



*City of Bristol
Board of Fire Commissioners*

INFORMATION TO ACCESS THIS MEETING

[https://bristolct-
gov.zoom.us/j/83403921047?pwd=WkZhN052YlVXTFRhM3RjMnd2VmtTUT09](https://bristolct.gov.zoom.us/j/83403921047?pwd=WkZhN052YlVXTFRhM3RjMnd2VmtTUT09)

*Meeting ID: 834 0392 1047
Passcode: 12345*

The regular Board of Fire Commissioners will be held on Thursday, July 25, 2024, at 6:00 pm. in Meeting Room 3-1 at 111 North Main Street, Bristol, Connecticut.

AGENDA

1. Call to Order
2. Employee Recognition
3. Public Participation
4. Communications
 - a. Letter of appreciation, Southington Fire Department
 - b. Letter of gratitude, Sandy Bogdanski
5. Approval of Minutes
 - a. May 23, 2024 Meeting Minutes
6. Approval of Monthly Reports
 - a. Chief's Report May
 - b. Chief's Report June
 - c. May Monthly Reports
 - d. June Monthly Reports
 - e. May Incident Reports

- f. June Incident Reports
 - 7. Committee Reports
 - a. Fire Station 3 Building Committe Minutes
 - b. Fire Station 3 Update
 - 8. New Business
 - 9. Adjournment
- PER ORDER OF THE CHAIRPERSON



Southington Fire Department

ERIC T. HEATH
Fire Chief
Fire Marshal

310 North Main Street
Southington, Connecticut 06489
Telephone (860) 621-3202
Fax (860) 628-4049

SCOTT M. LEE
Assistant Chief
Deputy Fire Marshal

June 6, 2024

Bristol Fire Department

Attn: Chief Richard Hart

111 North Main Street
Bristol, CT 06010

Dear Chief Richard Hart

We are writing to express our deepest gratitude for the support and assistance provided by the Bristol Fire Department during the funeral procession for Trooper First Class Aaron Pelletier. Your professionalism and dedication were greatly appreciated during this difficult time. The coordination and assistance from the area fire departments were instrumental in ensuring a solemn and dignified farewell to a dedicated public servant. The efforts put forth by your team did not go unnoticed, and I want to extend our heartfelt thanks to all involved.

Your commitment to serving the Southington Community during such sensitive moments is truly commendable and reflects the highest standards of professionalism. Once again, thank you for your support and assistance. Your cooperation made a significant difference and provided solace to the family, colleagues, and friends of Trooper Pelletier during their time of bereavement.

Chief Eric Heath

Assistant Chief Scott Lee

Southington Fire Department

Bristol Fire Department -

Sophie and I cannot thank you all enough for all of the support you have provided, compassion you have shown, and honor you have bestowed on us and our hero Joe during our darkest hours.

To the crew that came to our home on May 8th and cleaned my bedroom - you spared me and Sophie from further trauma and we are forever grateful to you all.

To all the members of BFD that came to the services for Joe, thank you for your compassion, seeing so many in Bristol uniforms was a blessing to us all. For those of you who knew my husband, you understand how profound his death is, to those of you who didn't know him, I hope you get to hear stories about him, he was everyone's friend.

Thank you all again, from the bottoms of our hearts.

Sandy + Sophie
Bogdanski

Board of Fire Commissioners' Regular Meeting

May 23, 2024

A Regular Meeting of the Board of Fire Commissioners was held on Thursday, May 23, 2024 at 6:00 p.m., in Council Chambers, City Hall, 111 N Main Street Bristol, CT

Present: Commissioners Sean Moore, Anthony Benvenuto, Hal Kilby, Dana Jandreau and Joyce Ptak, Mayor Jeffrey Caggiano, and Fire Chief Richard Hart.

Absent: Council Member Andrew Howe

1. CALL TO ORDER

- a. The meeting was called to order by Mayor Caggiano at 6:00 pm.

2. EMPLOYEE RECOGNITION

- a. None.

3. PUBLIC PARTICIPATION

- a. None.

4. COMMUNICATIONS

- a. Firefighter Donald DeForge submitted a request to retire effective July 29, 2024.
- b. The City of Waterbury's Fire Chief Terrance Ballou sent a thank you note to the department for their support following the passing of Fire Driver Joseph Bogdanski.
- c. Chief Hart expressed gratitude to the Bristol Fire Department, Mayor Caggiano, and the Commissioners for offering support and mutual aide to Waterbury for the funeral. Bristol's C- Shift Tower 1 assisted in covering the City of Waterbury during services to allow Waterbury fire member to attend the funeral.
- d. Firefighter Stephanie Barry was interviewed on the news speaking in support of keeping the CPAT, Candidate Physical Ability Test, for firefighters equal for women.

5. APPROVAL OF MEETING MINUTES

- a. On motion of Commissioner Moore and seconded by Commissioner Ptak, it was voted: To approve the April 27, 2024 Meeting Minutes. Following a voice vote in which there was no opposition, the Chairperson declared the motion carried.

6. APPROVAL OF MONTHLY REPORTS

- a. Chief Hart gave a summary of the reports to the board. He shared an update on repairs being done to Engine 4 and Engine 1. The new Engine 5 and Engine 1 specifications are being finalized. Chief Hart has been meeting monthly with the Family Fun Day Committee in preparation for their upcoming June community event which includes a touch a truck with many of the department apparatus and the HAP Barnes Fire Safety Trailer. He shared with the board that he attended a seminar with the Career Chief's

Association at Shipman's regarding legal issues for departments in Connecticut. There is discussion being held regarding the Southington Fire Department and lack of staffing and the impending OSHA compliance requirements. There is a class action law suit in discussion regarding PFAS and turn out gear. Chief Hart shared that the Dodge Caravan in the Fire Marshal's fleet is not unsafe as stated in the report and has been inspected and repaired by the department's mechanic. Chief Hart is looking to replace the vehicle in the new budget cycle.

- b. On motion of Commissioner Moore and seconded by Commissioner Ptak, it was voted: To accept the April Monthly Reports. Following a voice vote in which there was no opposition, the Chairperson declared the motion carried.

7. COMMITTEE REPORTS

- a. A summary of the Fire House 3 Building Committee Report was given by Chief Hart and Commissioner Moore. The fire department met with the Architect and team at station 4 to discuss and review heating and cooling designs. They shared that the estimates are in their favor and the project should come in on budget. The project passed the zoning board. The encroachment on the property is being resolved. The encroacher is a boarding neighbor who is in the process of purchasing the area. The right rear of the lot will be squared off and purchased. It does not impact the project.

8. OLD BUSINESS

- a. None.

9. NEW BUSINESS

- a. The Thomaston Savings Bank grant application was submitted late and not accepted.
- b. Commissioner Kilby shared a video to the board regarding PFAS and how it impacts our fire department. Chief Hart stated that the department has banned the use of Nomex uniforms which contain PFAS. He shared that a solution would be to replace the turn out gear with new technology, but it is not proven yet and replacement is expensive. The issue is the waterproofing component being the contaminate. The gear vendor is in the process of testing new gear with other departments like New York City. His stance is to wait and see how wear testing turns out before exploring new solutions. There is a bill in legislation regarding cancer in fire departments. Cancer is now considered a presumptive occupational injury. The department was offered early screening and bench mark scans which half of the department did participate in. He is hoping to come up with a way to offer this as an annual screening for department staff. The new NFPA Standards 1582 are being adopted by OSHA and this reflects medical screenings and testing. He stated he was speaking to a local gym that offers in-body screenings and a diet plan based upon the readings of the scan. The 1583 Standards mandate a wellness program for the department as well as a fitness training that is specific for first responders through an app to get a head start on these changes before they become mandated.

- c. On motion of Commissioner Jandreau and seconded by Commissioner Ptak it was voted: To approve the request of Firefighter DeForge for retirement and forward to The Retirement Board, and Comptrollers. Following a voice vote in which there was no opposition the Chairperson declared the motion carried.

10. ADJOURN

- a. On motion of Commissioner Moore and seconded by Commissioner Jandreau, it was voted: To adjourn the meeting at 6:34pm. Following a voice vote in which there was no opposition, the Chairperson declared the motion carried.

Recording Secretary: Sara Bianchi



BRISTOL FIRE DEPARTMENT
181 NORTH MAIN ST.
BRISTOL CT

OFFICE OF THE FIRE CHIEF
RICHARD HART
FIRE CHIEF

Fire Chief's May Monthly Report

June 27, 2024

To the Honorable Fire Commissioners;

The month of April saw the BFD respond to 214 calls for service. There were 8 residential structure fires, 13 total structure fires, 2 vehicle fires, 60 EMS, extrication/rescue, and 54 false alarms.

Mutual Aid: 1 given

Employee recognition:

None

Personnel:

FF Joe Nazzaro completed EMS-I training, which will allow us to provide EMS instruction and recertification to our members.

Apparatus/equipment:

Finalizing specifications for new Engine 5 and 1

Stations and Facilities:

Discussed process of remodeling Station 2 with DPW Director Rogozinski beginning July 1

Meetings and Public Functions:

Met with members of the Bristol Family Fun Day committee to discuss upcoming event in June

Met with stakeholders in Southington to address staffing and mutual aid responses

Met with architect to discuss interior finishes for the new Station 3



BRISTOL FIRE DEPARTMENT
181 NORTH MAIN ST.
BRISTOL CT

OFFICE OF THE FIRE CHIEF
RICHARD HART
FIRE CHIEF

Met with reps from DPW to layout removal and repaving of front and rear apron at
Headquarters

Miscellaneous:

None

Respectfully submitted,

Richard Hart

Fire Chief



BRISTOL FIRE DEPARTMENT
181 NORTH MAIN ST.
BRISTOL CT

OFFICE OF THE FIRE CHIEF
RICHARD HART
FIRE CHIEF

Fire Chief's June Monthly Report

July 25, 2024

To the Honorable Fire Commissioners;

The month of June saw the BFD respond to 304 calls for service. There were 4 residential structure fires, 5 total structure fires (\$170,700 est. property loss), 2 vehicle fire, 71 EMS, extrication/rescue, and 46 false alarms.

Mutual Aid: 1 given

Employee recognition:

None

Personnel:

FF Justin Miller assigned light duty, hopefully returning to full duty in August

Apparatus/equipment:

New engine 5 is scheduled for a November delivery and Engine 1 is scheduled for an April 2025 delivery and the Ladder August 2025. These dates are fluid, but a good indicator

Finalized specifications for 2 engines with Firematic

Stations and Facilities:

Station 3 is entering the final planning stages with construction documents nearly completed. The project will go out to bid shortly (2-3 weeks) I hope.

Meetings and Public Functions:

Met with DOT, Railroad and City engineers regarding Rte 6 rail crossing repairs

Met with Fire Engineering and First Due to discuss training software. The new Fire Engineering platform allows members to recertify EMR, EMT, and paramedic licenses



BRISTOL FIRE DEPARTMENT
181 NORTH MAIN ST.
BRISTOL CT

OFFICE OF THE FIRE CHIEF
RICHARD HART
FIRE CHIEF

while on duty and at no cost. There is also company level curriculum officers can reference when training at the company level.

Participated and helped coordinate the 2nd annual Bristol Family Fun Day at BAIMS.

Participated in the State-wide emergency preparedness drill

Participated in the PTSD press conference held at Headquarters by Comptroller Sean Scanlon

Miscellaneous:

Conducted repeater test with Norcom with very favorable results. I will discuss the details at the meeting.

I will be on vacation in New Hampshire, but I will Zoom in

Respectfully submitted,

Richard Hart

Fire Chief

Tower 1

Monthly Report

May 2024

Summary

Tower 1 responded to 63 calls during the month of May. Notable incidents include 4 structure fires and 4 bariatric lift assists.

Personnel

Nothing to report.

Apparatus/Equipment

Tower 2 was out of service for several days to address issues with the hydraulic system and emergency power unit. Work was performed by Gowans & Knight in Watertown.

Fire Stations/Facilities

We are still waiting on Public Works to address the broken lockset in the north stairway. A roofing contractor came out to address several leaks in the roof which occur during heavy rains.

A meeting is scheduled with Public Works to address concerns about the new downtown streetscape effecting our ability to respond north, east, and west from Fire HQ. The sidewalk and curb bump-outs and loss of travel lanes will inhibit the Tower's ability to leave the firehouse if there is traffic at the North Main & Center St intersection. I am proposing a button to manually activate the northbound green light to clear the area during response.

Miscellaneous

Nothing to report.

Respectfully submitted,

James Plaster, Captain



Engine Company 1

May 2024 monthly report

Summary of calls for service

Engine 1 responded to 105 calls for service the past month. These included 4 structure fire, 1 car fires, 3 unauthorized burning complaints, 1 outside trash fires, 1 brush fire, 13 motor vehicle accidents, 2 CO investigations, 5 electrical problem investigations, 3 assist PD/EMS, 7 lock out/lock in calls, 3 gas leak investigations, 7 haz mat investigation, 33 alarm investigations, 4 good intent calls, 2 water problem calls, 2 smoke/odor removal, 13 cancelled.

Personnel None at this time

Apparatus/Equipment. Engine 1 SCBA 1-04 out of service for low pressure hose repair. Unit repaired and returned to service. SCBA 1-01 returned to service. Hose testing Engine 1 completed. One length of 1 3/4" hose failed testing and was replaced, all others passed. Awaiting Engine 1 specifications for review.

Fire Station/Facilities. Spring cleaning assignments of headquarters and equipment underway. Vent hood awaiting design and plan approval, Roof leaks repaired by Offshore roofing contractor. New outlets installed in hallway entrance for firefighter I-pads for Engine 1 and Tower1. Door lock for door leading to second floor broken, awaiting parts to repair. Headquarters trash can damaged by tractor trailer backing in to it, trash can replaced by public works.

Miscellaneous. Two new Sensit gas meters with leak detection capability put in service, training conducted at the drill field. Connecticut fire Academy class delivered on pedestal construction buildings such as the building on North Main

Street. Class held at the drill field. Vehicle rescue practice at drill field. New rope rescue equipment reviewed. Engine 1 participated in bringing a school student from Old Orchard Rd to St Joes School. Mock accident demonstration at Bristol Central High School

Street scape project underway on North Main Street. Potential traffic issue question referred to Ray Rogozinski of Public Works from Chief Hart. Plans show lanes to be narrowed which may cause issues with apparatus being able to turn onto Center Street because of the width of the lanes and traffic issues. Suggestion was the installation of a traffic light control for apparatus leaving the station that would turn the lights green allowing traffic to clear the area. Awaiting review and response.

Respectfully submitted.

Captain Thomas Scully

Engine Company 2

Monthly Report

May, 2024

Summary

Station 2 Personnel responded to 37 calls for service and performed 7 company area surveys in May. This month was a busy month with training. It was also busy around the station with members conducting their spring cleaning as well as yearly hose testing. New Cambridge painting company was at the station this month to paint the fire house.

Breakdown of Calls:

6 - Fire (16.22%)
3 - Rescue / EMS (8.11%)
3 - Hazardous Condition (8.11%)
6 - Calls for Service (6.16%)
3 - Good Intent (8.11%)
16 - False Alarm / False Call (43.24%)
YTD – 223 calls

Personnel

May Training:

- Forcible entry training

- Podium construction training

- Fire extinguisher training

There were no changes to engine 2 personnel.

Apparatus/Equipment

- New 1 ¾" hose was put in service on Engine 2 on both mattydales and the trash line.
- No issues with the brush truck.
- No issues with the boat.

Fire Stations/Facilities

- Orkin checked and reset the traps.
- David Oaks was in the station to discuss possible renovations to the bathroom and bunk room .

Miscellaneous

- All spring cleaning was complete.
- Annual hose testing was completed by station personnel.

Respectfully submitted,
Acting Captain, Steven Barnosky

Engine 3
May
Monthly Report
2024

Summary

This month Engine 3 responded to a total of 66 calls for service. This is an eighteen call increase over last month. Notable responses included a second alarm house fire, 1st alarm structure fire, an automobile fire and Mutual aid to Southington to assist their department with extinguishing a house fire.

Personnel

No changes in personnel.

Apparatus/Equipment

- All fire extinguishers on apparatus were serviced.
- Air pack E6-03 OOS.
- All Scott Air packs batteries have been replaced.

Fire Stations/Facilities

- A car came through the front of the property causing damage to the shrubs, wall, memorial plaque and displaced the large rock set there to protect the building.
- Toilet flush valve broke, but has since been repaired by P.W.

Miscellaneous

- Members finished MRT.
- The members finished the bi-annual deep cleaning chore. This includes cleaning, waxing and polishing all tools, equipment, apparatus and stations facilities.
- Members also participated in the annual Memorial Day parade.

Respectfully submitted,

Craig Henderson

Craig Henderson,
Captain Engine 3
Bristol Fire Dept.

Engine 4

Monthly Report

May 2024

Summary

Engine 4 responded to 64 calls for service in May.

Plainville Fire Department conducted live fire training in the burn building during May.

Personnel

The Connecticut Fire Academy (CFA) taught a pedestal construction class to members of Station 4 and the department. Pedestal construction is a construction method found in the new buildings on North Main Street. This type of construction is characterized by a non-combustible base with wood framing on the upper floors.

Engine 4 personnel attended a Memorial Day observance on Lakeside Drive. The flag of honor was at the observance.

Apparatus/ Equipment

Engine 4 was sent to the Cummins dealer to have an engine oil leak diagnosed. Cummins found and repaired the engine oil leak.

Engine 4 had new hose installed on the cross lays. The hose is Key brand and packs much better in the hose beds. The friction loss is less and can be pumped at 130 psi instead of 150 psi.

Engine 6 fire extinguishers were all tested and all passed.

Engine 4 and Engine 7 hose testing was completed in May. Only one length of 1 ¾ inch hose and one length of 3 inch hose failed the hose test.

Fire Station/ Miscellaneous

The Bristol Radio Club used the training room for their meetings in May.

Offshore construction did the annual inspection of the roof at Station 4. Areas of concern were identified and Offshore made repairs to those areas of concern on May 23rd.

Respectfully submitted,

Scott McKearney

Scott McKearney, Captain

ENGINE COMPANY #5

MONTHLY REPORT

MAY 2024

SUMMARY

Engine Company #5 responded to 76 calls for service in the month of May 2024. Calls for service included 5 Structure Fires, 1 Rubbish Fire, 22 Commercial and Residential Fire Alarm activations, 4 Carbon Monoxide Alarm activations, 2 Gas Leak or other Hazardous Materials incidents, 20 Motor Vehicle Accidents with or without injury with 1 involving pedestrian, 3 Assist EMS incidents, 2 Electrical Equipment/Wiring incidents, 1 Rescue of victim trapped by Power Lines, 7 Vehicle/Residential Lockouts, 5 Unauthorized Burning calls, 3 Good Intent/Public Service calls.

PERSONNEL

All Groups remained the same at Station #5 during the month. Nothing else to report along the lines of personnel at this time.

APPARATUS/EQUIPMENT

Engine #5 had no mechanical issues during the month of May. It is fully operational at the time of this report.

Engine #8 had only one ongoing issue which did not interfere with it operationally. The Cat eye system for tire pressure still opens slightly indicating low air pressure on the Officer side rear. EFT is fully aware of the problem. Apparatus is fully operational at time of this report.

Support #1 was relocated to Station #4 during the month of May. It was decided to keep all SCBA bottles in the same location for use during Structure Fires. Some of the water pumps and the large generator will remain at Station #5 at this time. All other equipment remains with the vehicle at Station #4.

FIRE STATION/FACILITIES

The urinal in the men's room was out of service for most of the month of May due to a problem with the water valve. It would not shut off when used. Dave Oakes was notified and his crew has since made the necessary fix.

Overhead Door Company came out and installed new timers on the two apparatus bay doors. Station #5 was the last to receive these. It has seemed to alleviate the majority of the door issues we have been having.

SURVEYS

Some of the locations that were visited for the month of May were Panera Bread, Harbor Freight, Burlington Coat factory and the Little League Campus.

TRAINING

Nothing new to report at this time.

MISCELLANEOUS

All groups at Station #5 performed and completed all assigned Spring Cleaning duties as well as Annual Hose testing assignments. As always the personnel of Engine Company #5 did an outstanding job of completing these tasks in a timely and efficient manner.

RESPECTFULLY SUBMITTED,

CAPTAIN BRIAN D'AMATO

**CITY OF BRISTOL FIRE DEPARTMENT
OFFICE OF THE FIRE MARSHAL
MONTHLY REPORT**

May 2024



TO: City of Bristol Fire Board Members
FROM: Kristopher Lambert, Fire Marshal
SUBJECT: Monthly Report – May 2024

INCIDENTS

There were two hundred fourteen (214) incidents for this month that required computer-generated reports communicated to the State Fire Marshal's Office and FEMA. There were two (4) investigation(s) of fire/explosions by this office. Total estimated loss for the period is \$17,000 dollars.

43 Rhoda La.
79 Ashley Rd.
65 Blakeslee St.
46 Ipswitch Rd.

There were two (2) civilian injury(s), and zero (0) Firefighter injury reported during this period. There were two (2) mutual aid call(s) given/received within the month. A copy of the cumulative monthly inspection reviews and permits account is included with this report.

REVIEWS, MEETINGS, MISC.

- The interior of this office will remain closed to the public while all business will continue to be conducted electronically, or at the new customer service window.
- Nineteen (19) plans for new construction, occupancy changes, and renovations were reviewed. Some of the plans included electrical and mechanicals, including Fire Alarm and Fire Sprinkler systems. Site plan drawings are also included. Coordination and consultation regarding plan review is ongoing with other city agencies.
- The Fire Marshal's Office attended four (4) formal Site Plan Committee meetings this month to coordinate details for future Plan Review submittals in the City of Bristol. Twenty two (22) other site meetings attended by staff were conducted with business/property owners.

- There were approximately one hundred ten (110) Fire Prevention Bureau business related calls managed by the staff this month.
- Approximately nine (9) visitors were received at our office to speak with Fire Marshal's Personnel.
- The City Hall Atrium Lobby has a monitor that is used for special city announcements. This office has been using the monitor to share fire prevention tips with the public.
- The office has shifted its focus slightly in order to assist with the Code Enforcement Committee's aggressive pursuit of substantial code compliance within the city. This approach has proven to be beneficial from an efficiency standpoint with regards to us gaining legal access to the properties for inspections.

TRAINING CLASSES

- Staff of the Fire Marshal's Office earned twenty (20) hour(s) of continuing education credits this month.

INSPECTIONS AND PERMITS **

- 35 Apartment Building Inspections (109 units)**
- 8 Assembly Occupancy Inspections
- 13 Automatic Sprinkler / Standpipe System Inspections
- 1 Blasting Permit(s) Issued
- 4 Business Occupancy Inspections
- 5 Certificate of Compliance
- 4 Complaint Inspections
- 2 Day Care Inspections
- 3 Educational Inspection
- 11 Fire Alarm Inspections
- 4 Fire Investigations
- 2 Gasoline Station / Vehicle Repair Facility Inspection
- 1 Health Care / Nursing Home / Group Home Inspections
- 6 Hood & Duct Inspections
- 9 Hotel / Dorm
- 1 Industrial Inspection
- 0 Liquor License Inspections
- 3 Mercantile Inspections
- 0 Modification Application(s)
- 0 Recreation/Summer Camp
- 2 Residential Board / Care
- 1 Storage Facility
- 0 Special Amusement/Assembly Inspection
- 2 Tent Inspections

****** In larger residential occupancies, where the building construction is modular in design and contains similar apartments with like layouts and amenities, representative apartments are chosen at random to determine compliance with the Connecticut State Fire Safety Code (CSFSC) and the Connecticut State Fire Prevention Code (CSFPC). With smaller occupancies, we do commonly enter as many units as possible where access is granted and time permits. The corresponding figures represent the number of occupancies and the total number of units affected by the inspection. *In order to achieve our statutory inspection requirements, I strongly recommend increasing the number certified personnel in this office to eight (8). There has been a significant increase in the number of residential units within this city to support the need for additional personnel within this office. While the number of residential units has increased over the years, the staff of this office has not.*

OFFICE OF THE FIRE MARSHAL STAFF VEHICLES

Fire 3 - 2013 Ford Explorer - White

Fire 4 - 2012 Ford Escape – Gray

Fire 5 - 2011 Dodge Grand Caravan – White

Fire 6 - 2013 Ford Expedition - Red

Mileage and fuel usage reports are generated automatically and submitted by the mechanic.

Incident Summary Report

Alarm Date Between {05/01/2024} And {05/31/2024}

Total Number of Calls:	Fire: 213	EMS: 0	Exposures: 0	Unknown: 213	All: 213
Average Calls per day:	Fire: 6.8	EMS: 0.0			All: 6.8
Total number of arson calls:	0				
Estimated Dollar Loss:	Fire: \$ 0	Other: \$ 0		All: \$ 0	Arson: \$ 0
Estimated Value:	Fire: \$ 0	Other: \$ 0		All: \$ 0	Arson: \$ 0
Percentage Saved:	Fire: 0.0%	Other: 0.0%		All: 0.0%	Arson: 0.0%
Total Injuries:	Fire Service: 0	Civilian: 0	EMS: 0		Arson: 0
Total Fatalities:	Fire Service: 0	Civilian: 0	EMS: 0		Arson: 0
Total aid given calls:	0				
Total aid received calls:	0				

Bristol Monthly Incident Report

Alarm Date Between {05/01/2024} And {05/31/2024}

Incident Type	Count	Pct of Incidents	Total Est Loss	Pct of Losses
	213	100.00%	\$0	0.00%
	213	100.00%	\$0	0.00%

Total Incident Count: 213

Total Est Loss: \$0

Bristol Monthly Incident Report

Alarm Date Between {05/01/2024} And {05/31/2024}

Incident Type	Count	Avg Resp Time	Aid Given	Aid Rec'd	Exposures
	213	00:04:31	0	0	0

Total Incident Count: 213

Avg Resp Time: 00:04:31

Total Calls by Property Use Group		Count	Percent of Incidents	Total Est Loss	Percent of Losses
		170	79.81%	\$0	0.00%
100	Assembly	3	1.40%	\$0	0.00%
200	Educational	7	3.28%	\$0	0.00%
300	Health Care, Detention & Correction	1	0.46%	\$0	0.00%
400	Residential	21	9.85%	\$0	0.00%
500	Mercantile, Business	8	3.75%	\$0	0.00%
700	Manufacturing, Processing	2	0.93%	\$0	0.00%
800	Storage	1	0.46%	\$0	0.00%

Incident Report

Report Type
Response Breakdown

X Date Interval x

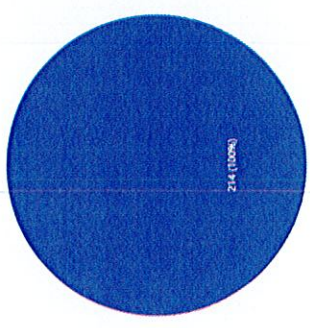


Advanced Search

Incident Type Series

All Data

Total (214)



Not Mapped

Incident Report

Report Type

Mutual Aid Summary

X Date Interval X Incident Type X

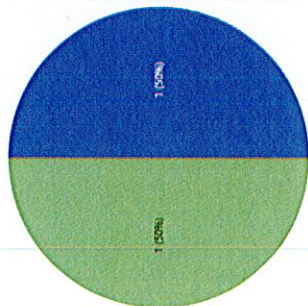


Advanced Search

All Data

Total aid given and received (2)

Automatic aid received
Mutual aid given



Incident Report

Report Type
Part II - Major Fires

☒ Date Interval ☐

Advanced Search

Showing records 1 to 3 of 3

Date	Property Use and Address	Number of Civilian Fire Deaths	Property Loss
2024-05-20	65 BLAKESLEE ST (1- or 2-family dwelling, detached, manufactured home, mobile home not in transit, duplex)	0	15000
2024-05-17	79 ASHLEY RD (1- or 2-family dwelling, detached, manufactured home, mobile home not in transit, duplex)	0	10000
2024-05-09	13 IPSWITCH RD (1- or 2-family dwelling, detached, manufactured home, mobile home not in transit, duplex)	0	239561

20 50 100 All



Completed Fire Code Inspection Assignments Month of **May 2024**

Fire Marshal Lambert

Fire Alarm Inspections - 3

Sprinkler Inspections – 3

Standpipe Inspections - 1

Commercial Inspections:

- Assembly - 2
- Business - 3
- Day Care – 1
- Camps -
- Dormitories -
- Educational - 2
- Fire Drills/Fire Alarm - 3
- Fire Works/Special Effects- 1
- Gas Station - 1
- Group Home -
- Health Care –
- Hood and Duct Inspections - 3
- Hotel - 6
- Industrial - 1
- Liquor License Inspections -
- LPG Point of Sale/Bulk Storage -
- Mercantile - 3
- Nursing Home -
- Residential Board and Care - 2
- Special Amusement/Assembly – 1
- Storage - 1
- Tent -

****Residential Inspections- Buildings 2@ 6 Units**

Fire Investigations - 1

Meetings - 23

Complaints - 2

- Certificate of Occupancy –**
- Certificate of Compliance -**
- Plan Reviews - 17**
- Modifications -**
- Blasting Permit - 1**

Phone Calls/Messages - 19

- OEDM Training -**
- Continuing Education Training - hrs.**

Completed Fire Inspection Assignments Month of May 2024

Fire Inspector Yacovino

Fire Alarm Inspections - 4

Sprinkler Inspections - 3

Commercial Inspections -

Assembly -

Business -

Carnival -

Day Care -

Dormitories -

Educational - 1

Fire Drills -

Fire Works/Special Effects-

Group Home -

Health Care -

Industrial -

Mercantile -

Nursing Home -

Residential Board and Care -

Special Amusement/Assembly -

Tent - 1

Liqueur License Inspections -

Hood and Duct Inspections -

Gas Station -

LPG Point of Sale/Bulk Storage -

Residential Inspections- Buildings 13 @ 47 Units

Residential Completed Inspections -

Fire Investigations - 3

Meetings - 10

Complaints -

Plan Reviews - 9

Modifications -

Blasting Permit -

Phone Messages - 27

OEMD Training - 0 hrs.

Public Fire Education –

Completed Fire Inspection Assignments Month of May 2024

Fire Inspector Robotham

Fire Alarm Inspections - 6

Sprinkler Inspections - 6

Commercial Inspections -

Assembly - 3

Business - 1

Carnival -

Day Care -

Dormitories -

Educational -

Fire Drills -

Fire Works/Special Effects-

Group Home - 1

Health Care -

Industrial -

Mercantile -

Nursing Home -

Residential Board and Care -

Special Amusement/Assembly -

Tent -

Liqueur License Inspections - 4

Hood and Duct Inspections - 6

Gas Station -

LPG Point of Sale/Bulk Storage -

Residential Inspections – 10 Bldg 56 units

Residential Completed Inspections -

Fire Investigations – 3

5-9-24 Ipswich structure fire assist

5-17-24 79 Ashley Road structure fire

5-20-24 65 Blakeslee St. car fire

Meetings - 6

Complaints - 1

Plan Reviews - 2

Modifications -

Blasting Permit -

Phone Messages - 20

OEMD Training – 3 hrs

Department Training –

Public Fire Education – 4 hrs

Completed Fire Inspection Assignments Month of May 2024

Fire Inspector Hoyt

Fire Alarm Inspections - 1

Sprinkler Inspections - 1

Commercial Inspections - 7

- Assembly - 3**
- Business -**
- Carnival -**
- Day Care - 1**
- Dormitories -**
- Educational -**
- Fire Drills -**
- Fire Works/Special Effects-**
- Group Home -**
- Health Care – 1**
- Industrial -**
- Mercantile -**
- Nursing Home -**
- Residential Board and Care -**
- Special Amusement/Assembly -**
- Tent - 1**
- Liquor License Inspections – 1**
- Hood and Duct Inspections -**
- Gas Station -**
- LPG Point of Sale/Bulk Storage -**

Residential Inspections-
Buildings- 10 @ Units- 54
Fire Investigations - 1

Meetings – 2

Complaints-
Plan Reviews - 2
Modifications -
Blasting Permit -

Phone Messages/Calls – 14

Department Training –
Public Fire Education – 2
Continuing Education/CFI-
Event/Smoke Scheduling- 1

BRISTOL FIRE DEPARTMENT – TRAINING DIVISION

Captain Todd Cutler – Acting Training Officer

MONTHLY TRAINING REPORT

May 2024

- This Month the Training Division had the Connecticut Fire Academy come in and do a presentation on Pedestal Construction. This new type of construction is starting to show up in local towns including Bristol. In simplest of terms, it is a fire resistive type of construction with wood frame construction attached. This presents some new challenges to our crews. I believe this class was worth the time, and we now have a better grasp of the hazards associated with it.
- Crews have been refreshing on hose work here at the Drill Field. Mostly crews have been working on standpipe operations.
- The tower crews have been working on vehicle stabilization and extrication in unusual positions. If you come by the drill field you will see cars flipped over and moved into precarious positions. Useful training for all.
- The BFD assisted Plainville with their Live Burns on the 13th and 15th. The BFD provided a Safety Officer and two burn tenders for each day.
- The Training Division along with Suppression crews assisted ESPN with evaluation of their new daycare emergency evacuation plan. We were able to see how they will be moving the children to the Double Tree Hotel instead of crossing Middle St. in the event of evacuation.
- A large part of the month has been dedicated to crews completing hose testing in between training here on the drill field facilities.
- The Training Division participated in a vehicle extrication drill with Police and EMS at Bristol Central High School just prior to their Prom on the 11th. This a yearly event put on by the school system and police to show the dangers of impaired driving to students.

Respectfully Submitted,

Captain Todd Cutler

Bristol Fire Department

Mechanical Division Monthly Report

May 2024

Engine 1

Engine 2

- Annual chassis service

Engine 3

- Annual chassis service

Engine 4

- Cummins: Front cover gasket, turbo drain tube, oil pan gasket, freeze plug
- Annual chassis service
- Replace warning light switch

Engine 5

- New 1 3/4" attack hose
- Received new 4) gas meter

Tower 1

Tower 2

- Replace all air tank drain valves
- Gowans: Numerous aerial repairs: EPU pump, cab lift pump

Miscellaneous

- Repair Plymo system @ Station 3
- Repair mowers for HQ & Station 4
- Station 5 received a new push mower
- Full day spent cleaning out old drill tower to make room for mechanical storage
- 5/9/24: fire on Ipswitch
- Scully, Marek, Quarto: gear repair
- Replace batteries in all SCBA's: 288 AA batteries
- E3-02,E4-02,T1-01 pack repairs

Jay Kelly
Equipment Technician

Richard Hart
Chief of Department



BRISTOL FIRE DEPARTMENT
181 NORTH MAIN ST.
BRISTOL CT

OFFICE OF THE FIRE CHIEF
RICHARD HART
FIRE CHIEF

Fire Chief's June Monthly Report

July 25, 2024

To the Honorable Fire Commissioners;

The month of June saw the BFD respond to 304 calls for service. There were 4 residential structure fires, 5 total structure fires (\$170,700 est. property loss), 2 vehicle fire, 71 EMS, extrication/rescue, and 46 false alarms.

Mutual Aid: 1 given

Employee recognition:

None

Personnel:

FF Justin Miller assigned light duty, hopefully returning to full duty in August

Apparatus/equipment:

New engine 5 is scheduled for a November delivery and Engine 1 is scheduled for an April 2025 delivery and the Ladder August 2025. These dates are fluid, but a good indicator

Finalized specifications for 2 engines with Firematic

Stations and Facilities:

Station 3 is entering the final planning stages with construction documents nearly completed. The project will go out to bid shortly (2-3 weeks) I hope.

Meetings and Public Functions:

Met with DOT, Railroad and City engineers regarding Rte 6 rail crossing repairs

Met with Fire Engineering and First Due to discuss training software. The new Fire Engineering platform allows members to recertify EMR, EMT, and paramedic licenses



BRISTOL FIRE DEPARTMENT
181 NORTH MAIN ST.
BRISTOL CT

OFFICE OF THE FIRE CHIEF
RICHARD HART
FIRE CHIEF

while on duty and at no cost. There is also company level curriculum officers can reference when training at the company level.

Participated and helped coordinate the 2nd annual Bristol Family Fun Day at BAIMS.

Participated in the State-wide emergency preparedness drill

Participated in the PTSD press conference held at Headquarters by Comptroller Sean Scanlon

Miscellaneous:

Conducted repeater test with Norcom with very favorable results. I will discuss the details at the meeting.

