

A

B

C

D

E

F

G

A

B

C

D

E

SPRINKLER SYSTEM GENERAL NOTES:

1. PROVIDE WET PIPE SPRINKLER PROTECTION FOR NEW 1,900 SQ FT DOMICILIARY INTERNET CAFÉ WITH ADJOINING 400 SQ FT PORCH, 2,700 SQ FT REHAB MEDICINE WING, AND MECHANICAL ROOM EXPANSION.
2. PROVIDE ALL NECESSARY MATERIALS AND LABOR TO FURNISH AND INSTALL THE SYSTEM AS DESCRIBED IN THE CONTRACT DOCUMENTS.
3. ALL REFERENCE TO THE AUTHORITY HAVING JURISDICTION (AHJ) SHALL MEAN THE DEPARTMENT OF VETERAN AFFAIRS (VA) REGIONAL FIRE PROTECTION ENGINEER. ALL REFERENCE TO THE ENGINEER SHALL MEAN KOFFEL ASSOCIATES, INC. ALL REFERENCE TO THE OWNER SHALL MEAN THE VA.
4. SPRINKLER SYSTEM AND ASSOCIATED COMPONENTS SHALL BE IN ACCORDANCE WITH:
 - NFPA 13, STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS, 2013 EDITION
 - NFPA 101®, LIFE SAFETY CODE®, 2012 EDITION
 - VA FIRE PROTECTION DESIGN MANUAL (VAFDPM) 6TH EDITION, SEPTEMBER 2011
 - THE MANUFACTURER'S REQUIREMENTS
 - APPLICABLE LOCAL CODES AND REGULATIONS

5. THE FOLLOWING DESIGN CRITERIA APPLIES:

- UNLESS NOTED OTHERWISE, ALL AREAS SHALL BE LIGHT HAZARD: 0.10 GPM/SQ.FT OVER 1,500 SQ.FT
- IT, MECHANICAL, AND STORAGE ROOMS - ORDINARY HAZARD GROUP I: 0.15 GPM/SQ.FT OVER 1,500 SQ.FT

PER SECTION 11.2.3.2.3.1 OF NFPA 13, A REDUCTION IN THE DESIGN AREA UP TO 40% IS PERMITTED WHERE LISTED QUICK-RESPONSE SPRINKLERS ARE UTILIZED.

6. MUNICIPAL WATER SUPPLY TO THE BUILDING 500 SPRINKLER SYSTEM IS SUPPLEMENTED BY AN ELECTRIC DRIVE HORIZONTAL SPLIT CASE FIRE PUMP LOCATED IN BASEMENT MECHANICAL ROOM. RESULTS FROM THE MOST RECENT FIRE PUMP TEST ARE:

STATIC (CHURN):	-	152 PSI
100%:	-	142 PSI @ 500 GPM
150%:	-	106 PSI @ 750 GPM
LOCATION:	-	PUMP DISCHARGE FLANGE
DATE OF TEST:	-	MAY 22, 2012
SOURCE:	-	HUB CITY SPRINKLERS, INC.

CONTRACTOR SHALL PROVIDE PUMP TEST DATA NO MORE THAN ONE YEAR OLD FOR ALL HYDRAULIC CALCULATIONS. IF TEST RESULTS SHOW DEGRADATION IN EXCESS OF 5 PERCENT OF MANUFACTURER'S PUMP CURVE, NOTIFY THE OWNER IMMEDIATELY.

7. AS PART OF GENERATING SHOP DRAWINGS CONTRACTOR SHALL FIELD SURVEY AND REFLECT PIPING ARRANGEMENT FROM FIRE PUMP DISCHARGE FLANGE TO POINT OF CONNECTION TO NEW SPRINKLER SYSTEM ZONE CONTROL ASSEMBLY ON INTERMEDIATE FLOOR BETWEEN FLOORS 1 & 2, OFF STAIR 3.
8. ALL HYDRAULIC CALCULATIONS SHALL YIELD AT LEAST A 10 PERCENT SAFETY FACTOR FOR EACH SPRINKLER DESIGN AREA, INCLUDING REQUIRED HOSE STREAMS, PER VAFDPM §6.1D.
9. SPRINKLER TYPES SHALL BE AS DESCRIBED IN THE PROJECT SPECIFICATIONS.

10. SPRINKLERS SHALL BE LOCATED IN SUSPENDED CEILING TILES AS INDICATED ON DETAIL 2/ FX501. ARMOVERS AND DROPS TO INDIVIDUAL SPRINKLERS SHALL BE FIELD CUT TO ENSURE PROPER SPRINKLER PLACEMENT.
11. SPRINKLER PIPE AND FITTINGS SHALL MEET THE FOLLOWING CRITERIA:
 - PIPE SIZES 2" AND SMALLER: SCHEDULE 40, BLACK STEEL, MEETING ASTM A53 (TYPE E GRADE B) OR A795 (TYPE E GRADE A) SPECIFICATIONS, CONNECTED WITH THREADED FITTINGS.
 - PIPE SIZES 2-1/2" AND LARGER: SCHEDULE 10, BLACK STEEL, MEETING ASTM A135 OR A795 TYPE E GRADE A SPECIFICATIONS, CONNECTED WITH LISTED GROOVED COUPLINGS.
12. PIPE FITTINGS SHALL INCLUDE:
 - THREADED FITTINGS FOR SCHEDULE 40 PIPE SHALL CONFORM TO SECTION 6.4 OF NFPA 13.
 - ROLL GROOVED FITTINGS FOR SCHEDULE 10 PIPE SHALL BE UL LISTED. COUPLINGS SHALL COMPLY WITH ASTM A536, AND A183 SPECIFICATIONS WITH GRADE E, TYPE A GASKETS. ALL COMPONENTS SHALL BE FROM A SINGLE MANUFACTURER.

13. ALL MATERIALS SHALL BE LISTED BY UNDERWRITERS LABORATORIES, INC. (U.L.) FOR USE ON COMMERCIAL FIRE PROTECTION SYSTEMS. NOTE THAT SPRINKLERS SHALL ALSO BE FACTORY MUTUAL (FM) APPROVED, PER VAFDPM §6.1K.

14. ALL NECESSARY CONNECTIONS TO THE FIRE ALARM SYSTEM SHALL BE MADE BY AND COORDINATED WITH THE FIRE ALARM CONTRACTOR. SYSTEM ACCEPTANCE TESTS SHALL BE CONDUCTED BY THE FIRE ALARM CONTRACTOR AND WITNESSED BY THE VA.

15. ALL HANGERS SHALL BE U.L. LISTED FOR USE WITH SPRINKLER SYSTEMS. HANGER INSTALLATION AND SPACING SHALL BE IN ACCORDANCE WITH NFPA 13.

16. ALL SPRINKLER SYSTEM PIPING AND HANGERS SHALL BE CONCEALED WHEREVER POSSIBLE. PROVIDE ACCESS PANELS FOR ALL VALVES, WHERE REQUIRED.

17. PENETRATION OF FIRE-RATED ASSEMBLIES SHALL BE SEALED WITH A U.L. CERTIFIED THROUGH-PENETRATION SYSTEM APPROPRIATE FOR THE RATING OF THE WALL PENETRATED.

18. COORDINATE THE LOCATION OF SPRINKLER PIPING SHOWN WITH EXISTING MECHANICAL, STRUCTURAL, AND CEILING SYSTEMS. COORDINATE FINAL LOCATIONS OF ALL SPRINKLERS, PIPING, PIPE SIZES, HANGER LOCATIONS, ETC.

