" maximum riser (it measured 7 ½" +).
21. Reinforced concrete beam (12" x 24") on the Second Floor at South Elevation: The exterior face of the beam displayed numerous diagonal cracks. (About 4 in number).They need be investigated further and the cracks should be re-routed, and re-sealed with a flexible sealant suitable for exterior conditions.
22. Interior girder, running North-South, sized 12" x 24" within the 2nd Floor Burn Room should be investigated for spalling and cracks and vapor pressure build-up (due to rapid rising temperatures and exposed to fire).
23. West Elevation: The 2nd Floor concrete spandrel beam showed crack repairs. The soundness of the existing seals needs be checked.
24. North Elevation: A vertical crack on exterior middle column which indicated previous repair needs be routed and resealed.

Structural Evaluation:

1. Load Path: The structure contains a complete load path for vertical and horizontal force effects to the foundation.

2. Redundancy: The structure appears laterally stable.

3. Deflections: No floor or framing element deflections was observed.

4. Diaphragms: Roof and Floor diaphragms (Two-way reinforced concrete slabs) looked rigid enough to distribute the gravity, superimposed dead and live loads, and the lateral loads to the concrete frames.

5. Connections: All longitudinal column reinforcing was dowelled to the foundations. No Vertical or Horizontal drift or irregularities were observed.

6. Settlement: None.

Conclusion: Scope and Limitations: This task was a limited attempt to identify overall Apparent deficiencies in a short period of time. The building has unique characteristics. Further investigation and detailed analysis to address special concerns can be contemplated.

Bill Ertumen, P.E.
9/12/13

KBR

2451 Crystal Drive ▪ Arlington, Virginia 22209
Phone 703.526.7492 ▪ Fax 703.526.2561

Date: November 21, 2013
Letter No.: TO #00103

Mr. John Franke
City of Alexandria
Alexandria Fire Department
900 Second Street
Alexandria, VA 22314

Subject: Repair Limited and Selected Areas of the Alexandria Fire Department Burn Building per the The Structures Group Report and the job walks with Captain Jason Wehmeyer
Location: 805 South Payne Street
Alexandria, VA 22314

Project Title: AFD-13-RFQ-002 Alexandria Fire Department Burn Building Repairs

Dear Mr. John Franke,

Observations:

Per the job walks with Captain Jason Wehmeyer and the limited executive summary engineering report from The Structures Group, dated May 9, 2013, the following observations and corrective actions were discussed in determining a scope of work for KBR to prepare a corrective proposal:

The Alexandria Fire Department Burn Building has several issues which should be addressed:

1. Some concrete masonry unit (CMU) walls are cracked and blocks have shifted. These walls are not load bearing, but during active water exercises, the cracks and shifted block will allow water to seep into the CMU and further deteriorating the structure. During freezing periods, the water within these blocks may freeze causing more cracks and wall shifting. Additionally, at least one lentil above a window was cracked.

This proposal includes data that shall not be disclosed outside of addressee and shall not be duplicated, used, or disclosed – in whole or in part – for any purpose other than to evaluate this proposal.