I will be on vacation in New Hampshire, but I will Zoom in

Respectfully submitted,

Richard Hart

Fire Chief

ADDRESS	ALARM DATE TIME
59 VERNON ST	5/1/2024 2:34
397 BIRCH ST	5/1/2024 3:34
46 NICHOLAS DR	5/1/2024 9:34
438 DIVINITY ST	5/1/2024 11:54
FARMINGTON AVE	5/1/2024 14:21
LAUREL ST	5/1/2024 14:37
511 MAPLE AVE	5/1/2024 18:21
60 W WASHINGTON ST	5/1/2024 19:20
KING ST	5/1/2024 19:37
408 WEST ST	5/2/2024 3:37
80 S STREET EXT	5/1/2024 19:48
663 FARMINGTON AVE	5/2/2024 11:25
598 FARMINGTON AVE	5/2/2024 14:17
EAST RD	5/2/2024 14:54
OAKLAND ST	5/2/2024 13:42
191 MAIN ST	5/2/2024 14:30
29 PILGRIM RD	5/2/2024 15:07
254 EAST RD	5/2/2024 19:27
82 FIELD ST	5/2/2024 20:44
333 QUEEN ST	5/3/2024 4:12
BROAD ST	5/3/2024 3:33
72 PALMORR PL	5/3/2024 9:17
401 N MAIN ST	5/3/2024 13:44
100 GRIDLEY ST	5/3/2024 21:39
36 CENTRAL ST	5/3/2024 17:32
781 JAMES P CASEY RD	5/4/2024 2:33
31 WARD ST	5/4/2024 16:15
PEACEDALE ST	5/4/2024 16:29
SOUTH ST	5/5/2024 17:09
82 Grove Ave	5/5/2024 18:39
SOUTH STREET EXT	5/6/2024 3:14
MIDDLE ST	5/6/2024 6:15
59 ROSSI DR	5/6/2024 9:24
93 LARKSPUR LN	5/6/2024 14:04
1002 STAFFORD AVE	5/6/2024 15:50
67 BROOKSIDE DR	5/6/2024 17:17
56 GAYLORD ST	5/6/2024 22:42
20 JACOBS ST	5/6/2024 23:58
511 WEST ST	5/7/2024 1:01
174 BIRCHWOOD TRL	5/7/2024 2:21
642 FARMINGTON AVE	5/7/2024 6:25
411 FARMINGTON AVE	5/7/2024 7:29
153 COLLINS RD	5/7/2024 10:16
483 BROAD ST	5/7/2024 12:23
83 GREGORY RD	5/7/2024 15:33
344 PARK ST	5/7/2024 11:24

267 PINE ST	5/7/2024 21:12
CROWN ST	5/7/2024 22:57
153 COLLINS RD	5/8/2024 9:09
82 FIELD ST	5/8/2024 9:51
WEST ST	5/8/2024 13:19
79 ANDERSON AVE	5/8/2024 17:26
RUNGE AVE	5/8/2024 17:50
PINE ST	5/8/2024 20:33
1099 FARMINGTON AVE	5/9/2024 6:29
501 BROAD ST	5/9/2024 10:29
14 IPSWITCH RD	5/9/2024 8:07
LAKE AVE	5/9/2024 15:52
109 STAFFORD AVE	5/9/2024 16:20
62 BELLEVUE AVE	5/9/2024 17:45
73 PINE ST	5/10/2024 9:14
286 JEROME AVE	5/10/2024 10:12
85 Missal Ave	5/10/2024 15:51
37 WILLIS ST	5/9/2024 20:19
19 STEELE RD	5/10/2024 17:33
60 N MAIN ST	5/10/2024 19:22
633 KING ST	5/11/2024 10:54
88 TIMBER LN	5/11/2024 18:11
1215 FARMINGTON AVE	5/12/2024 12:16
748 PINE ST	5/12/2024 15:38
MAIN ST	5/12/2024 13:32
98 GOODWIN ST	5/12/2024 21:55
141 GREENE ST	5/12/2024 23:49
25 LEWIS ST	5/13/2024 4:45
9 SUMMER ST	5/13/2024 5:57
741 KING ST	5/13/2024 10:01
88 CROSS ST	5/13/2024 11:49
82 FIELD ST	5/13/2024 14:12
401 MIDDLE ST	5/13/2024 14:15
VANDERBILT RD	5/13/2024 17:20
ELIZABETH RD	5/13/2024 11:54
55 CABOT ST	5/13/2024 20:47
92 VANTANA DR	5/13/2024 20:34
31 CARRIAGE RD	5/14/2024 3:33
CAWLEY ST	5/14/2024 12:35
218 QUEEN ST	5/14/2024 13:55
EMMETT ST	5/14/2024 15:10
MAPLE ST	5/15/2024 8:16
71 GAYLORD ST	5/15/2024 11:45
COLUMBUS AVE	5/15/2024 13:29
208 CENTRAL ST	5/15/2024 13:25
34 QUEEN ST	5/15/2024 15:46
64 WOODFIELD RD	5/15/2024 19:18

MOUNTAIN RD	5/15/2024 17:18
401 MIDDLE ST	5/15/2024 18:18
11 SUMMER ST	5/15/2024 21:44
82 CHURCH AVE	5/16/2024 0:52
55 FARMINGTON AVE	5/16/2024 8:10
394 SCOTT SWAMP RD	5/16/2024 11:59
JEROME AVE	5/16/2024 14:21
RIVERSIDE AVE	5/16/2024 8:16
481 WOLCOTT ST	5/16/2024 14:16
STAFFORD AVE	5/16/2024 20:50
604 FARMINGTON AVE	5/16/2024 21:23
62 BELLEVUE AVE	5/16/2024 22:56
2 PLEASANT ST	5/17/2024 9:53
41 MATTHEWS ST	5/17/2024 8:49
372 EMMETT ST	5/17/2024 12:07
72 VERA RD	5/17/2024 14:23
ADELINE AVE	5/17/2024 16:53
80 ASHLEY RD	5/17/2024 15:50
WEST ST	5/17/2024 11:29
155 NORTH ST	5/17/2024 15:08
55 PROSPECT ST	5/17/2024 17:51
39 UPSON ST	5/17/2024 18:21
61 MIDDLE ST	5/17/2024 19:01
152 N MAIN ST	5/18/2024 9:16
DOWNS ST	5/18/2024 12:28
37 WILLIS ST	5/18/2024 15:03
105 LUFKIN LN	5/18/2024 16:12
82 LOCUST ST	5/18/2024 17:28
27 ALEXANDER ST	5/18/2024 21:47
1183 FARMINGTON AVE	5/19/2024 14:34
344 PARK ST	5/19/2024 14:41
201 BLAKESLEE ST	5/20/2024 2:34
598 FARMINGTON AVE	5/19/2024 22:05
32 MARSH RD	5/20/2024 9:04
32 MARSH RD	5/20/2024 9:25
721 BIRCH ST	5/20/2024 9:23
44 LOCUST ST	5/20/2024 16:25
66 BLAKESLEE ST	5/20/2024 18:38
53 SHEILA CT	5/21/2024 0:17
210 BURTON ST	5/21/2024 11:10
16 PINE ST	5/21/2024 9:02
503 SOUTH ST	5/21/2024 14:07
61 MIDDLE ST	5/21/2024 17:21
326 MIX ST	5/21/2024 20:01
WOZENSKI WAY	5/21/2024 17:45
647 FARMINGTON AVE	5/22/2024 2:25
322 STONECREST DR	5/22/2024 3:24

573 BROOK ST	5/22/2024 13:18
66 BLAKESLEE ST	5/22/2024 15:05
IPSWITCH RD	5/22/2024 9:37
BOARDMAN ST	5/22/2024 18:35
511 WEST ST	5/22/2024 19:40
MALTBY ST	5/22/2024 21:11
301 MIDDLE ST	5/22/2024 23:22
RUSTIC TER	5/22/2024 23:16
41 PIERCE ST	5/23/2024 10:37
179 MAPLE ST	5/23/2024 9:24
63 COLLINS RD	5/23/2024 9:07
JEROME AVE	5/23/2024 10:06
511 WEST ST	5/23/2024 14:13
CAROL DR	5/23/2024 15:44
21 ZIPP AVE	5/23/2024 15:55
LARDNER RD	5/23/2024 18:30
701 BIRCH ST	5/23/2024 22:10
92 MAUREEN DR	5/23/2024 20:35
26 NEWELL RD	5/24/2024 8:51
1054 FARMINGTON AVE	5/24/2024 12:12
MEMORIAL BLVD	5/24/2024 12:28
25 REDSTONE ST	5/24/2024 16:19
RIVERSIDE AVE	5/24/2024 16:04
476 FARMINGTON AVE	5/24/2024 21:01
1009 STAFFORD AVE	5/24/2024 21:13
1426 Farmington Ave	5/25/2024 0:05
535 BROAD ST	5/24/2024 21:12
75 SHEFFIELD LN	5/25/2024 2:26
113 HAIG AVE	5/24/2024 22:29
53 SHEILA CT	5/25/2024 10:41
823 LAKE AVE	5/25/2024 10:58
515 FERN HILL RD	5/25/2024 12:46
BARNES HWY	5/25/2024 9:36
343 MAIN ST	5/26/2024 22:22
44 RHODA LN	5/27/2024 1:38
79 SUMMER ST	5/27/2024 12:37
26 BROADVIEW ST	5/27/2024 13:39
44 CEDAR ST	5/27/2024 17:10
199 JEROME AVE	5/27/2024 11:06
442 WITCHES ROCK RD	5/27/2024 21:20
71 4TH ST	5/28/2024 2:59
19 BROADVIEW ST	5/28/2024 11:06
152 N MAIN ST	5/28/2024 8:31
358 BIRCH ST	5/28/2024 8:25
658 FARMINGTON AVE	5/28/2024 13:55
OAKLAND ST	5/28/2024 16:16
STAFFORD AVE	5/28/2024 17:58

12 WOODING ST	5/28/2024 15:56
525 BROAD ST	5/28/2024 21:20
47 COLLINS RD	5/28/2024 22:34
884 MIDDLE ST	5/29/2024 3:16
BARNES HWY	5/29/2024 8:46
BROOK ST	5/29/2024 15:57
1201 FARMINGTON AVE	5/29/2024 17:42
481 WOLCOTT ST	5/29/2024 18:50
471 FARMINGTON AVE	5/30/2024 9:47
52 WOOSTER CT	5/30/2024 9:08
16 ARMAND RD	5/30/2024 13:40
741 KING ST	5/30/2024 17:10
PROSPECT ST	5/30/2024 11:19
MEMORIAL BLVD	5/30/2024 17:13
25 LINCOLN AVE	5/30/2024 15:42
91 W WASHINGTON ST	5/31/2024 0:00
BREWSTER RD	5/31/2024 7:50
659 WOLCOTT RD	5/31/2024 11:04
MAPLE AVE	5/31/2024 12:52
171 SONSTROM RD	5/31/2024 18:49
KNOB HILL LN	5/31/2024 19:59
ORCHARD ST	5/31/2024 17:11
LAUREL ST	5/31/2024 21:07
124 NORTON ST	5/31/2024 11:18
1265 FARMINGTON AVE	5/31/2024 21:57
92 PINE ST	5/31/2024 16:11
37 BATT PL	5/31/2024 19:07

UNIT	SHIFT
Engine 3	B
Engine 1, Engine 3, Engine 4, Fire 2, Tower 1	B
Engine 3, Engine 4, Engine 5, Fire 2, Tower 1	C
Engine 1, Engine 2, Engine 4, Fire 2, Tower 1	C
Engine 1, Engine 2	C
Engine 1, Fire 2, Tower 1	C
Engine 5	C
Engine 3	C
Engine 3, Engine 5	C
Engine 1, Engine 2, Engine 4, Fire 2, Tower 1	C
Engine 1	C
Engine 3, Engine 5	D
Engine 3, Engine 5	D
Engine 2, Engine 4, Fire 2	D
Engine 1, Engine 5	D
Engine 1	D
Engine 5	D
Engine 1, Fire 2	D
Engine 1	D
Engine 1	D
Engine 4	D
Engine 1, Engine 2, Engine 5, Fire 2, Tower 1	A
Engine 1, Engine 2, Engine 4, Fire 2, Tower 1	A
Engine 1	A
Engine 3	A
Engine 2, Fire 2	A
Engine 1	B
Engine 2	B
Engine 4	C
Engine 3	C
Engine 1	C
Engine 1, Engine 4	C
Engine 5	D
Engine 1, Engine 2, Engine 4, Fire 2, Tower 1	D
Engine 1, Engine 3, Engine 5, Fire 2, Tower 1	D
Engine 3, Engine 4, Engine 5, Fire 2, Tower 1	D
Engine 1	D
Engine 1, Engine 2, Engine 4, Fire 2, Tower 1	D
Engine 1, Engine 2, Engine 4, Fire 2, Tower 1	D
Engine 5	D
Engine 1, Engine 3, Engine 5, Fire 2, Tower 1	D
Engine 3, Engine 5	A
Engine 5	A
Engine 4, Tower 1	A
Engine 5	A
Engine 1	A

Engine 3, Engine 4	A
Engine 1	A
Engine 5	B
Engine 1	B
Engine 2	B
Engine 3	B
Engine 3	B
Engine 3, Engine 4, Fire 2	B
Engine 3, Engine 5	B
Tower 2, Engine 3, Engine 7	C
Engine 1, Engine 2, Engine 3, Engine 4, Engine 5, Fire 2, Fire 4, Fire 6	C
Engine 4	C
Engine 3	C
Engine 1, Engine 2, Engine 4, Fire 2, Tower 1	C
Engine 3, Fire 2, Tower 1	D
Engine 5	D
Engine 3, Engine 5	D
Engine 1	C
Engine 1, Engine 2, Engine 4, Fire 2, Tower 1	D
Engine 1, Engine 2, Engine 4, Fire 2, Fire 6, Tower 1	D
Engine 5	A
Engine 5	A
Engine 1, Engine 3, Engine 5, Fire 2, Tower 1	B
Engine 3	B
Engine 1	B
Engine 1	B
Engine 1, Fire 2, Fire 6	B
Engine 1	B
Engine 1, Engine 2, Engine 4, Fire 2, Tower 1	B
Engine 3, Engine 5, Fire 2, Tower 1	C
Engine 1, Engine 3, Engine 4, Fire 2, Tower 1	C
Engine 1	C
Engine 4	C
Engine 1, Engine 5	C
Engine 5	C
Engine 5	C
Engine 5	C
Engine 5	C
Engine 1	D
Engine 1	D
Engine 3	D
Engine 1	A
Engine 1	A
Engine 1, Engine 2	A
Engine 3, Engine 4, Engine 5, Fire 2, Tower 1	A
Engine 1, Engine 2, Engine 4, Fire 2, Tower 1	A
Engine 5	A

Engine 1, Engine 4, Fire 2	A
Engine 1, Engine 3, Engine 4, Fire 2, Tower 1	A
Engine 1	A
Engine 3, Fire 2, Tower 1	A
Engine 1	B
Engine 1, Engine 3, Engine 5, Fire 2, Tower 1	B
Engine 5	B
Engine 3, Engine 4	B
Engine 1	B
Engine 5	B
Engine 5	B
Engine 1, Engine 2, Engine 4, Fire 2, Tower 1	B
Engine 1, Engine 2, Engine 4, Fire 2, Tower 1	C
Engine 2	C
Engine 4	C
Engine 5	C
Engine 3, Engine 4	C
Engine 1, Engine 2, Engine 5, Fire 2, Fire 4, Fire 5, Tower 1	C
Engine 1	C
Engine 1	C
Engine 1, Engine 2, Engine 4, Fire 2, Tower 1	C
Engine 1, Engine 2, Engine 4, Fire 2, Tower 1	C
Engine 1, Engine 3, Engine 4, Fire 2, Tower 1	C
Engine 1	D
Engine 4	D
Engine 1	D
Engine 5	D
Engine 1, Tower 1	D
Engine 4	D
Engine 3, Engine 5, Fire 2, Tower 1	A
Engine 1	A
Engine 1, Engine 3, Engine 4, Fire 2, Tower 1	A
Engine 1, Engine 3, Engine 5, Fire 2, Tower 1	A
Engine 1, Engine 2, Engine 5, Fire 2, Tower 1	B
Engine 2	B
Engine 3	B
Engine 1	B
Engine 1, Engine 3, Engine 4, Fire 2, Fire 4, Tower 1	B
Engine 5	B
Engine 3, Tower 1	C
Engine 3	C
Engine 4	C
Engine 4, Fire 2, Fire 3	C
Engine 1, Engine 3, Engine 5, Fire 2, Tower 1	C
Engine 1	C
Engine 5, Fire 2, Tower 1	C
Engine 1, Engine 3, Engine 4, Fire 2, Tower 1	C

Engine 5	D
Engine 4	D
Engine 1	D
Engine 3, Engine 5, Fire 2	D
Engine 1, Engine 2, Engine 4, Fire 2, Tower 1	D
Engine 5	D
Engine 4	D
Engine 1	D
Engine 1, Tower 1	A
Engine 1, Engine 2, Engine 5, Fire 2, Tower 1	A
Engine 5	A
Engine 5	A
Engine 1	A
Engine 5	A
Engine 3, Engine 4, Engine 5, Fire 2, Tower 1	A
Engine 1	A
Engine 1, Engine 3, Engine 4, Fire 2, Tower 1	A
Engine 2	A
Engine 1, Engine 2, Engine 3, Engine 4, Fire 2, Tower 1	B
Engine 5	B
Engine 1	B
Engine 3	B
Engine 1, Engine 4	B
Engine 3, Engine 5	B
Engine 5	B
Engine 1, Engine 3, Engine 5, Fire 2, Tower 1	B
Engine 4	B
Engine 4, Engine 5, Fire 2, Tower 1	B
Engine 5	B
Engine 5	C
Engine 1, Engine 3, Engine 4, Fire 2, Tower 1	C
Engine 1, Engine 2, Engine 5, Fire 2, Tower 1	C
Engine 3, Engine 4	C
Engine 1	D
Engine 1, Engine 2, Engine 5, Fire 2, Fire 3, Tower 1	D
Engine 1, Engine 2, Engine 3, Engine 4, Fire 2, Tower 1	A
Engine 1	A
Engine 1	A
Engine 5	A
Engine 1	A
Engine 1, Engine 3, Engine 4, Fire 2, Tower 1	A
Engine 1	B
Engine 2	B
Engine 4	B
Engine 1, Engine 3, Engine 5, Fire 2, Tower 1	B
Engine 1, Engine 5	B
Engine 5	B

Engine 1	B
Engine 4	B
Engine 5, Tower 1	B
Engine 1, Engine 3, Engine 4, Fire 2, Tower 1	B
Engine 4, Engine 5	C
Engine 3, Engine 5	C
Engine 5	C
Engine 1	C
Engine 5	D
Engine 3	D
Engine 1, Engine 3, Engine 4, Fire 2, Tower 1	D
Engine 3, Engine 5	D
Engine 1	D
Engine 1	D
Engine 3	D
Engine 3, Engine 4, Engine 5, Fire 2, Tower 1	D
Engine 1	A
Engine 1, Engine 2, Engine 4, Fire 2, Tower 1	A
Engine 5	A
Engine 5	A
Engine 2, Fire 2	A
Engine 1	A
Engine 1	A
Engine 3, Fire 2	A
Engine 3, Engine 5	A
Engine 4, Fire 2	A
Engine 3	A



FDR-NFIRS-091: Esri Fire Incident Dashboard, LAST MONTH

OBJECTID	NFIRSCODE	NFIRSTTYPE	FULLADDRESS	MUNICIPALITY	RESPONDING UNIT	CAUSE	CALLDATE	DISPATCH DATE	ENROUTE DATE
11619058	324	EMS & Rescue	81 CHURCH AVE	BRISTOL	Engine 3		2024-05-16 00:52:38	2024-05-16 00:52:38	2024-05-16 00:52:40
11641396	511	Service Call	151 N MAIN ST	BRISTOL	Engine 1		2024-05-18 09:16:14	2024-05-18 09:16:14	2024-05-18 09:16:15
11830696	511	Service Call	91 MAUREEN DR	BRISTOL	Engine 2		2024-05-23 20:35:05	2024-05-23 20:35:05	2024-05-23 20:35:08
11508988	561	Service Call	ELIZABETH RD	BRISTOL	Engine 5		2024-05-13 11:54:17	2024-05-13 11:54:17	2024-05-13 11:54:21
11348472	561	Service Call	78 ANDERSON AVE	BRISTOL	Engine 3		2024-05-08 17:26:06	2024-05-08 17:26:06	2024-05-08 17:27:00
11959006	652	Good Intent Call	658 WOLCOTT RD	BRISTOL	Fire 2		2024-05-31 11:04:46	2024-05-31 11:04:46	2024-05-31 11:04:50
11618567	735	False Alarm False Call	10 SUMMER ST	BRISTOL	Engine 1		2024-05-15 21:44:39	2024-05-15 21:44:39	2024-05-15 21:44:53
11396344	735	False Alarm False Call	61 BELLEVUE AVE	BRISTOL	Fire 2		2024-05-09 17:45:12	2024-05-09 17:45:12	2024-05-09 17:45:43
11946000	324	EMS & Rescue	BROOK ST	BRISTOL	Engine 5		2024-05-29 15:57:38	2024-05-29 15:57:38	2024-05-29 15:58:00
11952835	445	Hazardous Condition	51 WOOSTER CT	BRISTOL	Engine 3		2024-05-30 09:08:25	2024-05-30 09:08:25	2024-05-30 09:09:00
11508032	511	Service Call	400 MIDDLE ST	BRISTOL	Engine 4		2024-05-13 14:15:00	2024-05-13 14:15:00	2024-05-13 14:16:00
11393484	324	EMS & Rescue	108 STAFFORD AVE	BRISTOL	Engine 3		2024-05-09 16:20:06	2024-05-09 16:20:06	2024-05-09 16:20:10
11163103	600	Good Intent Call	LAUREL ST	BRISTOL	Fire 2		2024-05-01 14:37:36	2024-05-01 14:37:36	2024-05-01 14:38:40
11808138	322	EMS & Rescue	MALTBY ST	BRISTOL	Engine 5		2024-05-22 21:11:50	2024-05-22 21:11:50	2024-05-22 21:12:00
11768188	740	False Alarm False Call	325 MIX ST	BRISTOL	Engine 5		2024-05-21 20:01:17	2024-05-21 20:01:17	2024-05-21 20:02:02
11843231	322	EMS & Rescue	1008 STAFFORD AVE	BRISTOL	Engine 5		2024-05-24 21:13:43	2024-05-24 21:13:43	2024-05-24 21:14:30
11807374	745	False Alarm False Call	510 WEST ST	BRISTOL	Engine 1		2024-05-22 19:40:32	2024-05-22 19:40:32	2024-05-22 19:41:06

FDR-NFIRS-091: Esri Fire Incident Dashboard, LAST MONTH

Bristol FD
Address: 181 N Main St, Bristol, CT, 06010



OBJECTID	NFIRSCODE	NFIRSTYPE	FULLADDRESS	MUNICIPALITY	RESPONDING UNIT	CAUSE	CALLDATE	DISPATCH DATE	ENROUTE DATE
11203019	745	False Alarm False Call	400 N MAIN ST	BRISTOL	Engine 1		2024-05-03 13:44:40	2024-05-03 13:44:40	2024-05-03 13:45:28
11624056	324	EMS & Rescue	STAFFORD AVE	BRISTOL	Engine 5		2024-05-16 20:50:53	2024-05-16 20:50:53	2024-05-16 20:51:50
11775412	511	Service Call	572 BROOK ST	BRISTOL	Engine 5		2024-05-22 13:18:13	2024-05-22 13:18:13	2024-05-22 13:19:00
11594775	741	False Alarm False Call	400 MIDDLE ST	BRISTOL	Engine 4		2024-05-15 18:18:05	2024-05-15 18:18:05	2024-05-15 18:19:25
11940553	324	EMS & Rescue	STAFFORD AVE	BRISTOL	Engine 5		2024-05-28 17:58:43	2024-05-28 17:58:43	2024-05-28 17:58:55
11954031	322	EMS & Rescue	MEMORIAL BLVD	BRISTOL	Engine 1		2024-05-30 17:13:56	2024-05-30 17:13:56	2024-05-30 17:13:58
11223236	745	False Alarm False Call	1001 STAFFORD AVE	BRISTOL	Engine 5		2024-05-06 15:50:21	2024-05-06 15:50:21	2024-05-06 15:51:21
11594386	463	Hazardous Condition	MOUNTAIN RD	BRISTOL	Engine 4		2024-05-15 17:18:37	2024-05-15 17:18:37	2024-05-15 17:18:44
11357564	324	EMS & Rescue	1098 FARMINGTON AVE	BRISTOL	Engine 5		2024-05-09 06:29:57	2024-05-09 06:29:57	2024-05-09 06:30:22
11954479	324	EMS & Rescue	24 LINCOLN AVE	BRISTOL	Engine 3		2024-05-30 15:42:13	2024-05-30 15:42:13	2024-05-30 15:42:44
11627275	411	Hazardous Condition	1 PLEASANT ST	BRISTOL	Tower 1		2024-05-17 09:53:16	2024-05-17 09:53:16	2024-05-17 09:54:22
11449210	700	False Alarm False Call	87 CROSS ST	BRISTOL	Engine 4		2024-05-13 11:49:15	2024-05-13 11:49:15	2024-05-13 11:50:05
11195430	324	EMS & Rescue	662 FARMINGTON AVE	BRISTOL	Engine 5		2024-05-02 11:25:13	2024-05-02 11:25:13	2024-05-02 11:25:48
11188117	324	EMS & Rescue	KING ST	BRISTOL	Engine 5		2024-05-01 19:37:59	2024-05-01 19:37:59	2024-05-01 19:38:42
11447136	733	False Alarm False Call	8 SUMMER ST	BRISTOL	Engine 1		2024-05-13 05:57:08	2024-05-13 05:57:08	2024-05-13 05:58:31
11804623	323	EMS & Rescue	BOARDMAN ST	BRISTOL	Engine 5		2024-05-22 18:35:04	2024-05-22 18:35:04	2024-05-22 18:35:51
11941791	311	EMS & Rescue	46 COLLINS RD	BRISTOL	Engine 5		2024-05-28 22:34:29	2024-05-28 22:34:29	2024-05-28 22:35:39
11583308	511	Service Call	70 GAYLORD ST	BRISTOL	Engine 1		2024-05-15 11:45:43	2024-05-15 11:45:43	2024-05-15 11:46:53
11839743	324	EMS & Rescue	1053 FARMINGTON AVE	BRISTOL	Engine 5		2024-05-24 12:12:06	2024-05-24 12:12:06	2024-05-24 12:12:54

FDR-NFIRS-091: Esri Fire Incident Dashboard, LAST MONTH

Bristol FD
Address: 181 N Main St, Bristol, CT, 06010



OBJECTID	NFIRSCODE	NFIRSTYPE	FULLADDRESS	MUNICIPALITY	RESPONDING UNIT	CAUSE	CALLDATE	DISPATCH DATE	ENROUTE DATE
11401645	322	EMS & Rescue	72 PINE ST	BRISTOL	Engine 3		2024-05-10 09:14:04	2024-05-10 09:14:04	2024-05-10 09:14:07
11242658	740	False Alarm False Call	19 JACOBS ST	BRISTOL	Engine 1		2024-05-06 23:58:37	2024-05-06 23:58:37	2024-05-06 23:59:51
11936258	700	False Alarm False Call	657 FARMINGTON AVE	BRISTOL	Engine 5		2024-05-28 13:55:43	2024-05-28 13:55:43	2024-05-28 13:56:41
11825097	561	Service Call	178 MAPLE ST	BRISTOL	Engine 1		2024-05-23 09:24:49	2024-05-23 09:24:49	2024-05-23 09:25:37
11900158	412	Hazardous Condition	78 SUMMER ST	BRISTOL	Engine 1		2024-05-27 12:37:08	2024-05-27 12:37:08	2024-05-27 12:38:38
11648752	322	EMS & Rescue	1182 FARMINGTON AVE	BRISTOL	Engine 5		2024-05-19 14:34:31	2024-05-19 14:34:31	2024-05-19 14:35:22
11588227	743	False Alarm False Call	33 QUEEN ST	BRISTOL	Engine 1		2024-05-15 15:46:50	2024-05-15 15:46:50	2024-05-15 15:47:58
11126160	743	False Alarm False Call	45 NICHOLAS DR	BRISTOL	Engine 3		2024-05-01 09:34:19	2024-05-01 09:34:19	2024-05-01 09:35:09
11195794	324	EMS & Rescue	597 FARMINGTON AVE	BRISTOL	Engine 5		2024-05-02 14:17:15	2024-05-02 14:17:15	2024-05-02 14:18:03
11327959	322	EMS & Rescue	266 PINE ST	BRISTOL	Engine 3		2024-05-07 21:12:09	2024-05-07 21:12:09	2024-05-07 21:12:53
11726210	322	EMS & Rescue	15 PINE ST	BRISTOL	Engine 3		2024-05-21 09:02:47	2024-05-21 09:02:47	2024-05-21 09:03:50
11188014	511	Service Call	59 W WASHINGTON ST	BRISTOL	Engine 3		2024-05-01 19:20:34	2024-05-01 19:20:34	2024-05-01 19:21:28
11962354	324	EMS & Rescue	ORCHARD ST	BRISTOL	Engine 1		2024-05-31 17:11:01	2024-05-31 17:11:01	2024-05-31 17:12:41
11637608	440	Hazardous Condition	54 PROSPECT ST	BRISTOL	Fire 2		2024-05-17 17:51:15	2024-05-17 17:51:15	2024-05-17 17:52:30
11433079	740	False Alarm False Call	18 STEELE RD	BRISTOL	Engine 1		2024-05-10 17:33:34	2024-05-10 17:33:34	2024-05-10 17:34:43
11624891	714	False Alarm False Call	61 BELLEVUE AVE	BRISTOL	Engine 1		2024-05-16 22:56:30	2024-05-16 22:56:30	2024-05-16 22:58:16
11243371	743	False Alarm False Call	641 FARMINGTON AVE	BRISTOL	Engine 5		2024-05-07 06:25:49	2024-05-07 06:25:49	2024-05-07 06:27:01
11962518	561	Service Call	LAUREL ST	BRISTOL	Engine 1		2024-05-31 21:07:58	2024-05-31 21:07:58	2024-05-31 21:09:29

FDR-NFIRS-091: Esri Fire Incident Dashboard, LAST MONTH

Bristol FD
Address: 181 N Main St, Bristol, CT, 06010



OBJECTID	NFIRSCODE	NFIRSTYPE	FULLADDRESS	MUNICIPALITY	RESPONDING UNIT	CAUSE	CALLDATE	DISPATCH DATE	ENROUTE DATE
11826165	740	False Alarm False Call	510 WEST ST	BRISTOL	Engine 1		2024-05-23 14:13:40	2024-05-23 14:13:40	2024-05-23 14:14:41
11196668	131	Fire	EAST RD	BRISTOL	Fire 2	U - Cause undetermined after investigation	2024-05-02 14:54:40	2024-05-02 14:54:40	2024-05-02 14:55:10
11767786	100	Fire	60 MIDDLE ST	BRISTOL	Engine 4	U - Cause undetermined after investigation	2024-05-21 17:21:46	2024-05-21 17:21:46	2024-05-21 17:22:48
11953915	324	EMS & Rescue	740 KING ST	BRISTOL	Engine 5		2024-05-30 17:10:32	2024-05-30 17:10:32	2024-05-30 17:11:21
11242300	511	Service Call	55 GAYLORD ST	BRISTOL	Engine 1		2024-05-06 22:42:11	2024-05-06 22:42:11	2024-05-06 22:43:40
11644044	311	EMS & Rescue	81 LOCUST ST	BRISTOL	Engine 1		2024-05-18 17:28:54	2024-05-18 17:28:54	2024-05-18 17:29:51
11508067	324	EMS & Rescue	VANDERBILT RD	BRISTOL	Engine 5		2024-05-13 17:20:41	2024-05-13 17:20:41	2024-05-13 17:20:49
11443893	324	EMS & Rescue	747 PINE ST	BRISTOL	Engine 3		2024-05-12 15:38:19	2024-05-12 15:38:19	2024-05-12 15:40:00
11653443	735	False Alarm False Call	31 MARSH RD	BRISTOL	Engine 2		2024-05-20 09:25:09	2024-05-20 09:25:09	2024-05-20 09:25:43
11242855	735	False Alarm False Call	510 WEST ST	BRISTOL	Engine 1		2024-05-07 01:01:00	2024-05-07 01:01:00	2024-05-07 01:02:27
11189941	700	False Alarm False Call	407 WEST ST	BRISTOL	Engine 1		2024-05-02 03:37:15	2024-05-02 03:37:15	2024-05-02 03:39:08
11621448	324	EMS & Rescue	JEROME AVE	BRISTOL	Engine 5		2024-05-16 14:21:30	2024-05-16 14:21:30	2024-05-16 14:22:31
11355305	324	EMS & Rescue	PINE ST	BRISTOL	Engine 3		2024-05-08 20:33:30	2024-05-08 20:34:38	2024-05-08 20:34:38
11847607	324	EMS & Rescue	BARNES HWY	BRISTOL	Engine 3		2024-05-25 09:36:10	2024-05-25 09:36:10	2024-05-25 09:37:52
11210036	324	EMS & Rescue	PEACEDALE ST	BRISTOL	Engine 2		2024-05-04 16:29:47	2024-05-04 16:29:47	2024-05-04 16:30:26
11541572	142	Fire	CAWLEY ST	BRISTOL	Engine 1	U - Cause undetermined after investigation	2024-05-14 12:35:14	2024-05-14 12:35:14	2024-05-14 12:36:32
11653428	735	False Alarm False Call	31 MARSH RD	BRISTOL	Engine 2		2024-05-20 09:04:12	2024-05-20 09:04:12	2024-05-20 09:05:13
11768523	324	EMS & Rescue	WOZENSKI WAY	BRISTOL	Engine 1		2024-05-21 17:45:24	2024-05-21 17:45:24	2024-05-21 17:46:30

FDR-NFIRS-091: Esri Fire Incident Dashboard, LAST MONTH

Bristol FD
Address: 181 N Main St, Bristol, CT, 06010



OBJECTID	NFIRSCODE	NFIRSTYPE	FULLADDRESS	MUNICIPALITY	RESPONDING UNIT	CAUSE	CALLDATE	DISPATCH DATE	ENROUTE DATE
11442911	700	False Alarm False Call	1214 FARMINGTON AVE	BRISTOL	Engine 5		2024-05-12 12:16:05	2024-05-12 12:16:05	2024-05-12 12:16:15
11198333	322	EMS & Rescue	253 EAST RD	BRISTOL	Engine 1		2024-05-02 19:27:42	2024-05-02 19:27:42	2024-05-02 19:28:40
11223556	743	False Alarm False Call	66 BROOKSIDE DR	BRISTOL	Engine 5		2024-05-06 17:17:28	2024-05-06 17:17:28	2024-05-06 17:18:37
11962100	561	Service Call	KNOB HILL LN	BRISTOL	Engine 2		2024-05-31 19:59:55	2024-05-31 19:59:55	2024-05-31 20:01:01
11808782	324	EMS & Rescue	300 MIDDLE ST	BRISTOL	Engine 4		2024-05-22 23:22:25	2024-05-22 23:22:25	2024-05-22 23:24:37
11209766	561	Service Call	30 WARD ST	BRISTOL	Engine 1		2024-05-04 16:15:08	2024-05-04 16:15:08	2024-05-04 16:16:37
11621571	322	EMS & Rescue	RIVERSIDE AVE	BRISTOL	Engine 4		2024-05-16 08:16:38	2024-05-16 08:16:38	2024-05-16 08:17:15
11638085	740	False Alarm False Call	60 MIDDLE ST	BRISTOL	Engine 4		2024-05-17 19:01:20	2024-05-17 19:01:20	2024-05-17 19:03:03
11437309	324	EMS & Rescue	632 KING ST	BRISTOL	Engine 5		2024-05-11 10:54:20	2024-05-11 10:54:20	2024-05-11 10:55:40
11621410	111	Fire	393 SCOTT SWAMP RD	Farmington	Engine 5		2024-05-16 11:59:18	2024-05-16 11:59:18	2024-05-16 12:00:31
11964067	322	EMS & Rescue	91 PINE ST	BRISTOL	Engine 4		2024-05-31 16:11:26	2024-05-31 16:11:26	2024-05-31 16:13:06
11846398	331	EMS & Rescue	52 SHEILA CT	BRISTOL	Engine 5		2024-05-25 10:41:19	2024-05-25 10:41:19	2024-05-25 10:42:31
11197656	553	Service Call	28 PILGRIM RD	BRISTOL	Engine 5		2024-05-02 15:07:25	2024-05-02 15:07:25	2024-05-02 15:07:54
11219697	322	EMS & Rescue	MIDDLE ST	BRISTOL	Engine 4		2024-05-06 06:15:40	2024-05-06 06:15:40	2024-05-06 06:17:59
11827091	422	Hazardous Condition	20 ZIPP AVE	BRISTOL	Engine 3		2024-05-23 15:55:44	2024-05-23 15:55:44	2024-05-23 15:57:21
11124805	740	False Alarm False Call	396 BIRCH ST	BRISTOL	Engine 4		2024-05-01 03:34:32	2024-05-01 03:34:32	2024-05-01 03:36:14
11202439	743	False Alarm False Call	71 PALMORR PL	BRISTOL	Engine 5		2024-05-03 09:17:44	2024-05-03 09:17:44	2024-05-03 09:19:07
11652046	740	False Alarm False Call	597 FARMINGTON AVE	BRISTOL	Engine 5		2024-05-19 22:05:26	2024-05-19 22:05:26	2024-05-19 22:06:46
11575872	324	EMS & Rescue	EMMETT ST	BRISTOL	Engine 3		2024-05-14 15:10:07	2024-05-14 15:10:07	2024-05-14 15:11:23

FDR-NFIRS-091: Esri Fire Incident Dashboard, LAST MONTH

Bristol FD
Address: 181 N Main St, Bristol, CT, 06010



OBJECTID	NFIRSCODE	NFIRSTYPE	FULLADDRESS	MUNICIPALITY	RESPONDING UNIT	CAUSE	CALLDATE	DISPATCH DATE	ENROUTE DATE
11207274	324	EMS & Rescue	780 JAMES P CASEY RD	BRISTOL	Engine 2		2024-05-04 02:33:42	2024-05-04 02:33:42	2024-05-04 02:35:17
11825369	746	False Alarm False Call	62 COLLINS RD	BRISTOL	Engine 5		2024-05-23 09:07:28	2024-05-23 09:07:28	2024-05-23 09:08:27
11857499	111	Fire	43 RHODA LN	BRISTOL	Engine 5	2 - Unintentional	2024-05-27 01:38:48	2024-05-27 01:38:48	2024-05-27 01:40:12
11637716	740	False Alarm False Call	38 UPSON ST	BRISTOL	Engine 1		2024-05-17 18:21:58	2024-05-17 18:21:58	2024-05-17 18:24:11
11936078	743	False Alarm False Call	357 BIRCH ST	BRISTOL	Engine 4		2024-05-28 08:25:01	2024-05-28 08:25:01	2024-05-28 08:26:57
11856533	424	Hazardous Condition	342 MAIN ST	BRISTOL	Engine 1		2024-05-26 22:22:01	2024-05-26 22:22:01	2024-05-26 22:23:10
11900447	743	False Alarm False Call	198 JEROME AVE	BRISTOL	Engine 5		2024-05-27 11:06:42	2024-05-27 11:06:42	2024-05-27 11:08:17
11161135	743	False Alarm False Call	437 DIVINITY ST	BRISTOL	Fire 2		2024-05-01 11:54:58	2024-05-01 11:54:58	2024-05-01 11:55:30
11216580	324	EMS & Rescue	SOUTH ST	BRISTOL	Engine 4		2024-05-05 17:09:23	2024-05-05 17:09:23	2024-05-05 17:10:55
11353604	322	EMS & Rescue	RUNGE AVE	BRISTOL	Engine 3		2024-05-08 17:50:07	2024-05-08 17:50:07	2024-05-08 17:52:00
11943794	324	EMS & Rescue	BARNES HWY	BRISTOL	Engine 4		2024-05-29 08:46:57	2024-05-29 08:46:57	2024-05-29 08:47:54
11216894	733	False Alarm False Call	81 Grove Ave	Bristol	Engine 3		2024-05-05 18:39:36	2024-05-05 18:39:36	2024-05-05 18:42:00
11900339	400	Hazardous Condition	25 BROAD VIEW ST	BRISTOL	Engine 1		2024-05-27 13:39:02	2024-05-27 13:39:02	2024-05-27 13:40:17
11444103	412	Hazardous Condition	MAIN ST	BRISTOL	Engine 1		2024-05-12 13:32:44	2024-05-12 13:32:44	2024-05-12 13:34:09
11668834	131	Fire	65 BLAKESLEE ST	BRISTOL	Engine 4	3 - Failure of equipment or heat source	2024-05-20 18:38:05	2024-05-20 18:38:05	2024-05-20 18:40:35
11124748	445	Hazardous Condition	58 VERNON ST	BRISTOL	Engine 3		2024-05-01 02:34:30	2024-05-01 02:34:30	2024-05-01 02:36:40
11271378	511	Service Call	82 GREGORY RD	BRISTOL	Engine 5		2024-05-07 15:33:05	2024-05-07 15:33:05	2024-05-07 15:34:20
11200079	324	EMS & Rescue	BROAD ST	BRISTOL	Engine 4		2024-05-03 03:33:33	2024-05-03 03:33:33	2024-05-03 03:35:44