19. CONTRACTOR SHALL BE RESPONSIBLE FOR DEVELOPMENT OF SHOP DRAWINGS, HYDRAULIC CALCULATIONS, PERMIT FEES, APPROVAL OF SHOP DRAWINGS, AND ACCEPTANCE OF THE SYSTEM BY THE AHJ.

OWNER'S INFORMATION CERTIFICATE

NAME OF OWNER:

U.S. DEPARTMENT OF VETERAN'S AFFAIRS
510 BUTLER AVE.
MARTINSBURG, WV 25405

PHONE: 304-263-0811

EXISTING OR PLANNED CONSTRUCTION IS:

- ☒ FIRE RESISTIVE OR NONCOMBUSTIBLE
☐ WOOD FRAME OR ORDINARY (MASONRY WALLS WITH WOOD BEAMS)
☐ UNKNOWN

IS THE SYSTEM INSTALLATION INTENDED FOR ONE OF THE FOLLOWING SPECIAL OCCUPANCIES:

- YES NO
☐ ☒ AIRCRAFT HANGAR
☐ ☒ FIXED GUIDEWAY TRANSIT SYSTEM
☐ ☒ RACE TRACK STABLE
☐ ☒ MARINE TERMINAL, PIER, OR WHARF
☐ ☒ AIRPORT TERMINAL
☐ ☒ AIRCRAFT ENGINE TEST FACILITY
☐ ☒ POWER PLANT
☐ ☒ WATER-COOLING TOWER

INDICATE WHETHER ANY OF THE FOLLOWING SPECIAL MATERIALS ARE INTENDED TO BE PRESENT:

- YES NO
☐ ☒ FLAMMABLE OR COMBUSTIBLE LIQUIDS
☐ ☒ AEROSOL PRODUCTS
☐ ☒ NITRATE FILM
☐ ☒ PYROXYLIN PLASTIC
☐ ☒ COMPRESSED OR LIQUEFIED GAS CYLINDERS
☐ ☒ LIQUID OR SOLID OXIDIZERS
☐ ☒ ORGANIC PEROXIDE FORMULATIONS
☐ ☒ IDLE PALLETS

INDICATE WHETHER THE PROTECTION IS INTENDED FOR ONE OF THE FOLLOWING SPECIALIZED OCCUPANCIES OR AREAS:

- YES NO
☐ ☒ SPRAY AREA OR MIXING ROOM
☐ ☒ SOLVENT EXTRACTION
☐ ☒ LABORATORY USING CHEMICALS
☐ ☒ OXYGEN-FUEL GAS SYSTEM FOR WELDING OR CUTTING
☐ ☒ ACETYLENE CYLINDER CHARGING
☐ ☒ PRODUCTION OR USE OF COMPRESSED OR LIQUEFIED GASES
☐ ☒ COMMERCIAL COOKING OPERATION
☐ ☒ CLASS A HYPERBARIC CHAMBER
☐ ☒ CLEANROOM
☐ ☒ INCINERATOR WASTE HANDLING SYSTEM
☐ ☒ LINEN HANDLING SYSTEM
☐ ☒ WATER-COOLING TOWER

YES NO
☐ ☒ WILL THERE BE ANY STORAGE OR PRODUCTS OVER 12 FT (3.5 M) IN HEIGHT?

YES NO
☐ ☒ WILL THERE BE ANY STORAGE OF PLASTIC, RUBBER, OR SIMILAR PRODUCTS OVER 5 FT (1.3 M) HIGH EXCEPT AS DESCRIBED ABOVE?

THIS FORM HAS BEEN COMPLETED BY KOFFEL ASSOCIATES ON BEHALF OF THE OWNER BASED ON INFORMATION PROVIDED BY THE OWNER AND HIS AGENTS.

I CERTIFY THAT I HAVE KNOWLEDGE OF THE INTENDED USE OF THE PROPERTY AND THAT THE ABOVE INFORMATION IS CORRECT.

SIGNATURE OF OWNER'S REPRESENTATIVE OR AGENT
DATE: APRIL 02, 2013

KOFFEL ASSOCIATES, INC
NAME OF OWNER'S REPRESENTATIVE OR AGENT
COMPLETING CERTIFICATE

CONSULTING ENGINEER
RELATIONSHIP AND FIRM OF AGENT

FIRE SUPPRESSION SYSTEM SYMBOLS

- | | | | |
|--|---------------------------|--|--|
| | NEW SYSTEM PIPING | | BUTTERFLY VALVE |
| | EXISTING PIPING TO REMAIN | | ZONE CONTROL ASSEMBLY |
| | DEMO EXISTING PIPING | | SIDEWALL SPRINKLER |
| | POINT OF CONNECTION | | UPRIGHT SPRINKLER |
| | SYSTEM RISER | | PENDENT SPRINKLER |
| | DRAIN RISER | | UPRIGHT SPRINKLER;
ON SPRIG |
| | HOSE VALVE | | PENDENT SPRINKLER;
ON DROP NIPPLE |
| | PIPE ELBOW DOWN | | SPRINKLER GUARD;
SHOWN ON UPRIGHT SPRINKLER |
| | PIPE TEE DOWN | | AREA NOT IN CONTRACT |
| | CONTROL VALVE | | SPRINKLER ZONE BOUNDARY |
| | CHECK VALVE | | NON-SPRINKLERED |
| | OS&Y GATE VALVE | | |

FIRE SUPPRESSION ABBREVIATIONS

ACT	ACOUSTICAL CEILING TILE	ITC	INSPECTORS TEST CONNECTION
AFF	ABOVE FINISHED FLOOR	MAX	MAXIMUM
BFP	BACKFLOW PREVENTER	MIN	MINIMUM
COL	COLUMN	MT	METAL TILE
CONC	CONCRETE	NIC	NOT IN CONTRACT
DN	DOWN	NS	NON-SPRINKLERED
EC	EXTENDED COVERAGE (SPRINKLER)	NTS	NOT TO SCALE
ETR	EXISTING TO REMAIN	POC	POINT OF CONNECTION
EXP	EXPOSED (NO CEILING)	QR	QUICK RESPONSE (SPRINKLER)
FDC	FIRE DEPARTMENT CONNECTION	STL	STEEL
FHV	FIRE HOSE VALVE	TYP	TYPICAL
GYP	GYPSUM WALL BOARD (SHEETROCK)	UNO	UNLESS NOTED OTHERWISE
HT	HIGH TEMPERATURE (SPRINKLER)		

CONSULTANTS

Geotechnical:



SCHNABEL ENGINEERING
1901 SOUTH MAIN ST
SUITE 11
BLACKSBURG, VA 24060

Civil and Structural:



ALPHA CORPORATION
150 S LOUDOUN ST
SUITE 200
WINCHESTER, VA 22601

Fire Protection:



KOFFEL ASSOCIATES, INC.
8815 CENTRE PARK DRIVE
SUITE 200
COLUMBIA, MD 21045-2107

Mechanical, Electrical, and Plumbing:



HENRY ADAMS
600 BALTIMORE AVENUE
BALTIMORE, MD 21204

Telecommunications:



USSI CONSULTING
10440 LITTLE PATUXENT PKWY
SUITE 300
COLUMBIA, MD 21044

Transportation:



ROBERT L. SEYMOUR
182 THOMAS JOHNSON DR
FREDERICK, MD 21702



ARCHITECTS



802 SLIGO AVENUE, SILVER SPRING, MARYLAND 20910
TELEPHONE (301) 589-4811 FAX (301) 589-3810

Drawing Title

Sprinkler System Notes
And Symbols

Approved: Project Director

Project Title

Construct
Domiciliary Internet Cafe &
Rehab Medicine Expansion

Location

Date
16 April 2013

Checked
MJA

Drawn
AMK

Project Number

613-CSI-113

Building Number

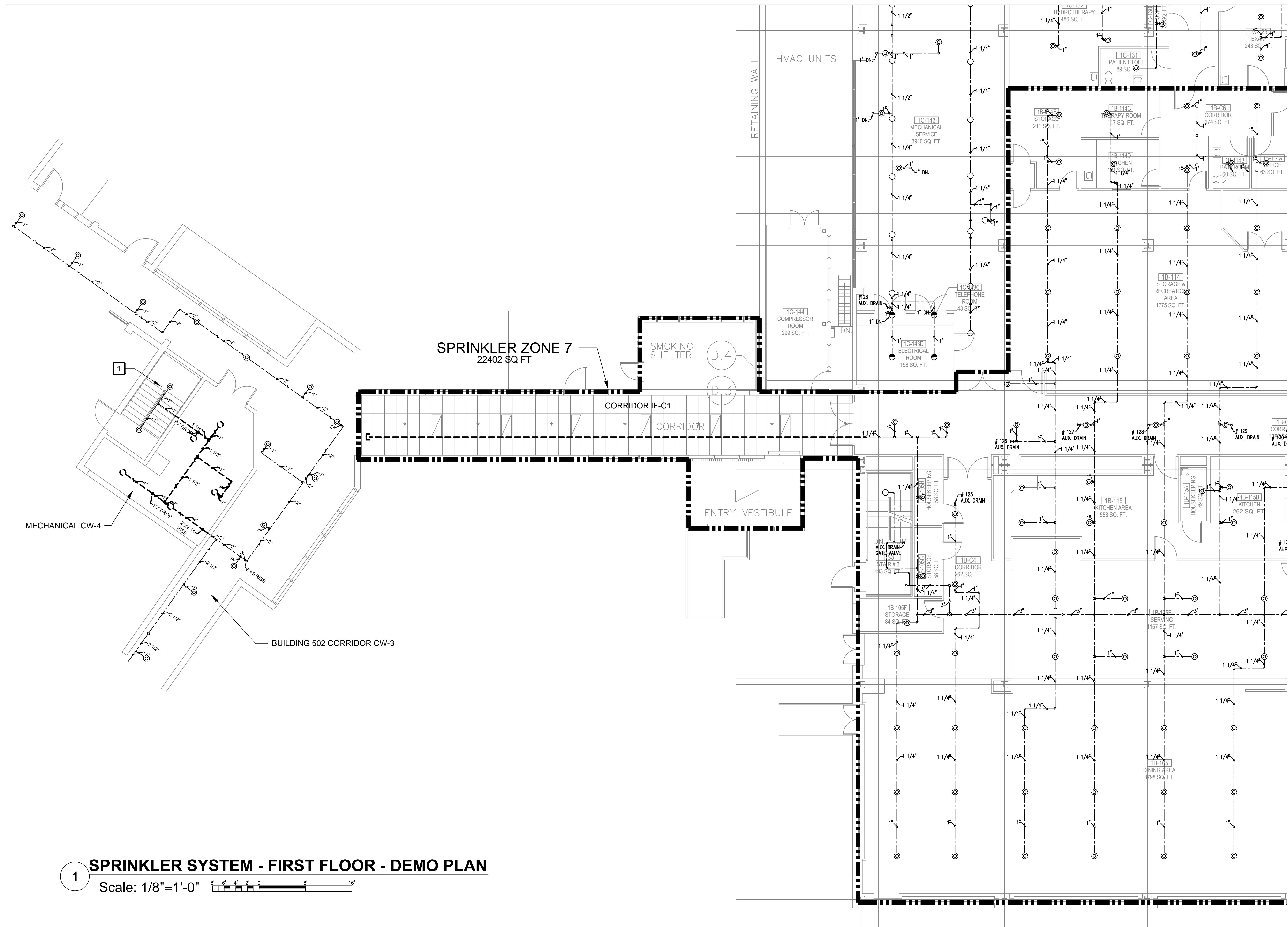
Drawing Number

FX-001

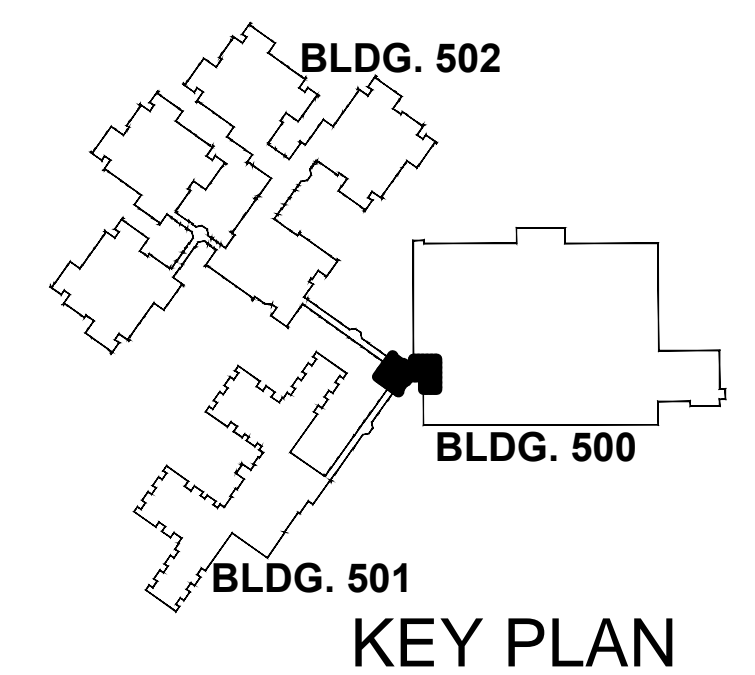
100% Bid Submission

Department
of Veterans
Affairs





1 SPRINKLER PIPING AND SPRINKLERS IN STAIR ARE EXISTING TO REMAIN. SEE SHEET FX-102.

[illegible]