KBR

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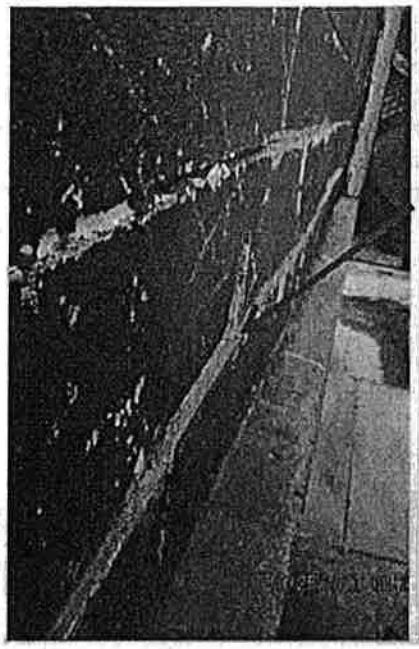
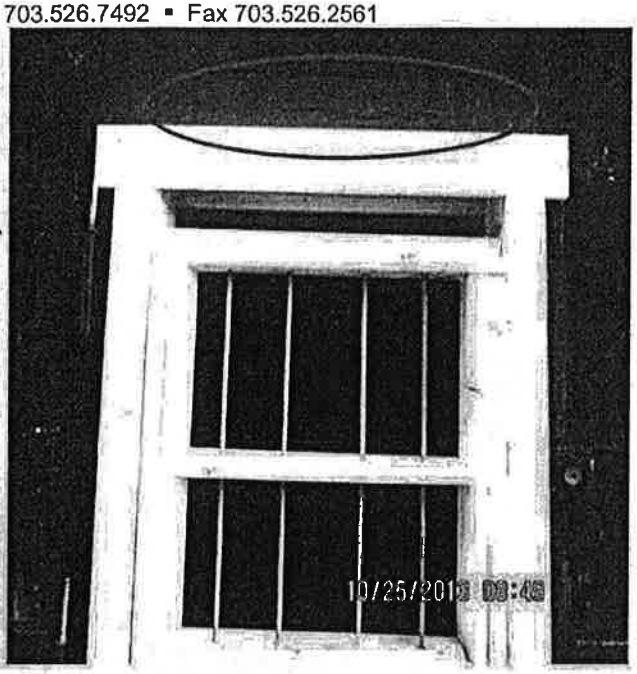
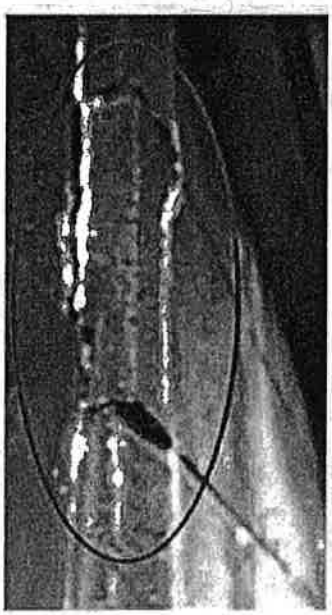
Phone 703.526.7492 ▪ Fax 703.526.2561







