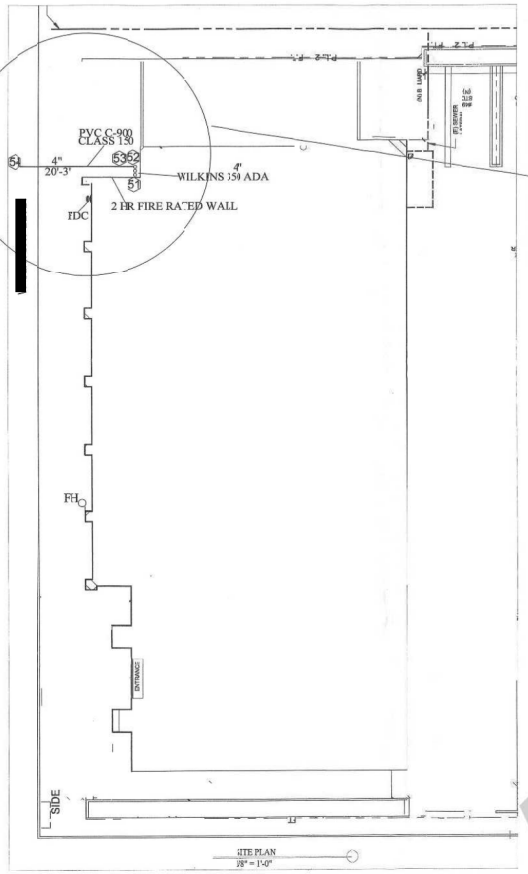
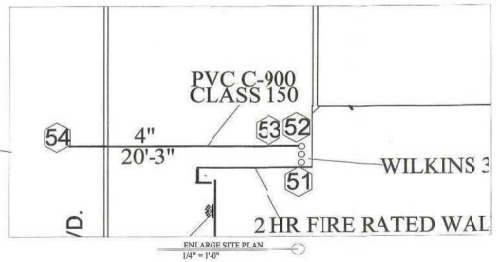




Design and installation of the fire protection systems, including private underground fire mains and overhead piping system shall be in accordance with the 2016 NFPA 13, 2016 NFPA 24, and LACoFD Reg 7

Los Angeles County Fire Department Reg. 7 verbatim notes

a. It is the responsibility of the owner to properly maintain the fire protection system in an operable condition at all times.

b. The fire protection contractor will provide the owner with the necessary instruction manuals for the upkeep of the system, as well as a copy of NFPA 25.

c. Only new sprinklers shall be employed in the installation of the sprinkler system.

d. The system shall only employ the use of approved materials and devices.

e. Fire protection plans shall be approved prior to the installation of any pipe. A set of approved plans shall be maintained at all times at the job site.

f. An appointment shall be made a minimum of two working days in advance, with the appropriate Fire Prevention Division regional office for all inspections and tests.

g. All underground mains and lead-in connections shall be flushed, as indicated in NFPA prior to connecting to the overhead piping. The flushing shall continue until the water is clear. Flushing should be performed at the time of the hydrostatic test, and shall be witnessed by a Fire Prevention Division inspector.

h. System piping shall be hydrostatically tested at 200 psi for two hours or at 50 psi above the maximum system operating pressure, whichever is greater.

i. Fire department connections shall be located on the address side of the building, face the street, be visible and accessible, have NST female inlets, have protective caps, and an accessible, approved check valve located in the main line (as close to the inlets as possible).

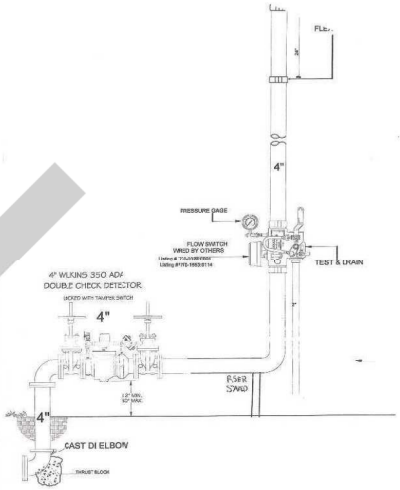
j. All valves and fire department connections shall have permanently affixed signs, indicating their function.

k. A stock of spare sprinklers of each style, type, and temperature rating along with a sprinkler wrench shall be located at the main riser.

l. Any portion of a wet fire protection system exposed to freezing temperatures shall be adequately protected. (Heat tape is not an acceptable method of protection).

m. Welding shall be performed per NFPA 13 requirements.

n. Automatic sprinkler systems shall be supervised by a listed/approved central, proprietary, or remote station, or a local alarm when approved by the Chief, which will give an audible signal at a constantly attended location when the number of sprinklers is 06 or more.

