## FIRE PROTECTION LEGEND

| NEW WORK | DESCRIPTION |
|---|---|
| FS | WATER FLOW SWITCH |
| | O. S. & Y. VALVE WITH TAMPER SWITCH |
| | CONNECT TO EXISTING |

| ABBREVIATIONS | |
|---|---|
| ABV | ABOVE |
| AFF | ABOVE FINISH FLOOR |
| BEL | BELOW |
| BF | BARRIER FREE |
| BFF | BELOW FINISH FLOOR |
| BFP | BACKFLOW PREVENTER |
| CONT | CONTINUATION |
| DI | DUCTILE IRON |
| DN | DOWN |
| DP | DRY PIPE |
| EC | ELECTRICAL CONTRACTOR |
| EMS | ENERGY MANAGEMENT SYSTEM |
| EX | EXISTING |
| FDC | FIRE DEPARTMENT CONNECTION |
| FFE | FINISHED FLOOR ELEVATION |
| FHV | FIRE HOSE VALVE |
| FIN | FINISH |
| FL | FLOOR |
| FR | FROM |
| FS | FLOW SWITCH |
| GPM | GALLONS PER MINUTE |
| HV | HOSE VALVE |
| ITC | INSPECTORS TEST CONNECTION |
| OS&Y | OUTSIDE SCREW AND YOKE |
| PS | PRESSURE SWITCH |
| PSI | POUNDS PER SQUARE INCH |
| SD | SPRINKLER DRAIN |
| SF | SQUARE FEET |
| SP | SPRINKLER |
| TS | TAMPER SWITCH |
| TYP | TYPICAL |
| VLV | VALVE |
| WP | WET PIPE |

## SPRINKLER NOTE:

Sprinkler Plans As Shown Are For Bidding Purposes ONLY. Sprinkler Contractor Is To Conduct Current Flow Test And Provide Hydraulic Calculations For System Pipe Sizing In Accordance With NFPA 13. Contractor Is To Submit Shop Drawings Indicating Hydraulic Calculations, Piping Layout & Sizing. Shop Drawings And Calculations Are To Be Sealed By A Professional Engineer Or A NICET Level III Designer. All Work Shall Be In Accordance With Latest Addition of NFPA 13.

## EXISTING FIRE PUMP DATA

60 HORSEPOWER 750 GPM
46 PSI SUCTION PRESSURE
95 PSI DISCHARGE PRESSURE.

## FIRE PROTECTION NOTES

LIGHT HAZARD OCCUPANCY

DESIGN DENSITY:.....0.10 GPM/SQ. FT.
HYDRAULICALLY MOST DEMANDING AREA.....1,500 SQ. FT.
SPRINKLER ORIFICE SIZE:.....1/2"
DURATION OF SUPPLY:.....30 MIN.
MAXIMUM COVERAGE/SPRINKLER HEAD.....225 SQ. FT.

ORDINARY HAZARD GROUP 1 OCCUPANCY

DESIGN DENSITY:.....0.15 GPM/SQ. FT.
HYDRAULICALLY MOST DEMANDING AREA.....1,500 SQ. FT.
SPRINKLER ORIFICE SIZE:.....1/2"
DURATION OF SUPPLY:.....60 - 90 MIN.
MAXIMUM COVERAGE/SPRINKLER HEAD:.....130 SQ. FT.

DESIGN CRITERIA:

THE FOLLOWING PUBLICATIONS AND AUTHORITIES HAVING JURISDICTION SHALL BE REFERENCED FOR THE DESIGN OF THE FIRE PROTECTION SYSTEM ON THIS PROJECT:

1. NFPA 13, LATEST EDITION – STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS
2. NFPA 291, LATEST EDITION – RECOMMENDED PRACTICE FOR FIRE FLOW TESTING AND MARKING OF HYDRANTS
3. NFPA 25, LATEST EDITION – INSPECTION, TESTING, AND MAINTENANCE OF WATER-BASED FIRE PROTECTION SYSTEMS

GENERAL NOTES:

A. THE SPRINKLER HEAD LAYOUT THROUGHOUT PROPOSED SCOPE OF WORK SHALL BE BASED ON THE REQUIREMENTS OF NFPA 13.

B. THE NEW SPRINKLER SYSTEM SHALL BE SIZED IN ACCORDANCE WITH NFPA 13 AND SHALL BE HYDRAULICALLY CALCULATED TO MEET THE REQUIREMENTS OF THE NFPA. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING FLOW TEST DATA TO PERFORM AS A BASIS OF THEIR CALCULATIONS.

C. SPRINKLER HEADS SHALL BE QUICK RESPONSE FLUSH PENDENT INSTITUTIONAL TYPE HEADS, WITH FUSIBLE LINK ELEMENT IN ALL CEILING APPLICATIONS.

D. ALL UNFINISHED AREAS WITHOUT CEILING SHALL BE EQUIPPED WITH QUICK RESPONSE ROUGH BRASS UPRIGHT HEADS WITH FRANGIBLE GLASS ELEMENT.