FDR-NFIRS-091: Esri Fire Incident Dashboard, LAST MONTH

Bristol FD
Address: 181 N Main St, Bristol, CT, 06010



OBJECTID	NFIRSCODE	NFIRSTTYPE	FULLADDRESS	MUNICIPALITY	RESPONDING UNIT	CAUSE	CALLDATE	DISPATCH DATE	ENROUTE DATE
11197064	522	Service Call	190 MAIN ST	BRISTOL	Engine 1		2024-05-02 14:30:47	2024-05-02 14:30:47	2024-05-02 14:31:52
11585997	322	EMS & Rescue	COLUMBUS AVE	BRISTOL	Engine 1		2024-05-15 13:29:56	2024-05-15 13:29:56	2024-05-15 13:30:45
11402421	324	EMS & Rescue	84 Missal Ave	Bristol	Engine 3		2024-05-10 15:51:29	2024-05-10 15:51:29	2024-05-10 15:52:35
11438947	561	Service Call	87 TIMBER LN	BRISTOL	Engine 5		2024-05-11 18:11:39	2024-05-11 18:11:39	2024-05-11 18:13:10
11652011	714	False Alarm False Call	200 BLAKESLEE ST	BRISTOL	Engine 1		2024-05-20 02:34:27	2024-05-20 02:34:27	2024-05-20 02:35:46
11268835	733	False Alarm False Call	152 COLLINS RD	BRISTOL	Engine 5		2024-05-07 10:16:34	2024-05-07 10:16:34	2024-05-07 10:19:00
11509493	746	False Alarm False Call	91 VANTANA DR	BRISTOL	Engine 5		2024-05-13 20:34:14	2024-05-13 20:34:14	2024-05-13 20:34:48
11649670	511	Service Call	343 PARK ST	BRISTOL	Engine 1		2024-05-19 14:41:37	2024-05-19 14:41:37	2024-05-19 14:41:42
11446759	118	Fire	140 GREENE ST	BRISTOL	Engine 1	U - Cause undetermined after investigation	2024-05-12 23:49:22	2024-05-12 23:49:22	2024-05-12 23:51:47
11952889	412	Hazardous Condition	15 ARMAND RD	BRISTOL	Fire 2		2024-05-30 13:40:08	2024-05-30 13:40:08	2024-05-30 13:40:20
11627806	511	Service Call	371 EMMETT ST	BRISTOL	Engine 4		2024-05-17 12:07:28	2024-05-17 12:07:28	2024-05-17 12:08:33
11360427	111	Fire	13 IPSWICH RD	BRISTOL	Engine 4	U - Cause undetermined after investigation	2024-05-09 08:07:17	2024-05-09 08:07:17	2024-05-09 08:08:42
11846685	710	False Alarm False Call	822 LAKE AVE	BRISTOL	Engine 4		2024-05-25 10:58:35	2024-05-25 10:58:35	2024-05-25 10:58:40
11846851	116	Fire	514 FERN HILL RD	BRISTOL	Engine 5		2024-05-25 12:46:41	2024-05-25 12:46:41	2024-05-25 12:47:25
11725807	311	EMS & Rescue	209 BURTON ST	BRISTOL	Engine 3		2024-05-21 11:10:58	2024-05-21 11:10:58	2024-05-21 11:12:33
11845061	324	EMS & Rescue	74 SHEFFIELD LN	BRISTOL	Engine 5		2024-05-25 02:26:11	2024-05-25 02:26:11	2024-05-25 02:27:58
11391325	411	Hazardous Condition	LAKE AVE	BRISTOL	Engine 4		2024-05-09 15:52:49	2024-05-09 15:52:49	2024-05-09 15:53:43

FDR-NFIRS-091: Esri Fire Incident Dashboard, LAST MONTH

Bristol FD
Address: 181 N Main St, Bristol, CT, 06010



OBJECTID	NFIRSCODE	NFIRSTTYPE	FULLADDRESS	MUNICIPALITY	RESPONDING UNIT	CAUSE	CALLDATE	DISPATCH DATE	ENROUTE DATE
11200075	551	Service Call	332 QUEEN ST	BRISTOL	Engine 1		2024-05-03 04:12:00	2024-05-03 04:12:00	2024-05-03 04:13:37
11844216	743	False Alarm False Call	1425 Farmington Ave	Bristol	Engine 5		2024-05-25 00:05:00	2024-05-25 00:05:00	2024-05-25 00:06:28
11770217	422	Hazardous Condition	646 FARMINGTON AVE	BRISTOL	Engine 5		2024-05-22 02:25:07	2024-05-22 02:25:07	2024-05-22 02:27:42
11190684	413	Hazardous Condition	79 S STREET EXT	BRISTOL	Engine 1		2024-05-01 19:48:58	2024-05-01 19:48:58	2024-05-01 19:50:14
11836169	745	False Alarm False Call	25 NEWELL RD	BRISTOL	Engine 1		2024-05-24 08:51:17	2024-05-24 08:51:17	2024-05-24 08:53:12
11941399	320	EMS & Rescue	524 BROAD ST	BRISTOL	Engine 4		2024-05-28 21:20:27	2024-05-28 21:20:27	2024-05-28 21:22:00
11942572	745	False Alarm False Call	883 MIDDLE ST	BRISTOL	Engine 4		2024-05-29 03:16:40	2024-05-29 03:16:40	2024-05-29 03:18:33
11402329	511	Service Call	285 JEROME AVE	BRISTOL	Engine 5		2024-05-10 10:12:21	2024-05-10 10:12:21	2024-05-10 10:12:25
11331664	744	False Alarm False Call	81 FIELD ST	BRISTOL	Engine 1		2024-05-08 09:51:01	2024-05-08 09:51:01	2024-05-08 09:51:38
11588045	713	False Alarm False Call	207 CENTRAL ST	BRISTOL	Engine 5		2024-05-15 13:25:29	2024-05-15 13:25:29	2024-05-15 13:26:22
11902827	733	False Alarm False Call	70 4TH ST	BRISTOL	Engine 4		2024-05-28 02:59:15	2024-05-28 02:59:15	2024-05-28 03:01:17
11770368	600	Good Intent Call	321 STONE CREST DR	BRISTOL	Engine 4		2024-05-22 03:24:24	2024-05-22 03:24:24	2024-05-22 03:25:58
11961629	561	Service Call	170 SONSTROM RD	BRISTOL	Engine 5		2024-05-31 18:49:33	2024-05-31 18:49:33	2024-05-31 18:50:37
11624234	511	Service Call	603 FARMINGTON AVE	BRISTOL	Engine 5		2024-05-16 21:23:12	2024-05-16 21:23:12	2024-05-16 21:24:42
11637341	324	EMS & Rescue	WEST ST	BRISTOL	Engine 1		2024-05-17 11:29:00	2024-05-17 11:29:00	2024-05-17 11:30:42
11829450	734	False Alarm False Call	700 BIRCH ST	BRISTOL	Engine 4		2024-05-23 22:10:36	2024-05-23 22:10:36	2024-05-23 22:12:09
11329557	500	Service Call	152 COLLINS RD	BRISTOL	Engine 5		2024-05-08 09:09:27	2024-05-08 09:09:27	2024-05-08 09:12:05
11951473	440	Hazardous Condition	470 FARMINGTON AVE	BRISTOL	Engine 5		2024-05-30 09:47:49	2024-05-30 09:47:49	2024-05-30 09:49:32

FDR-NFIRS-091: Esri Fire Incident Dashboard, LAST MONTH

Bristol FD
Address: 181 N Main St, Bristol, CT, 06010



OBJECTID	NFIRSCODE	NFIRSTYPE	FULLADDR	MUNICIPALITY	RESPONDINGUNIT	CAUSE	CALLDATE	DISPATCHDATE	ENROUTE DATE
11845538	372	EMS & Rescue	112 HAIG AVE	BRISTOL	Engine 5		2024-05-24 22:29:55	2024-05-24 22:29:55	2024-05-24 22:31:21
11839786	324	EMS & Rescue	MEMORIAL BLVD	BRISTOL	Engine 1		2024-05-24 12:28:24	2024-05-24 12:28:24	2024-05-24 12:30:06
11808788	324	EMS & Rescue	RUSTIC TER	BRISTOL	Engine 1		2024-05-22 23:16:59	2024-05-22 23:16:59	2024-05-22 23:18:35
11644885	561	Service Call	26 ALEXANDER ST	BRISTOL	Engine 4		2024-05-18 21:47:53	2024-05-18 21:47:53	2024-05-18 21:51:46
11642618	600	Good Intent Call	36 WILLIS ST	BRISTOL	Engine 1		2024-05-18 15:03:01	2024-05-18 15:03:01	2024-05-18 15:05:07
11509453	746	False Alarm False Call	54 CABOT ST	BRISTOL	Engine 5		2024-05-13 20:47:48	2024-05-13 20:47:48	2024-05-13 20:48:00
11940935	444	Hazardous Condition	11 WOODING ST	BRISTOL	Engine 1		2024-05-28 15:56:31	2024-05-28 15:56:31	2024-05-28 15:57:29
11637353	324	EMS & Rescue	154 NORTH ST	BRISTOL	Engine 1		2024-05-17 15:08:39	2024-05-17 15:08:39	2024-05-17 15:10:20
11448938	322	EMS & Rescue	740 KING ST	BRISTOL	Engine 5		2024-05-13 10:01:13	2024-05-13 10:01:13	2024-05-13 10:02:13
11953917	440	Hazardous Condition	PROSPECT ST	BRISTOL	Engine 1		2024-05-30 11:19:00	2024-05-30 11:19:00	2024-05-30 11:20:29
11445948	531	Service Call	97 GOODWIN ST	BRISTOL	Engine 1		2024-05-12 21:55:56	2024-05-12 21:55:56	2024-05-12 21:58:59
11221267	746	False Alarm False Call	58 ROSSIDR	BRISTOL	Engine 5		2024-05-06 09:24:31	2024-05-06 09:24:31	2024-05-06 09:26:17
11619429	411	Hazardous Condition	54 FARMINGTON AVE	BRISTOL	Engine 1		2024-05-16 08:10:26	2024-05-16 08:10:26	2024-05-16 08:11:36
11946685	511	Service Call	1200 FARMINGTON AVE	BRISTOL	Engine 5		2024-05-29 17:42:01	2024-05-29 17:42:01	2024-05-29 17:43:24
11327990	324	EMS & Rescue	CROWN ST	BRISTOL	Engine 1		2024-05-07 22:57:55	2024-05-07 22:57:55	2024-05-07 22:59:31
11642106	412	Hazardous Condition	DOWNS ST	BRISTOL	Engine 4		2024-05-18 12:28:05	2024-05-18 12:28:05	2024-05-18 12:29:45
11959562	118	Fire	MAPLE AVE	BRISTOL	Engine 5		2024-05-31 12:52:40	2024-05-31 12:52:40	2024-05-31 12:54:41
11589354	511	Service Call	63 WOODFIELD RD	BRISTOL	Engine 5		2024-05-15 19:18:20	2024-05-15 19:18:20	2024-05-15 19:19:17
11566451	440	Hazardous Condition	217 QUEEN ST	BRISTOL	Engine 1		2024-05-14 13:55:41	2024-05-14 13:55:41	2024-05-14 13:57:09

FDR-NFIRS-091: Esri Fire Incident Dashboard, LAST MONTH

Bristol FD
Address: 181 N Main St, Bristol, CT, 06010



OBJECTID	NFIRSCODE	NFIRSTYPE	FULLADDRESS	MUNICIPALITY	RESPONDING UNIT	CAUSE	CALLDATE	DISPATCH DATE	ENROUTE DATE
11637324	111	Fire	79 ASHLEY RD	BRISTOL	Engine 5	3 - Failure of equipment or heat source	2024-05-17 15:50:14	2024-05-17 15:50:14	2024-05-17 15:51:34
11222620	500	Service Call	92 LARKSPUR LN	BRISTOL	Engine 4		2024-05-06 14:04:15	2024-05-06 14:04:15	2024-05-06 14:05:17
11358872	700	False Alarm False Call	500 BROAD ST	BRISTOL	Engine 7		2024-05-09 10:29:53	2024-05-09 10:29:53	2024-05-09 10:31:32
11269579	311	EMS & Rescue	482 BROAD ST	BRISTOL	Engine 4		2024-05-07 12:23:03	2024-05-07 12:23:03	2024-05-07 12:25:11
11469361	740	False Alarm False Call	81 FIELD ST	BRISTOL	Engine 1		2024-05-13 14:12:57	2024-05-13 14:12:57	2024-05-13 14:15:37
11408688	600	Good Intent Call	36 WILLIS ST	BRISTOL	Engine 1		2024-05-09 20:19:39	2024-05-09 20:19:39	2024-05-09 20:21:00
11198666	511	Service Call	81 FIELD ST	BRISTOL	Engine 1		2024-05-02 20:44:13	2024-05-02 20:44:13	2024-05-02 20:45:16
11825087	311	EMS & Rescue	40 PIERCE ST	BRISTOL	Engine 1		2024-05-23 10:37:24	2024-05-23 10:37:24	2024-05-23 10:38:23
11934736	511	Service Call	151 N MAIN ST	BRISTOL	Engine 2		2024-05-28 08:31:49	2024-05-28 08:31:49	2024-05-28 08:35:14
11825458	440	Hazardous Condition	JEROME AVE	BRISTOL	Engine 5		2024-05-23 10:06:13	2024-05-23 10:06:13	2024-05-23 10:08:10
11956738	700	False Alarm False Call	90 W WAS HINGTON ST	BRISTOL	Engine 4		2024-05-31 00:00:08	2024-05-31 00:00:08	2024-05-31 00:02:12
11206969	746	False Alarm False Call	99 GRIDLEY ST	BRISTOL	Engine 1		2024-05-03 21:39:49	2024-05-03 21:39:49	2024-05-03 21:41:30
11667280	561	Service Call	43 LOCUST ST	BRISTOL	Engine 1		2024-05-20 16:25:37	2024-05-20 16:25:37	2024-05-20 16:28:24
11628461	700	False Alarm False Call	71 VERA RD	BRISTOL	Engine 5		2024-05-17 14:23:39	2024-05-17 14:23:39	2024-05-17 14:24:58
11622605	511	Service Call	480 WOLCOTT ST	BRISTOL	Engine 1		2024-05-16 14:16:54	2024-05-16 14:16:54	2024-05-16 14:19:06
11242970	733	False Alarm False Call	173 BIRCH WOOD TRL	BRISTOL	Engine 5		2024-05-07 02:21:34	2024-05-07 02:21:34	2024-05-07 02:23:47
11934710	400	Hazardous Condition	18 BROAD VIEW ST	BRISTOL	Engine 1		2024-05-28 11:06:54	2024-05-28 11:06:54	2024-05-28 11:08:00
11787884	413	Hazardous Condition	IPSWITCH RD	BRISTOL	Engine 1		2024-05-22 09:37:21	2024-05-22 09:37:21	2024-05-22 09:40:56
11734962	511	Service Call	502 SOUTH ST	BRISTOL	Engine 4		2024-05-21 14:07:49	2024-05-21 14:07:49	2024-05-21 14:10:10

FDR-NFIRS-091: Esri Fire Incident Dashboard, LAST MONTH

Bristol FD
Address: 181 N Main St, Bristol, CT, 06010



OBJECTID	NFIRSCODE	NFIRSTTYPE	FULLADDRESS	MUNICIPALITY	RESPONDING UNIT	CAUSE	CALLDATE	DISPATCH DATE	ENROUTE DATE
11666911	700	False Alarm False Call	720 BIRCH ST	BRISTOL	Engine 3		2024-05-20 09:23:47	2024-05-20 09:23:47	2024-05-20 09:25:12
11964196	561	Service Call	36 BATT PL	BRISTOL	Engine 3		2024-05-31 19:07:57	2024-05-31 19:07:57	2024-05-31 19:08:22
11723231	311	EMS & Rescue	52 SHEILA CT	BRISTOL	Engine 5		2024-05-21 00:17:00	2024-05-21 00:17:00	2024-05-21 00:19:24
11510963	561	Service Call	30 CARRIAGE RD	BRISTOL	Engine 5		2024-05-14 03:33:47	2024-05-14 03:33:47	2024-05-14 03:37:45
11841168	600	Good Intent Call	24 REDSTONE ST	BRISTOL	Engine 3		2024-05-24 16:19:25	2024-05-24 16:19:25	2024-05-24 16:21:34
11901605	444	Hazardous Condition	441 WITCHES ROCK RD	BRISTOL	Engine 1		2024-05-27 21:20:17	2024-05-27 21:20:17	2024-05-27 21:22:15
11173429	600	Good Intent Call	510 MAPLE AVE	BRISTOL	Engine 5		2024-05-01 18:21:08	2024-05-01 18:21:08	2024-05-01 18:22:52
11312616	511	Service Call	343 PARK ST	BRISTOL	Engine 1		2024-05-07 11:24:40	2024-05-07 11:24:40	2024-05-07 11:25:24
11776141	411	Hazardous Condition	65 BLAKESLEE ST	BRISTOL	Engine 4		2024-05-22 15:05:42	2024-05-22 15:05:43	2024-05-22 15:07:46
11433194	100	Fire	59 N MAIN ST	BRISTOL	Fire 6	U - Cause undetermined after investigation	2024-05-10 19:22:37	2024-05-10 19:30:42	2024-05-10 19:30:42
11962903	111	Fire	123 NORTON ST	southington	Engine 3		2024-05-31 11:18:54	2024-05-31 11:18:54	2024-05-31 11:19:43
11580236	611	Good Intent Call	MAPLE ST	BRISTOL			2024-05-15 08:16:20		
11162530	611	Good Intent Call	FARMINGTON AVE	BRISTOL			2024-05-01 14:21:28		
11219674	611	Good Intent Call	SOUTH STREET EXT	BRISTOL			2024-05-06 03:14:00		
11268817	611	Good Intent Call	410 FARMINGTON AVE	BRISTOL			2024-05-07 07:29:55		
11197048	611	Good Intent Call	OAKLAND ST	BRISTOL			2024-05-02 13:42:34		
11826806	611	Good Intent Call	CAROL DR	BRISTOL			2024-05-23 15:44:57		
11446940	611	Good Intent Call	24 LEWIS ST	BRISTOL			2024-05-13 04:45:23		

FDR-NFIRS-091: Esri Fire Incident Dashboard, LAST MONTH

Bristol FD
Address: 181 N Main St, Bristol, CT, 06010



OBJECTID	NFIRSCODE	NFIRSTTYPE	FULLADDRESS	MUNICIPALITY	RESPONDING UNIT	CAUSE	CALLDATE	DISPATCH DATE	ENROUTE DATE
11845050	611	Good Intent Call	534 BROAD ST	BRISTOL			2024-05-24 21:12:14		
11957998	611	Good Intent Call	BREWSTER RD	BRISTOL			2024-05-31 07:50:48		
11940539	611	Good Intent Call	OAKLAND ST	BRISTOL			2024-05-28 16:16:16		
11637294	324	EMS & Rescue	ADELINE AVE	BRISTOL			2024-05-17 16:53:19		
11827889	611	Good Intent Call	LARDNER RD	BRISTOL			2024-05-23 18:30:03		
11841252	611	Good Intent Call	RIVERSIDE AVE	BRISTOL			2024-05-24 16:04:31		
11947865	611	Good Intent Call	480 WOLCOTT ST	BRISTOL			2024-05-29 18:50:21		
11643703	311	EMS & Rescue	104 LUFKIN LN	BRISTOL			2024-05-18 16:12:25		
11332819	611	Good Intent Call	WEST ST	BRISTOL			2024-05-08 13:19:56		
11900368	611	Good Intent Call	43 CEDAR ST	BRISTOL			2024-05-27 17:10:44		
11627708	551	Service Call	40 MATTHEWS ST	BRISTOL			2024-05-17 08:49:12		
11962909	611	Good Intent Call	1264 FARMINGTON AVE	BRISTOL			2024-05-31 21:57:40		
11842950	611	Good Intent Call	475 FARMINGTON AVE	BRISTOL			2024-05-24 21:01:23		
11207100	700	False Alarm False Call	35 CENTRAL ST	BRISTOL			2024-05-03 17:32:45		

OVERLAPPING CALLS	INCIDENT NUMBER	NUMBER OF INCIDENTS	
		OVERLAPPING	ALARM DATE/TIME
Overlap 1		2	
	BFD-2024-0001000		5/1/2024 19:37
	BFD-2024-0001001		5/1/2024 19:48
Overlap 2		3	
	BFD-2024-0001006		5/2/2024 14:30
	BFD-2024-0001007		5/2/2024 14:54
	BFD-2024-0001009		5/2/2024 15:07
Overlap 3		2	
	BFD-2024-0001012		5/3/2024 3:33
	BFD-2024-0001013		5/3/2024 4:12
Overlap 4		2	
	BFD-2024-0001049		5/9/2024 8:07
	BFD-2024-0001050		5/9/2024 10:29
Overlap 5		2	
	BFD-2024-0001071		5/13/2024 11:49
	BFD-2024-0001072		5/13/2024 11:54
Overlap 6		2	
	BFD-2024-0001073		5/13/2024 14:12
	BFD-2024-0001074		5/13/2024 14:15
Overlap 7		2	
	BFD-2024-0001076		5/13/2024 20:34
	BFD-2024-0001077		5/13/2024 20:47
Overlap 8		2	
	BFD-2024-0001084		5/15/2024 13:25
	BFD-2024-0001085		5/15/2024 13:29
Overlap 9		2	
	BFD-2024-0001092		5/16/2024 8:10
	BFD-2024-0001093		5/16/2024 8:16
Overlap 10		2	
	BFD-2024-0001095		5/16/2024 14:16
	BFD-2024-0001096		5/16/2024 14:21
Overlap 11		2	
	BFD-2024-0001106		5/17/2024 15:50
	BFD-2024-0001107		5/17/2024 16:53
Overlap 12		2	
	BFD-2024-0001117		5/19/2024 14:34
	BFD-2024-0001118		5/19/2024 14:41
Overlap 13		3	
	BFD-2024-0001121		5/20/2024 9:04
	BFD-2024-0001122		5/20/2024 9:23
	BFD-2024-0001123		5/20/2024 9:25
Overlap 14		2	
	BFD-2024-0001131		5/21/2024 17:21
	BFD-2024-0001132		5/21/2024 17:45
Overlap 15		2	

	BFD-2024-0001134		5/22/2024 2:25
	BFD-2024-0001135		5/22/2024 3:24
Overlap 16		2	
	BFD-2024-0001142		5/22/2024 23:16
	BFD-2024-0001143		5/22/2024 23:22
Overlap 17		2	
	BFD-2024-0001146		5/23/2024 10:06
	BFD-2024-0001147		5/23/2024 10:37
Overlap 18		2	
	BFD-2024-0001161		5/24/2024 21:12
	BFD-2024-0001162		5/24/2024 21:13
Overlap 19		2	
	BFD-2024-0001167		5/25/2024 10:41
	BFD-2024-0001168		5/25/2024 10:58
Overlap 20		2	
	BFD-2024-0001197		5/30/2024 17:10
	BFD-2024-0001198		5/30/2024 17:13
Overlap 21		2	
	BFD-2024-0001201		5/31/2024 11:04
	BFD-2024-0001202		5/31/2024 11:18
Overlap 22		2	
	BFD-2024-0001202		5/31/2024 11:18
	BFD-2024-0001203		5/31/2024 12:52
Count of Overlapping Incidents		46	

LAST UNIT CLEARED
DATE/TIME

5/1/2024 20:10
5/1/2024 20:01

5/2/2024 15:56
5/2/2024 16:18
5/2/2024 15:18

5/3/2024 4:33
5/3/2024 4:30

5/9/2024 11:16
5/9/2024 10:44

5/13/2024 11:57
5/13/2024 12:05

5/13/2024 14:24
5/13/2024 15:52

5/13/2024 20:47
5/13/2024 21:00

5/15/2024 13:48
5/15/2024 13:48

5/16/2024 8:20
5/16/2024 8:22

5/16/2024 14:26
5/16/2024 14:25

5/17/2024 17:17
5/17/2024 16:57

5/19/2024 15:10
5/19/2024 14:49

5/20/2024 9:25
5/20/2024 9:40
5/20/2024 9:50

5/21/2024 18:15
5/21/2024 17:56

5/22/2024 4:24
5/22/2024 3:44

5/22/2024 23:27
5/22/2024 23:31

5/23/2024 10:47
5/23/2024 10:58

5/24/2024 21:14
5/24/2024 21:36

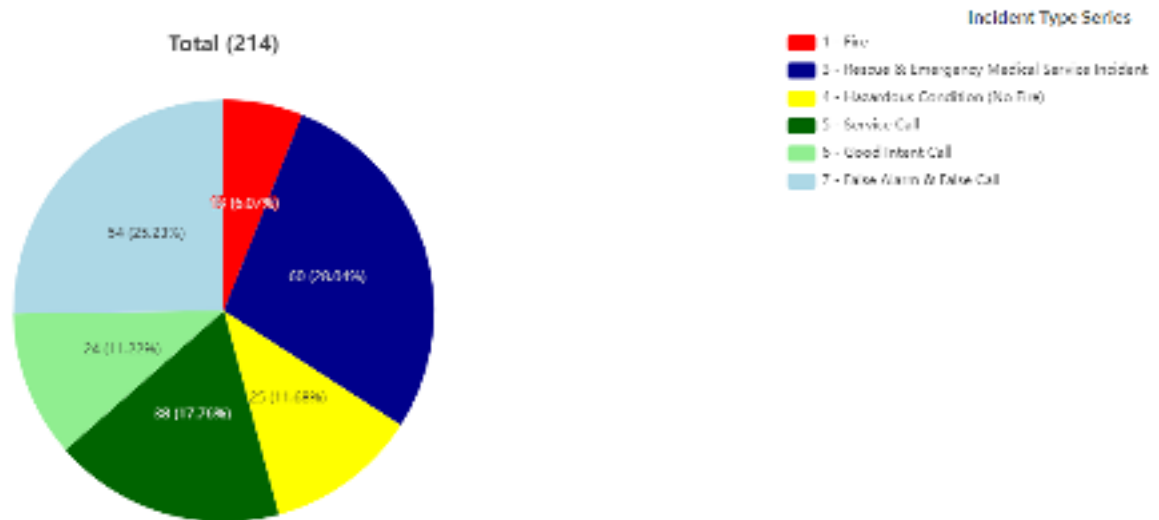
5/25/2024 10:58
5/25/2024 11:17

5/30/2024 17:17
5/30/2024 17:18

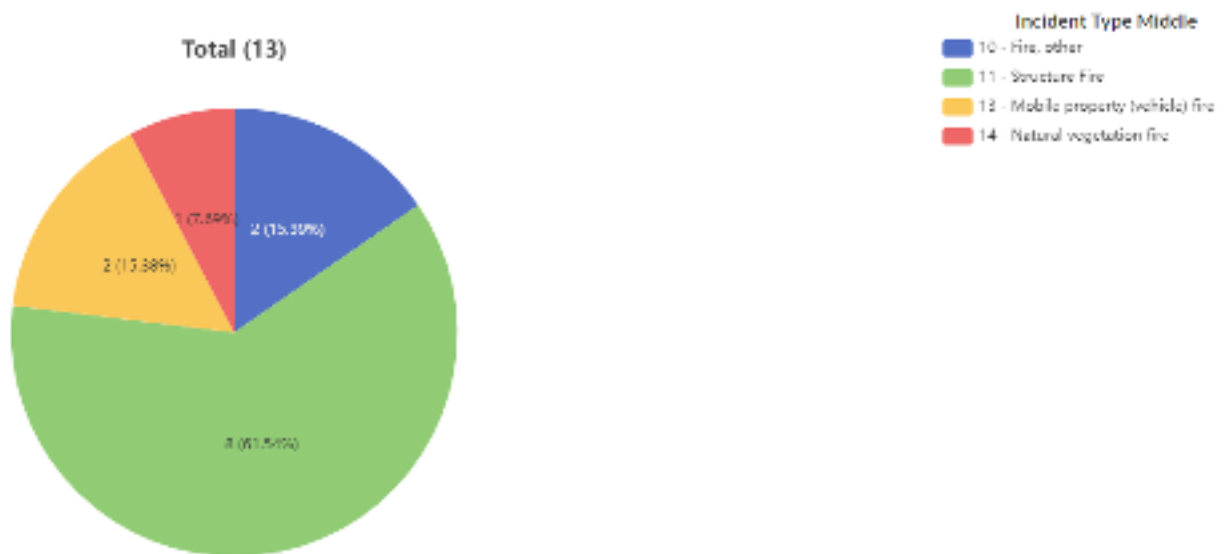
5/31/2024 11:23
5/31/2024 13:59

5/31/2024 13:59
5/31/2024 13:03

Total incidents for May



Fires for May





Monthly Activities

START DATE	END DATE	EVENT ID	EVENT TYPE	EVENT NAME
2024-05-31 08:00:00	2024-05-31 13:00:00	603672	Public Education	Green Hills Career Day
2024-05-31 07:30:00	2024-05-31 08:00:00	625940	Public Relations	Fire Truck Ride to School
2024-05-26 14:00:00	2024-05-26 14:30:00	603679	Public Relations	Forestville memorial Day Parade
2024-05-24 08:30:00	2024-05-24 11:00:00	612404	Public Relations	ESPN Daycare Fire Drill
2024-05-24 07:30:00	2024-05-24 10:30:00	608566	Support Dog	Mental Health Fair
2024-05-19 13:00:00	2024-05-19 15:00:00	610619	Public Education	Boys Steam
2024-05-17 18:30:00	2024-05-17 20:30:00	608561	Public Relations	ICRC Meeting
2024-05-14 09:30:00	2024-05-14 10:00:00	612593	Public Education	Green-Hills
2024-05-10 18:30:00	2024-05-10 20:30:00	608559	Public Relations	ICRC Meeting
2024-05-05 13:00:00	2024-05-05 15:00:00	608336	Public Education	Girls Steam Event
2024-05-05 12:00:00	2024-05-05 16:00:00	569189	Public Relations	Forestville Duck race
2024-05-02 08:00:00	2024-05-02 08:30:00	608496	Public Relations	Smoke replacement

NUMBER OF CIVILIAN FIRE CASUALTI

	NUMBER OF FIRES	DEATHS	INJURIES
Private Dwellings (1 or 2 family), Including mobile homes	2	0	0
Apartments (3 or more families)	1	0	0
Hotels and Motels	0	0	0
All Other Residential (dormitories, boarding houses, tents, etc.)	1	0	0
TOTAL RESIDENTIAL FIRES	4	0	0
Public Assembly (church, restaurant, clubs, etc.)	0	0	0
Schools And Colleges	0	0	0
Health Care And Penal Institutions (hospitals, nursing homes, prisons, etc.)	0	0	0
Stores And Offices	0	0	0
Industry, Utility, Defense, Laboratories, Manufacturing	0	0	0
Storage In Structures (barns, vehicle storage garages, general storage, etc.)	1	0	0
Other Structures (outbuildings, bridges, etc.)	0	0	0
TOTALS FOR STRUCTURE FIRES	5	0	0
Fires In Highway Vehicles (autos, trucks, buses, etc.)	2	0	0
Fires In Other Vehicles (planes, trains, ships, construction or farm vehicles, etc.)	0	0	0
Fires outside of Structures with Value involved, but Not Vehicles (outside storage, crops, timber, etc.)	4	0	0
Fires in Brush, Grass, Wildland (excluding crops and timber), with no value involved	0	0	
Fires in Rubbish, Including Dumpsters (outside of structures), with no value involved	1	0	
All Other Fires	4	0	0
TOTALS FOR FIRES	16	0	0
Rescue, Emergency Medical Responses (ambulance, EMS, rescue)	71		
False Alarm Responses (malicious or unintentional false calls, malfunctions, bomb scares)	46		
Mutual Aid Responses Given	1		
Hazardous Materials Responses	12		

Other Hazardous Responses (arcing wires, bomb removal, power line down, etc.)	45
All Other Responses (smoke scares, lock- outs, animal rescue, etc.)	89
TOTAL FOR ALL INCIDENTS	280

	NUMBER OF CONFINED FIFF NONCONFINED FIRES	
Residential Fires	2	2
Structure Fires	0	1

ES
ESTIMATED PROPERTY DAMAGE
AND CONTENTS FROM FIRE

170500

0

0

0

170500

0

0

0

0

0

200

0

170700

16650

0

0

800
188150



Monthly Activities

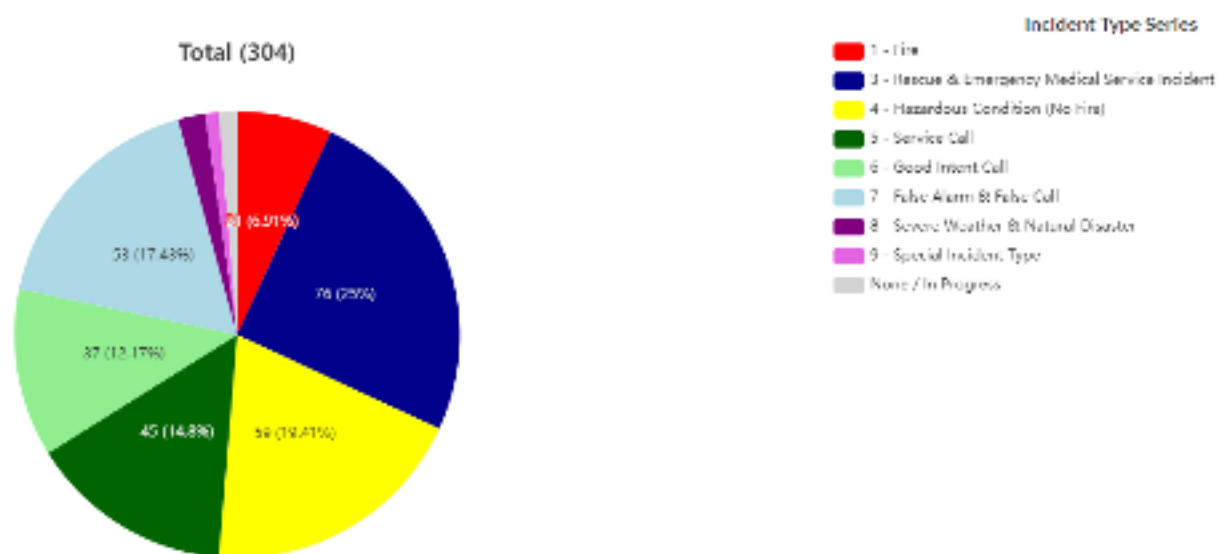
START DATE	END DATE	EVENT ID	EVENT TYPE	EVENT NAME
2024-06-29 10:30:00	2024-06-29 14:00:00	649713	Public Relations	Family Fun Day
2024-06-27 17:00:00	2024-06-27 17:30:00	603955	Public Relations	Exchange Club
2024-06-27 11:00:00	2024-06-27 12:00:00	568158	Public Relations	Red Hat tour
2024-06-14 18:30:00	2024-06-14 20:30:00	608563	Public Relations	ICRC Meeting
2024-06-14 07:30:00	2024-06-14 08:00:00	635634	Public Relations	Ride to school in a firetruck
2024-06-12 07:30:00	2024-06-12 08:00:00	638490	Public Relations	Ride to School
2024-06-09 17:00:00	2024-06-09 20:00:00	596908	Public Relations	Bristol Blues First Responder Night
2024-06-09 16:30:00	2024-06-09 17:00:00	625255	Public Relations	Blues game
2024-06-09 10:00:00	2024-06-09 10:30:00	635380	Public Relations	Bristol Soccer Club
2024-06-04 18:00:00	2024-06-04 18:30:00	635368	Peer Support Response	Peer support response
2024-06-03 14:00:00	2024-06-03 14:30:00	623266	Public Relations	Mountainview school egg drop

OVERLAP	INCIDENT NUMBER	ALARM DATE/TIME	LAST UNIT CLEARED DATE/TIME
Overlap 1	3		
	BFD-2024-0001217	6/1/2024 15:46	6/1/2024 16:41
	BFD-2024-0001218	6/1/2024 15:50	6/1/2024 15:59
	BFD-2024-0001219	6/1/2024 16:30	6/1/2024 16:42
Overlap 2	2		
	BFD-2024-0001229	6/3/2024 14:20	6/3/2024 15:04
	BFD-2024-0001230	6/3/2024 14:55	6/3/2024 15:05
Overlap 3	2		
	BFD-2024-0001240	6/5/2024 14:18	6/5/2024 14:39
	BFD-2024-0001241	6/5/2024 14:39	6/5/2024 15:17
Overlap 4	2		
	BFD-2024-0001241	6/5/2024 14:39	6/5/2024 15:17
	BFD-2024-0001242	6/5/2024 14:42	6/5/2024 15:10
Overlap 5	3		
	BFD-2024-0001244	6/5/2024 17:38	6/5/2024 18:01
	BFD-2024-0001245	6/5/2024 17:54	6/5/2024 18:07
	BFD-2024-0001246	6/5/2024 18:01	6/5/2024 18:09
Overlap 6	2		
	BFD-2024-0001246	6/5/2024 18:01	6/5/2024 18:09
	BFD-2024-0001247	6/5/2024 18:08	6/5/2024 18:25
Overlap 7	2		
	BFD-2024-0001247	6/5/2024 18:08	6/5/2024 18:25
	BFD-2024-0001248	6/5/2024 18:23	6/5/2024 18:38
Overlap 8	2		
	BFD-2024-0001251	6/6/2024 14:39	6/6/2024 14:55
	BFD-2024-0001252	6/6/2024 14:48	6/6/2024 15:06
Overlap 9	2		
	BFD-2024-0001255	6/6/2024 17:11	6/6/2024 17:18
	BFD-2024-0001256	6/6/2024 17:17	6/6/2024 17:32
Overlap 10	2		
	BFD-2024-0001270	6/7/2024 20:48	6/7/2024 21:57
	BFD-2024-0001271	6/7/2024 21:55	6/7/2024 22:13
Overlap 11	2		
	BFD-2024-0001273	6/8/2024 7:27	6/8/2024 8:10
	BFD-2024-0001275	6/8/2024 7:54	6/8/2024 8:05
Overlap 12	2		
	BFD-2024-0001277	6/8/2024 8:53	6/8/2024 9:01
	BFD-2024-0001278	6/8/2024 9:01	6/8/2024 9:08
Overlap 13	2		
	BFD-2024-0001281	6/8/2024 12:10	6/8/2024 12:14
	BFD-2024-0001282	6/8/2024 12:11	6/8/2024 12:25
Overlap 14	2		
	BFD-2024-0001282	6/8/2024 12:11	6/8/2024 12:25
	BFD-2024-0001283	6/8/2024 12:17	6/8/2024 12:20
Overlap 15	2		
	BFD-2024-0001299	6/9/2024 20:42	6/9/2024 20:53