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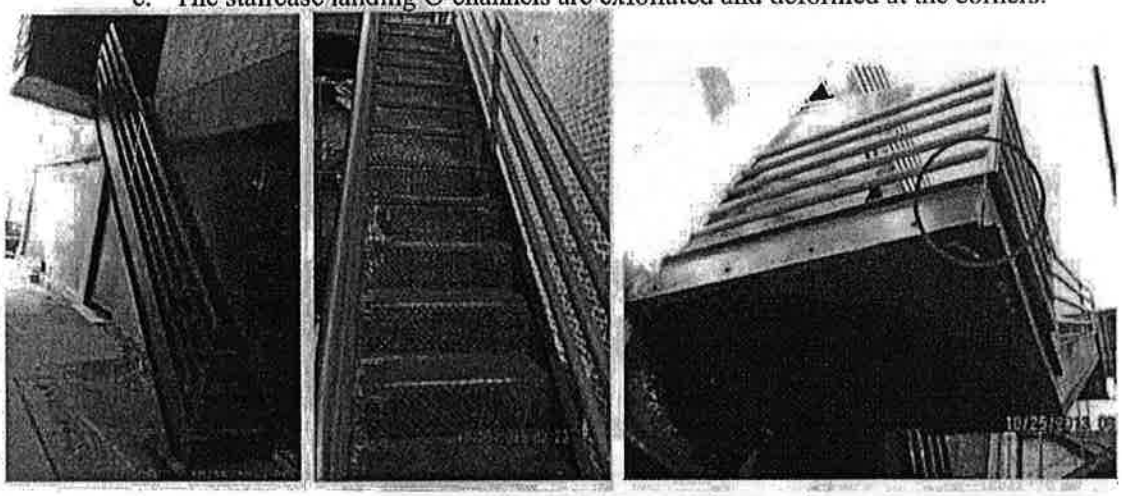
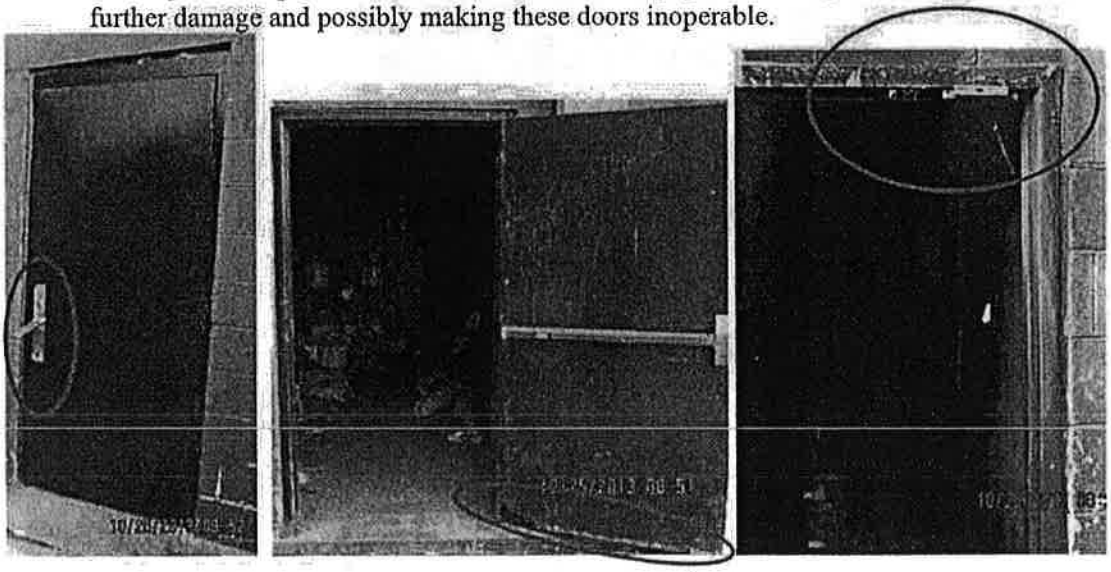
2. The outside staircase is narrow and has diamond plate for stairs.
    a. During a training exercise where the fire fighters are wearing gear, the narrow steps make it difficult to climb, and could pose a movement impedance problem.
    b. The diamond plate on the steps allows water to accumulate creating a potential slipping hazard especially in the winter months.
    c. The staircase landing C-channels are exfoliated and deformed at the corners.



3. There are several damaged and deteriorated doors. Some of these doors have rotted jambs, rotted doors, and others have damaged hardware. These doors could pose an access or egress problem during exercises. Some of the doors stick and are difficult to open. The hardware for some of these doors is worn. Some of these frames these doors are subject to impacts from the fire fighters and equipment during exercises, which will further damage and possibly making these doors inoperable.



