

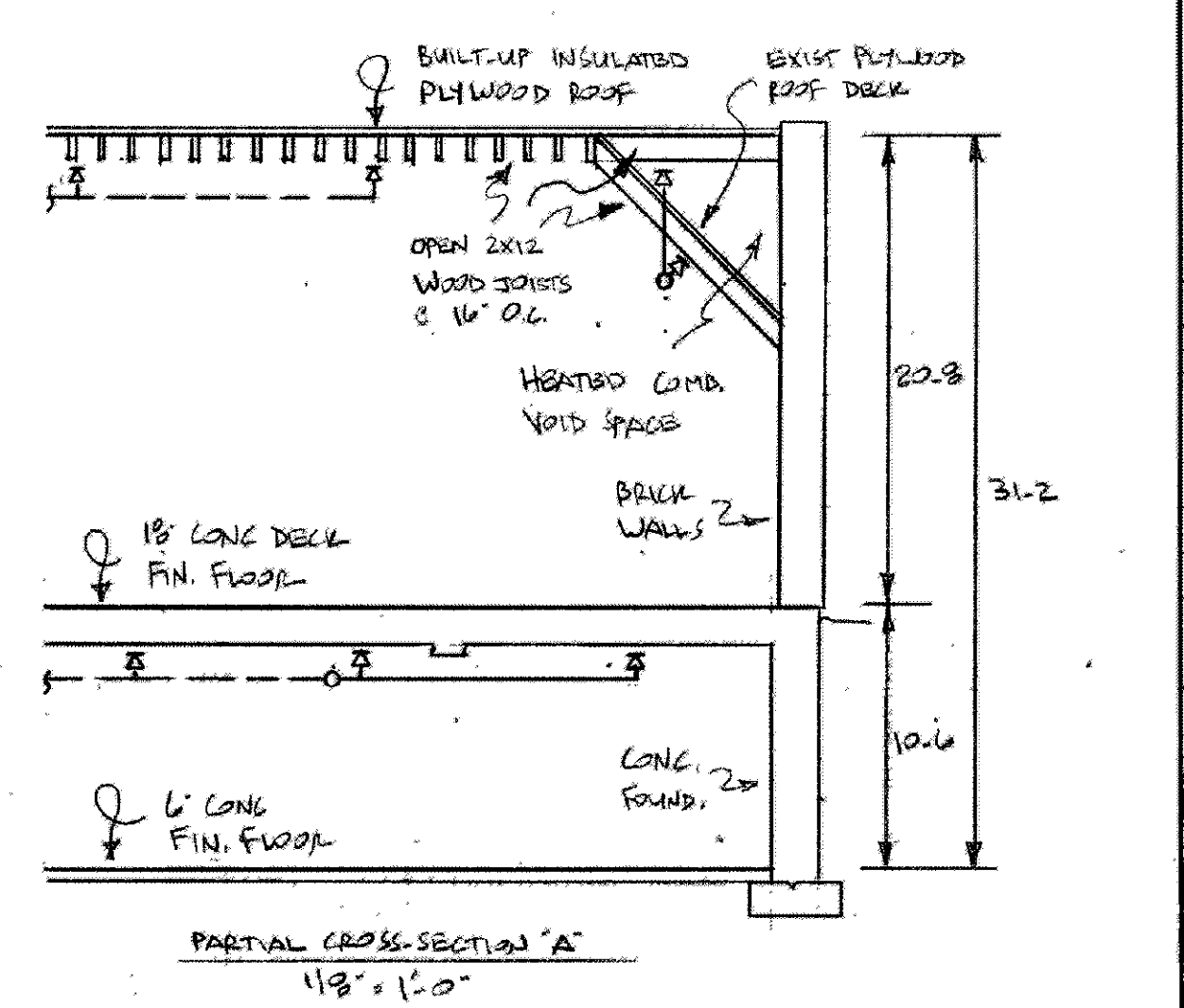
DESIGN AREA 'A'  
 .20 1950 + 250  
 (POST DESIGN)