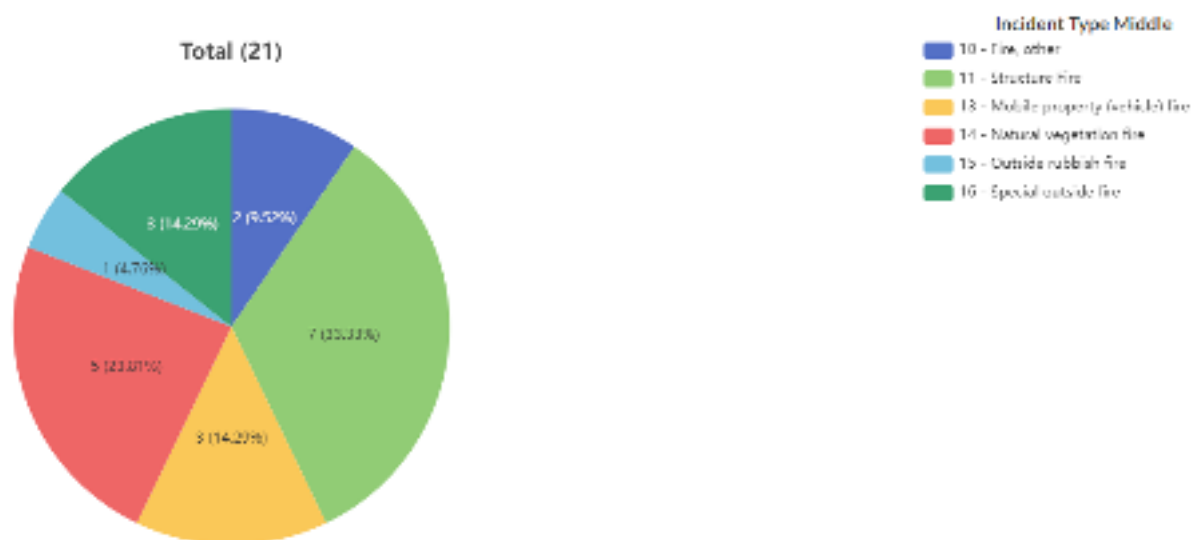
	BFD-2024-0001300	6/9/2024 20:46	6/9/2024 20:53
Overlap 16	3		
	BFD-2024-0001304	6/10/2024 9:02	6/10/2024 9:39
	BFD-2024-0001305	6/10/2024 9:07	6/10/2024 9:25
	BFD-2024-0001306	6/10/2024 9:27	6/10/2024 9:41
Overlap 17	2		
	BFD-2024-0001319	6/12/2024 7:00	6/12/2024 7:16
	BFD-2024-0001320	6/12/2024 7:03	6/12/2024 7:12
Overlap 18	2		
	BFD-2024-0001328	6/12/2024 16:32	6/12/2024 17:12
	BFD-2024-0001329	6/12/2024 16:45	6/12/2024 17:13
Overlap 19	2		
	BFD-2024-0001330	6/12/2024 17:30	6/12/2024 17:38
	BFD-2024-0001331	6/12/2024 17:36	6/12/2024 17:43
Overlap 20	2		
	BFD-2024-0001337	6/13/2024 14:48	6/13/2024 15:01
	BFD-2024-0001338	6/13/2024 15:00	6/13/2024 15:15
Overlap 21	2		
	BFD-2024-0001351	6/14/2024 13:36	6/14/2024 13:52
	BFD-2024-0001352	6/14/2024 13:51	6/14/2024 14:17
Overlap 22	2		
	BFD-2024-0001362	6/16/2024 15:45	6/16/2024 16:01
	BFD-2024-0001363	6/16/2024 15:52	6/16/2024 16:02
Overlap 23	2		
	BFD-2024-0001371	6/17/2024 18:15	6/17/2024 18:27
	BFD-2024-0001372	6/17/2024 18:18	6/17/2024 18:28
Overlap 24	2		
	BFD-2024-0001376	6/18/2024 10:42	6/18/2024 10:53
	BFD-2024-0001377	6/18/2024 10:53	6/18/2024 11:01
Overlap 25	3		
	BFD-2024-0001383	6/18/2024 17:16	6/18/2024 17:40
	BFD-2024-0001384	6/18/2024 17:16	6/18/2024 17:22
	BFD-2024-0001385	6/18/2024 17:18	6/18/2024 17:28
Overlap 26	2		
	BFD-2024-0001403	6/21/2024 5:32	6/21/2024 8:35
	BFD-2024-0001406	6/21/2024 8:23	6/21/2024 8:24
Overlap 27	3		
	BFD-2024-0001408	6/21/2024 16:33	6/21/2024 17:27
	BFD-2024-0001409	6/21/2024 16:34	6/21/2024 16:44
	BFD-2024-0001410	6/21/2024 16:49	6/21/2024 19:50
Overlap 28	6		
	BFD-2024-0001410	6/21/2024 16:49	6/21/2024 19:50
	BFD-2024-0001411	6/21/2024 17:27	6/21/2024 17:48
	BFD-2024-0001412	6/21/2024 17:43	6/21/2024 18:18
	BFD-2024-0001413	6/21/2024 17:55	6/21/2024 19:02
	BFD-2024-0001414	6/21/2024 17:57	6/21/2024 17:59
	BFD-2024-0001415	6/21/2024 18:19	6/21/2024 19:06

Overlap 29	2		
BFD-2024-0001424		6/23/2024 16:21	6/23/2024 16:30
BFD-2024-0001425		6/23/2024 16:30	6/23/2024 16:44
Overlap 30	2		
BFD-2024-0001431		6/24/2024 11:18	6/24/2024 11:48
BFD-2024-0001432		6/24/2024 11:30	6/24/2024 12:39
Overlap 31	2		
BFD-2024-0001436		6/24/2024 21:03	6/24/2024 21:33
BFD-2024-0001437		6/24/2024 21:14	6/24/2024 21:37
Overlap 32	6		
BFD-2024-0001447		6/26/2024 21:53	6/26/2024 22:09
BFD-2024-0001448		6/26/2024 21:53	6/26/2024 22:06
BFD-2024-0001449		6/26/2024 21:55	6/26/2024 22:17
BFD-2024-0001451		6/26/2024 21:58	6/26/2024 22:19
BFD-2024-0001452		6/26/2024 21:59	6/26/2024 22:13
BFD-2024-0001453		6/26/2024 22:06	6/26/2024 22:21
Overlap 33	5		
BFD-2024-0001449		6/26/2024 21:55	6/26/2024 22:17
BFD-2024-0001451		6/26/2024 21:58	6/26/2024 22:19
BFD-2024-0001452		6/26/2024 21:59	6/26/2024 22:13
BFD-2024-0001453		6/26/2024 22:06	6/26/2024 22:21
BFD-2024-0001457		6/26/2024 22:13	6/26/2024 22:21
Overlap 34	5		
BFD-2024-0001451		6/26/2024 21:58	6/26/2024 22:19
BFD-2024-0001452		6/26/2024 21:59	6/26/2024 22:13
BFD-2024-0001453		6/26/2024 22:06	6/26/2024 22:21
BFD-2024-0001457		6/26/2024 22:13	6/26/2024 22:21
BFD-2024-0001454		6/26/2024 22:17	6/26/2024 22:40
Overlap 35	4		
BFD-2024-0001453		6/26/2024 22:06	6/26/2024 22:21
BFD-2024-0001457		6/26/2024 22:13	6/26/2024 22:21
BFD-2024-0001454		6/26/2024 22:17	6/26/2024 22:40
BFD-2024-0001455		6/26/2024 22:19	6/26/2024 22:38
Overlap 36	5		
BFD-2024-0001454		6/26/2024 22:17	6/26/2024 22:40
BFD-2024-0001455		6/26/2024 22:19	6/26/2024 22:38
BFD-2024-0001450		6/26/2024 22:23	6/26/2024 22:44
BFD-2024-0001456		6/26/2024 22:24	6/26/2024 22:31
BFD-2024-0001458		6/26/2024 22:39	6/27/2024 0:24
Overlap 37	3		
BFD-2024-0001458		6/26/2024 22:39	6/27/2024 0:24
BFD-2024-0001459		6/26/2024 22:44	6/26/2024 22:48
BFD-2024-0001460		6/26/2024 22:46	6/26/2024 22:58
Overlap 38	2		
BFD-2024-0001463		6/27/2024 4:28	6/27/2024 4:41
BFD-2024-0001464		6/27/2024 4:32	6/27/2024 4:44
Overlap 39	3		

	BFD-2024-0001473	6/27/2024 14:27	6/27/2024 15:13
	BFD-2024-0001474	6/27/2024 14:30	6/27/2024 14:46
	BFD-2024-0001475	6/27/2024 15:13	6/27/2024 15:15
Overlap 40	3		
	BFD-2024-0001476	6/27/2024 15:32	6/27/2024 15:43
	BFD-2024-0001477	6/27/2024 15:34	6/27/2024 15:55
	BFD-2024-0001478	6/27/2024 15:40	6/27/2024 15:55
Overlap 41	2		
	BFD-2024-0001482	6/27/2024 18:36	6/27/2024 19:45
	BFD-2024-0001483	6/27/2024 18:56	6/27/2024 19:13
Overlap 42	2		
	BFD-2024-0001489	6/28/2024 3:28	6/28/2024 3:42
	BFD-2024-0001490	6/28/2024 3:34	6/28/2024 4:11
Overlap 43	3		
	BFD-2024-0001510	6/30/2024 13:23	6/30/2024 13:43
	BFD-2024-0001511	6/30/2024 13:25	6/30/2024 14:07
	BFD-2024-0001512	6/30/2024 13:33	6/30/2024 15:44
Overlap 44	6		
	BFD-2024-0001511	6/30/2024 13:25	6/30/2024 14:07
	BFD-2024-0001512	6/30/2024 13:33	6/30/2024 15:44
	BFD-2024-0001513	6/30/2024 13:43	6/30/2024 13:47
	BFD-2024-0001514	6/30/2024 13:44	6/30/2024 14:08
	BFD-2024-0001515	6/30/2024 13:52	6/30/2024 14:05
	BFD-2024-0001516	6/30/2024 14:07	6/30/2024 14:20
Overlap 45	9		
	BFD-2024-0001512	6/30/2024 13:33	6/30/2024 15:44
	BFD-2024-0001513	6/30/2024 13:43	6/30/2024 13:47
	BFD-2024-0001514	6/30/2024 13:44	6/30/2024 14:08
	BFD-2024-0001515	6/30/2024 13:52	6/30/2024 14:05
	BFD-2024-0001516	6/30/2024 14:07	6/30/2024 14:20
	BFD-2024-0001517	6/30/2024 14:23	6/30/2024 14:54
	BFD-2024-0001518	6/30/2024 14:45	6/30/2024 15:07
	BFD-2024-0001519	6/30/2024 15:12	6/30/2024 15:15
	BFD-2024-0001520	6/30/2024 15:19	6/30/2024 15:36
Count of Overlapping I	129		



FIRES



**Fire House 3 Building Committee SPECIAL Meeting
June 5, 2024**

**A Regular Meeting of the Board of Fire Commissioners was held on Wednesday,
June 5, 2024 at 6:00 p.m., in Meeting Room 1-4 of City Hall,
111 N Main Street Bristol, CT**

Present: Chairman Sean Moore, Committee Member Raymond Rogozinski, Committee Member David Maikowski, Council Member Sebastian Panioto, Fire Chief Hart, Fire Captain Craig Henderson, and Architect Christopher Nardi.

Absent: Committee Member John Lodovico and Purchasing Agent Roger Rousseau

1. CALL TO ORDER

- a. The meeting was called to order by Chairman Moore at 6:00 p.m.

2. PUBLIC PARTICIPATION

- a. None.

3. APPROVAL OF THE MEETING MINUTES

- a. On motion of Committee Member Rogozinski and seconded by Committee Member Miakowski it was unanimously voted: To approve the April 24, 2024 Meeting Minutes. Following a voice vote in which there was no opposition, the Chairperson declared the motion carried.

4. ARCHITECT UPDATE

- a. Architect Christopher Nardi spoke with the committee regarding the cost estimate coming in higher than anticipated. Discussion followed regarding alternative ideas and materials to lower costs. A cost saving consensus was achieved on matters of not epoxying all floor surfaces, reducing the roofline over hang, and eliminating the glass windows on the back side of the upper rear bay. Other ideas being considered are bi-fold vs traditional garage doors, reduction of the height of the building, removal of signage above bay doors, and reeducation of furniture, fixtures, and equipment.
- b. Architect Nardi updated the committee that the Traffic Impact Statement was approved.

5. OLD BUSINESS

- a. All old business items were discussed during the Architect's Update.

6. NEW BUSINESS

- a. Committee Member Rogozinski and Purchasing Agent Rousseau spoke with Downs Construction and plan to meet with Architect Chris Nardi.
- b. On motion of Committee Member Rogozinski and seconded by Council Member Panioto it was unanimously voted: To cancel June 26th regular meeting, and schedule for July 17th. The motion was then amended to add, if the new estimate is not back by July 17th to push it back and hold a special meeting when it is.

7. ADJOURN

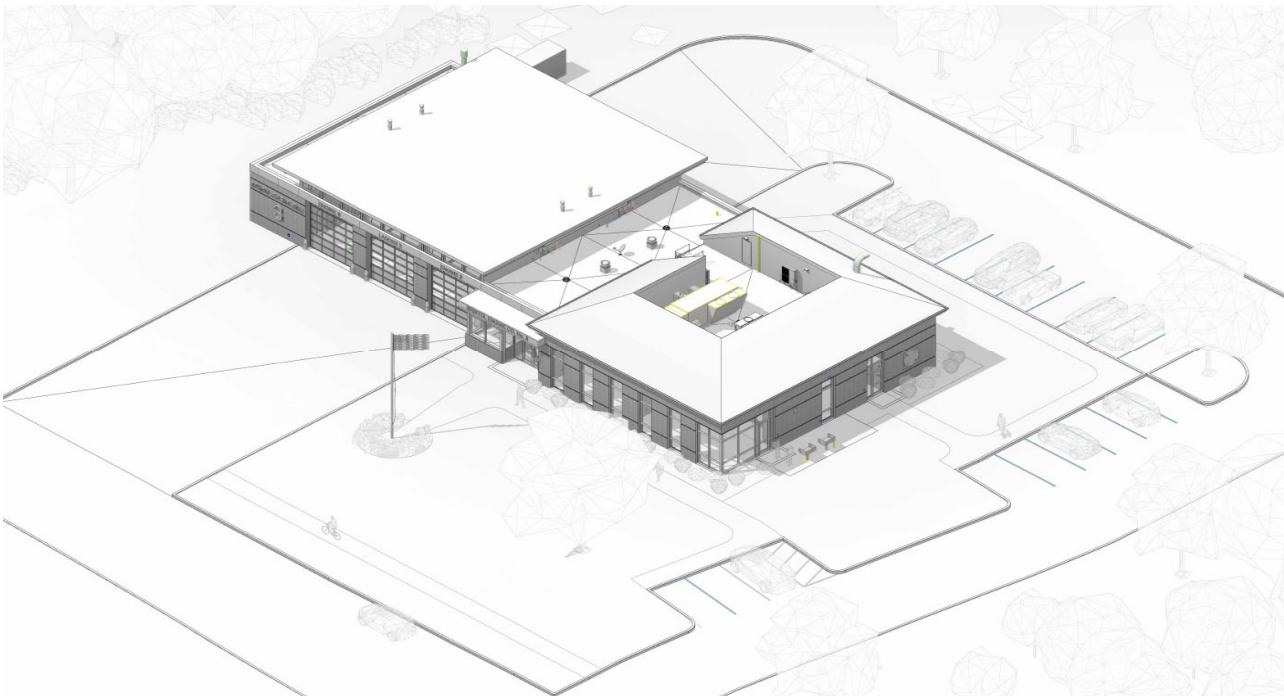
- a. On motion on Chief Hart and seconded by Captain Henderson, was unanimously voted: To adjourn at 7:03 p.m.

Recording Secretary: Sara Bianchi

City of Bristol New Firehouse No.3

DD Documents Estimate

Date: 5/17/2024 REVISED
Per Review 5-17-24



Basis Of Estimate

Basis of Estimate

Introduction

PACS has been engaged by the Silver Petrucelli to provide a Cost Estimate for:

Estimate is based on the following documents provided by Silver Petrucelli & Associates

- **23-017_Bristol Fire #3_DESIGN DEVELOPMENT_COMBINED by Silver Petrucelli dated April 17, 2024, 87pp**
- **090000 Schedule of Finishes by Silver Petrucelli, 8pp**
- **Revised Geotechnical Engineering Report - Fire Station No. 3, Bristol, CT by DTE Consulting dated April 2024 35pp**

Quantities and Methodology

- The cost estimate is based on the measurement of quantities wherever possible.
- Where actual measurements are not used, parametric measurements are used in conjunction with previous but similar project benchmarks.
- PACS uses a wide range of standard measurement and quantifying methods that are common practice in the construction industry today.

Basis of Pricing

- a) The construction costs shown in this estimate represent the fair market value and are not intended to be a prediction of the lowest bid.
- b) The costs include: labor, material, equipment and the subcontractors overhead and profit. (Subcontractor's Mark Up)
- c) The cost of labor is based on local Prevailing wage rates for all trades.
- d) The construction rates used are based in "today's dollar" and an escalation allowance is included in the Estimate summary.
- e) Our pricing assumes competitive bidding on all elements of the construction work, assuming a minimum of three competitive bidders for all general contractors, subcontractors, materials and
- f) It is typical in our experience that if fewer bids are received or solicited, prices can be expected to be higher due to lack of competition.
- g) The subcontractor's mark ups include their own overhead, including the cost in the field as well as profit.
- h) PACS has priced this taking into account current market conditions, competition between trades and the cost fluctuations in the construction industry.
- i) Estimate assumes no Phasing required..
- j) Proposal is based on construction being performed on regular hours.

Design and Pricing Contingency

A Design and Pricing Contingency is used as a budgetary tool that allows for scope and detail not defined during the design stage. As the design becomes more defined as the project passes through the design stages, the Design and Pricing Contingency decreases as more scope and detail is now being shown in the documents and is therefore reflected in the cost estimate as actual trade cost. The Design and Pricing Contingency is reduced to zero at 100% Bid Documents.

Escalation

As outlined above the estimate is calculated using rates that are "today's dollar" and reflect the cost of the project as if it was to bid on the date of issue. Due to construction projects having long design phases and long construction schedules, it is imperative to project the construction cost further ahead into the future to the point at which it is bid out. It is common practice to escalate the cost estimate to the mid point of construction to accommodate for economic inflation. This percentage accounts for this increase.

Construction Contingency

PACS advise that a Construction Contingency is carried for unforeseen project conditions and field changes. Typically we see this in the range of 3% to 5% dependent on the scope of the project.



Basis Of Estimate

Probable Cost

It is important for the Owner and Design team to carefully review this cost estimate including all line item descriptions, clarifications, exclusions, unit prices, assumptions, allowances, mark ups and contingencies to ensure the estimate reflects the scope of the project.

PACS has produced the cost estimate based on the widely practiced methods of cost estimating and aims to reflect the fair market value of the construction project. Our aim is to be not the highest or the lowest in the range of bids but to use our experience and expertise in the construction industry to provide the client with a degree of confidence that the project will be close to our calculated estimate.

Exclusions

This cost estimate excludes the following:

- Premiums for working in inaccessible or partially accessible spaces during construction
- Surplus Stock and Spares
- Premiums for restrictive and uncompetitive bidding
- Premiums for non-standard work times
- Work beyond the project limits
- CT Sales Tax - Assumes Exempt
- Wellpoints - Assumes open trench pumping only
- Rock or Unsuitable soils remediation
- Hazardous, Contaminated or Polluted soils
- AV Equipment / Technology Budget
- Utility Costs - Electric, Gas, Water (assumes by Owner)

Risks to the Cost Estimate

Items that may affect the cost estimate, the list as follows but not limited:

- Changes to the design subsequent to the issue of the documents stated above which this estimate is based on
- Non Competitive Bid restrictions and the sole sourcing of products/materials from specific vendors
- Restrictive technical specifications that produce a non competitive environment
- Changes to the project schedule that delay the project and therefore have impact on cost
- Incomplete and poorly coordinated documentation
- Access restrictions, unidentified out of hours work policies and phasing restrictions
- Restrictive technical specifications that produce a non competitive environment
- Unforeseen and unknown Site conditions

Trade		Cost	Cost / SF
01 50 00	Temporary Facilities and Controls	\$ 39,470	\$ 4.50
03 30 00	Cast-In-Place Concrete	\$ 269,240	\$ 30.70
04 20 00	Unit Masonry	\$ 398,460	\$ 45.43
05 12 00	Structural Steel	\$ 464,740	\$ 52.99
05 40 00	Cold Formed Metal Framing	\$ 103,060	\$ 11.75
05 50 00	Metal Fabrications	\$ 64,250	\$ 7.33
06 10 00	Rough Carpentry	\$ 111,222	\$ 12.68
06 20 00	Finish Carpentry	\$ 154,012	\$ 17.56
07 21 00	Thermal Insulation	\$ 31,995	\$ 3.65
07 25 00	Air & Vapor Barriers	\$ 28,007	\$ 3.19
07 40 00	Metal Siding & Panels	\$ -	\$ -
07 50 00	Roofing	\$ 265,018	\$ 30.22
07 92 00	Joint Sealants	\$ 12,500	\$ 1.43
08 10 00	Doors and Frames	\$ 48,715	\$ 5.55
08 30 00	Specialty Doors	\$ 173,750	\$ 19.81
08 41 00	Entrances & Storefront	\$ 224,570	\$ 25.60
08 71 00	Door Hardware	\$ 38,400	\$ 4.38
08 80 00	Glass & Glazing	\$ -	\$ -
09 21 00	Gypsum Board Assemblies	\$ 100,169	\$ 11.42
09 30 00	Tile	\$ 6,790	\$ 0.77
09 51 00	Acoustical Ceiling	\$ 30,483	\$ 3.48
09 61 10	Vapor Mitigation	\$ 5,745	\$ 0.66
09 65 00	Resilient Flooring	\$ 38,419	\$ 4.38
09 67 00	Resinous Flooring	\$ 93,952	\$ 10.71
09 68 00	Carpet	\$ 5,999	\$ 0.68
09 91 00	Painting & Wallcoverings	\$ 74,404	\$ 8.48
10 14 00	Signage & Graphics	\$ 22,750	\$ 2.59
10 26 00	Wall & Door Protection	\$ 4,370	\$ 0.50
10 28 00	Toilet Accessories	\$ 11,080	\$ 1.26
10 41 00	Emergency Access Cabinets	\$ 610	\$ 0.07

Trade		Cost	Cost / SF
10 44 00	Fire Protection Specialties	\$ 2,085	\$ 0.24
10 51 00	Lockers	\$ 52,590	\$ 6.00
11 30 00	Residential Appliances	\$ -	\$ -
11 40 00	Foodservice Equipment	\$ 28,814	\$ 3.29
11 52 00	Audio-Visual Equipment	\$ 2,500	\$ 0.29
11 90 00	Miscellaneous Equipment	\$ 50,810	\$ 5.79
12 20 00	Window Treatment	\$ 15,065	\$ 1.72
21 00 00	Fire Protection	\$ 84,640	\$ 9.65
22 00 00	Plumbing	\$ 273,069	\$ 31.13
23 00 00	HVAC	\$ 633,603	\$ 72.24
26 00 00	Electrical	\$ 695,455	\$ 79.29
33 00 00	Sitework	\$ 1,119,731	\$ 127.66
TOTAL DIRECT COST		\$ 5,787,489	\$659.84

Trade		Cost	Cost / SF
TOTAL DIRECT COST (FROM PREVIOUS PAGE)		\$ 5,787,489	\$659.84
Design & Estimating Contingency	4.00%	\$ 231,500	#
Escalation - @ 6% Annually	1.00%	\$ 60,190	#
General Conditions- (11 mos @ 50,000 / Month)	\$ 550000	\$ 550,000	#
Preconstruction - Assumes None		\$ -	
GC Insurances	0.85%	\$ 56,348	#
Building Permit		\$ 50,000	#
GC Surety Bond	0.78%	\$ 47,418	#
GC Fee	3.00%	\$ 182,375	#
TOTAL CONSTRUCTION COST (DIRECT & INDIRECT COSTS)		\$ 6,965,320	\$794.13
Bonding & Legal fees to Town	\$ 10000	\$ 10,000	
A&E Fees / Professional Services	\$ 307800	\$ 307,800	
Commissioning agent	\$ 35000	\$ 35,000	
Owners Representative	\$ 175000	\$ 175,000	
Builders Risk Insurance - Town	\$ 40000	\$ 40,000	
Testing & Inspections	\$ 20000	\$ 20,000	
Moving & Relocation costs	Excluded		
FF&E (Furniture Fixtures and Equipment)	\$ 300000	\$ 300,000	
State Permit 0.26%	\$ 7853120	\$ 20,418	
A/V Systems - Assumes in FF&E	Excluded		
Artwork - By Owner	Excluded		
Utility Connection fees allowance	\$ 25000	\$ 25,000	
Owners Contingency:	% 5.00%	\$ 394,927	
TOTAL CONSTRUCTION & SOFT COSTS		\$ 8,293,465	\$945.56
<u>Alternates</u>			
* Add Fire Water Storage tank and Practice Hydrant		\$ 190,000	
* Deduct EPX-1 / EPX-2 in all areas but the Decon area		\$ (109,450)	
* Provide Bifold Doors at Apparatus Bay ILO Overhead doors		\$ 80,183	

Base Estimate

Element / Description	Quantity	Unit	Unit Rate (\$)	Extension (\$)	Subtotal (\$)
01 50 00 Temporary Facilities and Controls					
Temporary Site Services - GC Bid (minimal)	8,771	SF	\$ 4.50	\$ 39,470	
Subtotal Temporary Facilities and Controls					\$ 39,470
02 11 00 Contaminated Soil Excavation & Disposal					
Excluded			< Excluded >		
Subtotal Contaminated Soil Excavation & Disposal					\$ -
02 12 00 Transportation/Disposal of Contaminated Materials					
Excluded			< Excluded >		
Subtotal Transportation/Disposal of Contaminated Materials					\$ -
02 80 00 Hazardous Abatement					
Excluded			< Excluded >		
Subtotal Hazardous Abatement					\$ -
02 41 16 Building Demolition					
Assumes not required			< N/A >		
Subtotal Building Demolition					\$ -
02 41 19 Selective Demolition					
Assumes not required			< N/A >		
Subtotal Selective Demolition					\$ -
03 30 00 Cast-In-Place Concrete					
Continuous footings	42.00	CYD	\$ 645.00	\$ 27,090	
Column Footings	71.00	CYD	\$ 695.00	\$ 49,345	
Haunch slab footings			< N/A >		
Frostwall Foundations with Brick Ledge	81.00	CYD	\$ 865.00	\$ 70,065	
Piers & Pilasters	7.00	CYD	\$ 1,175.00	\$ 8,225	
Stair pan infill			< N/A >		
Slab on Grade 5"	5,350	SF	\$ 10.25	\$ 54,838	
Slab on Grade 7" reinforced & Sloped in Aparatus Bay	3,153	SF	\$ 17.50	\$ 55,178	
Slab on Deck			< N/A >		
Self leveling underlayment			< N/A >		
Concrete mechanical equipment pads	120	sf	\$ 22.50	\$ 2,700	
Concrete curb @ Decon Wash area	8	lf	\$ 225.00	\$ 1,800	
Concrete Locker basses			< N/A >		
Subtotal Cast-In-Place Concrete					\$ 269,240
04 20 00 Unit Masonry					
Envelope					
Envelope CMU Backup - 8"	1,956	SF	\$ 29.00	\$ 56,724	
Envelope CMU Bond Beam	320	SF	\$ 60.00	\$ 19,200	
Brick Veneer	4,598	SF	\$ 43.00	\$ 197,714	
Cast Stone veneer band	563	SF	\$ 55.00	\$ 30,965	
Interior					
Interior CMU Partition 2A - 8"	3,046	SF	\$ 29.50	\$ 89,857	
Interior CMU Partition 2C - 4"	160	SF	\$ 25.00	\$ 4,000	
Subtotal Unit Masonry					\$ 398,460
05 12 00 Structural Steel					
Structural Steel - Beams & Columns and Braced Frames per drawings	57.20	TON	\$ 4,750.00	\$ 271,700	
Structural Steel Misc angles, Plates, Lintels, bracing - 20%	11.44	TON	\$ 4,750.00	\$ 54,340	
Galvanized Steel premium - exposed	1.00	LS	\$ 25,000.00	\$ 25,000	
Metal Decking @ Composite deck			< N/A >		
Metal Decking @ Roof Systems - 1.5 B deck	5,582.00	SF	\$ 6.75	\$ 37,679	
Metal Decking @ Roof Systems - 5.5 Acoustical deck	4,170.00	SF	\$ 13.95	\$ 58,172	
Column Base Plates, AB, Grouting	30.00	EA	\$ 595.00	\$ 17,850	
Subtotal Structural Steel					\$ 464,740
05 40 00 Cold Formed Metal Framing					
Roof Truss Vertical Framing CFMF	2,252	SF	\$ 13.95	\$ 31,415	
Envelope CFMF Backup @ 14'	1,870	SF	\$ 13.95	\$ 26,087	
CFMF Channel Rafters	2,682	LF	\$ 12.25	\$ 32,855	
Soffit framing systems	1,037	LF	\$ 12.25	\$ 12,703	
Subtotal Cold Formed Metal Framing					\$ 103,060
05 50 00 Metal Fabrications					
Misc Metals - Roof Screening and Supports - Assumes not required			< Not required >		
Misc Metals - Relieving Angles - Assumes none required			< Not required >		
Beam Pocket Imbeds	24	EA	\$ 325.00	\$ 7,800	
Duct supports @ Roof and Attic	1	LS	\$ 5,000.00	\$ 5,000	
Equipment support rails	1	LS	\$ 3,500.00	\$ 3,500	
Roof Access Ladder	14	VLF	\$ 225.00	\$ 3,150	
Misc Metals - Aparatus Door Frames	6	EA	\$ 4,500.00	\$ 27,000	
Misc Metals - Fitted Bollards 12" Concrete filled	12	EA	\$ 1,275.00	\$ 15,300	
Misc Metals - Axe Sculpture	1	LS	\$ 2,500.00	\$ 2,500	
Subtotal Metal Fabrications					\$ 64,250
06 10 00 Rough Carpentry					
Window Blocking @ Windows	1,214	LF	\$ 13.95	\$ 16,935	
Roof Blocking	1,054	LF	\$ 18.50	\$ 19,499	
Nailboard (uninsulated) @ Asphalt pitched roof	3,255	SF	\$ 8.95	\$ 29,132	
5/8" Plywood in Attic Space floor			< Removed >		
Plywood Sheathing @ CFMF Envelope	4,122	SF	\$ 8.65	\$ 35,655	
Inwall and OnWall blocking - Interior	1	LS	\$ 2,500.00	\$ 2,500	
Exterior blocking - Trims	1	LS	\$ 7,500.00	\$ 7,500	
Subtotal Rough Carpentry					\$ 111,222

Base Estimate

Element / Description	Quantity	Unit	Unit Rate (\$)	Extension (\$)	Subtotal (\$)
06 20 00 Finish Carpentry					
Exterior Finish Carpentry					
Sloped roof fascia - PVC 12"	234	LF	\$ 13.67	\$ 3,199	
Sloped roof trip @ Facia 4"	221	LF	\$ 7.35	\$ 1,624	
Azek or similar PVC Siding & Soffit systems	2,818	SF	\$ 28.00	\$ 78,904	
Interior Finish Carpentry & Millwork					
Kitchen base cabinets - Island	12	LF	\$ 825.00	\$ 9,900	
Kitchen base cabinets Deep with PLAM Tpps	16	LF	\$ 575.00	\$ 9,200	
Stainless tops	91	SF	\$ 155.00	\$ 14,105	
PLAM upper Cabinets	17	LF	\$ 295.00	\$ 5,015	
PLAM upper Cabinet fillers	27	LF	\$ 150.00	\$ 4,050	
PLAM Full height Pantry	4	LF	\$ 795.00	\$ 3,180	
Workroom counter Stainless Surface with RAKKS supports - wide HD	19	LF	\$ 345.00	\$ 6,555	
Watchroom counter Solid Surface with RAKKS supports	18	LF	\$ 295.00	\$ 5,310	
Pantry Storage Shelving X5	16	LF	\$ 55.00	\$ 880	
Interior window sills - Solid surface eased edge	186	LF	\$ 65.00	\$ 12,090	
Personnel Bunk Wardrobe Units	< In FF&E >				
Subtotal Finish Carpentry					\$ 154,012
07 10 00 Damp / Waterproofing					
Waterproofing & Drainage Board	< Included in Civil Structural E&B >				
Subtotal Damp / Waterproofing					\$ -
07 21 00 Thermal Insulation					
Insulation @ Exterior	1,870	SF	\$ 6.45	\$ 12,062	
Insulation @ Attic	2,393	SF	\$ 8.33	\$ 19,934	
Subtotal Thermal Insulation					\$ 31,995
07 25 00 Air & Vapor Barriers					
AVB @ Envelope	4,001	SF	\$ 7.00	\$ 28,007	
Subtotal Air & Vapor Barriers					\$ 28,007
07 40 00 Metal Siding Panels & Soffits -					
See Finish Carpentry	< See finish Carpentry >				
Subtotal Metal Siding Panels & Soffits -					\$ -
07 50 00 Roofing					
EPDM Roof on Tapered Insulation	7,307	SF	\$ 29.50	\$ 215,557	
EPDM Roof walk pads	50	EA	\$ 81.25	\$ 4,063	
Roof curbs and Dunnage flashing & Penetrations	1	LS	\$ 3,500.00	\$ 3,500	
Asphalt Shingles on Ice & Water Shield	3,255	SF	\$ 9.25	\$ 30,109	
Gutters - Aluminum	235	LF	\$ 39.00	\$ 9,165	
Leaders - Aluminum	75	LF	\$ 35.00	\$ 2,625	
Subtotal Roofing					\$ 265,018
07 81 00 Applied Fireproofing					
Assumes not required	< Not included >				
Subtotal Applied Fireproofing					\$ -
07 84 00 Penetration Firestopping					
In Trades	< Not included >				
Subtotal Penetration Firestopping					\$ -
07 92 00 Joint Sealants					
Caulking & Sealants	1	LS	\$ 12,500.00	\$ 12,500	
Subtotal Joint Sealants					\$ 12,500
07 95 00 Expansion Control					
Expansion systems - Assumes not required	< Not included >				
Subtotal Expansion Control					\$ -
08 10 00 Doors & Frames					
Frame A - HM3070	27	EA	\$ 450.00	\$ 12,150	
Frame A - HM6070	3	EA	\$ 595.00	\$ 1,785	
Door leaf 3070 HM	33	EA	\$ 365.00	\$ 12,045	
Premium Rating	5	EA	\$ 550.00	\$ 2,750	
Premium 1/2 lite	1	EA	\$ 575.00	\$ 575	
Door hardware premium - Electrified Locksets	3	EA	\$ 2,750.00	\$ 8,250	
Install frame	30	EA	\$ 220.00	\$ 6,600	
Install Door leaf	38	EA	\$ 120.00	\$ 4,560	
Subtotal Doors & Frames					\$ 48,715
08 30 00 Specialty Doors					
New 14x14 Vertically acting Aparatus Bay Doorswith High Speed operator and controls - Installed	6	EA	\$ 27,500.00	\$ 165,000	
Roof Hatch with Safety Railings	1	EA	\$ 3,250.00	\$ 3,250	
Roof access to Pitched Attic Space - DF&H	2	EA	\$ 2,750.00	\$ 5,500	
Subtotal Specialty Doors					\$ 173,750
08 41 00 Entrances & Storefront					
Exterior Aluminum Glazed Storefront Doors and Hardware - Installed	8	EA	\$ 4,250.00	\$ 34,000	
Storefront Systems - Glazed openings -	1,971	SF	\$ 95.00	\$ 187,245	
Storefront Systems - Glazed openings - Added mullions - eliminate framing	35	SF	\$ 95.00	\$ 3,325	
Subtotal Entrances & Storefront					\$ 224,570
08 44 00 Metal Framed Curtainwall					
Curtainwall Systems -	< N/A >				
Subtotal Metal Framed Curtainwall					\$ -
08 50 00 Windows					
See Storefronts	< N/A >				
Subtotal Windows					\$ -
08 71 00 Door Hardware					
Hardware set / leaf - Passage (installed)	38	EA	\$ 900.00	\$ 34,200	
Hardware Set / Leaf - Egress (installed) - premium	6	EA	\$ 700.00	\$ 4,200	
Access Control Head end Equipment	< In Technology >				
Subtotal Door Hardware					\$ 38,400
08 80 00 Glass & Glazing					
Interior Borrowed Lites - Sidelites	< Removed >				
Skylights - None Identified	< N/A >				
Full height mirror @ Fitness - None identified	< Not included >				
Full height mirror @ Bunk rooms and Bathrooms	< Not included >				
Subtotal Glass & Glazing					\$ -