E. ALL HEADS SHALL HAVE A K FACTOR OF 5.6 – 5.8. TEMPERATURE RATINGS SHALL BE 155 DEGREES F FOR ALL EXCEPT HEADS IN MECHANICAL ROOMS.

F. ENTIRE FACILITY IS CLASSIFIED AS LIGHT HAZARD, EXCEPT AS NOTED ON THE FLOOR PLAN.

G. COORDINATE PIPE ROUTING WITH DUCT ROUTING, EQUIPMENT LOCATIONS, ELECTRICAL INSTALLATIONS, AND BUILDING STRUCTURAL MEMBERS. AVOID PENETRATING ANY MAIN STRUCTURAL BEAM. NOTIFY COR OF ANY CONFLICTS.

H. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING FIRE PROTECTION SYSTEM DESIGN AND SHOP DRAWINGS. CONTRACTOR SHALL MEET ALL REQUIREMENTS OF THE DATA LISTED IN THE CONTRACT DOCUMENTS AND ALL STANDARDS AND ORDINANCES APPLICABLE TO THIS WORK.

I. QUICK RESPONSE RECESSED SPRINKLERS SHALL BE CENTERED IN CEILING TILES IN AREAS WITH LAY-IN TILES AND VISUALLY ALIGNED IN AREAS WITH HARD PLASTER CEILINGS.

J. PROVIDE SEISMIC BRACING FOR ALL PIPING PER NFPA-13. PROVIDE SHOP DRAWINGS OF ALL CALCULATIONS.

K. MECHANICAL ROOMS, STORAGE ROOMS, ELECTRICAL ROOMS, ETC. SHALL BE CLASSIFIED AS ORDINARY HAZARD GROUP I OCCUPANCY.

L. DURING DESIGN CALCULATIONS, AN ALLOWANCE SHALL BE MADE FOR A 100 GPM HOSE STREAM.

M. THE CONTRACTOR SHALL TO FURNISH A SET OF HYDRAULIC CALCULATIONS THAT TAKES INTO ACCOUNT ALL ELBOWS, OFFSETS, HARDWARE, DEVICES, CHARACTERISTICS AND TRIM THAT HE/SHE MAY DETERMINE NECESSARY FOR A COMPLETE SPRINKLER INSTALLATION.

N. SPRINKLER HEADS AND ASSOCIATED BRANCH PIPING SHALL BE PROVIDED AND LOCATED IN ACCORDANCE WITH NFPA 13 AND ALL PREVAILING CODES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM LOCATIONS FOR COMPLIANCE WITH CODE REQUIREMENTS.

O. EACH FLOOR CONTROL VALVE IS INTENDED TO CONTROL THE SPRINKLERS IN AN INDIVIDUAL SMOKE ZONE. REFER TO ARCHITECTURAL LIFE SAFETY PLAN FOR SMOKE ZONE LIMITS.

P. PROVIDE SPRINKLER PROTECTION FOR THE SCOPE OF WORK SHOWN ON THE CONTRACT DOCUMENTS.

## FIRE PROTECTION GENERAL NOTES

A. THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, EQUIPMENT, AND SERVICES NECESSARY TO INSTALL A COMPLETE FIRE PROTECTION SYSTEM, AS INDICATED ON THE CONTRACT DRAWINGS AND/OR CALLED FOR IN THE SPECIFICATIONS.

B. THE CONTRACTOR SHALL EXAMINE THE PREMISES AND OBSERVE CONDITIONS UNDER WHICH THE WORK SHALL BE DONE OR OTHER CIRCUMSTANCES WHICH WILL AFFECT THE CONTEMPLATED WORK.

C. ALL FIRE PROTECTION WORK SHALL BE MADE IN ACCORDANCE WITH RULES AND REGULATIONS OF GOVERNING AUTHORITIES, AND NFPA 13. THE ENTIRE FIRE PROTECTION SYSTEM SHALL BE TESTED AND INSPECTED IN ACCORDANCE WITH NFPA 25 INSPECTION, TESTING, AND MAINTENANCE OF WATER-BASED FIRE PROTECTION SYSTEMS.

D. SCHEDULE
   a. THE CONTRACTOR SHALL SUBMIT A SCHEDULE SHOWING MAKE, TYPE, MANUFACTURER'S NAME AND TRADE DESIGNATION OF ALL PIECES OF MATERIAL AND EQUIPMENT.
   b. THE SCHEDULE SHALL BE ACCOMPANIED BY MANUFACTURER'S SPECIFICATIONS AND/OR CUTS GIVING DIMENSIONS, KIND OF MATERIAL, FINISH, ETC., AND SUCH OTHER DETAIL INFORMATION AS MAY BE REQUIRED TO PERMIT VERIFICATION OF THE QUALITY AND CONSTRUCTION OF THE PRODUCT.

E. WORKING PLANS
THIS CONTRACTOR SHALL PREPARE COMPLETE SHOP DRAWINGS WHICH SHALL COMPLY WITH APPLICABLE CODES. THE CONTRACTOR SHALL INCORPORATE REVIEW COMMENTS FROM THE OWNER'S INSURANCE CARRIER AND THE AUTHORITY HAVING JURISDICTION BEFORE SUBMITTING TO THE CONTRACTING OFFICER.