- NOTES**
- OCCUPANT: FUTURE MERCANTILE - ORDINARY HAZARD, U.P. 1305.F
  - DESIGN BASIS: RENOVATION OF AN EXISTING HYDRAULICALLY CALCULATED NFPA 73 WET SPRINKLER SYSTEM.
  - ALL PIPING 1" AND SMALLER TO BE BLACK STEEL SCH 40. ALL PIPING 2" AND LARGER TO BE BLACK STEEL THINWALL. ALL FITTINGS TO BE CAST IRON THREADED OR GROUNDED.
  - ALL PIPES AND LANGES DIMENSIONS ARE CUT LENGTHS.
  - DUMPS TO PROVIDE SUFFICIENT HEAD (MIN OF 40'F) IN ALL AREAS OF THE BUILDING AT ALL TIMES.
  - ARCHITECT - PORT CITY ARCHITECTURE PORTLAND MAINE
  - ENTER BUILDING TO BE SPRINKLERED (2 STORIES).

- LEGEND**
- HYDRAULIC REFERENCE POINT
  - LANGER AT APPROXIMATE LOCATION
  - EXISTING PIPING TO REMAIN
  - SCREWED OR GROUNDED COUPLING
  - UPRIGHT SPRINKLER ON A V-SPL

**HYDRAULIC NODE SUMMARY**

87 TO 88	4" CW X 10.0 AN, GATE, FS, EL	49.5
88 TO 89	1" CW X 40.0 ON, TEE	41.5
89 TO 90	8" CW X 200.0	41.5
90 TO 91	10" CW X 50.0	46.0



**HYDRAULIC DATA NAMEPLATE**

This Building is protected by a hydraulically designed Automatic Sprinkler System