Base Estimate

Element / Description	Quantity	Unit	Unit Rate (\$)	Extension (\$)	Subtotal (\$)
08 90 00 Louvers & Vents					
None identified					
			< Included in Mechanical >		
Subtotal Louvers & Vents					\$ -
09 21 00 Gypsum Board Assemblies					
Wall Type 1A	553	SF	\$ 7.95	\$ 4,396	
Wall Type 1B	6,628	SF	\$ 10.45	\$ 69,263	
Wall Type 1C	351	SF	\$ 13.25	\$ 4,651	
Gyp @ Envelope walls	3,966	SF	\$ 3.45	\$ 13,683	
Gyp ceilings - suspended	81	SF	\$ 18.00	\$ 1,458	
Gyp soffits and Ceiling transitions	625	SF	\$ 10.75	\$ 6,719	
Subtotal Gypsum Board Assemblies					\$ 100,169
09 30 00 Tile					
PF-1- Toilets 24x24	237	SF	\$ 21.00	\$ 4,977	
PFT-1 Base	148	LF	\$ 12.25	\$ 1,813	
Porcelainwall tile - full height at wet walls			< Removed >		
Subtotal Tile					\$ 6,790
09 51 00 Acoustical Ceiling					
Ceilings - ACT 2x2 Ultima	3,523	SF	\$ 7.10	\$ 25,013	
Ceilings - ACT 2x2 Healthzone	585	SF	\$ 9.35	\$ 5,470	
Subtotal Acoustical Ceiling					\$ 30,483
09 64 00 Wood Flooring					
None identified			< N/A >		
Subtotal Wood Flooring					\$ -
09 61 10 Vapor Mitigation					
Topical Moisture Mitigation- High Performance Glues	3,482	SF	\$ 1.65	\$ 5,745	
Subtotal Vapor Mitigation					\$ 5,745
09 65 00 Resilient Flooring					
Resilient LVT	1,610	SF	\$ 7.65	\$ 12,317	
Safety sheet floor	500	SF	\$ 13.10	\$ 6,550	
RAF - Rubber Athletic Floor	515	SF	\$ 17.65	\$ 9,090	
Rubber Stair Treads and risers			< Not included >		
Sealer @ Mechanical spaces			< Not included >		
Resilient Base RB-1 / RB-2	1,142	LF	\$ 3.45	\$ 3,940	
Integral Base @ Safety floor	217	LF	\$ 11.00	\$ 2,387	
Transition Strips	1	LS	\$ 750.00	\$ 750	
Floor Prep - Resilient	2,625	SF	\$ 1.10	\$ 2,888	
Attic Stock Flooring 10% Materials	10%	LS	\$ 4,982	\$ 498	
Subtotal Resilient Flooring					\$ 38,419
09 66 00 Terrazzo					
None identified			< N/A >		
Subtotal Terrazzo					\$ -
09 67 00 Resinous Flooring					
EPX1 -	738	SF	\$ 19.65	\$ 14,502	
EPX1 - EPX-2 flooring / patterns Aparatus Bay	3,152	SF	\$ 23.95	\$ 75,490	
EPX Base integral	360	SF	\$ 11.00	\$ 3,960	
Subtotal Resinous Flooring					\$ 93,952
09 68 00 Carpet					
Carpet Tile	857	SF	\$ 6.25	\$ 5,356	
Carpet Tile floor prep	857	SF	\$ 0.75	\$ 643	
Subtotal Carpet					\$ 5,999
09 80 00 Acoustical Treatment					
None identified			< N/A >		
Subtotal Acoustical Treatment					\$ -
09 91 00 Painting & Wallcoverings					
Painting - walls & Ceilings - Gyp	19,183	SF	\$ 0.78	\$ 14,963	
Painting - walls CMU including block-fill - Epoxy Paint	8,494	SF	\$ 4.65	\$ 39,497	
Painting - Exposed Structure & Decking - Epoxy	3,804	SF	\$ 3.45	\$ 13,124	
Painting Exterior trims and siding			< N/A >		
Paint Doors and Frames	38	EA	\$ 80.00	\$ 3,040	
Vinyl Wallcoverings			< N/A >		
Digital Wallcoverings	216	SF	\$ 17.50	\$ 3,780	
Subtotal Painting & Wallcoverings					\$ 74,404
10 11 00 Visual Display Surfaces					
Wallboard & Tackboards allowance			< N/A >		
Display Cabinet	1	LS	\$ 3,000.00	\$ 3,000	
Subtotal Visual Display Surfaces					\$ 3,000
10 14 00 Signage & Graphics					
Signage - Interior Wayfinding	1	LS	\$ 1,250.00	\$ 1,250	
Signage - Interior ADA / Rooms	35	EA	\$ 95.00	\$ 3,325	
Signage - Exterior Building Pin Letters 12" (removed over front entry)	62	EA	\$ 225.00	\$ 13,950	
Signage - Exterior Building Pin Letters 36"	1	EA	\$ 725.00	\$ 725	
Signage -Exterior Fire Rescue Sign	1	EA	\$ 3,500.00	\$ 3,500	
Subtotal Signage & Graphics					\$ 22,750
10 21 13 Toilet Compartments					
None identified			< N/A >		
Subtotal Toilet Compartments					\$ -
10 21 23 Cubicle Curtain & Track					
None identified			< N/A >		
Subtotal Cubicle Curtain & Track					\$ -
10 22 00 Operable Partitions					
None identified			< N/A >		
Subtotal Operable Partitions					\$ -
10 26 00 Wall & Door Protection					
FRP Paneling @ Custodial	200	SF	\$ 9.35	\$ 1,870	
Corner Guards - Allowance	1	LS	\$ 2,500.00	\$ 2,500	
Subtotal Wall & Door Protection					\$ 4,370

Base Estimate

Element / Description	Quantity	Unit	Unit Rate (\$)	Extension (\$)	Subtotal (\$)
10 28 00 Toilet Accessories					
TR Accessories - Grab Bars set (3)	2	EA	\$ 365.00	\$ 730	
TR Accessories - Lav Guard	4	EA	\$ 295.00	\$ 1,180	
TR Accessories - Shower seat	1	EA	\$ 965.00	\$ 965	
TR Accessories - Shower curtain & rod assy	4	EA	\$ 395.00	\$ 1,580	
TR Accessories - Shower bench floor mounted	8	lf	\$ 225.00	\$ 1,800	
TR Accessories - Soap dispensers	7	EA	\$ 95.00	\$ 665	
TR Accessories - PT Dispenser	6	EA	\$ 95.00	\$ 570	
TR Accessories - Mirrors	4	EA	\$ 345.00	\$ 1,380	
TR Accessories - Coat hooks	10	EA	\$ 35.00	\$ 350	
TR Accessories - Custodial	1	EA	\$ 310.00	\$ 310	
TP Dispensers	4	EA	\$ 65.00	\$ 260	
Baby changing stations	< None identified >				
Accessory Installation	43	EA	\$ 30.00	\$ 1,290	
Subtotal Toilet Accessories					\$ 11,080
10 41 00 Emergency Access Cabinets					
Knox Box	1	LS	\$ 610.00	\$ 610	
Subtotal Emergency Access Cabinets					\$ 610
10 44 00 Fire Protection Specialties					
FE Cabinets and Extinguishers - Qty assumed	3	EA	\$ 695.00	\$ 2,085	
Subtotal Fire Protection Specialties					\$ 2,085
10 51 00 Lockers					
Penco Patriot double door gear lockers GW242472SS4DCL	32	EA	\$ 1,395.00	\$ 44,640	
Penco Patriot double door gear lockers - shipping and distribution	1	LS	\$ 3,000.00	\$ 3,000	
Penco Patriot double door gear lockers - installation	30	EA	\$ 165.00	\$ 4,950	
Subtotal Lockers					\$ 52,590
11 13 00 Loading Dock Equipment					
None identified	< N/A >				
Subtotal Loading Dock Equipment					\$ -
11 30 00 Residential Appliances					
Dryer - residential	< FF&E >				
Washer - residential	< FF&E >				
Washer - Commercial @ Gear wash room	< FF&E >				
Extractor- Commercial @ Gear wash room	< FF&E >				
Subtotal Residential Appliances					\$ -
11 40 00 Foodservice Equipment					
Food Lockers	< N/A >				
6 burner range with 24" Griddle (2 ovens) - Southbend S80-DD	1	LS	\$ 7,750.00	\$ 7,750	
Drop in Sink Single	1	LS	\$ 977.00	\$ 977	
Drop in Sink - Dual with drain boards	1	LS	\$ 2,822.00	\$ 2,822	
Reach in Refrigerator - 2 door	1	LS	\$ 5,500.00	\$ 5,500	
Reach in Freezer True TR-38 FRZ	1	LS	\$ 4,750.00	\$ 4,750	
Under Counter Refrigerator True TUR-24-I	1	LS	\$ 2,750.00	\$ 2,750	
Pot Filler T&S Brass	1	LS	\$ 325.00	\$ 325	
Coffee Maker Curtiss AL3GPT	1	LS	\$ 1,750.00	\$ 1,750	
Trash Chute	1	LS	\$ 225.00	\$ 225	
Microwave Waring WMQ-120	1	LS	\$ 715.00	\$ 715	
Commercial Toaster HATCO TQ-10	1	LS	\$ 1,250.00	\$ 1,250	
Range hood with Anslu System - Installed	< In Mechanical >				
Subtotal Foodservice Equipment					\$ 28,814
11 52 00 Audio-Visual Equipment					
IT Data Rack with Switches (Cable & terminations in Electrical / Security)	1	LS	\$ 2,500.00	\$ 2,500	
Large Format Projection Systems - Not included	< N/A >				
Video Conferencing System - Not included	< By Owner >				
Radio / Dispatch Systems - Not included	< By Owner >				
Subtotal Audio-Visual Equipment					\$ 2,500
11 66 00 Athletic Equipment					
None identified	< By Owner >				
Subtotal Athletic Equipment					\$ -
11 90 00 Miscellaneous Equipment					
Magnegrip Aparatus Vehicle Exhaust System - 2 bays 60"	1	LS	\$ 42,860.00	\$ 42,860	
Vehicle Exhaust Modification	3	EA	\$ 650.00	\$ 1,950	
Gear wash SS Table with integral basins	1	LS	\$ 3,500.00	\$ 3,500	
Gear wash Track & Curtain @ Basin	1	LS	\$ 1,250.00	\$ 1,250	
Gear hanger rod @ Gear wash room	1	LS	\$ 1,250.00	\$ 1,250	
Defibrillator cabinet	< N/A >				
Subtotal Miscellaneous Equipment					\$ 50,810
12 20 00 Window Treatment					
Mechoshade - Manual light filtering	898	SF	\$ 9.10	\$ 8,172	
Mechoshade - Mechoshade Blackout	384	SF	\$ 17.95	\$ 6,893	
Subtotal Window Treatment					\$ 15,065
12 48 13 Entrance Mats					
Walk off Mats	220	SF	\$ 17.95	\$ 3,949	
Subtotal Entrance Mats					\$ 3,949
12 52 00 Furnishings - Movable					
Beds	< FF&E >				
Desk and Chair	< FF&E >				
Subtotal Furnishings - Movable					\$ -
13 00 00 Special Construction					
N/A	< N/A >				
Subtotal Special Construction					\$ -
14 20 00 Conveying					
Elevators / lifts - Not required	< N/A >				
Subtotal Conveying					\$ -

Base Estimate

Element / Description	Quantity	Unit	Unit Rate (\$)	Extension (\$)	Subtotal (\$)
21 00 00 Fire Protection	8,771	SF	9.65		
RPDA Discharge (Drain / test)	1	LS	\$ 1,750.00	\$ 1,750	
Fire Sprinkler Riser assembly	1	LF	\$ 12,500.00	\$ 12,500	
2-3" Branch	805	LF	\$ 38.00	\$ 30,590	
4" Mains	188	LF	\$ 55.00	\$ 10,340	
Dropperd Sidewall heads @ Doors	9	EA	\$ 225.00	\$ 2,025	
Dry Sidewall heads	2	EA	\$ 310.00	\$ 620	
FD Connection	1	EA	\$ 2,125.00	\$ 2,125	
Recessed heads	63	EA	\$ 265.00	\$ 16,695	
Upright heads	41	EA	\$ 195.00	\$ 7,995	
Fire Pump -Assumes not required	< Excluded >				
Subtotal Fire Protection					\$ 84,640
22 00 00 Plumbing	8,771	SF	31.13		
DOM Connection with BFP & valve assy	1	LS	\$ 3,625.00	\$ 3,625	
Domestic water booster pump - Assumes not required	<NIC>				
Gas Meter / riser assy	1	LS	\$ 2,210.00	\$ 2,210	
Gas Emergency Shut-off	1	LS	\$ 1,500.00	\$ 1,500	
Gas Grill Regulator and connections	1	LS	\$ 500.00	\$ 500	
Pipe Gas AG 0.75"	22	LF	\$ 26.00	\$ 572	
Pipe Gas AG 1"	70	LF	\$ 34.00	\$ 2,380	
Pipe Gas AG 2"	269	LF	\$ 52.00	\$ 13,988	
Pipe Gas Buried 0.75" to Grills	28	LF	\$ 37.00	\$ 1,036	
Pipe Gas Buried 2" to generator	69	LF	\$ 65.00	\$ 4,485	
Water heater -	1	LS	\$ 12,500.00	\$ 12,500	
Water heater - Intake & Exhaust Flue	32	LF	\$ 38.00	\$ 1,216	
PET-1 - Expansion Tank	1	EA	\$ 1,850.00	\$ 1,850	
Air Separator	1	EA	\$ 1,975.00	\$ 1,975	
2-1/2" Reduced Backflow Preventer	1	EA	\$ 1,725.00	\$ 1,725	
Hot water tempering valve 140 / 110	1	LS	\$ 3,500.00	\$ 3,500	
Hot water recirculation system with pump and controls	1	LS	\$ 3,750.00	\$ 3,750	
Balancing vales for HWR	8	EA	\$ 125.00	\$ 1,000	
Domestic water booster pump - Assume not required	<NIC>				
Domestic Water 3"	198	LF	\$ 51.00	\$ 10,098	
Domestic Water 2"	236	LF	\$ 45.00	\$ 10,620	
Domestic Water 1.25"	-	LF	\$ 27.00	\$ -	
Domestic Water 1.0"	257	LF	\$ 23.00	\$ 5,911	
Domestic Water 0.75" & 0.5"	341	LF	\$ 17.00	\$ 5,797	
Pipe insulation - blended cost	1,032	LS	\$ 7.25	\$ 7,482	
Sanitary 3" PVC	147	LF	\$ 26.00	\$ 3,822	
Sanitary 4" PVC	340	LF	\$ 32.00	\$ 10,880	
Sanitary 6" PVC	287	LF	\$ 44.00	\$ 12,628	
Sanitary Vent piping - PVC	160	LF	\$ 28.00	\$ 4,480	
Sanitary CO	7	EA	\$ 375.00	\$ 2,625	
T&B for underslab sanitary	531	LF	\$ 25.00	\$ 13,275	
Storm Drains	4	EA	\$ 795.00	\$ 3,180	
Storm Drains - Combination Overflow	1	EA	\$ 975.00	\$ 975	
Storm Overflow cows tongue	4	EA	\$ 565.00	\$ 2,260	
Condensate Drains	528	LF	\$ 22.00	\$ 11,616	
Fixture - ADA Dual water cooler Bottle filler Elkay EZH2O	1	EA	\$ 2,150.00	\$ 2,150	
Fixture - Custodial basin and Hydrants	1	EA	\$ 795.00	\$ 795	
Fixture - FP Hose Bib	4	EA	\$ 310.00	\$ 1,240	
Fixture - Floor drain with trap primer	4	EA	\$ 1,225.00	\$ 4,900	
Fixture - Floor drain Kitchen	< Removed >				
Fixture - KS-1 - Kitchen	< In Food Service Equip >				
Fixture - KS-2 - Kitchen	< In Food Service Equip >				
Fixture - Eyewash	1	EA	\$ 1,725.00	\$ 1,725	
Fixture - Sink and faucet - TR wall hung vitreous	4	EA	\$ 1,100.00	\$ 4,400	
Fixture - Wall Hydrant	6	EA	\$ 225.00	\$ 1,350	
Fixture - Water Closet	4	EA	\$ 1,675.00	\$ 6,700	
Fixture - Faucet / Sprayer @ Gear wash sinks	< Removed >				
Fixture - Shower Assembly and Shower valves	4	EA	\$ 3,375.00	\$ 13,500	
Fixture - Gear Wash Basin and Valve / Sprayer Assembly	1	EA	\$ 3,500.00	\$ 3,500	
Fixture Carriers	8	EA	\$ 425.00	\$ 3,400	
Fixture Rough-in	25	EA	\$ 275.00	\$ 6,875	
Compressor AC-1 Champion VRV5-6 installed	1	LS	\$ 5,500.00	\$ 5,500	
Pipe - compressed Air	285	LF	\$ 24.00	\$ 6,840	
AJ Air Connection	6	EA	\$ 235.00	\$ 1,410	
Temperature Maintenance Cable and contoller	1	LS	\$ 6,500.00	\$ 6,500	
Aparatus Trench Drains - Prefab with H20 Grates	140	LF	\$ 195.00	\$ 27,300	
Fixture Rough-in & Connections - Kitchen	3	LS	\$ 375.00	\$ 1,125	
Fixture Rough-in & Connections - Water heaters	1	LS	\$ 750.00	\$ 750	
Other Plumbing Systems (includes Subcontractor Mgmt, Submittals, testing, Temp svcs)	8,771	SF	\$ 1.10	\$ 9,648	
Subtotal Plumbing					\$ 273,069
23 00 00 HVAC	8,771	SF	72.24		
Major Equipment					
VRF Systems	18.5	ton	\$ 5,390.00	\$ 99,715	
VRF Refrigerant Pipe w/ Insulation	1,410.0	IF	\$ 45.00	\$ 63,450	
VRF Refrigerant Pipe w/ Insulation to CU	141.0	IF	\$ 75.00	\$ 10,575	
VRF Controllers	3.0	EA	\$ 6,500.00	\$ 19,500	
Condensate Pumps - Diamond	21.0	EA	\$ 285.00	\$ 5,985	
DOAS / ERV Allowance	1	LS	\$ 51,474.00	\$ 51,474	
Mini Split HVAC System - IT Room 1 ton	1	TON	\$ 7,500.00	\$ 7,500	
EF-1 & EF-2 Electrical & Mechanical	1,000	CFM	\$ 4.95	\$ 4,950	
EF-3 & EF-4 Sprinkler & Work Room	300	CFM	\$ 7.95	\$ 2,385	
EF-5 - Exhaust Fan with CO Sensors @ Aparatus Bays	2,400	CFM	\$ 4.95	\$ 11,880	
EF-6 - Exhaust Fan with CO Sensors @ Aparatus Bays	180	CFM	\$ 7.95	\$ 1,431	
EF-8 & EF-9 Gear locker - Exhaust Fan with CO Sensors @ Aparatus Bays	200	CFM	\$ 7.95	\$ 1,590	
EF-7 - Exhaust Fan Decon	175	CFM	\$ 7.95	\$ 1,391	
EF-11 - Exhaust Fan SCBA	1,980	CFM	\$ 4.95	\$ 9,801	
SF-1 - Supply Fan	< Removed >				
SF-2 - Supply Fan	< Removed >				
Motorised Ventilation Louver ILO SF-1 / SF-2	1	LS	\$ 3,500.00	\$ 3,500	
KMUA-1	1	LS	\$ 22,850.00	\$ 22,850	
KEF-1 - Exhaust Fan	1,250	CFM	\$ 6.45	\$ 8,063	
Gas fired unit heaters	4	EA	\$ 3,150.00	\$ 12,600	
EWB Electric Wall Heaters	3	EA	\$ 2,750.00	\$ 8,250	
EUH Electric Unit Heaters	3	EA	\$ 2,250.00	\$ 6,750	

Base Estimate

Element / Description	Quantity	Unit	Unit Rate (\$)	Extension (\$)	Subtotal (\$)
Kitchen Hood with Ansul System	1	LS	\$ 12,500.00	\$ 12,500	
<u>Distribution Systems</u>					
16 Gauge Sched 40 Grease Duct (Welded)	1	LS	\$ 7,500.00	\$ 7,500	
Stainless Steel Duct (Dishwasher Exhaust)	< N/A >				
Ductwork Galvanized	6,600	LBS	\$ 17.00	\$ 112,200	
<u>Insulation</u>					
Duct Wrap Insulation	4,539	SF	\$ 6.15	\$ 27,915	
Duct Fire Wrap	1	LS	\$ 5,500.00	\$ 5,500	
Registers	38	ea	\$ 140.00	\$ 5,320	
Supply / Return Sound Attenuators	2	ls	\$ 2,500.00	\$ 5,000	
Volume Dampers	38	ea	\$ 110.00	\$ 4,180	
Misc. Duct Accessories / connections	1	ls	\$ 5,500.00	\$ 5,500	
Flues for GFUH	4	EA	\$ 1,250.00	\$ 5,000	
Exterior Louvers	1	LS	\$ 3,750.00	\$ 3,750	
Vehicle CO Detection controls	1	LS	\$ 3,500.00	\$ 3,500	
Controls and Instrumentation - Assumes Factory Controls with minimal DDC for local access	8,771	SF	\$ 5.45	\$ 47,802	
Systems Testing & Balancing	8,771	SF	\$ 0.65	\$ 5,701	
<u>Other HVAC Systems & Equipment</u>					
Coordination & Management	1	LS	\$ 12,500.00	\$ 11,875	
Seismic Restraints / Bracing	1	LS	\$ 1,500.00	\$ 1,425	
Coring & Patching / Firestopping	1	LS	\$ 750.00	\$ 713	
Hoisting & Rigging / Floor Loading	1	LS	\$ 2,500.00	\$ 2,375	
Shop Drawings & Submittals	1	LS	\$ 1,850.00	\$ 1,758	
BIM Coordination & Mgmt	< N/A >				
Record Drawings / as built	1	LS	\$ 3,500.00	\$ 3,325	
Equipment Start up and Inspection	1	LS	\$ 2,500.00	\$ 2,375	
Access panels - furnish only	1	LS	\$ 1,500.00	\$ 1,425	
Commissioning	1	LS	\$ 3,500.00	\$ 3,325	
Subtotal HVAC					\$ 633,603
26 00 00 Electrical					
Normal Power Distribution					
MCB 800A / CT Cab	1	ea	\$ 17,500.00	\$ 17,500	
SB-1 800A 120/208	1	ea	\$ 28,000.00	\$ 28,000	
Panel RP1 225A 60p	1	ea	\$ 9,750.00	\$ 9,750	
Panel RP-2 225A 60p	1	ea	\$ 9,750.00	\$ 9,750	
Panel RP-3 225A 60p	1	ea	\$ 9,750.00	\$ 9,750	
Panel RP-4 400A 42p	1	ea	\$ 6,750.00	\$ 6,750	
Feeders					
Secondary feeder 800A	70	lf	\$ 465.00	\$ 32,550	
400A Feeder EMT copper	200	lf	\$ 161.00	\$ 32,200	
225A Feeder EMT copper	250	lf	\$ 115.00	\$ 28,750	
Machine & Equipment Power					
DOAS-1 50A 208v connect	1	ea	\$ 1,825.00	\$ 1,825	
KMUA-1 30A 208v connect	1	ea	\$ 1,428.14	\$ 1,428	
ERC-1 30A 208v connect	1	ea	\$ 1,165.00	\$ 1,165	
EW1-1-3	3	ea	\$ 975.00	\$ 2,925	
EUH 1-2	2	ea	\$ 1,225.00	\$ 2,450	
EF1-11	10	ea	\$ 595.00	\$ 5,950	
CU 60A 120v connect	3	ea	\$ 695.00	\$ 2,085	
FCU 20 A Circuit & Connection	20	ea	\$ 425.00	\$ 8,500	
VRF Control Boxes	3	ea	\$ 795.00	\$ 2,385	
Equipment connection Washing Machine 100A	2	ea	\$ 725.00	\$ 1,450	
Equipment connection Dryer	2	ea	\$ 845.00	\$ 1,690	
Equipment connection Door operator	6	ea	\$ 1,125.00	\$ 6,750	
Chord reel hard wired	4	ea	\$ 795.00	\$ 3,180	
Equipment - DECON Room	2	ea	\$ 525.00	\$ 1,050	
Equipment - Antennae Ground in Conduit 75'	1	ea	\$ 1,250.00	\$ 1,250	
Equipment - Conduit roof to watch room	1	ea	\$ 800.00	\$ 800	
Equipment connection Plymovent system	3	ea	\$ 525.00	\$ 1,575	
Fire pump connection	< N/A >				
KEF-1 Kitchen exhaust fan 1-1/2HP 480v connect	1	ea	\$ 1,250.00	\$ 1,250	
Kitchen Equipment & Hood controls connections	1	ls	\$ 3,750.00	\$ 3,750	
Floor boxes and outlets	< N/A >				
Equipment Power branch wiring	8,771	ls	\$ 1.65	\$ 14,472	
Emergency Power and Distribution					
Generator and 800A ATS -175 KW Natural Gas	1	ls	\$ 175,000.00	\$ 175,000	
General Power					
<u>Device Branch</u>					
Equipment Disconnect	13	EA	\$ 525.00	\$ 6,825	
Equipment Disconnect WP	21	EA	\$ 735.00	\$ 15,435	
Recept Double duplex	11	EA	\$ 142.00	\$ 1,562	
Recept Duplex	67	EA	\$ 96.00	\$ 6,432	
Recept Duplex GFI	64	EA	\$ 135.00	\$ 8,640	
Recept Duplex GFI WP	19	EA	\$ 165.00	\$ 3,135	
Recept Duplex WP	13	EA	\$ 112.00	\$ 1,456	
Recept Emergency Power Off	1	EA	\$ 650.00	\$ 650	
Sensor OC	19	EA	\$ 182.00	\$ 3,458	
Switch \$	21	EA	\$ 75.00	\$ 1,575	
Switch \$3K	3	EA	\$ 325.00	\$ 975	
Switch D	15	EA	\$ 145.00	\$ 2,175	
Switch OC	9	EA	\$ 250.00	\$ 2,250	
Conduits & Conductors	8,771	SF	\$ 1.71	\$ 14,998	
Lighting and Branch					
<u>Lighting</u>					
W1 Exterior wall packs	14	ea	\$ 650.00	\$ 9,100	
B2 Exterior recessed fixtures	4	ea	\$ 435.00	\$ 1,740	
A1 Fixture	33	ea	\$ 265.00	\$ 8,745	
A2 Fixture	4	ea	\$ 265.00	\$ 1,060	
A3 Fixture	16	ea	\$ 265.00	\$ 4,240	
B1 Fixture	29	ea	\$ 165.00	\$ 4,785	
B2 Fixture	2	ea	\$ 165.00	\$ 330	
C1 Fixture	16	ea	\$ 655.00	\$ 10,480	
D1 Fixture	12	ea	\$ 225.00	\$ 2,700	
D2 Fixture	3	ea	\$ 345.00	\$ 1,035	
E1 Fixture	3	ea	\$ 395.00	\$ 1,185	
E2 Fixture	5	ea	\$ 395.00	\$ 1,975	

Base Estimate

Element / Description	Quantity	Unit	Unit Rate (\$)	Extension (\$)	Subtotal (\$)
E3 Fixture	3	ea	\$ 395.00	\$ 1,185	
W3 Fixture	9	ea	\$ 7.50	\$ 68	
Lighting Device Branch & Controls	8,771	SF	\$ 3.20	\$ 28,067	
<u>Lightning and Power Specialties</u>					
Building & service grounding	1	ls	\$ 4,500.00	\$ 4,500	
Lighting protection	< N/A >				
<u>Miscellaneous Systems</u>					
Temporary power and lights	8,771	ls	\$ 0.65	\$ 5,701	
Subcontractor site office & storage	1	ls	\$ 5,000.00	\$ 5,000	
Subcontractor lifts & scaffolding	1	ls	\$ 2,500.00	\$ 2,500	
BIM Coordination	< N/A >				
Bond excluded	< N/A >				
<u>Testing and Commissioning</u>					
Testing and commissioning	1	ls	\$ 3,500.00	\$ 3,500	
<u>Communications</u>					
Telephone and Communications Systems	< Assumes by Owner >				
Telecomm Backbone raceways	1	ls	\$ 3,500.00	\$ 3,500	
Telecomm Box & 1-1/4" EMT wall sleeve	1	ls	\$ 1,250.00	\$ 1,250	
Telecom box and riser	19	ea	\$ 225.00	\$ 4,275	
2V/2D CAT 6 cable /termination & testing	33	ea	\$ 395.00	\$ 13,035	
WAP 2D CAT 6 cable /termination & testing	10	ea	\$ 265.00	\$ 2,650	
IDF Closet fit up	1	ea	\$ 3,500.00	\$ 3,500	
<u>Av System</u>					
Local Sound System in Exercise room	1	ea	\$ 5,000.00	\$ 5,000	
<u>Public Address Systems</u>					
Public Address Systems - Head end	1	ea	\$ 3,500.00	\$ 3,500	
Speakers	34	ea	\$ 225.00	\$ 7,650	
Television Mount	7	ea	\$ 300.00	\$ 2,100	
<u>Safety & Security</u>					
Security Access Control	< Assumes by Owner >				
Control panels , licenses and programming allowance	1	LS	\$ 5,000.00	\$ 5,000	
Access control door roughing & devices	1	EA	\$ 1,250.00	\$ 1,250	
Door bell / buzzer	4	EA	\$ 3,500.00	\$ 14,000	
[CR] Card reader raceway, device & wire	7	EA	\$ 795.00	\$ 5,565	
[DC] Door contact					
<u>Fire Alarm System</u>					
Equipment ,devices and programming	1	LS	\$ 3,250.00	\$ 3,250	
F/A Addressable control panel	1	EA	\$ 1,725.00	\$ 1,725	
FA-CFA	5	EA	\$ 925.00	\$ 4,625	
FA-Heat	8	EA	\$ 196.00	\$ 1,568	
FA-Horn Strobe	9	EA	\$ 240.00	\$ 2,160	
FA-Horn Strobe WP	4	EA	\$ 365.00	\$ 1,460	
FA-Pull	7	EA	\$ 239.00	\$ 1,673	
FA-Smoke	35	EA	\$ 385.00	\$ 13,475	
F/A Tamper switch & monitor module	2		\$ 378.90	\$ 758	
F/A Flow switch & monitor module	1		\$ 377.18	\$ 377	
F/A Pressure switch & monitor module	2		\$ 355.29	\$ 711	
F/A SLC/NAC 3/4" EMT & loop circuits	260	lf	\$ 10.00	\$ 2,599	
F/A 14/4 FPLP/IMC cable	725	lf	\$ 4.31	\$ 3,127	
F/A 16/2 FPLP/IMC cable	700	lf	\$ 3.26	\$ 2,280	
Subtotal Electrical					\$ 695,455
33 00 00 Sitework					
Sitework from PACS Site estimate	1	LS	\$ 1,119,731.16	\$ 1,119,731	
					\$ 1,119,731

		City of Bristol New Firehouse No.3				\$ 1,119,731	
		Quantity	Unit			5/17/2024 REVISED	
				Unit Price	Extended Total		
Temporary Site Security Fencing						8,080.75	
6' CLF, panels		975	lf	5.69	5,547.75		
24' Double drive gate		1	ea	900.00	900.00		
Privacy mesh		300	lf	1.61	483.00		
Temp. signage as needed		1	ls	1,150.00	1,150.00		
Surveying & Layout for Sitework						13,650.00	
Surveying LS		1	ls	12,500.00	12,500.00		
Red line as-builts		1	ls	1,150.00	1,150.00		
A-2 As-Built survey - Excluded					-		
Winter Conditions - Excluded						-	
Erosion Control						28,927.87	
Construction entrance		1	ea	2,750.00	2,750.00		
Staked hay bales		144	ea	13.00	1,872.00		
Dewatering - open pumping only		60	hrs	153.90	9,234.00		
Dust control		10	hrs	124.89	1,248.90		
Inlet protection		12	ea	157.32	1,887.84		
Silt fence, 36" tall		557	lf	4.04	2,250.28		
Pump water filter bag (15' x 15')		3	ea	745.96	2,237.88		
Sweeping (truck)		10	hrs	124.89	1,248.90		
Temp. sediment basin		< Removed >			-		
Temp swales / earth dikes		< Removed >			-		
Mulch on temp swale		< Removed >			-		
Temp. outlet structure w/ riser		< Removed >			-		
Overflow spillway / checkdams - Stone		< Removed >			-		
E&S Inspection & reports		40	hrs	90.00	3,600.00		
Furnish 20 gallon oil spill kit		1	ea	146.57	146.57		
Removal of E&S measures		1	ls	1,653.02	1,653.02		
Site Demolition						22,664.54	
Clearing & Grubbing / Selective tree removals		1	ls	7,500.00	7,500.00		
Remove fencing		250	lf	5.65	1,412.50		
Sawcut Asphalt		683	lf	9.18	6,269.94		
Strip & load asphalt		59	cy	47.31	2,800.05		
Export asphalt		59	cy	20.12	1,190.81		
Strip & load concrete - small area, sidewalk (backhoe & handwork)		27	cy	45.73	1,226.58		
Export concrete		27	cy	20.12	539.66		
Dumpsters		2	ea	862.50	1,725.00		
Building Demolition - Not Required (See Selective)						-	
Earthwork -						33,754.55	
Strip & Stockpile topsoil for processing		933	CY	6.35	5,924.55		
Export excess topsoil (load & Haul)		< Assumes balanced >			-		
Unsuitable Soils / removal and replacement per Geotech		< Excluded >			-		
Mass Earthwork Cuts to fills		2,200	CY	12.65	27,830.00		
Mass Earthwork Import & Place		< Assumes balanced >			-		
Segmental Block Retaining Walls - Assumes not required						-	
Structural Excavation						129,136.50	
Foundation Structural Earthwork		9,430	SF	7.95	74,968.50		
Furnish rigid insulation 4' x 8' x 2"		3,904	SF	4.45	17,372.80		
Footing Drains w/ Crushed Stone & Fabric		488	LF	43.65	21,301.20		
Furnish vertical drain board		2,440	SF	6.35	15,494.00		
Work Inside Existing Building						-	
Storm Drainage						255,505.81	
Test pits in street prior to construction - Assumes no street connection		2	ea	1,750.00	3,500.00		
Traffic control		80	hrs	86.25	6,900.00		
6" HDPE Storm drains (2-4vf)		90	lf	40.22	3,619.80		
8" HDPE Storm drains (2-4vf)		106	lf	43.57	4,618.42		
12" HDPE (4-6vf)		460	lf	50.52	23,239.20		
15" HDPE (4-6vf)		35	lf	70.14	2,454.90		
24" HDPE (4-6vf)		10	lf	87.68	876.80		
12" RCP (10-12vf)		223	lf	78.72	17,554.56		
15" RCP (10-12vf)		< Removed >			-		
Yard drains (2-4vf)		3	ea	2,123.89	6,371.67		
Catch basin w/ 4' sump (6-8vf)		5	ea	3,436.68	17,183.40		
Manhole 4' diameter (10-12vf)		1	ea	3,173.18	3,173.18		
Tie into existing structure in street		1	ea	2,250.00	2,250.00		
Tie into stub at building		2	ea	382.25	764.50		
Stone bedding		48	cy	31.86	1,514.06		
Sand cover		130	cy	26.51	3,439.23		
Detention System -						-	
Outlet Control Structure		1	ea	8,234.42	8,234.42		
Water quality structure Barracuda		1	ea	18,195.00	18,195.00		
Detention System - Excavate to bottom of stone in Mass EW					-		
Crushed stone bottom - in place		100	cy	52.00	5,200.00		
Crushed stone Sides - in place		107	cy	52.00	5,546.67		
Retain it structures 3' delivered		40	ea	1,295.00	51,800.00		
Retain it inspection risers		4	ea	395.00	1,580.00		
F&I Liner		4,000	sf	9.65	38,600.00		
Install Structures		24	hrs	907.00	21,768.00		
4" HDPE Underdrain system in Stone bedding		100	lf	40.22	4,022.00		
Install Inspection manholes		4	ea	775.00	3,100.00		