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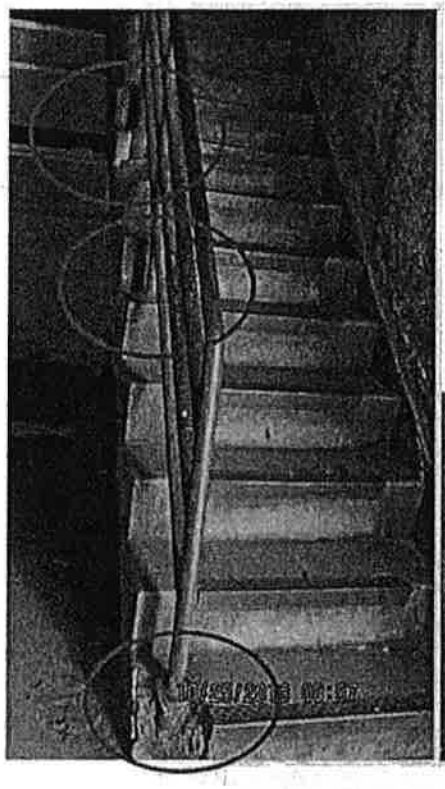
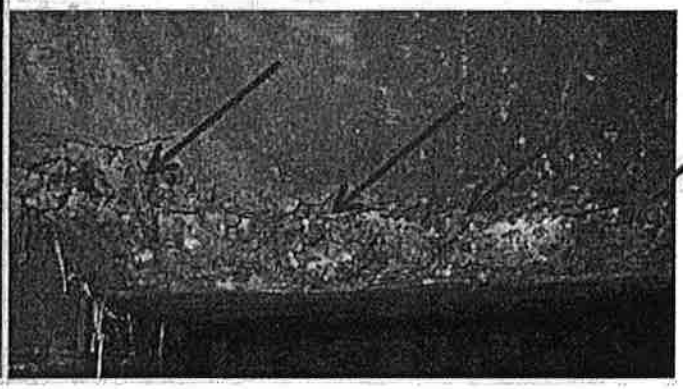
4. The internal front staircase has concrete damage where the railing is attached, and rebar is exposed in areas underneath.





5. Some of the heat tiles within the burn rooms is damaged. There may be additional damage to the concrete floors and walls.

This proposal includes data that shall not be disclosed outside of addressee and shall not be duplicated, used, or disclosed – in whole or in part – for any purpose other than to evaluate this proposal.

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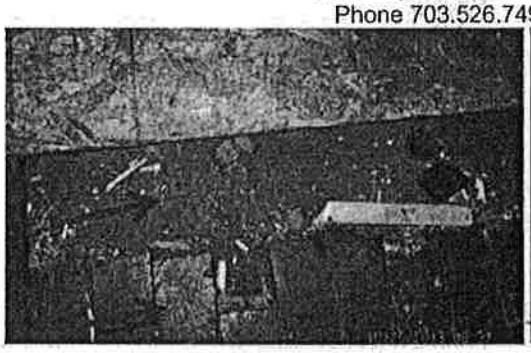

6. Some of the structural beams are spalled and rebar is exposed.

This proposal includes data that shall not be disclosed outside of addressee and shall not be duplicated, used, or disclosed – in whole or in part – for any purpose other than to evaluate this proposal.

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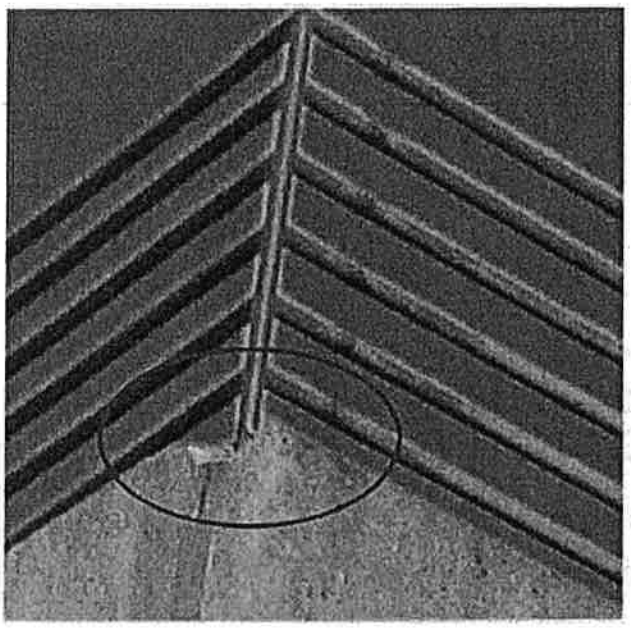
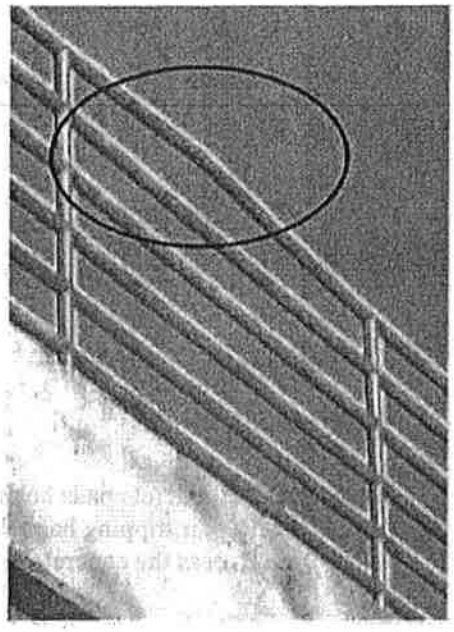
7. There are areas some areas of the safety railing where there is damage or the railing is bent. The railing is in need of paint.