Location: Open Area 1st Floor

No. of Sprinkler: 20

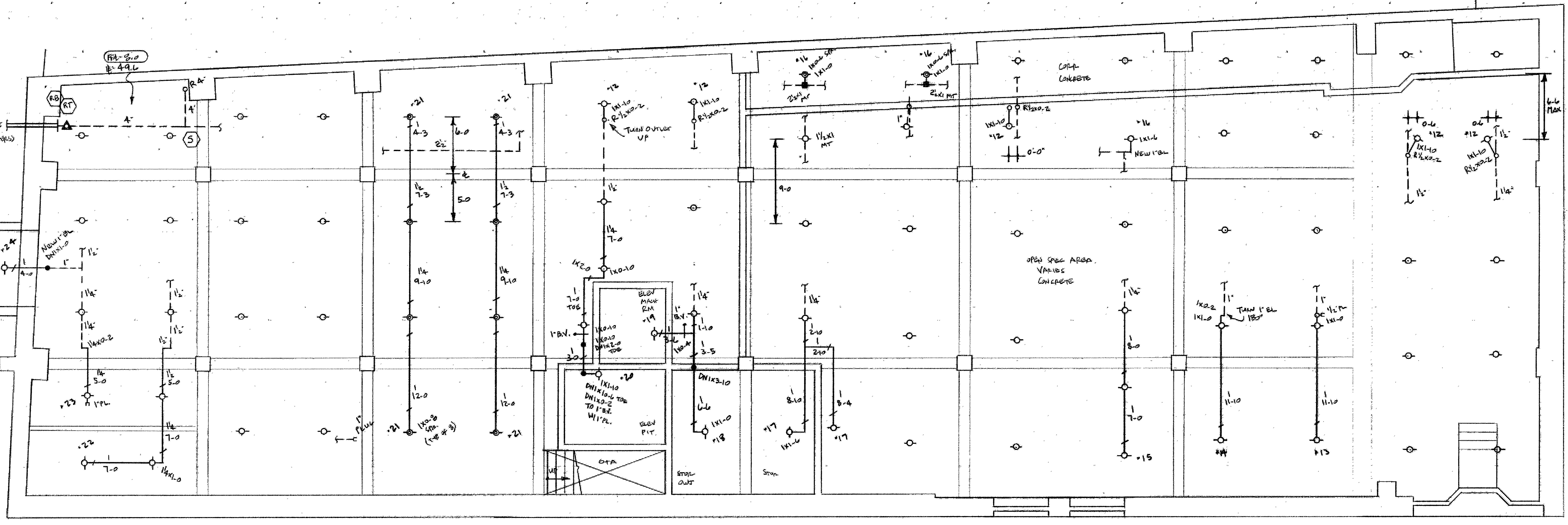
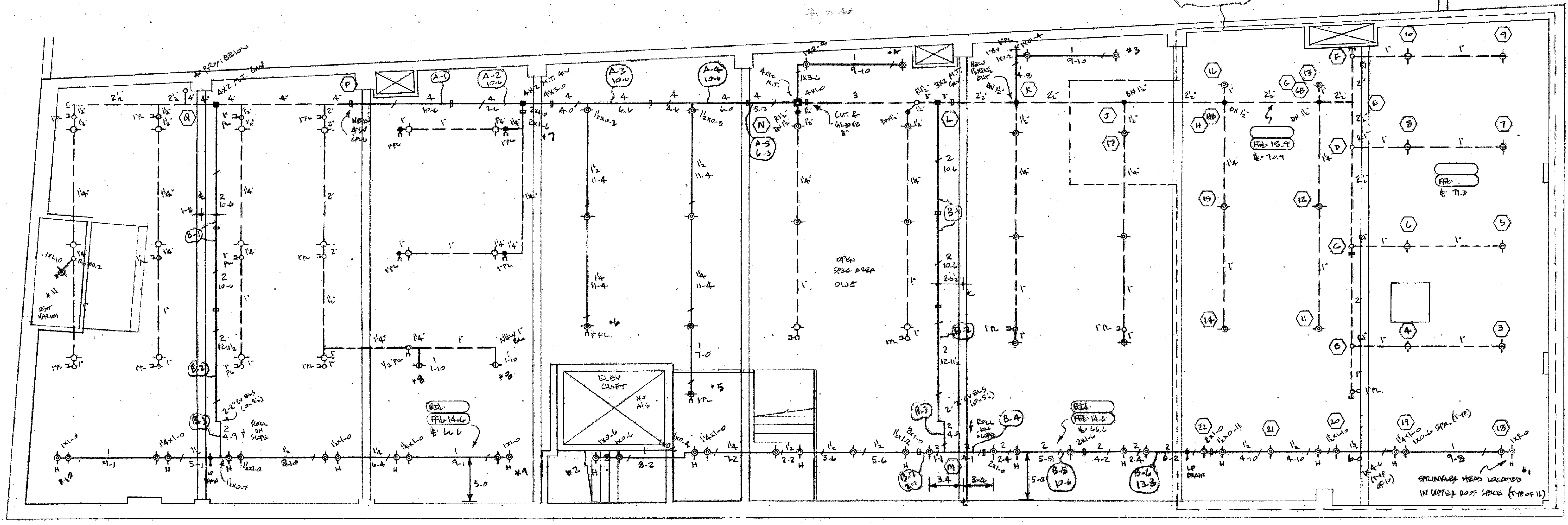
Basis of design:

- Density: .20  $gpm/ft^2$
- Design-area of discharge: 1950  $ft^2$

System Demand:

- Water Flow Rate: 529  $gpm$
- Residual Pressure: 75.913  $psi$

CUSHION = 15.013  $psi$



**HYDRAULIC DESIGN CRITERIA**

Density Area: 20 GPM | 50 FT

Remote Area: 1950 SQ FT

K Factor: 5.6 Head Size: 75/110

Hose Allowance: 250 GPM

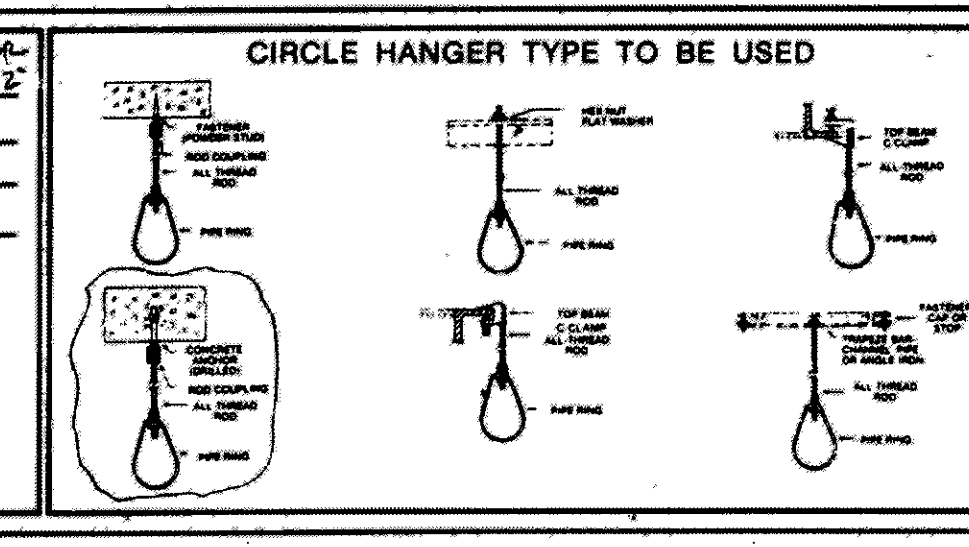
Water Supply: 6-23-2014

Static: 93 PSI

Residual: 80 PSI

Water Flowing: 1500 GPM

Size of Supply: 12" CLGE



**HANGERS**

Symbol	Description
AS NOTED OR	
3/8" GALV. STEEL W/ GALV. WOOD	
1/2" ALL-THREADED ROD	
TUBE BUSH	

**ABBREVIATIONS**

B	Bottom of Beam
D	Bottom of Deck
S	Bottom of Pipe
HW	High Water
N/C	Nipple and Cap
NC	Nut in Contact
NTS	Not to Scale
OP	Open Bar Clamps
OPV	Pressure Red Valve
RM	Roof Manifold
ST	Stanchion
TOP	Top of Beam
TSP	Top of Pipe
TOS	Top of Steel
UO/N	Unless Otherwise Noted
U/C	Confirms
NAS	No Automatic Sprinklers
OTA	Open To Above

**CONTRACT RESPONSIBILITIES**

ITEM	FFC	OTHERS
STREET CORN		
WOODMAN		
EXCAVATION		
FLUSHING		
WIRING		
PAINTING		
TAMPER SWITCHES		
FLOW SWITCHES		
CUT & PATCHING		

**SPRINKLER HEAD LEGEND**

SYMBOL	MAKE	MODEL	FINISH	TEMP.	N.P.T.	ORIFICE	K-FACTOR	TOTAL
○	RELIABLE	FIRSU	BRASS	155°	1/2"	1/2"	5.6/RA1435	80
○	RELIABLE	FIRSU	BRASS	155°	1/2"	1/2"	5.6/RA1414	2
○	RELIABLE	FIRSU	WHITE	155°	1/2"	1/2"	5.6/RA1414	1
○	RELIABLE	FIRSU	WHITE	155°	1/2"	1/2"	5.6/RS11	1

**SUBMITTALS**

SENT TO	DATE SENT	DATE RECEIVED
ISO		
FM		
LM		
RII		
LA		
STATE FIRE		
LOCAL FIRE		
LOCAL WATER		
GC		

**SPRINKLER SYSTEMS INC.**

P.O. BOX 1285  
 LEWISTON MAINE  
 04240

**NDA**  
 164 MIDDLE STREET  
 PORTLAND, MAINE 04101

CONTRACT WITH DUCAS CONST

SCALE 3/16" = 1'-0"

DRAWN BY: **SEG**

CHECKED BY: **SEG**

DATE: 3-23-17

TOTAL SPKRS ON JOB: **NEW 84 REPL 87**

SHEET # 1 OF 1

JOB # 16-154