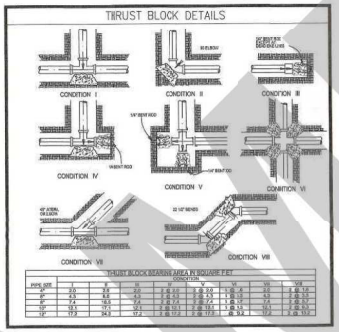


SCOPE OF WORK "TO BE PERFORMED

- INSTALL NEW UNDERGROUND PIPING. PIPING TO BE 4" PVCC-900 CLASS 150
- INSTALL NEW 4" WILKINS 350 ADA BACKFLOW FDC TO BE ATTACHED TO BACILOW
- INSTALL NEW OVERHEAD FIRE SPRINKLER SYSTEM
- BOTTOM OF RISER

FDC SHALL BE PAINTED RED ON ANY EXPOSED SURFACES SUBJECT TO RUST OR CORRVSION.

COUPLING THREADS, OPERATION MECHANISMS , ANY COMPONENTS OR PORTION OF THE VALVE WHERE THE APPLICATION OF PAINT WOULD VIOLATE THE LISTING OR HINDER ITS OPERATION SHALL NOT BE FAINTED 2014 FD, SEC 912.7.

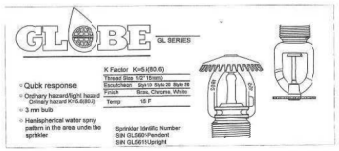


PROJECT SUMMARY

[redacted]

CONSTRUCTION TYPE: V-B
OCCUPANCY: A2
STORIES: 2 STORY
BUILDING AREA: 6365 S.F.

MATERIAL NOTES:
1 All 1" , 1-1/4" 1-1/2" Piping shall be Wheatland Sega-thread
All 3" & 4" Pipingshall be Wheatland sega-Flow 2Threaded pipe shall be connected with cast iron cl. 125 fittings conforming to ANSI B16.4
3 All piping to be tested @200 psi for min. of 2-hrs per NFPA-13 over 50psi above static.
4 All electric wiringby others.
5 All cleaning and painting of pipes by others.
6 Monitoring by others
7 All material to be J.I. and/or F.M. approved.
8 All work to conform to all applicable sections of NFPA13 and local codes.
D. Fittings 1-1/4",1-(2"-2", 3" to be grooved type sitering grooved tyve couplings



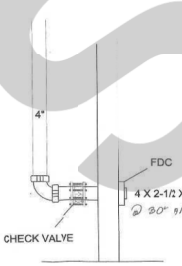
AREA OBEARING FACE OF CONCRETE THRUST BLOCK (SQFT)			
PIPE SIZE	90°	45°	DEAH END, PLUG AND TJE
4"	1.919 sq.ft	1.34 sq. ft.	1.38 sq.ft

BEARING BLOCK AREA: A= T / Sb

AREAS IN TABE HAVE BEEN DERIVED USING A WATER PRESSURE OF 150 psi

Table A-10.6.2 NFPA-24 2013 EDITION

SIZE	TOTAL POUNDS FOR FITTING	BLOCK DIM.) HEIGHT	WIDTH
4"	FIR 90° T=3.93/0.00=1.279 x 1.5 = 1.91	2'-0"	2'-0"
	FIR 45° T=2.077/0.00=0.662 x 1.5 = 1.04	1'-6"	1'-6"
	FIR TEE T=2.715/0.00=0.905 x 1.5 = 1.375	1'-6"	1'-6"