ERNEST BLAND ASSOCIATES, P.C.
TECHNICAL FACILITIES DESIGN

802 SLIGO AVENUE, SILVER SPRING, MARYLAND 20910
TELEPHONE (301) 589-4811 FAX (301) 589-3810

Approved: Project Director

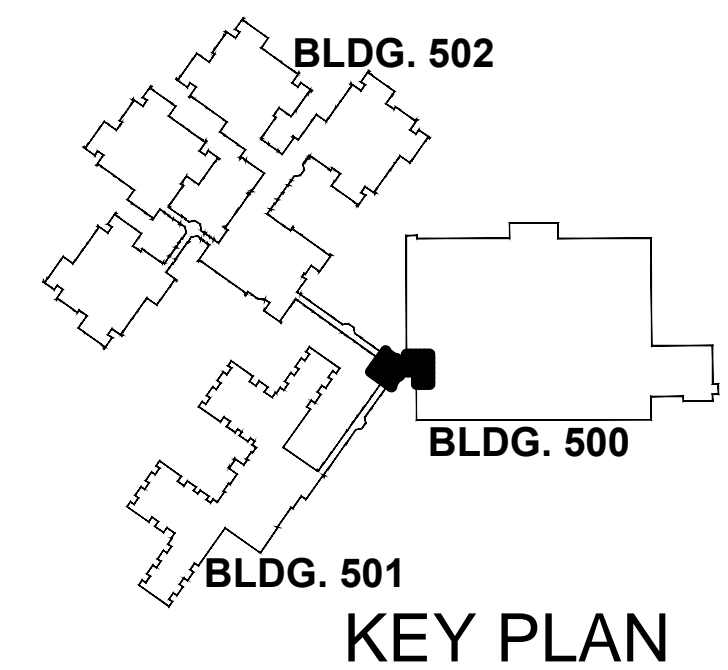
Date 16 April 2013

Checked
MJA


Drawn	AMK
-------	-----

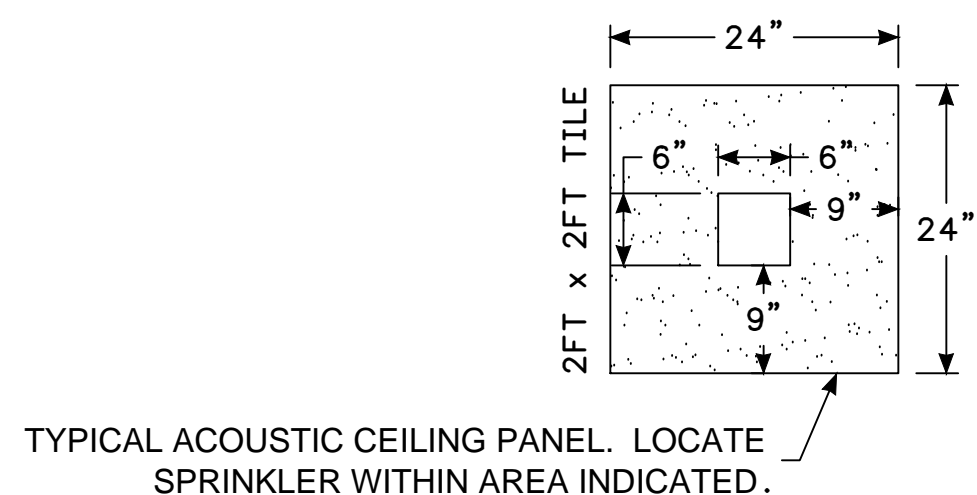
Drawing Number

FX-101



**Department
of Veterans
Affairs**

The VA logo, consisting of a stylized 'V' and 'A' intertwined within a hexagonal border.




HANGER NOTES:

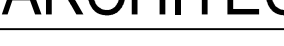
1. MAXIMUM UNSUPPORTED ARMOVER LENGTH SHALL NOT BE GREATER THAN 12"
2. MIN $\frac{3}{8}$ " ALL THREAD ROD FOR PIPE DIAMETERS 4" AND SMALLER

	MAXIMUM SPAN OF TRAPEZE MEMBER			
DIAMETER	1"	5'-0"	2"	5'-0"
	1 1/4"	5'-0"	2 1/2"	4'-0"
	1 1/2"	5'-0"	3" & 4"	4'-0"

	MAXIMUM DISTANCE BETWEEN HANGERS			
DIAMETER	1"	12'-0"	2"	15'-0"
	1 1/4"	12'-0"	2 1/2"	15'-0"
	1 1/2"	15'-0"	3" & 4"	15'-0"



ARCHITECTS




ERNEST BLAND ASSOCIATES, P.C.

TECHNICAL FACILITIES DESIGN

802 SLIGO AVENUE, SILVER SPRING, MARYLAND 20910

TELEPHONE (301) 589-4811

FAX (301) 589-3810

Drawing Title Sprinkler System Details	Project Title Construct Domiciliary Internet Cafe & Rehab Medicine Expansion			Project Number 613-CSI-113	Department of Veterans Affairs
	Location			Building Number	
Approved: Project Director	Date 16 April 2013	Checked MJA	Drawn AMK	Drawing Number FX-501	



FIRE ALARM GENERAL NOTES

1.

MODIFY THE EXISTING BUILDING 500 ADDRESSABLE EDWARDS EST3 FIRE ALARM SYSTEM TO ACCOMMODATE NEW 1,900 SQ FT DOMICILIARY INTERNET CAFÉ WITH ADJOINING 400 SQ FT PORCH, THE 2,700 SQ FT REHAB MEDICINE WING, AND NEW MECHANICAL ROOM EXPANSION. ALL NEW DEVICES ARE TO BE CONNECTED TO AND BE COMPATIBLE WITH THE EXISTING EDWARDS EST3 CAMPUS WIDE FIRE ALARM NETWORK.

2.

PROVIDE ALL NECESSARY MATERIALS AND LABOR TO DESIGN AND INSTALL A COMPLETE AND OPERATIONAL SYSTEM AS DESCRIBED IN THE PROJECT SPECIFICATIONS AND CONTRACT DRAWINGS.

3.

FIRE ALARM AND DETECTION SYSTEM AND ASSOCIATED COMPONENTS SHALL BE IN ACCORDANCE WITH:

• NFPA 70, NATIONAL ELECTRICAL CODE, 2011 EDITION

• NFPA 72, NATIONAL FIRE ALARM AND SIGNALING CODE, 2013 EDITION

• NFPA 101®, LIFE SAFETY CODE®, 2012 EDITION

• VA FIRE PROTECTION DESIGN MANUAL (VAFPDm) 6TH EDITION, SEPTEMBER 2011

• THE MANUFACTURER'S REQUIREMENTS

• APPLICABLE LOCAL CODES AND REGULATIONS

4.

ALL AREAS PROVIDED WITH AUTOMATIC DETECTION SHALL BE ASSUMED TO BE PROVIDED WITH A MINIMUM AMBIENT TEMPERATURE OF 40 DEGREES AND BE FREE OF EXCESSIVE DUST PARTICLES OR HUMIDITY LEVELS, UNLESS NOTED OTHERWISE.

5.

ALL NEW FIRE ALARM SYSTEM WIRING SHALL BE IN CONDUIT. SIZE OF CONDUIT AND PERCENT FILL SHALL BE DETERMINED BY THE CONTRACTOR AND SHALL BE IN ACCORDANCE WITH NFPA 70.

6.

SIGNALING LINE CIRCUITS (SLC): CLASS B

NOTIFICATION APPLIANCE CIRCUITS (NAC): CLASS B

7.

ALL ADDRESSABLE CONTROL MODULES AND ADDRESSABLE

8.

ALL DETECTION AND CONTROL CONDUIT AND JUNCTION BOXES SHALL BE INSTALLED AS HIGH AS POSSIBLE. IN NO CASE SHALL ANY PORTION OF THE SYSTEM WIRING BE INSTALLED BELOW THE BOTTOM HORIZONTAL PLANE OF LIGHTING FIXTURES, WITH THE EXCEPTION OF DROPS TO INDIVIDUAL DEVICES AND PANELS. IN AREAS WITH SUSPENDED CEILINGS ALL CONDUIT SHALL BE CONCEALED. PROVIDE ACCESS PANELS FOR CONCEALED DEVICES AND JUNCTION BOXES, WHERE REQUIRED.

9.

ALL WALL MOUNTED AUDIBLE AND VISUAL NOTIFICATION DEVICES SHALL BE MOUNTED A MINIMUM OF 80 INCHES AND A MAXIMUM OF 96 INCHES ABOVE THE FINISHED FLOOR, PER NFPA 72.

10.

A FULL ACCEPTANCE TEST OF ALL NEW FIRE ALARM DETECTION AND CONTROL SYSTEM COMPONENTS IS REQUIRED AS PART OF THIS PROJECT. THIS SHALL INCLUDE A FUNCTIONAL TEST OF 100% OF NEW INITIATING DEVICES. CONTRACTOR SHALL PROVIDE ALL MATERIALS AND TECHNICAL SUPPORT TO PERFORM ACCEPTANCE TEST IN ACCORDANCE WITH NFPA 72. THE ACCEPTANCE TESTING PERFORMED BY THE CONTRACTOR SHALL BE WITNESSED BY THE DEPARTMENT OF VETERANS AFFAIRS OR THEIR CHOSEN REPRESENTATIVE.

11.

ALL EQUIPMENT SHALL BE UL LISTED AND FM APPROVED FOR USE ON COMMERCIAL FIRE ALARM SYSTEMS.