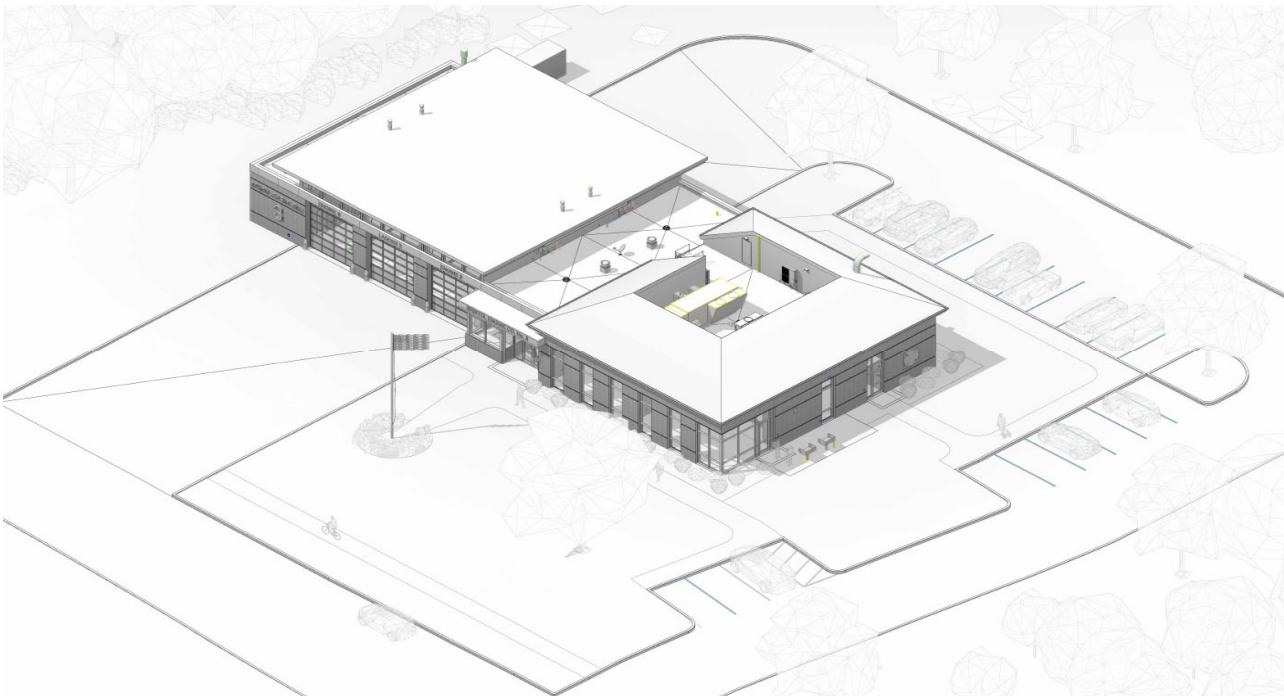
								\$ 1,119,731			
City of Bristol New Firehouse No.3											
		Quantity	Unit			Unit Price	Extended Total	5/17/2024 REVISED			
Sanitary Sewer										47,239.03	
Tie in in street	1	ea				6,468.84	6,468.84				
Traffic control	12	hrs				86.25	1,035.00				
Temp pavement patch	30	sy				46.00	1,380.00				
Core into existing manhole	< Removed >						-				
4" PVC SDR-35 (6-8vf)	16	lf				38.76	620.16				
6" PVC SDR-35 (8-10vf)	225	lf				46.28	10,413.00				
Cleanouts	2	ea				955.67	1,911.34				
Wye in Street - Connect to Main	1	ls				2,000.00	2,000.00				
Manhole over existing Sanitary in street	< Removed >						-				
Decontamination-storage-tank Pipes, Level-controls	<Removed >						-				
Oil / water separator 1000 gallon	1	ea				5,394.83	5,394.83				
Tie into stub at building	2	ea				382.25	764.50				
Stone bedding	19	cy				34.00	637.31				
Sand cover	37	cy				26.51	993.83				
Export excess material	56	cy				23.00	1,293.37				
Testing (vacuum)	2	ls				1,412.85	2,825.70				
Water System - New Fire & DOM Water Service										57,874.87	
Test pits in street prior to construction	2	ea				1,617.21	3,234.42				
Traffic control	16	hrs				86.25	1,380.00				
Temp pavement patch	2	sy				46.00	92.00				
8" x 6" Wet-tap in Road	2	ea				5,325.00	10,650.00				
Traffic control	20	hrs				86.25	1,725.00				
Temp pavement patch	20	sy				46.00	920.00				
Meter vault	< Excluded >						-				
4" DIP CL54	140	lf				61.01	8,541.40				
6" DIP CL54	135	lf				77.07	10,404.45				
4" Gate valve	1	ea				1,146.95	1,146.95				
6" Gate valve	1	ea				1,312.63	1,312.63				
6" Post indicator valve	1	ea				2,867.52	2,867.52				
4" Bends	3	ea				458.72	1,376.16				
6" Bends	3	ea				516.07	1,548.21				
6" x 4" Reducer	1	ea				471.46	471.46				
Fire Water Storage-Assembly	< Removed >						-				
Excavate for Tank Foundation	<Removed >						-				
Tank Hold-down slab Assumes 12" thick for-	<Removed >						-				
Tank Cover-slab	<Removed >						-				
Tank, Manway, collars, Sump, hold-down straps, turnbuckles, deadman anchors delivered	<Removed >						-				
Installation of tank, anchors, straps, plumbing	<Removed >						-				
Backfill tank with stone	<Removed >						-				
Pumping - Open pumping watertable	<Removed >						-				
Hydrants - Practice Hydrant	<Removed >						-				
Thrust blocks	6	ea				354.65	2,127.90				
Stub 4" DIP inside building from 5' away, stub AFF & flanged cap	1	ea				2,639.36	2,639.36				
Stub 6" DIP inside building from 5' away, stub AFF & flanged cap	1	ea				2,602.40	2,602.40				
Stone bedding	21	cy				34.00	727.22				
Sand cover	43	cy				26.51	1,134.04				
Export excess material	64	cy				19.36	1,242.27				
Testing (bacteria & pressure tests)	1	ls				1,731.48	1,731.48				
Gas Service E/B										7,195.59	
Gas service -	< Removed >						-				
Traffic control	16	hrs				86.25	1,380.00				
Temp pavement patch	20	sy				46.00	920.00				
Permanent pavement restoration	< Removed >					115.00	-				
E/B for Gas service	228	lf				9.49	2,163.72				
Sand bedding	41	cy				26.51	1,074.54				
Export excess material	41	cy				13.75	557.33				
Provide Gas Service to Grill locations	50	lf				22.00	1,100.00				
Site Electric										66,865.77	
Locate existing service on-site	1	ea				592.89	592.89				
E/B Primary ductbank	249	lf				11.86	2,953.14				
Primary Conduits	498	lf				20.00	9,960.00				
Sand bedding	22	cy				26.51	586.75				
Concrete encasement (free pour)	5	cy				209.58	1,117.76				
#4 Rebar for ductbank	240	lf				0.92	220.80				
E/B Secondary ductbank	70	lf				11.86	830.20				
Secondary Conduits	280	lf				20.00	5,600.00				
Sand bedding	6	cy				26.51	164.95				
E/B Generator UG Feed	60	lf				11.86	711.60				
Generator Conduits	60	lf				60.00	3,600.00				
Sand bedding	5	cy				26.50	141.33				
E/B EV Charger	< Removed >						-				
EV Charger Conduit's	< Removed >						-				
Sand bedding	< Removed >						-				
Quartzite pull boxes	< Removed >						-				
E/B Other conduits (Telecom)	300	lf				11.86	3,558.00				
Telecom Conduit's	900	lf				20.00	18,000.00				
Sand bedding	22	cy				26.51	586.75				
Concrete encasement (free pour)	5	cy				209.58	1,117.76				
#4 Rebar for ductbank	240	lf				0.92	220.80				
Transformer pad & Grounding	1	ls				4,275.00	4,275.00				
Generator pad & Grounding	1	ls				6,750.00	6,750.00				
Electric handhole	1	ls				1,426.82	1,426.82				
Pole riser	1	ls				1,662.30	1,662.30				
Load & Export excess material	66	cy				28.00	1,861.69				
Eversource Pole relocation #2379 - Assumes by Utility Company	< Excluded >						-				

		City of Bristol New Firehouse No.3		\$ 1,119,731	
		Quantity	Unit	Unit Price	Extended Total
					5/17/2024 REVISED
Site Lighting					51,982.62
Concrete pole bases (6-8vf bury)		6	ea	1,082.19	6,493.14
E/B for Conduits		775	lf	11.86	9,191.50
Site Lighting conduits & Conductors		775	lf	12.95	10,036.25
Sand bedding		34	cy	26.51	913.12
Export excess material		34	cy	13.75	473.61
Site light poles, fixtures, conduits, and wiring		8	ea	2,650.00	21,200.00
Flagpole light fixtures		3	ea	1,225.00	3,675.00
Curbing					34,720.00
Cast-in-place concrete curb		1,085	lf	32.00	34,720.00
Concrete Sidewalks & Pavers					35,540.37
Form subgrade		351	sy	4.74	1,663.74
6" Base material		70	cy	34.75	2,439.45
Fine grade		351	sy	4.74	1,663.74
E/B Monolithic curb		187	lf	4.54	848.98
5" Concrete sidewalks w/ wire		3,159	sf	8.45	26,693.55
Monolithic curb		187	lf	11.93	2,230.91
Detectable warning surfaces - tiles		< Removed >		-	-
Concrete Site Stairs - None identified					-
Paved Surfaces					210,426.45
<u>Standard Duty</u>				-	-
Form subgrade		1,258	sy	1.03	1,295.63
12" Subbase		503	cy	38.00	19,119.91
6" Process Base		-	cy	48.00	-
Fine grade		1,258	sy	1.15	1,446.57
Prime coat		1,258	sy	1.15	1,446.57
1.5" Binder		110	ton	160.00	17,610.44
Tack coat		1,258	sy	0.58	729.58
1.5" Surface		110	ton	165.00	18,160.77
<u>Heavy Duty</u>				-	-
Form subgrade		820	sy	1.03	844.14
12" Subbase		328	cy	38.00	12,457.24
6" Process Base		164	cy	48.00	7,867.73
Fine grade		820	sy	1.15	942.49
Prime coat		820	sy	1.15	942.49
3" Binder		143	ton	160.00	22,947.56
Tack coat		820	sy	0.58	475.34
1.5" Surface		72	ton	165.00	11,832.33
<u>Heavy Duty Concrete Apron @ Building</u>				-	-
Form subgrade		142	sy	1.03	146.72
Geotextile fabric		1,410	sf	0.30	423.06
10" Base		47	cy	56.00	2,658.96
Fine grade		142	sy	1.15	163.81
8" Reinforced Concrete Apron with 2x Rebar mats T&B		1,282	sf	22.50	28,845.00
<u>Heavy Duty Concrete Apron @ road</u>				-	-
Form subgrade		49	sy	1.03	50.93
Geotextile fabric		490	sf	0.30	146.85
10" Base		16	cy	56.00	922.96
Fine grade		49	sy	1.15	56.86
8" Reinforced Concrete Apron with 2x Rebar mats T&B		445	sf	22.50	10,012.50
<u>Pavement patching - Temp and permanent @ street for utility connections</u>		418	sy	117.00	48,880.00
Site Signage					3,750.00
Site Signage Allowance		1	ls	3,750.00	3,750.00
Landscaping					52,236.44
Plantings					
Trees		19	ea	1,250.00	23,750.00
Shrubs		20	ea	265.00	5,300.00
Annuals, Perennials & Grasses		52	ea	65.00	3,380.00
Plantings mix & Mulch (18")		13	cy	95.00	1,266.67
Stone mulch - river cobble		18	cy	65.00	1,161.33
Weed barrier fabric / Mirafi root barrier		1,250	sf	0.96	1,200.00
Steel edging		202	lf	6.90	1,393.80
Topsoil Screen stockpiled (assume 70% useable)		482	cy	6.00	2,889.60
Load & Export screening spoils (Assumes clean)		144	cy	23.00	3,323.04
Move and place screened topsoil		482		9.00	4,338.00
Seeding		21,675	sf	0.08	1,734.00
Maintenance		1	ls	1,500.00	1,500.00
Watering		1	ls	1,000.00	1,000.00
Fence & Guiderail					46,775.00
6' Ornamental metal fence		30	lf	210.00	6,300.00
8' Screen fence @ Generator		120	lf	135.00	16,200.00
6' Ornamental Man Gate - 5' swing		1	ea	3,500.00	3,500.00
8' Dual Swing Gate - 8' swing		1	ea	4,500.00	4,500.00
8' Ornamental fence augured footings		21	ea	775.00	16,275.00
Bollards					6,755.00
8" Steel bollards		7	ea	965.00	6,755.00
Site Furnishings					6,650.00
<u>Furnish materials</u>				-	-
Flagpole and base		1	ls	4,500.00	4,500.00
Shipping		1	ls	2,150.00	2,150.00
End of Estimate					

City of Bristol New Firehouse No.3

DD Documents Estimate

Date: 5/21/2024 REVISED



Basis Of Estimate

Basis of Estimate

Introduction

PACS has been engaged by the Silver Petrucelli to provide a Cost Estimate for:

Estimate is based on the following documents provided by Silver Petrucelli & Associates

- **23-017_Bristol Fire #3_DESIGN DEVELOPMENT_COMBINED by Silver Petrucelli dated April 17, 2024, 87pp**
- **090000 Schedule of Finishes by Silver Petrucelli, 8pp**
- **Revised Geotechnical Engineering Report - Fire Station No. 3, Bristol, CT by DTE Consulting dated April 2024 35pp**

Quantities and Methodology

- The cost estimate is based on the measurement of quantities wherever possible.
- Where actual measurements are not used, parametric measurements are used in conjunction with previous but similar project benchmarks.
- PACS uses a wide range of standard measurement and quantifying methods that are common practice in the construction industry today.

Basis of Pricing

- a) The construction costs shown in this estimate represent the fair market value and are not intended to be a prediction of the lowest bid.
- b) The costs include: labor, material, equipment and the subcontractors overhead and profit. (Subcontractor's Mark Up)
- c) The cost of labor is based on local Prevailing wage rates for all trades.
- d) The construction rates used are based in "today's dollar" and an escalation allowance is included in the Estimate summary.
- e) Our pricing assumes competitive bidding on all elements of the construction work, assuming a minimum of three competitive bidders for all general contractors, subcontractors, materials and
- f) It is typical in our experience that if fewer bids are received or solicited, prices can be expected to be higher due to lack of competition.
- g) The subcontractor's mark ups include their own overhead, including the cost in the field as well as profit.
- h) PACS has priced this taking into account current market conditions, competition between trades and the cost fluctuations in the construction industry.
- i) Estimate assumes no Phasing required..
- j) Proposal is based on construction being performed on regular hours.

Design and Pricing Contingency

A Design and Pricing Contingency is used as a budgetary tool that allows for scope and detail not defined during the design stage. As the design becomes more defined as the project passes through the design stages, the Design and Pricing Contingency decreases as more scope and detail is now being shown in the documents and is therefore reflected in the cost estimate as actual trade cost. The Design and Pricing Contingency is reduced to zero at 100% Bid Documents.

Escalation

As outlined above the estimate is calculated using rates that are "today's dollar" and reflect the cost of the project as if it was to bid on the date of issue. Due to construction projects having long design phases and long construction schedules, it is imperative to project the construction cost further ahead into the future to the point at which it is bid out. It is common practice to escalate the cost estimate to the mid point of construction to accommodate for economic inflation. This percentage accounts for this increase.

Construction Contingency

PACS advise that a Construction Contingency is carried for unforeseen project conditions and field changes. Typically we see this in the range of 3% to 5% dependent on the scope of the project.



Basis Of Estimate

Probable Cost

It is important for the Owner and Design team to carefully review this cost estimate including all line item descriptions, clarifications, exclusions, unit prices, assumptions, allowances, mark ups and contingencies to ensure the estimate reflects the scope of the project.

PACS has produced the cost estimate based on the widely practiced methods of cost estimating and aims to reflect the fair market value of the construction project. Our aim is to be not the highest or the lowest in the range of bids but to use our experience and expertise in the construction industry to provide the client with a degree of confidence that the project will be close to our calculated estimate.

Exclusions

This cost estimate excludes the following:

- Premiums for working in inaccessible or partially accessible spaces during construction
- Surplus Stock and Spares
- Premiums for restrictive and uncompetitive bidding
- Premiums for non-standard work times
- Work beyond the project limits
- CT Sales Tax - Assumes Exempt
- Wellpoints - Assumes open trench pumping only
- Rock or Unsuitable soils remediation
- Hazardous, Contaminated or Polluted soils
- AV Equipment / Technology Budget
- Utility Costs - Electric, Gas, Water (assumes by Owner)

Risks to the Cost Estimate

Items that may affect the cost estimate, the list as follows but not limited:

- Changes to the design subsequent to the issue of the documents stated above which this estimate is based on
- Non Competitive Bid restrictions and the sole sourcing of products/materials from specific vendors
- Restrictive technical specifications that produce a non competitive environment
- Changes to the project schedule that delay the project and therefore have impact on cost
- Incomplete and poorly coordinated documentation
- Access restrictions, unidentified out of hours work policies and phasing restrictions
- Restrictive technical specifications that produce a non competitive environment
- Unforeseen and unknown Site conditions

Trade		Cost	Cost / SF
01 50 00	Temporary Facilities and Controls	\$ 39,470	\$ 4.50
03 30 00	Cast-In-Place Concrete	\$ 269,240	\$ 30.70
04 20 00	Unit Masonry	\$ 398,460	\$ 45.43
05 12 00	Structural Steel	\$ 464,740	\$ 52.99
05 40 00	Cold Formed Metal Framing	\$ 103,060	\$ 11.75
05 50 00	Metal Fabrications	\$ 64,250	\$ 7.33
06 10 00	Rough Carpentry	\$ 111,222	\$ 12.68
06 20 00	Finish Carpentry	\$ 154,012	\$ 17.56
07 21 00	Thermal Insulation	\$ 31,995	\$ 3.65
07 25 00	Air & Vapor Barriers	\$ 28,007	\$ 3.19
07 40 00	Metal Siding & Panels	\$ -	\$ -
07 50 00	Roofing	\$ 265,018	\$ 30.22
07 92 00	Joint Sealants	\$ 12,500	\$ 1.43
08 10 00	Doors and Frames	\$ 48,715	\$ 5.55
08 30 00	Specialty Doors	\$ 173,750	\$ 19.81
08 41 00	Entrances & Storefront	\$ 224,570	\$ 25.60
08 71 00	Door Hardware	\$ 38,400	\$ 4.38
08 80 00	Glass & Glazing	\$ -	\$ -
09 21 00	Gypsum Board Assemblies	\$ 100,169	\$ 11.42
09 30 00	Tile	\$ 6,790	\$ 0.77
09 51 00	Acoustical Ceiling	\$ 30,483	\$ 3.48
09 61 10	Vapor Mitigation	\$ 5,745	\$ 0.66
09 65 00	Resilient Flooring	\$ 38,419	\$ 4.38
09 67 00	Resinous Flooring	\$ 93,952	\$ 10.71
09 68 00	Carpet	\$ 5,999	\$ 0.68
09 91 00	Painting & Wallcoverings	\$ 74,404	\$ 8.48
10 14 00	Signage & Graphics	\$ 22,750	\$ 2.59
10 26 00	Wall & Door Protection	\$ 4,370	\$ 0.50
10 28 00	Toilet Accessories	\$ 11,080	\$ 1.26
10 41 00	Emergency Access Cabinets	\$ 610	\$ 0.07

Trade		Cost	Cost / SF
10 44 00	Fire Protection Specialties	\$ 2,085	\$ 0.24
10 51 00	Lockers	\$ 52,590	\$ 6.00
11 30 00	Residential Appliances	\$ -	\$ -
11 40 00	Foodservice Equipment	\$ 28,814	\$ 3.29
11 52 00	Audio-Visual Equipment	\$ 2,500	\$ 0.29
11 90 00	Miscellaneous Equipment	\$ 50,810	\$ 5.79
12 20 00	Window Treatment	\$ 15,065	\$ 1.72
21 00 00	Fire Protection	\$ 84,640	\$ 9.65
22 00 00	Plumbing	\$ 273,069	\$ 31.13
23 00 00	HVAC	\$ 633,603	\$ 72.24
26 00 00	Electrical	\$ 695,455	\$ 79.29
33 00 00	Sitework	\$ 1,119,731	\$ 127.66
TOTAL DIRECT COST		\$ 5,787,489	\$659.84

Trade		Cost	Cost / SF
TOTAL DIRECT COST (FROM PREVIOUS PAGE)		\$ 5,787,489	\$659.84
Design & Estimating Contingency	4.00%	\$ 231,500	#
Escalation - @ 6% Annually	1.00%	\$ 60,190	#
General Conditions- (11 mos @ 50,000 / Month)	\$ 550000	\$ 550,000	#
Preconstruction - Assumes None		\$ -	
GC Insurances	0.85%	\$ 56,348	#
Building Permit		\$ 50,000	#
GC Surety Bond	0.78%	\$ 47,418	#
GC Fee	3.00%	\$ 182,375	#
TOTAL CONSTRUCTION COST (DIRECT & INDIRECT COSTS)		\$ 6,965,320	\$794.13
Bonding & Legal fees to Town	\$ 10000	\$ 10,000	
A&E Fees / Professional Services	\$ 307800	\$ 307,800	
Commissioning agent	\$ 35000	\$ 35,000	
Owners Representative	\$ 175000	\$ 175,000	
Builders Risk Insurance - Town	\$ 40000	\$ 40,000	
Testing & Inspections	\$ 20000	\$ 20,000	
Moving & Relocation costs	Excluded		
FF&E (Furniture Fixtures and Equipment)	\$ 300000	\$ 300,000	
State Permit 0.26%	\$ 7853120	\$ 20,418	
A/V Systems - Assumes in FF&E	Excluded		
Artwork - By Owner	Excluded		
Utility Connection fees allowance	\$ 25000	\$ 25,000	
Owners Contingency:	% 5.00%	\$ 394,927	
TOTAL CONSTRUCTION & SOFT COSTS		\$ 8,293,465	\$945.56
Alternates			
* Add Fire Water Storage tank and Practice Hydrant		\$ 190,000	
* Deduct EPX-1 / EPX-2 in all areas but the Decon area		\$ (109,450)	
* Provide (3) Bifold Doors at Apparatus Bay ILO Overhead doors		\$ 40,092	

Base Estimate

Element / Description	Quantity	Unit	Unit Rate (\$)	Extension (\$)	Subtotal (\$)
01 50 00 Temporary Facilities and Controls					
Temporary Site Services - GC Bid (minimal)	8,771	SF	\$ 4.50	\$ 39,470	
Subtotal Temporary Facilities and Controls					\$ 39,470
02 11 00 Contaminated Soil Excavation & Disposal					
Excluded			< Excluded >		
Subtotal Contaminated Soil Excavation & Disposal					\$ -
02 12 00 Transportation/Disposal of Contaminated Materials					
Excluded			< Excluded >		
Subtotal Transportation/Disposal of Contaminated Materials					\$ -
02 80 00 Hazardous Abatement					
Excluded			< Excluded >		
Subtotal Hazardous Abatement					\$ -
02 41 16 Building Demolition					
Assumes not required			< N/A >		
Subtotal Building Demolition					\$ -
02 41 19 Selective Demolition					
Assumes not required			< N/A >		
Subtotal Selective Demolition					\$ -
03 30 00 Cast-In-Place Concrete					
Continuous footings	42.00	CYD	\$ 645.00	\$ 27,090	
Column Footings	71.00	CYD	\$ 695.00	\$ 49,345	
Haunch slab footings			< N/A >		
Frostwall Foundations with Brick Ledge	81.00	CYD	\$ 865.00	\$ 70,065	
Piers & Pilasters	7.00	CYD	\$ 1,175.00	\$ 8,225	
Stair pan infill			< N/A >		
Slab on Grade 5"	5,350	SF	\$ 10.25	\$ 54,838	
Slab on Grade 7" reinforced & Sloped in Aparatus Bay	3,153	SF	\$ 17.50	\$ 55,178	
Slab on Deck			< N/A >		
Self leveling underlayment			< N/A >		
Concrete mechanical equipment pads	120	sf	\$ 22.50	\$ 2,700	
Concrete curb @ Decon Wash area	8	lf	\$ 225.00	\$ 1,800	
Concrete Locker basses			< N/A >		
Subtotal Cast-In-Place Concrete					\$ 269,240
04 20 00 Unit Masonry					
Envelope					
Envelope CMU Backup - 8"	1,956	SF	\$ 29.00	\$ 56,724	
Envelope CMU Bond Beam	320	SF	\$ 60.00	\$ 19,200	
Brick Veneer	4,598	SF	\$ 43.00	\$ 197,714	
Cast Stone veneer band	563	SF	\$ 55.00	\$ 30,965	
Interior					
Interior CMU Partition 2A - 8"	3,046	SF	\$ 29.50	\$ 89,857	
Interior CMU Partition 2C - 4"	160	SF	\$ 25.00	\$ 4,000	
Subtotal Unit Masonry					\$ 398,460
05 12 00 Structural Steel					
Structural Steel - Beams & Columns and Braced Frames per drawings	57.20	TON	\$ 4,750.00	\$ 271,700	
Structural Steel Misc angles, Plates, Lintels, bracing - 20%	11.44	TON	\$ 4,750.00	\$ 54,340	
Galvanized Steel premium - exposed	1.00	LS	\$ 25,000.00	\$ 25,000	
Metal Decking @ Composite deck			< N/A >		
Metal Decking @ Roof Systems - 1.5 B deck	5,582.00	SF	\$ 6.75	\$ 37,679	
Metal Decking @ Roof Systems - 5.5 Acoustical deck	4,170.00	SF	\$ 13.95	\$ 58,172	
Column Base Plates, AB, Grouting	30.00	EA	\$ 595.00	\$ 17,850	
Subtotal Structural Steel					\$ 464,740
05 40 00 Cold Formed Metal Framing					
Roof Truss Vertical Framing CFMF	2,252	SF	\$ 13.95	\$ 31,415	
Envelope CFMF Backup @ 14'	1,870	SF	\$ 13.95	\$ 26,087	
CFMF Channel Rafters	2,682	LF	\$ 12.25	\$ 32,855	
Soffit framing systems	1,037	LF	\$ 12.25	\$ 12,703	
Subtotal Cold Formed Metal Framing					\$ 103,060
05 50 00 Metal Fabrications					
Misc Metals - Roof Screening and Supports - Assumes not required			< Not required >		
Misc Metals - Relieving Angles - Assumes none required			< Not required >		
Beam Pocket Imbeds	24	EA	\$ 325.00	\$ 7,800	
Duct supports @ Roof and Attic	1	LS	\$ 5,000.00	\$ 5,000	
Equipment support rails	1	LS	\$ 3,500.00	\$ 3,500	
Roof Access Ladder	14	VLF	\$ 225.00	\$ 3,150	
Misc Metals - Aparatus Door Frames	6	EA	\$ 4,500.00	\$ 27,000	
Misc Metals - Fitted Bollards 12" Concrete filled	12	EA	\$ 1,275.00	\$ 15,300	
Misc Metals - Axe Sculpture	1	LS	\$ 2,500.00	\$ 2,500	
Subtotal Metal Fabrications					\$ 64,250
06 10 00 Rough Carpentry					
Window Blocking @ Windows	1,214	LF	\$ 13.95	\$ 16,935	
Roof Blocking	1,054	LF	\$ 18.50	\$ 19,499	
Nailboard (uninsulated) @ Asphalt pitched roof	3,255	SF	\$ 8.95	\$ 29,132	
5/8" Plywood in Attic Space floor			< Removed >		
Plywood Sheathing @ CFMF Envelope	4,122	SF	\$ 8.65	\$ 35,655	
Inwall and OnWall blocking - Interior	1	LS	\$ 2,500.00	\$ 2,500	
Exterior blocking - Trims	1	LS	\$ 7,500.00	\$ 7,500	
Subtotal Rough Carpentry					\$ 111,222

Base Estimate

Element / Description	Quantity	Unit	Unit Rate (\$)	Extension (\$)	Subtotal (\$)
06 20 00 Finish Carpentry					
Exterior Finish Carpentry					
Sloped roof fascia - PVC 12"	234	LF	\$ 13.67	\$ 3,199	
Sloped roof trip @ Fascia 4"	221	LF	\$ 7.35	\$ 1,624	
Azek or similar PVC Siding & Soffit systems	2,818	SF	\$ 28.00	\$ 78,904	
Interior Finish Carpentry & Millwork					
Kitchen base cabinets - Island	12	LF	\$ 825.00	\$ 9,900	
Kitchen base cabinets Deep with PLAM Tpps	16	LF	\$ 575.00	\$ 9,200	
Stainless tops	91	SF	\$ 155.00	\$ 14,105	
PLAM upper Cabinets	17	LF	\$ 295.00	\$ 5,015	
PLAM upper Cabinet fillers	27	LF	\$ 150.00	\$ 4,050	
PLAM Full height Pantry	4	LF	\$ 795.00	\$ 3,180	
Workroom counter Stainless Surface with RAKKS supports - wide HD	19	LF	\$ 345.00	\$ 6,555	
Watchroom counter Solid Surface with RAKKS supports	18	LF	\$ 295.00	\$ 5,310	
Pantry Storage Shelving X5	16	LF	\$ 55.00	\$ 880	
Interior window sills - Solid surface eased edge	186	LF	\$ 65.00	\$ 12,090	
Personnel Bunk Wardrobe Units	< In FF&E >				
Subtotal Finish Carpentry					\$ 154,012
07 10 00 Damp / Waterproofing					
Waterproofing & Drainage Board	< Included in Civil Structural E&B >				
Subtotal Damp / Waterproofing					\$ -
07 21 00 Thermal Insulation					
Insulation @ Exterior	1,870	SF	\$ 6.45	\$ 12,062	
Insulation @ Attic	2,393	SF	\$ 8.33	\$ 19,934	
Subtotal Thermal Insulation					\$ 31,995
07 25 00 Air & Vapor Barriers					
AVB @ Envelope	4,001	SF	\$ 7.00	\$ 28,007	
Subtotal Air & Vapor Barriers					\$ 28,007
07 40 00 Metal Siding Panels & Soffits -					
See Finish Carpentry	< See finish Carpentry >				
Subtotal Metal Siding Panels & Soffits -					\$ -
07 50 00 Roofing					
EPDM Roof on Tapered Insulation	7,307	SF	\$ 29.50	\$ 215,557	
EPDM Roof walk pads	50	EA	\$ 81.25	\$ 4,063	
Roof curbs and Dunnage flashing & Penetrations	1	LS	\$ 3,500.00	\$ 3,500	
Asphalt Shingles on Ice & Water Shield	3,255	SF	\$ 9.25	\$ 30,109	
Gutters - Aluminum	235	LF	\$ 39.00	\$ 9,165	
Leaders - Aluminum	75	LF	\$ 35.00	\$ 2,625	
Subtotal Roofing					\$ 265,018
07 81 00 Applied Fireproofing					
Assumes not required	< Not included >				
Subtotal Applied Fireproofing					\$ -
07 84 00 Penetration Firestopping					
In Trades	< Not included >				
Subtotal Penetration Firestopping					\$ -
07 92 00 Joint Sealants					
Caulking & Sealants	1	LS	\$ 12,500.00	\$ 12,500	
Subtotal Joint Sealants					\$ 12,500
07 95 00 Expansion Control					
Expansion systems - Assumes not required	< Not included >				
Subtotal Expansion Control					\$ -
08 10 00 Doors & Frames					
Frame A - HM3070	27	EA	\$ 450.00	\$ 12,150	
Frame A - HM6070	3	EA	\$ 595.00	\$ 1,785	
Door leaf 3070 HM	33	EA	\$ 365.00	\$ 12,045	
Premium Rating	5	EA	\$ 550.00	\$ 2,750	
Premium 1/2 lite	1	EA	\$ 575.00	\$ 575	
Door hardware premium - Electrified Locksets	3	EA	\$ 2,750.00	\$ 8,250	
Install frame	30	EA	\$ 220.00	\$ 6,600	
Install Door leaf	38	EA	\$ 120.00	\$ 4,560	
Subtotal Doors & Frames					\$ 48,715
08 30 00 Specialty Doors					
New 14x14 Vertically acting Apparatus Bay Doors with High Speed operator and controls - Installed	6	EA	\$ 27,500.00	\$ 165,000	
Roof Hatch with Safety Railings	1	EA	\$ 3,250.00	\$ 3,250	
Roof access to Pitched Attic Space - DF&H	2	EA	\$ 2,750.00	\$ 5,500	
Subtotal Specialty Doors					\$ 173,750
08 41 00 Entrances & Storefront					
Exterior Aluminum Glazed Storefront Doors and Hardware - Installed	8	EA	\$ 4,250.00	\$ 34,000	
Storefront Systems - Glazed openings -	1,971	SF	\$ 95.00	\$ 187,245	
Storefront Systems - Glazed openings - Added mullions - eliminate framing	35	SF	\$ 95.00	\$ 3,325	
Subtotal Entrances & Storefront					\$ 224,570
08 44 00 Metal Framed Curtainwall					
Curtainwall Systems -	< N/A >				
Subtotal Metal Framed Curtainwall					\$ -
08 50 00 Windows					
See Storefronts	< N/A >				
Subtotal Windows					\$ -
08 71 00 Door Hardware					
Hardware set / leaf - Passage (installed)	38	EA	\$ 900.00	\$ 34,200	
Hardware Set / Leaf - Egress (installed) - premium	6	EA	\$ 700.00	\$ 4,200	
Access Control Head end Equipment	< In Technology >				
Subtotal Door Hardware					\$ 38,400
08 80 00 Glass & Glazing					
Interior Borrowed Lites - Sidelites	< Removed >				
Skylights - None Identified	< N/A >				
Full height mirror @ Fitness - None identified	< Not included >				
Full height mirror @ Bunk rooms and Bathrooms	< Not included >				
Subtotal Glass & Glazing					\$ -

Base Estimate

Element / Description	Quantity	Unit	Unit Rate (\$)	Extension (\$)	Subtotal (\$)
08 90 00 Louvers & Vents					
None identified					
			< Included in Mechanical >		
Subtotal Louvers & Vents					\$ -
09 21 00 Gypsum Board Assemblies					
Wall Type 1A	553	SF	\$ 7.95	\$ 4,396	
Wall Type 1B	6,628	SF	\$ 10.45	\$ 69,263	
Wall Type 1C	351	SF	\$ 13.25	\$ 4,651	
Gyp @ Envelope walls	3,966	SF	\$ 3.45	\$ 13,683	
Gyp ceilings - suspended	81	SF	\$ 18.00	\$ 1,458	
Gyp soffits and Ceiling transitions	625	SF	\$ 10.75	\$ 6,719	
Subtotal Gypsum Board Assemblies					\$ 100,169
09 30 00 Tile					
PF-1- Toilets 24x24	237	SF	\$ 21.00	\$ 4,977	
PFT-1 Base	148	LF	\$ 12.25	\$ 1,813	
Porcelain wall tile - full height at wet walls			< Removed >		
Subtotal Tile					\$ 6,790
09 51 00 Acoustical Ceiling					
Ceilings - ACT 2x2 Ultima	3,523	SF	\$ 7.10	\$ 25,013	
Ceilings - ACT 2x2 Healthzone	585	SF	\$ 9.35	\$ 5,470	
Subtotal Acoustical Ceiling					\$ 30,483
09 64 00 Wood Flooring					
None identified			< N/A >		
Subtotal Wood Flooring					\$ -
09 61 10 Vapor Mitigation					
Topical Moisture Mitigation- High Performance Glues	3,482	SF	\$ 1.65	\$ 5,745	
Subtotal Vapor Mitigation					\$ 5,745
09 65 00 Resilient Flooring					
Resilient LVT	1,610	SF	\$ 7.65	\$ 12,317	
Safety sheet floor	500	SF	\$ 13.10	\$ 6,550	
RAF - Rubber Athletic Floor	515	SF	\$ 17.65	\$ 9,090	
Rubber Stair Treads and risers			< Not included >		
Sealer @ Mechanical spaces			< Not included >		
Resilient Base RB-1 / RB-2	1,142	LF	\$ 3.45	\$ 3,940	
Integral Base @ Safety floor	217	LF	\$ 11.00	\$ 2,387	
Transition Strips	1	LS	\$ 750.00	\$ 750	
Floor Prep - Resilient	2,625	SF	\$ 1.10	\$ 2,888	
Attic Stock Flooring 10% Materials	10%	LS	\$ 4,982	\$ 498	
Subtotal Resilient Flooring					\$ 38,419
09 66 00 Terrazzo					
None identified			< N/A >		
Subtotal Terrazzo					\$ -
09 67 00 Resinous Flooring					
EPX1 -	738	SF	\$ 19.65	\$ 14,502	
EPX1 - EPX-2 flooring / patterns Apparatus Bay	3,152	SF	\$ 23.95	\$ 75,490	
EPX Base integral	360	SF	\$ 11.00	\$ 3,960	
Subtotal Resinous Flooring					\$ 93,952
09 68 00 Carpet					
Carpet Tile	857	SF	\$ 6.25	\$ 5,356	
Carpet Tile floor prep	857	SF	\$ 0.75	\$ 643	
Subtotal Carpet					\$ 5,999
09 80 00 Acoustical Treatment					
None identified			< N/A >		
Subtotal Acoustical Treatment					\$ -
09 91 00 Painting & Wallcoverings					
Painting - walls & Ceilings - Gyp	19,183	SF	\$ 0.78	\$ 14,963	
Painting - walls CMU including block-fill - Epoxy Paint	8,494	SF	\$ 4.65	\$ 39,497	
Painting - Exposed Structure & Decking - Epoxy	3,804	SF	\$ 3.45	\$ 13,124	
Painting Exterior trims and siding			< N/A >		
Paint Doors and Frames	38	EA	\$ 80.00	\$ 3,040	
Vinyl Wallcoverings			< N/A >		
Digital Wallcoverings	216	SF	\$ 17.50	\$ 3,780	
Subtotal Painting & Wallcoverings					\$ 74,404
10 11 00 Visual Display Surfaces					
Wallboard & Tackboards allowance			< N/A >		
Display Cabinet	1	LS	\$ 3,000.00	\$ 3,000	
Subtotal Visual Display Surfaces					\$ 3,000
10 14 00 Signage & Graphics					
Signage - Interior Wayfinding	1	LS	\$ 1,250.00	\$ 1,250	
Signage - Interior ADA / Rooms	35	EA	\$ 95.00	\$ 3,325	
Signage - Exterior Building Pin Letters 12" (removed over front entry)	62	EA	\$ 225.00	\$ 13,950	
Signage - Exterior Building Pin Letters 36"	1	EA	\$ 725.00	\$ 725	
Signage -Exterior Fire Rescue Sign	1	EA	\$ 3,500.00	\$ 3,500	
Subtotal Signage & Graphics					\$ 22,750
10 21 13 Toilet Compartments					
None identified			< N/A >		
Subtotal Toilet Compartments					\$ -
10 21 23 Cubicle Curtain & Track					
None identified			< N/A >		
Subtotal Cubicle Curtain & Track					\$ -
10 22 00 Operable Partitions					
None identified			< N/A >		
Subtotal Operable Partitions					\$ -
10 26 00 Wall & Door Protection					
FRP Paneling @ Custodial	200	SF	\$ 9.35	\$ 1,870	
Corner Guards - Allowance	1	LS	\$ 2,500.00	\$ 2,500	
Subtotal Wall & Door Protection					\$ 4,370

