

STANLEY PARK GRANDSTAND
1209 Manford Avenue, Estes Park, Colorado

**INSURANCE SERVICE OFFICE (ISO)
REQUIRED FIRE FLOW CALCULATION**

1. Fire Flow in gpm (Appendix A)
 $F = 18C(A)^{0.5}$
where:
 C = Coefficient for type of Construction = 1.5
 "Wood Framed Construction" as defined in Appendix C
 A = Floor Area (all stories excl. basement) = 19,313 sf
 F = Fire Flow (not to exceed 8,000 gpm)
 $F = 18 C (A)^{0.5} = 18 \times 1.5 \times 138.97 = 3,752 \text{ gpm}$

2. Increase/Decrease based on High/Low Hazard Occupancy (Appendix C)
 No reduction or increase appropriate for use = 3,752 gpm

3. Automatic Sprinkler System Reduction (based on value of #2 above)
 This project does not have a Sprinkler System = 0 gpm

4. Increase due to Exposure to adjacent Fire Area within 150 feet (Appendix A)

<u>Direction</u>	<u>Separation</u>	<u>% Limit</u>	<u>% Calc</u>	
Northwest to Wood Barn	91'-0"	10%	2%	
East to Metal Shed	10'-0"	25%	5%	
Southeast to Wood Office	17'-0"	20%	13%	
<u>South to Metal/CMU Bldgs</u>	<u>52'-0"</u>	<u>15%</u>	<u>5%</u>	
Total Increase		25%		= 938 gpm

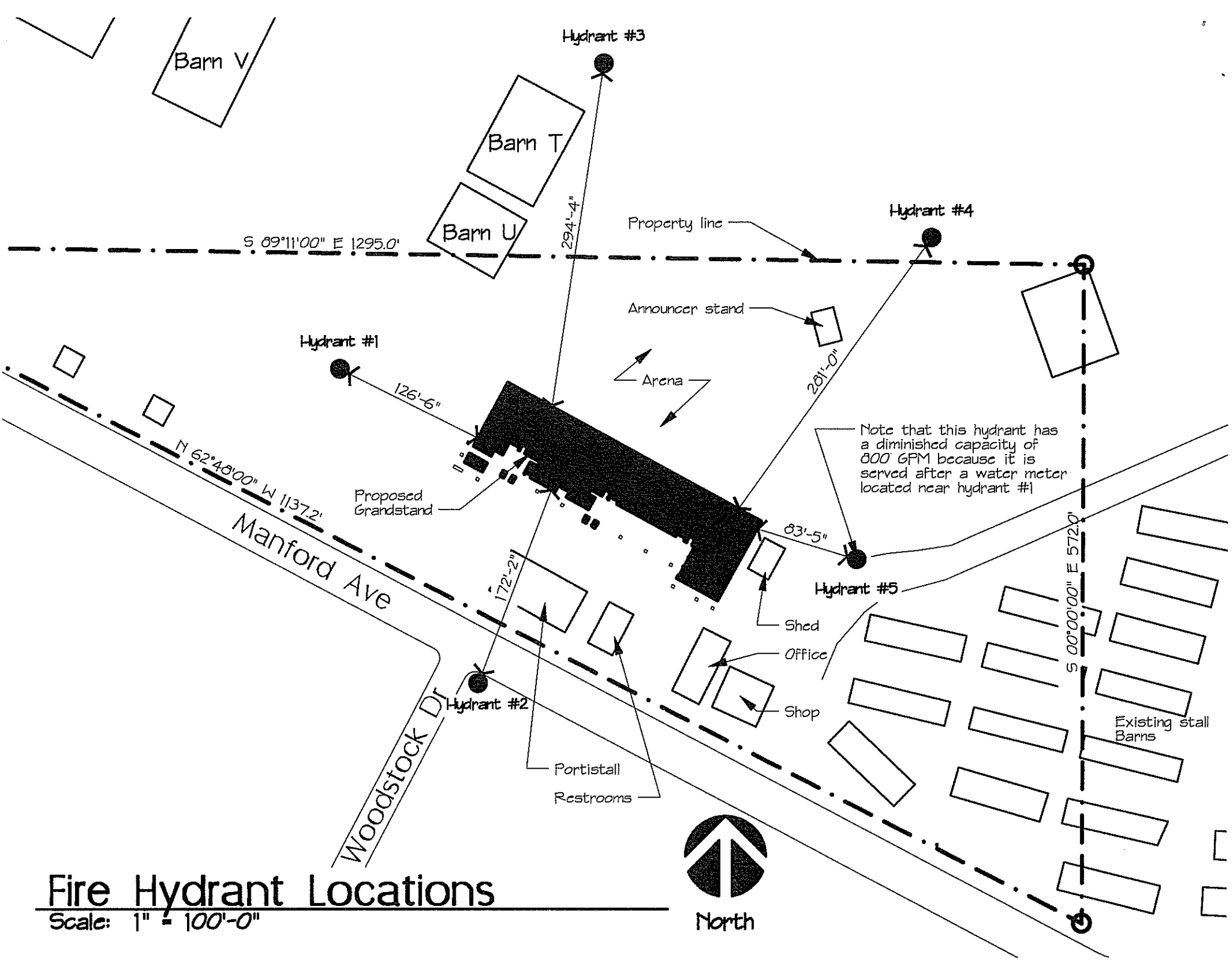
5. Total and Rounding

Value of #2 above	3,752 gpm	
Reduction of #3 above	- 0 gpm	
<u>Increase of #4 above</u>	<u>+ 938 gpm</u>	
Total	4,690 gpm	
Rounded to nearest 500 gpm		4,500 gpm

CALCULATION OF PROVIDED FIRE FLOW

- (5) Hydrants are within 400'-0" of building -- see attached drawing
- | | | |
|--|----------------|------------------|
| (4) Hydrants provide 1000 gpm flo | 4,000 gpm | |
| <u>(1) Hydrant is metered and provides only 800 gpm flow</u> | <u>800 gpm</u> | |
| Total Provided Fire Flow | | 4,800 gpm |

Fire Flow provided exceeds requirements



Fire Hydrant Locations

Scale: 1" = 100'-0"



North