UNDERGROUND NOTES

1) ALL NDERGROUND PIPINGTO BE PVC C-900 CLAS 150, AND SIZED AS INDICATED ON THE PLAN.
2) ALL NDERGROUND FITTINGS TO BE DUCTILE IRON, MECHANICAL JOINT TYPE.
3) MINIMUM DEPTH OF BURY TO BE 30" FROM FINISHED GRADE TO THE TOP OF THE UNDERGROUN PIPE.
4) EXCAVATE TO THE PROPER DEPTH FOR INSTALLATION AND BACK FILL WITH NATIVE SOILR COMPACTION TO 90% RLESS NOTED OTHERWISE.
5) ALL BOS, PLUGS, CAPS, BENDS AND HYDRANT BRANCHES ON PIPE INSTALLED UNDER-GROUNDSHALL BE RESTRAINED AGAINST MOVMENT.
6) PIPE CLAMPS AND TIE RODS THRUST BLOCKS, LOKED (MECHANICAL OR PUSH-ON JOINTS, MECANICAL JOINTS USING SET SCREW RETAINER GLANDS OR OTHER APPROVED METHODS OF ANCHORING THE MAINS SHALL BE USED. THE TYPE OF PIPE, SOIL CONDITIONS AND AVAILABLE SPACE DETERMINE THE METHOD.
7) SIZED OF THE CLAMPS, RODS, BOLTS AND WASHERS AND THRUST BLOCKS TO BE PER NFPA 24#10
8) THE FIRE SERVICE MAINS (DOWNSTREAM OF THE BACKLOW) SHALL HAVE A HYDROSTATIC PRESSURE TEST (200 SI FOR 2 HOURS) AND BE FLUSHED IN ACCORDANCE WITH NFPA 24 2016 REQUIREMENTS.
10) THETRENCH SHALL BE BACK FILLED BETWEEN JOINTSBEFORE TESTING TO PREVENT MOVEMENT OF PIPE.
11) ALLUNDERGROUND MAINS AND LEAD-IN CONNECTIONS SHALL BE FLUSHED AS INDICATED INABLE 1-11.2 (NFPA#13) PRIOR TOCONNECTION TO THE OVERHEAD PIPING. THE FLUSHING SHALL CO TINUE UNTIL THEWATER IS CLEAR. FLUSHING SHOULD BE PERORMED AT THE TIME OF THE HYDROSTATIC TST.

Tis inspection, hydrostatic leat and flushity of underground fire protection piping will be witnessed by ss authorized Fire Department representative No underground piping or thrust blocks shall be covered with earth or visible from view until they have been covered by an authorized Fire Department representative. Contact ths Regional Fire Inspection office to schedule an inspection not less than 48 hours prior to the desired inspection time. LACoFD Regulation #7.

HYDRAULICALLY CALCULATED SYSTEM

DATED: 04-04-18
FOR: TIOP
AT: 440 W. CINDBY — CONTRACT NO:
IS DESIGNED TO DISCHARGE A RATED OF: 31 GPM
GUMS PER SQ FT (ea) OF FLOO ARE OVER A MAXIMUM AREA OF: 1,900 SQ FT (sq) WITHIN A REMOTE
WITI WATER AT THE RATE OF: 340.95 (Pm Sytem)
At: 47.58 PSI (form AT THE BASE OF TE RISER.
HOSE STREAM ALLOWANCE OF: 250 GM (Ulow)
IS INCLUDED IN THE ABOVE.
OCCUPANCY CLASSIFICATION: ORDINARY HAZARD GRP 1
COMMODITY CLASSIFICATION: N/ A.
MAXIMUM STORAGE HEIGH: N/ A.
INSTALLED BY: CRAIG FIRE PREVENTION

Approved Hydraulic Calcs LACFD

SPRINKLER LEGEND

SPRINKLER MAKE	SIN #	K FACTOR	THREAD SIZE	LOCATING TEMP	QTY.
GLOBE GL SERIES	RESIDENTIAL PENDENT	5.6	1/2"	QUICK RESPONSE 155°	36 3
GLOBE GL SERIES	RESIDENTIAL EXPOSED	5.6	1/2"	QUICK RESPONSE 155°	49
GLOBE GL SERIES	SIDE WALL/BACK EXPOSED	5.6	1/2"	COOLER FREEZER 200°	2 1

*TOTAL NEW SPRINKLERS: 91

STAMP

[redacted]

CRAIG FIRE PREVENTION
123 E. CENTRAL AVE.
MONROVIA, 2A 91016
PH 626-712-862 FAX 951-696-8121
STATE LICENSE # C-16 692823

[redacted]

PHONE NO.
CONTACT NO.
APPROVAL
C.O.
SOAL
DATE 04/17/2018
REVISIONS

1 of 3

SAMPLE