Base Estimate

Element / Description	Quantity	Unit	Unit Rate (\$)	Extension (\$)	Subtotal (\$)
10 28 00 Toilet Accessories					
TR Accessories - Grab Bars set (3)	2	EA	\$ 365.00	\$ 730	
TR Accessories - Lav Guard	4	EA	\$ 295.00	\$ 1,180	
TR Accessories - Shower seat	1	EA	\$ 965.00	\$ 965	
TR Accessories - Shower curtain & rod assy	4	EA	\$ 395.00	\$ 1,580	
TR Accessories - Shower bench floor mounted	8	LF	\$ 225.00	\$ 1,800	
TR Accessories - Soap dispensers	7	EA	\$ 95.00	\$ 665	
TR Accessories - PT Dispenser	6	EA	\$ 95.00	\$ 570	
TR Accessories - Mirrors	4	EA	\$ 345.00	\$ 1,380	
TR Accessories - Coat hooks	10	EA	\$ 35.00	\$ 350	
TR Accessories - Custodial	1	EA	\$ 310.00	\$ 310	
TP Dispensers	4	EA	\$ 65.00	\$ 260	
Baby changing stations	< None identified >				
Accessory Installation	43	EA	\$ 30.00	\$ 1,290	
Subtotal Toilet Accessories					\$ 11,080
10 41 00 Emergency Access Cabinets					
Knox Box	1	LS	\$ 610.00	\$ 610	
Subtotal Emergency Access Cabinets					\$ 610
10 44 00 Fire Protection Specialties					
FE Cabinets and Extinguishers - Qty assumed	3	EA	\$ 695.00	\$ 2,085	
Subtotal Fire Protection Specialties					\$ 2,085
10 51 00 Lockers					
Penco Patriot double door gear lockers GW242472SS4DCL	32	EA	\$ 1,395.00	\$ 44,640	
Penco Patriot double door gear lockers - shipping and distribution	1	LS	\$ 3,000.00	\$ 3,000	
Penco Patriot double door gear lockers - installation	30	EA	\$ 165.00	\$ 4,950	
Subtotal Lockers					\$ 52,590
11 13 00 Loading Dock Equipment					
None identified	< N/A >				
Subtotal Loading Dock Equipment					\$ -
11 30 00 Residential Appliances					
Dryer - residential	< FF&E >				
Washer - residential	< FF&E >				
Washer - Commercial @ Gear wash room	< FF&E >				
Extractor- Commercial @ Gear wash room	< FF&E >				
Subtotal Residential Appliances					\$ -
11 40 00 Foodservice Equipment					
Food Lockers	< N/A >				
6 burner range with 24" Griddle (2 ovens) - Southbend S80-DD	1	LS	\$ 7,750.00	\$ 7,750	
Drop in Sink Single	1	LS	\$ 977.00	\$ 977	
Drop in Sink - Dual with drain boards	1	LS	\$ 2,822.00	\$ 2,822	
Reach in Refrigerator - 2 door	1	LS	\$ 5,500.00	\$ 5,500	
Reach in Freezer True TR-38 FRZ	1	LS	\$ 4,750.00	\$ 4,750	
Under Counter Refrigerator True TUR-24-I	1	LS	\$ 2,750.00	\$ 2,750	
Pot Filler T&S Brass	1	LS	\$ 325.00	\$ 325	
Coffee Maker Curtiss AL3GPT	1	LS	\$ 1,750.00	\$ 1,750	
Trash Chute	1	LS	\$ 225.00	\$ 225	
Microwave Waring WMQ-120	1	LS	\$ 715.00	\$ 715	
Commercial Toaster HATCO TQ-10	1	LS	\$ 1,250.00	\$ 1,250	
Range hood with Anslu System - Installed	< In Mechanical >				
Subtotal Foodservice Equipment					\$ 28,814
11 52 00 Audio-Visual Equipment					
IT Data Rack with Switches (Cable & terminations in Electrical / Security)	1	LS	\$ 2,500.00	\$ 2,500	
Large Format Projection Systems - Not included	< N/A >				
Video Conferencing System - Not included	< By Owner >				
Radio / Dispatch Systems - Not included	< By Owner >				
Subtotal Audio-Visual Equipment					\$ 2,500
11 66 00 Athletic Equipment					
None identified	< By Owner >				
Subtotal Athletic Equipment					\$ -
11 90 00 Miscellaneous Equipment					
Magnegrip Apparatus Vehicle Exhaust System - 2 bays 60'	1	LS	\$ 42,860.00	\$ 42,860	
Vehicle Exhaust Modification	3	EA	\$ 650.00	\$ 1,950	
Gear wash SS Table with integral basins	1	LS	\$ 3,500.00	\$ 3,500	
Gear wash Track & Curtain @ Basin	1	LS	\$ 1,250.00	\$ 1,250	
Gear hanger rod @ Gear wash room	1	LS	\$ 1,250.00	\$ 1,250	
Defibrillator cabinet	< N/A >				
Subtotal Miscellaneous Equipment					\$ 50,810
12 20 00 Window Treatment					
Mechoshade - Manual light filtering	898	SF	\$ 9.10	\$ 8,172	
Mechoshade - Mechoshade Blackout	384	SF	\$ 17.95	\$ 6,893	
Subtotal Window Treatment					\$ 15,065
12 48 13 Entrance Mats					
Walk off Mats	220	SF	\$ 17.95	\$ 3,949	
Subtotal Entrance Mats					\$ 3,949
12 52 00 Furnishings - Movable					
Beds	< FF&E >				
Desk and Chair	< FF&E >				
Subtotal Furnishings - Movable					\$ -
13 00 00 Special Construction					
N/A	< N/A >				
Subtotal Special Construction					\$ -
14 20 00 Conveying					
Elevators / lifts - Not required	< N/A >				
Subtotal Conveying					\$ -

Base Estimate

Element / Description	Quantity	Unit	Unit Rate (\$)	Extension (\$)	Subtotal (\$)
21 00 00 Fire Protection	8,771	SF	9.65		
RPDA Discharge (Drain / test)	1	LS	\$ 1,750.00	\$ 1,750	
Fire Sprinkler Riser assembly	1	LF	\$ 12,500.00	\$ 12,500	
2-3" Branch	805	LF	\$ 38.00	\$ 30,590	
4" Mains	188	LF	\$ 55.00	\$ 10,340	
Dropped Sidewall heads @ Doors	9	EA	\$ 225.00	\$ 2,025	
Dry Sidewall heads	2	EA	\$ 310.00	\$ 620	
FD Connection	1	EA	\$ 2,125.00	\$ 2,125	
Recessed heads	63	EA	\$ 265.00	\$ 16,695	
Upright heads	41	EA	\$ 195.00	\$ 7,995	
Fire Pump -Assumes not required	< Excluded >				
Subtotal Fire Protection					\$ 84,640
22 00 00 Plumbing	8,771	SF	31.13		
DOM Connection with BFP & valve assy	1	LS	\$ 3,625.00	\$ 3,625	
Domestic water booster pump - Assumes not required	<NIC>				
Gas Meter / riser assy	1	LS	\$ 2,210.00	\$ 2,210	
Gas Emergency Shut-off	1	LS	\$ 1,500.00	\$ 1,500	
Gas Grill Regulator and connections	1	LS	\$ 500.00	\$ 500	
Pipe Gas AG 0.75"	22	LF	\$ 26.00	\$ 572	
Pipe Gas AG 1"	70	LF	\$ 34.00	\$ 2,380	
Pipe Gas AG 2"	269	LF	\$ 52.00	\$ 13,988	
Pipe Gas Buried 0.75" to Grills	28	LF	\$ 37.00	\$ 1,036	
Pipe Gas Buried 2" to generator	69	LF	\$ 65.00	\$ 4,485	
Water heater -	1	LS	\$ 12,500.00	\$ 12,500	
Water heater - Intake & Exhaust Flue	32	LF	\$ 38.00	\$ 1,216	
PET-1 - Expansion Tank	1	EA	\$ 1,850.00	\$ 1,850	
Air Separator	1	EA	\$ 1,975.00	\$ 1,975	
2-1/2" Reduced Backflow Preventer	1	EA	\$ 1,725.00	\$ 1,725	
Hot water tempering valve 140 / 110	1	LS	\$ 3,500.00	\$ 3,500	
Hot water recirculation system with pump and controls	1	LS	\$ 3,750.00	\$ 3,750	
Balancing vales for HWR	8	EA	\$ 125.00	\$ 1,000	
Domestic water booster pump - Assume not required	<NIC>				
Domestic Water 3"	198	LF	\$ 51.00	\$ 10,098	
Domestic Water 2"	236	LF	\$ 45.00	\$ 10,620	
Domestic Water 1.25"	-	LF	\$ 27.00	\$ -	
Domestic Water 1.0"	257	LF	\$ 23.00	\$ 5,911	
Domestic Water 0.75" & 0.5"	341	LF	\$ 17.00	\$ 5,797	
Pipe insulation - blended cost	1,032	LS	\$ 7.25	\$ 7,482	
Sanitary 3" PVC	147	LF	\$ 26.00	\$ 3,822	
Sanitary 4" PVC	340	LF	\$ 32.00	\$ 10,880	
Sanitary 6" PVC	287	LF	\$ 44.00	\$ 12,628	
Sanitary Vent piping - PVC	160	LF	\$ 28.00	\$ 4,480	
Sanitary CO	7	EA	\$ 375.00	\$ 2,625	
T&B for underslab sanitary	531	LF	\$ 25.00	\$ 13,275	
Storm Drains	4	EA	\$ 795.00	\$ 3,180	
Storm Drains - Combination Overflow	1	EA	\$ 975.00	\$ 975	
Storm Overflow cows tongue	4	EA	\$ 565.00	\$ 2,260	
Condensate Drains	528	LF	\$ 22.00	\$ 11,616	
Fixture - ADA Dual water cooler Bottle filler Elkay EZH2O	1	EA	\$ 2,150.00	\$ 2,150	
Fixture - Custodial basin and Hydrants	1	EA	\$ 795.00	\$ 795	
Fixture - FP Hose Bib	4	EA	\$ 310.00	\$ 1,240	
Fixture - Floor drain with trap primer	4	EA	\$ 1,225.00	\$ 4,900	
Fixture - Floor drain Kitchen	< Removed >				
Fixture - KS-1 - Kitchen	< In Food Service Equip >				
Fixture - KS-2 - Kitchen	< In Food Service Equip >				
Fixture - Eyewash	1	EA	\$ 1,725.00	\$ 1,725	
Fixture - Sink and faucet - TR wall hung vitreous	4	EA	\$ 1,100.00	\$ 4,400	
Fixture - Wall Hydrant	6	EA	\$ 225.00	\$ 1,350	
Fixture - Water Closet	4	EA	\$ 1,675.00	\$ 6,700	
Fixture - Faucet / Sprayer @ Gear wash sinks	< Removed >				
Fixture - Shower Assembly and Shower valves	4	EA	\$ 3,375.00	\$ 13,500	
Fixture - Gear Wash Basin and Valve / Sprayer Assembly	1	EA	\$ 3,500.00	\$ 3,500	
Fixture Carriers	8	EA	\$ 425.00	\$ 3,400	
Fixture Rough-in	25	EA	\$ 275.00	\$ 6,875	
Compressor AC-1 Champion VRV5-6 installed	1	LS	\$ 5,500.00	\$ 5,500	
Pipe - compressed Air	285	LF	\$ 24.00	\$ 6,840	
AJ Air Connection	6	EA	\$ 235.00	\$ 1,410	
Temperature Maintenance Cable and controller	1	LS	\$ 6,500.00	\$ 6,500	
Apparatus Trench Drains - Prefab with H20 Grates	140	LF	\$ 195.00	\$ 27,300	
Fixture Rough-in & Connections - Kitchen	3	LS	\$ 375.00	\$ 1,125	
Fixture Rough-in & Connections - Water heaters	1	LS	\$ 750.00	\$ 750	
Other Plumbing Systems (includes Subcontractor Mgmt, Submittals, testing, Temp svcs)	8,771	SF	\$ 1.10	\$ 9,648	
Subtotal Plumbing					\$ 273,069
23 00 00 HVAC	8,771	SF	72.24		
Major Equipment					
VRF Systems	18.5	TON	\$ 5,390.00	\$ 99,715	
VRF Refrigerant Pipe w/ Insulation	1,410.0	LF	\$ 45.00	\$ 63,450	
VRF Refrigerant Pipe w/ Insulation to CU	141.0	LF	\$ 75.00	\$ 10,575	
VRF Controllers	3.0	EA	\$ 6,500.00	\$ 19,500	
Condensate Pumps - Diamond	21.0	EA	\$ 285.00	\$ 5,985	
DOAS / ERV Allowance	1	LS	\$ 51,474.00	\$ 51,474	
Mini Split HVAC System - IT Room 1 ton	1	TON	\$ 7,500.00	\$ 7,500	
EF-1 & EF-2 Electrical & Mechanical	1,000	CFM	\$ 4.95	\$ 4,950	
EF-3 & EF-4 Sprinkler & Work Room	300	CFM	\$ 7.95	\$ 2,385	
EF-5 - Exhaust Fan with CO Sensors @ Apparatus Bays	2,400	CFM	\$ 4.95	\$ 11,880	
EF-6 - Exhaust Fan with CO Sensors @ Apparatus Bays	180	CFM	\$ 7.95	\$ 1,431	
EF-8 & EF-9 Gear locker - Exhaust Fan with CO Sensors @ Apparatus Bays	200	CFM	\$ 7.95	\$ 1,590	
EF-7 - Exhaust Fan Decon	175	CFM	\$ 7.95	\$ 1,391	
EF-11 - Exhaust Fan SCBA	1,980	CFM	\$ 4.95	\$ 9,801	
SF-1 - Supply Fan	< Removed >				
SF-2 - Supply Fan	< Removed >				
Motorized Ventilation Louver ILO SF-1 / SF-2	1	LS	\$ 3,500.00	\$ 3,500	
KMUA-1	1	LS	\$ 22,850.00	\$ 22,850	
KEF-1 - Exhaust Fan	1,250	CFM	\$ 6.45	\$ 8,063	
Gas fired unit heaters	4	EA	\$ 3,150.00	\$ 12,600	
EWB Electric Wall Heaters	3	EA	\$ 2,750.00	\$ 8,250	
EUH Electric Unit Heaters	3	EA	\$ 2,250.00	\$ 6,750	

Base Estimate

Element / Description	Quantity	Unit	Unit Rate (\$)	Extension (\$)	Subtotal (\$)
Kitchen Hood with Ansul System	1	LS	\$ 12,500.00	\$ 12,500	
<u>Distribution Systems</u>					
16 Gauge Sched 40 Grease Duct (Welded)	1	LS	\$ 7,500.00	\$ 7,500	
Stainless Steel Duct (Dishwasher Exhaust)	< N/A >				
Ductwork Galvanized	6,600	LBS	\$ 17.00	\$ 112,200	
<u>Insulation</u>					
Duct Wrap Insulation	4,539	SF	\$ 6.15	\$ 27,915	
Duct Fire Wrap	1	LS	\$ 5,500.00	\$ 5,500	
Registers	38	EA	\$ 140.00	\$ 5,320	
Supply / Return Sound Attenuators	2	LS	\$ 2,500.00	\$ 5,000	
Volume Dampers	38	EA	\$ 110.00	\$ 4,180	
Misc. Duct Accessories / connections	1	LS	\$ 5,500.00	\$ 5,500	
Flues for GFUHH	4	EA	\$ 1,250.00	\$ 5,000	
Exterior Louvers	1	LS	\$ 3,750.00	\$ 3,750	
Vehicle CO Detection controls	1	LS	\$ 3,500.00	\$ 3,500	
Controls and Instrumentation - Assumes Factory Controls with minimal DDC for local access	8,771	SF	\$ 5.45	\$ 47,802	
Systems Testing & Balancing	8,771	SF	\$ 0.65	\$ 5,701	
<u>Other HVAC Systems & Equipment</u>					
Coordination & Management	1	LS	\$ 12,500.00	\$ 11,875	
Seismic Restraints / Bracing	1	LS	\$ 1,500.00	\$ 1,425	
Coring & Patching / Firestopping	1	LS	\$ 750.00	\$ 713	
Hoisting & Rigging / Floor Loading	1	LS	\$ 2,500.00	\$ 2,375	
Shop Drawings & Submittals	1	LS	\$ 1,850.00	\$ 1,758	
BIM Coordination & Mgmt	< N/A >				
Record Drawings / as built	1	LS	\$ 3,500.00	\$ 3,325	
Equipment Start up and Inspection	1	LS	\$ 2,500.00	\$ 2,375	
Access panels - furnish only	1	LS	\$ 1,500.00	\$ 1,425	
Commissioning	1	LS	\$ 3,500.00	\$ 3,325	
Subtotal HVAC					\$ 633,603
26 00 00 Electrical					
Normal Power Distribution					
MCB 800A / CT Cab	1	EA	\$ 17,500.00	\$ 17,500	
SB-1 800A 120/208	1	EA	\$ 28,000.00	\$ 28,000	
Panel RP1 225A 60p	1	EA	\$ 9,750.00	\$ 9,750	
Panel RP-2 225A 60p	1	EA	\$ 9,750.00	\$ 9,750	
Panel RP-3 225A 60p	1	EA	\$ 9,750.00	\$ 9,750	
Panel RP-4 400A 42p	1	EA	\$ 6,750.00	\$ 6,750	
Feeders					
Secondary feeder 800A	70	LF	\$ 465.00	\$ 32,550	
400A Feeder EMT copper	200	LF	\$ 161.00	\$ 32,200	
225A Feeder EMT copper	250	LF	\$ 115.00	\$ 28,750	
Machine & Equipment Power					
DOAS-1 50A 208v connect	1	EA	\$ 1,825.00	\$ 1,825	
KMUA-1 30A 208v connect	1	EA	\$ 1,428.14	\$ 1,428	
ERC-1 30A 208v connect	1	EA	\$ 1,165.00	\$ 1,165	
EW1-1-3	3	EA	\$ 975.00	\$ 2,925	
EUH 1-2	2	EA	\$ 1,225.00	\$ 2,450	
EF1-11	10	EA	\$ 595.00	\$ 5,950	
CU 60A 120v connect	3	EA	\$ 695.00	\$ 2,085	
FCU 20 A Circuit & Connection	20	EA	\$ 425.00	\$ 8,500	
VRF Control Boxes	3	EA	\$ 795.00	\$ 2,385	
Equipment connection Washing Machine 100A	2	EA	\$ 725.00	\$ 1,450	
Equipment connection Dryer	2	EA	\$ 845.00	\$ 1,690	
Equipment connection Door operator	6	EA	\$ 1,125.00	\$ 6,750	
Chord reel hard wired	4	EA	\$ 795.00	\$ 3,180	
Equipment - DECON Room	2	EA	\$ 525.00	\$ 1,050	
Equipment - Antennae Ground in Conduit 75'	1	EA	\$ 1,250.00	\$ 1,250	
Equipment - Conduit roof to watch room	1	EA	\$ 800.00	\$ 800	
Equipment connection Plymovent system	3	EA	\$ 525.00	\$ 1,575	
Fire pump connection	< N/A >				
KEF-1 Kitchen exhaust fan 1-1/2HP 480v connect	1	EA	\$ 1,250.00	\$ 1,250	
Kitchen Equipment & Hood controls connections	1	LS	\$ 3,750.00	\$ 3,750	
Floor boxes and outlets	< N/A >				
Equipment Power branch wiring	8,771	LS	\$ 1.65	\$ 14,472	
Emergency Power and Distribution					
Generator and 800A ATS -175 KW Natural Gas	1	LS	\$ 175,000.00	\$ 175,000	
General Power					
<u>Device Branch</u>					
Equipment Disconnect	13	EA	\$ 525.00	\$ 6,825	
Equipment Disconnect WP	21	EA	\$ 735.00	\$ 15,435	
Recept Double Duplex	11	EA	\$ 142.00	\$ 1,562	
Recept Duplex	67	EA	\$ 96.00	\$ 6,432	
Recept Duplex GFI	64	EA	\$ 135.00	\$ 8,640	
Recept Duplex GFI WP	19	EA	\$ 165.00	\$ 3,135	
Recept Duplex WP	13	EA	\$ 112.00	\$ 1,456	
Recept Emergency Power Off	1	EA	\$ 650.00	\$ 650	
Sensor OC	19	EA	\$ 182.00	\$ 3,458	
Switch \$	21	EA	\$ 75.00	\$ 1,575	
Switch \$3K	3	EA	\$ 325.00	\$ 975	
Switch D	15	EA	\$ 145.00	\$ 2,175	
Switch OC	9	EA	\$ 250.00	\$ 2,250	
Conduits & Conductors	8,771	SF	\$ 1.71	\$ 14,998	
Lighting and Branch					
<u>Lighting</u>					
W1 Exterior wall packs	14	EA	\$ 650.00	\$ 9,100	
B2 Exterior recessed fixtures	4	EA	\$ 435.00	\$ 1,740	
A1 Fixture	33	EA	\$ 265.00	\$ 8,745	
A2 Fixture	4	EA	\$ 265.00	\$ 1,060	
A3 Fixture	16	EA	\$ 265.00	\$ 4,240	
B1 Fixture	29	EA	\$ 165.00	\$ 4,785	
B2 Fixture	2	EA	\$ 165.00	\$ 330	
C1 Fixture	16	EA	\$ 655.00	\$ 10,480	
D1 Fixture	12	EA	\$ 225.00	\$ 2,700	
D2 Fixture	3	EA	\$ 345.00	\$ 1,035	
E1 Fixture	3	EA	\$ 395.00	\$ 1,185	
E2 Fixture	5	EA	\$ 395.00	\$ 1,975	

Base Estimate

Element / Description	Quantity	Unit	Unit Rate (\$)	Extension (\$)	Subtotal (\$)
E3 Fixture	3	EA	\$ 395.00	\$ 1,185	
W3 Fixture	9	EA	\$ 7.50	\$ 68	
Lighting Device Branch & Controls	8,771	SF	\$ 3.20	\$ 28,067	
<u>Lightning and Power Specialties</u>					
Building & service grounding	1	LS	\$ 4,500.00	\$ 4,500	
Lighting protection	< N/A >				
<u>Miscellaneous Systems</u>					
Temporary power and lights	8,771	LS	\$ 0.65	\$ 5,701	
Subcontractor site office & storage	1	LS	\$ 5,000.00	\$ 5,000	
Subcontractor lifts & scaffolding	1	LS	\$ 2,500.00	\$ 2,500	
BIM Coordination	< N/A >				
Bond excluded	< N/A >				
<u>Testing and Commissioning</u>					
Testing and commissioning	1	LS	\$ 3,500.00	\$ 3,500	
<u>Communications</u>					
Telephone and Communications Systems	< Assumes by Owner >				
Telecomm Backbone raceways	1	LS	\$ 3,500.00	\$ 3,500	
Telecomm Box & 1-1/4" EMT wall sleeve	1	LS	\$ 1,250.00	\$ 1,250	
Telecom box and riser	19	EA	\$ 225.00	\$ 4,275	
2V/2D CAT 6 cable /termination & testing	33	EA	\$ 395.00	\$ 13,035	
WAP 2D CAT 6 cable /termination & testing	10	EA	\$ 265.00	\$ 2,650	
IDF Closet fit up	1	EA	\$ 3,500.00	\$ 3,500	
<u>Av System</u>					
Local Sound System in Exercise room	1	EA	\$ 5,000.00	\$ 5,000	
<u>Public Address Systems</u>					
Public Address Systems - Head end	1	EA	\$ 3,500.00	\$ 3,500	
Speakers	34	EA	\$ 225.00	\$ 7,650	
Television Mount	7	EA	\$ 300.00	\$ 2,100	
<u>Safety & Security</u>					
Security Access Control	< Assumes by Owner >				
Control panels , licenses and programming allowance	1	LS	\$ 5,000.00	\$ 5,000	
Access control door roughing & devices	1	EA	\$ 1,250.00	\$ 1,250	
Door bell / buzzer	4	EA	\$ 3,500.00	\$ 14,000	
[CR] Card reader raceway, device & wire	7	EA	\$ 795.00	\$ 5,565	
[DC] Door contact					
<u>Fire Alarm System</u>					
Equipment ,devices and programming	1	LS	\$ 3,250.00	\$ 3,250	
F/A Addressable control panel	1	EA	\$ 1,725.00	\$ 1,725	
FA-CFA	5	EA	\$ 925.00	\$ 4,625	
FA-Heat	8	EA	\$ 196.00	\$ 1,568	
FA-Horn Strobe	9	EA	\$ 240.00	\$ 2,160	
FA-Horn Strobe WP	4	EA	\$ 365.00	\$ 1,460	
FA-Pull	7	EA	\$ 239.00	\$ 1,673	
FA-Smoke	35	EA	\$ 385.00	\$ 13,475	
F/A Tamper switch & monitor module	2	EA	\$ 378.90	\$ 758	
F/A Flow switch & monitor module	1	EA	\$ 377.18	\$ 377	
F/A Pressure switch & monitor module	2	EA	\$ 355.29	\$ 711	
F/A SLC/NAC 3/4" EMT & loop circuits	260	LF	\$ 10.00	\$ 2,599	
F/A 14/4 FPLP/IMC cable	725	LF	\$ 4.31	\$ 3,127	
F/A 16/2 FPLP/IMC cable	700	LF	\$ 3.26	\$ 2,280	
Subtotal Electrical					\$ 695,455
33 00 00 Sitework					
Sitework from PACS Site estimate	1	LS	\$ 1,119,731.16	\$ 1,119,731	
					\$ 1,119,731

		City of Bristol New Firehouse No.3					\$ 1,119,731	
		Quantity	Unit				5/21/2024 REVISED	
				Unit Price	Extended Total			
Temporary Site Security Fencing							8,080.75	
6' CLF, panels		975	lf	5.69	5,547.75			
24' Double drive gate		1	ea	900.00	900.00			
Privacy mesh		300	lf	1.61	483.00			
Temp. signage as needed		1	ls	1,150.00	1,150.00			
Surveying & Layout for Sitework							13,650.00	
Surveying LS		1	ls	12,500.00	12,500.00			
Red line as-builts		1	ls	1,150.00	1,150.00			
A-2 As-Built survey - Excluded					-			
Winter Conditions - Excluded							-	
Erosion Control							28,927.87	
Construction entrance		1	ea	2,750.00	2,750.00			
Staked hay bales		144	ea	13.00	1,872.00			
Dewatering - open pumping only		60	hrs	153.90	9,234.00			
Dust control		10	hrs	124.89	1,248.90			
Inlet protection		12	ea	157.32	1,887.84			
Silt fence, 36" tall		557	lf	4.04	2,250.28			
Pump water filter bag (15' x 15')		3	ea	745.96	2,237.88			
Sweeping (truck)		10	hrs	124.89	1,248.90			
Temp. sediment basin		< Removed >			-			
Temp swales / earth dikes		< Removed >			-			
Mulch on temp swale		< Removed >			-			
Temp. outlet structure w/ riser		< Removed >			-			
Overflow spillway / checkdams - Stone		< Removed >			-			
E&S Inspection & reports		40	hrs	90.00	3,600.00			
Furnish 20 gallon oil spill kit		1	ea	146.57	146.57			
Removal of E&S measures		1	ls	1,653.02	1,653.02			
Site Demolition							22,664.54	
Clearing & Grubbing / Selective tree removals		1	ls	7,500.00	7,500.00			
Remove fencing		250	lf	5.65	1,412.50			
Sawcut Asphalt		683	lf	9.18	6,269.94			
Strip & load asphalt		59	cy	47.31	2,800.05			
Export asphalt		59	cy	20.12	1,190.81			
Strip & load concrete - small area, sidewalk (backhoe & handwork)		27	cy	45.73	1,226.58			
Export concrete		27	cy	20.12	539.66			
Dumpsters		2	ea	862.50	1,725.00			
Building Demolition - Not Required (See Selective)							-	
Earthwork -							33,754.55	
Strip & Stockpile topsoil for processing		933	cy	6.35	5,924.55			
Export excess topsoil (load & Haul)		< Assumes balanced >			-			
Unsuitable Soils / removal and replacement per Geotech		< Excluded >			-			
Mass Earthwork Cuts to fills		2,200	cy	12.65	27,830.00			
Mass Earthwork Import & Place		< Assumes balanced >			-			
Segmental Block Retaining Walls - Assumes not required							-	
Structural Excavation							129,136.50	
Foundation Structural Earthwork		9,430	sf	7.95	74,968.50			
Furnish rigid insulation 4' x 8' x 2"		3,904	sf	4.45	17,372.80			
Footing Drains w/ Crushed Stone & Fabric		488	lf	43.65	21,301.20			
Furnish vertical drain board		2,440	sf	6.35	15,494.00			
Work Inside Existing Building							-	
Storm Drainage							255,505.81	
Test pits in street prior to construction - Assumes no street connection		2	ea	1,750.00	3,500.00			
Traffic control		80	hrs	86.25	6,900.00			
6" HDPE Storm drains (2-4vf)		90	lf	40.22	3,619.80			
8" HDPE Storm drains (2-4vf)		106	lf	43.57	4,618.42			
12" HDPE (4-6vf)		460	lf	50.52	23,239.20			
15" HDPE (4-6vf)		35	lf	70.14	2,454.90			
24" HDPE (4-6vf)		10	lf	87.68	876.80			
12" RCP (10-12vf)		223	lf	78.72	17,554.56			
15" RCP (10-12vf)		< Removed >			-			
Yard drains (2-4vf)		3	ea	2,123.89	6,371.67			
Catch basin w/ 4' sump (6-8vf)		5	ea	3,436.68	17,183.40			
Manhole 4' diameter (10-12vf)		1	ea	3,173.18	3,173.18			
Tie into existing structure in street		1	ea	2,250.00	2,250.00			
Tie into stub at building		2	ea	382.25	764.50			
Stone bedding		48	cy	31.86	1,514.06			
Sand cover		130	cy	26.51	3,439.23			
Detention System -								
Outlet Control Structure		1	ea	8,234.42	8,234.42			
Water quality structure Barracuda		1	ea	18,195.00	18,195.00			
Detention System - Excavate to bottom of stone in Mass EW					-			
Crushed stone bottom - in place		100	cy	52.00	5,200.00			
Crushed stone Sides - in place		107	cy	52.00	5,546.67			
Retain it structures 3' delivered		40	ea	1,295.00	51,800.00			
Retain it inspection risers		4	ea	395.00	1,580.00			
F&I Liner		4,000	sf	9.65	38,600.00			
Install Structures		24	hrs	907.00	21,768.00			
4" HDPE Underdrain system in Stone bedding		100	lf	40.22	4,022.00			
Install Inspection manholes		4	ea	775.00	3,100.00			

								\$ 1,119,731			
		City of Bristol New Firehouse No.3									
		Quantity	Unit			Unit Price	Extended Total	5/21/2024 REVISED			
Sanitary Sewer								47,239.03			
Tie in in street	1	ea			6,468.84	6,468.84					
Traffic control	12	hrs			86.25	1,035.00					
Temp pavement patch	30	sy			46.00	1,380.00					
Core into existing manhole	< Removed >					-					
4" PVC SDR-35 (6-8vf)	16	lf			38.76	620.16					
6" PVC SDR-35 (8-10vf)	225	lf			46.28	10,413.00					
Cleanouts	2	ea			955.67	1,911.34					
Wye in Street - Connect to Main	1	ls			2,000.00	2,000.00					
Manhole over existing Sanitary in street	< Removed >					-					
Decontamination-storage-tank Pipes, Level-controls	< Removed >					-					
Oil / water separator 1000 gallon	1	ea			5,394.83	5,394.83					
Tie into stub at building	2	ea			382.25	764.50					
Stone bedding	19	cy			34.00	637.31					
Sand cover	37	cy			26.51	993.83					
Export excess material	56	cy			23.00	1,293.37					
Testing (vacuum)	2	ls			1,412.85	2,825.70					
Water System - New Fire & DOM Water Service								57,874.87			
Test pits in street prior to construction	2	ea			1,617.21	3,234.42					
Traffic control	16	hrs			86.25	1,380.00					
Temp pavement patch	2	sy			46.00	92.00					
8" x 6" Wet-tap in Road	2	ea			5,325.00	10,650.00					
Traffic control	20	hrs			86.25	1,725.00					
Temp pavement patch	20	sy			46.00	920.00					
Meter vault	< Excluded >					-					
4" DIP CL54	140	lf			61.01	8,541.40					
6" DIP CL54	135	lf			77.07	10,404.45					
4" Gate valve	1	ea			1,146.95	1,146.95					
6" Gate valve	1	ea			1,312.63	1,312.63					
6" Post indicator valve	1	ea			2,867.52	2,867.52					
4" Bends	3	ea			458.72	1,376.16					
6" Bends	3	ea			516.07	1,548.21					
6" x 4" Reducer	1	ea			471.46	471.46					
Fire Water Storage-Assembly	< Removed >					-					
Excavate for Tank Foundation	< Removed >					-					
Tank Hold-down-slab-Assumes 12" thick-for-	< Removed >					-					
Tank-Cover-slab	< Removed >					-					
Tank, Manway, collars, Sump, hold-down straps, turnbuckles, deadman anchors delivered	< Removed >					-					
Installation-of-tank, anchors, straps, plumbing	< Removed >					-					
Backfill-tank-with-stone	< Removed >					-					
Pumping-Open-pumping-watertable	< Removed >					-					
Hydrants - Practice Hydrant	< Removed >					-					
Thrust blocks	6	ea			354.65	2,127.90					
Stub 4" DIP inside building from 5' away, stub AFF & flanged cap	1	ea			2,639.36	2,639.36					
Stub 6" DIP inside building from 5' away, stub AFF & flanged cap	1	ea			2,602.40	2,602.40					
Stone bedding	21	cy			34.00	727.22					
Sand cover	43	cy			26.51	1,134.04					
Export excess material	64	cy			19.36	1,242.27					
Testing (bacteria & pressure tests)	1	ls			1,731.48	1,731.48					
Gas Service E/B								7,195.59			
Gas service -	< Removed >					-					
Traffic control	16	hrs			86.25	1,380.00					
Temp pavement patch	20	sy			46.00	920.00					
Permanent pavement restoration	< Removed >					-					
E/B for Gas service	228	lf			9.49	2,163.72					
Sand bedding	41	cy			26.51	1,074.54					
Export excess material	41	cy			13.75	557.33					
Provide Gas Service to Grill locations	50	lf			22.00	1,100.00					
Site Electric								66,865.77			
Locate existing service on-site	1	ea			592.89	592.89					
E/B Primary ductbank	249	lf			11.86	2,953.14					
Primary Conduits	498	lf			20.00	9,960.00					
Sand bedding	22	cy			26.51	586.75					
Concrete encasement (free pour)	5	cy			209.58	1,117.76					
#4 Rebar for ductbank	240	lf			0.92	220.80					
E/B Secondary ductbank	70	lf			11.86	830.20					
Secondary Conduits	280	lf			20.00	5,600.00					
Sand bedding	6	cy			26.51	164.95					
E/B Generator UG Feed	60	lf			11.86	711.60					
Generator Conduits	60	lf			60.00	3,600.00					
Sand bedding	5	cy			26.50	141.33					
E/B EV Charger	< Removed >					-					
EV Charger Conduit's	< Removed >					-					
Sand bedding	< Removed >					-					
Quartzite pull boxes	< Removed >					-					
E/B Other conduits (Telecom)	300	lf			11.86	3,558.00					
Telecom Conduit's	900	lf			20.00	18,000.00					
Sand bedding	22	cy			26.51	586.75					
Concrete encasement (free pour)	5	cy			209.58	1,117.76					
#4 Rebar for ductbank	240	lf			0.92	220.80					
Transformer pad & Grounding	1	ls			4,275.00	4,275.00					
Generator pad & Grounding	1	ls			6,750.00	6,750.00					
Electric handhole	1	ls			1,426.82	1,426.82					
Pole riser	1	ls			1,662.30	1,662.30					
Load & Export excess material	66	cy			28.00	1,861.69					
Eversource Pole relocation #2379 - Assumes by Utility Company	< Excluded >					-					

		City of Bristol New Firehouse No.3		\$ 1,119,731	
		Quantity	Unit	Unit Price	Extended Total
		5/21/2024 REVISED			
Site Lighting		51,982.62			
Concrete pole bases (6-8vf bury)		6	ea	1,082.19	6,493.14
E/B for Conduits		775	lf	11.86	9,191.50
Site Lighting conduits & Conductors		775	lf	12.95	10,036.25
Sand bedding		34	cy	26.51	913.12
Export excess material		34	cy	13.75	473.61
Site light poles, fixtures, conduits, and wiring		8	ea	2,650.00	21,200.00
Flagpole light fixtures		3	ea	1,225.00	3,675.00
Curbing		34,720.00			
Cast-in-place concrete curb		1,085	lf	32.00	34,720.00
Concrete Sidewalks & Pavers		35,540.37			
Form subgrade		351	sy	4.74	1,663.74
6" Base material		70	cy	34.75	2,439.45
Fine grade		351	sy	4.74	1,663.74
E/B Monolithic curb		187	lf	4.54	848.98
5" Concrete sidewalks w/ wire		3,159	sf	8.45	26,693.55
Monolithic curb		187	lf	11.93	2,230.91
Detectable warning surfaces - tiles		< Removed >			
Concrete Site Stairs - None identified		-			
Paved Surfaces		210,426.45			
<u>Standard Duty</u>		-			
Form subgrade		1,258	sy	1.03	1,295.63
12" Subbase		503	cy	38.00	19,119.91
6" Process Base		-	cy	48.00	-
Fine grade		1,258	sy	1.15	1,446.57
Prime coat		1,258	sy	1.15	1,446.57
1.5" Binder		110	ton	160.00	17,610.44
Tack coat		1,258	sy	0.58	729.58
1.5" Surface		110	ton	165.00	18,160.77
<u>Heavy Duty</u>		-			
Form subgrade		820	sy	1.03	844.14
12" Subbase		328	cy	38.00	12,457.24
6" Process Base		164	cy	48.00	7,867.73
Fine grade		820	sy	1.15	942.49
Prime coat		820	sy	1.15	942.49
3" Binder		143	ton	160.00	22,947.56
Tack coat		820	sy	0.58	475.34
1.5" Surface		72	ton	165.00	11,832.33
<u>Heavy Duty Concrete Apron @ Building</u>		-			
Form subgrade		142	sy	1.03	146.72
Geotextile fabric		1,410	sf	0.30	423.06
10" Base		47	cy	56.00	2,658.96
Fine grade		142	sy	1.15	163.81
8" Reinforced Concrete Apron with 2x Rebar mats T&B		1,282	sf	22.50	28,845.00
<u>Heavy Duty Concrete Apron @ road</u>		-			
Form subgrade		49	sy	1.03	50.93
Geotextile fabric		490	sf	0.30	146.85
10" Base		16	cy	56.00	922.96
Fine grade		49	sy	1.15	56.86
8" Reinforced Concrete Apron with 2x Rebar mats T&B		445	sf	22.50	10,012.50
<u>Pavement patching - Temp and permanent @ street for utility connections</u>		418	sy	117.00	48,880.00
Site Signage		3,750.00			
Site Signage Allowance		1	ls	3,750.00	3,750.00
Landscaping		52,236.44			
Plantings					
Trees		19	ea	1,250.00	23,750.00
Shrubs		20	ea	265.00	5,300.00
Annuals, Perennials & Grasses		52	ea	65.00	3,380.00
Plantings mix & Mulch (18")		13	cy	95.00	1,266.67
Stone mulch - river cobble		18	cy	65.00	1,161.33
Weed barrier fabric / Mirafi root barrier		1,250	sf	0.96	1,200.00
Steel edging		202	lf	6.90	1,393.80
Topsoil Screen stockpiled (assume 70% useable)		482	cy	6.00	2,889.60
Load & Export screening spoils (Assumes clean)		144	cy	23.00	3,323.04
Move and place screened topsoil		482		9.00	4,338.00
Seeding		21,675	sf	0.08	1,734.00
Maintenance		1	ls	1,500.00	1,500.00
Watering		1	ls	1,000.00	1,000.00
Fence & Guiderail		46,775.00			
6' Ornamental metal fence		30	lf	210.00	6,300.00
8' Screen fence @ Generator		120	lf	135.00	16,200.00
6' Ornamental Man Gate - 5' swing		1	ea	3,500.00	3,500.00
8' Dual Swing Gate - 8' swing		1	ea	4,500.00	4,500.00
8' Ornamental fence augured footings		21	ea	775.00	16,275.00
Bollards		6,755.00			
8" Steel bollards		7	ea	965.00	6,755.00
Site Furnishings		6,650.00			
<u>Furnish materials</u>		-			
Flagpole and base		1	ls	4,500.00	4,500.00
Shipping		1	ls	2,150.00	2,150.00
End of Estimate					

