PRELIMINARY FIRE SPRINKER DESIGN

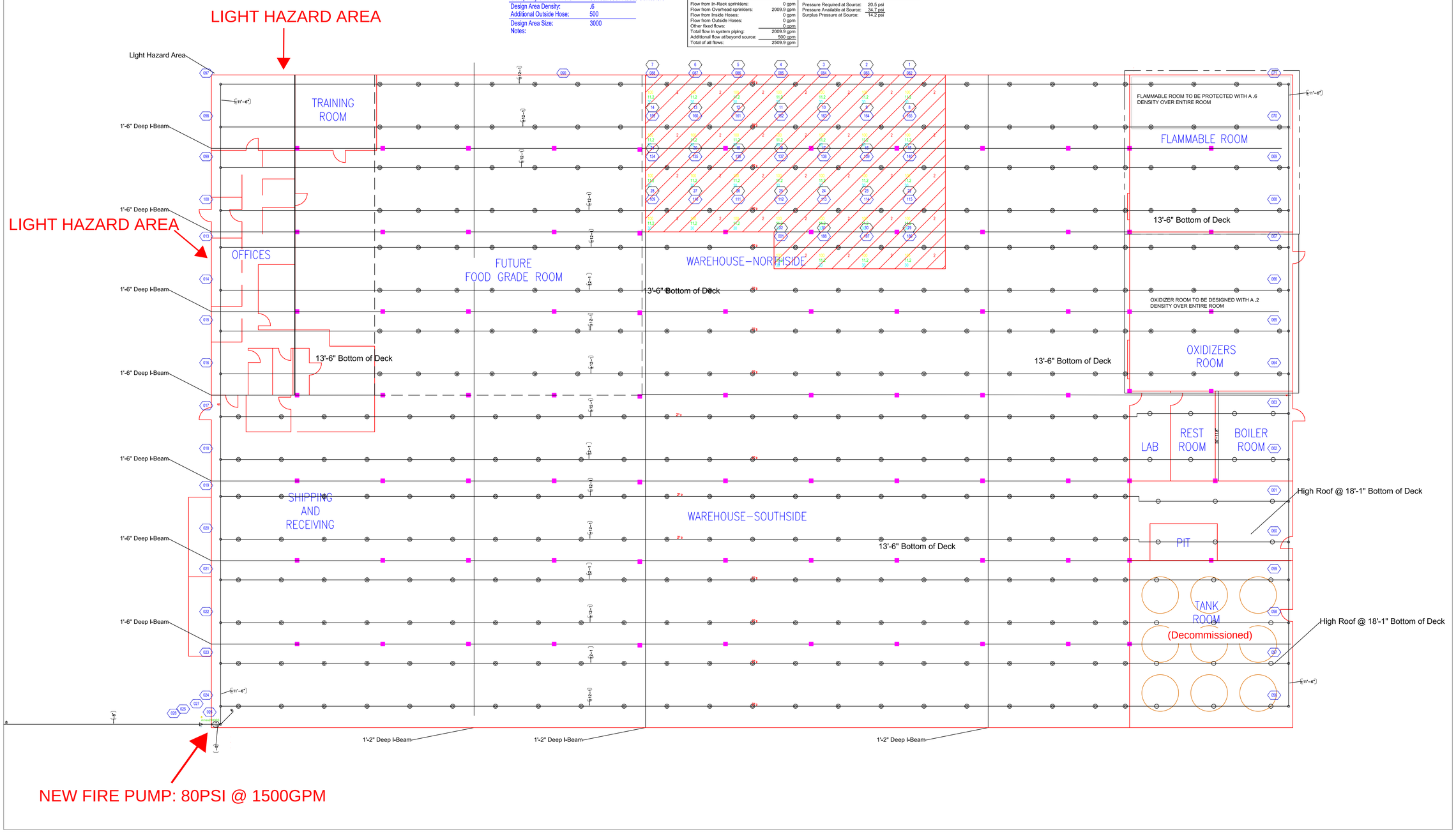
Design Area 2	Wet System
Main Warehouse	
Demand Calculations using Hazen-Williams Method	
Occupancy Classification:	Corrosives in Plastic Containers
Design Area Density:	.6
Additional Outside Hose:	500
Design Area Size:	3000
Notes:	

Calculation results for Design Area 2 - Main Warehouse

This system as shown on _____ company print no _____ dated _____
for Harcros Chemicals at 584 Fairview Ave N
contract no _____ is designed to discharge at a rate of 0.6 gpm/ft² (L/min/m²) of floor area over
a maximum area of 3000 ft² when supplied with water at a rate of _____ at 20.5 psi at the base of the riser.
Hose stream allowance of _____ is included in the above.

Occupancy classification:	H4 OCCUPANCY	Number of heads flowing:	32
Commodity classification:	CORROSIVES & CLASS IIIB LIQUIDS IN PLASTIC TOTES	System Type:	Wet
Maximum storage height:	2-HIGH	Maximum velocity:	25.61 ft/s
Storage arrangement:	BULK AND PALLETIZE		

Flow from In-Rack sprinklers:	0 gpm	Pressure Required at Source:	20.5 psi
Flow from Overhead sprinklers:	2009.9 gpm	Pressure Available at Source:	34.7 psi
Flow from Inside Hoses:	0 gpm	Surplus Pressure at Source:	14.2 psi
Flow from Outside Hoses:	0 gpm		
Other fixed flows:	0 gpm		
Total flow in system piping:	2009.9 gpm		
Additional flow at/beyond source:	500 gpm		
Total of all flows:	2509.9 gpm		



HARCROS CHEMICALS

SCALE: 3/32" = 1'-0"

SUMMIT FIRE CONSULTING
575 Minnehaha Avenue W.
St. Paul, MN 55103
(651) 251-1880

REVISION HISTORY - THIS SHEET

NO	DESCRIPTION	DATE

Date: FEBRUARY 3, 2020

PROJECT
HARCROS CHEMICAL - SPRINKLER DESIGN
CITY OF ST. PAUL, ,MINNESOTA

TITLE
HAZARDOUS MATERIALS STORAGE ROOMS

NUMBER 1 OF 1

SHEET FP-01