Project Scope:

Masonry and Concrete:

- Repair the damaged masonry wall sections
  - Remove and replace broken concrete masonry units (CMU)
  - Remove CMU that are out-of-level
  - Plum exterior walls
  - Cracked mortar joints
  - Infill exterior doors being replaced

- Perform the necessary heat tile maintenance to the System 203, and/or 203 Lite, thermal lining system(s)
  - Included as part of the maintenance tightening the system and refilling bolt hole packing, and repacking joints that are filled with cast in place refractory mortar. Tile and insulation is not included.
- Repair the cracks in the concrete floor beneath the heat tiles
  - Cracks in the concrete floor of Room 202 be routed and sealed
  - Install a setting bed be installed below new fire pavers to achieve drainage in that room
    - The new fire pavers would be medium duty and would measure 4.5" x 9" x 1.25"

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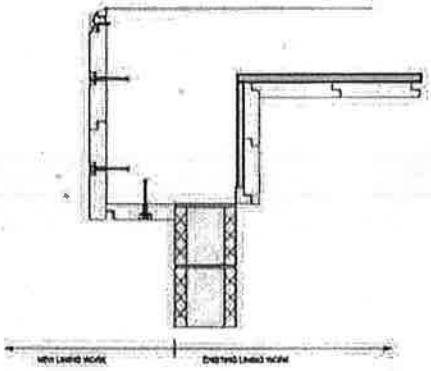
- The minimum thickness of the setting bed would be 1"

- Rollover protection over five exterior openings to aid in water flow from the building



SECTION AT EXTERIOR ROLLOVER PROTECTION
OVER FIVE OPENINGS - 5'-0" LONG AT EA OPENING

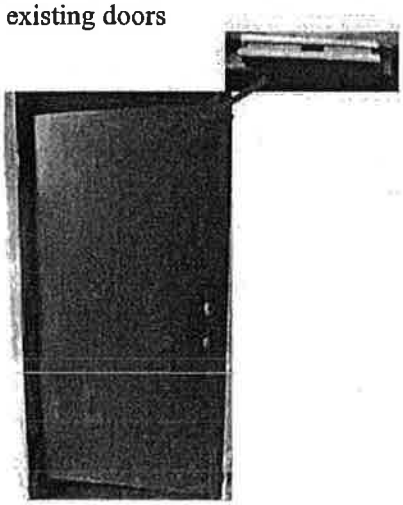
ALEXANDRIA BURN BUILDING

NOVEMBER 20, 2019

- Repair the concrete pads behind the building
  - Repair tripping hazards
  - Recess the concrete slab which has been retaining runoff water

Hardware and Steel:

- Repair the damaged railing sections along the upper decks and paint
- Remove the existing outside staircase and replace with a wider steel staircase to the first floor only.
- Remove the existing inside front staircase and replace with a steel.
- Remove and replace the existing scuppers with metal scuppers with magnetic latches
- Replace seven (7) existing doors, frames, hinges, with new heavy duty steel doors with magnetic latches similar to other existing doors