12.

OCCUPANT NOTIFICATION THROUGHOUT BUILDING 500 IS PROVIDED BY A VOICE MESSAGING/CODED SYSTEM. EXTEND THE OCCUPANT NOTIFICATION SYSTEM INTO THE DOMICILIARY INTERNET CAFÉ AND PHYSICAL MEDICINE & REHABILITATION SERVICE EXPANSION. COORDINATE THE SPECIFIC VOICE MESSAGES/CODING TO BE USED IN THE NEW BUILDING ADDITION WITH THE CAMPUS FIRE DEPARTMENT.
- RISER NOTES:
1.

EXTEND BUILDING 500 FIRE ALARM SYSTEM INTO NEW ADDITION.

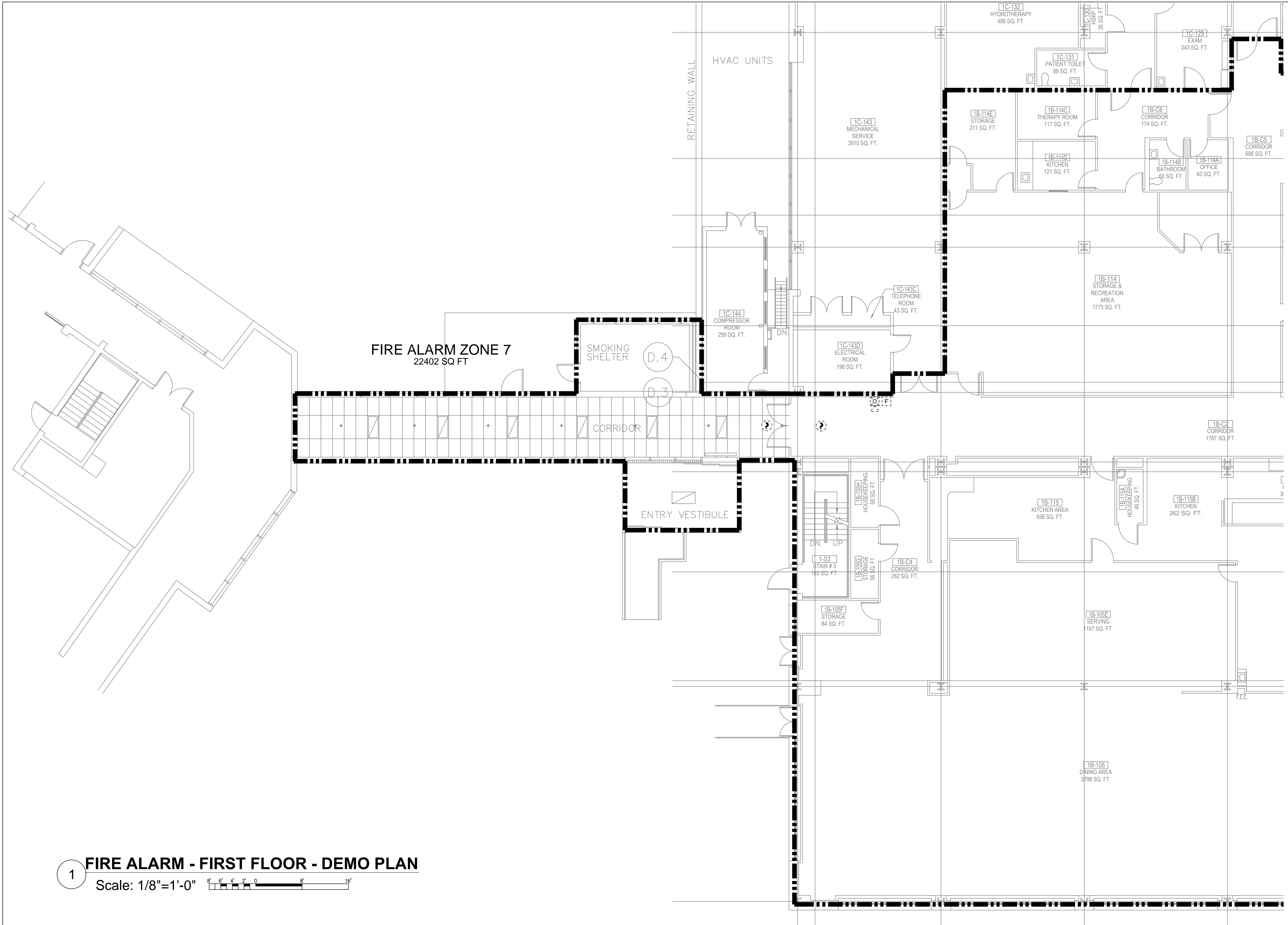
2.

RISER IS INTENDED TO SHOW GENERAL SYSTEM ARCHITECTURE OF COMPLETED FIRE ALARM SYSTEM. SOME DEVICE SYMBOLS SHOWN ON THIS DIAGRAM REPRESENT MULTIPLE DEVICES, APPLIANCES, AND CIRCUITS. CONTRACTOR IS RESPONSIBLE FOR VERIFYING QUANTITY AND LOCATION OF ALL FIRE ALARM DEVICES.

3.