City of Bristol New Firehouse No.3
DD Documents Estimate

Alternates Detail

No.	Description	QTY	UNIT	UNIT PRICE	TOTAL COST	COMMENTS
1	Alternate 1 Eliminate 1' Height - right of Aparatus Bay				(\$18,726)	
	Envelope CMU	(24.00)	SF	29.00	(\$696)	
	Envelope CFMF	(155.00)	SF	13.95	(\$2,162)	
	Partition A1	(39.00)	SF	7.95	(\$310)	
	Partition A2	(453.00)	SF	10.45	(\$4,734)	
	Partition A3	(25.00)	SF	13.25	(\$331)	
	Brick Veneer	(205.00)	SF	43.00	(\$8,815)	
	<u>Total Direct Costs</u>				(\$17,048)	
	DESIGN ALLOWANCE	4.00%			(\$682)	
	GENERAL CONDITIONS					
	PERMITS					
	PROFESSIONAL AND GENERAL LIABILITY INS	0.85%			(\$151)	
	CONSTRUCTION CONTINGENCY	N/A				
	FEE	3.00%			(\$536)	
	PERFORMANCE AND PAYMENT BONDS	0.78%			(\$138)	
	ESCALATION	1.00%			(\$170)	
2	Alternate 2 Provide (3) Bifold Doors @ Aparatus bay ILO Overhead glass Doors				\$ 40,092	
	Add Horizontally acting Bi-fold 14x14 Aparatus bay doors and operators at rear openings	3	ea	39,750.00	\$ -	
	Deduct 14x14 Sectional Overhead Doors & Operators	(3)	ea	27,500.00	(\$82,500)	
	<u>Total Direct Costs</u>				\$ 36,750	
	DESIGN ALLOWANCE	4.00%			\$ 1,470	
	GENERAL CONDITIONS					
	PERMITS				\$ -	
	PROFESSIONAL AND GENERAL LIABILITY INS	0.85%			\$ 325	
	CONSTRUCTION CONTINGENCY	N/A			\$ -	
	FEE	3.00%			\$ 1,156	
	PERFORMANCE AND PAYMENT BONDS	0.78%			\$ 23	
	ESCALATION	1.00%			\$ 368	
3	Alternate 3 Reduce High Roof overhang on Sides				(\$43,106)	
	W12x16	(16.00)	LF	38.00	(\$608)	
	12x6x3/8	(24.00)	LF	33.25	(\$798)	
	Acoustical deck	(528.00)	SF	13.95	(\$7,366)	
	Roofing - Insulation & Membrane	(528.00)	SF	29.50	(\$15,576)	
	Soffit & Trims	(532.00)	SF	28.00	(\$14,896)	
	<u>Total Direct Costs</u>				(\$39,244)	
	DESIGN ALLOWANCE	4.00%			(\$1,570)	
	GENERAL CONDITIONS					
	PERMITS					
	PROFESSIONAL AND GENERAL LIABILITY INS	0.85%			(\$347)	
	CONSTRUCTION CONTINGENCY	N/A				
	FEE	3.00%			(\$1,235)	
	PERFORMANCE AND PAYMENT BONDS	0.78%			(\$318)	
	ESCALATION	1.00%			(\$392)	
4	Alternate 4 Remove Clarestory Glazing - Rear of Aparatus Bay				(\$13,239)	
	Storefront Systems - Glazed openings -	(243.00)	SF	95.00	(\$23,085)	
	CFMF Backup Envelope framing	243.00	SF	13.95	\$3,390	
	Interior Gyp	243.00	SF	3.45	\$838	
	Azek / PVC Exterior Siding systems	243.00	SF	28.00	\$6,804	
	<u>Total Direct Costs</u>				(\$12,053)	
	DESIGN ALLOWANCE	4.00%			(\$482)	
	GENERAL CONDITIONS					
	PERMITS					
	PROFESSIONAL AND GENERAL LIABILITY INS	0.85%			(\$107)	
	CONSTRUCTION CONTINGENCY	N/A				
	FEE	3.00%			(\$379)	
	PERFORMANCE AND PAYMENT BONDS	0.78%			(\$98)	
	ESCALATION	1.00%			(\$121)	



	DD COST
COMPRESSOR [2022 QUOTE + 15%]	\$104,000
GEAR EXTRACTOR [2022 QUOTE + 15%]	\$13,000
GEAR DRYER [ESTIMATED]	\$15,000
PERSONNEL LAUNDRY - WASHER AND DRYER	\$3,000
DAY ROOM RECLINERS [6 @ \$1000 EACH]	\$6,000
DAY ROOM DINING TABLE FOR 12	\$4,900
DAY ROOM DINING CHAIRS [12 @ \$350 EACH]	\$4,200
WATCH ROOM CHAIRS [2 @ \$800 EACH]	\$1,600
BUNK XL BED [8 @ \$1200 EACH]	\$9,600
BUNK XL MATTRESS + PROTECTOR [8 @ \$550 EACH]	\$4,400
BUNK DESK 3-DRAWER [8 @ \$840 EACH]	\$6,720
BUNK CHAIR [8 @ \$240 EACH]	\$1,920
BUNK PERSONNEL LOCKERS [32 @ \$800 EACH]	\$25,600
EXERCISE EQUIPMENT [ALLOWANCE]	\$30,000
TV MONITORS, RADIO, SERVER EQUIPMENT [ALLOWANCE]	\$65,000
FF&E SUBTOTAL	\$294,940

COMMISSIONING DESIGN REVIEW COMMENTS-MECHANICAL					 VAN ZELM HEYWOOD & SHADFORD, INC. 10 TALCOTT NOTCH FARMINGTON, CT 06032-1800 P:(860) 284-5064 F:(860) 284-5098					
Project Name: <i>Bristol Fire House Church Street</i>										
van Zelm #: 2023084.00										
Phase (% DD or CD)										
Issued Date		Review Date		Notes:						
100% DD		4/17/2024		5/12/2024		Project Drawings and Specs dated 4/17/24 and identified as DD				
XX% CD										
ITEM #	ROOM NAME/AREA	EQUIPMENT ID	DWG/SPEC SECTION	REVIEW COMMENTS	DATE IDENTIFIED	RESPONSE	STATUS (OPEN/CLOSED)	DATE		
M1	All Areas	MEP/FP Equipment	All MEP/FP Drawings	Has the final room numbering scheme been established by Owner and Architect? This will be important to establish early, all trades have the correct room numbering so labeling of various items (BMS, Electrical Panels, Fire Alarm, etc.) so there is less confusion later on.	5/6/2024		Open			
M2	Bunk Rooms	DOAS Delivery	M101	With such a low volume of needed for ventilation, why not connect F.A. directly to Ceiling cassettes for a less expensive cleaner installation.	5/6/2024		Open			
M3	Gear Locker	IDU	M101	Nomenclature is a bit confusing IDU-1-2 and FCU-2-2 are almost identical, why change the name, help me.	5/6/2024		Open			
M4	Gear Locker	Exhaust	M101	There appears to be two separate exhaust fans (8&9) for gear locker rooms, and these are intended to run 24/7? Could these be tied into common exhaust. If same usage why not combined into one larger system, could ERV be utilized?	5/6/2024		Open			
M5	Decon/Bay 1,2,3	Exhaust	M101	There appears to be two separate exhaust fans (6&7) for gear Decon and (3) bays, and these are intended to run 24/7? Similar to item 13 above.	5/6/2024		Open			
M6	Jan Closet 240	Supply	M101	Why are we delivering fresh air and exhaust into jan closet, why not just exhaust	5/6/2024		Open			
M7	All Areas	Sensors	M101	There are no wall mounted thermostats indicated in Bunk Room 116. Symbol used is difficult to see.	5/6/2024		Open			
M8	All Areas	Refrigerant	M101	Has mechanical contractor provided volume calculations to meet ASHRAE monitoring for areas with VRF.	5/6/2024		Open			

COMMISSIONING DESIGN REVIEW COMMENTS-ELECTRICAL					 VAN ZELM HEYWOOD & SHADFORD, INC. 10 TALCOTT NOTCH FARMINGTON, CT 06032-1800 P:(860) 284-5064 F:(860) 284-5098			
Project Name: <i>Bristol Fire House Church Street</i>								
vanZelm # 2023084.00								
Phase (% DD or CD)	Issued Date	Review Date	Notes:					
100% DD	1/26/2024	3/12/2024	Project Drawings and Specs dated 1/26/24 and identified as DD-Pricing					
100% CD								
ITEM #	ROOM NAME/AREA	EQUIPMENT ID	DWG/SPEC SECTION	REVIEW COMMENTS	DATE IDENTIFIED	RESPONSE	STATUS (OPEN/CLOSED)	DATE
E1	All Areas	MEP/FP Equipment	All MEP/FP Drawings	Has the final room numbering scheme been established by Owner and Architect? This will be important to establish early, all trades have the correct room numbering so labeling of various items (BMS, Electrical Panels, Fire Alarm, etc.) so there is less confusion later on.	5/6/2024		Open	Open
E2	Kitchen	EPO	P101	There is no EPO switch shown in kitchen to kill associated gas valve.	5/6/2024		Open	
E3	All Areas	Electrical Symbols	E001	Symbols list has two symbols for GFI. I assume either one meets proximity to wet locations but only one has GFI maring on the drawings, confusing, please clarify/simplify.	5/6/2024		Open	
E4	Kitchen	Hood	E001	Does kitchen hood fire supression system shut down gas and alarm with hood interlock?	5/6/2024		Open	
E5	High Bay	Lighting	E110	I assume the roof lighting plan is the high bay lighting not actually roof ligting	5/13/2024		Open	
E6	Equipment	Lighting	E210	Is there any Rooftop equipment service lighting being provided for convenience	5/13/2024		Open	
END OF 100% DD ELECTRICAL REVIEW								
Abbreviations: vZ = van Zelm Engineers								
Notes:								

COMMISSIONING DESIGN REVIEW COMMENTS-PLUMBING					 VAN ZELM HEYWOOD & SHADFORD, INC. 10 TALCOTT NOTCH FARMINGTON, CT 06032-1800 P:(860) 284-5064 F:(860) 284-5098			
Project Name: <i>Bristol Fire House Church Street</i>								
vanZelm #: 2023084.00								
Phase (% DD or CD)	Issued Date	Review Date	Notes:					
100% DD	1/26/2024	3/12/2024	Project Drawings and Specs dated 1/26/24 and identified as DD-Pricing					
100% CD								
ITEM #	ROOM NAME/AREA	EQUIPMENT ID	DWG/SPEC SECTION	REVIEW COMMENTS	DATE IDENTIFIED	RESPONSE	STATUS (OPEN/CLOSED)	DATE
P1	MER	Leak detection	P101	There appears to be no leak detection in MER for domestic water tanks, should one be added with inline control valve.	5/6/2024		Open	
P2	All	Drainage Plan	P101	I can see that the Engineer is using trap guards in most floor drain locations which does meet code. Has local authority approved this application?	5/6/2024		Open	
P3	Garage	Trench Drains	P101	How are you meeting trap seals in the trench drain /Catch Basin application? Details are not clear.	5/6/2024		Open	
P4	Kitchen	Grease separator	P101 FS-1.11	There does not appear to be a kitchen grease separator indicated in either Plumbing or Kitchen consultants plans. Please show us where this is located, I could not find.	5/6/2024		Open	
P5	Kitchen	Water Booster	P101 FS-1.11	There is no information on water heater requirements indicated. Domestic water heater is only providing 120 LWT. Does dishwasher have its own booster, please verify.	5/6/2024		Open	
P6	Kitchen	Emergency Gas switch	P101-FS-1.11	There is no EPO switch shown in kitchen to kill associated gas valve. Coordinate with kitchen consultant. Is this required to meet state and local codes?	5/6/2024		Open	
P7	Garage Bays	Plymo Vent	FP-floor plans	There is a note for Plymo vent controls, refer to Div 23. I cannot find detail on M-Drawings, coordinate with as required.	5/10/2024		Open	
END OF 100% DD PLUMBING REVIEW								
Abbreviations: vZ = van Zelm Engineers								
Notes:								

COMMISSIONING DESIGN REVIEW COMMENTS-FIRE PROTECTION					 VAN ZELM HEYWOOD & SHADFORD, INC. 10 TALCOTT NOTCH FARMINGTON, CT 06032-1800 P:(860) 284-5064 F:(860) 284-5098			
Project Name: <i>Bristol Fire House Church Street</i>								
vanZelm #: 2023084.00								
Phase (% DD or CD)	Issued Date	Review Date	Notes:					
100% DD	1/26/2024	3/12/2024	Project Drawings and Specs dated 1/26/24 and identified as DD-Pricing					
100% CD								
ITEM #	ROOM NAME/AREA	EQUIPMENT ID	DWG/SPEC SECTION	REVIEW COMMENTS	DATE IDENTIFIED	RESPONSE	STATUS (OPEN/CLOSED)	DATE
FP1	All	Heads	FP-floor plans	Areas appear to have complete coverage	5/6/2024		Open	
FP1	Garage Bays	Sprinkler	FP-floor plans	Is there any concerns about wet piping within garage especially near overhead doors? Might dry pipe be used?	5/10/2024		Open	
END OF 100% DD FIRE PROTECTION REVIEW								
Abbreviations: vZ = van Zelm Engineers								
Notes:								











BRISTOL FIRE #3 – CASEWORK

MAIN ENTRY/ LOBBY

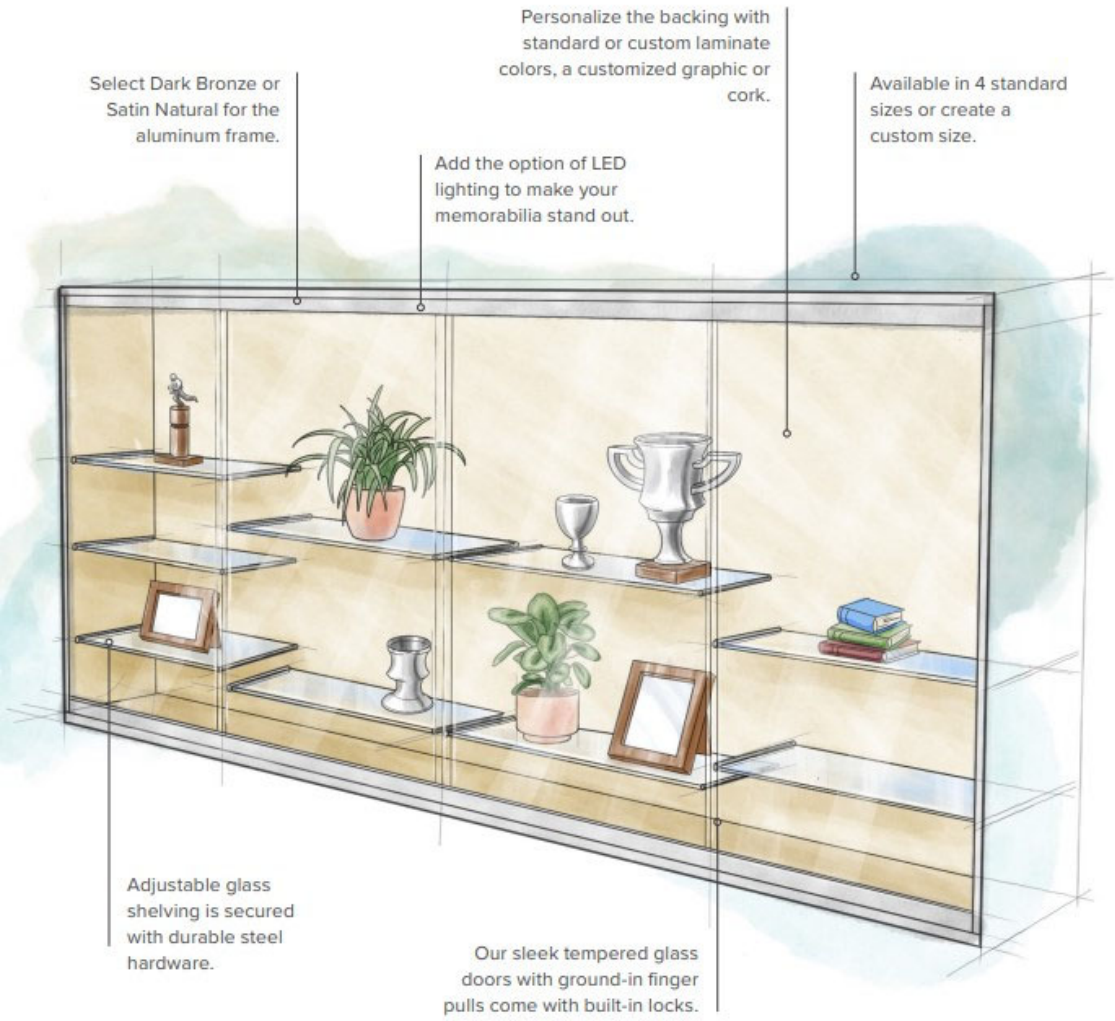
DISPLAY CASE EXAMPLE:



FRAME FINISH
(DARK BRONZE):



LAMINATE BACKING:



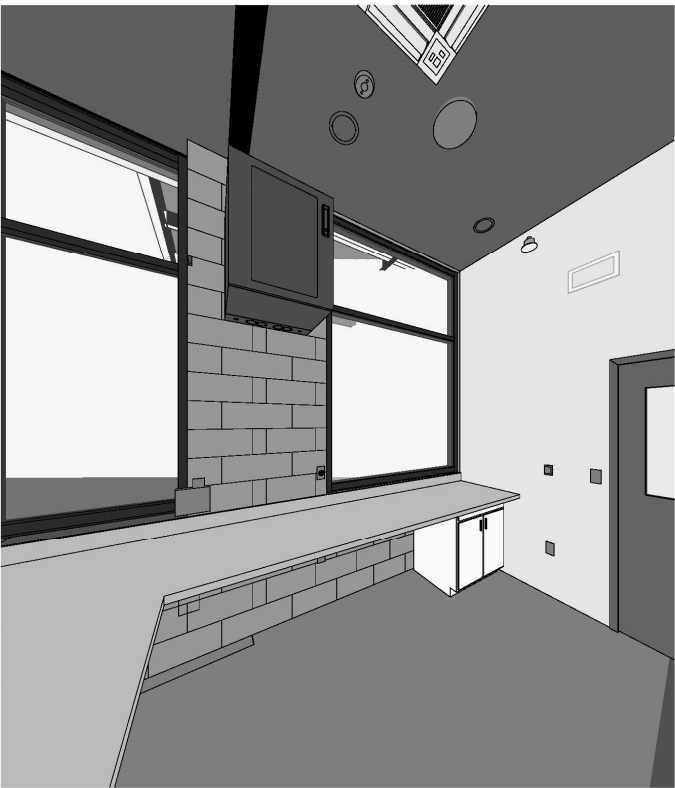
WATCH ROOM



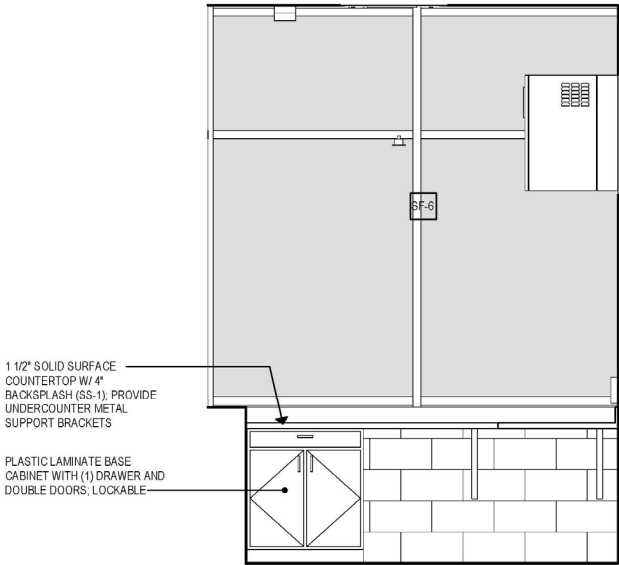
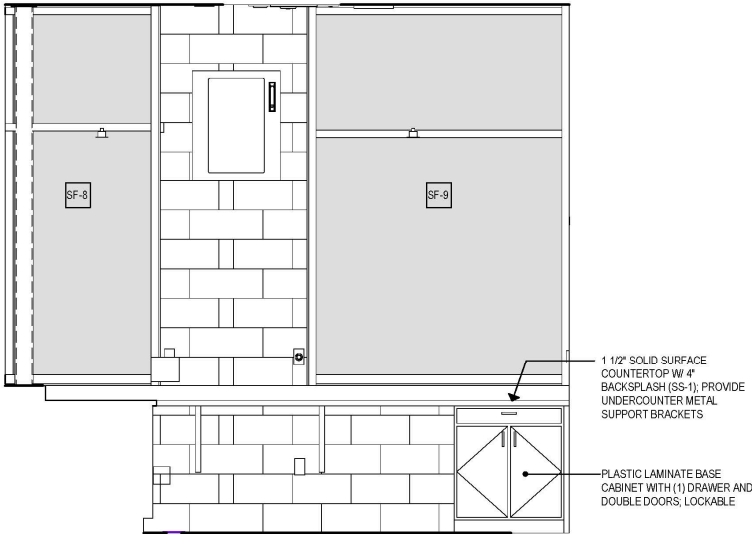
SOLID SURFACE COUNTERTOP:



RUBBER
BASE



PLASTIC LAMINATE BASE CABINETRY:

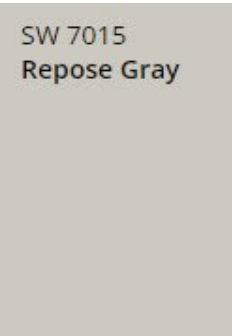


KITCHEN



WALL FINISH: PALETTE

GENERAL:



ACCENT:



BACKSPLASH:



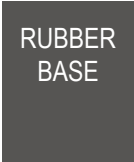
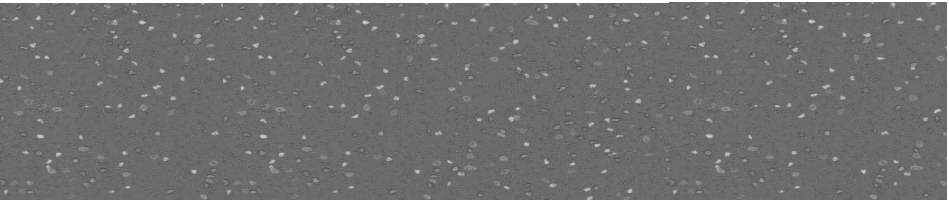
STAINLESS STEEL
COUNTERTOP:



PLASTIC LAMINATE
BASE CABINETRY:



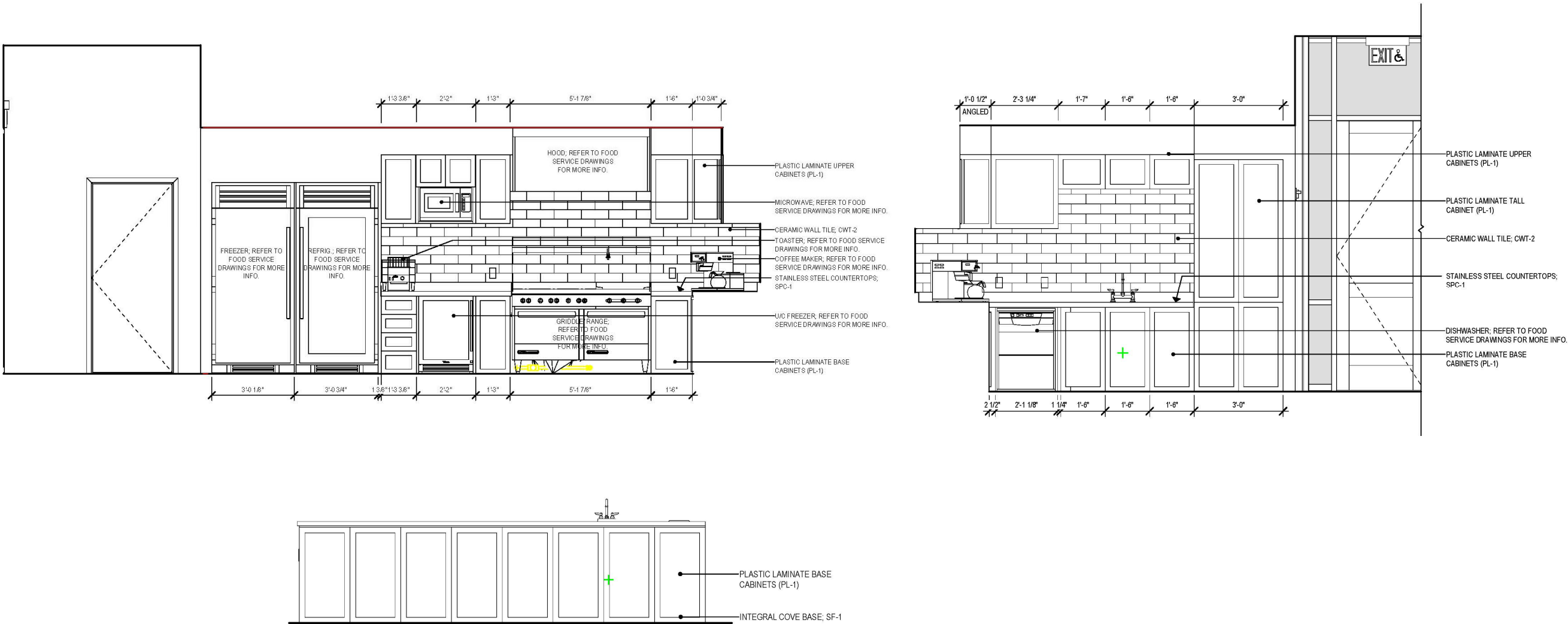
SHEET FLOORING (KITCHEN AREA ONLY):



LVT-6" X48" (DAY ROOM AREA ONLY):



KITCHEN CONTINUED



MEMORANDUM

☒ AS REQUESTED ☒ FOR REVIEW ☐ PLEASE SIGN & RETURN

TO:

Fire Station 3 Building Committee
City of Bristol
111 North Main Street
Bristol, CT 06010

FROM:

Bob Banning, P.E.
Silver Petrucelli & Associates
3190 Whitney Ave
Hamden, CT 06518

RE: Application of NEC Article 708 (COPS) to Bristol Fire Station #3

Silver Petrucelli's review and understanding of the NEC Article 708 regulation is that it is not necessarily applicable to every emergency services facility or to every space in any given facility. Per section 708.4, a Risk Assessment shall be performed to evaluate hazards and the likelihood of them occurring (with an informational Note referencing NFPA 1600 for guidance in this assessment).

We have performed similar evaluations for similar facilities in the recent past. Those assessments resulted in agreements that the likelihood of the hazards, given other measures that were taken to protect the facility and systems, did not rise to a level that justified the need for application of Article 708. In fact, Silver Petrucelli and Associates has designed new and significant renovation projects for more than a dozen other emergency services facilities since the adoption of Article 708 and have not had to follow the requirement in any of them. Further logic can be applied to this evaluation on two fronts: (1) Since the City has multiple other fire stations providing similar emergency services, an impact on one station would not eliminate the ability for services to be provided. (2) The emergency service that the fire department provides happens almost completely "outside" of the building and thus can be performed – for a short time – while issues with the building are corrected.

I have attached a preliminary pass at an evaluation of the NFPA 1600 Risk Assessment document with each potential listed hazard tagged as 0, low or moderate risk based on our understanding of the facility location, currently designed protections and anticipated operation. This result is similar to the evaluations we performed for other municipalities, but I admit this is far from an exact science and has plenty of grey area for our further discussion. My professional evaluation is that, given the application of many of the requirements of Article 708 in our typical design and the lack of unaddressed hazards, the full enforcement of Article 708 is not indicated or warranted.

The cost impacts of full compliance with Article 708 are difficult to detail. Some of the more impactful requirements which would not otherwise be typically provided include:

- Protecting panel feeders with rigid steel conduit, concrete encasement or fire rated enclosures.
- Providing outlets with illuminated device faces.
- Providing 2-hour rated rooms for all electrical distribution equipment.
- Providing separate electrical distribution if it is determined that only part of the facility needs to comply with COPS.
- Mandating on-site fuel storage for the generator (propane or diesel versus natural gas). This fuel source would need to have a capacity of at least 72 hours of operation at full building load.
- Oversizing of the electrical service (no typical load diversity can be applied).
- There are also more comprehensive testing and maintenance requirements for the COPS system beyond what is typical for fire station operation.

With all that said, our preliminary estimate for the cost to implement Article 708 at this facility is in the range of \$40,000 to \$50,000.

Thank you for your time in reviewing this documentation. As noted earlier, I welcome the opportunity for further discussion.

Sincerely,

A handwritten signature in black ink, appearing to read "Bob Banning", written in a cursive style.

Bob Banning, P.E.

Principal, Silver Petrucelli & Associates

May 31, 2024

Chapter 5 Planning

5.1* Planning and Design Process.

5.1.1* The program shall follow a planning process that develops strategies, plans, and required capabilities to execute the program.

5.1.2 Strategic planning shall define the entity's vision, mission, and goals of the program.

5.1.3* A risk assessment and a business impact analysis (BIA) shall develop information to prepare prevention and mitigation strategies.

5.1.4* A risk assessment, a BIA, and a resource needs assessment shall develop information to prepare emergency operations/response, crisis communications, continuity, and recovery plans.

5.1.5* Crisis management planning shall address an event, or series of events, that severely impacts or has the potential to severely impact an entity's operations, brand, image, reputation, market share, ability to do business, or relationships with key stakeholders.

5.1.6* The entity shall include key stakeholders in the planning process.

5.2* Risk Assessment.

5.2.1 The entity shall conduct a risk assessment.

5.2.2 The entity shall identify hazards and monitor those hazards and the likelihood and severity of their occurrence over time.

5.2.2.1 Hazards to be evaluated shall include the following:

- (1) Geological: **0 to Low**
 - (a) Earthquake
 - (b) Landslide, mudslide, subsidence
 - (c) Tsunami
 - (d) Volcano
- (2) Meteorological: **Lightning, Snow, Hurricane Moderate Others 0 to Low**
 - (a) Drought
 - (b) Extreme temperatures (hot, cold)
 - (c) Famine
 - (d) Flood, flash flood, seiche, tidal surge
 - (e) Geomagnetic storm
 - (f) Lightning
 - (g) Snow, ice, hail, sleet, avalanche
 - (h) Wildland fire
 - (i) Windstorm, tropical cyclone, hurricane, tornado, water spout, dust storm, sandstorm
- (3) Biological:
 - (a) Food-borne illnesses **Low**
 - (b)* Infectious/communicable/pandemic diseases **Moderate**
- (4) Accidental human-caused:
 - (a) Building/structure collapse
 - (b)* Entrapment
 - (c) Explosion/fire
 - (d) Fuel/resource shortage
 - (e)* Hazardous material spill or release
 - (f) Equipment failure
 - (g) Nuclear reactor incident
 - (h) Radiological incident
 - (i)* Transportation incident

a, b, f, g, k & l: 0 to Low. Others Moderate

- (j) Unavailability of essential employee(s)
- (k)* Water control structure failure
- (l) Misinformation
- (5) Intentional human-caused: **a, d, e, f, g, h, i, k, l, , n, o & q: Low. Others Moderate.**
 - (a) Incendiary fire
 - (b) Bomb threat
 - (c) Demonstrations/civil disturbance/riot/insurrection
 - (d) Discrimination/harassment
 - (e) Disinformation (rumors, false allegations, or accusations)
 - (f) Kidnapping/hostage/extortion
 - (g) Geopolitical risks including acts of war, change in government, and political instability
 - (h) Missing person
 - (i)* Cyber security incidents
 - (j) Product defect or contamination
 - (k) Robbery/theft/fraud
 - (l) Strike or labor dispute
 - (m) Suspicious package
 - (n)* Terrorism
 - (o) Vandalism/sabotage
 - (p) Workplace/school/university violence
 - (q) Supply chain constraint or failure
- (6) Technological: **Low**
 - (a)* Hardware, software, and network connectivity interruption, disruption, or failure
 - (b)* Utility interruption, disruption, or failure
- (7) Economic/financial: **0 to Low**
 - (a) Foreign currency exchange rate change
 - (b) Economic recession
 - (c) Boycott
 - (d) Theft/fraud/malfeasance/impropriety/scandal involving currency, monetary instruments, goods, and intellectual property
- (8) Strategic: **0 to Low.**
 - (a) Loss of senior executive
 - (b) Failed acquisition/strategic initiative
- (9) Humanitarian issues

5.2.2.2* The vulnerability of people, property, operations, the environment, the entity, and the supply chain operations shall be identified, evaluated, and monitored.

5.2.3 The entity shall conduct an analysis of the impacts of the hazards identified in 5.2.2 on the following:

- (1) Health and safety of persons in the affected area
- (2) Health and safety of personnel responding to the incident
- (3) Security of information
- (4)* Continuity of operations
- (5) Continuity of government
- (6)* Property, facilities, assets, and critical infrastructure
- (7) Delivery of the entity's services
- (8) Supply chain
- (9) Environment
- (10)* Economic and financial conditions
- (11) Legislated, regulatory, and contractual obligations
- (12) Brand, image, and reputation
- (13) Work and labor arrangements

1 & 7 Moderate Others Low.

5.2.4 The risk assessment shall include an analysis of the escalation of impacts over time.

5.2.5* The analysis shall evaluate the potential effects of regional, national, or international incidents that could have cascading impacts.

5.2.6 The risk assessment shall evaluate the adequacy of existing prevention and mitigation strategies.

5.3 Business Impact Analysis (BIA).

5.3.1 The entity shall conduct a BIA that includes an assessment of how a disruption could affect an entity's operations, reputation, and market share, ability to do business, or relationships with key stakeholders and identifies the resources and capabilities that might be needed to manage the disruptions.

5.3.1.1* The BIA shall identify processes that are required for the entity to perform its mission.

5.3.1.2* The BIA shall identify the following resources that enable the processes:

- (1) Personnel
- (2) Equipment
- (3) Infrastructure
- (4) Technology
- (5) Information
- (6) Supply chain

5.3.2* The BIA shall evaluate the following:

- (1) Dependencies
- (2) Single-source and sole-source suppliers
- (3) Single points of failure
- (4) Potential qualitative and quantitative impacts from a disruption to the resources in 5.3.1.2

5.3.2.1* The BIA shall determine the point in time [recovery time objective (RTO)] when the impacts of the disruption become unacceptable to the entity.

5.3.3* The BIA shall identify the acceptable amount of data loss for physical and electronic records to identify the recovery point objective (RPO).

5.3.4* The BIA shall identify gaps between the RTOs and RPOs and demonstrated capabilities.

5.3.5* The BIA shall be used in the development of continuity and recovery strategies and plans.

5.3.6* The BIA shall identify critical supply chains, including those exposed to domestic and international risks, and the timeframe within which those operations become critical to the entity.

5.4 Resource Needs Assessment.

5.4.1* The entity shall conduct a resource needs assessment based on the hazards identified in Section 5.2 and the business impact analysis in Section 5.3.

5.4.2 The resource needs assessment shall include the following:

- (1)* Human resources, equipment, training, facilities, funding, expert knowledge, materials, technology, information, intelligence, and the time frames within which they will be needed
- (2) Quantity, response time, capability, limitations, cost, and liabilities

5.4.3* The entity shall establish procedures to locate, acquire, store, distribute, maintain, test, and account for services, human resources, equipment, and materials procured or donated to support the program.

5.4.4 Facilities capable of supporting response, continuity, and recovery operations shall be identified.

5.4.5* Agreements. The need for mutual aid/assistance or partnership agreements shall be determined; if needed, agreements shall be established and documented.

Chapter 6 Implementation

6.1 Common Plan Requirements.

6.1.1* Plans shall address the health and safety of personnel.

6.1.2* Plans shall identify and document the following:

- (1) Assumptions made during the planning process
- (2) Functional roles and responsibilities of internal and external entities
- (3) Lines of authority
- (4) Process for delegation of authority
- (5) Lines of succession for the entity
- (6) Liaisons to external entities
- (7) Logistics support and resource requirements

6.1.3* Plans shall be individual, integrated into a single plan document, or a combination of the two.

6.1.4 The entity shall make sections of the plans available to those assigned specific tasks and responsibilities therein and to key stakeholders as required.

6.2 Prevention.

6.2.1* The entity shall develop a strategy to prevent an incident that threatens life, property, operations, information, and the environment.

6.2.2* The prevention strategy shall be kept current using the information collection and intelligence techniques.

6.2.3 The prevention strategy shall be based on the results of hazard identification and risk assessment, an analysis of impacts, program constraints, operational experience, and a cost-benefit analysis.

6.2.4 The entity shall have a process to monitor the identified hazards and adjust the level of preventive measures to be commensurate with the risk.

6.3 Mitigation.

6.3.1* The entity shall develop and implement a mitigation strategy that includes measures to be taken to limit or control the consequences, extent, or severity of an incident that cannot be prevented.

6.3.2* The mitigation strategy shall be based on the results of hazard identification and risk assessment, an analysis of impacts, program constraints, operational experience, and cost-benefit analysis.

6.3.3* The mitigation strategy shall include interim and long-term actions to reduce vulnerabilities.

MEMORANDUM

☒ AS REQUESTED ☒ FOR REVIEW ☐ PLEASE SIGN & RETURN



TO:

Fire Station 3 Building Committee
City of Bristol
111 North Main Street
Bristol, CT 06010

FROM:

Christopher Nardi, AIA
Silver Petrucelli & Associates
3190 Whitney Ave
Hamden, CT 06518

RE: Inflation Reduction Act Opportunities for Bristol Fire Station #3

Silver Petrucelli's review and understanding of the Inflation Reduction Act and its relevance to the Bristol Fire Station 3 construction is that investment tax credits of up to 30% of system cost basis are available for clean energy systems, including geothermal heat pumps and photovoltaic [solar] power.

Geothermal: Early analysis of a geothermal heat pump system indicated the need for 9 or 10 – 400 ft. vertical bore holes. The anticipated costs for the vertical bore holes, associated piping, and modifications to the HVAC system including DOAS watersource heat pump are estimated at approximately **\$225,000**. In addition to the 30% credit for all geothermal related items, there is an additional **domestic content bonus tax credit of 10%** for using domestically produced steel, iron, and manufactured products.

Solar: The electrical service is currently sized appropriately to handle the proposed system size for a roof mounted ballasted array. The roof structure over the apparatus bay is designed to accommodate the additional loads of a ballasted PV array.

The simplest and most cost effective way to further accommodate for solar is to size the switchgear bus appropriately, add a circuit breaker to the switchgear for PV & add raceway to the roof, capped at the location of a future panel/inverter. If and when solar were to be installed, the City of Bristol would be eligible for the 30% tax credit reduction of the total construction cost for the solar. Preliminary analysis indicates that a solar array over the apparatus bay roof would produce enough energy to reduce the total fire station energy consumption by approximately 20%. The anticipated costs for the complete installation of the solar array are **\$200,000**.

Thank you for your time in reviewing this documentation, and please let us know if further information or analysis is necessary at this time.

Sincerely,

Christopher Nardi, AIA

Principal, Silver Petrucelli & Associates

May 31, 2024