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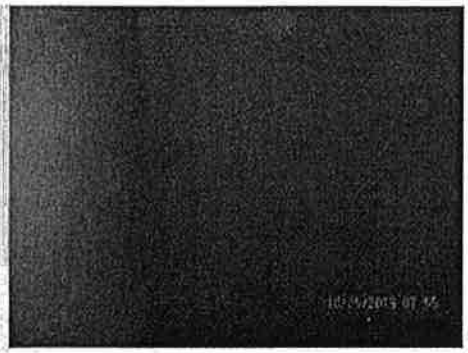
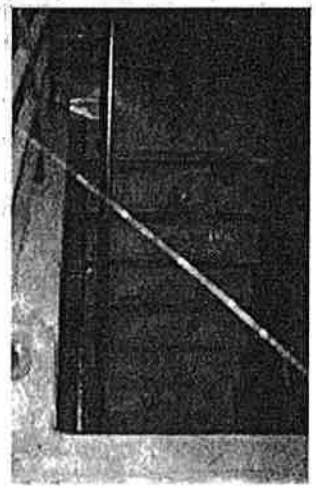
- Remove one (1) roof hatch and replace with metal patch

- Remove one roof hatch and replace with a sliding roof hatch

Electrical:

- Provide and install 5 wall mounted explosion proof LED fixtures in burn building stairways and 2 other room





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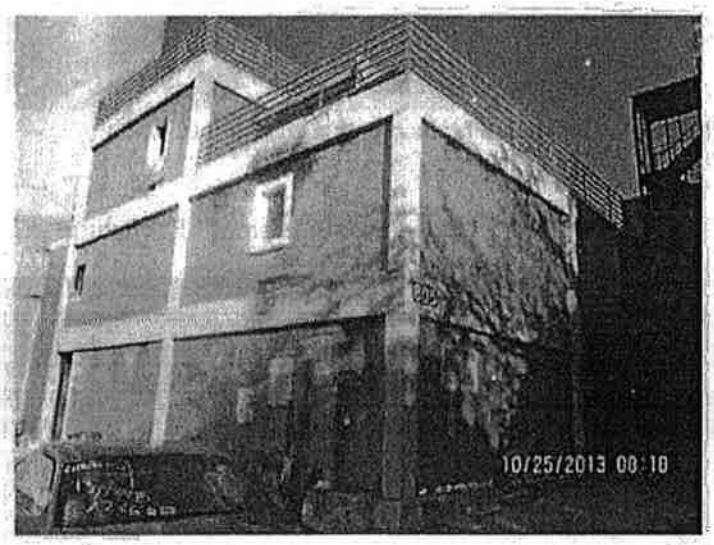
- Provide and install 3 Explosion proof wall mounted outdoor LED fixtures at the rear of the building.
- Provide and install 7 SG explosion proof outlet boxes
- Provide and install an 6 pole contactor
- Provide and install an emergency shut/off switch
- Provide and install branch circuits to contactor. Cut and patch concrete floor in rear of the building.
- Misc. parts to be used: fittings, anchors, straps, etc.



Proposal:

KBR proposes to provide the following services to correct deficiencies at the Alexandria Fire Department Burn Building located at 805 South Payne Street, Alexandria, VA 22314:

Hardware and Steel

Materials:

• Exterior Stair, Rail, and Landing w/Tread Grip (Galvanized)	24,001
• Interior Stair w/Tread Grip (Bolt Together--Galvanized)	16,572
• Replacement Hinged Scuppers w/ Magnet Latch	9,361
• Replacement Door Frames/Hinges/Door w/ Magnet Latch	20,206
• Roof Hatch Cover	598
• Sliding Roof Hatch	1,438

Labor:

- Demolition & removal:
  - Existing stairs

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- o Landings
- o Rails
- o Doors
- o Frames
- o Scuppers
- o etc. 39,215

- Installation of fabricated component 42,654
- Crane Services 6,210
- Onsite welding 2,956

Hardware and Steel Subtotal.....$163,211

Electrical

Provide and install 5 wall mounted explosion proof LED fixtures in burn building stairways and 2 other room.