F. SCOPE
   a. THE CONTRACTOR SHALL PROVIDE NEW SPRINKLER SYSTEM IN AREAS INDICATED ON THE DRAWINGS.

G. ALL APPLIANCES AND APPURTENANCES SHALL BEAR THE SEAL OF APPROVAL OF U.L.

H. THROUGH PENETRATION ASSEMBLIES SHALL BE PROVIDED AT EACH OPENING WHERE EXPOSED SPRINKLER PIPES PASS THROUGH RATED WALLS, FLOORS, AND PARTITIONS.

I. PIPE HANGERS SHALL BE OF TYPE APPROVED AND LISTED IN NFPA 13.
   ALL HANGERS SHALL BE FASTENED BY MEANS OF BEAM CLAMPS, CONCRETE INSERTS, OR OTHER APPROVED DEVICES, INSTALLED BY THIS CONTRACTOR.

J. PROVIDE SPRINKLER HEAD WIRE GUARDS FOR ALL SPRINKLER HEADS WHERE HEADS ARE LOCATED 7-FEET OR LESS ABOVE THE FLOOR LEVEL.

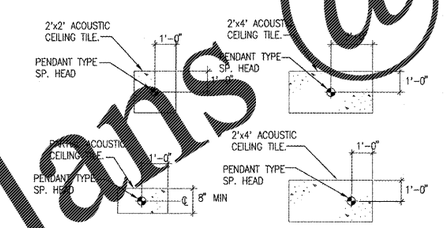
K. ALL TESTS SHALL BE PERFORMED BY THIS CONTRACTOR IN ACCORDANCE WITH NFPA 13 AND NFPA 25. CONTRACTOR SHALL NOTIFY COR 3 DAYS PRIOR TO TEST.

L. BEFORE ASKING FINAL APPROVAL OF THE AUTOMATIC SPRINKLER EQUIPMENT BY THE COR, THE CONTRACTOR SHALL FURNISH A WRITTEN STATEMENT THAT THE WORK HAS BEEN COMPLETED AND TESTED IN ACCORDANCE WITH THE APPROVED SPECIFICATIONS AND DRAWINGS.

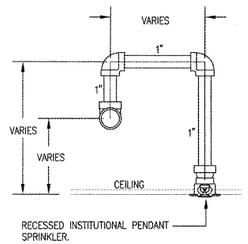
N. ALL MATERIALS AND EQUIPMENT SHALL BE INSTALLED AND COMPLETED IN A WORKMANLIKE MANNER AND IN ACCORDANCE WITH THE BEST METHODS AND PRACTICES. ANY MATERIAL WHICH DOES NOT PRESENT AN ORDERLY AND REASONABLY NEAT AND\OR WORKMANLIKE APPEARANCE, SHALL BE REMOVED AND REPLACED WHEN SO DIRECTED BY THE COR. THE REMOVAL AND REPLACEMENT OF THIS WORK SHALL BE DONE WHEN DIRECTED IN WRITING BY THE COR AT THE CONTRACTORS EXPENSE.

O. THE SYSTEM SHALL BE DESIGNED AND BUILT IN ACCORDANCE WITH DETAILED DRAWINGS TO BE SUBMITTED FOR APPROVAL. THE WORK SHALL INCLUDE ALL COMPONENTS REQUIRED TO PROVIDE A COMPLETE SYSTEM.

P. CONTRACTOR SHALL NOTIFY THE COR, FIRE ALARM CONTRACTOR, AND G.C. ONE WEEK PRIOR TO ANY SHUT DOWN OR INTERRUPTIONS OF SERVICES.




F3 SPRINKLER HEAD LOCATIONS
SCALE: NONE




F5 SPRINKLER HEAD DETAIL
SCALE: NONE

Order Plans @ WWW.LDLine.com

| REVISIONS | | DESCRIPTION |
|---|---|---|
| Revisions | By | Date |

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| Recommended Approvals: | |
|---|---|
| 1. MEDICAL CENTER DIRECTOR | 6. OPERATIONS SERVICE LINE MANAGER |
| 2. ASSISTANT DIRECTOR | 7. INFECTION CONTROL MANAGER |
| 3. CHIEF OF STAFF | 8. SAFETY MANAGER |
| 4. ASSOC. DIRECTOR | 9. GENERAL ENGINEER |
| 5. SERVICE LINE MGRS. | 10. COR |

Drawing Title: FIRE PROTECTION LEGEND, NOTES AND DETAILS

Project Title: RENOVATE MENTAL HEALTH UNITS

100% CONSTRUCTION DOCUMENTS

FULLY SPRINKLERED

| Drawn | Building Number | AutoCAD File Name |
|---|---|---|
| LDR | | |
| Checked | Reviewed | Const. Contract No. |
| | | |

Date: February 10, 2017
Project Number: 509-12-104
DRAWING No. FX001

Veterans Affairs