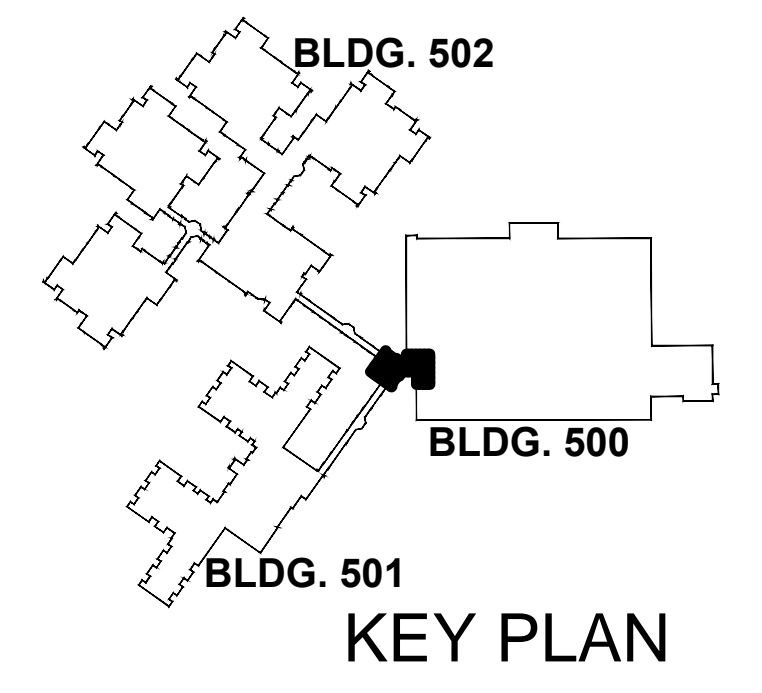
REVISE FIRE ALARM PROGRAM AS NECESSARY TO ADD NEW POINTS TO EXISTING SYSTEM AND TO PROGRAM NEW NOTIFICATION MESSAGING/CODING.
- NEW CONNECTOR EXPANSION – INTERSTITIAL FLOOR
-
- NEW CONNECTOR EXPANSION – FIRST FLOOR
- BUILDING 500 – FIRST FLOOR
-
- BUILDING 500 – BASEMENT
- 1 FIRE ALARM RISER DIAGRAM
Scale: NTS
- FIRE ALARM SYSTEM SYMBOLS
- | | | | | | |
|--|--|--|--|------------------------------|---|
| | FIRE ALARM CONTROL PANEL | | TAMPER SWITCH | | VISUAL NOTIFICATION APPLIANCE
(SUBSCRIPT DENOTES CANDELA RATING)
(SUBSCRIPT "C" DENOTES CEILING MOUNTED) |
| | FIRE ALARM ANNUNCIATOR PANEL
(SUBSCRIPT DENOTES TYPE) | | VALVE WITH TAMPER SWITCH | | COMBINATION SPEAKER/STROBE APPLIANCE
(SUBSCRIPT DENOTES CANDELA RATING)
(SUBSCRIPT "C" DENOTES CEILING MOUNTED) |
| | ADDRESSABLE INPUT MODULE
(MONITOR MODULE) | | FIRE SERVICE TELEPHONE | | FIRE ALARM SYSTEM ZONE BOUNDARY |
| | ADDRESSABLE OUTPUT MODULE
(CONTROL MODULE) | | FIRE SERVICE TELEPHONE JACK | | NOT INCLUDED IN SCOPE |
| | ISOLATOR MODULE | | HEAT DETECTOR | <u>FIRE ALARM LINETYPES:</u> | |
| | NAC POWER EXTENDER PANEL | | RATE COMPENSATION HEAT DETECTOR | | NEW DEVICE |
| | FIRE ALARM TERMINAL CABINET | | PHOTOELECTRIC SMOKE DETECTOR | | EXISTING DEVICE TO REMAIN |
| | FLOW SWITCH | | ELEVATOR RECALL PHOTOELECTRIC SMOKE DETECTOR | | EXISTING DEVICES TO BE REMOVED |
- FIRE ALARM SYSTEM ABBREVIATIONS
- | | | | |
|------|-------------------------------|-------|---|
| A | ALHPA–NUMERIC | HVAC | HEATING, VENTILATION AND AIR CONDITIONING |
| ACT | ACOUSTICAL CEILING TILE | MAX | MAXIMUM |
| AFF | ABOVE FINISHED FLOOR | MIN | MINIMUM |
| AHU | AIR HANDLING UNIT | MT | METAL TILE |
| ASC | AGENT STORAGE CONTAINER | N.C. | NORMALLY CLOSED (CONTACT) |
| ASFP | AIR SAMPLING DETECTOR PANEL | N.O. | NORMALLY OPEN (CONTACT) |
| CA | CLEAN AGENT | NAC | NOTIFICATION APPLIANCE CIRCUIT |
| CO2 | CARBON DIOXIDE | NIC | NOT IN CONTRACT |
| CONC | CONCRETE | NTS | NOT TO SCALE |
| CRAC | COMPUTER ROOM AIR CONDITIONER | PA | PRE–ACTION SYSTEM |
| CRAH | COMPUTER ROOM AIR HANDLER | PF | FIRE PUMP POWER FAIL |
| DCH | DRY CHEMICAL | PH | FIRE PUMP PHASE REVERSAL |
| DL | DELUGE | PL | PLASTER |
| DMC | DISCONNECTING MEANS CONTROL | PMO | FIRE PUMP CONTROLLER – MANUAL OFF |
| EOL | END OF LINE DEVICE | POC | POINT OF CONNECTION |
| EPO | EMERGENCY POWER OFF | PR | FIRE PUMP RUN |
| ETR | EXISTING TO REMAIN | PRV | PRESSURE REGULATING/RELIEF VALVE |
| EWFD | EARLY WARNING FIRE DETECTION | RA | RETURN AIR (HVAC) |
| FA | FIRE ALARM | RF | RADIO FREQUENCY |
| FAA | FIRE ALARM ANNUNCIATOR PANEL | RTU | ROOF TOP UNIT |
| FAC | FIRE ALARM COMMUNICATOR | RX | REMOVE EXISTING DEVICE |
| FACP | FIRE ALARM CONTROL PANEL | SA | SUPPLY AIR (HVAC) |
| FO | FOAM | SLC | SIGNALING LINE CIRCUIT |
| FP | FIRE PUMP | SPL | HIDDEN SPLINE (CEILING) |
| FSA | FIRE SYSTEM ANNUNCIATOR | TYP | TYPICAL |
| FSCP | FIRE SYSTEM CONTROL PANEL | UON | UNLESS OTHERWISE NOTED |
| FTR | FIRE ALARM TRANSMITTER | VEWFD | VERY EARLY WARNING FIRE DETECTION |
| G | GRAPHIC | WCH | WET CHEMICAL |
| HL | HALON | WM | WATER MIST |
| | | WP | WEATHER PROOF |
- | FIRE ALARM OPERATIONAL MATRIX | INITIATE GENERAL ALARM CONDITION AND DISPLAY CUSTOM DEVICE ADDRESS ON EDWARDS EST3 FACP | INITIATE ALL AUDIBLE AND VISUAL FIRE ALARM NOTIFICATION DEVICES THROUGHOUT THE RESPECTIVE BUILDING | TRANSMIT GENERAL ALARM STATUS WITH DEVICE ADDRESS TO THE CAMPUS FIRE DEPARTMENT | INITIATE SUPERVISORY SIGNAL AND DISPLAY CUSTOM DEVICE ADDRESS ON EDWARDS EST3 FACP | TRANSMIT SUPERVISORY SIGNAL STATUS TO THE CAMPUS FIRE DEPARTMENT | SHUTDOWN AIR HANDLER SERVED BY THE DETECTOR | INITIATE TROUBLE SIGNAL AND DISPLAY CUSTOM DEVICE ADDRESS ON EXISTING EST3 FACP AND ANNUNCIATORS | TRANSMIT TROUBLE SIGNAL STATUS TO CAMPUS FIRE DEPARTMENT |
|---|---|--|---|--|--|---|--|--|
| | | | | | | | | |
| SMOKE DETECTOR | X | X | X | | | | | |
| MANUAL PULL STATION | X | X | X | | | | | |
| DUCT SMOKE DETECTION | | | | X | X | X | | |
| VALVE SUPERVISORY SWITCH | | | | X | X | | | |
| OPEN CIRCUIT GROUND FAULT, OR SHORT IN FIRE ALARM SYSTEM SLC OR NAC | | | | | | | X | X |
| Note: Operational Matrix only includes events for new fire alarm devices being provided as part of this contract. | | | | | | | | |
- CONSULTANTS
- Geotechnical:
-
- SCHNABEL ENGINEERING
1901 SOUTH MAIN ST
SUITE 11
BLACKSBURG, VA 24060
- Civil and Structural:
-
- ALPHA CORPORATION
150 S LOUDOUN ST
SUITE 200
WINCHESTER, VA 22601
- Fire Protection:
-
- KOFFEL ASSOCIATES, INC.
8815 CENTRE PARK DRIVE
SUITE 200
COLUMBIA, MD 21045-2107
- Mechanical, Electrical, and Plumbing:
-
- HENRY ADAMS
600 BALTIMORE AVENUE
SUITE 300
BALTIMORE, MD 21204
- Telecommunications:
-
- USSI CONSULTING
10400 LITTLE PATUXENT PKWY
SUITE 300
COLUMBIA, MD 21044
- Transportation:
- ROBERT L SEYMOUR
182 THOMAS JOHNSON DR
FREDERICK, MD 21702
-
- ARCHITECTS
-
- 802 SLIGO AVENUE, SILVER SPRING, MARYLAND 20910
TELEPHONE (301) 589-4811 FAX (301) 589-3810
- Drawing Title
- Fire Alarm & Detection
Notes & Symbols
- Approved: Project Director
- Project Title
- Construct
Domiciliary Internet Cafe &
Rehab Medicine Expansion
- Location
- Date
- 16 April 2013
- Checked
- MJA
- Drawn
- AMK
- Project Number
- 613-CSI-113
- Building Number
- Drawing Number
- FA-001
- 100% Bid Submission
- Department
of Veterans
Affairs
-

three eighths inch = one foot
one half inch = one foot
one inch = one foot
three quarters inch = one foot
one and one half inches = one foot
three inches = one foot