o Material	5,463
o Labor	3,533
Subtotal	8,996

Provide and install 3 Explosion proof wall mounted outdoor LED fixtures at the rear of the building.

o Material	6,721
o Labor	2,208
Subtotal	8,929

Provide and install 7 SG explosion proof outlet boxes

o Material	7,084
o Labor	4,196
Subtotal	11,280

Provide and install an 6 pole contactor

o Material	1,570
o Labor	884
Subtotal	2,454

Provide and install an emergency shut/off switch

o Material	410
o Labor	552
Subtotal	962

Provide and install branch circuits to contactor. Cut and patch concrete floor in rear of the building.

o Material	2,415

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o Labor	3,553
Subtotal	5,948
Miscellaneous	
o Materials	1,631
o Labor	0
Subtotal	1,631

Electrical Subtotal.....$40,200

- Clean and demobilize from the project site.
- KBR Supervision

Masonry and Concrete

- Repair the damaged masonry wall sections
  - Remove and replace broken concrete masonry units (CMU).
  - Remove CMU that are out-of-level
  - Plum exterior walls
  - Cracked mortar joints
  - Infill exterior doors being replaced

Masonry Subtotal.....$15,775

Concrete

- Repair the concrete pads behind the building
  - Repair tripping hazards
  - Recess the concrete slab which has been retaining runoff water

Concrete Subtotal.....$16,445

Internal Heat Tile and Concrete Repairs

- Perform the necessary heat tile maintenance to the System 203, and/or 203 Lite, thermal lining system(s)
  - Included as part of the maintenance tightening the system and refilling bolt hole packing, and repacking joints that are filled with cast in place refractory mortar. Tile and insulation is not included.....$3,556
- Repair the cracks in the concrete floor beneath the heat tiles
  - Cracks in the concrete floor of Room 202 be routed and sealed
  - Install a setting bed be installed below new fire pavers to achieve drainage in that room
    - The new fire pavers would be medium duty and would measure 4.5" x 9" x 1.25"
    - The minimum thickness of the setting bed would be 1"...$4,950
  - Rollover protection over five exterior openings.....$8,325

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Heat Tile Subtotal.....**$16,831**

KBR Supervision as Required.....**$33,500**

Total..... **$285,962**

All work shall be in accordance with all OSHA standards, applicable federal, state and local codes and regulation and good construction practices.

KBR General Notes

- All work shall be in accordance with all OSHA Standards, applicable federal, state, and local codes, and regulations and good construction practices.
- KBR will include all materials, equipment, and labor in his bid to complete the scope of work.
- KBR shall remove from site all spoils, equipment, materials from site after completion of this project.
- KBR is responsible for all measurements and quantities.
- Customer is responsible for reimbursing any required permit costs per contract.
- Approval of this proposal designates acceptance of the scope of work statement and line item estimate which has been used only to develop a mutually agreed price. The price is accepted as a lump sum fixed firm price and the incorporated scope of work becomes the controlling document taking precedence over line item estimate detail.
- Estimated actual construction duration from the arrival onsite is two (2) weeks.

KBR Exclusions

- Any items of work or repairs beyond this scope of work
- Handling or removal of any hazardous material
- Hidden or unforeseen conditions
- Premium Time
- Any insurances beyond the normal contract requirements
- Bonds
- Permit costs

Warranty or Guaranties

This work does not carry any warranties or guaranties other that all work will be performed in a professional manner following industry standards. As previously proposed, in order to fully warranty or guaranty this project will require the removal of all materials to the concrete slab of the fountain and then after repairs are made, install a new water resistant membrane topped by the cementitious water resistant coating.

End of Scope

This proposal is valid for 30 Days.

Please direct any questions to James Lattner (571) 480-0398 James.Lattner@kbr.com

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KBR

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Sincerely,

James Lattner
Project General Manager
City of Alexandria JOC

Cc: File

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