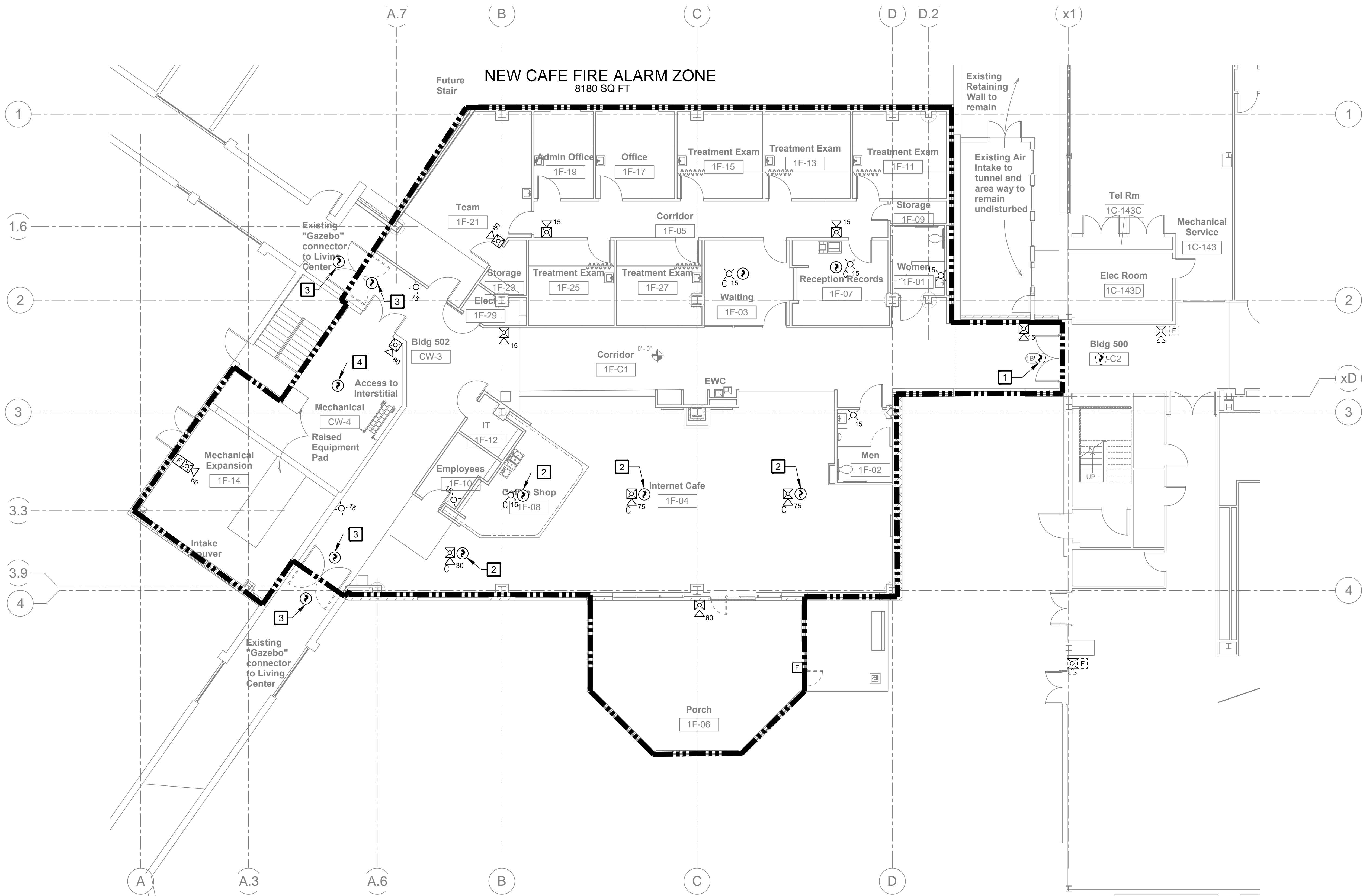
- GENERAL NOTES:**
- OTHER THAN THE SMOKE DETECTORS SHOWN AT THE CROSS CORRIDOR DOOR, THERE ARE NO EXISTING FIRE ALARM DEVICES WITHIN THE CORRIDOR.
 - EXISTING EST3 FACP IS LOCATED IN FIRE ALARM PANEL ROOM, ROOM GA-104, IN THE BASEMENT OF BUILDING 500.

1 FIRE ALARM - FIRST FLOOR - DEMO PLAN
Scale: 1/8"=1'-0"

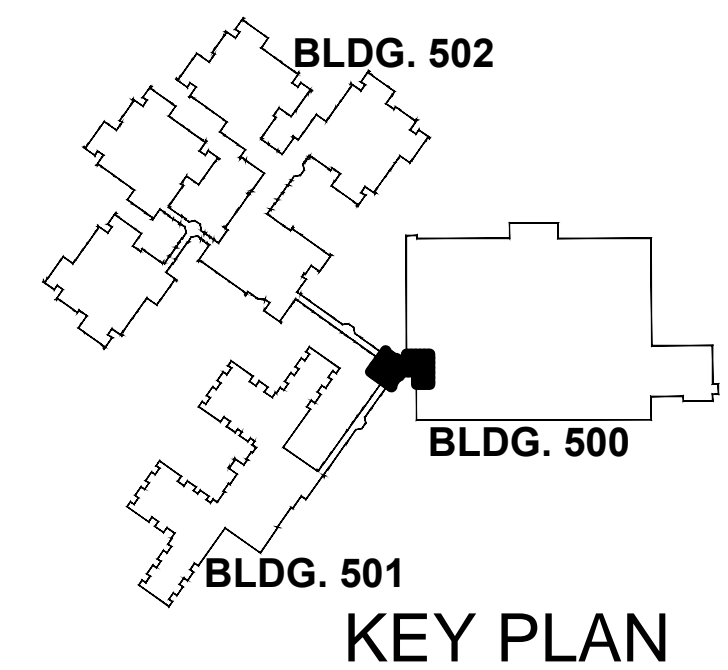


Revisions <table border="1"><tr><th>Revisions</th><th>Date</th></tr><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table>	Revisions	Date																			CONSULTANTS <table border="0"><tr><td>Geotechnical: SCHNABEL ENGINEERING 1901 SOUTH MAIN ST SUITE 11 BLACKSBURG, VA 24060</td><td>Civil and Structural: ALPHA CORPORATION 150 S LOUDOUN ST SUITE 200 WINCHESTER, VA 22601</td><td>Fire Protection: KOFFEL ASSOCIATES, INC. 8815 CENTRE PARK DRIVE SUITE 200 COLUMBIA, MD 21045-2107</td><td>Mechanical, Electrical, and Plumbing: HENRY ADAMS 600 BALTIMORE AVENUE BALTIMORE, MD 21204</td><td>Telecommunications: USSi CONSULTING 10440 LITTLE PATUXENT PKWY SUITE 300 COLUMBIA, MD 21044</td><td>Transportation: ROBERT L. SEYMOUR 182 THOMAS JOHNSON DR FREDERICK, MD 21702</td></tr></table>	Geotechnical: SCHNABEL ENGINEERING 1901 SOUTH MAIN ST SUITE 11 BLACKSBURG, VA 24060	Civil and Structural: ALPHA CORPORATION 150 S LOUDOUN ST SUITE 200 WINCHESTER, VA 22601	Fire Protection: KOFFEL ASSOCIATES, INC. 8815 CENTRE PARK DRIVE SUITE 200 COLUMBIA, MD 21045-2107	Mechanical, Electrical, and Plumbing: HENRY ADAMS 600 BALTIMORE AVENUE BALTIMORE, MD 21204	Telecommunications: USSi CONSULTING 10440 LITTLE PATUXENT PKWY SUITE 300 COLUMBIA, MD 21044	Transportation: ROBERT L. SEYMOUR 182 THOMAS JOHNSON DR FREDERICK, MD 21702	ARCHITECTS ERNEST BLAND ASSOCIATES, P.C. TECHNICAL FACILITIES DESIGN 802 SLIGO AVENUE, SILVER SPRING, MARYLAND 20910 TELEPHONE (301) 589-4811 FAX (301) 589-3810	Drawing Title Fire Alarm - First Floor - Demo Plan Approved: Project Director	Project Title Construct Domiciliary Internet Cafe & Rehab Medicine Expansion Location Date: 16 April 2013 Checked: MJA Drawn: AMK	Project Number 613-CSI-113 Building Number Drawing Number FA-101	100% Bid Submission Department of Veterans Affairs
	Revisions	Date																														
Geotechnical: SCHNABEL ENGINEERING 1901 SOUTH MAIN ST SUITE 11 BLACKSBURG, VA 24060	Civil and Structural: ALPHA CORPORATION 150 S LOUDOUN ST SUITE 200 WINCHESTER, VA 22601	Fire Protection: KOFFEL ASSOCIATES, INC. 8815 CENTRE PARK DRIVE SUITE 200 COLUMBIA, MD 21045-2107	Mechanical, Electrical, and Plumbing: HENRY ADAMS 600 BALTIMORE AVENUE BALTIMORE, MD 21204	Telecommunications: USSi CONSULTING 10440 LITTLE PATUXENT PKWY SUITE 300 COLUMBIA, MD 21044	Transportation: ROBERT L. SEYMOUR 182 THOMAS JOHNSON DR FREDERICK, MD 21702																											

three eighths inch = one foot
one half inch = one foot
three quarters inch = one foot
one inch = one foot
one and one half inches = one foot
two inches = one foot
three inches = one foot
four inches = one foot
five inches = one foot
six inches = one foot
seven inches = one foot
eight inches = one foot
nine inches = one foot
ten inches = one foot
eleven inches = one foot
twelve inches = one foot
thirteen inches = one foot
fourteen inches = one foot
fifteen inches = one foot
sixteen inches = one foot
seventeen inches = one foot
eighteen inches = one foot
nineteen inches = one foot
twenty inches = one foot
twenty one inches = one foot
twenty two inches = one foot
twenty three inches = one foot
twenty four inches = one foot
twenty five inches = one foot
twenty six inches = one foot
twenty seven inches = one foot
twenty eight inches = one foot
twenty nine inches = one foot
thirty inches = one foot
thirty one inches = one foot
thirty two inches = one foot
thirty three inches = one foot
thirty four inches = one foot
thirty five inches = one foot
thirty six inches = one foot
thirty seven inches = one foot
thirty eight inches = one foot
thirty nine inches = one foot
forty inches = one foot
forty one inches = one foot
forty two inches = one foot
forty three inches = one foot
forty four inches = one foot
forty five inches = one foot
forty six inches = one foot
forty seven inches = one foot
forty eight inches = one foot
forty nine inches = one foot
fifty inches = one foot
fifty one inches = one foot
fifty two inches = one foot
fifty three inches = one foot
fifty four inches = one foot
fifty five inches = one foot
fifty six inches = one foot
fifty seven inches = one foot
fifty eight inches = one foot
fifty nine inches = one foot
sixty inches = one foot
sixty one inches = one foot
sixty two inches = one foot
sixty three inches = one foot
sixty four inches = one foot
sixty five inches = one foot
sixty six inches = one foot
sixty seven inches = one foot
sixty eight inches = one foot
sixty nine inches = one foot
seventy inches = one foot
seventy one inches = one foot
seventy two inches = one foot
seventy three inches = one foot
seventy four inches = one foot
seventy five inches = one foot
seventy six inches = one foot
seventy seven inches = one foot
seventy eight inches = one foot
seventy nine inches = one foot
eighty inches = one foot
eighty one inches = one foot
eighty two inches = one foot
eighty three inches = one foot
eighty four inches = one foot
eighty five inches = one foot
eighty six inches = one foot
eighty seven inches = one foot
eighty eight inches = one foot
eighty nine inches = one foot
ninety inches = one foot
ninety one inches = one foot
ninety two inches = one foot
ninety three inches = one foot
ninety four inches = one foot
ninety five inches = one foot
ninety six inches = one foot
ninety seven inches = one foot
ninety eight inches = one foot
ninety nine inches = one foot
one hundred inches = one foot



- GENERAL NOTES:
1. PROVIDE NEW NAC POWER EXTENDER PANEL IN BASEMENT ROOM GA-104 TO POWER NEW FIRE ALARM NOTIFICATION DEVICES SHOWN. COORDINATE WITH ELECTRICAL.
 2. EXTEND BUILDING 500 FIRE ALARM SYSTEM INTO NEW ADDITION.
 3. PROVIDE A MANUAL PULL STATION AND COMBINATION 75CD SPEAKER STROBE AT EXIT DOOR 1F1 FROM NEW INTERSTITIAL SPACE (NOT SHOWN).
- DRAWING NOTES:
- 1 RELOCATE TO AVOID NEW CEILING LIGHT. KEEP DETECTOR WITHIN 5 FT OF DOORS.
 - 2 KEEP DETECTOR AT LEAST 3 FEET AWAY FROM DIFFUSERS. MAINTAIN 30 FOOT SPACING.
 - 3 DOOR HOLD OPEN SMOKE DETECTOR REQUIRED ON EACH SIDE OF DOOR PER VAFPDM. INSTALL DETECTORS WITHIN 5 FEET OF DOORS.
 - 4 AHU SUPPLY SIDE DUCT DETECTOR. REFER TO MECHANICAL PLANS FOR LOCATION.



FIRE ALARM - FIRST FLOOR - NEW WORK PLAN
Scale: 1/8"=1'-0"

CONSULTANTS		ARCHITECTS		Drawing Title		Project Title		100% Bid Submission											
Geotechnical: SCHNABEL ENGINEERING 1901 SOUTH MAIN ST SUITE 11 BLACKSBURG, VA 24060		Civil and Structural: ALPHA CORPORATION 150 S LUDLOW ST SUITE 200 WINCHESTER, VA 22601		Fire Protection: KOFFEL ASSOCIATES, INC. 8815 CENTRE PARK DRIVE SUITE 200 COLUMBIA, MD 21045-2107		Mechanical, Electrical, and Plumbing: HENRY ADAMS 600 BALTIMORE AVENUE BALTIMORE, MD 21204		Telecommunications: USSI CONSULTING 10440 LITTLE PATUXENT PKWY SUITE 300 COLUMBIA, MD 21044		Transportation: ROBERT L. SEYMOUR 182 THOMAS JOHNSON DR FREDERICK, MD 21702		ERNEST BLAND ASSOCIATES, P.C. TECHNICAL FACILITIES DESIGN 802 SLIGO AVENUE, SILVER SPRING, MARYLAND 20910 TELEPHONE (301) 589-4811 FAX (301) 589-3810		Fire Alarm - First Floor - New Work Plan		Construct Domiciliary Internet Cafe & Rehab Medicine Expansion		Department of Veterans Affairs	
Revisions		Date		Approved: Project Director		Location		Drawing Number		FA-102		Checked MJA		Drawn AMK		Project Number 613-CSI-113		Building Number	
						Date 16 April 2013													